



# 2010

## **POPULATION & HOUSING CENSUS**

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### **REGIONAL ANALYTICAL REPORT**

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## **NORTHERN REGION**



Ghana Statistical Service  
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## **PREFACE AND ACKNOWLEDGEMENT**

There cannot be any meaningful developmental activity without taking into account the characteristics of the population for whom the activity is targeted. The size of the population and its spatial distribution, growth and change over time, and socio-economic characteristics are all important in development planning. The Kilimanjaro Programme of Action on Population adopted by African countries in 1984 stressed the need for population to be considered as a key factor in the formulation of development strategies and plans.

A population census is the most important source of data on the population in a country. It provides information on the size, composition, growth and distribution of the population at the national and sub-national levels. Data from the 2010 Population and Housing Census (PHC) will serve as reference for equitable distribution of resources, government services and the allocation of government funds among various regions and districts for education, health and other social services.

The Ghana Statistical Service (GSS) is delighted to provide data users with an analytical report on the 2010 PHC at the regional level to facilitate planning and decision-making. This follows the publication of the National Analytical Report in May, 2013 which contained information on the 2010 PHC at the national level with regional comparisons. Conclusions and recommendations from these reports are expected to serve as a basis for improving the quality of life of Ghanaians through evidence-based policy formulation, planning, monitoring and evaluation of developmental goals and intervention programs.

The Regional Analytical Report for the Northern Region is one of ten regional reports aimed at making data available to planners and decision makers at the regional and district levels. In addition to presenting district profiles, the report also discusses the social and economic dimensions of demographic variables.

For ease of accessibility of the census data, the regional reports and other census reports produced by the GSS will be disseminated widely in both print and electronic formats, including posting on the GSS website: [www.statsghana.gov.gh](http://www.statsghana.gov.gh).

The GSS wishes to express its profound gratitude to the Government of Ghana for providing the required resources for the conduct of the 2010 PHC. We also appreciate the contribution of our Development Partners (DPs) towards the successful implementation of the Census. Special mention must be made of the European Union (EU) and the Department for International Development (DFID) for providing resources for the preparation of the report, the World Bank for managing the resources and the United Nations Population Fund (UNFPA) for the lead role it played in mobilizing resources from the UN System and from other DPs for the 2010 PHC.

Finally, we wish to thank all households and individuals in Ghana who contributed to the success of the 2010 Population and Housing Census.

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## ACRONYMS

AGI:	Association of Ghanaian Industries
AIDS:	Acquired Immune Deficiency Syndrome
ASCII:	American Standard Code for Information Interchange
CEB:	Children Ever Born
CIDA:	Canadian International Development Agency
CS:	Children Surviving
CEDAW:	Convention on Elimination of All forms of Discrimination
CERSGIS:	Centre for Remote Sensing and Geographic Information Survey
CHIPS:	Community Health Planning Services
CWIQ:	Core Welfare Indicator Questionnaire
DANIDA:	Danish International Development Agency
DFID:	Department for International Development
ECOWAS:	Economic Community of West African States
EMIS:	Education Management Information System
EA:	Enumeration Area
EU:	European Union
fCUBE:	Free Compulsory Universal Basic Education
GETFund:	Ghana Education Trust Fund
GREDA:	Ghana Real Estate Developers Association
GDP:	Gross Domestic product
GSS:	Ghana Statistical Service
GSDP:	Ghana Statistics Development Plan
GPS:	Global Positioning System
GPRTU:	Ghana Private Road Transport Union
GES:	Ghana Education Service
GDHS:	Ghana Demography Health Survey
HIV:	Human Immune Virus
ISCO:	International Standard Classification of Occupation
ISIC:	International Standard Classification of Industry
ICU:	International Communication Union
ICT:	Information Communication Technology
ISSER:	Institute of Statistical Social and Economic Research
JSS:	Junior Secondary School
JHS:	Junior High School
SSS:	Senior Secondary School
SHS:	Senior High School
LEAP:	Livelihood Empowerment Against Poverty Programme
LESDEP:	Local Enterprise and Skills Development

LISGIS: Liberia Institute of Statistics and Geo-Information Services  
 MMDAs: Metropolitan, Municipal and District Assemblies  
 MDGs: Millennium Development Goals  
 MER: Migration Effectiveness Ratio  
 MOE: Ministry of Education  
 MICS: Multiple Indicator Cluster Survey  
 MOFA: Ministry of Food and Agriculture  
 MOTI: Ministry of Trade and Industry  
 NCA: National Communication Authority  
 NCPEC: The National Census Publicity and Evaluation Committee  
 NCTAC: National Census Technical Advisory Committee  
 NIPORT: National Institute of Population Research and Training  
 NHIS: National Health Insurance Scheme  
 ICT4AD: National ICT for Accelerated Development Policy  
 NDPC: National Development Planning Commission  
 NGOs: N on-governmental Organisations  
 OIC: Opportunities Industrialisation Centre  
 PHC: Population and Housing Census  
 PPP: Public-Private Partnerships  
 PNDC: Provisional National Defence Council  
 PAS: Population Analysis Spreadsheet  
 PES: Post Enumeration Survey  
 PWDs: Persons with disabilities  
 PASEX: Population Analysis System  
 PES: Post Enumeration Survey  
 SADA: Savanna Accelerated Development Authority  
 SAP: Structural Adjustment Programme  
 SMAM: Singulate Mean Age at Marriage  
 UNICEF: United Nations International Children's Education Fund  
 UN: United Nations  
 UNDP: United Nations Development Programme  
 UNFPA: United Nations Population Fund  
 WHO: World Health Organization  
 W.C: Water Closet  
 ZIMSTAT: Zimbabwe National Statistics Agency

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

The history of the Northern region as part of the modern state of Ghana started with the push into the interior by British soldiers garrisoned in the coastal forts and castles. The aim was to conquer and colonise the land carved out by the European powers at the Berlin Conference in 1844 for the British. By 1900 the task had been accomplished. The eastern boundary of the British colony was marked by the Volta River in the south and extended north along the Daka River. Until Germany lost World War I and all its African possessions, the whole of the northern half of the country was a big region called Northern Territories. According to Bening (1999), the Coussey Committee in 1949 recommended that the Protectorate of the Northern Territories, a portion of Northern Section of Togoland and beyond the Krachi District should constitute one region. This was because of the intimate connections between the peoples of the two areas. This suggestion was implemented in 1952 and with the attainment of political independence, the Protectorate and the Northern Section of Togoland became the Northern region of Ghana in March 1957. In 1960, the Upper Region was carved out of the Northern region.

### 1.2 Physical Features

The Northern region, which occupies an area of about 70,384 square kilometres is the largest region in Ghana in terms of land mass. It shares boundaries with the Upper East and the Upper West regions to the north, the Brong Ahafo and the Volta regions to the south, Togo to the east, and Côte d'Ivoire to the west. The land is mostly low lying except in the north-eastern corner with the Gambaga escarpment and along the western corridor. The region is drained by the Black and White Volta Rivers and their tributaries such as the Nasia and Daka rivers.

**Figure 1.1: Map of the Northern region and its districts**



The climate of the region is relatively dry, with a single rainy season that begins in May and ends in October. The amount of rainfall recorded annually varies between 750 millimetres and 1,050 millimetres. The dry season starts in November and ends in March/April with maximum temperatures occurring towards the end of the dry season (March-April) and minimum temperatures in December and January. The harmattan winds, which occur from December to early February, have a considerable effect on temperatures in the region, making them vary between 14°C at night and 40°C during the day. Humidity is very low, aggravating the effect of the daytime heat. The rather harsh climatic conditions adversely affect economic activity in the region and in the health sector, enable cerebrospinal meningitis to thrive, almost to endemic proportions. The region also falls in the onchocerciasis zone. Even though the disease is currently under control, a vast area is still underpopulated and under-cultivated due to past ravages of river blindness. The main vegetation is grassland, interspersed with guinea savannah woodland, characterised by drought-resistant trees such as acacia, (*Acacia longifolia*), mango (*Mangifera*), baobab (*Adansonia digitata* Linn), shea nut (*Vitellaria paradoxa*), dawadawa, and neem (*Azadirachta indica*).

### 1.3 Political and Administrative Structure

The main administrative structure in the region is the Regional Coordinating Council (RCC), headed by the Regional Minister, who is also the Chairman of the Regional Security Council (REGSEC). Other members of the RCC include the Regional Coordinating Director, District Chief Executives and presiding members of the District Assemblies, and two representatives from the Regional House of Chiefs. All heads of decentralised departments are *ex-officio* members of the RCC. The Regional Coordinating Director is the Secretary to the Council.

Prior to 2012, the region had twenty (20) districts, as follows:

**Table 1.1: Districts in the Northern region Prior to 2012**

Name of District	District Capital
Bole	Bole
Bunkpurugu-Yunyoo	Bunkpurugu
Central Gonja	Buipe
Chereponi	Chereponi
East Gonja	Salaga
East Mamprusi	Gambaga
Gushiegu	Gushiegu
Karaga	Karaga
Kpandai	Kpandae
Nanumba North	Bimbilla
Nanumba South	Wulensi
Saboba Chereponi	Saboba
Savelugu-Nanton	Savelugu
Sawla-Tuna-Kalba	Sawla
Tamale Metropolitan	Tamale
Tolon-Kumbungu	Tolon
West Gonja	Damongo
West Mamprusi	Walewale
Yendi Municipal	Yendi
Zabzugu-Tatale	Zabzugu

Source: Ghana District Repository

In 2012, six additional districts were created for the region. Table 1.2 presents the new districts that were created and their capitals.

**Table 1.2: Newly created districts and their capitals**

Name of district	District Capital	District from which was carved
Sagnarigu	Sagnarigu	Tamale Metro
Tatale Sanguli	Tatale	Zabzugu Tatale
North Gonja	Daboya	West Gonja
Kumbungu	Kumbungu	Tolon Kumbungu
Mamprugu Moaduri	Yagba	West Mamprusi
Mion	Sang	Yendi

Source: Northern regional Electoral Commission

The region had 26 constituencies prior to the creation of the new districts in 2012. Five more constituencies were created in 2012 for the region following the creation of the new districts increasing the number of constituencies in the region to 31.

## 1.4 Social Structure

### 1.4.1 Chieftaincy

There are four paramount chiefs in the region. They are: the Ya-Na, who is the overlord of Dagbon in Yendi; the Nayiri of Mamprugu in Nalerigu; the Bimbilla Naa of Nanung in Bimbilla and the Yagbonwura of the Gonja Traditional area in Damongo. All the paramount chiefs are members of the Northern regional Chiefs and also the National House of Chiefs. The mode of ascension to the skins (thrones) of these four paramountcies is through the “gate” system (a gate being one branch of a royal family). These Paramount Chiefs, usually in consultation with the King makers and their Councils of Elders, enskin sub-chiefs who pay allegiance to them within their respective traditional areas.

The eligibility or otherwise to the throne is determined by revered King makers. Upon the death of a Chief, a regent is selected from the eligible gate to act until the final funeral rites of the late Chief are performed and a new one is enskinned.

### 1.4.2 Festivals

The popular festivals that are celebrated in the Northern region include the *Bugum* (fire) and *Damba* festivals. The *Bugum* festival is an annual festival celebrated by most of the ethnic groups of northern Ghana. It is celebrated in the lunar month of *Bugum* in Dagbani and Muharram in Arabic. *Bugum* is the first month of the lunar calendar of the Dagomba. The origin of the festival is shrouded in mystery as Islam and Dagbon cultures each claim to own it. There is, however, some inter-relationship between the two cultures as they have influenced each other with the passage of time.

The *Damba* on the other hand is both a dance and a festival and is the single most important festival celebrated across the northern of Ghana by the Dagomba, Mamprusi, Gonja,

Nanumba and even the Wala in the Upper West Region. Oral tradition has it that the word *Damba* is a Mandingo word meaning “Big Dance” but it is also strongly believed to be a Dagomba word *dambahi* meaning “shake oneself freely”.

### **1.4.3 Ethnicity**

Among the Mole-Dagbon, the main ethnic group of the Northern region, the largest subgroups are the Dagomba and the Mamprusi, while the Kokomba, Basaari and Bimoba are the largest of the Gurma group. The Chokosi belong to the Akan while the Gonja and Chumburu belong to the Guan ethnic group.

### **1.4.4 Language and Architecture**

The predominant languages that are spoken in the region are Dagbani, Gonja and Mampruli. The other languages are Likpakpa, Chokosi, Basaare, Kantosi, Moar, Chamba and Chumburu. The region is well known for its architecture of round huts with conical thatched roofs. Among the historical sites that throw considerable light on the past of the people of the region, are the archaeological sites at Yikpa Bonso, in the West Mamprusi District, with relics of the Koma civilisation dating back to the 9<sup>th</sup> century. Other sites of interest in the region are at Jentilkpe and Kpesemkpe.

### **1.4.5 Ancient Mosques**

Ancient mosques are a particular aspect of the region which underpins the long history of Islam in the region. The Larabanga Mosque, which is of Sudanese architectural origin, dates back to the 13<sup>th</sup> century, and the Bole Mosque, also of similar Sudanese architectural origin, was built later. While the Banda Nkwanta and Malew Mosques were built in the 18<sup>th</sup> century, imitating older mosque designs, The Zayaa Mosque in Wulugu is an unusual storeyed traditional design of historical and military interest. Kpalga Sacred Mosque in Kpalga is a mosque where devotees make offerings for their wishes to be answered.

### **1.4.6 Graves**

In the Adibo community which is very close to Yendi, there is a mass grave of fallen warriors from Dagomba battles with the Germans in the past. At the same place, there is the tomb of Kambon Naa Ziblim Doshie. Naa Attabian who was a prominent King of the Mamprusi has his grave in Nalerigu in East Mamprusi District. The greatest King of the Gonja, Ndewura Japka’s grave is in Buipe in the Central Gonja District. The region was in the past a source and route for slave trade, with Salaga being a major market, where there were wells in which slaves were bathed and prepared for sale. These wells are relics of the human trade that was spearheaded by Samory Touré and Mohammed Dan Issah Babatu. There was a strong resistance against these notorious slave raiders which led to the massacre of some Gonja whose graves have become shrines at Jentilkpe. The tomb of Babatu can be found in Yendi. There is also the tomb of Gmantambo located at Dooni, which is the final resting place of the founder of the Nanung kingdom in the Nanumba Traditional Area.

### **1.4.7 Myths**

There is a mystical stone at Larabanga which could not be moved to make room for road construction which led to a diversion of the road. The mystery surrounding this stone is that each time it was pushed away to a distant destination, the following day, it would return to its original spot. It has thus become a tourist attraction site. In the Zabzugu Tatale District, there

is the Tikpirah sacred grove in the middle of which is a stone with a ring on it believed to be capable of answering one's prayers after one has made offerings to the god. The Kpalvogu grove at Katariga in the Tamale Metropolis symbolises peace, love and harmony.

#### **1.4.8 Cultural and Social Structure**

##### ***Tourist Attractions***

Tourist attractions in the Northern region include the Mole National Park which is located in the West Gonja District. It is a 4,840 square kilometre reserve for over 400 species of animals including elephants, buffaloes, wild pigs, apes and birds. Tamale, Daboya, Sabari, Nasia, Mole, Bui, among other locations, have exotic birds suitable for bird watching. Other attractions are the Nankpanduri waterfalls and the Gambaga Escarpment.

### **1.5 Economy and Living Conditions**

The majority of people in the region are engaged in agriculture. The crops that they produce include yam, maize, millet, guinea corn, rice, groundnuts, beans, soya beans and cowpea. At Gushie in the Savelugu-Nanton District, there is a large plantation of grafted mangoes cultivated by outgrowers. Bontanga in the Tolon Kumbungu District has a big irrigation dam where farmers engage in large-scale rice cultivation during the dry season.

Daboya in the newly created North Gonja District (which was carved out of the West Gonja District) is noted for the production of good quality yarn for sewing smocks. Some of the people of Daboya are also engaged in salt mining. Following the discovery of an abundant deposit of lime, a cement factory (SAVACEM) has been located at Buipe, in the Central Gonja District. Buipe is also where a shea nut processing factory is located, as well as the Bulk Oil Storage & Transport (BOST) company. This company supplies the northern part of the country with petroleum products. At Sheini, in the newly created Tatale Sanguli District, feasibility studies indicate abundant deposits of both iron ore and gold. There is surface gold mining popularly known as "galamsey" in the Kui community in the Bole District which has attracted a lot of youth from many parts of the country. Many women in the region are engaged in retail trade. At Kuku, a suburb of Tamale, there is a Teaching Hospital that not only provides health services for the people of the Metropolis and the region as a whole, but also serves as a referral point for patients from other health facilities. The satellite campuses of the Faculty of Agriculture and the School of Medicine and Health Science of the University for Development Studies are situated at Nyankpala in the Tolon Kumbungu District and Dungu, a suburb of Tamale, respectively.

### **1.6 Organisation of the Report**

The report covers data on demographic, social and economic characteristics of the 20 districts of the Northern region. It is divided into 11 chapters. Chapter One presents the background, physical features, political and administrative structure, social structure, the economy and living conditions and the demographic characteristics of the region. Chapter Two provides district-level statistics on the demographic characteristics such as population size, composition and age-sex structure, population growth, nationality, birth place, ethnicity and religion. Chapter Three presents statistics on the social characteristics of the districts such as

household size, structure and composition, while Chapter Four discusses marital characteristics of persons aged 12 years and older and covers areas such as marital status by age, sex, type of locality, education, religion and economic activity. Chapter Five provides statistics on information communication technology (ICT) in relation to ownership of mobile phones of persons aged 12 years and older, use of internet facility of persons 12 years and older, household ownership of desktop/laptop computer and household ownership of fixed telephone lines. Chapter Six discusses education and literacy levels, school attendance (past and present), educational attainment for persons 15 years and older. Chapter Seven presents statistics on fertility, mortality and migration, while Chapter Eight covers economic activity status, labour force, employment and unemployment, size of workforce, occupation and industry and non-Ghanaian labour force participation. Chapter Nine presents a detailed discussion of the socio-economic situation of disabled people in the region in terms of distribution, type of disability and economic activity. Chapter Ten focuses on agricultural activity and the types of farming by agricultural households, sex of agricultural household heads, and agricultural households by locality (rural/urban). Chapter Eleven discusses housing characteristics such as housing conditions, housing stock, and type of dwelling, construction materials, room occupancy, tenure arrangement, fuel for lighting and cooking, bathing and toilet facilities, methods of waste disposal, main source of drinking water and main source of water for other domestic purposes. These characteristics are compared across the 20 districts in the region.

# **CHAPTER TWO**

## **CENSUS METHODOLOGY**

### **2.1 Introduction**

The primary objective of the 2010 PHC was to provide information on the number, distribution and social, economic and demographic characteristics of the population of Ghana necessary to facilitate the socio-economic development of the country. In conducting the 2010 PHC, the Ghana Statistical Service (GSS) was guided by the principle of international comparability and the need to obtain accurate information on population and housing Census in the country. Therefore, the 2010 PHC was conducted using all the essential features of a modern census as contained in the United Nations Principles and Recommendations for countries taking part in the 2010 Round of Population and Housing Censuses. The exercise was also informed by experience from previous post-independence censuses of Ghana (1960, 1970, 1984 and 2000). From the previous experiences, it was recognized that a large scale statistical operation as the 2010 Population and Housing Census required meticulous planning for its successful implementation. This chapter presents information on the pre-census planning, enumeration and post enumeration activities. It is organized into five sections namely, pre-enumeration activities, the census enumeration itself, post enumeration activities, challenges and lessons learnt, summary and recommendations.

### **2.2 Pre-Enumeration Activities**

The pre-enumeration period consisted of a number of discreet and related activities. This section outlines the major pre-enumeration activities which were undertaken.

#### **2.2.1 Development of Census Project Document and Work plans**

The first stage of the exercise involved the setting up of a working group at the head office of Ghana Statistical Service which was charged with the responsibility of preparing the census project document with the assistance of consultants. The document contained the rationale and objectives of the census, census organisation, a work plan and a budget. The project document was launched in November 2008 as part of the Ghana Statistics Development Plan (GSDP). In November 2009, the document was reviewed and updated to take into account the changes which had occurred over the period. Secondly, a management and supervisory framework which outlined the responsibilities of the various stakeholders essential for the effective implementation of a population and housing census was also produced as part of the initial preparation.

#### **2.2.2 Census Secretariat and Committees**

To implement the activities outlined in the 2010 PHC project document, a National Census Secretariat was set up at GSS head office in January 2008. The Secretariat comprised professional and technical staff of GSS as well as staff of other Ministries, Departments and Agencies (MDAs), some of whom were seconded to GSS. The Secretariat, primarily responsible for the day-to-day planning and implementation of the census activities, consisted

of seven units namely, census administration, cartography, recruitment and training, publicity and education, field operations and logistics management, data processing, and data analysis and dissemination.

The Census Secretariat was initially headed by an acting Census Coordinator engaged by the United Nations Population Fund (UNFPA) in 2008 to support GSS in planning the Census. In 2009, the Census Secretariat was re-organised with the Government Statistician as the National Chief Census Officer and overall Coordinator of the census. As part of the re-organization, a Census Management Team and a Census Coordinating Team were established to assist the National Chief Census Officer/Coordinator. The Census Management Team had oversight responsibility for the implementation of the Census took critical decisions on the census in consultation with other national committees. The Census Coordinating Team, on the other hand, was responsible for the day-to-day implementation of the Census programme.

Census committees were set up at both national and sub-national levels to provide technical advice and assist with resource mobilization. At the national level, the committees were the National Census Steering Committee (NCSC), the National Census Technical Advisory Committee (NCTAC) and the National Census Publicity and Education Committee (NCPEC). At the regional and district levels, the committees were the Regional Census Implementation Committee (RCIC) and the District Census Implementation Committee (DCIC) respectively.

At the apex of the structure of the 2010 PHC management was the National Census Steering Committee as the main policy making body. The Committee was responsible for policy setting and direction on all aspects of the 2010 PHC. The composition of the NCSC was inter-sectoral with representation at the highest level, from both public and private institutions, such as, the Ministry of Finance and Economic Planning, Ministry of Education, National Population Council, United Nations Population Fund (UNFPA), Electoral Commission and National House of Chiefs.

The next tier was the National Census Technical Advisory Committee (NCTAC) which was multi-disciplinary in its membership, comprising subject-matter specialists from a broad spectrum of Ministries, Departments and Agencies (MDAs), universities, other research institutions and private consultants. This Committee served as a think-tank and an advisory body to the Census Management Team and supported the Census Coordinating Team at specific stages of the census programme. For instance, the Committee assisted in developing the questionnaires and ancillary documents used for the census.

A National Census Publicity and Education Committee comprising senior level representatives in communication, civic education and advocacy from relevant public and private institutions was set up to advice on education and publicity. The Committee provided technical advice to the Census Secretariat in the development of publicity and educational materials and implementation of the publicity programmes for the census.

Inter-sectoral Regional and District Census Implementation Committees were formed in all the regions and districts in the country. With membership drawn mainly from decentralized departments, Regional and District Coordinating Directors chaired the Committees respectively. The Northern regional Census Implementation Committee worked closely with the Regional/District Census officials to plan the regional, district and locality level activities in areas such as recruitment, training, publicity and field operations. The Committee also assisted in mobilising logistical support for the census.

### **2.2.3 Census Mapping**

A timely and well implemented census mapping was considered pivotal for the success of the 2010 PHC as it is the process for delineating the country into enumeration areas to facilitate smooth enumeration of the population. For the 2010 PHC, the process involved updating the 2000 Census Enumeration Area (EA) maps, which started in the last quarter of 2007, the acquisition of topographic and digital sheets of all indices from the Geographical Information System Unit of the Survey and Mapping Division of the Lands Commission.

Updating of the 2000 PHC enumeration areas in the region was faced with a number of challenges including the problem of demarcating fast growing areas. One other major challenge for the mapping teams was the reconciliation of administrative boundaries following the creation of new districts. Field cartographic work in the region was completed in August, 2009.

### **2.2.4 Development of Questionnaire and Manuals**

For effective data collection, there is the need to design appropriate documents to solicit the required information from respondents. In developing questionnaires and other materials, the GSS consulted widely with main data users and other stakeholders such as MDAs, research institutions, civil society organisations and development partners. The aim was to give these institutions and bodies, the opportunity to indicate the type of questions they felt should be included in the census questionnaire.

The documents developed for the census consisted of questionnaires, manuals and field operation documents. Three types of questionnaires were developed to cover different population groups: (1) PHC1A to enumerate the household population; (2) PHC1B for non-household (Group Quarters) population; and (3) PHC1C to enumerate out-door sleepers/floating population.

The field operation documents were the Enumerator's Visitation Record Book, Supervisor's Record Book, and operational control forms. Enumerators and supervisors used the record books as operational and quality control tools to control and monitor field activities respectively. The supervisor's record book consisted of checklists and was used to monitor enumerators under his/her supervision, to record all errors identified in the work of an enumerator and the measures which were taken to rectify the situation. Two summary sheets were developed for recording summaries of information collected at the enumeration and locality level: The PHC3 and the PHC4 forms. The PHC3 form was used to record total number of persons in each enumeration area by sex and the data from that form were collated and used to publish the provisional results. The PHC4 form was used to record information at the locality level on total number of persons enumerated and the availability of social facilities such as health and educational institutions, public toilets, and the distance to the nearest facility if that facility was not available in the locality. This form is used to prepare the Gazetteer, which is the alphabetical listing of all localities in the country by region and by district with their population and the identified facilities.

The topics which were eventually selected for the 2010 Population and Housing Census were based on recommendations from the United Nations Principles and Recommendations for 2010 Round of Population and Housing Censuses, the African Addendum to that document and the needs of data users. 2010 PHC adopted all the core topics recommended at the global level, i.e., geographical and internal migration characteristics, international migration,

household characteristics, demographic and social characteristics such as age, date of birth, sex, and marital status, fertility and mortality, educational and economic characteristics, issues relating to disability and housing conditions and amenities were adopted and included in the census.

Some topics which were not considered ‘core’ by the United Nations’ recommendations but were found to be of great interest and importance to Ghana and were, therefore, included in the 2010 PHC questionnaire. These topics were religion, ethnicity, employment sector and place of work, agricultural activity, Information and Communication Technology (ICT), and issues on housing, such as type of dwelling, materials used for outer walls, floor and roof, tenure/holding arrangement, number of sleeping rooms, cooking fuel and cooking space.

The specific items of information collected from the population encountered on census night were name, sex, age, date of birth, nationality, ethnicity, birthplace, religion, internal migration, marital status, literacy, full time education, fertility, mortality, economic activity, occupation, industry, employment status, employment sector, disability, use of ICT, and agricultural activity. All questions were pre-coded except those on ethnic group, agricultural activity, occupation and industry, which were coded in the field.

Two manuals were developed: enumerator and supervisor’s manuals. The first, the enumerator’s manual, contained procedures, definitions and concepts used in the census, instructions on how to enumerate all persons and households in localities and a historical calendar of national and regional events which was used to estimate the ages of persons who did not know their date of birth or age. The second, the supervisor’s manual, contained information on the duties of a supervisors and how to conduct checks on the work of enumerators.

For the coding of occupations and industrial activities in the country, a codebook based on the International Standard Classification of Industry (ISIC) and International Standard Classification of Occupation (ISCO) was developed. The codes, which were a four-digit alphabetical ordering, were prepared taking into consideration the ISCO and ISIC structure as well as occupations and industrial activities specific to Ghana.

### **2.2.5 Pre-tests and Trial Census**

The census questionnaire was pre-tested twice in the course of its development in line with the internationally accepted practices for conducting censuses. The first pre-test was carried out in March 2009 and was used to assess the suitability of questions and instructions, adequacy and completeness of questions and respondents’ understanding of the questions. The second pre-test was conducted in 10 selected enumeration areas in August 2009. The objective of the second pre-test was to examine the sequencing of questions, testing of new questions which were introduced in the 2010 PHC such as date of birth and migration and assess how the introduction of ‘date of birth’ could help to reduce ‘age heaping’. For the questions on fertility, the pre-tests sought to find out the difference, if any, between proxy responses and responses by respondents themselves. Both pre-tests were carried out in the Greater Accra Region. Experiences from the pre-tests informed the development of the final census questionnaires.

In May 2010, GSS with the support of the United Nations Population Fund conducted a special test-census in the Awutu Senya District of the Central Region. The aim of the exercise was to test the hypothesis that questions on children ever born and children surviving could

be asked in a census and secondly, if answered by respondents themselves or through proxy would generate useful and good quality data. The results from this test showed that it was possible to obtain lifetime fertility data in a census and that there were no significant differences between the responses given by proxy and the eligible women themselves. Based on this finding, lifetime fertility questions were re-introduced in the questionnaire.

A trial census was held in October/November 2009 as a dress rehearsal for all the activities and procedures which had been planned for the main census. These were recruitment and training, distribution of census materials, administration of questionnaires and other census forms, enumeration of the various categories of the population (household, institutional and floating population), and data processing. This trial census was held in six selected districts including the Saboba and Chereponi Districts in the Northern region. The selection of districts for the trial census districts was informed by factors such as administrative boundary issues, ecological zones, accessibility, and availability of outdoor-sleepers/floating and institutional populations, fast-growing areas and enumeration areas with scattered settlements.

The trial census provided an opportunity to assess plans, procedures and the state of preparedness for the conduct of the 2010 PHC. Results from the trial census were used to estimate the number of persons per questionnaire and the average number of persons in the household roster, to assess the question on migration, the placement of the mortality question, serial numbering of houses/housing structures and method of collection of information on community facilities. Some of the common errors encountered during the editing of the completed questionnaires resulted in modifications to the questionnaire and the enumerator's manual. Lessons learnt from the trial census also guided the planning of the recruitment process, the procedures for training of field staff, publicity and education on the census.

#### **2.2.6 Distribution of Census Materials**

Experience from trial census guided in the distribution of census materials in the region. The Regional Census office liaised with institutions that had the capacity to transport large volumes of materials to the districts. The District Assemblies, Ghana Education Service (GES), the Electoral Commission, Information Services Department were the institutions that assisted in transporting the census materials from Accra to the district capitals for distribution to field personnel.

#### **2.2.7 Publicity and Education**

Publicity and public education on the census were considered essential for the success of the 2010 PHC. The objectives of the census education campaign were to sensitize the public on the importance of the census, to create awareness on the census topics/questions, to solicit for support from the public on the exercise and to assure the population of the confidentiality of the information provided. The publicity programme was implemented in two phases. Phase one was the publicity for the trial census and was restricted to the six trial census districts. For this phase, the publicity was mostly through direct community such as interpersonal communication through the Information Service Department vans and traditional forms such as drums and drama as some of the trial districts were rural and some of the people did not have access to radio or television. Phase two was the publicity for the main census and this involved sensitization of civil society groups, religious leaders and community leaders; seminars; workshops; television and radio programmes; and use of public address systems.

Materials used for the publicity of main census publicity included jingles, posters, banners, car stickers, brochures, handbills, flyers and t-shirts. These materials were distributed freely through Regional and District Offices of GSS, and Regional and District Census Implementation Committees.

The Census Night, Sunday, 26<sup>th</sup> September 2010, was observed in all Districts in the region with various activities to make the day memorable. The rationale for celebrating the Census Night was to create public awareness on the commencement of the census and also for people to remember that night since information on the census was collected with reference to that night.

Activities organised in communities included:

- Sounding of sirens using Information Service Department, Police vehicles and Fire Service tenders
- Television and radio discussions explaining the importance of the census on Census Night.
- Tooting of horns by Ghana Private Road Transport Union (GPRTU) vehicles
- Tolling of church bells
- Brass band floats and street processions
- Bonfires (especially in Greater Accra)
- Traditional drumming, gong-gong beating and firing of muskets (especially in the rural and semi-urban areas)
- Cultural shows and music by spinning groups
- Film shows.

### **2.2.8 Recruitment and Training of Census Personnel**

Recognising the importance of using high calibre personnel, training and motivation in conducting a successful census, the GSS developed elaborate plans for the recruitment and training of field personnel. The Census Secretariat developed a criterion for field personnel. Using the developed criteria, an online recruitment process was adopted and interested person's selection which was used in all regions. Applicants were requested to complete an online application form after which qualified candidates were shortlisted and interviewed in the district of their choice. The names of successful applicants were forwarded to the Census Secretariat after which the names were posted to the districts for interviews and selection of successful applicants.

Given the large number of personnel that had to be trained for the census enumeration a four-tier training programme was implemented at the national level. In the first tier, GSS trained about 50 national level trainers. These together with senior officials of GSS formed the core of trainers who trained about 250 regional level trainers. The regional level trainers then trained about 2000 district level trainers who in turn trained about 50,000 enumerators, supervisors and senior supervisors. These district level trainers were mainly from Ghana Education Service (GES) and officials of MDAs. In August 2010, a one-week training programme was conducted at the national level for all district level trainers. This was to ensure standardized training. After the training of the district level trainers, they in-turn organized training for field personnel in their respective districts.

The training of the field personnel for the main census took place concurrently in all the 20 districts in the region. The training focused on the objectives of the census, interview

techniques, map reading skills, listing of households, administration of the census questionnaires and how to complete the operational control forms. The field personnel who were trained included senior field supervisors, field supervisors and enumerators.

Based on results from an assessment of the trainers, some of them were selected as supervisors. Those selected were given additional training which focused mainly on supervision of enumerators, field checks, and the completion of census operational control forms and summary sheets.

Enumerators and supervisors were trained to undertake the census due to the fact that Ghana is largely an illiterate society. Thus, the canvasser method, which involves trained field personnel visiting houses and households to enumerate, was adopted for the 2010 PHC. Specific arrangements were made for the coverage of special population groups, such as the homeless and the floating population.

## **2.3 Census Enumeration**

### **2.3.1 Enumeration**

In the 2010 PHC, people were enumerated at where they were on census night (de facto) as in all the four post-independence censuses (1960, 1970, 1984, and 2000) conducted in the country and not at where they usually resided (de jure). The de facto count was adopted because it is based on physical presence on a defined date and therefore it is simple, straightforward, and easy to interpret as well as minimizes the risks of under-enumeration and over enumeration. The reference period, the census night, was fixed for 20<sup>th</sup> September 2010.

The field personnel used the week preceding the Census Night to identify EA boundaries, list houses and other structures in their enumeration areas and enumerated institutional populations (health facilities, boarding schools and prisons). Prior to the census enumeration, officials of the Regional Census office identify possible locations of out-door sleepers in the region. This was to assist the officials to plan on how to enumerate the floating. Field officers were deployed to enumerate the floating population on Census Night using the census questionnaire (PHC1C).

Following the census night on 26<sup>th</sup> September 2010, enumeration of household populations started on Monday, 27<sup>th</sup> September 2010 with visits to houses, compounds and structures in enumeration areas. The enumeration was carried out in the order in which houses/structures were listed. Where the members of a household were absent, the enumerator left a call-back-card indicating when he/she would return to enumerate the household. The enumeration process took off smoothly and on schedule. However, after a few days' work, some enumerators ran short of questionnaires, delaying the process for about three days.

Enumeration resumed in all districts when the shortage of questionnaires was resolved and by 17<sup>th</sup> October, 2010, enumeration was completed in most districts. Enumerators who completed their work early were mobilized to assist in the enumeration of localities that had lagged behind such as some district capitals and fast growing areas in Accra adjoining districts.

### **2.3.2 Supervision and Monitoring of Field work**

To achieve effective supervision, one supervisor was assigned to five enumerators. The supervisors ensured that enumerators followed all the instructions and procedures in carrying out their assigned responsibilities. In addition, District and Regional Census Officials and census committee members also went round to ensure that the enumeration exercise was successful.

### **2.3.3 Retrieval of Census Materials**

One of the post enumeration activities in the region involved the collection and transportation of census forms to Accra for data processing. At the end of field work on 17<sup>th</sup> October, 2010, enumerators submitted their completed questionnaires, summary forms (PHC3 & PHC4) and other census materials to their supervisors who in turn forwarded them to the District Census Office. Materials received at the District Office were documented and the receipts which accompanied the census materials were used to reconcile the items given to an enumerator and those returned. The PHC3 forms were quickly dispatched to the Census Secretariat from which the provisional results were compiled. . Vehicles were sent from Accra to collect the completed questionnaires and other documents from the districts to the Census Secretariat.

## **2.4 Post Enumeration Survey**

In line with United Nations' recommendations, GSS conducted a Post Enumeration Survey (PES) in April, 2011. The objective was to use the results to check for content and coverage errors and to provide feedback on aspects such as concepts and procedures on census operations. Findings from PES can also guide users in their interpretation of the 2010 PHC results. Five items of information were collected in the PES: name, sex, age, relationship to head of household and marital status. Similar PESs were undertaken in previous post-independence censuses. The results of the 1960 and the 1970 PESs were published but not those of 1984 and 2000.

For the PES a sample of 250 (0.67%) out of 37,642 enumeration areas, was selected across the country. To ensure reliability of the survey estimates of the PES, the 2010 PHC frame was used. First stratified into the 10 administrative regions, enumeration areas were allocated to each stratum (region) according to the proportion of EAs in each region. Systematic sampling with probability proportional to size (number of households) was applied in selecting the enumeration areas in each region. A matching exercise was conducted to check both coverage and content errors.

Some of the personnel who took part in the 2010 PHC field enumeration exercise were recruited and trained for six days on the instruments prepared for the PES. The field work was carried out for 21 days in April 2011 and was closely monitored and supervised to ensure quality output. The main findings of the PES were that:

- 97.0 percent of all household residents who were in the country on Census Night (26<sup>th</sup> September, 2010) were enumerated in the 2010 PHC representing an omission rate of 3.0 percent.
- 1.3 percent of the population was erroneously included in the census.

- The PES count recorded a population of 24.0 million for Ghana on Census Night against 24.1 from the main 2010.
- The true population which is the population estimated from the PES multiplied by the population from the census after correcting for erroneous inclusions and divided by matched population between the census and the PES is 24.5 million.
- Regional differentials are observed. Upper East region recorded the highest coverage rate of 98.2 percent while the Volta region had the lowest coverage rate of 95.7 percent.
- Males (3.3%) were more likely than females (2.8%) to be omitted in the census. The coverage rate for males was 96.7 percent and the coverage rate for females was 97.2 percent. Also, the coverage rates (94.1%) for those within the 20-29 and 30-39 age groups are relatively lower compared to the coverage rates of the other age groups.
- There was a high rate of agreement between the 2010 PHC data and the PES data for sex (98.8%), marital status (94.6%), relationship to head of household (90.5%) and age (83.0%).

## **2.5 Lessons Learnt and Challenges**

This section highlights some of the challenges and lessons learnt before, during and after the planning and implementation of the 2010 PHC in the Northern region. The lessons learnt cover aspects such as recruitment and training of field personnel, publicity and education, demarcation of enumeration areas, and field challenges.

### **2.5.1 Boundary Disputes**

Disputes relating to district boundaries arose during the demarcation of enumeration areas and also during the actual enumeration of the population. During the delineation of EAs, some community leaders and District Assembly officials confronted the cartographic field personnel for placing their communities in districts other than those they claimed they belonged to. Similar confrontations occurred during the enumeration where some communities initially refused to be enumerated due to district boundary disputes. They claimed that enumerators assigned to their area were from different districts and therefore could not be allowed to enumerate them. In some cases, senior census officials, District Chief Executives and officials of the Northern regional Coordinating Council had to intervene before the aggrieved communities accepted to be enumerated. The assurance given was that their population will be allocated to the district they claimed to belong to. Such disputes affected the timely completion of both exercises.

### **2.5.2 Large Enumeration Areas**

The usual practice is to assign one enumerator to one enumeration area. As such enumeration areas are usually created in such a way that the enumerator is able to complete enumeration within the stipulated time. Unfortunately some enumeration areas in the region were larger and therefore the enumerators of those enumeration areas were unable to complete enumeration within the given time. When this became known, additional enumerators were deployed to assist them to enumerate the remaining areas. This situation led to late

completion of work in such enumeration areas, which contributed to the overall delay in the fieldwork in the region.

### **2.5.3 Shortage of Census Questionnaires**

The initial shortage of questionnaires was one of the major setbacks in the 2010 PHC. As a result, some enumerators resorted to the use of exercise books to record information of households. Enumerators who did this were asked to transfer such information to the questionnaire when the situation improved. This was done with the guidance of supervisors.

### **2.5.4 Supervision**

Although conscious effort was made to select knowledgeable, experienced and committed people as supervisors, some of them could not perform as expected in the field. Such people did not have the necessary skills to supervise and monitor the work of others. In some cases, there were problems with supervision because some teachers were selected as supervisors over their superiors at work. This affected working relationships. In future, the selection of supervisors should be done with more care than was the case in some of the areas.

### **2.5.5 Logistics**

During the mapping exercise, an inadequate number and frequent breakdown of vehicles was a challenge. Another challenge GSS faced by the Regional Census office was the late delivery of bags/satchels that were to be used for packaging of the census questionnaires. Due to the late delivery of the bags/satchels, cartons were used to package and transport the census materials from the districts to the Census Secretariat in Accra.

## **2.6 Summary and Recommendations**

### **2.6.1 Summary**

Methodologies adopted for the 2010 census were derived from the recommendations from the United Nations Principles and Recommendations for the countries taking part in the 2010 round of population and housing census as well as experience from previous censuses in Ghana.

Topics covered in the census were: demographic and social characteristics, such as, age, sex, marital status, ethnicity, religion, literacy, education, economic characteristics, ICT, disability, fertility, mortality, agricultural activity and housing.

In the area of census mapping, both manual and digital mapping techniques were used. In previous censuses, only manual mapping techniques were used to produce census enumeration area maps.

A trial census was carried out in the Saboba and Chereponi Districts in the Northern region. The 2010 Population and Housing Census was widely publicized in every community in the region. The involvement of many stakeholders such as Ministry of Information, Information Service Department, and the National Commission for Civic Education, MMDAs and the private media contributed to the success of the census publicity campaign in the region. Training of field personnel was done at the district level.

Some of the major challenges were encountered in the areas of census mapping, field data collection and supervision. However, staff of GSS in the Northern region and members of the Regional and District Census Implementation Committees were able to find solutions to these challenges.

### **2.6.2 Recommendations**

The institutions responsible for the creation of districts, constituencies and electoral areas and enumeration areas should build consensus in the creation of these units to avoid conflicts in the conduct of national exercises such as elections and censuses.

In the future, every effort should be made to maintain the ten-year periodicity as well as conduct the census in March as has been the practice. This calls for timely release of funds for the conduct of the census exercise.

The field operations group should collaborate with the cartography section in the creation of enumeration areas (EAs). This would help in minimizing cases where some EAs are exceptionally large. Field officers should also be requested to report cases of large EAs at the end of house listing to avoid the situation where some portions of EAs are left un-attended to.

The Census Coordinator should ensure that all the census materials, especially the census questionnaires, are procured in good time and in sufficient quantities and sent to the regions ahead of training of field personnel. This will avoid delays in census activities and shortages of census materials.

Management should recognize the importance of supervision and monitoring and budget adequately for them in future censuses.

## **2.7 Concepts and Definitions**

### **Introduction**

The 2010 Population and Housing Census of Ghana followed the essential concepts and definitions of a modern Population and Housing Census as recommended by the United Nations (UN). It is important that the concepts, definitions and recommendations are adhered to since they form the basis upon which Ghana could compare her data with those of other countries.

The concepts and definitions in this report cover all sections of the 2010 Population and Housing Census questionnaires (PHC1A and PHC1B). The sections were: geographical location of the population, Household and Non-household population, Literacy and Education, Emigration, Demographic and Economic Characteristics, Disability, Information and Communication Technology (ICT), Fertility, Mortality, Agricultural Activity and Housing Conditions.

The concepts and definitions are provided to facilitate understanding and use of the data presented in this report. Users are therefore advised to use the results of the census within the context of these concepts and definitions.

## **Region**

There were ten (10) administrative regions in Ghana during the 2010 Population and Housing Census as they were in 1984 and 2000.

## **District**

In 1988, Ghana changed from the local authority system of administration to the district assembly system. In that year, the then existing 140 local authorities were demarcated into 110 districts. In 2004, 28 new districts were created; this increased the number of districts in the country to 138. In 2008, 32 additional districts were created bringing the total number of districts to 170. The 2010 Population and Housing Census was conducted in these 170 administrative districts (these are made-up of 164 districts/municipals and 6 metropolitan areas). The six metropolitan areas in all have 33 sub-metros which the Statistical Service considered as districts for the purpose of the exercise. Thus, the total number of statistical districts was 197.

## **Locality**

A locality was defined as a distinct population cluster (also designated as inhabited place, populated centre, settlement) which has a NAME or LOCALLY RECOGNISED STATUS. It included fishing hamlets, mining camps, ranches, farms, market towns, villages, towns, cities and many other types of population clusters, which meet the above criteria. There were two main types of localities, rural and urban. As in previous censuses, the classification of localities into 'urban' and 'rural' was based on population size. Localities with 5,000 or more persons were classified as urban while localities with less than 5,000 persons were classified as rural.

## **Population**

The 2010 Census was a "de facto" count and each person present in Ghana, irrespective of nationality, was enumerated at the place where he/she spent the midnight of 26<sup>th</sup> September, 2010.

## **Household**

A household was defined as a person or a group of persons, who lived together in the same house or compound and shared the same house-keeping arrangements. In general, a household consisted of a man, his wife, children and some other relatives or a house help who may be living with them. However, it is important to remember that members of a household are not necessarily related (by blood or marriage) because non-relatives (e.g. house helps) may form part of a household.

## **Head of Household**

The household head was defined as a male or female member of the household recognised as such by the other household members. The head of household is generally the person who has economic and social responsibility for the household. All relationships are defined with reference to the head.

## **Household and Non-household Population**

Household population comprised of all persons who spent the census night in a household setting. All persons who did not spend the census night in a household setting (except otherwise stated) were classified as non-household population. Persons who spent census night in any of the under listed institutions and locations were classified as non-household population:

- (a) Educational Institutions
- (b) Children's and Old People's Homes
- (c) Hospitals and Healing Centres
- (d) Hotels
- (e) Prisons
- (f) Service Barracks
- (g) Soldiers on field exercise
- (h) Floating Population: The following are examples of persons in this category:
  - i. All persons who slept in lorry parks, markets, in front of stores and offices, public bathrooms, petrol filling stations, railway stations, verandas, pavements, and all such places which are not houses or compounds.
  - ii. Hunting and fishing camps.
  - iii. Beggars and vagrants (mentally sick or otherwise).

## **Age**

The age of every person was recorded in completed years disregarding fractions of days and months. For those persons who did not know their birthdays, the enumerator estimated their ages using a list of district, regional and national historical events.

## **Nationality**

Nationality is defined as the country to which a person belongs. A distinction is made between Ghanaians and other nationals. Ghanaian nationals are grouped into Ghanaian by birth, Ghanaian with dual nationality and Ghanaian by naturalization. Other nationals are grouped into ECOWAS nationals, Africans other than ECOWAS nationals, and non-Africans.

## **Ethnicity**

Ethnicity refers to the ethnic group that a person belonged to. This information is collected only from Ghanaians by birth and Ghanaians with dual nationality. The classification of ethnic groups in Ghana is that officially provided by the Bureau of Ghana Languages and which has been in use since the 1960 census.

## **Birthplace**

The birthplace of a person refers to the locality of usual residence of the mother at the time of birth. If after delivery a mother stayed outside her locality of usual residence for six months or more or had the intention of staying in the new place for six or more months, then the actual town/village of physical birth becomes the birthplace of the child.

## **Duration of Residence**

Duration of residence refers to the number of years a person has lived in a particular place. This question is only asked of persons not born in the place where enumeration took place. Breaks in duration of residence lasting less than 12 months are disregarded. The duration of residence of persons who made multiple movements of one (1) year or more is assumed to be the number of years lived in the locality (town or village) since the last movement.

## **Religion**

Religion refers to the individual's religious affiliation as reported by the respondent, irrespective of the religion of the household head or the head's spouse or the name of the person. No attempt was made to find out if respondents actually practiced the faith they professed.

## **Marital Status**

Marital status refers to the respondent's marital status as at Census Night. The question on marital status was asked only of persons 12 years and older. The selection of the age limit of 12 years was based on the average age at menarche and also on the practice in some parts of the country where girls as young as 12 years old could be given in marriage.

## **Literacy**

The question on literacy referred to the respondent's ability to read and write in any language. A person was considered literate if he/she could read and write a simple statement with understanding. The question on literacy was asked only of persons 11 years and older.

## **Education**

### ***School Attendance***

Data was collected on school attendance for all persons three (3) years and older. School attendance refers to whether a person has ever attended, was currently attending or has never attended school. In the census, school meant an educational institution where a person received at least four hours of formal education.

Although the lower age limit of formal education is six years for primary one, eligibility for the school attendance question was lowered to three years because pre-school education has become an important phenomenon in the country.

### ***Level of Education***

Level of education refers to the highest level of formal school that a person ever attended or was attending. This information was obtained for persons 3 years and older.

## **Activity Status**

Activity status refers to economic or non-economic activity of respondents during the 7 days preceding census night. Information on type of activity was collected on persons 5 years and older. A person was regarded as economically active if they:

- a. Worked for pay or profit or family gain for at least 1 hour within the 7 days preceding Census Night. This included persons who were in paid employment or self-employment or contributing family workers.
- b. Did not work, but had jobs to return to.
- c. Were unemployed.

The economically not active were persons who did not work and were not seeking for work. They were classified by reasons for not being economically active. Economically not active persons included homemakers, students, retired persons, the disabled and persons who were unable to work due to their age or ill-health.

## **Occupation**

This referred to the type of work the person was engaged in at the establishment where he/she worked. This was asked only of persons 5 years and older who worked 7 days before the census night, and those who did not work but had a job to return to as well as those unemployed who had worked before. All persons who worked during the 7 days before the census night were classified by the kind of work they were engaged in. The emphasis was on the work the person did during the reference period and not what he/she was trained to do. For those who did not work but had a job to return to, their occupation was the job they would go back to after the period of absence. Also, for persons who had worked before and were seeking for work and available for work, their occupation was on the last work they did before becoming unemployed. If a person was engaged in more than one occupation, only the main one was considered.

## **Industry**

Industry referred to the type of product produced or service rendered at the respondent's work place. Information was collected only on the main product produced or service rendered in the establishment during the reference period.

## **Employment Status**

Employment status refers to the status of a person in the establishment where he/she currently works or previously worked. Eight employment status categories were provided: employee, self-employed without employees, self-employed with employees, casual worker, contributing family worker, apprentice, domestic employee (house help). Persons who could not be classified under any of the above categories were classified as "other".

## **Employment Sector**

This refers to the sector in which a person worked. The employment sectors covered in the census were public, private formal, private informal, semi-public/parastatal, NGOs and international organizations.

## **Disability**

Persons with disability were defined as those who were unable to or were restricted in the performance of specific tasks/activities due to loss of function of some part of the body as a result of impairment or malformation. Information was collected on persons with visual/sight impairment, hearing impairment, mental retardation, emotional or behavioural disorders and other physical challenges.

## **Information and Communication Technology (ICT)**

ICT questions were asked for both individuals and households. Persons having mobile phones refer to respondents 12 years and older who owned mobile phones (irrespective of the number of mobile phones owned by each person). Persons using internet facility refers to those who had access to internet facility at home, internet cafe, on mobile phone or other mobile device. Internet access is assumed to be not only via computer, but also by mobile phones, PDA, game machine and digital television.

Households having Personal Computers/Laptops refer to households who own desktops/laptop computers. The fixed telephone line refers to a telephone line connecting a customer's terminal equipment (e.g. telephone set, facsimile machine) to the public switch telephone network.

## **Fertility**

Two types of fertility data were collected: lifetime fertility and current fertility. Lifetime fertility refers to the total number of live births that females 12 years and older had ever had during their life time. Current fertility refers to the number of live births that females 12-54 years old had in the 12 months preceding the Census Night.

## **Mortality**

Mortality refers to all deaths that occurred in the household during the 12 months preceding the Census Night. The report presents information on deaths due to accidents, violence, homicide and suicide. In addition, data were collected on pregnancy-related deaths of females 12-54 years.

## **Agriculture**

The census sought information on household members who are engaged in agricultural activities, including the cultivation of crops or tree planting, rearing of livestock or breeding of fish for sale or family consumption. Information was also collected on their farms, types of crops and number and type of livestock.

## **Housing Conditions and Facilities**

The UN recommended definition of a house as “a structurally separate and independent place of abode such that a person or group of persons can isolate themselves from the hazards of climate such as storms and the sun” was adopted. The definition, therefore, covered any type of shelter used as living quarters, such as separate houses, semi-detached houses, flats/apartments, compound houses, huts, tents, kiosks and containers.

Living quarters or dwelling units refer to a specific area or space occupied by a particular household and therefore need not necessarily be the same as the house of which the dwelling unit may be a part.

Information collected on housing conditions included the type of dwelling unit, main construction materials for walls, floor and roof, holding/tenure arrangement, ownership type, type of lighting, source of water supply and toilet facilities. Data was also collected on method of disposal of solid and liquid waste.

## CHAPTER THREE

### POPULATION SIZE, COMPOSITION AND AGE-SEX STRUCTURE

#### 3.1 Introduction

This chapter looks at the population size of the Northern region and its distribution across the 20 districts by locality (rural/urban) and sex. In addition, the chapter discusses population trends and density, the age-sex structure, nationality, ethnicity and religion.

#### 3.2 Population Size and Growth

As shown in Table 3.1, the Northern region has a total population of 2,479,461 in 2010 with more females (1,249,574) than males (1,229,887). The population of the region increased by 36.2 percent between 2000 and 2010, making it the fastest growing region in the country after the Central (38.1 %) and Greater Accra (38.0 %) regions.

In 1960, the population of the Northern region was 531,573, increased to 727,618 in 1970 and to 1,164,583 in 1984 representing over 50 percent increase in 24 years. The region recorded an intercensal growth rate of 2.9 percent between 2000 and 2010. This is a slight increase over the 2.8 percent of the period 1984 to 2000. Prior to 2000, the annual intercensal growth rate of the region has been above 3 percent (3.2 percent between 1960 and 1970 and 3.4 percent between 1970 and 1984). The region's share of the national population is 10.1 percent, making it the fourth largest in terms of population after the Ashanti (19.4%), Greater Accra (16.3%) and Eastern (10.7%) regions.

**Table 3.1: Population size and growth, 1960-2010**

Year	Population	% Increase	% Share of	Intercensal Growth Rate
1960	531,573	**	7.9	
1970	727,618	36.9	8.5	3.2
1984	1,164,583	60.1	9.5	3.4
2000	1,820,806	56.3	9.6	2.8
2010	2,479,461	36.2	10.1	2.9

\*\*Not applicable

Source: Central Bureau of Statistics and Ghana Statistical Service, Population census reports

### 3.2.1 Population Distribution

Distribution of the Northern region population by district is shown in Table 3.2. The Tamale Metropolitan Assembly is the most populous district in the region, with a population of 371,351, representing 15 percent of the region's population. This large concentration may be due to the fact that Tamale is the capital of the region and is also centrally located. Commercial activities, job opportunities, as well as educational institutions in the metropolis are attracting people from other parts of the region. The Yendi Municipality is second largest in terms of population (199,592).

The least populous districts are Chereponi (53,394) and Saboba (65,706) representing 2.2 percent and 2.7 percent of the region's population respectively. The two districts used to be one and known as Saboba/Chereponi District until 2004 when they were split into two.

**Table 3.2: Distribution of population, by district and sex**

District	Population Total	Percent Share
All Districts	2,479,461	100.0
Bole	61,593	2.5
Sawla-Tuna-Kalba	99,863	4.0
West Gonja	84,727	3.4
Central Gonja	87,877	3.5
East Gonja	135,450	5.5
Kpandai	108,816	4.4
Nanumba South	93,464	3.8
Nanumba North	141,584	5.7
Zabzugu Tatale	123,854	5.0
Yendi Municipal	199,592	8.0
Tamale Metropolis	371,351	15.0
Tolon Kumbungu	112,331	4.5
Savelugu Nanton	139,283	5.6
Karaga	77,706	3.1
Gushiegu	111,259	4.5
Saboba	65,706	2.7
Chereponi	53,394	2.2
Bunkpurugu-Yunyoo	122,591	4.9
Mamprusi East	121,009	4.9
Mamprusi West	168,011	6.8

Source: 2010 Population and Housing Census

### 3.2.2 Population Density, 1960-2010

The Northern region is Ghana's largest in terms of land area (70,384 square kilometres), constituting about 30 percent of the country's land mass. As a result, population density (number of persons per square kilometre) of the region is the lowest in the country, at 35 in 2010 (Table 3.3), having increased from 26 in 2000. Population density of the region in

previous censuses was 8 in 1960, 10 in 1970 and 17 in 1984. In addition to the large land mass, migration of the youth from the Northern region to southern Ghana in search of greener pastures is another possible reason for the low population density. The current situation where young girls, mainly from the Northern region, migrate to southern Ghana as *kayayei* (porters) continues to deprive the region of able-bodied persons.

The situation may improve if the Savannah Accelerated Development Authority (SADA) is effectively implemented. This would lead to the creation of more jobs to attract the youth in the region to stay, and may even attract people from neighbouring regions.

**Table 3.3: Population Density, 1960-2010**

Year	Area sq. km	Population	Density
1960	70,384	531,573	8
1970	70,384	727,618	10
1984	70,384	1,164,583	17
2000	70,384	1,820,806	26
2010	70,384	2,479,461	35

Source: Central Bureau of Statistics and Ghana Statistical Service, Population census reports

### 2.2.3 Locality of Residence of the Population (rural/urban)

The Northern region has a predominantly rural population (69.7%) as indicated in Table 3.4. Tolon Kumbungu (92.5%), Saboba (90.6%) and Kpandai (90.0%) have very high rural populations. With the exception of Tamale Metropolis (73.0%), Savelugu/Nanton (39.7%), West Gonja (32.7%) and East Mamprusi (32.4%) districts, the remaining districts have less than 30.0 percent of their populations living in urban areas.

**Table 3.4: Distribution of population by locality and district**

District	Population	Urban (%)	Rural (%)
Total	2,479,461	30.3	69.7
Bole	61,593	21.0	79.0
Sawla-Tuna-Kalba	99,863	14.0	86.0
West Gonja	84,727	32.7	67.3
Central Gonja	87,877	19.8	80.2
East Gonja	135,450	18.7	81.3
Kpandai	108,816	9.9	90.1
Nanumba South	93,464	17.9	82.1
Nanumba North	141,584	28.3	71.7
Zabzugu Tatale	123,854	25.5	74.5
Yendi Municipal	199,592	29.6	70.4
Tamale Metropolis	371,351	73.8	26.2
Tolon Kumbungu	112,331	7.5	92.5
Savelugu Nanton	139,283	39.7	60.3
Karaga	77,706	20.1	79.9
Gushiegu	111,259	24.0	76.0
Saboba	65,706	9.4	90.6
Chereponi	53,394	14.9	85.1
Bunkpurugu-Yunyoo	122,591	14.1	85.9
East Mamprusi	121,009	32.4	67.6
West Mamprusi	168,011	26.6	73.4

Source: 2010 Population and Housing Census

### **3.3 Age-Sex Structure**

Accurate information on age-sex structure is very important for effective planning and decision making. Data disaggregated by age and sex are crucial not only for demographic analysis of morbidity, mortality and fertility, but also for planning for various developmental areas. Any discussion of a country's educational needs, labour force participation and migration, for example, will not be complete without information on age of the population.

#### **3.3.1 Age Structure**

From the 2010 Population and Housing Census data, the Northern region has a youthful population with 44.9% of the population aged less than 15 years (Table 3.5). The age structure of the region has not change much in terms of its youthful nature. The population less than 15 years old was 46.2 percent in 2000 and has only fallen marginally to its present level of 44.9 percent. The population aged 65 years and older constitutes 4.4 percent of the population. Persons aged 15-64 years constitute 51.0 percent of the Northern region population. Additionally, the proportion of the population aged less than 20 years constitutes more than half (55.4%) of the region's total population. This should be a worrying situation since most of the people in this age bracket are supposed to be in school and be cared for. The government, therefore, has the huge responsibility of providing educational and recreational facilities such as school infrastructure as required by the Free Compulsory Universal Basic Education (FCUBE) policy.

A population with a high proportion of infants and children places another great responsibility on the government in terms of the provision of health care facilities and drugs for childhood killer diseases such measles, polio and whooping cough. The Chereponi District, for example, has one-fifth of its population less than five years old.

The population aged 65 years and older constitutes 4.4 percent of the region's population as compared to 4.8 percent in 2000. Thus, the population of the aged in the Northern region is decreasing, contrary to the rising trend in the country as a whole.

**Table 3.5: Age structure by age group and district**

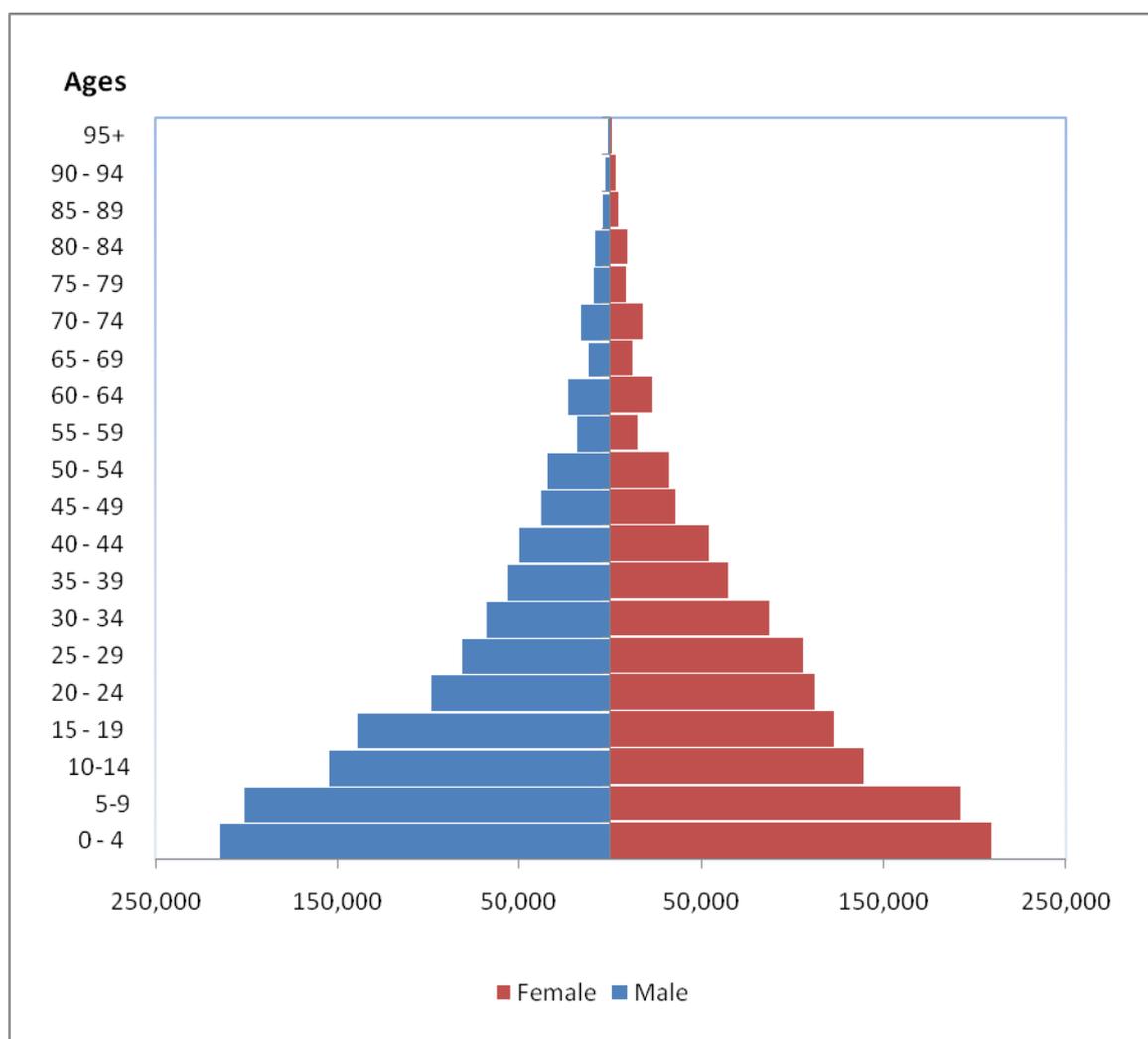
Age Group	All Districts	Bole	Sawla-Tuna-Kalba	West Gonja	Central Gonja	East Gonja	Kpandai	Nanumba South	Nanumba North	Zabzugu Tatala	Yendi Municipal	Tamale Metropolis	Tolon Kumbungu
Number	2,479,461	61,593	99,863	84,727	87,877	135,450	108,816	93,464	141,584	123,854	199,592	371,351	112,331
Less than 1	2.8	3.2	2.7	2.4	2.7	2.2	2.9	2.8	2.9	2.3	2.5	2.7	2.8
4-Jan	14.3	12.4	13.4	14.0	14.9	13.2	14.9	15.8	15.9	15.0	15.3	11.3	15.2
9-May	15.9	15.2	17.3	15.8	16.0	15.8	16.5	16.5	16.9	16.2	15.8	12.3	15.7
14-Oct	11.9	12.1	14.2	13.2	12.8	12.8	13.3	12.3	11.9	12.6	10.9	10.4	10.5
15 - 19	10.6	10.3	11.1	11.6	10.3	11.2	10.7	10.7	10.2	11.1	10.4	11.0	9.7
20 - 24	8.5	8.1	5.9	8.7	8.1	8.6	8.0	8.3	8.2	8.8	8.3	10.6	8.9
25 - 29	7.6	7.9	5.2	6.9	7.8	7.6	6.9	7.4	7.3	7.2	7.5	9.4	7.7
30 - 34	6.3	6.6	5.1	5.5	6.3	6.4	5.9	6.3	6.3	6.4	6.4	7.4	6.1
35 - 39	4.9	5.5	4.6	4.8	5.0	5.0	4.7	4.3	4.4	4.5	4.8	5.8	4.7
40 - 44	4.2	4.4	4.5	4.1	4.1	4.1	4.1	4.0	4.2	4.1	4.5	4.6	4.2
45 - 49	3.0	3.2	3.4	3.1	3.1	3.3	2.8	2.5	2.6	2.7	2.7	3.4	2.9
50 - 54	2.7	2.7	3.3	2.7	2.6	2.8	2.6	2.4	2.6	2.4	2.8	2.9	2.8
55 - 59	1.3	1.7	2.0	1.4	1.2	1.3	1.4	1.0	1.0	1.1	1.1	1.6	1.2
60 - 64	1.9	1.8	2.5	1.7	1.5	1.8	1.7	1.7	1.7	1.6	2.0	1.9	2.2
65 - 69	1.0	1.1	1.4	1.0	0.8	0.9	0.8	0.7	0.7	0.8	0.9	1.1	1.1
70 - 74	1.4	1.5	1.5	1.2	1.1	1.3	1.2	1.2	1.3	1.1	1.6	1.4	1.7
75 - 79	0.7	0.8	0.8	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.8
80 - 84	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.8	0.8	0.7	0.9	0.7	1.0
85 - 89	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
90 - 94	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
95+	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Median	18.0	18.0	16.0	17.0	17.0	18.0	16.0	16.0	16.0	17.0	18.0	21.0	18.0
Mean	22.0	23.0	22.0	21.0	21.0	22.0	21.0	21.0	21.0	21.0	22.0	24.0	22.0
Dependent Population (less than 15 and 65+)	1,219,397	29,370	52,437	41,851	43,973	64,985	55,668	47,973	73,135	61,924	98,483	153,031	55,614
Population(15+)	1,368,848	35,126	52,319	46,186	47,149	75,854	57,160	49,136	74,132	66,605	110,887	234,660	62,815
Population(18+)	1,211,127	31,287	45,152	40,111	41,581	66,756	50,178	43,311	65,647	58,421	98,616	210,869	56,309

Source: 2010 Population and Housing Census

### 3.3.2 Population Pyramid

Figure 3.1 shows that the region’s population structure is broad at the base and narrows upwards. The region’s population is therefore more youthful in nature and has the potential of increasing the productive work force with time. However, it also implies greater provision of social amenities such as schools, health facilities, and recreational centres to cater for the youthful population. With proper planning and prudent use of available resources, the youthful nature of the population should be considered as a blessing rather than a constraint.

**Figure 3.1 Population pyramid**



Source: 2010 Population and Housing Census

### 3.3.3 Age Dependency Ratio

Table 3.6 presents the dependency situation in the region. The dependency ratio is expressed as a percentage of the dependent population (persons aged less than 15 years and those above 64 years) relative to the working population (i.e. the population aged 15-64 years) is 96.8. This means that approximately every working person in the Northern region takes care of one other person. The child dependency ratio (i.e., the population less than 15 years relative to the

working population aged 15-64) in the region is 88.2, while the old age dependency ratio (i.e., the ratio of persons 65 and over to persons 15 to 64) is 8.7. The implication is that the working population is taking care of more children than of the aged.

Kpandai, Nanumba South, Nanumba North, Saboba, Chereponi, Bunkpurugu-Yunyoo, East Mamprusi and West Mamprusi have dependency ratios above 100.0. This implies that there are more dependents than those in the working population. On the other hand, Tamale Metropolis has the lowest dependency ratio, 70.1. This may be due to the fact that Tamale is the capital of the region, with possibly many migrant workers and students, many of them within the non-dependent population group.

However, it needs to be noted that the age dependency ratio is a measure of age composition and not of economic dependency. This is so because, by using age only for the construction of dependency ratios, we tend to ignore the fact that there are many economically independent older persons, as well as economically dependent unemployed adults. Nevertheless, with changes in the balance of the numbers of persons in the broad age groups, public policy issues arise with regard to the need for distinct types of social services, housing and consumer services. Dependency ratios are, therefore, useful as crude indicators of potential levels of economic, physical and social support needed by persons in these broad age groups.

**Table 3.6: Age dependency ratio by district**

Districts	Number	Age Group					
		<15	15-64	65+	Child Dependency Ratio	Adult Dependency Ratio	Total Dependency Ratio
All districts	2,479,461	44.8	50.8	4.4	88.2	8.7	96.9
Bole	61,593	43.0	52.3	4.7	82.2	9.0	91.2
Sawla-Tuna-Kalba	99,863	47.6	47.5	4.9	100.2	10.3	110.5
West Gonja	84,727	45.5	50.6	3.9	89.9	7.7	97.6
Central Gonja	87,877	46.3	50.0	3.7	92.6	7.4	100.0
East Gonja	135,450	44.0	52.0	4.0	84.6	7.7	92.3
Kpandai	108,816	47.5	48.8	3.7	97.3	7.6	104.9
Nanumba South	93,464	47.4	48.8	3.7	97.1	7.6	104.7
Nanumba North	141,584	47.6	48.3	4.0	98.6	8.2	106.8
Zabzugu Tatale	123,854	46.2	50.0	3.8	92.4	7.6	100.0
Yendi Municipal	199,592	44.4	50.7	4.9	87.6	9.6	97.2
Tamale Metropolis	371,351	36.8	58.8	4.4	62.6	7.5	70.1
Tolon Kumbungu	112,331	44.1	50.5	5.4	87.3	10.7	98.0
Savelugu Nanton	139,283	43.5	51.1	5.4	85.1	10.6	95.7
Karaga	77,706	46.9	49.1	4.0	95.5	8.2	103.7
Gushiegu	111,259	47.0	49.2	3.8	95.5	7.8	103.3
Saboba	65,706	49.9	46.7	3.4	106.9	7.2	114.1
Chereponi	53,394	50.3	45.7	4.0	110.1	8.7	118.8
Bunkpurugu-Yunyoo	122,591	47.4	47.3	5.3	100.2	11.2	111.4
Mamprusi East	121,009	47.6	47.8	4.6	99.6	9.6	109.2
Mamprusi West	168,011	46.1	49.4	4.5	93.3	9.1	102.4

Source: 2010 Population and Housing Census

### 3.3.4 Sex Structure

Sex ratio measures the number of males in relation to every 100 females. Table 3.7 shows that the region's sex ratio is 98.4, meaning the female population for the region is slightly higher than that of males. Bole, East Gonja, Kpandai, Nanumba South and Tamale districts have sex ratios more than 100. The relatively high sex ratios for these districts could be due to migration and given that more males migrate than females, there is the likelihood of Tamale Metropolis having more males than females. Bole, East Gonja, Kpandai and Nanumba South districts have relatively fertile land for farming and could be the reason for those districts having more males than females. The remaining districts have sex ratios less than 100, meaning there are more females than males. In the case of Bole District, the surface mining activity is likely to attract a lot of young men rather than females.

**Table 3.7: Population by sex and sex ratio**

District	Male	Female	Total	Sex Ratio
Northern	1,229,887	1,249,574	2,479,461	98.4
Bole	31,022	30,571	61,593	101.5
Sawla-Tuna-Kalba	48,269	51,594	99,863	93.6
West Gonja	42,273	42,454	84,727	99.6
Central Gonja	43,860	44,017	87,877	99.6
East Gonja	69,721	65,729	135,450	106.1
Kpandai	54,997	53,819	108,816	102.2
Nanumba South	46,776	46,688	93,464	100.2
Nanumba North	69,997	71,587	141,584	97.8
Zabzugu Tatale	61,085	62,769	123,854	97.3
Yendi Municipal	99,569	100,023	199,592	99.5
Tamale Metropolis	185,995	185,356	371,351	100.3
Tolon Kumbungu	56,046	56,285	112,331	99.6
Savelugu Nanton	67,531	71,752	139,283	94.1
Karaga	37,336	40,370	77,706	92.5
Gushiegu	54,186	57,073	111,259	94.9
Saboba	32,320	33,386	65,706	96.8
Chereponi	26,206	27,188	53,394	96.4
Bunkpurugu-Yunyoo	60,240	62,351	122,591	96.6
Mamprusi East	59,453	61,556	121,009	96.6
Mamprusi West	83,005	85,006	168,011	97.6

Source: 2010 Population and Housing Census

### 3.4 Nationality

Table 3.8 shows that 93.9 percent of the population of the Northern region is Ghanaians by birth, with relatively low proportions being of dual nationality (2.5%), Ghanaians by naturalization (0.9%) and non-Ghanaians (2.8%). West Gonja has the highest proportion (7.8%) of non-Ghanaians and Tolon-Kumbungu (1.7%) has the lowest proportion of Non-Ghanaians living in the region.

**Table 3.8: Population by nationality**

	Population	Percent	Nationality			
			Ghanaian by birth	Dual nationality (Ghanaian and Other)	Ghanaian by naturalisation	Non-Ghanaian
All districts	2,479,461	100.0	93.9	2.5	0.9	2.8
Bole	61,593	100.0	93.1	2.8	0.9	3.2
Sawla-Tuna-Kalba	99,863	100.0	95.3	1.9	0.7	2.2
West Gonja	84,727	100.0	85.1	6.2	0.9	7.8
Central Gonja	87,877	100.0	92.4	3.0	1.3	3.3
East Gonja	135,450	100.0	93.1	2.9	1.1	2.9
Kpandai	108,816	100.0	93.7	2.9	1.0	2.4
Nanumba South	93,464	100.0	95.3	1.9	0.7	2.0
Nanumba North	141,584	100.0	95.6	1.8	0.7	2.0
Zabzugu Tatale	123,854	100.0	94.2	2.7	0.8	2.3
Yendi Municipal	199,592	100.0	93.7	2.6	0.9	2.9
Tamale Metropolis	371,351	100.0	94.9	2.0	0.8	2.3
Tolon Kumbungu	112,331	100.0	96.0	1.7	0.6	1.7
Savelugu Nanton	139,283	100.0	94.3	2.2	0.9	2.6
Karaga	77,706	100.0	93.5	2.1	1.1	3.3
Gushiegu	111,259	100.0	94.1	2.2	1.0	2.8
Saboba	65,706	100.0	93.5	2.3	1.1	3.1
Chereponi	53,394	100.0	93.3	2.4	1.1	3.2
Bunkpurugu-Yunyoo	122,591	100.0	94.9	2.1	0.8	2.2
Mamprusi East	121,009	100.0	92.8	2.9	1.4	2.9
Mamprusi West	168,011	100.0	93.4	2.6	1.1	3.0

Source: 2010 Population and Housing Census

### 3.5 Birthplace

A person's birthplace is defined as the locality of usual residence of the mother at the time of birth. Table 3.10 shows the distribution of the population by place of birth and by district. On the average, 86.1 percent of the population of the region currently resides in the district in which they were born.

About 8.9 percent were born in other districts within the region, while the remaining 5.0 percent were born outside the region. Among them, 1.0 percent was born outside Ghana. There is some variation in the proportion of those currently residing in their districts of birth ranging from 67.3 percent in Sawla-Tuna-Kalba district to 94.4 percent in Chereponi District. The proportion of those born in other districts of the region also varies from 3.4 percent in West Mamprusi to 16.9 percent in the Savelugu Nanton district. The proportion born outside the region also varies from 3.7 percent in West Mamprusi to 23.4 percent in the Bole district.

The data show that there has been substantial movement of people from their original place of birth. Savelugu Nanton (16.9%), Tamale South (14.9%) and Gonja Central (14.9%) have significant numbers of their residents born in other parts of the region. Reasons of work or

transfers from one location to another may account for this movement. Furthermore, 14.8 percent of the population of Bole was born in the Upper West Region. Intra-regional marriages as well as work or transfers from one locality to another and also the search for jobs could account for this phenomenon.

Additionally, the analysis of the trend of data on place of birth indicates that the Northern region has a more static population (low in-migration and low out-migration rates). Settlers in the two districts in the region that have high in-migration rates hail almost exclusively from the Upper East and Upper West regions

For instance, Saboba District has 2.3 percent of its population born outside the country. The reason could be that because it shares a boundary on the east with Togo, this has facilitated cross-border marriages and other movements. Thus, women who hail from Togo but are married in Saboba, could move to Togo to stay with their parents when they are about to deliver their children. In such a situation, these children are not born in Saboba District, for that matter in Ghana, but outside the country. It is also most likely that some people from Saboba could temporarily move to settle in Togo in search of greener pastures. During their sojourn, they could give birth to some of their children there. With regard to Bole District, it shares a boundary with the Upper West Region and that explains why 14.8 percent of its population happens to be born in that region due to intra-regional marriages. It is also a district that has a substantial immigrant population because of the surface mining activity taking place in the Kui community. That accounts for why those born within the district constitute 67.3 percent.

**Table 3.10: Birthplace by district**

District	Total	Born place of enumeration	Different locality in the region	Greater									Upper East	Upper West	Outside Ghana
				Western	Central	Accra	Volta	Eastern	Ashanti	Brong Ahafo					
Northern	2,479,461	86.1	8.9	0.1	0.2	0.3	0.7	0.1	0.6	0.5	0.7	0.9	1.0		
Bole	61,593	67.3	9.3	0.3	0.1	0.3	0.5	0.2	1.5	2.9	0.7	14.8	2.2		
Sawla-Tuna-Kalba	99,863	85.9	5.9	0.3	0.0	0.1	0.1	0.1	0.9	0.4	0.2	4.8	1.2		
West Gonja	84,727	86.9	6.5	0.0	0.1	0.1	0.2	0.1	0.4	0.4	1.1	2.4	1.8		
Central Gonja	87,877	76.8	14.9	0.1	0.3	0.3	2.3	0.1	0.5	1.0	0.5	1.1	2.2		
East Gonja	135,450	85.5	6.5	0.1	0.8	0.7	2.3	0.2	0.5	0.8	0.4	1.0	1.2		
Kpandai	108,816	86.4	7.1	0.0	0.5	0.5	3.2	0.1	0.3	0.5	0.1	0.1	1.0		
Nanumba South	93,464	91.3	6.4	0.0	0.0	0.1	1.1	0.0	0.2	0.3	0.1	0.0	0.5		
Nanumba North	141,584	90.8	7.2	0.0	0.0	0.1	0.5	0.1	0.2	0.4	0.2	0.0	0.5		
Zabzugu Tatale	123,854	93.7	4.2	0.0	0.0	0.1	0.4	0.1	0.5	0.2	0.1	0.0	0.8		
Yendi Municipal	199,592	87.0	10.5	0.0	0.1	0.1	0.4	0.1	0.2	0.2	0.2	0.1	1.0		
Tamale Metropolis	371,351	80.4	11.1	0.3	0.3	0.9	0.8	0.4	1.4	0.9	2.0	0.9	0.6		
Tolon Kumbungu	112,331	84.6	13.4	0.1	0.1	0.2	0.1	0.1	0.4	0.3	0.4	0.2	0.2		
Savelugu Nanton	139,283	79.5	16.9	0.2	0.0	0.3	0.2	0.1	0.4	0.2	1.0	0.1	1.1		
Karaga	77,706	85.6	11.3	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.8	0.1	1.6		
Gushiegu	111,259	86.5	11.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4	0.0	1.5		
Saboba	65,706	81.9	14.0	0.0	0.1	0.1	0.5	0.1	0.2	0.5	0.1	0.1	2.3		
Chereponi	53,394	94.4	2.6	0.0	0.0	0.0	0.4	0.1	0.3	0.1	0.1	0.1	1.9		
Bunkpurugu-Yunyoo	122,591	91.8	5.9	0.0	0.0	0.1	0.0	0.1	0.8	0.2	0.4	0.0	0.7		
Mamprusi East	121,009	92.6	4.8	0.0	0.0	0.1	0.1	0.0	0.5	0.1	1.1	0.1	0.4		
Mamprusi West	168,011	92.9	3.4	0.0	0.0	0.1	0.1	0.1	0.5	0.2	1.2	0.1	1.2		

Source: 2010 Population and Housing Census

### 3.6 Ethnicity

Table 3.11 presents the distribution of ethnic groups in the Northern region by sex and district. Mole-Dagbon is the predominant ethnic group, constituting 52.7 percent of the population. In 11 of the 20 districts, the Mole-Dagbon group represents the largest ethnic group. The next group is the Gurma, making up 27.3 percent of the population and largely concentrated in Kpandai, Nanumba South, Nanumba North, Zabzugu-Tatale, Saboba and Bunkpurugu-Yunyoo districts. A greater proportion of the Guan ethnic group is in four districts, namely Bole, West Gonja, Central Gonja and East Gonja.

There are two relatively small ethnic groups from southern Ghana namely the Akan (3.7%) and Ewe (1.7%). While 67.8 percent of the population of Chereponi is Akan, 9.3 percent of the population of East Gonja is Ewe.

**Table 3.11: Ethnicity by district**

District	Total	Major Ethnic Groups									Total Population
		Akan	Ga-Dangme	Ewe	Guan	Gurma	Mole-Dagbani	Grusi	Mande	Others	
All Districts	100	3.1	0.3	1.7	8.6	27.3	52.7	3.7	0.5	2.1	2,388,978
Bole	100	2.9	0.1	1.9	29.1	3.0	37.8	23.0	0.3	1.8	59,078
Sawla-Tuna-Kalba	100	0.7	0.0	0.1	6.8	1.4	54.3	35.5	0.1	1.0	97,001
West Gonja	100	1.0	0.1	0.6	41.8	0.8	23.1	27.0	0.1	5.6	77,366
Central Gonja	100	5.9	0.4	8.5	64.1	0.3	16.8	0.5	0.3	3.2	83,869
East Gonja	100	7.1	2.6	9.3	47.8	14.1	14.6	0.8	1.0	2.8	130,048
Kpandai	100	2.8	1.6	6.4	17.0	69.4	0.8	0.1	0.3	1.6	105,134
Nanumba South	100	0.6	0.0	2.4	0.3	67.6	27.9	0.0	0.3	0.8	90,918
Nanumba North	100	1.3	0.1	0.5	0.2	63.3	33.1	0.1	0.3	0.9	137,850
Zabzugu Tatale	100	0.2	0.0	0.3	0.1	71.6	25.7	0.1	0.2	1.7	119,997
Yendi Municipal	100	0.8	0.0	0.4	0.2	34.9	61.0	0.1	0.2	2.6	192,132
Tamale Metropolis	100	2.8	0.4	1.4	2.9	1.3	88.1	1.6	0.3	1.1	360,009
Tolon Kumbungu	100	0.7	0.1	0.2	0.2	0.1	98.2	0.1	0.0	0.4	109,744
Savelugu Nanton	100	0.3	0.1	0.8	0.2	0.2	95.8	0.4	0.2	2.1	134,468
Karaga	100	0.6	0.0	0.0	0.1	16.2	80.7	0.1	0.1	2.2	74,275
Gushiegu	100	0.4	0.0	0.1	0.1	34.7	62.2	0.0	0.2	2.3	107,088
Saboba	100	0.7	0.0	1.0	0.1	91.2	3.0	1.3	0.2	2.4	62,964
Chereponi	100	67.8	0.2	1.5	0.1	25.6	1.4	0.2	0.2	3.2	51,131
Bunkpurugu-Yunyoo	100	0.9	0.0	0.0	0.1	87.1	9.5	0.1	0.6	1.7	118,890
Mamprusi East	100	0.6	0.1	0.2	1.1	21.6	63.3	3.1	5.1	4.9	115,810
Mamprusi West	100	0.4	0.1	0.5	0.5	0.5	90.3	4.1	0.5	3.3	161,206
N ( Ethnicity)		74,320	7,688	40,677	204,442	651,088	1,258,657	88,599	12,843	50,664	2,388,978

### 3.7 Religion

Table 3.12 shows that Muslims form 60.0 percent of the population the Northern region. This is followed by Christians constituting 21.0 percent. Among the Christians, the Catholics have the highest proportion (7.6%). Traditionalists constitute 16.0 percent of the population. Compared with the 2000 census figures, there is an increase of 3.3 percentage points and 1.7 percentage points for Muslims and Christians respectively in the region while the proportion of traditionalists decreased by 5.3 percentage points.

Savelugu Nanton has the highest proportion of Muslims (95.4%) and Saboba has the lowest proportion (9.5%) but a substantial proportion of traditionalists (26.9%). There are even more traditionalists in Nanumba South (47.8%) and Nanumba North (42.1%)

**Table 3.12 Distribution of religious affiliation by district**

	Total	No religion	Catholic	Protestant	Pente-costal	Other Christian	Muslim	Tradi-tionalist	Other	Total Population
All Districts	100	2.7	7.6	5	6.3	2.1	60.0	16.0	0.4	2,479,461
Bole	100	5.4	26.3	4.9	8	1.5	41.7	11.7	0.4	61,593
Sawla-Tuna-Kalba	100	5.7	26.3	4.4	9.8	1.9	20.2	31	0.6	99,863
West Gonja	100	1.2	12.5	3.8	3.4	2.4	74.3	2.4	0.1	84,727
Central Gonja	100	1.6	3.3	2.9	4.7	1.2	84.3	1.8	0.2	87,877
East Gonja	100	2.3	6.3	8.4	9	2.6	65.5	5.5	0.5	135,450
Kpandai	100	11.2	13.5	10.2	22.6	5.5	7.9	28.3	0.8	108,816
Nanumba South	100	4.7	6.7	3.2	7.4	2.7	27.2	47.8	0.4	93,464
Nanumba North	100	5.3	7.5	3.7	3.9	1.9	35.1	42.1	0.6	141,584
Zabzugu Tatale	100	4.9	8.7	2.9	7.4	2.8	29.1	43.9	0.3	123,854
Yendi Municipal	100	2.2	7.4	5.1	2.3	2.7	65	14.9	0.5	199,592
Tamale Metropolis	100	0.2	4.7	2.7	2.9	1.3	87.6	0.4	0.2	371,351
Tolon Kumbungu	100	0.5	1.1	0.8	0.9	0.6	94.6	1.4	0.1	112,331
Savelugu Nanton	100	0.3	0.8	1.1	0.8	0.7	95.4	0.8	0.1	139,283
Karaga	100	0.5	1.5	0.9	0.8	0.6	82.9	12.8	0.1	77,706
Gushiegu	100	1.6	3.4	2.3	0.9	1.2	68.1	22.2	0.3	111,259
Saboba	100	5.8	19.3	15.8	14.4	6.1	9.5	28.6	0.6	65,706
Chereponi	100	2.4	8.2	5.2	7.2	0.8	58.8	17.3	0.1	53,394
Bunkpurugu-Yunyoo	100	3.2	12.2	19.1	21.4	2	14.8	26.9	0.4	122,591
Mamprusi East	100	1.8	2.5	7.2	7.9	4.6	59.2	15.7	1.1	121,009
Mamprusi West	100	1	4	3.3	5.1	1.6	79.6	5.3	0.2	168,011
N (Religion)		65,826	187,846	124,011	156,832	52,903	1486937	395,756	9,350	2,479,461

Source: 2010 Population and Housing Census

# CHAPTER FOUR

## HOUSEHOLD SIZE, STRUCTURE AND COMPOSITION

### 4.1 Introduction

This chapter presents information on household size, structure and composition. Socio-cultural factors to a very large extent influence living arrangements. There is, therefore, a close relationship between family and household formation with regard to the type of socio-cultural practices that are prevalent in a particular society. The family system in any human society, whether it is the nuclear or extended type, depicts the type of kinship ties that hold the people together.

There are some differences in the composition and size of households among the various ethnic groups in Ghana based on the prevailing kinship. There are two broad descent and inheritance systems – the patrilineal and matrilineal systems. Almost all if not all the ethnic groups in the Northern region practice the patrilineal system of inheritance.

### 4.2 Household Headship

The 2010 census data revealed that the total number of household heads in the Northern region is 318,119, made up of 270,488 male heads and 47,631 female heads. Table 4.1 shows household headship by district, locality and sex. At the regional level, males constitute a very high proportion of household heads (85.5%) compared to females (15.0%). A similar trend is reflected across the 20 districts in the region. In the Bole, Sawla-Tuna-Kalba and Tamale districts, one out of every five household heads is female. In both the urban and rural areas, the proportion of male-headed households is higher than that of females. The pattern is the same for all the districts in the region.

**Table 4.1: Household headship by district, locality and sex**

District	Total			Urban			Rural		
	Total household	Male	Female	Total	Male	Female	Total	Male	Female
All Districts	318,119	85.0	15.0	106,071	76.2	23.8	212,048	89.4	10.6
Bole	10,160	74.7	25.3	2,395	60.6	39.4	7,765	79.1	20.9
Sawla-Tuna-Kalba	14,906	75.4	24.6	2,852	63.8	36.2	12,054	78.1	21.9
West Gonja	11,048	83.6	16.4	4,009	72.4	27.6	7,039	89.9	10.1
Central Gonja	11,413	85.4	14.6	2,508	71.7	28.3	8,905	89.3	10.7
East Gonja	18,811	86.0	14.0	4,274	72.7	27.3	14,537	89.9	10.1
Kpandai	16,394	86.0	14.0	1,861	76.7	23.3	14,533	87.1	12.9
Nanumba South	11,487	91.4	8.6	2,224	83.2	16.8	9,263	93.4	6.6
Nanumba North	16,914	89.5	10.5	5,037	80.5	19.5	11,877	93.4	6.6
Zabzugu Tatale	13,553	92.8	7.2	3,046	86.0	14.0	10,507	94.7	5.3
Yendi Municipal	21,563	88.1	11.9	6,129	78.9	21.1	15,434	91.8	8.2
Tamale Metropolis	58,855	76.5	23.5	44,091	74.9	25.1	14,764	81.1	18.9
Tolon Kumbungu	12,243	92.2	7.8	1,098	82.1	17.9	11,145	93.2	6.8
Savelugu Nanton	14,669	89.4	10.6	5,951	84.7	15.3	8,718	92.6	7.4
Karaga	7,664	92.4	7.6	1,598	85.1	14.9	6,066	94.4	5.6
Gushiegu	11,150	91.5	8.5	2,609	82.4	17.6	8,541	94.3	5.7
Saboba	9,011	87.9	12.1	1,147	69.0	31.0	7,864	90.7	9.3
Chereponi	7,116	91.9	8.1	1,346	78.2	21.8	5,770	95.2	4.8
Bunkpurugu-Yunyoo	17,621	83.2	16.8	3,138	69.5	30.5	14,483	86.1	13.9
Mamprusi East	13,895	87.1	12.9	5,069	79.7	20.3	8,826	91.4	8.6
Mamprusi West	19,646	87.9	12.1	5,689	78.2	21.8	13,957	91.8	8.2

Source: 2010 Population and Housing Census

Table 4.2 shows the age distribution of household heads. About 60 percent of male-headed households are in the 30-54 years age group. Female headed households in the same age bracket constitute about 50 percent (49.9%). of female headed households. Male headed households aged 15-29 years constitute about 12 percent of male headed households. Females in the same age bracket who are household heads constitute 16 percent of female headed households.

In both the urban and rural areas, household heads are predominantly aged between 30 and 54 years old. Urban areas have more male heads of household (60%) than female heads of household (48.8%). In rural areas, the proportion of female-headed households is slightly above half (50.1%) while the proportion of male household heads is 60.2 percent.

**Table 4.2: Household headship by age group, locality and sex of head**

Northern	Total			Urban			Rural		
	Total households	Male head	Female head	Total	Male head	Female head	Total	Male head	Female head
All ages	318,119	270,488	47,631	106,071	80,866	25,205	212,048	189,622	22,426
15 - 19	3,383	0.9	2.3	1,605	1.3	2.3	1,778	0.7	2.2
20 - 24	11,553	3.3	5.3	4,573	3.8	5.9	6,980	3.1	4.6
25 - 29	25,373	7.9	8.5	8,866	8.1	9.3	16,507	7.8	7.7
30 - 34	36,688	11.9	9.5	12,042	12.0	9.4	24,646	11.9	9.7
35 - 39	40,207	13.2	9.6	13,205	13.4	9.5	27,002	13.1	9.8
40 - 44	41,334	13.4	10.9	13,148	13.0	10.5	28,186	13.5	11.5
45 - 49	34,645	11.1	9.4	11,391	11.2	9.4	23,254	11.1	9.4
50 - 54	33,491	10.6	10.4	10,975	10.4	10.0	22,516	10.6	10.7
55 - 59	17,672	5.6	5.4	6,196	6.0	5.5	11,476	5.4	5.2
60 - 64	22,682	7.0	8.1	7,189	6.5	7.6	15,493	7.2	8.5
65 - 69	11,597	3.5	4.4	4,017	3.6	4.4	7,580	3.5	4.4
70 - 74	16,717	4.9	7.2	5,533	4.6	7.3	11,184	5.1	7.1
75 - 79	8,472	2.5	3.4	2,877	2.5	3.3	5,595	2.5	3.5
80 - 84	7,798	2.3	3.2	2,489	2.1	3.2	5,309	2.4	3.3
85 - 89	3,276	1.0	1.3	1,055	0.9	1.3	2,221	1.0	1.3
90 - 94	2,305	0.7	0.8	638	0.5	0.8	1,667	0.8	0.9
95+	926	0.3	0.3	272	0.2	0.3	654	0.3	0.2

Source: 2010 Population and Housing Census

### 4.3 Household Size

The 2010 Population and Housing Census defined a household as “a person or a group of persons, who lived together in the same house or compound and shared the same house-keeping arrangements”. In general, a household consists of a man, his wife, children and some other relatives or a house help who may be living with them. It is, however, important to state that membership of a household does not necessarily depend on consanguinity or blood ties. The number of persons who belong to a household constitutes the household size. The average household size in the Northern region is 7.7 persons, which is higher than the national average of 4.4 persons. The possible reasons for the large household sizes in the region are polygyny, high fertility and the common practice of nuclear and extended family members living together. Table 4.3 shows that households with 10 persons or more constitute the highest proportion (28.6%) in the region and in all districts in the region. The Tamale

Metropolis has the highest proportion of one-member household (12.9%) compared to all the other districts, probably because of it being the regional capital with economic and social opportunities which attract people seeking employment opportunities.

**Table 4.3: Household size by district**

District	Total	Household size (No. of persons)									
		1	2	3	4	5	6	7	8	9	10+
All Districts	318,119	5.5	5.1	7.2	8.9	10.0	10.2	9.3	8.4	6.9	28.6
Bole	10,160	8.6	8.2	10.8	12.2	12.3	10.4	8.8	7.3	5.3	15.9
Sawla-Tuna-Kalba	14,906	6.4	6.7	8.6	9.6	10.7	11.5	10.5	9.1	6.9	20.1
West Gonja	11,048	5.4	5.1	6.7	8.9	9.4	10.2	9.4	9.0	7.3	28.8
Central Gonja	11,413	4.6	4.2	6.6	9.0	10.7	11.1	10.0	8.9	7.5	27.5
East Gonja	18,811	5.2	4.3	7.1	9.6	11.2	11.7	10.7	9.6	7.5	23.0
Kpandai	16,394	5.0	5.5	8.2	10.2	12.5	12.5	10.6	9.0	7.3	19.2
Nanumba South	11,487	2.5	3.1	6.2	8.3	9.8	10.6	10.6	10.1	8.0	30.8
Nanumba North	16,914	3.4	3.1	5.8	8.0	9.5	9.9	10.0	9.0	7.7	33.7
Zabzugu Tatale	13,553	1.9	2.3	5.0	6.9	7.9	9.5	9.3	8.9	7.8	40.4
Yendi Municipal	21,563	4.1	3.6	5.0	7.1	8.9	9.1	8.5	8.4	7.3	38.2
Tamale Metropolis	58,855	12.9	9.7	10.6	11.3	10.5	9.4	7.1	5.7	4.2	18.6
Tolon Kumbungu	12,243	2.2	2.6	5.1	6.3	8.5	9.0	9.1	8.6	8.4	40.3
Savelugu Nanton	14,669	3.6	3.3	5.3	6.8	8.1	8.3	7.9	8.0	7.2	41.4
Karaga	7,664	1.9	2.1	3.9	4.9	6.9	7.5	8.4	8.4	8.0	48.1
Gushiegu	11,150	3.1	3.0	4.3	6.5	7.4	8.2	8.3	7.8	7.2	44.1
Saboba	9,011	2.9	4.2	8.1	10.5	11.3	11.8	10.4	9.2	7.9	23.7
Chereponi	7,116	3.3	4.0	7.0	8.6	10.2	11.2	10.6	10.0	7.8	27.5
Bunkpurugu-Yunyoo	17,621	2.8	4.2	7.1	10.2	12.1	13.1	12.7	10.6	7.9	19.4
East Mamprusi	13,895	2.8	3.0	5.1	6.7	9.1	10.6	10.1	8.9	8.3	35.3
West Mamprusi	19,646	3.0	3.6	5.9	8.0	9.4	9.6	9.6	9.0	8.3	33.7

Source: 2010 Population and Housing Census

### Household Composition

In general, households made up of head and spouse only form a small proportion of the various types of households in the districts. Households composed of the head and multiple spouses only are non-existent in the region. In three districts, Bole (26.1%), East Gonja (37.7%) and Kpandai (37.1%), households composed of head, spouse(s) and biological/adopted children only are the most common household type in those districts. In the majority of districts, a high proportion of households comprise the head, spouse(s) biological/adopted children and relatives of the head. This is the case for more than 50 percent of households in the Zabzugu/Tatale (51.1%), Tolon/Kumbungu (56.4%), Savelugu/Nanton (54.8%), Karaga (59.7%) and Gushiegu (54.6%) districts.

**Table 4.3: Household Composition by Locality and District, 2010**

Household Composition	N	Total	Household with head with;									
			One spouse only	Spouse(s) / adopted children only	Spouse(s) biological/ adopted children and relatives of the head only	Spouse(s) biological/ adopted children, relatives and non-relatives of the head	Spouse(s) and other composition	Biological/ adopted children only	Biological/ adopted children and relatives of the head only	Biological / adopted children, relatives and non-relatives of the head	Other composition but no spouse	Head only
Northern	318,119	100	1.7	28.1	40.6	1.3	2.1	6.1	8.1	0.4	5.9	5.5
Bole	10,160	100	2.3	26.1	25.3	1.2	3.4	8.4	11.4	0.6	12.7	8.6
Sawla-Tuna-Kalba	14,906	100	1.8	25.3	34.0	0.7	2.7	10.1	11.0	0.3	7.8	6.4
West Gonja	11,048	100	1.5	28.6	38.3	1.1	2.3	6.7	9.7	0.4	6.2	5.4
Central Gonja	11,413	100	1.5	32.0	36.7	1.4	2.2	6.5	8.8	0.6	5.7	4.6
East Gonja	18,811	100	1.5	37.7	31.4	1.4	2.1	7.1	7.9	0.3	5.4	5.2
Kpandai	16,394	100	1.7	37.1	32.4	0.9	2.1	8.5	6.5	0.2	5.7	5.0
Nanumba South	11,487	100	1.2	35.7	44.6	0.9	1.4	4.0	5.6	0.2	4.0	2.5
Nanumba North	16,914	100	1.2	31.5	44.2	1.4	1.5	4.2	7.3	0.5	4.8	3.4
Zabzugu Tatale	13,553	100	1.2	32.2	51.1	1.0	1.6	3.4	4.7	0.3	2.8	1.9
Yendi Municipal	21,563	100	1.1	27.1	46.7	1.8	1.8	4.7	7.7	0.6	4.4	4.1
Tamale Metropolis	58,855	100	3.5	24.1	28.2	1.4	2.4	7.9	9.8	0.6	9.0	12.9
Tolon Kumbungu	12,243	100	0.9	22.0	56.4	1.5	1.9	2.9	7.8	0.2	4.3	2.2
Savelugu Nanton	14,669	100	1.1	18.7	54.8	2.7	2.2	3.1	8.5	0.5	4.8	3.6
Karaga	7,664	100	0.9	19.5	59.7	2.8	1.8	2.5	7.6	0.4	2.9	1.9
Gushiegu	11,150	100	1.1	23.3	54.6	2.2	1.9	3.2	6.7	0.5	3.4	3.1
Saboba	9,011	100	1.6	34.0	40.2	0.7	2.0	6.4	5.6	0.2	6.4	2.9
Chereponi	7,116	100	1.9	31.1	48.3	0.5	2.1	4.7	4.3	0.1	3.8	3.3
Bunkpurugu-Yunyoo	17,621	100	1.1	32.2	38.4	0.5	1.8	8.3	8.6	0.2	6.1	2.8
Mamprusi East	13,895	100	0.9	25.5	48.7	1.8	1.9	5.0	8.1	0.5	4.9	2.8
Mamprusi West	19,646	100	1.3	26.0	48.8	1.0	2.4	5.2	7.8	0.4	4.1	3.0

Source: 2010 Population and Housing Census

# CHAPTER FIVE

## MARITAL STATUS

### 5.1 Introduction

Marriage is a social union or legal contract between people called spouses that create kinship. It can also be defined socially to encompass formal traditional and religious unions that usually attract some sanctions in case of a breach by any of the parties involved. There is also the situation of two individuals cohabiting informally without the performance of any marital rites. There are norms governing marriage in human society; one of which is the socially and legally acceptable minimum age for marriage. However, the minimum age for marrying differs from one society to another.

In Ghana, 18 years is the minimum legal age for marriage. However, cultural practices in some ethnic groups allow much younger girls to be given out in marriage. In order to capture data on those who marry below age 18, the 2010 Census solicited information on marriage from persons aged 12 years and above.

### 5.2 Marital Status by Age Group

Marital status by age group is presented in Table 5.1. The data shows that about 21 percent (21.2%) of persons are in some form of marital relationship (married or informal/consensual union) in the Northern region are less than 19 years. What may account for this high proportion is the cultural practice of betrothal of young girls in the Northern region. This does not only affect teenage girls emotionally and physically, but it also makes them lose their education since most of them are usually withdrawn from school for marriage.

**Table 5.1: Marital status of population 12 years and older by age group**

Age group	Total	Marital Status					Widowed
		Never Married	Informal/Consensual Union	Married	Separated	Divorced	
12-14	159,439	92.0	0.2	7.8	0.0	0.0	0.0
15-19	261,935	86.4	0.6	12.6	0.1	0.1	0.1
20-24	210,682	56.8	1.5	40.5	0.6	0.4	0.3
25-29	187,414	30.5	1.6	65.8	0.9	0.8	0.5
30-34	155,581	13.0	1.0	82.5	1.3	1.4	0.9
35-39	120,728	6.5	0.7	88.2	1.3	1.7	1.5
40-44	104,120	3.9	0.6	88.5	1.5	2.2	3.4
45-49	73,348	2.9	0.5	87.5	1.5	2.4	5.2
50-54	67,123	2.4	0.5	83.1	1.5	2.7	9.7
55-59	33,004	2.5	0.5	80.0	1.6	2.8	12.6
60-64	46,129	3.3	0.4	73.5	1.5	2.6	18.7
65-69	23,974	4.9	0.3	68.7	1.5	2.6	22.0
70+	84,810	5.8	0.4	61.0	1.3	2.0	29.5

Source: 2010 Population and Housing Census

### 5.3 Marital Status by Sex

Table 5.2 shows that 38.9 percent of persons aged 12 years and older have never married while more than half (54.3%) are married. Those who are separated or divorced constitute 2.0 percent. Out of the 4.0 percent who are widowed, females constitute 7.1 percent and males 0.9 percent. The plausible reason for that greater proportion of female being widowed could be because of polygynous marriages. In polygynous marriages, if the man dies, he leaves behind a number of widows but if on the other hand one of the wives dies, the man does not consider himself a widower since he has other wives. Additionally, husbands in the region are more often than not much older than their spouses and, therefore, are more likely to die earlier, leaving behind relatively younger widows.

The proportion of males that have never been married is relatively higher (47.2%) than their female counterparts (31.0%). The reverse is the case for persons who are married with about 59 percent of females married compared with less than half (49.6%) of the male population.

**Table 5.3 Marital status of population aged 12 years and older by sex**

Marital Status	Total	Male	Female
Total	1,528,287	744,075	784,212
Never Married	38.9	47.2	31.0
Informal/consensual union	0.8	0.7	0.9
Married	54.3	49.6	58.7
Separated	0.9	0.7	1.0
Divorced	1.1	0.9	1.3
Widowed	4.0	0.9	7.1

Source: 2010 Population and Housing Census

### 5.4 Marital status by locality

With regard to locality of residence, more than half (56.9%) of the rural population aged 12 years and older are married compared to 49.6 percent for married persons in urban areas. It is likely that polygyny could account for the higher percentage in rural areas of those who are married.

**Table 5.4: Marital status of population 12 years and older by locality**

Marital Status	Total	Never Married	Informal/ Consensual Union	Married	Separated	Divorced	Widowed
Locality							
Total	1,528,287	38.9	0.8	54.3	0.9	1.1	4.1
Urban	504,047	43.4	0.8	48.9	1.1	1.4	4.4
Rural	1,024,240	36.7	0.8	56.9	0.8	1.0	3.9

Source: 2010 Population and Housing Census

## 5.5 Marital Status by Education, Religion and Economic Activity Status

Table 5.5 shows that 82.6 percent of postgraduates are married while 79.1 percent of junior secondary school/ junior high school leavers have never married. About two thirds (68.5%) of those that have not attained any level of education are married. The proportion of those who have never attended school and are widowed is higher (5.9%) than it is among middle-school leavers (4.0%).

Among the traditionalists, about 61 percent aged 12 years and older are married while about 56 percent of those without any form of religion in the same bracket are married. Among muslims population about 51 percent of persons aged 12 years and older are married whilst 47 percent of Pentecostal/Charismatics in the same age bracket are married. This reflects the importance that the Ghanaian society attaches to marriage. A small proportion (between 0.7% and 1.5%) is in informal/consensual union, while an equally small proportion is either separated or divorced. This phenomenon is likely to stem from the fact that religious leaders are able to offer proper marriage counseling to their adherents, hence the relatively low proportion of divorce rates are recorded in the census.

**Table 5.5: Marital status of persons 12 years and older by level of education, religion and economic activity status**

Marital Status	Total	Never Married	Informal/Consensual Union	Married	Separated	Divorced	Widowed
<b>Level of education</b>							
Primary	194,441	68.5	0.7	28.4	0.4	0.5	1.4
JSS/JHS	175,453	79.1	0.9	19.1	0.4	0.3	0.2
Middle	18,379	6.2	0.9	82.1	2.6	4.1	4.0
SSS/SHS	102,636	70.9	1.1	26.7	0.5	0.5	0.3
Secondary	7,564	33.0	1.0	61.1	1.3	1.9	1.8
Vocational/Technical/Commercial	8,415	45.5	1.5	48.9	1.3	1.6	1.2
Post- middle/secondary certificate	15,408	40.7	1.4	53.0	1.4	1.5	1.9
Post-secondary diploma	20,897	47.8	1.3	48.5	0.8	0.8	0.8
Bachelor's degree	9,386	42.9	1.1	53.9	0.6	0.8	0.7
Postgraduate (Cert. Dip. Masters, PhD. etc.)	1,668	13.7	1.1	82.6	0.5	1.2	1.0
Never attended	974,040	22.7	0.8	68.2	1.0	1.4	5.9
<b>Religious affiliation</b>							
No religion	35,483	34.6	1.0	55.6	1.3	1.5	6.0
Catholic	117,030	46.7	1.3	46.3	0.9	1.0	3.8
Protestants	74,801	44.7	1.0	48.5	0.9	1.1	3.8
Pentecostal/Charismatic	94,138	47.0	1.2	45.8	1.0	1.2	3.8
Other Christian	31,838	45.6	1.0	47.8	0.7	1.1	3.8
Muslim	925,371	38.2	0.7	55.1	0.9	1.1	4.0
Ahmadi	8,696	39.1	0.7	54.9	0.7	0.9	3.7
Traditionalist	235,285	32.1	0.7	60.9	0.7	1.0	4.5
Other	5,645	41.3	1.0	51.4	1.0	1.2	4.0
<b>Activity Status</b>							
Employed	1052283	28.6	0.9	65.5	1.0	1.2	2.8
Unemployed	41,834	51.1	1.2	42.7	0.9	1.1	3.0
Not active	434,170	62.7	0.5	28.1	0.6	0.8	7.2

Source: 2010 Population and Housing Census

Table 5.5 also shows that close to two thirds (65.5%) of those employed are married. This is not surprising because once people have the means of livelihood; they are more likely to marry than those who are unemployed. On the other hand, about three out of every five persons (62.7%) among those who are economically inactive have never married. The plausible reason for such a high proportion is that since this category of persons are not gainfully employed and are themselves dependent on others, they would thus lack the financial resources to get married.

# CHAPTER SIX

## INFORMATION AND COMMUNICATIONS TECHNOLOGY

### 6.1 Introduction

Information and Communications Technology (ICT) is one of the new areas introduced in the 2010 census questionnaire. Questions pertaining to ICT were asked of households and individuals aged 12 years and above. These questions covered ownership of mobile phones (irrespective of the number of phones an individual has) and usage of internet (at home, office, café, phones and other mobile devices), and ownership of fixed telephone lines. Other questions asked were household or individual ownership of personal computers/ laptops.

### 6.2 Ownership of Mobile Phones by Age Group

As indicated in Table 6.1, 22.3 percent of the Northern region population 12 years and older own mobile phones. Male ownership of mobile phones is higher than that of females as indicated in Table 6.1. Furthermore, while persons aged 35-39 years have the highest ownership of mobile phones, persons 12-14 years old have the lowest ownership. This finding is also consistent with what pertains among males and females. Mobile phone ownership for males is higher than for females in all age groups.

**Table 6.1: Population 12 years and older owning mobile phones by age group**

Age group	Population 12+ owning mobile phone		Male population 12+ owning mobile phone		Female population 12+ owning mobile phone	
	Population	Percent	Population	Percent	Population	Percent
All ages	341,536	22.3	212773	28.6	128763	16.4
12-14	4,105	2.6	2311	2.7	1794	2.4
15-19	28,814	11.0	17320	12.5	11494	9.3
20-24	56,839	27.0	32627	33.2	24212	21.5
25-29	59,411	31.7	34919	42.8	24492	23.1
30-34	48,972	31.5	30317	44.5	18655	21.3
35-39	39,041	32.3	25159	44.7	13882	21.5
40-44	30,436	29.2	19868	39.8	10568	19.5
45-49	21,798	29.7	14655	38.8	7143	20.1
50-54	17,937	26.7	12127	35.0	5810	17.9
55-59	9,075	27.5	6391	35.6	2684	17.9
60-64	8,964	19.4	6213	27.0	2751	11.9
65-69	4,330	18.1	2963	24.5	1367	11.5
70+	11,814	13.9	7903	19.1	3911	9.0

Source: 2010 Population and Housing Census

### 6.3 Ownership of Mobile Phones by District and Sex

As shown in Table 6.2, Tamale Metropolis has the highest proportion (38.7%) of the population 12 years and older owning mobile phones, followed by the Yendi Municipal (7.8%). Saboba and Chereponi districts have the lowest proportions (1.5% and (1.0%) respectively. Male ownership of mobile phones is slightly higher than that of females in most of the districts. This is so in the Sawla-Tuna-Kalba, Central Gonja, Kpandai, Nanumba South, Zabzugu Tatale, Yendi, Tolon Kumbungu, Savelugu Nanton, Karaga, Gushiegu, Chereponi, Bunkpurugu-Yunyoo, Mamprusi East and Mamprusi West districts. In Tamale, West Gonja and Bole, the proportions of female ownership of mobile phones are higher compared to male ownership.

**Table 6.2: Population 12 years and older owning mobile phones by district and sex**

Region/District	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
All districts	341,536	100.0	212,773	100.0	128,763	100.0
Bole	9,364	2.7	5,752	2.7	3,612	2.8
Sawla-Tuna-Kalba	7,313	2.1	4,765	2.2	2,548	2.0
West Gonja	10,175	3.0	6,061	2.8	4,114	3.2
Central Gonja	8,453	2.5	5,622	2.6	2,831	2.2
East Gonja	14,069	4.1	8,834	4.2	5,235	4.1
Kpandai	8,956	2.6	6,454	3.0	2,502	1.9
Nanumba South	8,837	2.6	6,299	3.0	2,538	2.0
Nanumba North	15,513	4.5	9,900	4.7	5,613	4.4
Zabzugu Tatale	9,703	2.8	6,369	3.0	3,334	2.6
Yendi Municipal	26,810	7.8	16,814	7.9	9,996	7.8
Tamale Metropolis	132,549	38.7	74,388	35.0	58,161	45.2
Tolon Kumbungu	11,096	3.2	8,502	4.0	2,594	2.0
Savelugu Nanton	21,711	6.4	14,406	6.8	7,305	5.7
Karaga	4,260	1.2	3,078	1.4	1,182	0.9
Gushiegu	7,767	2.3	5,499	2.6	2,268	1.8
Saboba	5,027	1.5	3,706	1.7	1,321	1.0
Chereponi	3,301	1.0	2,362	1.1	939	0.7
Bunkpurugu-Yunyoo	9,495	2.8	6,444	3.0	3,051	2.4
Mamprusi East	9,950	2.9	6,279	3.0	3,671	2.9
Mamprusi West	17,187	5.0	11,239	5.3	5,948	4.6

Source: 2010 Population and Housing Census

### 6.4 Ownership of Mobile Phones by Educational Level

Table 6.3 shows that the higher the level of education, the higher the proportion of mobile phone owners. For example, 94.8 percent of persons with higher education have mobile phones compared to 13.3 percent of person who attained primary level. Although persons who have never attended school make up more than half of the population aged 12 years and older, only 16.1 percent own mobile phones. The proportion of males owning mobile phones is higher than that of females at all levels of education except the post-middle and post-secondary levels where the proportion of females is higher.

**Table 6.3: Distribution of population 12 years and older owning mobile phone by educational level and sex**

Economic Activity status	Population 12+	Population 12+ owning mobile phone	Population 12+ owning mobile phone (%)	Male population 12+	Male population 12+ owning mobile phone	Male population 12+ owning mobile phone (%)	Female population 12+	Female population 12+ owning mobile phone	Female population 12+ owning mobile phone (%)
Total	16,886,306	8,049,408	47.7	8,072,481	4,275,211	53.0	8,813,825	3,774,197	42.8
All levels	1,528,287	341,536	22.3	744,075	212,773	28.6	784,212	128,763	16.4
Never attended	974,040	156,492	16.1	420,555	91,163	21.7	553,485	65,329	11.8
Primary	194,441	25,819	13.3	102,532	15,815	15.4	91,909	10,004	10.9
JHS/Middle	193,832	53,575	27.6	112,322	34,391	30.6	81,510	19,184	23.5
Secondary /SSS / SHS	110,200	57,159	51.9	70,213	37,790	53.8	39,987	19,369	48.4
Vocational / Technical / Commercial	8,415	6,321	75.1	4,711	3,604	76.5	3,704	2,717	73.4
Post-middle / secondary certificate	15,408	12,880	83.6	10,105	8,331	82.4	5,303	4,549	85.8
Post-secondary diploma	20,897	18,813	90.0	14,781	13,271	89.8	6,116	5,542	90.6
Higher	11,054	10,477	94.8	8,856	8,408	94.9	2,198	2,069	94.1

## 6.5 Ownership of Mobile Phones by Locality of Residence

The disparity in income level and the level of educational attainment between urban and rural dwellers is also reflected in the proportion of persons who own mobile phones in these areas. Table 6.4 shows that while 43.1 percent of the urban population 12 years and older own mobile phones, only 12.1 percent of the rural population own mobile phones. A similar pattern exists across all the districts in the region, with the proportion of mobile phone ownership being higher in urban areas than in rural areas. Of all the administrative districts in the region, Tamale Metropolis has the highest urban and rural ownership rates (56.9% and 35.7% respectively). Karaga has the lowest proportion of urban ownership (17.1%) and Mamprusi East (5.7%) has the lowest level of rural ownership of mobile phones.

**Table 6.4: Population 12 years and older owning mobile phones by locality of residence and district**

District	Total Urban Population 12+	Urban population 12+ owning mobile phones	Urban population 12+ owning mobile phones (%)	Total Rural population 12+	Rural Population 12+ owning mobile phones	Rural population 12+ owning mobile phones (%)
<b>All districts</b>	504,047	217,393	43.1	1,024,240	124,143	12.1
Bole	8,583	4,297	50.1	30,652	5,067	16.5
Sawla-Tuna-Kalba	9,527	3,327	34.9	50,715	3,986	7.9
West Gonja	18,563	6,938	37.4	33,943	3,237	9.5
Central Gonja	11,498	3,666	31.9	41,612	4,787	11.5
East Gonja	17,435	7,861	45.1	67,925	6,208	9.1
Kpandai	7,236	2,407	33.3	58,034	6,549	11.3
Nanumba South	10,688	3,511	32.8	44,558	5,326	12.0
Nanumba North	26,027	9,741	37.4	56,963	5,772	10.1
Zabzugu Tatale	20,651	5,514	26.7	54,361	4,189	7.7
Yendi Municipal	39,309	16,612	42.3	82,971	10,198	12.3
Tamale Metropolis	192,525	109,597	56.9	64,300	22,952	35.7
Tolon Kumbungu	5,891	2,586	43.9	63,003	8,510	13.5
Savelugu Nanton	34,742	11,642	33.5	51,045	10,069	19.7
Karaga	9,485	1,622	17.1	35,793	2,638	7.4
Gushiegu	17,069	4,436	26.0	47,878	3,331	7.0
Saboba	4,321	1,624	37.6	33,665	3,403	10.1
Chereponi	5,152	1,900	36.9	24,909	1,401	5.6
Bunkpurugu-Yunyoo	11,890	4,096	34.4	62,222	5,399	8.7
Mamprusi East	25,310	7,316	28.9	46,491	2,634	5.7
Mamprusi West	28,145	8,700	30.9	73,200	8,487	11.6

Source: 2010 Population and Housing Census

## 6.6 Ownership of Mobile Phones by Economic Activity and Sex

Ideally, one will expect the employed to own mobile phone(s) since ownership and usage of mobile phones come with a cost. Interesting, about 28 percent of the population 12 years and older who own mobile phones in the Northern region are unemployed. On the other hand about 24 percent of the population 12 years and older who own mobile phones are employed. A similar pattern is observed for both males and females with slightly higher proportions of female unemployed owning mobile phones as shown in Table 6.5.

**Table 6.5: Percentage of population 12 years and older owning mobile phones by economic activity and sex**

Economic Activity Status	Population 12+ owning mobile phones	Population 12+ owning mobile phones (%)	Male population 12+ owning mobile phones	Male population 12+ owning mobile phones (%)	Female population 12+ owning mobile phones	Female population 12+ owning mobile phones (%)
Total	341,536	22.3	212,773	28.6	128,763	16.4
Employed	251,851	23.9	164,746	31.2	87,105	16.6
Unemployed	12,028	28.8	6,453	33.4	5,575	24.7
Not active	77,657	17.9	41,574	21.1	36,083	15.2

Source: 2010 Population and Housing Census

## 6.7 Use of Internet Facility by Population 12 years and Older

Table 6.6 shows that only 2.1 percent of the population 12 years and older use the internet in the Northern region. This proportion relatively low compared with other urbanized regions such as Greater Accra and Ashanti that have embraced internet usage. The proportion of males using the internet (3.0%) is higher than that of females (1.2%) users. Persons aged 20-34 have the highest proportions of internet users. Male usage of internet facilities is slightly higher than female usage across all the age groups.

Considering the internet's potentially radical impact on education, health, agriculture and socio-economic development, it is imperative that stakeholders in the region implement strategies to close the prevailing rural-urban digital divide. Lecturers and, students in the region will benefit from the wealth of knowledge on the internet that can dramatically and positively stimulate learning, research and practice. Thus, making internet easily accessible in the region is vitally important for development

**Table 6.6: Population 12 years and older using internet by age group and sex**

Age Group	Population 12+ using internet	Population 12+ using internet (%)	Male population 12+ using internet	Male population 12+ using internet (%)	Female population 12+ using internet	Female population 12+ using internet (%)
All ages	32,128	2.1	22,507	3.0	9,621	1.2
12-14	921	0.6	555	0.7	366	0.5
15-19	4,091	1.6	2,587	1.9	1,504	1.2
20-24	7,698	3.7	4,997	5.1	2,701	2.4
25-29	6,989	3.7	4,854	6.0	2,135	2.0
30-34	4,546	2.9	3,459	5.1	1,087	1.2
35-39	2,718	2.3	2,137	3.8	581	0.9
40-44	1,666	1.6	1,308	2.6	358	0.7
45-49	1,132	1.5	871	2.3	261	0.7
50-54	977	1.5	732	2.1	245	0.8
55-59	478	1.4	384	2.1	94	0.6
60-64	304	0.7	218	0.9	86	0.4
65-69	121	0.5	85	0.7	36	0.3
70+	487	0.6	320	0.8	167	0.4

Source: 2010 Population and Housing Census

## 6.8 Population 12 Years and Older Using Internet Facilities by District and Sex

Table 6.7 shows a relatively low usage of internet facilities among the population 12 years and older in the Northern region. Except for Tamale Metropolis (64.4%), where the proportions range from 7.2 percent to 28.6 percent, the proportion of persons using internet in the remaining districts falls below 7.0 percent. With regard to sex distribution, a similar pattern of low internet facility usage is seen across all the administrative districts. However, in the Tamale Metropolis, the proportions do not differ much for both males and females in the usage of internet facilities. Usage rate for the sexes are below 10 percent in all the districts except Tamale Metropolis. Some 63 percent of all males in the region that use

internet facilities live in Tamale along with 68 percent of all females in the region that use the internet. Chereponi has the lowest internet usage rate in the region (0.6%).

**Table 6.7: Population 12 years and older using internet facilities by district and sex**

District	Total		Males		Females	
	Number	Percent	Number	Percent	Number	Percent
All Districts	32,128	100.0	22,507	100.0	9,621	100.0
Bole	373	1.2	285	1.3	88	0.9
Sawla-Tuna-Kalba	431	1.3	313	1.4	118	1.2
West Gonja	677	2.1	484	2.2	193	2.0
Central Gonja	264	0.8	195	0.9	69	0.7
East Gonja	710	2.2	526	2.3	184	1.9
Kpandai	353	1.1	216	1.0	137	1.4
Nanumba South	291	0.9	227	1.0	64	0.7
Nanumba North	869	2.7	640	2.8	229	2.4
Zabzugu Tatale	390	1.2	261	1.2	129	1.3
Yendi Municipal	2,116	6.6	1,540	6.8	576	6.0
Tamale Metropolis	20,687	64.4	14,163	62.9	6,524	67.8
Tolon Kumbungu	1,228	3.8	979	4.3	249	2.6
Savelugu Nanton	959	3.0	702	3.1	257	2.7
Karaga	239	0.7	173	0.8	66	0.7
Gushiegu	336	1.0	253	1.1	83	0.9
Saboba	286	0.9	208	0.9	78	0.8
Chereponi	191	0.6	145	0.6	46	0.5
Bunkpurugu-Yunyoo	405	1.3	285	1.3	120	1.2
Mamprusi East	572	1.8	405	1.8	167	1.7
Mamprusi West	751	2.3	507	2.3	244	2.5

Source: 2010 Population and Housing Census

## 6.9 Population 12 years and Older using Internet by Level of Education and Sex

Table 6.8 indicates clearly that internet usage increases the higher the level of education. This observation is noted in the overall proportion of population 12 years and older using internet in the region ranging from 0.3 percent for persons with no education to 56.6 percent for those with higher education. This distribution is similar for males and females. Male proportions range from 0.4 percent to 57.5 percent while female proportions range from 0.3 percent to 53.1 percent.

**Table 6.8: Population 12 years and older using internet by level of education**

Educational level	Population 12+ using internet	Population 12+ using internet (%)	Male	Males 12+	Female	Female
			population 12+ using internet	population using internet (%)	population 12+ using internet	population 12+ using internet (%)
Total	32,128	2.1	22,507	3.0	9,621	1.2
Never Attended	2,945	0.3	1,520	0.4	1,425	0.3
Primary	1,332	0.7	857	0.8	475	0.5
JHS/Middle	3,515	1.8	2,413	2.1	1,102	1.4
Secondary/SSS/SHS	7,436	6.7	5,304	7.6	2,132	5.3
Vocational /Technical/ Commercial	844	10.0	498	10.6	346	9.3
Post-middle/secondary certificate	2,889	18.8	1,839	18.2	1,050	19.8
Post-secondary diploma	6,905	33.0	4,982	33.7	1,923	31.4
Higher	6,262	56.6	5,094	57.5	1,168	53.1

Source: 2010 Population and Housing Census

## 6.10 Use of Internet by District and Locality of Residence

The proportion of the population aged 12 years and older using internet is 4.8 percent for urban areas and 2.1 for rural areas. This compares to 12.7 percent and 2.1 percent for urban and rural areas, respectively, for the entire country. There are district variations, from 0.8 percent in Karaga to 13.5 percent in Tolon Kumbungu for urban areas and 0.2 percent in East Gonja to 7.4 percent in Tamale North for rural areas (Table 6.9).

**Table 6.9: Population 12 years and older using internet by district and locality of residence**

Region/District	Urban population 12+ using internet	Urban population 12+ using internet (%)	Rural population 12+ using internet	Rural population 12+ using internet (%)
National	1,147,874	12.7	165,097	2.1
All districts	24,102	4.8	8,026	0.8
Bole	256	3.0	117	0.4
Sawla-Tuna-Kalba	125	1.3	306	0.6
West Gonja	538	2.9	139	0.4
Central Gonja	142	1.2	122	0.3
East Gonja	550	3.2	160	0.2
Kpandai	98	1.4	255	0.4
Nanumba South	128	1.2	163	0.4
Nanumba North	638	2.5	231	0.4
Zabzugu Tatale	195	0.9	195	0.4
Yendi Municipal	1,415	3.6	701	0.8
Tamale Metropolis	17,077	8.9	3,610	5.6
Tolon Kumbungu	794	13.5	434	0.7
Savelugu Nanton	573	1.6	386	0.8
Karaga	79	0.8	160	0.4
Gushiegu	189	1.1	147	0.3
Saboba	148	3.4	138	0.4
Chereponi	114	2.2	77	0.3
Bunkpurugu-Yunyoo	150	1.3	255	0.4
Mamprusi East	411	1.6	161	0.3
Mamprusi West	482	1.7	269	0.4

Source: 2010 Population and Housing Census

## 6.11 Ownership of Desktop/Laptop Computer by Household Head

Table 6.10 shows that Tamale Metropolis (69.7%), Tamale Central (28.5%) and Tamale North (33.7%) have the highest proportions of households owning desktop or laptop computers. Karaga, Gushiegu, Saboba, Chereponi, Zabzugu Tatale, Nanumba South and Central Gonja have less than 1.0 percent of households owning desktop or laptop computers. There are more households headed by males that own desktop/laptop computers than households with female heads.

**Table 6.10: Households owning desktop or laptop by district and sex of household head,**

Region/District	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
All districts	9,312	100	7,459	100	1,853	100
Bole	237	2.5	192.0	2.6	45.0	2.4
Sawla-Tuna-Kalba	122	1.3	103.0	1.4	19.0	1.0
West Gonja	220	2.4	186.0	2.5	34.0	1.8
Central Gonja	59	0.6	50.0	0.7	9.0	0.5
East Gonja	196	2.1	168.0	2.3	28.0	1.5
Kpandai	97	1.0	84.0	1.1	13.0	0.7
Nanumba South	61	0.7	55.0	0.7	6.0	0.3
Nanumba North	232	2.5	194.0	2.6	38.0	2.1
Zabzugu Tatale	84	0.9	76.0	1.0	8.0	0.4
Yendi Municipal	323	3.5	273.0	3.7	50.0	2.7
Tamale Metropolis	6,492	69.7	5075.0	68.0	1417.0	76.5
Tolon Kumbungu	180	1.9	160.0	2.1	20.0	1.1
Savelugu Nanton	239	2.6	202.0	2.7	37.0	2.0
Karaga	33	0.4	27.0	0.4	6.0	0.3
Gushiegu	62	0.7	56.0	0.8	6.0	0.3
Saboba	86	0.9	70.0	0.9	16.0	0.9
Chereponi	63	0.7	56.0	0.8	7.0	0.4
Bunkpurugu-Yunyoo	123	1.3	97.0	1.3	26.0	1.4
Mamprusi East	192	2.1	168.0	2.3	24.0	1.3
Mamprusi West	211	2.3	167.0	2.2	44.0	2.4

Source: 2010 Population and Housing Census

# **CHAPTER SEVEN**

## **EDUCATION AND LITERACY**

### **7.1 Introduction**

The bedrock of every developing society is to have a continuous system of constant training and instruction for the development of the mind and character of its inhabitants. In general, education contributes to the process of moulding attitudinal skills and developing technical skills and also increases the ability to understand and respond to new ideas.

Education can be formal or non-formal but both play equal roles in the upbringing of an individual, which to a large extent leads to the development of the nation as a whole. It is a key policy of every government to provide adequate resources and an environment that is safe for learning and training its future human resources.

This chapter analyses data from the 2010 Population and Housing Census on key characteristics of education and literacy. These include literacy levels by district, age, sex and locality of residence; age-sex specific literacy rate among heads of households; school attendance (past and current) of the population six years and older by sex, district and locality of residence; and educational attainment of the population 15 years and older.

### **7.2 Literacy**

The 2010 census classifies a literate person as someone who can read and write a simple statement with understanding. If a person can only read but cannot write or can write but cannot read, he or she cannot be considered as literate.

Table 7.1 shows literacy levels for persons 11 years and older by district. It is observed that in the region as a whole, 62.5 percent of the population are not literate in any language. About 19.2 percent are literate in English and a Ghanaian language, 16.3 percent in English only and 1.5 percent in a Ghanaian language only. Less than 1 percent can speak and write English and French (0.1%) and English, French and a Ghanaian language (0.1%).

About 40.0 percent of the population in Tamale Metropolis is not literate in any language, while the proportion is more than 50 percent in the rest of the districts. Bunkpurugu-Yunyoo has the highest proportion (31.5%) of persons who are literate in English language only, while Gushiegu (4.1%) have the lowest proportion. About one third of the population in Tamale Metropolis (34.4%) is literate in English and a Ghanaian language, the highest proportion among all the districts.

**Table 7.1: Literacy levels of persons 11 years and older by district**

	Number	Percent	None (Not literate)	English only	A Ghanaian language only	English and a Ghanaian language	English and French	English, French and a Ghanaian Language	Other
Northern	1,571,044	100	62.8	16.3	1.5	19.2	0.1	0.1	0.0
Bole	40,408	100	58.4	25.8	0.8	14.7	0.1	0.2	0.0
Sawla-Tuna-Kalba	62,280	100	68.9	18.4	1.1	11.6	0.0	0.0	0.0
West Gonja	54,067	100	61.1	19.0	1.1	18.8	0.0	0.0	0.0
Central Gonja	54,723	100	71.3	12.5	2.0	14.2	0.1	0.0	0.0
East Gonja	87,816	100	67.3	16.1	2.0	14.6	0.0	0.0	0.0
Kpandai	67,292	100	63.4	25.7	1.6	9.0	0.1	0.1	0.0
Nanumba South	56,812	100	67.5	15.4	2.0	14.9	0.1	0.1	0.0
Nanumba North	85,448	100	66.2	10.6	1.4	21.7	0.0	0.0	0.0
Zabzugu-Tatale	77,053	100	67.5	17.1	1.4	13.8	0.1	0.1	0.0
Yendi Municipal	125,124	100	68.7	6.7	1.8	22.6	0.1	0.1	0.0
Tamale Metropolis	262,943	100	39.9	24.7	1.0	34.0	0.1	0.3	0.0
Tolon-Kumbungu	70,414	100	73.8	4.5	2.2	19.3	0.0	0.1	0.0
Savelugu-Nanton	87,776	100	69.4	8.5	1.9	20.1	0.0	0.0	0.0
Karaga	46,331	100	78.1	4.8	1.7	15.3	0.0	0.0	0.0
Gushiegu	66,527	100	79.7	4.1	1.5	14.6	0.0	0.0	0.0
Saboba	39,645	100	62.4	23.7	1.7	12.1	0.1	0.0	0.0
Chereponi	31,150	100	70.5	21.1	1.0	7.3	0.1	0.1	0.0
Bunkpurugu- Yunyoo	76,885	100	56.1	31.5	1.4	10.8	0.1	0.1	0.0
Mamprusi East	73,993	100	67.0	16.4	1.0	15.4	0.0	0.1	0.0
Mamprusi West	104,357	100	65.1	13.3	1.3	20.2	0.0	0.0	0.0

Source: 2010 Population and Housing Census

Literacy levels by district and locality of residence is presented in Table 7.2. As expected, there are differences among the proportions of literate and non-literate people across all districts. The proportion of non-literate people is higher in rural areas than in urban areas. The highest proportion of urban literate persons is found in Tamale Metropolis (48.4%) and the lowest proportion is in Tolon Kumbungu (4.3%). Table 7.2 also shows that overall, a higher proportion of rural people (18.9%) aged 11 and older is literate than the proportion of people of the same age spread in urban areas (18.3%). The difference is most pronounced in Kpandai District where 29.7 percent of rural people are literate compared with 6.7 percent of urban people, and in Tolon Kumbungu District (21.9% against 4.3%).

**Table 7.2: Literacy levels of persons 11 years and older by district and locality of residence**

Districts	Number	Not Literate			Literate		
		Total %	Urban %	Rural %	Total %	Urban %	Rural %
Bole	40,408	58.4	8.2	50.2	41.6	13.6	28.0
Sawla-Tuna-Kalba	62,280	68.9	6.3	62.6	31.1	9.5	21.6
West Gonja	54,067	61.1	14.2	46.9	38.9	21.1	17.8
Central Gonja	54,723	71.3	10.3	61.0	28.7	11.3	17.4
East Gonja	87,816	67.3	8.9	58.4	32.7	11.5	21.2
Kpandai	67,292	63.4	4.3	59.1	36.6	6.7	29.7
Nanumba South	56,812	67.5	10.0	57.5	32.5	9.3	23.2
Nanumba North	85,448	66.2	15.6	50.6	33.8	15.8	18.0
Zabzugu-Tatale	77,053	67.5	14.2	53.3	32.5	13.3	19.2
Yendi Municipal	125,124	68.7	16.4	52.3	31.3	15.7	15.6
Tamale Metropolis	262,943	39.9	26.5	13.4	60.1	48.4	11.7
Tolon Kumbungu	70,414	73.8	4.2	69.6	26.2	4.3	21.9
Savelugu Nanton	87,776	69.4	25.7	43.7	30.6	14.9	15.7
Karaga	46,331	78.1	14.5	63.6	21.9	6.5	15.3
Gushiegu	66,527	79.7	16.9	62.8	20.3	9.3	11.0
Saboba	39,645	62.4	3.0	59.4	37.6	8.4	29.2
Chereponi	31,150	70.5	7.4	63.1	29.5	9.7	19.8
Bunkpurugu-Yunyoo	76,885	56.1	5.6	50.5	43.9	10.3	33.6
Mamprusi East	73,993	67.0	16.8	50.2	33.0	18.4	14.6
Mamprusi West	104,357	65.1	14.2	50.9	34.9	13.6	21.3
All Districts	1,571,044	62.8	14.6	48.2	37.2	18.3	18.9

Source: 2010 Population and Housing Census

### 7.3 Age-Specific Literacy Rates among Literate Heads of Household

Table 7.3 shows age-specific literacy rates among literate heads of household. The region recorded an overall literacy rate of 4.9 percent, substantially lower than the national figure of 21.9 percent. Literacy rates in general increase by age group from 0.5 percent for the 11-19 year group to 10.7 percent for 50-59 year group and decline to 3.4 percent for 70-99 year group. With respect to differences by sex, age-specific literacy rates are higher for male heads of household (31.7%) than for female heads of the same category (12.9%).

**Table 7.3: Age-specific literacy rate among literate heads of households 11 years and older**

Age group	Population 11 years +			Literate heads			Age specific literacy rates (%)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
National	17,392,855	8,330,530	9,062,325	3,803,791	2,636,861	1,166,930	21.9	31.7	12.9
11-19	4,794,419	2,415,741	2,378,678	76,593	43,907	32,686	1.6	1.8	1.4
20 - 29	4,373,602	2,043,940	2,329,662	800,464	516,773	283,691	18.3	25.3	12.2
30 - 39	3,100,212	1,467,069	1,633,143	1,064,002	770,193	293,809	34.3	52.5	18.0
40 - 49	2,124,448	1,025,595	1,098,853	830,547	591,210	239,337	39.1	57.6	21.8
50 - 59	1,356,793	653,182	703,611	582,670	394,633	188,037	42.9	60.4	26.7
60 - 69	769,720	363,294	406,426	272,422	192,759	79,663	35.4	53.1	19.6
70 - 99	873,661	361,709	511,952	177,093	127,386	49,707	20.3	35.2	9.7
Northern region	1,571,044	766,724	804,320	76,448	64,693	11,755	4.9	8.4	1.5
11-19	464,131	245,777	218,354	2,165	1,453	712	0.5	0.6	0.3
20 - 29	398,096	179,817	218,279	16,352	12,609	3,743	4.1	7.0	1.7
30 - 39	276,309	124,476	151,833	23,158	20,274	2,884	8.4	16.3	1.9
40 - 49	177,468	87,699	89,769	16,592	14,451	2,141	9.3	16.5	2.4
50 - 59	100,127	52,625	47,502	10,733	9,317	1,416	10.7	17.7	3.0
60 - 69	70,103	35,059	35,044	4,555	4,068	487	6.5	11.6	1.4
70 - 99	84,810	41,271	43,539	2,893	2,521	372	3.4	6.1	0.9

Source: 2010 Population and Housing Census

## 7.4 School Attendance (Past and Present)

Table 7.4 shows the population aged six years and older who have ever attended school. In all the districts except three, Bole (47.9%), Tamale Metropolis (27.7%) and Bunkpurugu-Yunyoo (38.4%), more than 50 percent of the male population has never been to school. The proportion of females that has never been to school remains higher than that of males. The highest level of education attained in all the districts by the greatest proportion of both sexes is primary school. The proportions range from 19.1 percent in Gushiegu to 33.5 percent in Bunkpurugu-Yunyoo for males and from 15.2 percent in Gushiegu to 28.1 percent in Bunkpurugu-Yunyoo. The proportion of males reaching Middle School/JHS/JSS level, which is the second highest educational level attained by a significant proportion of people in the districts, ranges from 5.5 percent in Gushiegu to 18.9 percent in Tamale Metropolis. The female proportions vary from 3.1 percent in Gushiegu to 14.9 percent in Tamale Metropolis. The disparity between males and females increases with higher levels of educational attainment.

**Table 7.4: Population 6 years and older by sex, level of education and district**

	Total	Never attended		Nursery		Kindergarten		Primary		JSS/JHS		Middle			
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
All Districts	1,966,725	970,007	996,718	50.5	62.5	0.9	0.8	1.2	1.2	24.4	21.5	10.2	7.6	1.6	0.7
Bole	49,973	25,023	24,950	47.9	57.0	1.3	1.2	1.5	1.6	24.4	23.6	12.0	10.0	2.3	1.1
Sawla-Tuna- Kalba	80,235	38,238	41,997	37.7	68.5	0.7	0.6	1.3	1.2	25.2	20.8	8.0	5.7	0.9	0.4
West Gonja	67,937	33,682	34,255	51.8	60.0	0.8	0.7	0.9	1.0	22.8	21.4	11.0	9.8	1.4	0.8
Central Gonja	69,235	34,381	34,854	61.1	68.0	0.5	0.6	2.1	1.9	20.9	19.4	8.3	6.8	1.5	0.7
East Gonja	110,005	56,480	53,525	57.4	64.5	0.7	0.7	1.2	1.3	22.1	20.8	9.2	7.8	1.8	0.8
Kpandai	85,627	43,223	42,404	52.0	62.2	0.9	0.9	1.7	1.6	25.7	24.0	10.2	7.8	2.3	1.0
Nanumba South	72,620	36,202	36,418	55.0	66.5	0.5	0.6	1.4	1.3	24.5	21.8	9.1	6.1	1.0	0.0
Nanumba North	109,369	53,685	55,684	53.1	64.7	0.5	0.5	1.0	1.1	23.8	21.2	9.9	7.3	0.9	0.3
Zabzugu-Tatale	97,948	47,887	50,061	56.4	65.8	0.6	0.5	1.2	1.1	23.8	21.4	8.9	6.8	0.8	0.3
Yendi	156,718	77,566	79,152	56.3	68.7	0.6	0.6	0.8	0.7	22.1	19.3	8.6	6.0	1.2	0.4
Tamale Metro	308,381	153,839	154,542	27.7	43.0	1.4	1.2	0.9	1.0	24.5	23.2	15.1	12.8	3.8	2.1
Tolon Kumbungu	87,828	43,783	44,045	60.4	739.0	0.9	0.7	0.7	0.7	22.0	17.7	7.6	4.4	0.6	0.1
Savelugu Nanton	108,729	52,155	56,574	52.1	70.3	1.5	1.2	1.2	1.0	25.6	18.6	10.5	5.7	1.1	0.3
Karaga	59,404	28,320	31,084	63.4	74.1	1.0	0.7	1.6	1.5	23.6	18.7	5.4	3.1	0.4	0.1
Gushiegu	85,174	41,385	43,789	68.1	78.0	0.8	0.7	0.8	0.8	19.1	15.2	4.8	2.9	0.7	0.2
Saboba	51,144	25,012	26,132	50.0	61.8	0.6	0.7	1.4	1.4	27.4	24.4	10.2	7.6	0.7	0.3
Chereponi	40,900	19,910	20,990	56.9	68.2	0.7	0.6	1.3	1.1	25.3	21.0	7.8	5.6	0.9	0.3
Bunkpurugu-Yunyoo	98,438	48,127	50,311	38.4	5.8	0.5	0.4	1.9	1.7	33.5	28.1	13.4	9.2	1.9	0.4
Mamprusi East	95,061	46,248	48,813	54.8	64.4	0.4	0.3	1.4	1.3	25.0	22.1	9.5	7.2	1.1	0.5
Mamprusi West	131,999	64,861	67,138	51.8	61.2	1.0	1.0	1.7	1.4	26.8	23.8	9.8	7.8	1.1	0.5

**Table 7.4: Population 6 years and older by sex, level of education and district, (contd)**

	SSS/SHS		Secondary		Vocational/ Technical /Commercial		Post- middle / secondary certificate		Post- secondary diploma		Bachelor's degree		Postgraduate (Cert. Diploma Masters PHD etc.)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Districts	6.5	3.7	0.8	0.3	0.5	0.4	1.0	0.5	1.5	0.6	0.8	0.2	0.1	0.0
Bole	6.2	3.7	0.9	0.3	0.6	0.4	1.0	0.6	1.2	0.4	0.6	0.1	0.1	0.0
Sawla-Tuna- Kalba	3.9	1.9	0.4	0.1	0.3	0.3	0.6	0.2	0.7	0.2	0.2	0.0	0.0	0.0
West Gonja	6.4	4.1	0.7	0.3	0.5	0.4	1.3	0.7	1.7	0.5	0.6	0.1	0.1	0.0
Central Gonja	3.4	1.9	0.5	0.1	0.3	0.2	0.6	0.2	0.6	0.1	0.2	0.0	0.0	0.0
East Gonja	4.6	2.9	0.7	0.4	0.3	0.2	0.7	0.3	0.8	0.3	0.3	0.1	0.1	0.0
Kpandai	4.7	2.1	0.6	0.2	0.2	0.1	0.7	0.2	0.6	0.2	0.2	0.0	0.0	0.0
Nanumba South	6.3	2.7	0.4	0.2	0.1	0.1	0.6	0.2	0.8	0.2	0.2	0.0	0.0	0.0
Nanumba North	6.9	3.9	0.9	0.3	0.2	0.1	1.2	0.4	1.0	0.3	0.4	0.0	0.1	0.0
Zabzugu-Tatale	6.3	3.4	0.5	0.2	0.2	0.1	0.6	0.2	0.5	0.1	0.2	0.0	0.0	0.0
Yendi	6.9	3.3	0.8	0.2	0.3	0.2	0.9	0.3	1.1	0.3	0.3	0.0	0.1	0.0
Tamale Metro	12.3	8.8	1.8	0.7	1.5	1.3	2.3	1.9	5.2	2.8	2.8	1.0	0.6	0.1
Tolon Kumbungu	4.2	1.6	0.3	0.1	0.2	0.1	0.4	0.1	0.8	0.1	1.8	0.4	0.0	0.0
Savelugu Nanton	5.1	2.0	0.6	0.2	0.3	0.2	1.0	0.3	0.7	0.2	0.3	0.0	0.1	0.0
Karaga	3.4	1.5	0.3	0.1	0.1	0.0	0.3	0.1	0.4	0.0	0.2	0.0	0.0	0.0
Gushiegu	3.9	1.7	0.4	0.1	0.1	0.1	0.5	0.1	0.6	0.1	0.2	0.0	0.0	0.0
Saboba	5.3	2.4	0.5	0.2	1.4	0.6	1.2	1.4	0.9	0.1	0.4	0.0	0.1	0.0
Chereponi	5.0	2.6	0.4	0.1	0.1	0.1	0.6	0.2	0.7	0.2	0.3	0.0	0.1	0.0
Bunkpurugu-Yunyoo	7.0	3.6	0.6	0.2	0.3	0.2	1.2	0.2	0.9	0.2	0.3	0.0	0.0	0.0
Mamprusi East	4.9	2.9	0.6	0.3	0.4	0.2	1.0	0.4	0.7	0.2	0.3	0.0	0.1	0.0
Mamprusi West	5.3	3.2	0.5	0.2	0.2	0.2	0.7	0.3	0.7	0.2	0.3	0.0	0.0	0.0

Source: 2010 Population and Housing Census

# **CHAPTER EIGHT**

## **FERTILITY, MORTALITY AND MIGRATION**

### **8.1 Introduction**

Population change is brought about by three variables of demographic change (meaning an increase or decrease in population size), namely, fertility, mortality and migration. The composition of the population is significant for development planning and policy formulation at all levels (national, regional, district and locality) of governance. International migration describes movements between countries while internal or domestic migration describes movements within the same country or state.

### **8.2 Fertility**

This section looks at a number of fertility indicators including current fertility levels, trends and differentials; age pattern and mean age at first birth. The analysis is based on the birth histories of women age 15-49. Information on fertility indicators is necessary for planning of social development programmes in the region and districts.

#### **8.2.1 Definition of Measures**

Fertility refers to the actual birth performance i.e. frequency or childbearing among a population and fecundity denotes the physiological capacity of a woman, man or couple to reproduce. Two types of fertility data were collected: lifetime fertility and current fertility. Lifetime fertility refers to the total number of live births females 12 years and older have ever given birth to during their life time (children ever born). Current fertility refers to the number of live births that females 12-54 years old have in the 12 months preceding the Census Night.

The crude birth rate (CBR) is defined as the number of births in a given year divided by the number of people in the population in the middle of that year. The general fertility rate (GFR) is the number of births in a given year divided by the mid-year population of women in the age groups 15-44 and 15-49. This analysis used women between 15 and 49 years because women still have births after age 45. An age specific fertility rate (ASFR) is defined as the number of births to women of a given age group per 1,000 women in that age group. It is usually calculated for 5-year age groups from 15-19 years to 45-49 years. The total fertility rate (TFR) which is widely used in the analysis is the average number of live births among 1,000 women exposed throughout their childbearing years (15-49 years) to the schedule of a given set of age specific fertility rates, assuming no women died during the childbearing years. In other words, it is the average number of children a woman will have given birth by the end of her reproductive years if current fertility rates prevailed.

## 8.2.2 Age-Specific Fertility Rates

Table 8.1 shows the age-specific fertility rate for the region. The data show that the fertility rate increases by age from 0.03 in the 15-19 year age group and reaches a peak of 0.15 in the two age groups 25-29 and 30-34 year age groups, and then declines to 0.05 in the 45-49 year age group. The results show that in the Northern region, a woman who begins childbearing at the age of 15 years will on the average give birth to three children by the end of her reproductive years (at the age of 49 years).

The total fertility rate (TFR) is for the Northern region is 3.5 while the general fertility rate (GFR) is approximately 102. The GFR means that for every 1,000 women in the population, there are 102 births. The table also shows a crude birth rate (CBR) for Ghana as 24.4 per 1,000 population for the period under review.

**Table 8.1: Age-specific fertility rates, total fertility rate, general fertility rate and crude birth rate by locality**

Age	Total	Urban	Rural
15 - 19	0.03	0.02	0.03
20 - 24	0.11	0.08	0.12
25 - 29	0.15	0.13	0.16
30 - 34	0.15	0.13	0.15
35 - 39	0.14	0.12	0.15
40 - 44	0.09	0.08	0.10
45 - 49	0.05	0.03	0.06
TFR	3.5	2.9	3.9
GFR	101.9	82.8	111.3
CBR	24.0	13.0	34.8

Source: GSS, 2010 Population and Housing Census

## 8.2.3 Fertility at the District Level

There are variations in fertility across the districts and the unadjusted figures are presented in Table 8.2. West Gonja, Kpandai, Savelugu Nanton and Chereponi Districts recorded the highest FFR of 4.3 in the Region. The districts with the highest general fertility rate and crude birth rate are Saboba (128.9) and Savelugu Nanton (30.9) respectively. The lowest TFR (2.9) can be found in Zabzugu Tatale and Karaga.

**Table 8.2: Total fertility, general fertility rate and crude birth rate by district**

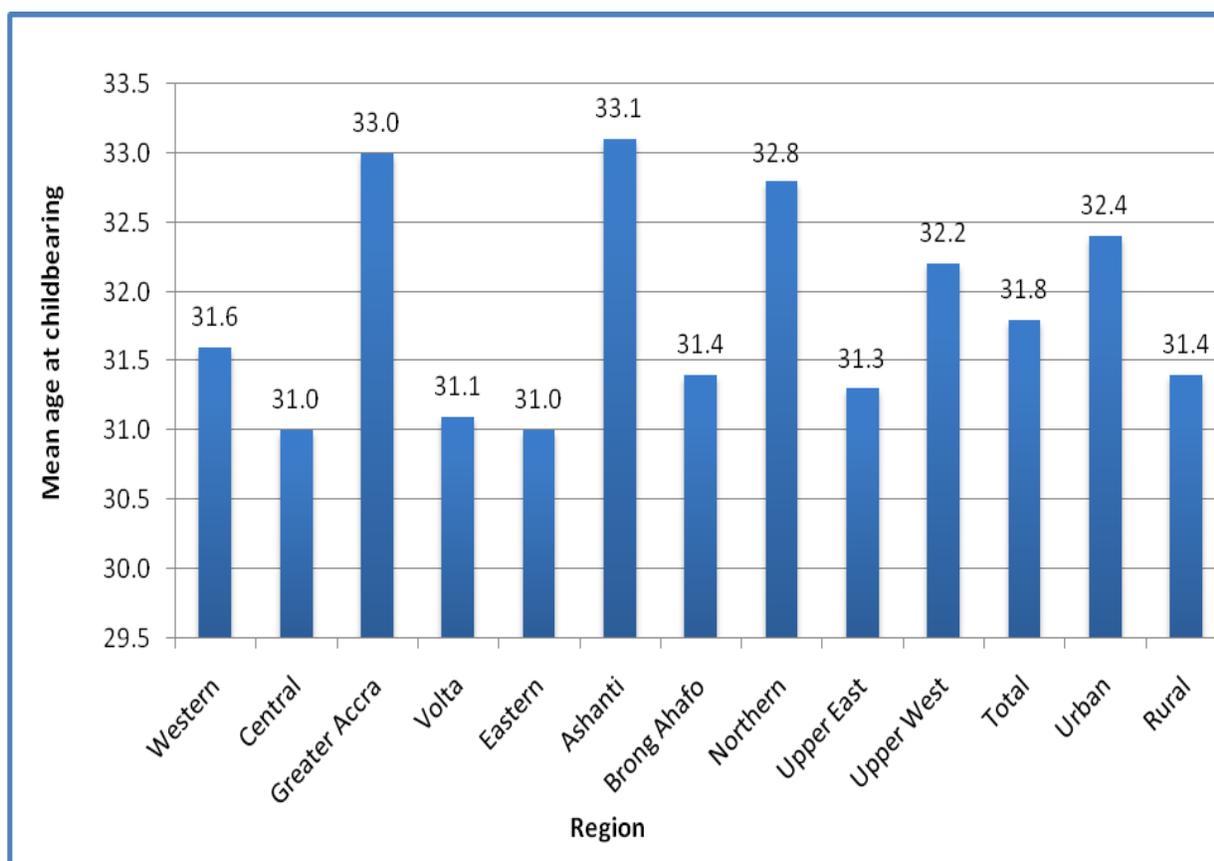
District	Population	Number of women aged 15-49	Births in the last 12 months	TFR	GFR	CBR
All Districts	2,479,461	582,897	59,391	3.5	101.9	24.0
Bole	61,593	14,471	1,663	3.8	114.9	27.0
Sawla-Tuna-Kalba	99,863	22,207	2,230	3.6	100.4	22.3
West Gonja	84,727	19,741	2,273	4.3	115.1	26.8
Central Gonja	87,877	20,555	2,086	3.6	101.5	23.7
East Gonja	135,450	31,216	3,071	3.6	98.4	22.7
Kpandai	108,816	24,066	2,959	4.3	123.0	27.2
Nanumba South	93,464	21,210	2,542	4.2	119.8	27.2
Nanumba North	141,584	32,246	3,143	3.4	97.5	22.2
Zabzugu Tatale	123,854	29,699	2,323	2.9	78.2	18.8
Yendi Municipal	199,592	46,498	4,290	3.2	92.3	21.5
Tamale Metropolis	371,351	97,889	8,322	3.0	85.0	22.4
Tolon Kumbungu	112,331	25,879	2,505	3.3	96.8	22.3
Savelugu Nanton	139,283	33,942	4,300	4.3	126.7	30.9
Karaga	77,706	18,666	1,621	2.9	86.8	20.9
Gushiegu	111,259	26,349	2,868	3.7	108.8	25.8
Saboba	65,706	14,519	1,871	4.2	128.9	28.5
Chereponi	53,394	11,652	1,495	4.3	128.3	28.0
Bunkpurugu-Yunyoo	122,591	26,725	2,893	3.8	108.3	23.6
East Mamprusi	121,009	27,145	2,785	3.6	102.6	23.0
West Mamprusi	168,011	38,222	4,151	3.7	108.6	24.7

Source: 2010 Population and Housing Census

#### 8.2.4 Mean Age at Childbearing

The age at which childbearing begins has important demographic consequences for a society as a whole as well as for the health and welfare of the mother and child. Age at first birth influences the overall level of fertility in a population. Thus, early childbearing normally leads to a larger family size than late childbearing. Keeping young women in school for longer periods raises the age at which they are due for marriage and also delays their childbearing, thereby leading to a decrease in fertility. Figure 8.1 shows the mean age of childbearing in Ghana in 2010. The Northern region (32.8) has the third highest mean age of childbearing in Ghana.

**Figure 8.1: Mean age at childbearing**



Source: Computed from 2010 Population and Housing Census data

### **8.2.5 Children ever born (CEB) and Mean Children ever born**

The children ever born (CEB) and mean children ever born, by age and locality of residence are shown in Table 8.3. The mean number of children ever born is 5.6, while in the locality of residence, the rural mean (5.8) is higher than the urban mean (5.2). The age-specific mean number of children ever born highlights the differences in fertility behaviour at different ages. It increases with age from 1.7 for women 15-19 years old to 7.5 for women aged 50-54 years old. Child bearing in the region starts early, between ages 12 and 14 years with the mean number of children ever born being 1.3. Mean CEB at ages 12-14 is higher in urban (1.4) areas than in rural areas (1.3) but for the rest of the age groups the rural mean CEB is higher than the urban mean.

**Table 8.3: Children ever born and mean children ever born by age and locality**

Age group	Total		Urban		Rural	
	Children ever born		Children ever born		Children ever born	
	Total	Mean	Total	Mean	Total	Mean
Total	1,606,954	5.6	444,587	5.2	1,162,367	5.8
12 – 14	560	1.3	134	1.4	426	1.3
15 - 19	16,365	1.7	3,822	1.6	12,543	1.7
20 - 24	105,908	2.6	24,665	2.3	81,243	2.7
25 - 29	224,390	3.7	56,162	3.2	168,228	3.8
30 - 34	301,592	4.9	79,002	4.4	222,590	5.1
35 - 39	286,092	5.9	80,041	5.3	206,051	6.1
40 - 44	282,325	6.7	80,383	6.1	201,942	7.0
45 - 49	200,311	7.2	61,100	6.7	139,211	7.4
50 - 54	189,411	7.5	59,278	7.1	130,133	7.7

Source: Computed from 2010 Population and Housing Census data

## 8.3 Mortality

Mortality is about the process of death and changes that occur in the population structure as a result. Data on mortality are used as benchmarks to determine the health status and growth potential of the population. It is also used in the computation of population projections and also to the prevailing patterns of various causes of deaths.

### 8.3.1 Definition of Concepts

The mortality estimates used in this chapter are childhood and maternal mortality ratio and rate, crude death rate, infant death rate, age-specific death rate and life expectancy at birth.

Childhood mortality measures the risk of dying from birth to exact age five years. The specific measures considered are infant, child and under-five mortality rates (in years).

- **Infant Mortality ( ${}_1q_0$  or  $q_1$ )** is the probability of dying between birth and age one. This is expressed per 1,000 live births
- **Child Mortality ( ${}_4q_1$  or  $q_4$ )** is the probability of dying between age one and five.
- **Under-five Mortality ( ${}_5q_0$  or  $q_5$ )** is a combination of infant and child mortality and is defined as the probability of dying between birth and exact age five. The rate is expressed per 1,000 children.
- **Maternal Mortality Ratio** is defined as the number of deaths due to pregnancy related causes (puerperal causes) per 100,000 live births.
- **Maternal Mortality Rate** relates the number of deaths due to pregnancy related causes to the number of women of the child-bearing age group (15-49 years). The death due to

pregnancy related causes must occur whilst pregnant, during delivery, or within six weeks after the end of the pregnancy or childbirth.

- **Infant Death Rate** is the number of deaths to infants in a given year per total live births in that same year.

### 8.3.2 Mortality Trends

The estimated under-5 mortality values for the Northern region in Table 8.4 show a progressive decline in under-5 mortality amounting to 42 percent for the period from 2000 to 2010. Although the rate has been decreasing in the region, under-5 mortality is still quite high compared with all other regions of Ghana except the Upper East.

**Table 8.4: Under-5 mortality rate, by region and reference period**

Region	q(5)*	Reference Period	q(5)**	Reference Period	q(5)***	Reference Period	q(5)****	Reference Period
Western	161	1992-1996	106	1995-1999	65	2001-2006	82	2002-2006
Central	163	1992-1996	102	1996-2000	106	2001-2006	94	2002-2006
G/Accra	152	1992-1996	113	1998-2000	56	2003-2007	72	2003-2007
Volta	174	1992-1996	129	1997-2001	57	2002-2006	87	2002-2006
Eastern	144	1992-1996	94	1996-2000	88	2001-2006	75	2002-2006
Ashanti	146	1992-1996	116	1996-2000	79	2002-2007	80	2003-2007
B/Ahafo	164	1992-1996	95	1994-2000	86	2003-2007	87	2003-2007
Northern	199	1992-1996	148	1994-1999	139	2002-2006	116	2002-2006
U/West	226	1992-1996	191	1995-2000	90	2001-2006	117	2003-2007
U/East	179	1992-1996	96	1997-2000	146	2001-2006	128	2003-2007

Sources: GSS, 2010 PHC, National Analytical Report, p. 188

\*2000 Census \*\* DHS 2003, \*\*\*2008 and \*\*\*\*2010 Census

### 8.3.3 Infant and under five Mortality Rates by District

There are variations in the infant and child mortality rates among the districts. Table 8.5 shows that the incidence of deaths of infants (children under 1) ranges from 59 per 1,000 live births in East Gonja District to 87 deaths per 1,000 live births in Tolon Kumbungu and Chereponi districts. With regard to under-5 mortality, Savelugu Nanton experienced the highest deaths (149 per 1,000 live births) and Central Gonja the lowest (88 deaths per 1,000 live births).

**Table 8.5: Infant\* and Under-5 mortality\* by district and reference period**

Districts	Infant mortality	Under-5 mortality	Reference Period
All Districts	73	116	2002.3-2006.8
Bole	80	127	2002.2-2006.6
Sawla-Tuna-Kalba	82	131	2002.8-2007.1
West Gonja	68	105	2002.1-2006.7
Central Gonja	58	88	2002.0-2006.8
East Gonja	59	89	2000.2-2007.0
Kpandai	62	95	2002.1-2006.9
Nanumba South	65	101	2001.8-2006.6
Nanumba North	65	100	2002.0-2006.7
Zabzugu-Tatale	63	97	2002.6-2006.9
Yendi	79	126	2002.0-2006.7
Tamale Metropolis	74	116	2003.3-2007.2
Tolon Kumbungu	87	140	2002.5-2006.9
Savelugu Nanton	92	149	2002.0-2006.6
Karaga	86	138	2001.4-2006.4
Gushiegu	84	135	2001.4-2006.3
Saboba	69	108	2002.1-2006.9
Chereponi	87	140	2002.3-2006.8
Bunkpurugu-Yunyoo	75	118	2003.0-2007.1
Mamprusi East	63	97	2001.9-2006.6
Mamprusi West	75	117	2002.4-2006.7

\*Per 1,000 live births

Source: GSS, 2010 Population and Housing Census

## 8.4 Migration

Migration involves movement from one place to another, from one administrative area to another and it takes place between two points in time. Birthplace and place of current residence during the census is therefore an important variable in determining the pattern of movement. Movement of persons from one area leads to a reduction in the size of the population in that area whilst it results in an increase in the size of the population in the place of destination. Migration can take place within different age groups and sex, by educational level, occupations and by other socio-economic reasons. The social and economic development of the Northern region can be impacted by the pattern of migration in the region.

### **8.4.1 Internal Migration**

The movement of people within the region from one locality to another is referred to as intra-regional and this takes place internally in the region. In situations where the movement people are between Northern region and other regions, it is known as inter-regional migration.

Table 8.6 shows population by District and birth place. In 2010, more than three-quarters (86.0%) of all persons in Northern region were born in the same locality in which they were enumerated. A further 8.9 percent were born in a different locality but in the same region. Altogether 94.9 percent of persons were born in the region, 4.1 percent in other regions of Ghana and 1.0 percent outside Ghana.

The locality of birth varies across the districts. In all districts except Bole (67.3%), more than three-quarter of the population were born in the same locality. About a fifth of the population in Bole district was born outside the region. This implies that Bole district has a high proportion of in-migrant population. A little over two percent of the population in Saboba (2.2%), Bole (2.1%), and Gonja Central (2.1%) were born in other ECOWAS countries.

**Table 8.6: Population by district and birthplace**

Birthplace	Population	Born outside Region	Same locality	Different locality in this region												Other ECOWAS	African, other than ECOWAS	Outside Africa
					Western	Central	Greater Accra	Volta	Eastern	Ashanti	Brong Ahafo	Upper East	Upper West					
Total	2,479,461	5.1	86.0	8.9	0.1	0.2	0.3	0.7	0.1	0.6	0.5	0.7	0.9	1.0	0.0	0.0		
Bole	61,593	23.4	67.3	9.3	0.3	0.1	0.3	0.5	0.2	1.5	2.9	0.7	14.8	2.1	0.1	0.0		
Sawla-Tuna-Kalba	99,863	8.2	85.9	5.9	0.3	0.0	0.1	0.1	0.1	0.9	0.4	0.2	4.8	1.2	0.0	0.0		
West Gonja	84,727	6.7	86.9	6.5	0.0	0.1	0.1	0.2	0.1	0.4	0.4	1.1	2.4	1.8	0.0	0.0		
Gonja Central	87,877	8.3	76.8	14.9	0.1	0.3	0.3	2.3	0.1	0.5	1.0	0.5	1.1	2.1	0.1	0.0		
East Gonja	135,450	8.0	85.5	6.5	0.1	0.8	0.7	2.3	0.2	0.5	0.8	0.4	1.0	1.2	0.0	0.0		
Kpandai	108,816	6.4	86.4	7.1	0.0	0.5	0.5	3.2	0.1	0.3	0.5	0.1	0.1	1.0	0.0	0.0		
Nanumba South	93,464	2.3	91.3	6.4	0.0	0.0	0.1	1.1	0.0	0.2	0.3	0.1	0.0	0.5	-	0.0		
Nanumba North	141,584	2.0	90.8	7.2	0.0	0.0	0.1	0.5	0.1	0.2	0.4	0.2	0.0	0.5	0.0	0.0		
Zabzugu Tatali	123,854	2.2	93.7	4.2	0.0	0.0	0.1	0.4	0.1	0.5	0.2	0.1	0.0	0.7	0.0	0.0		
Yendi Municipal Tamale	199,592	2.5	87.0	10.5	0.0	0.1	0.1	0.4	0.1	0.2	0.2	0.2	0.1	0.9	0.0	0.0		
Metropolis	371,351	8.5	80.4	11.1	0.3	0.3	0.9	0.8	0.4	1.4	0.9	2.0	0.9	0.5	0.0	0.0		
Tolon Kumbugu Savelugu	112,331	2.0	84.6	13.4	0.1	0.1	0.2	0.1	0.1	0.4	0.3	0.4	0.2	0.2	0.0	0.0		
Nanton	139,283	3.6	79.5	16.9	0.2	0.0	0.3	0.2	0.1	0.4	0.2	1.0	0.1	1.1	0.0	0.0		
Karaga	77,706	3.1	85.6	11.3	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.8	0.1	1.5	0.0	0.0		
Gushiegu	111,259	2.4	86.5	11.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4	0.0	1.5	0.0	0.0		
Saboba	65,706	4.0	81.9	14.0	0.0	0.1	0.1	0.5	0.1	0.2	0.5	0.1	0.1	2.2	0.0	0.0		
Chereponi Bunkpurugu Yonyo	53,394	3.0	94.4	2.6	0.0	0.0	0.0	0.4	0.1	0.3	0.1	0.1	0.1	1.9	0.0	0.0		
Yonyo	122,591	2.3	91.8	5.9	0.0	0.0	0.1	0.0	0.1	0.8	0.2	0.4	0.0	0.6	0.0	0.0		
Mamprusi East	121,009	2.6	92.6	4.8	0.0	0.0	0.1	0.1	0.0	0.5	0.1	1.1	0.1	0.4	0.0	0.0		
Mamprusi West	168,011	3.6	92.9	3.4	0.0	0.0	0.1	0.1	0.1	0.5	0.2	1.2	0.1	1.2	0.0	0.0		

Source: GSS, 2010 Population and Housing Census

## 8.4.2 Net Migration

The net effect of in-migration and out-migration to Northern region from the other nine regions in Ghana is referred to as net migration. Table 8.7 shows that a total of 332,597 people have migrated from the region to other regions. The region lost population to seven out of the 10 regions, with the exception of the Upper East and Upper West regions. Three main population destinations of the migrants from the region are include, Ashanti, Greater Accra and Brong Ahafo regions. A few of the migrants from the region can be found in Eastern, Volta and Central regions. In return, Northern region experienced positive net migration mainly from Upper West and fewer from Upper East regions.

**Table 8.7: In-migration, out-migration and net migration by birth**

Region of birth	In-migration	Out-migration	Net migration
<b>Total</b>	100,524	433,121	-332,597
Western	2,394	38,688	-36,294
Central	3,866	13,864	-9,998
Greater Accra	7,402	93,677	-86,275
Volta	16,560	34,637	-18,077
Eastern	3,570	24,900	-21,330
Ashanti	14,247	119,585	-105,338
Brong Ahafo	11,810	88,980	-77,170
Northern	0	0	0
Upper east	17,753	10,963	6,790
Upper west	22,922	7,827	15,095

Source: GSS, 2010 Population and Housing Census

## 8.5 International Migration

### 8.5.1 Immigration

A total of 39,248 non-Ghanaians were recorded in the Northern region. Table 8.8 shows that mostly all international immigrants in Northern region are from the ECOWAS states. Nigerians constitute the largest proportion of immigrants (21.9%), followed by Burkinabes (10.9%). About 18.7 percent of non Ghanaians are from other African countries other than ECOWAS whilst 13.0 percent are Asians.

**Table 8.8: In-migrant population 15 years and older by country of origin and activity status**

Country of origin	Number	Percent
Nigerian	8,603	21.9
Liberian	22	0.1
Sierra Leonean	25	0.1
Gambian	147	0.4
Togolese	637	1.6
Burkinabe	4,290	10.9
Ivorian	69	0.2
Other ECOWAS states	12,865	32.8
African, other than ECOWAS	7,347	18.7
European	81	0.2
Americas	58	0.1
Asian	5,094	13.0
Oceania	10	0.0
<b>Total</b>	<b>39,248</b>	<b>100.0</b>

Source: GSS, 2010 Population and Housing Census

## 8.6 Urbanization

The 2010 Population and Housing Census classify localities as urban or rural based on population size. Localities with population size of 5,000 or more are considered as urban, while localities with population size less than 5,000 are rural. As shown in Table 8.9 the level of urbanization varies from one district to another. In 2010, Tamale Metropolis was the most urbanized area with more than half of the district's population (65.4%) living in urban areas. Savelugu Nanton (30.3%) is the next district which is relatively urbanized. Less than a quarter of the remaining districts are urbanized. The least urbanized districts are Bunkpurugu Yonyo (9.8%), Sawla-Tuna-Kalba (9.7%), Kpandai (6.9%), Saboba (6.5%) and Tolon Kumbugu (5.1%).

There are differences between the sexes with the male population in urban areas as a proportion to total male population in the districts almost always outnumbering females. In Tamale Metropolis, more than half of the male (74.1%) and female (58.6%) populations are living in urban areas.

**Table 8.9: Population urban by sex and district**

District	Total			Percentage Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All Districts	3,348,799	1,239,814	2,108,985	22.4	29.9	18	2,598,087	869,338	1,728,749
Bole	85,543	30,250	55,293	15.1	20.8	12	72,622	23,950	48,672
Sawla-Tuna-Kalba	144,244	51,113	93,131	9.7	13.2	7.7	130,299	44,381	85,918
West Gonja	113,142	42,074	71,068	24.5	32.5	19.8	85,444	28,415	57,029
Gonja Central	123,064	43,772	79,292	14.2	19.6	11.1	105,649	35,187	70,462
East Gonja	188,403	65,479	122,924	13.4	19.1	10.4	163,101	52,953	110,148
Kpandai	157,180	53,733	103,447	6.9	10	5.3	146,356	48,364	97,992
Nanumba South	131,798	46,692	85,106	12.7	17.9	9.8	115,086	38,334	76,752
Nanumba North	192,757	70,759	121,998	20.8	27.7	16.7	152,757	51,173	101,584
Zabzugu Tatali	170,411	61,938	108,473	18.5	24.8	14.9	138,818	46,557	92,261
Yendi Municipal	269,735	99,268	170,467	21.9	29.3	17.5	210,730	70,143	140,587
Tamale									
Metropolis	419,110	184,184	234,926	65.4	74.1	58.6	145,088	47,759	97,329
Tolon Kumbugu	164,637	56,786	107,851	5.1	7.9	3.7	156,178	52,306	103,872
Savelugu Nanton	182,639	70,212	112,427	30.3	38.2	25.3	127,387	43,356	84,031
Karaga	109,981	39,761	70,220	14.2	18.8	11.5	94,400	32,275	62,125
Gushiegu	154,697	56,532	98,165	17.3	23.2	13.9	127,968	43,438	84,530
Saboba	95,926	33,263	62,663	6.5	9.1	5.1	89,717	30,220	59,497
Chereponi	76,464	26,920	49,544	10.4	14.3	8.3	68,496	23,070	45,426
Bunkpurugu									
Yonyo	175,977	61,725	114,252	9.8	13.5	7.8	158,673	53,386	105,287
Mamprusi East	162,745	61,075	101,670	24.1	31.7	19.5	123,586	41,736	81,850
Mamprusi West	230,346	84,278	146,068	19.4	26	15.5	185,732	62,335	123,397

# **CHAPTER NINE**

## **ECONOMIC CHARACTERISTICS**

### **9.1 Introduction**

The method by which people organize themselves around productive activity and the stratification processes that are associated with differentiation of labour are fundamental characteristics of a society. This section focuses on several dimensions of work and the rewards of work (i.e., income and wealth). Productive capacity in any country and economic performance is mainly measured by the size of its productive workforce. The legal working age in Ghana is 15 years. However, it needs to be emphasized that individuals below this age are often found in various areas engaging in economic activity. There is evidence that children younger than 15 years of age engage in a variety of economic enterprises.

This section analyzes economic characteristics of the population 15 years and older. It is recognized, however, that a substantial proportion of the country's potential workforce may be pursuing a variety of non-economic activities, such as going to school. Such persons are excluded from the active workforce, and are referred to as economically not active.

There is a second group which includes individuals who are regarded as economically active (either employed or not working at the time of the census). They include individuals with jobs who were on leave, and those currently unemployed, but actively seeking employment.

#### **9.1.1 The Economic Activity Status of the Population**

Table 9.1 shows the economic activity status of the population 15 years and older by district. For the economically active population in the Northern region, Tamale has the highest proportion (14.3%) and Chereponi has the lowest (2.0%). All other districts show some variation in the proportions of between 8 percent and 2 percent. This phenomenon is as a result of Tamale having the greatest population density as well as being the most urbanised district where economic opportunities abound perhaps more than in any other district in the region. For the economically not active population, Tamale again has the highest proportion (25.5%) and Chereponi has the lowest proportion (1.8%). Apart from West Gonja, East Gonja, Nanumba North, Tamale and Mamprusi West, who have a larger proportion of persons 15 years and older who are not economically active, all other districts have higher proportions of economically active population than those that are not economically active.

**Table 9.1: Economic activity status of persons 15 years and older, by district**

District	Economic Activity Status			
	Economically Active		Economically Not Active	
	N	%	N	%
All districts	1,024,013	100.0	344,835	100.0
Bole	26,332	2.6	8,794	2.6
Sawla-Tuna-Kalba	41,648	4.1	10,671	3.1
West Gonja	32,556	3.2	13,630	4.0
Central Gonja	37,276	3.6	9,873	2.9
East Gonja	55,279	5.4	20,575	6.0
Kpandai	49,014	4.8	8,146	2.4
Nanumba South	39,150	3.8	9,986	2.9
Nanumba North	53,166	5.2	20,966	6.1
Zabzugu Tatale	54,859	5.4	11,746	3.4
Yendi Municipal	84,746	8.3	26,141	7.6
Tamale Metropolis	146,650	14.3	88,010	25.5
Tolon Kumbungu	51,031	5.0	11,784	3.4
Savelugu Nanton	61,420	6.0	17,213	5.0
Karaga	32,823	3.2	8,444	2.4
Gushiegu	48,495	4.7	10,494	3.0
Saboba	26,467	2.6	6,464	1.9
Chereponi	20,430	2.0	6,112	1.8
Bunkpurugu-Yunyoo	49,745	4.9	14,778	4.3
Mamprusi East	49,034	4.8	14,352	4.2
Mamprusi West	63,892	6.2	26,656	7.7

Source: 2010 Population and Housing Census

## 9.2 Economic activity Status of Population 15 and Older by Locality and District

The data in Table 9.2 show the economic activity status of persons 15 years and older by district and locality. In all the districts, the proportion of the economically active population that is employed in rural areas is higher than in urban areas. Except for East Gonja (49.1%), the employed population in urban areas of the districts is more than 50 percent. The highly agrarian economy in rural areas might be the reason for the high proportion of persons who are employed there compared with the economically active who are employed in urban areas.

**Table 9.2: Economic activity status of population 15 years and older, by locality and district**

	Total				Urban				Rural			
	Total	Employed	Unemployed	Not economically active	Total	Employed	Unemployed	Not economically active	Total	Employed	Unemployed	Not economically active
All Districts	1,368,848	72.0	2.8	25.2	456,953	57.9	4.8	37.3	911,895	79.1	1.7	19.1
Bole	35,126	72.6	2.3	25.0	7,734	52.6	4.3	43.1	27,392	78.3	1.8	19.9
Sawla-Tuna-Kalba	52,319	78.5	1.1	20.4	8,413	54.1	3.1	42.9	43,906	83.2	0.7	16.1
West Gonja	46,186	68.1	2.4	29.5	16,456	53.3	4.0	42.7	29,730	76.2	1.6	22.2
Central Gonja	47,149	77.0	2.1	20.9	10,170	58.3	4.6	37.0	36,979	82.1	1.4	16.5
East Gonja	75,854	70.1	2.7	27.1	15,643	49.1	4.9	46.0	60,211	75.6	2.2	22.2
Kpandai	57,160	84.4	1.3	14.3	6,359	73.0	4.2	22.9	50,801	85.8	1.0	13.2
Nanumba South	49,136	78.2	1.4	20.3	9,694	66.2	2.1	31.7	39,442	81.2	1.3	17.5
Nanumba North	74,132	68.0	3.7	28.3	23,499	55.5	5.5	38.9	50,633	73.8	2.8	23.3
Zabzugu Tatale	66,605	80.4	2.0	17.6	18,607	68.8	3.1	28.1	47,998	84.8	1.6	13.6
Yendi Municipal Tamale	110,887	73.7	2.8	23.6	36,239	56.4	5.4	38.2	74,648	82.0	1.5	16.5
Metropolis	234,660	56.9	5.6	37.5	176,363	55.1	6.1	38.8	58,297	62.3	4.0	33.7
Tolon Kumbungu	62,815	79.1	2.2	18.8	5,407	45.3	6.6	48.1	57,408	82.2	1.8	16.0
Savelugu Nanton	78,633	76.0	2.1	21.9	31,693	67.5	3.1	29.4	46,940	81.8	1.3	16.8
Karaga	41,267	78.1	1.4	20.5	8,688	62.9	2.8	34.2	32,579	82.2	1.0	16.8
Gushiegu	58,989	80.5	1.7	17.8	15,652	68.6	3.2	28.2	43,337	84.8	1.2	14.0
Saboba	32,931	79.2	1.2	19.6	3,688	51.7	3.1	45.2	29,243	82.6	1.0	16.4
Chereponi	26,542	73.0	4.0	23.0	4,619	60.4	2.7	36.8	21,923	75.6	4.3	20.1
Bunkpurugu-Yunyoo	64,523	76.0	1.1	22.9	10,483	59.9	1.6	38.5	54,040	79.1	1.0	19.9
Mamprusi East	63,386	74.5	2.8	22.6	22,450	59.0	4.9	36.0	40,936	83.0	1.7	15.3
Mamprusi West	90,548	68.3	2.2	29.4	25,096	58.7	3.7	37.6	65,452	72.1	1.6	26.3

Source: 2010 Population and Housing Census

### **9.3 Occupation of Employed Persons 15 years and Older by District**

The major occupation of employed persons in the region is skilled agricultural, forestry and fishery workers who constitute almost 74.0 percent, followed by craft and related workers, at 8.1 percent (Table 9.3). Clerical support workers and service and sales workers form a minimal proportion (0.4%) each. There are variations in the major occupation in the districts. The four dominant occupations in Bole District are agriculture, forestry and fishery (59.6%), services and sales workers (13.1%), plant machine operators and assemblers (11.2%) and craft and related workers (8.2%). Agriculture, forestry and fishery is the major occupation in all districts except Tamale which, due to its highly urbanized nature, has the lowest proportion (19.1%). The dominant occupations in Tamale Metropolis are services and sales workers (30.7%) and craft and related trades workers (21.7%), followed by agriculture, then professionals (9.3%) and elementary occupations (7.7%).

### **9.4 Industry of Employed Persons 15 years and Older**

Industry refers to the type of services offered or product produced by an institution or company. Table 9.4 shows that in the Northern region, the major industry in which employed persons work is agriculture, forestry and fishery (73.5%). Wholesale and retail; repair of motor vehicles and motorcycles forms 9.2 percent followed by manufacturing (6.2%) and accommodation and food service activities (2.4%). Agriculture, forestry and fishery remains the major industry in most of the districts. The situation is different in Tamale Metropolis where wholesale and retail; repair of motor vehicles and motorcycles (30.4%) is the major industry, followed by agriculture, forestry and fishery (19.6%), manufacturing (13.1%), education (7.6%) and accommodation and food service activities (7.1%). All five industries in addition to transportation and storage, information and communication constitute the highest proportions in the region.

**Table 9.3: Occupation of employed persons 15 years and older by district**

	Total	Managers	Professionals	Technicians and associated professionals	Clerical support workers	Services and sales workers	Skilled agricultural forestry and fishery workers	Craft and related trades workers	Plant and machine operators and assemblers	Elementary occupations	Other
All Districts	986,177	0.8	2.6	0.6	0.4	9.3	73.7	8.1	1.4	3.0	0.1
Bole	25,514	0.9	2.8	1.1	0.4	13.1	59.6	8.2	11.2	2.8	0.0
Sawla-Tuna-Kalba	41,064	0.4	1.5	0.4	0.2	5.5	82.3	7.9	0.6	1.2	0.0
West Gonja	31,430	1.0	3.2	0.5	0.4	9.3	72.7	10.4	0.7	1.8	0.0
Central Gonja	36,298	0.6	1.2	0.5	0.1	7.6	77.7	9.5	0.7	2.0	0.0
East Gonja	53,198	0.7	1.8	0.6	0.2	6.0	77.3	11.1	0.7	1.6	0.0
Kpandai	48,247	0.3	1.1	0.2	0.2	4.5	85.7	6.5	0.4	1.1	0.0
Nanumba South	38,445	0.2	1.2	0.1	0.1	6.5	85.4	5.4	0.4	0.8	0.0
Nanumba North	50,444	0.4	2.8	0.4	0.2	8.0	79.4	6.2	0.6	1.8	0.0
Zabzugu Tatale	53,524	0.3	0.9	0.2	0.2	4.4	88.5	3.5	0.3	1.7	0.0
Yendi Municipal	81,669	0.6	1.9	0.4	0.2	9.7	77.3	6.9	0.8	2.2	0.0
Tamale Metropolis	133,570	2.6	9.3	2.0	1.6	30.7	19.1	21.7	4.8	7.7	0.6
Tolon Kumbungu	49,661	0.3	0.9	0.3	0.1	3.2	88.6	5.2	0.6	0.8	0.0
Savelugu Nanton	59,791	0.5	1.3	0.6	0.3	5.7	74.1	6.4	1.0	10.1	0.0
Karaga	32,244	0.2	0.6	0.1	0.1	2.0	93.7	1.8	0.3	1.3	0.0
Gushiegu	47,493	0.3	1.0	0.2	0.1	4.4	88.3	2.7	0.4	2.6	0.0
Saboba	26,072	0.4	1.9	0.4	0.3	1.9	87.2	4.5	0.3	3.2	0.0
Chereponi	19,365	0.4	1.8	0.3	0.2	4.8	87.4	3.8	0.5	1.0	0.0
Bunkpurugu-Yunyoo	49,015	0.4	1.8	0.3	0.2	3.3	88.3	4.4	0.3	1.0	0.1
Mamprusi East	47,245	0.5	1.5	0.4	0.3	7.1	84.4	3.9	0.6	1.5	0.0
Mamprusi West	61,888	0.7	1.7	0.3	0.3	5.2	84.8	4.9	0.6	1.4	0.0

Source: 2010 Population and Housing Census

**Table 9.4: Industry of employed persons 15 years and older by district**

Districts	Total	Agriculture forestry and fishing	Mining and quarrying	Manu- facturing	Electricity gas stream and air conditioni ng supply	Water supply; sewerage waste management and remediation activities	Construction	Wholesale and retail; repair of motor vehicles and motorcycles	Transpor- tation and storage	Accommo- dation and food service activities	Informa- tion and communi- cation
All Districts	986,177	73.5	0.3	6.2	0.0	0.1	0.8	9.2	0.9	2.4	0.1
Bole	25,514	59.4	9.3	6.6	0.0	0.1	1.3	10.4	1.2	3.8	0.1
Sawla-Tuna-Kalba	41,064	81.7	0.1	6.9	0.0	0.0	0.2	4.9	0.5	1.4	0.0
West Gonja	31,430	72.6	0.1	8.0	0.0	0.1	0.3	7.4	0.3	2.5	0.1
Central Gonja	36,298	77.0	0.0	7.5	0.0	0.0	0.6	8.9	0.8	2.0	0.1
East Gonja	53,198	76.5	0.0	9.5	0.0	0.0	0.4	6.4	0.7	1.4	0.2
Kpandai	48,247	85.1	0.0	5.1	0.0	0.0	0.1	4.8	0.3	1.5	0.1
Nanumba South	38,445	84.5	0.0	3.5	0.0	0.0	0.2	7.2	0.4	1.7	0.0
Nanumba North	50,444	78.6	0.0	5.0	0.0	0.0	0.3	7.6	0.6	2.2	0.1
Zabzugu Tatale	53,524	88.0	0.0	3.0	0.0	0.0	0.1	4.7	0.2	1.5	0.3
Yendi Municipal	81,669	76.8	0.0	6.0	0.0	0.1	0.3	8.9	0.7	2.3	0.1
Tamale Metro	133,570	19.6	0.1	13.1	0.2	0.2	3.8	30.4	4.0	7.1	0.4
Tolon Kumbungu	49,661	87.3	0.0	5.5	0.0	0.0	0.1	3.3	0.1	1.4	0.0
Savelugu Nanton	59,791	79.4	0.0	7.0	0.0	0.1	0.6	6.2	0.7	2.0	0.0
Karaga	32,244	93.3	0.0	1.9	0.0	0.0	0.1	2.2	0.1	0.9	0.1
Gushiegu	47,493	88.5	0.0	2.8	0.0	0.0	0.2	4.7	0.3	1.2	0.1
Saboba	26,072	88.9	0.0	4.0	0.0	0.1	0.2	2.1	0.2	0.6	0.1
Chereponi	19,365	86.7	0.0	2.9	0.0	0.0	0.2	4.8	0.4	1.6	0.1
Bunkpurugu- Yunyoo	49,015	86.3	0.0	3.6	0.0	0.1	0.1	3.1	0.3	0.9	0.1
Mamprusi East	47,245	83.6	0.0	3.2	0.0	0.1	0.2	6.5	0.4	1.8	0.0
Mamprusi West	61,888	82.6	0.0	4.0	0.0	0.1	0.4	5.2	0.5	1.5	0.1

Source: 2010 Population and Housing Census

## 9.5 Employment Status

In the 2010 census, employment status refers to the status of a person in the establishment where he/she currently works or previously worked. The employment status categories identified include employee, self-employed without employees, self-employed with employees, casual worker, contributing family worker, apprentice, and domestic employee (house help). The option “other” refers to persons who could not be classified in any of the above categories. At regional level, 58.6 percent of the economically active population is self-employed without employees (Table 9.5) while contributing family workers constitute 28.5 percent of the employed population. The proportion of the self-employed with employees is less than 3.3 percent at regional level. The highest proportion of the self-employed without employees is found in Saboba (67.0%), while the smallest proportion is in Sawla-Tuna-Kalba (44.9%). In all the districts together, the two self-employed categories account for 61.9 percent of the working population. Except for the low figure for Tamale Metropolis (5.9%), in the rest of the districts the proportion of contributing family workers ranges from 19.9 percent in Nanumba South to 48.2 percent in Sawla-Tuna-Kalba.

**Table 9.5: Employment status by district**

District	Total	Employee	Self-employed without employee(s)	Self-employed with employee(s)	Casual worker	Contributing family worker	Apprentice	Domestic employee (House help)	Other
All Districts	986,177	6.4	58.6	3.3	1.1	28.5	1.1	0.9	0.3
Bole	25,514	10.9	53.4	3.5	3.1	27.2	1.2	0.5	0.2
Sawla-Tuna-Kalba	41,064	3.5	44.9	1.2	0.4	48.2	1.0	0.5	0.3
West Gonja	31,430	6.9	57.1	2.6	0.6	30.9	0.7	0.8	0.2
Central Gonja	36,298	3.3	59.0	2.5	0.6	32.9	0.7	0.9	0.2
East Gonja	53,198	4.3	61.0	2.8	0.7	29.0	0.8	1.0	0.3
Kpandai	48,247	2.4	65.4	3.1	0.8	27.1	0.6	0.6	0.2
Nanumba South	38,445	2.6	71.1	4.4	0.3	19.9	0.4	1.0	0.2
Nanumba North	50,444	4.7	66.0	3.1	0.5	23.8	0.7	0.9	0.2
Zabzugu Tatale	53,524	2.0	52.1	3.4	0.1	40.9	0.5	0.8	0.2
Yendi Municipal	81,669	5.2	63.1	4.8	1.0	23.5	0.8	1.2	0.4
Tamale Metropolis	133,570	22.1	59.4	6.4	1.1	5.9	4.4	0.6	0.2
Tolon Kumbungu	49,661	2.3	58.1	2.1	0.6	35.4	0.4	0.9	0.3
Savelugu Nanton	59,791	5.3	54.6	3.4	6.6	27.7	0.7	1.3	0.4
Karaga	32,244	2.0	66.5	2.5	2.3	25.2	0.2	1.1	0.3
Gushiegu	47,493	2.8	61.1	2.7	0.7	30.5	0.3	1.5	0.4
Saboba	26,072	4.2	67.0	1.5	0.7	25.2	0.5	0.7	0.3
Chereponi	19,365	3.2	60.8	1.3	0.3	32.9	0.6	0.7	0.3
Bunkpurugu-Yunyoo	49,015	3.1	48.2	1.3	0.5	45.4	0.7	0.6	0.2
Mamprusi East	47,245	3.4	47.8	1.9	0.6	44.7	0.5	0.8	0.3
Mamprusi West	61,888	3.7	57.0	1.8	0.4	35.4	0.5	0.8	0.3

Source: 2010 Population and Housing Census

## 9.6 Employment Sector

Table 9.6 shows the sector of employment of the employed population and persons who have worked before and are seeking work. The employment sectors are in five categories: public, private formal, private informal, semi-public/parastatal and NGOs (local and international). An overwhelming proportion (94.5%) of employed persons in the region is in the private informal sector while less than 4.0 percent work in the public sector. The pattern is same for all the districts. Persons employed in the public sector in Tamale Metropolis are in the highest proportion (13.0%) compared to the rest of the districts. In all the districts, the private informal sector is the highest sector of employment.

**Table 9.6: Employment sector of employed persons 15 years and older, by district**

	Total	Public (Government)	Private Formal	Private Informal	Semi- Public/ Parastatal	NGOs (Local and International)	Other International Organisations
All Districts	986,177	3.7	1.4	94.5	0.1	0.4	0.0
Bole	25,514	4.6	1.4	93.5	0.1	0.3	0.2
Sawla-Tuna-Kalba	41,064	2.0	0.6	96.9	0.1	0.3	0.0
West Gonja	31,430	5.2	1.1	93.1	0.0	0.5	0.0
Central Gonja	36,298	1.6	1.0	97.1	0.0	0.3	0.0
East Gonja	53,198	2.7	0.8	96.1	0.0	0.3	0.0
Kpandai	48,247	1.4	0.5	97.8	0.0	0.3	0.0
Nanumba South	38,445	1.4	0.7	97.6	0.0	0.3	0.0
Nanumba North	50,444	3.4	1.1	95.2	0.0	0.4	0.0
Zabzugu Tatale	53,524	1.1	0.7	97.8	0.0	0.4	0.0
Yendi Municipal	81,669	2.7	0.9	96.1	0.0	0.3	0.0
Tamale Metropolis	133,570	13.0	5.0	81.1	0.1	0.7	0.1
Tolon Kumbungu	49,661	1.4	0.5	97.5	0.0	0.5	0.0
Savelugu Nanton	59,791	1.9	1.2	96.4	0.0	0.4	0.0
Karaga	32,244	0.8	0.4	98.5	0.0	0.3	0.0
Gushiegu	47,493	1.4	0.5	97.5	0.0	0.5	0.0
Saboba	26,072	2.5	0.7	96.4	0.1	0.3	0.0
Chereponi	19,365	2.2	0.6	96.6	0.0	0.5	0.0
Bunkpurugu- Yunyoo	49,015	2.2	0.6	96.7	0.0	0.4	0.0
Mamprusi East	47,245	2.2	1.3	96.0	0.2	0.4	0.0
Mamprusi West	61,888	2.3	0.8	96.5	0.0	0.4	0.0

Source: 2010 Population and Housing Census

# CHAPTER TEN

## DISABILITY

### 10.1 Introduction

This section presents data on persons with some form of impairment which restrict them from the performance of specific tasks. Information was collected on persons with sight impairment, hearing impairment, mental retardation, emotional or behavioural and other physical challenges. The questions were directed at individual household members. Provision was made for persons with multiple responses.

### 10.2 Population with Disability by District and Age Group

Table 10.1 indicates that the Northern region has 2.5 percent of its population with disabilities compared to the national average of 3.0 percent. Bunkpurugu-Yunyoo has the highest (5.4%) proportion of persons with disabilities, while Tamale North (1.5%) and Kpandai (1.5%) have the lowest proportions. Across the various age groups, disability is highest (31.1%) in the age group 0-14 years.

**Table 10.1: Population with disability by district and age group**

	Total	Number	Percent	All ages	0-14	15-24	25-34	35-44	45-54	55-64	65+
Ghana	24,658,823	737,743	3.0	100	18.0	13.5	12.5	11.8	12.2	10.0	22.2
Northern	2,479,461	61,294	2.5	100	31.1	15.3	12.5	10.0	8.5	6.9	15.6
Bole	61,593	1,446	2.3	100	21.7	10.4	13.1	9.5	10.6	10.2	24.4
Sawla-Tuna-Kalba	99,863	2,618	2.6	100	23.6	11.8	9.9	9.4	11.0	12.2	22.2
West Gonja	84,727	1,416	1.7	100	29.1	12.6	11.7	10.1	10.2	7.8	18.6
Central Gonja	87,877	3,151	3.6	100	38.0	17.1	13.0	9.8	7.7	4.3	10.0
East Gonja	135,450	3,855	2.8	100	32.3	16.8	12.8	9.4	8.1	6.6	14.0
Kpandai	108,816	1,663	1.5	100	27.5	15.1	12.7	11.6	9.2	8.2	15.7
Nanumba South	93,464	2,869	3.1	100	33.7	16.2	13.5	9.4	8.1	6.5	12.7
Nanumba North	141,584	3,713	2.6	100	34.7	15.8	13.1	10.5	7.9	5.8	12.3
Zabzugu Tatale	123,854	2,155	1.7	100	34.5	16.6	12.1	9.4	7.3	6.4	13.7
Yendi Municipal	199,592	3,844	1.9	100	31.1	13.7	11.8	9.7	8.4	7.3	18.0
Tamale Metropolis	371,351	6,683	1.8	100	19.3	16.3	15.9	11.9	10.3	8.5	17.9
Tolon Kumbungu	112,331	1,966	1.8	100	26.3	14.1	11.7	10.4	8.4	7.2	21.8
Savelugu Nanton	139,283	6,409	4.6	100	32.7	18.0	13.0	10.1	8.6	5.2	12.5
Karaga	77,706	1,339	1.7	100	29.4	14.3	14.0	10.2	8.0	6.9	17.2
Gushiegu	111,259	2,828	2.5	100	34.9	14.5	12.7	10.4	9.1	5.8	12.6
Saboba	65,706	1,649	2.5	100	35.8	14.3	13.2	10.7	7.6	6.4	12.0
Chereponi	53,394	1,784	3.3	100	41.1	14.0	10.5	10.3	7.1	6.1	10.9
Bunkpurugu-Yunyoo	122,591	6,642	5.4	100	37.3	16.1	9.9	9.5	7.2	5.6	14.3
Mamprusi East	121,009	2,561	2.1	100	32.2	14.1	11.3	8.7	7.0	7.1	19.6
Mamprusi West	168,011	2,703	1.6	100	26.7	12.5	11.6	8.5	9.8	9.7	21.3

Source: 2010 Population and Housing Census

### 10.3 Population with Disability by District and Type of Locality

Table 10.2 shows that overall; the Northern region has 2.6 percent and 2.2 percent of persons with disabilities living in rural areas and urban areas respectively. The Bunkpurugu-Yunyoo district has the highest population with disabilities living in rural (5.5%) and urban (4.8%) areas. The lowest is Tamale, which has only 1.5 percent and 1.4 percent of persons with disabilities living in rural and urban areas respectively.

**Table 10.2: Population with disability by district and locality**

	Population			Urban			Rural		
	National Population	Disabled Population	Per-cent	Total Population	Disabled Population	Per-cent	Total Population	Disabled Population	Per-cent
Ghana	24,658,823	737,743	3.0	12,545,229	339,414	2.7	12,113,594	398,329	3.3
Northern region	2,479,461	61,294	2.5	750,712	16,259	2.2	1,728,749	45,035	2.6
Bole	61,593	1,446	2.3	12,921	235	1.8	48,672	1,211	2.5
Sawla-Tuna-Kalba	99,863	2,618	2.6	13,945	281	2.0	85,918	2,337	2.7
West Gonja	84,727	1,416	1.7	27,698	474	1.7	57,029	942	1.7
Central Gonja	87,877	3,151	3.6	17,415	727	4.2	70,462	2,424	3.4
East Gonja	135,450	3,855	2.8	25,302	558	2.2	110,148	3,297	3.0
Kpandai	108,816	1,663	1.5	10,824	171	1.6	97,992	1,492	1.5
Nanumba South	93,464	2,869	3.1	16,712	649	3.9	76,752	2,220	2.9
Nanumba North	141,584	3,713	2.6	40,000	950	2.4	101,584	2,763	2.7
Zabzugu Tatale	123,854	2,155	1.7	31,593	249	0.8	92,261	1,906	2.1
Yendi Municipal Tamale	199,592	3,844	1.9	59,005	875	1.5	140,587	2,969	2.1
Metropolis	371,351	6,683	1.8	274,022	5,064	1.8	97,329	1,619	1.7
Tolon Kumbungu	112,331	1,966	1.8	8,459	127	1.5	103,872	1,839	1.8
Savelugu Nanton	139,283	6,409	4.6	55,252	2,337	4.2	84,031	4,072	4.8
Karaga	77,706	1,339	1.7	15,581	290	1.9	62,125	1,049	1.7
Gushiegu	111,259	2,828	2.5	26,729	666	2.5	84,530	2,162	2.6
Saboba	65,706	1,649	2.5	6,209	98	1.6	59,497	1,551	2.6
Chereponi	53,394	1,784	3.3	7,968	127	1.6	45,426	1,657	3.6
Bunkpurugu-Yunyoo	122,591	6,642	5.4	17,304	837	4.8	105,287	5,805	5.5
Mamprusi East	121,009	2,561	2.1	39,159	757	1.9	81,850	1,804	2.2
Mamprusi West	168,011	2,703	1.6	44,614	787	1.8	123,397	1,916	1.6

Source: 2010 Population and Housing Census

### 10.4 Disability Type by Districts

Table 10.3 illustrates specific disability conditions among the population of the Northern region. More than one quarter (28.7%) of the population in the Northern region have sight problems, followed by emotional (23.2%) disability. The least prevalent disability condition is that of speech (13.3%). Regarding all the districts, sight is the most common disability type, followed by physical, emotional and other forms of disabilities.

**Table 10.3: Disability type by district**

	Disability type							
	Total	Sight	Hearing	Speech	Physical	Intellectual	Emotional	Other
Ghana	737,743	40.1	15.0	13.7	25.4	15.2	18.6	10.4
Northern region	61,294	28.7	17.7	12.3	18.4	15.9	23.6	21.9
Bole	1,446	42.0	18.9	12.4	25.0	8.1	6.0	6.6
Sawla-Tuna-Kalba	2,618	39.2	21.9	13.7	24.4	12.1	13.8	9.5
West Gonja	1,416	34.0	16.2	14.1	26.4	11.8	10.3	9.4
Central Gonja	3,151	12.7	5.9	5.6	9.0	11.8	40.1	51.9
East Gonja	3,855	26.7	13.4	10.6	13.7	14.2	30.4	33.8
Kpandai	1,663	35.7	18.0	13.8	21.1	7.8	12.3	5.6
Nanumba South	2,869	41.1	25.2	20.9	26.4	16.2	21.5	18.4
Nanumba North	3,713	25.6	14.9	11.3	21.5	11.5	25.3	29.4
Zabzugu Tatale	2,155	27.5	18.4	10.2	17.7	39.5	8.5	8.0
Yendi Municipal	3,844	38.0	22.3	17.5	22.5	14.6	16.4	15.0
Tamale Metropolis	6,683	27.9	15.4	13.0	23.1	21.8	23.7	13.4
Tolon Kumbungu	1,966	39.7	23.9	15.1	21.3	11.7	11.3	9.7
Savelugu Nanton	6,409	18.8	14.5	9.3	11.6	13.0	32.6	35.4
Karaga	1,339	36.9	27.8	21.5	26.1	18.1	21.4	28.4
Gushiegu	2,828	24.9	20.7	12.5	18.5	18.6	25.1	17.0
Saboba	1,649	23.4	19.8	13.0	18.6	22.9	23.5	6.0
Chereponi	1,784	16.7	12.4	8.0	16.0	14.5	28.5	33.7
Bunkpurugu-Yunyoo	6,642	21.0	15.7	9.0	12.8	20.5	37.6	32.9
Mamprusi East	2,561	38.6	26.6	15.0	18.6	10.5	12.1	8.5
Mamprusi West	2,703	43.1	21.1	12.4	17.6	8.8	9.0	9.2

Source: 2010 Population and Housing Census

### 10.5 Disability by Type and Sex (female)

Approximately 52 percent of the disabled population in the Northern region are males. Table 10.4 shows that sight problem has the largest proportion of 28.4 percent of the disability cases. In absolute numbers Tamale Metropolis has the largest number of disabled male population of 3,394 which is 10.9 percent of the male disabled population. Karaga (2.3%) has the lowest number of male disabled persons. In the Bole District sight is the main disability constituting about 41.5 percent of the disabled population.

**Table 10.4: Disability by type and sex (Male)**

	Number	Sight	Hearing	Speech	Physical	Intellectual	Emotional	Other
Ghana	350,096	38.0	14.3	15.7	25.1	15.8	18.7	10.7
Northern region	31,185	28.4	17.0	13.3	18.2	15.7	23.2	21.6
Bole	774	41.5	16.3	14.1	24.7	8.4	6.6	7.4
Sawla-Tuna-Kalba	1,284	38.4	18.7	14.3	24.2	12.4	14.0	9.7
West Gonja	748	33.2	13.9	15.2	26.1	12.3	11.1	8.0
Central Gonja	1,594	14.8	6.5	6.5	9.0	11.9	38.2	50.6
East Gonja	2,067	26.9	13.4	10.7	13.8	14.2	30.5	32.1
Kpandai	896	35.8	17.7	15.4	20.1	6.7	12.9	5.7
Nanumba South	1,494	40.2	26.6	21.4	25.0	15.8	21.4	18.2
Nanumba North	1,923	25.5	14.4	12.8	19.7	10.5	25.8	27.6
Zabzugu Tatale	1,068	27.5	17.3	10.3	18.0	39.4	8.3	8.5
Yendi Municipal	1,911	38.9	20.6	17.7	20.6	13.9	15.1	14.2
Tamale Metropolis	3,394	27.3	13.6	14.2	22.9	21.3	22.9	14.1
Tolon Kumbungu	1,028	38.7	22.9	16.3	22.0	12.2	10.5	11.1
Savelugu Nanton	3,224	18.0	14.7	11.1	11.4	12.7	31.4	35.4
Karaga	707	34.9	27.3	23.3	27.0	18.2	22.3	28.4
Gushiegu	1,390	25.1	19.3	13.5	17.3	18.7	24.8	16.6
Saboba	845	23.7	20.1	14.2	18.0	22.2	21.9	5.8
Chereponi	915	17.3	13.6	8.5	17.8	12.7	27.3	32.7
Bunkpurugu-Yunyoo	3,271	20.0	15.9	9.6	13.3	21.4	37.7	32.0
Mamprusi East	1,274	36.8	26.0	16.9	19.1	10.2	12.1	8.9
Mamprusi West	1,378	40.9	19.8	13.2	17.6	9.1	10.6	9.9

Source: 2010 Population and Housing Census

## 10.6 Disability by Type and Sex (Female)

The female disabled population in the Northern region constitutes approximately 49.1 percent of the region's total disabled population, of which sight is the most prevalent disability (29.1%) as shown in Table 10.5. This is followed by emotional (24.0%), physical (18.7%), hearing (18.4%), intellectual (16.1%) and speech (11.2%). The Tamale Metropolis has the largest proportion of disabled females in the Northern region (10.9%). Sight is the major disability in all the districts with the Mamprusi West having the highest proportion (45.4%).

**Table 10.5: Disability by type and sex (Female)**

	Number	Sight	Hearing	Speech	Physical	Intellectual	Emotional	Other
Ghana	737,743	42.0	15.6	11.9	25.7	14.6	18.4	10.2
Northern region	30,109	29.1	18.4	11.2	18.7	16.1	24.0	22.3
Bole	672	42.7	22.0	10.4	25.3	7.7	5.4	5.8
Sawla-Tuna-Kalba	1,334	40.0	25.0	13.0	24.6	11.8	13.6	9.2
West Gonja	668	34.9	18.7	12.7	26.8	11.2	9.4	10.9
Central Gonja	1,557	10.6	5.3	4.8	9.1	11.8	42.0	53.3
East Gonja	1,788	26.5	13.5	10.5	13.5	14.1	30.3	35.7
Kpandai	767	35.6	18.3	11.9	22.3	9.0	11.6	5.5
Nanumba South	1,375	42.0	23.7	20.3	27.8	16.6	21.7	18.6
Nanumba North	1,790	25.6	15.4	9.7	23.4	12.6	24.7	31.4
Zabzugu Tatale	1,087	27.4	19.4	10.0	17.4	39.7	8.7	7.5
Yendi Municipal	1,933	37.2	24.0	17.2	24.4	15.2	17.6	15.7
Tamale Metropolis	3,289	28.5	17.1	11.7	23.3	22.3	24.6	12.7
Tolon Kumbungu	938	40.7	24.9	13.8	20.6	11.3	12.3	8.1
Savelugu Nanton	3,185	19.7	14.3	7.4	11.9	13.3	33.9	35.4
Karaga	632	39.1	28.3	19.5	25.0	18.0	20.4	28.3
Gushiegu	1,438	24.6	22.0	11.6	19.5	18.4	25.3	17.3
Saboba	804	23.1	19.5	11.7	19.3	23.5	25.2	6.2
Chereponi	869	16.1	11.3	7.4	14.2	16.5	29.8	34.9
Bunkpurugu-Yunyoo	3,371	22.0	15.6	8.4	12.2	19.7	37.6	33.8
Mamprusi East	1,287	40.4	27.2	13.1	18.2	10.8	12.1	8.1
Mamprusi West	1,325	45.4	22.5	11.5	17.6	8.5	7.4	8.5

Source: 2010 Population and Housing Census

## 10.7 Marital Status of Persons with Disability

The marital status of the persons with disability is presented in Table 10.6. It indicates that more than half the disabled population (53.0%) is married, with Karaga having the highest proportion married (64.1%) and West Gonja having the lowest proportion (47.6%). A significant proportion of disabled people is either never married (29.4%) or widowed (12.6%) for the region. Central Gonja has a higher proportion of never married (33.9%) than the other districts, and Tolon Kumbungu has the lowest proportion (23.8%). The proportions for the divorced, separated and informal/consensual union categories fall below 5 percent for the region and also across the districts.

**Table 10.6: Marital status of persons with disability**

	Never married	Informal/ Consensual union/ Living together	Married	Separated	Divorced	Widowed
Ghana	27.3	4.4	40.3	3.4	7.8	16.8
Northern region	29.4	0.8	53.0	1.6	2.5	12.6
Bole	25.0	1.8	48.8	1.6	3.4	19.4
Sawla-Tuna-Kalba	25.2	0.6	52.0	1.7	2.8	17.8
West Gonja	29.1	1.4	47.6	2.0	2.6	17.3
Central Gonja	33.9	1.4	50.3	2.6	2.5	9.2
East Gonja	32.1	2.5	49.5	1.6	3.0	11.3
Kpandai	30.8	0.6	48.9	2.9	3.1	13.7
Nanumba South	26.2	1.6	57.4	0.8	2.6	11.4
Nanumba North	29.2	0.6	54.8	1.7	1.9	11.8
Zabzugu Tatale	32.1	0.0	54.2	1.0	1.6	11.1
Yendi Municipal	26.7	0.9	56.3	1.5	2.6	12.0
Tamale Metropolis	33.9	0.7	45.6	2.1	3.9	13.8
Tolon Kumbungu	23.8	0.5	58.5	0.7	2.5	14.2
Savelugu Nanton	28.8	0.5	58.5	1.6	1.7	8.9
Karaga	22.7	0.6	64.1	2.2	1.7	8.7
Gushiegu	24.4	0.5	59.4	1.6	2.3	11.8
Saboba	29.9	1.0	50.0	1.3	2.8	15.1
Chereponi	31.5	0.2	55.2	0.3	1.3	11.4
Bunkpurugu-Yunyoo	33.8	0.2	52.0	1.0	1.6	11.4
Mamprusi East	27.0	0.8	54.9	1.9	1.8	13.6
Mamprusi West	25.3	0.6	51.5	1.8	3.0	17.8

Source: 2010 Population and Housing Census

## 10.8 Persons with Disability by Level of Education

The data in Table 10.7 show that while 40 percent of persons with disabilities in Ghana have never attended school, the proportion for the Northern region is 66.5 percent. Conversely, while 43.5 percent of persons with disabilities in Ghana have basic education, the proportion for the Northern region is only 23.3 percent. Similarly, very low proportions were observed for persons with disabilities in the region who have pre-primary, secondary/senior high school, vocational/technical/commercial school or post-secondary education.

**Table 10.7: Persons with disability by level of education**

	Total	Never attended	Pre-primary	Basic sch.	Sec. / SSS/ SHS	Voc./ Tech./ Com	Post-Sec.	Tertiary
Ghana	713,400	40.1	3.4	43.5	6.5	2.0	3.1	1.4
Northern region	57,691	66.5	4.7	23.3	3.5	0.3	1.3	0.3
Bole	1,401	70.2	3.9	20.1	3.7	0.4	1.4	0.3
Sawla-Tuna-Kalba	2,530	77.9	2.6	16.1	1.9	0.3	1.0	0.0
West Gonja	1,329	67.6	4.1	20.3	4.4	0.8	2.6	0.2
Central Gonja	2,922	63.6	7.4	25.4	2.3	0.3	0.8	0.2
East Gonja	3,633	70.0	3.8	22.5	2.7	0.1	0.8	0.1
Kpandai	1,593	66.4	5.0	24.1	2.8	0.3	1.5	0.0
Nanumba South	2,657	68.5	5.8	21.6	3.0	0.1	0.8	0.2
Nanumba North	3,459	66.9	5.0	22.3	4.6	0.1	0.9	0.2
Zabzugu Tatale	2,017	66.8	5.2	25.0	2.6	0.1	0.2	0.1
Yendi Municipal	3,635	73.9	3.6	17.9	3.4	0.1	1.0	0.1
Tamale Metropolis	6,415	50.2	4.6	28.6	8.6	1.6	4.8	1.7
Tolon Kumbungu	1,868	76.2	2.7	17.9	2.4	0.1	0.5	0.2
Savelugu Nanton	5,928	67.6	5.0	23.4	2.8	0.1	0.9	0.1
Karaga	1,273	74.0	3.6	19.7	2.3	0.1	0.2	0.1
Gushiegu	2,644	77.9	3.7	15.9	2.0	0.0	0.5	0.0
Saboba	1,551	69.2	5.9	21.3	2.1	0.6	0.6	0.3
Chereponi	1,649	69.8	4.4	22.7	2.5	0.0	0.6	0.0
Bunkpurugu-Yunyoo	6,216	55.8	6.6	33.2	3.2	0.1	1.1	0.1
Mamprusi East	2,398	72.4	3.5	20.3	2.6	0.3	0.8	0.1
Mamprusi West	2,573	69.3	4.9	21.9	2.9	0.3	0.7	0.0

Source: 2010 Population and Housing Census

## 10.9 Level of Literacy of Persons with Disability

The majority of disabled persons in the Northern region are not literate (Table 10.8). This proportion of 73.3 percent is far higher than the national proportion of 42.0 percent. Those who are literate in English and a Ghanaian language form 12.9 percent; English Only forms 12.2 percent and those literate in a Ghanaian language only constitute 1.4 percent. Gushiegu has the highest proportion of non-literate disabled people (83.3%) closely followed by Sawla-Tuna-Kalba (82.3%), while Tamale Metropolis has the lowest (54.5%). With respect to literacy in English only, Bunkpurugu-Yunyoo had the highest proportion of 23.3 percent and Yendi Municipal has the lowest. Tamale Metropolis has the highest proportion (22.5%) for English/Ghanaian Language while Sawla-Tuna-Kalba has the smallest proportion (6.9%),

**Table 10.8: Level of literacy of persons with disability**

	Not literate	English only	A Ghanaian language only	English/ Ghanaian language	English and French	English French and a Ghanaian Language	Other
<b>Ghana</b>	42.0	14.3	7.5	35.3	0.2	0.7	0.0
<b>Northern region</b>	73.3	12.2	1.4	12.9	0.0	0.1	0.0
Bole	75.3	14.0	0.7	9.8	0.0	0.2	0.0
Sawla-Tuna-Kalba	82.3	9.8	0.9	6.9	0.0	0.0	0.0
West Gonja	73.2	12.6	1.1	13.1	0.0	0.0	0.0
Central Gonja	73.3	9.7	1.5	15.4	0.0	0.0	0.0
East Gonja	75.4	11.6	1.5	11.5	0.0	0.0	0.0
Kpandai	72.1	17.6	2.1	8.2	0.0	0.0	0.0
Nanumba South	75.6	11.4	3.8	9.0	0.1	0.0	0.0
Nanumba North	74.8	8.4	1.6	15.2	0.0	0.0	0.0
Zabzugu Tatale	73.8	13.2	1.3	11.4	0.0	0.3	0.0
Yendi Municipal	79.9	3.4	2.3	14.1	0.0	0.3	0.0
Tamale Metropolis	54.5	22.1	0.6	22.5	0.1	0.2	0.0
Tolon Kumbungu	81.5	3.5	1.3	13.6	0.1	0.0	0.0
Savelugu Nanton	75.7	7.6	1.4	15.2	0.0	0.0	0.0
Karaga	81.2	4.8	1.8	12.2	0.0	0.0	0.0
Gushiegu	83.3	3.6	1.6	11.5	0.0	0.0	0.0
Saboba	78.9	12.1	1.2	7.4	0.2	0.3	0.0
Chereponi	78.5	12.5	0.3	8.7	0.0	0.0	0.0
Bunkpurugu- Yunyoo	66.9	23.3	1.3	8.4	0.0	0.1	0.0
Mamprusi East	78.3	10.7	0.9	9.9	0.1	0.1	0.0
Mamprusi West	77.7	9.0	1.1	12.0	0.0	0.1	0.0

Source: 2010 Population and Housing Census

### 10.10 Persons with Disability by Employment Status

As shown in Table 10.9, the region's population with disability who are employed stands at 60.9 percent, slightly higher than the national average. Only 1.9 percent of persons with disability are unemployed while nearly two in five (37.2%) are not economically active. In terms of district distribution, Savelugu Nanton (67.9%), Tamale (4.5%) and Mamprusi West (49.7%) recorded the highest proportions of persons with disability who are employed, unemployed and not economically active respectively. Similarly, Tamale (46.4%), Kpandai and Karaga (0.7% each) and Zabzugu Tatale (25.7%) were observed to have the lowest proportions of persons with disability who are employed, unemployed and not economically active respectively.

**Table 10.9: Persons with disability by employment status and district**

Country/Region/District	Economic Activity Status				
	Total	Percent	Employed	Unemployed	Not active
Ghana	604,862	100.0	54.1	3.0	42.9
Northern region	42,225	100.0	60.9	1.9	37.2
Bole	1,132	100.0	55.7	1.5	42.8
Sawla-Tuna-Kalba	2,001	100.0	55.3	0.8	43.9
West Gonja	1,004	100.0	51.4	1.0	47.6
Central Gonja	1,954	100.0	66.6	2.4	31.1
East Gonja	2,608	100.0	61.8	1.9	36.3
Kpandai	1,205	100.0	65.5	0.7	33.8
Nanumba South	1,903	100.0	72.4	1.7	25.9
Nanumba North	2,426	100.0	61.1	2.8	36.1
Zabzugu Tatale	1,411	100.0	72.9	1.3	25.7
Yendi Municipal	2,649	100.0	61.3	2.2	36.6
Tamale Metropolis	5,395	100.0	46.4	4.5	49.1
Tolon Kumbungu	1,448	100.0	64.6	1.2	34.1
Savelugu Nanton	4,315	100.0	67.9	1.3	30.8
Karaga	945	100.0	59.9	0.7	39.4
Gushiegu	1,841	100.0	65.0	1.7	33.2
Saboba	1,058	100.0	62.5	1.3	36.2
Chereponi	1,050	100.0	67.2	1.2	31.5
Bunkpurugu-Yunyoo	4,162	100.0	66.9	1.0	32.1
Mamprusi East	1,736	100.0	57.0	2.2	40.7
Mamprusi West	1,982	100.0	48.4	1.9	49.7

Source: 2010 Population and Housing Census

# CHAPTER ELEVEN

## AGRICULTURE

### 11.1 Introduction

Agriculture is a very important economic activity in Ghana, employing about 60 percent of the economically active population. This chapter discusses households that are engaged in various agriculture activities, such as; crops cultivation and trees grown, type of cropping and acreages, type of livestock reared and fish farming. Information collected on agriculture was household based

### 11.2 Households in Agriculture by District and Household Size

The 2010 census found that a total of 2,503,006 households in Ghana are engaged in agriculture, of which 240,238 households are in the Northern region. This constitutes 9.6 percent of the national total. The Northern region's average agricultural household size is 8.5 compared with a national average of 5.3 persons (Table 11.1).

**Table 11.1: Households in agriculture by district and household size**

	Household size												Average
	Total	%	1	2	3	4	5	6	7	8	9	10+	
Ghana	2,503,006	100	10.7	9.6	11.5	13.3	13.3	11.6	8.9	6.4	4.4	10.3	5.3
Northern region	240,238	100	2.1	2.8	5.5	7.8	9.8	10.7	10.3	9.5	8.0	33.6	8.5
Bole	6,260	100	4.7	4.3	7.4	10.2	12.5	12.2	10.9	9.5	6.8	21.5	6.9
Sawla-Tuna-Kalba	11,945	100	2.9	4.6	7.0	8.9	10.7	12.2	11.5	10.3	8.0	23.9	7.3
West Gonja	8,271	100	2.9	3.0	5.3	7.7	9.0	10.4	10.3	9.8	8.4	33.2	8.2
Central Gonja	8,465	100	2.7	2.7	5.4	8.3	10.1	11.4	10.3	9.4	7.9	31.6	8.1
East Gonja	13,662	100	2.8	2.8	5.6	8.8	11.2	12.1	10.3	10.6	8.5	26.5	7.6
Kpandai	14,704	100	3.3	4.7	7.9	9.9	12.7	12.9	10.3	9.5	7.6	20.5	6.8
Nanumba South	10,627	100	1.7	2.4	5.8	8.1	9.8	10.6	10.3	10.5	8.2	32.0	8.0
Nanumba North	14,919	100	1.7	2.1	4.9	7.4	9.5	10.1	10.3	9.6	8.2	36.2	8.6
Zabzugu-Tatale	12,695	100	1.0	2.0	4.5	6.7	7.8	9.6	10.3	9.1	38.0	41.9	9.2
Yendi Municipal	17,414	100	2.2	2.5	4.1	6.8	8.8	9.3	10.3	9.0	7.8	40.7	9.6
Tamale Metropolis	17,820	100	3.3	3.5	5.8	7.8	9.6	10.9	10.3	8.9	6.8	34.1	8.8
Tolon Kumbungu	11,437	100	1.1	1.8	4.6	5.9	8.6	9.2	10.3	8.9	8.6	41.9	9.3
Savelugu Nanton	13,093	100	2.1	2.3	4.5	6.2	7.8	8.4	10.3	8.4	7.6	44.4	9.9
Karaga	7,263	100	1.1	1.7	3.6	4.9	6.9	7.5	10.3	8.7	8.2	48.9	10.2
Gushiegu	10,237	100	1.9	2.4	3.9	6.4	7.4	8.3	10.3	8.1	7.4	45.5	10.1
Saboba	8,380	100	1.5	3.2	7.3	10.4	11.5	12.3	10.3	9.6	8.3	25.1	7.5
Chereponi	6,474	100	1.1	3.1	6.2	8.2	9.9	11.8	10.3	10.6	8.3	29.5	7.8
Bunkpurugu- Yunyoo	16,578	100	1.6	3.3	6.7	9.9	12.3	13.4	10.3	10.9	8.3	20.4	7.1
East Mamprusi	12,588	100	1.0	2.0	4.4	6.2	9.2	10.8	10.3	9.4	8.7	37.8	9.0
West Mamprusi	17,406	100	1.3	2.5	5.0	7.5	9.5	9.6	10.3	9.5	8.9	36.3	8.8

Source: 2010 Population and Housing Census

### 11.3 Urban households in Agriculture by District, Locality and Household Size

Table 11.2 shows the urban distribution of households in agriculture in the region and the districts. The Northern region has approximately 7.5 percent of the national total of urban households in agriculture. In the districts, urban areas as in the national and regional, the proportion of households rises according to size from the 1-person household to 7-person household, then drops for 8- and 9-person households and increases again for households of 10 or more persons. The average household size in agriculture in the urban Northern region is 8.9.

**Table 11.2: Urban households in agriculture by district, type of locality and household size**

	Urban												Average
	Total	%	1	2	3	4	5	6	7	8	9	10+	
All Regions	662,775	100	11.9	10.2	12.0	13.6	13.3	11.3	8.4	5.9	3.9	9.5	5.2
Northern	49,537	100	3.3	3.6	5.5	7.7	9.0	10.0	9.4	8.5	7.3	35.8	8.9
Bole	739	100	7.0	5.0	8.7	10.1	10.4	11.1	9.9	9.3	6.2	22.2	6.8
Sawla-Tuna-Kalba	901	100	5.2	5.9	8.9	11.3	11.1	12.8	11.2	9.1	7.4	17.1	6.5
West Gonja	2,040	100	4.1	4.2	5.6	8.1	8.9	11.4	10.5	10.0	6.1	31.1	7.8
Central Gonja	1,045	100	3.2	3.2	4.1	7.2	10.6	10.8	9.4	12.3	7.9	31.3	8.3
East Gonja	1,844	100	5.9	4.2	6.2	10.8	11.2	11.1	10.6	10.1	7.0	22.9	7.1
Kpandai	1,328	100	7.6	6.3	7.1	10.8	11.8	12.5	9.6	7.8	7.5	19.1	6.5
Nanumba South	1,833	100	3.5	4.3	7.0	7.5	10.0	11.5	10.5	9.3	7.4	29.0	7.9
Nanumba North	3,514	100	2.9	2.9	5.1	7.2	9.0	9.2	9.9	8.1	8.2	37.5	9.0
Zabzugu-Tatale	2,529	100	0.9	1.6	2.3	4.8	5.9	7.0	6.8	8.3	8.1	54.3	11.1
Yendi Municipal	3,208	100	2.6	3.2	3.1	5.4	6.4	7.4	7.8	7.8	6.6	49.8	11.3
Tamale Metropolis	9,656	100	3.8	3.9	5.7	7.5	8.6	9.7	8.6	8.2	6.3	37.6	9.3
Tolon Kumbungu	718	100	3.1	2.5	6.8	6.8	11.7	10.6	10.3	8.6	6.5	33.0	8.5
Savelugu Nanton	4,958	100	2.2	3.1	4.7	6.6	7.1	8.3	8.7	7.9	7.7	43.8	9.9
Karaga	1,400	100	1.1	2.4	4.1	6.1	6.6	8.4	9.0	8.2	8.6	45.5	10.1
Gushiegu	1,961	100	2.3	2.7	3.6	5.0	6.2	7.1	8.7	6.9	6.4	51.0	11.4
Saboba	721	100	6.2	6.1	10.3	10.1	13.2	13.9	10.0	8.6	6.7	15.0	6.2
Chereponi	803	100	4.9	5.6	7.3	10.6	10.3	11.7	10.1	9.7	8.3	21.4	7.1
Bunkpurugu-Yunyoo	2,413	100	4.0	4.9	8.4	14.0	14.5	14.8	13.4	9.2	7.0	9.9	6.0
Mamprusi East	3,991	100	1.8	3.2	6.2	7.0	9.7	11.5	9.7	9.0	8.7	33.3	8.4
Mamprusi West	3,935	100	2.6	2.8	5.1	7.3	9.5	9.8	9.9	7.8	8.5	36.8	8.9

Source: 2010 Population and Housing Census

### 11.4 Rural households in Agriculture by District, Locality and Household Size

As shown in Table 11.3, the rural distribution of households in agriculture by household sizes follows the same pattern as that of the national. The percentages increase from 1-person households to their peak around 5- and 6-person households, then drop, only to rise again at 10+ household size. The lowest proportion recorded for 1-person households is 0.6 percent for both Chereponi and East Mamprusi, while the highest is 49.7 percent in Karaga District. The average household size in agriculture in rural Northern region is 8.4 persons per household; this surprisingly is lower than that of the urban average of 8.9. The average size of

households in agriculture in rural Northern region ranges from a minimum of 6.8 people in Kpandai to 10.2 people in Karaga

**Table 11.3: Rural households in agriculture by district, locality and household size**

	Rural												Average
	Total	%	1	2	3	4	5	6	7	8	9	10+	
All Regions	1,840,231	100	10.3	9.4	11.4	13.2	13.3	11.7	9.0	6.6	4.5	10.6	5.4
Northern	190,701	100	1.8	2.6	5.4	7.8	10.0	10.8	10.5	9.8	8.2	33.1	8.4
Bole	5,521	100	4.4	4.2	7.2	10.2	12.7	12.3	11.0	9.6	6.8	21.5	6.9
Sawla-Tuna-Kalba	11,044	100	2.7	4.4	6.8	8.7	10.7	12.2	11.6	10.4	8.1	24.4	7.3
West Gonja	6,231	100	2.5	2.6	5.2	7.5	9.1	10.1	10.2	9.8	9.1	33.8	8.3
Central Gonja	7,420	100	2.6	2.6	5.6	8.4	10.1	11.4	10.7	9.0	7.9	31.7	8.1
East Gonja	11,818	100	2.4	2.6	5.5	8.5	11.2	12.2	11.3	10.6	8.7	27.1	7.7
Kpandai	13,376	100	2.9	4.5	8.0	9.8	12.8	12.9	11.1	9.7	7.6	20.7	6.8
Nanumba South	8,794	100	1.3	2.1	5.5	8.3	9.8	10.4	10.9	10.7	8.4	32.6	8.1
Nanumba North	11,405	100	1.4	1.9	4.9	7.5	9.6	10.4	10.4	10.0	8.2	35.8	8.5
Zabzugu-Tatale	10,166	100	1.0	2.0	5.1	7.1	8.3	10.3	10.1	9.3	8.0	38.8	8.7
Yendi Municipal	14,206	100	2.1	2.3	4.3	7.1	9.3	9.7	9.2	9.2	8.0	38.6	9.2
Tamale Metropolis	8,164	100	2.6	3.1	5.8	8.2	10.7	12.2	10.5	9.7	7.4	29.9	8.2
Tolon Kumbungu	10,719	100	1.0	1.7	4.4	5.9	8.4	9.1	9.4	9.0	8.8	42.5	9.4
Savelugu Nanton	8,135	100	2.0	1.8	4.4	5.9	8.2	8.4	8.2	8.7	7.6	44.7	9.9
Karaga	5,863	100	1.1	1.6	3.4	4.7	6.9	7.3	8.4	8.8	8.1	49.7	10.2
Gushiegu	8,276	100	1.8	2.3	3.9	6.7	7.7	8.5	8.6	8.4	7.7	44.2	9.8
Saboba	7,659	100	1.0	2.9	7.0	10.4	11.3	12.1	11.0	9.7	8.4	26.1	7.6
Chereponi	5,671	100	0.6	2.8	6.0	7.9	9.9	11.8	11.3	10.7	8.3	30.7	7.9
Bunkpurugu- Yunyoo	14,165	100	1.2	3.0	6.5	9.2	11.9	13.2	13.2	11.1	8.5	22.2	7.3
East Mamprusi	8,597	100	0.6	1.5	3.5	5.9	8.9	10.5	10.9	9.6	8.7	39.9	9.3
West Mamprusi	13,471	100	1.0	2.4	5.0	7.6	9.5	9.5	10.0	10.0	9.0	36.1	8.7

Source: Generated from 2010 Population and Housing Census data

## 11.5 Households in Agriculture by District, Type of Locality and

### Sex of Head

Table 11.4 indicates that heads of households in agriculture in the Northern region are 90.7 percent male and 9.3 percent female. The pattern is the same in the districts, with the prevalence of male-headed households ranging from 81.6 percent in Sawla-Tuna-Kalba to 94.6 percent in Chereponi, while the proportion of female-headed households in agriculture ranges from as low as 5.4 percent in Chereponi to 18.4 percent in Sawla. With respect to rural-urban distribution of sex of head of households in agriculture, 86.6 percent of urban households in agriculture are headed by males and 13.4 percent by females, while in rural areas, the percentages are even higher for male-headed (91.8%) and female-headed (8.2%) households. This trend may best be explained by cultural practices in the region.

**Table 11.4: Households in agriculture by district, locality and sex of head**

	Total			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All Regions	2,503,006	71.4	28.6	662,775	67.5	32.5	1,840,231	72.8	27.2
Northern	240,238	90.7	9.3	49,537	86.6	13.4	190,701	91.8	8.2
Bole	6,260	85.4	14.6	739	77.7	22.3	5,521	86.4	13.6
Sawla-Tuna-Kalba	11,945	81.6	18.4	901	79.9	20.1	11,044	81.7	18.3
West Gonja	8,271	90.5	9.5	2,040	84.5	15.5	6,231	92.4	7.6
Central Gonja	8,465	91.5	8.5	1,045	84.1	15.9	7,420	92.6	7.4
East Gonja	13,662	91.3	8.7	1,844	84.3	15.7	11,818	92.3	7.7
Kpandai	14,704	88.4	11.6	1,328	85.5	14.5	13,376	88.7	11.3
Nanumba South	10,627	93.8	6.2	1,833	88.9	11.1	8,794	94.8	5.2
Nanumba North	14,919	93.2	6.8	3,514	89.5	10.5	11,405	94.4	5.6
Zabzugu-Tatale	12,695	94.4	5.6	2,529	90.3	9.7	10,166	95.4	4.6
Yendi Municipal	17,414	92.9	7.1	3,208	89.5	10.5	14,206	93.7	6.3
Tamale Metropolis	17,820	89.9	10.1	9,656	89.3	10.7	8,164	90.5	9.5
Tolon Kumbungu	11,437	93.6	6.4	718	86.2	13.8	10,719	94.0	6.0
Savelugu Nanton	13,093	92.0	8.0	4,958	88.4	11.6	8,135	94.2	5.8
Karaga	7,263	93.4	6.6	1,400	87.3	12.7	5,863	94.9	5.1
Gushiegu	10,237	93.5	6.5	1,961	89.1	10.9	8,276	94.6	5.4
Saboba	8,380	90.0	10.0	721	73.0	27.0	7,659	91.6	8.4
Chereponi	6,474	94.6	5.4	803	86.7	13.3	5,671	95.8	4.2
Bunkpurugu-Yunyoo	16,578	84.7	15.3	2,413	72.7	27.3	14,165	86.7	13.3
Mamprusi East	12,588	90.1	9.9	3,991	85.9	14.1	8,597	92.1	7.9
Mamprusi West	17,406	91.1	8.9	3,935	85.6	14.4	13,471	92.7	7.3

## 11.6 Households in Agriculture by District and Agricultural Activity

Table 11.5 touches on the main agriculture activities and how they are distributed in the Northern region. The table indicates that most households are in crop farming (90.5%) and livestock rearing (30.1%) while tree growing (0.9%) and fish farming (0.1%) are the least practiced agriculture activity. The large percentages for both crop farming and livestock rearing may be explained by households engaging in more than one activity. The Savelugu Nanton District has the highest proportion of households in crop farming involving 94.3 percent of households. The Bunkpurugu-Yunyoo District has the highest number of households in livestock rearing (66.7 %).

**Table 11.5: Urban households in agriculture by district, locality, activity and sex of head (Urban)**

Region/District	All urban households in agriculture		Crop farming		Tree growing		Livestock rearing		Fish farming	
	Total	%	Total	%	Total	%	Total	%	Total	%
Ghana	662,775	100.0	597,768	90.2	10,678	1.6	199,806	30.1	1,607	0.2
Northern region	49,537	100.0	44,846	90.5	460	0.9	24,000	48.4	42	0.1
Bole	739	100.0	619	83.8	10	1.4	306	41.4	1	0.1
Sawla-Tuna-Kalba	901	100.0	783	86.9	10	1.1	399	44.3	0	0.0
West Gonja	2,040	100.0	1,764	86.5	3	0.1	880	43.1	4	0.2
Central Gonja	1,045	100.0	898	85.9	32	3.1	334	32.0	1	0.1
East Gonja	1,844	100.0	1,635	88.7	18	1.0	658	35.7	0	0.0
Kpandai	1,328	100.0	1,246	93.8	5	0.4	604	45.5	0	0.0
Nanumba South	1,833	100.0	1,773	96.7	6	0.3	810	44.2	1	0.1
Nanumba North	3,514	100.0	3,324	94.6	37	1.1	1,406	40.0	7	0.2
Zabzugu-Tatale	2,529	100.0	2,442	96.6	15	0.6	1,255	49.6	2	0.1
Yendi Municipal	3,208	100.0	2,975	92.7	17	0.5	1,176	36.7	1	0.0
Tamale Metropolis	9,656	100.0	7,713	79.9	35	0.4	4,178	43.3	10	0.1
Tolon Kumbungu	718	100.0	649	90.4	6	0.8	426	59.3	0	0.0
Savelugu Nanton	4,958	100.0	4,677	94.3	146	2.9	3,032	61.2	4	0.1
Karaga	1,400	100.0	1,378	98.4	2	0.1	550	39.3	0	0.0
Gushiegu	1,961	100.0	1,904	97.1	16	0.8	711	36.3	0	0.0
Saboba	721	100.0	636	88.2	4	0.6	431	59.8	1	0.1
Chereponi	803	100.0	721	89.8	5	0.6	381	47.4	1	0.1
Bunkpurugu-Yunyoo	2,413	100.0	2,261	93.7	66	2.7	1,609	66.7	1	0.0
Mamprusi East	3,991	100.0	3,745	93.8	17	0.4	2,356	59.0	2	0.1
Mamprusi West	3,935	100.0	3,703	94.1	10	0.3	2,498	63.5	6	0.2

Source: Generated from 2010 Population and Housing Census data

## 11.7 Households in Agriculture by District, Locality, Activity and Sex of Head

Table 11.6 indicates that out of the 49,537 urban households in agriculture in the Northern region, 90.2 percent are engaged in crop farming, 1.6 percent in tree growing, 0.2 percent in fish farming and 30.1 percent in livestock rearing. It is worth noting that, some households are involved in more than one agricultural activity. For example a household could be involved in tree growing as well as livestock rearing. Gushiegu has the largest proportion of households in crop farming (98.4%) while the Central Gonja District leads in tree growing.

**Table 11.6: Urban households in agriculture by district, locality, activity and sex of head**

			Crop farming		Tree growing		Livestock rearing		Fish farming	
	Total	%	Total	%	Total	%	Total	%	Total	%
Northern region	662,775	100	597,768	90.2	10,678	1.6	199,806	30.1	1,607	0.2
Bole	49,537	100	44,846	90.5	460	0.9	24,000	48.4	42	0.1
Sawla-Tuna-Kalba	739	100	619	83.8	10	1.4	306	41.4	1	0.1
West Gonja	901	100	783	86.9	10	1.1	399	44.3	0	0.0
Central Gonja	2,040	100	1,764	86.5	3	0.1	880	43.1	4	0.2
East Gonja	1,045	100	898	85.9	32	3.1	334	32	1	0.1
Kpandai	1,844	100	1,635	88.7	18	1.0	658	35.7	0	0.0
Nanumba South	1,328	100	1,246	93.8	5	0.4	604	45.5	0	0.0
Nanumba North	1,833	100	1,773	96.7	6	0.3	810	44.2	1	0.1
Zabzugu-Tatale	3,514	100	3,324	94.6	37	1.1	1,406	40	7	0.2
Yendi Municipal	2,529	100	2,442	96.6	15	0.6	1,255	49.6	2	0.1
Tamale Metropolis	3,208	100	2,975	92.7	17	0.5	1,176	36.7	1	0.0
Tolon Kumbungu	9,656	100	7,713	79.9	35	0.4	4,178	43.3	10	0.1
Savelugu Nanton	718	100	649	90.4	6	0.8	426	59.3	0	0.0
Karaga	4,958	100	4,677	94.3	146	2.9	3,032	61.2	4	0.1
Gushiegu	1,400	100	1,378	98.4	2	0.1	550	39.3	0	0.0
Saboba	1,961	100	1,904	97.1	16	0.8	711	36.3	0	0.0
Chereponi	721	100	636	88.2	4	0.6	431	59.8	1	0.1
Bunkpurugu-Yunyoo	803	100	721	89.8	5	0.6	381	47.4	1	0.1
East Mamprusi	2,413	100	2,261	93.7	66	2.7	1,609	66.7	1	0.0
West Mamprusi	3,991	100	3,745	93.8	17	0.4	2,356	59	2	0.1
Mamprusi West	3,935	100	3,703	94.1	10	0.3	2,498	63.5	6	0.2

Source: 2010 Population and Housing Census

## 11.8 Distribution of Livestock by Locality and Number of Holdings/Livestock

Livestock rearing is a major activity in the Northern region. Table 11.7 shows the distribution of livestock, by locality and number of holdings. The table indicates that there are six major holdings of livestock in the Northern region, namely. goats, chickens, sheep, cattle, guinea fowl and pigs. The rural areas of the Northern region have far more livestock holdings (86.0%) than the urban areas (14.0%). The distribution of the number of livestock also follows the same pattern, with 13.2 percent and 86.8 percent for urban and rural areas respectively.

**Table 11.7: Distribution of livestock by region, locality and number of holdings/livestock**

	Number of holdings					Total livestock				
	Total	Urban	Rural	Urban	Rural	Total	Urban	Rural	Urban	Rural
Northern region	328,166	45,807	282,359	14.0	86.0	5,863,498	775,221	5,088,277	13.2	86.8
Beehives	663	65	598	9.8	90.2	15,243	2,259	12,984	14.8	85.2
Cattle	38,640	3,577	35,063	9.3	90.7	904,502	93,358	811,144	10.3	89.7
Chicken	84,776	13,829	70,947	16.3	83.7	1,964,626	293,654	1,670,972	14.9	85.1
Dove	1,521	318	1,203	20.9	79.1	52,101	12,212	39,889	23.4	76.6
Duck	3,516	408	3,108	11.6	88.4	56,589	6,210	50,379	11.0	89.0
Goat	92,225	12,917	79,308	14.0	86.0	1,125,396	148,887	976,509	13.2	86.8
Grasscutter	946	126	820	13.3	86.7	18,248	2,106	16,142	11.5	88.5
Guinea fowl	24,216	2,875	21,341	11.9	88.1	590,687	62,949	527,738	10.7	89.3
Ostrich	800	105	695	13.1	86.9	20,847	1,765	19,082	8.5	91.5
Pig	15,409	1,667	13,742	10.8	89.2	169,448	17,168	152,280	10.1	89.9
Rabbit	543	124	419	22.8	77.2	10,761	2,245	8,516	20.9	79.1
Sheep	61,450	9,124	52,326	14.8	85.2	860,343	124,304	736,039	14.4	85.6
Silkworm	516	88	428	17.1	82.9	8,716	1,386	7,330	15.9	84.1
Snail	31	10	21	32.3	67.7	348	69	279	19.8	80.2
Turkey	507	103	404	20.3	79.7	7,936	2,202	5,734	27.7	72.3
Other (specify)	1,749	426	1,323	24.4	75.6	19,594	3,265	16,329	16.7	83.3
Fish farming	267	17	250	6.4	93.6	13,561	586	12,975	4.3	95.7
Inland fishing	247	12	235	4.9	95.1	18,849	367	18,482	1.9	98.1
Marine fishing	144	16	128	11.1	88.9	5,703	229	5,474	4.0	96.0

Source: 2010 Population and Housing Census

# **CHAPTER TWELVE**

## **HOUSING CONDITIONS**

### **12.1 Introduction**

Housing is one of the basic necessities for human wellbeing and survival. According to the United Nations' standard definition: a house is a "structurally separate and independent place of abode such that a person or group of persons can isolate themselves from the hazard of the climate, such as storms and sun". The types of material that are used to construct houses in the Northern region include galvanised zinc, cement, mud, grass, wood, and stone. The larger the household size, the more likely it is that there will be overcrowding as far as room occupancy is concerned, which may lead to the spread of communicable diseases.

### **12.2 Housing Stock**

Table 12.1 presents the housing stock and average household size, by district. Tamale Metropolis has the highest proportion (13.9%) of the total housing stock, followed by Yendi Municipality (7.4%). The total housing stock in the region is 257,311 and it includes completed houses which were not occupied at the time the census was taken. This represents a 47.5 percent increase over the total housing stock recorded in the 2000 Population and Housing Census.

The population per house ranges from 6.9 in Sawla-Tuna-Kalba to 12.6 in Mamprusi West. The average household size for the region is 7.7, which is higher than the national average of 4.4. Karaga has the highest average household size (10.1 members) while Bole has the lowest (6.1 members). The average number of households per house in the Northern region is 1.2, which compares favourably with the national figure of 1.7.

The data for the region further show that, population per house is 9.5 compared with the national figure of 7.3. At the district level, the population per house ranges from about 7 persons in Bole to about 13 persons in West Mamprusi. The indicators show that the Northern region has slightly more crowded households than other parts of the country.

**Table 12.1: Stock of houses and average household size by district**

Districts	Number of persons	Housing stock	Number of households	Population per house	Distribution of housing stock (%)	Average household size	Average households per house
All Districts	2,445,061	257,311	318,119	9.5	100	7.7	1.2
Bole	61,593	8,969	10,160	6.9	3.5	6.1	1.1
Sawla-Tuna-Kalba	99,863	13,634	14,906	7.3	5.3	6.7	1.1
West Gonja	84,727	9,767	11,048	8.7	3.8	7.7	1.1
Central Gonja	87,877	12,041	11,413	7.3	4.7	7.7	0.9
East Gonja	135,450	17,818	18,811	7.6	6.9	7.2	1.1
Kpandai	108,816	13,931	16,394	7.8	5.4	6.6	1.2
Nanumba South	93,464	10,112	11,487	9.2	3.9	8.1	1.1
Nanumba North	141,584	14,273	16,914	9.9	5.5	8.4	1.2
Zabzugu-Tatale	123,854	11,426	13,553	10.8	4.4	9.1	1.2
Yendi Municipal	199,592	19,155	21,563	10.4	7.4	9.3	1.1
Tamale Metropolis	371,351	35,694	58,855	10.4	13.9	6.3	1.6
Tolon Kumbungu	112,331	10,229	12,243	11.0	4.0	9.2	1.2
Savelugu Nanton	139,283	12,483	14,669	11.2	4.9	9.5	1.2
Karaga	77,706	6,565	7,664	11.8	2.6	10.1	1.2
Gushiegu	111,259	10,055	11,150	11.1	3.9	10.0	1.1
Saboba	65,706	6,180	9,011	10.6	2.4	7.3	1.5
Chereponi	53,394	4,558	7,116	11.7	1.8	7.5	1.6
Bunkpurugu-Yunyoo	122,591	16,416	17,621	7.5	6.4	7.0	1.1
Mamprusi East	121,009	10,625	13,895	11.4	4.1	8.7	1.3
Mamprusi West	168,011	13,380	19,646	12.6	5.2	8.6	1.5

Source: 2010 Population and Housing Census

### 12.3 Type of Dwelling (occupied and unoccupied) by District

Table 12.2 shows that the type of dwelling that features most in the Northern region is huts/buildings on the same compound. The regional figure is 63.7 percent while at the district level, West Mamprusi has the highest proportion (76.9%), closely followed by Nanumba North (75.3%), Nanumba South (74.4%) and Tamale Metropolis (74.2%). Uncompleted buildings are negligible in most districts, except in East Gonja and Tamale Metropolis where they amount to 1.7% and 1.6% respectively.

### 12.4 Materials for Outer Walls (occupied and unoccupied)

Table 12.3 shows that the main construction material for the outer walls of dwelling units is either mud bricks or earth. While the regional figure is 72.9 percent, Bunkpurugu-Yunyoo and East Mamprusi Districts recorded 94.8 percent and 90.6 percent respectively. The Tamale Metropolis recorded the least proportion of 33.2 percent. The national average of the proportion of dwellings with outer walls made of cement/concrete is 57.5 percent compared to 19.1 percent for the Northern region. The Tamale Metropolis has 58.7 percent of dwellings made up of cement/concrete. In the remaining districts, only Bole and East Gonja have proportions of households with dwellings above 20 percent.

**Table 12.2: Type of dwelling by district**

District	Total	Percent	Separate house	Semi-detached house	Flat/ Apartment	Compound house (rooms)	Huts/Buildings (same compound)	Huts / Buildings (different compound)	Tent	Improvised home (kiosk/ container, etc.)	Living quarters attached to office/shop	Uncompleted building	Other
All Districts	339,874	100	17.6	4.2	1.1	63.7	10.6	1.1	0.3	0.2	0.2	0.7	0.3
Bole	11,064	100	46.8	4.6	0.8	37.5	7.1	1.5	0.2	0.5	0.3	0.6	0.1
Sawla-Tuna-Kalba	16,354	100	48.7	6.7	0.5	40.9	1.4	0.4	0.2	0.1	0.1	0.9	0.1
West Gonja	13,120	100	26.8	7.2	0.8	43.1	20.5	0.7	0.4	0.1	0.2	0.1	0
Central Gonja	13,455	100	26	11.3	0.7	36.8	21.2	2.1	0.3	0.4	0.2	0.8	0.2
East Gonja	21,209	100	25.1	9.1	1.2	46.3	12.1	3.5	0.3	0.1	0.1	1.7	0.4
Kpandai	17,967	100	34.6	5.7	0.5	55.1	2.9	0.3	0.2	0.1	0.1	0.4	0.2
Nanumba South	13,013	100	14.9	1.7	0.4	74.4	4.2	1	0.2	0.1	0.2	0.5	2.5
Nanumba North	18,540	100	12.4	2.7	0.9	75.3	6.9	0.7	0.2	0.1	0.2	0.4	0.2
Zabzugu-Tatale	14,201	100	15.6	3.8	0.6	71.6	6.3	0.8	0.3	0.1	0.2	0.5	0.2
Yendi Municipal	22,932	100	10.4	2.9	1.5	68.8	12.4	2.1	0.3	0.2	0.2	0.8	0.5
Tamale Metropolis	62,091	100	10.9	4	2.8	74.2	4.9	0.5	0.2	0.2	0.3	1.6	0.2
Tolon Kumbungu	12,588	100	3.8	3.7	0.9	56.8	33.4	0.6	0.2	0.2	0.2	0.1	0.2
Savelugu Nanton	15,098	100	7.6	1.5	0.6	73.8	14.6	0.9	0.3	0.1	0.2	0.4	0.1
Karaga	7,877	100	8.1	1.4	0.2	68	20.6	0.8	0.1	0.1	0.4	0.2	0.1
Gushiegu	11,382	100	7.3	3.5	0.4	68.2	18.5	0.8	0.4	0.2	0.1	0.5	0.3
Saboba	9,343	100	25.5	2.7	1.2	57.4	11.8	0.7	0.2	0.1	0.1	0.2	0.1
Chereponi	7,255	100	16.3	1.5	0.5	68.7	9.5	2.5	0.2	0	0.2	0.6	0.1
Bunkpurugu-Yunyoo	18,109	100	13.9	0.9	0.4	68.4	15.2	0.4	0.2	0.1	0.2	0.2	0.1
Mamprusi East	14,256	100	12.4	3.3	1.3	72	9.3	1.1	0.2	0.1	0.1	0.1	0.1
Mamprusi West	20,020	100	7.6	3.2	0.6	76.9	9.5	1.5	0.2	0.1	0.1	0.2	0.1

Source: 2010 Population and Housing Census

**Table 12.3: Main construction materials for outer walls by district**

	Total	Percent	Mud brick/ Earth	Wood	Metal sheet/ Slate/ Asbestos	Stone	Burnt bricks	Cement blocks/ Concrete	Landcrete	Bamboo	Palm leaf/ Thatch (grass)/ Raffia	Other
Ghana	5,817,607	100	34.2	3.4	0.8	0.2	0.7	57.5	1.8	0.1	0.7	0.7
Northern region	339,874	100	72.9	1.6	0.6	0.3	0.2	19.1	3.1	0.1	1.7	0.4
Bole	11,064	100	65.1	2.8	0.2	0.2	0.9	24.5	0.3	0.1	5.6	0.3
Sawla-Tuna-Kalba	16,354	100	88.9	0.6	0.3	0.1	0.1	8.6	0.6	0.0	0.5	0.3
West Gonja	13,120	100	75.6	1.7	0.5	0.1	0.1	15.8	3.4	0.1	2.3	0.4
Central Gonja	13,455	100	73.1	2.1	0.3	0.2	0.1	16.6	2.0	0.1	5.1	0.4
East Gonja	21,209	100	63.6	2.6	0.5	0.5	0.2	22.9	2.3	0.3	6.1	1.1
Kpandai	17,967	100	87.0	1.6	0.9	0.1	0.2	6.4	1.5	0.0	1.9	0.4
Nanumba South	13,013	100	88.1	1.5	0.8	0.2	0.2	5.5	3.0	0.0	0.4	0.3
Nanumba North	18,540	100	80.6	1.6	0.8	0.2	0.2	11.6	2.4	0.1	2.1	0.3
Zabzugu-Tatale	14,201	100	79.3	2.4	0.7	0.3	0.1	8.7	6.4	0.1	1.0	1.0
Yendi Municipal	22,932	100	75.6	1.7	0.7	0.4	0.1	15.3	4.0	0.1	1.6	0.5
Tamale Metropolis	62,091	100	33.2	0.5	0.7	0.5	0.4	58.7	5.6	0.1	0.1	0.3
Tolon-Kumbungu	12,588	100	87.4	1.4	0.3	0.2	0.0	6.7	3.5	0.0	0.3	0.2
Savelugu-Nanton	15,098	100	77.8	1.1	0.3	0.3	0.0	12.1	7.0	0.1	1.1	0.3
Karaga	7,877	100	86.4	3.2	0.6	1.0	0.0	4.2	1.3	0.2	2.9	0.2
Gushiegu	11,382	100	86.2	2.4	0.3	0.3	0.1	6.1	1.7	0.1	2.3	0.5
Saboba	9,343	100	85.1	1.1	0.4	0.5	0.2	7.4	3.4	0.0	1.7	0.2
Chereponi	7,255	100	87.2	2.4	0.2	0.2	0.0	6.8	1.5	0.0	1.2	0.4
Bunkpurugu-Yunyoo	18,109	100	94.8	1.2	0.3	0.2	0.1	2.4	0.3	0.0	0.4	0.2
Mamprusi East	14,256	100	90.6	2.0	1.2	0.5	0.0	2.7	1.1	0.1	1.4	0.3
Mamprusi West	20,020	100	89.0	2.3	0.8	0.2	0.1	3.6	2.0	0.1	1.7	0.2

Source: 2010 Population and Housing Census

## 12.5 Type of Material for Roof

The data in Table 12.4 show that in the region, 56.6 percent of dwellings are roofed with metal sheets, while thatch/palm leaf or raffia constitutes 34.9 percent. In Bole District three main types of materials, metal sheet (55.2%), thatch (21.4%), and mud/mud bricks (20.2%) are used for roofing. The main roofing materials used in Sawla-Tuna-Kalba are metal sheets (60.4%) and mud/mud bricks or earth (32.2%). Tamale Metropolis has the highest proportion (83.4%) of dwellings roofed with metal sheets. About three out of every four dwellings in Tolon Kumbungu are roofed with either thatch/palm leaf or raffia.

**Table 12.4: Main materials used for roofing by district**

	Total	%	Mud/ Mud bricks/ Earth	Wood	Metal sheet	Slate/ Asbestos	Cement/ Concrete	Roofing tile	Bamboo	Thatch/ Palm leaf or Raffia	Other
Ghana	5,817,607	100	1.4	0.8	71.4	13.0	2.4	0.5	1.2	8.6	0.6
Northern region	339,874	100	4.8	1.1	56.6	0.6	0.4	0.2	0.3	34.9	1.0
Bole	11,064	100	20.2	0.7	55.2	0.3	0.7	0.0	0.1	21.4	1.4
Sawla-Tuna-Kalba	16,354	100	32.2	2.3	60.4	0.2	0.3	0.3	0.1	3.2	0.9
West Gonja	13,120	100	2.3	0.8	45.3	0.3	0.4	0.4	0.3	49.5	0.7
Central Gonja	13,455	100	1.6	0.9	41.5	0.1	0.6	0.3	0.3	53.4	1.4
East Gonja	21,209	100	2.0	1.7	55.9	0.2	0.5	0.1	0.3	38.4	0.9
Kpandai	17,967	100	2.2	1.1	68.5	0.1	0.3	0.1	0.1	27.2	0.4
Nanumba South	13,013	100	3.2	1.5	67.7	0.1	0.3	0.1	0.1	26.1	0.8
Nanumba North	18,540	100	4.8	1.1	67.0	0.2	0.3	0.2	0.4	24.7	1.4
Zabzugu-Tatale	14,201	100	2.3	1.7	71.1	0.1	0.4	0.7	0.2	22.3	1.2
Yendi Municipal	22,932	100	3.3	1.1	50.9	0.9	0.4	0.5	0.3	41.5	1.0
Tamale Metropolis	62,091	100	0.7	0.7	83.4	2.2	0.9	0.1	0.2	10.7	1.1
Tolon-Kumbungu	12,588	100	4.9	1.6	15.7	0.5	0.2	0.3	0.1	75.9	0.8
Savelugu-Nanton	15,098	100	3.7	1.0	42.3	0.1	0.2	0.2	0.6	50.9	1.0
Karaga	7,877	100	3.7	1.0	30.8	1.1	0.2	0.6	1.6	59.5	1.3
Gushiegu	11,382	100	4.4	1.5	27.7	0.2	0.2	0.3	1.1	63.4	1.2
Saboba	9,343	100	2.4	1.5	50.1	0.1	0.2	0.1	0.0	44.8	0.7
Chereponi	7,255	100	1.6	0.9	53.6	0.0	0.2	0.5	0.2	42.5	0.5
Bunkpurugu-Yunyoo	18,109	100	6.5	0.4	37.4	0.1	0.2	0.1	0.2	54.1	1.0
Mamprusi East	14,256	100	3.9	1.0	49.5	0.2	0.3	0.1	0.9	43.0	1.2
Mamprusi West	20,020	100	3.6	0.8	48.0	0.1	0.2	0.1	0.5	46.0	0.6

Source: 2010 Population and Housing Census

## 12.6 Material for Floor

Cement/concrete and mud/earth are the main construction materials for floor of dwellings in the region. The proportion of dwellings with cement/concrete floor is (67.4%) while that of mud/earth is 30.7 percent. The remaining materials used for floors in the region constitute less than 1.0 percent. The Tamale Metropolis has the highest proportion of dwellings whose floors are made of concrete/cement (84.3%). The Bunkpurugu-Yunyoo District on the other

hand has the highest proportion (74.2%) of dwellings whose floor are made of earth/mud with only 25.0 percent of floors made up of cement/concrete.

**Table 12.5: Main material used for construction of floor by district**

District	Total	%	Earth/ Mud	Cement/ concrete	Stone	Burnt Brick	Wood	Vinyl Tiles	Ceramic/ Porcelain/ Granite/ Marble Tiles	Terrazzo/ Terrazzo Tiles	Other
All Districts	318,119	100	30.7	67.4	0.4	0.1	0.1	0.2	0.7	0.1	0.3
Bole	10,160	100	36.5	61.9	0.5	0.1	0.0	0.1	0.5	0.2	0.3
Sawla-Tuna-Kalba	14,906	100	50.5	48.6	0.1	0.0	0.0	0.0	0.4	0.0	0.4
West Gonja	11,048	100	16.0	82.4	0.2	0.1	0.0	0.1	0.6	0.1	0.7
Central Gonja	11,413	100	25.8	72.7	0.3	0.1	0.0	0.1	0.5	0.1	0.3
East Gonja	18,811	100	39.6	57.5	0.9	0.2	0.5	0.1	0.5	0.1	0.7
Kpandai	16,394	100	35.8	63.4	0.2	0.1	0.0	0.0	0.3	0.0	0.2
Nanumba South	11,487	100	34.7	64.2	0.2	0.2	0.0	0.0	0.5	0.0	0.3
Nanumba North	16,914	100	42.8	54.9	0.9	0.1	0.0	0.0	0.9	0.1	0.3
Zabzugu-Tatale	13,553	100	28.4	70.5	0.2	0.1	0.0	0.0	0.5	0.0	0.3
Yendi Municipal	21,563	100	28.4	70.0	0.4	0.2	0.0	0.0	0.6	0.0	0.4
Tamale Metropolis	58,855	100	12.5	84.3	0.6	0.1	0.0	0.7	1.1	0.4	0.4
Tolon Kumbungu	12,243	100	34.5	64.2	0.2	0.1	0.0	0.0	0.6	0.1	0.2
Savelugu Nanton	14,669	100	28.9	69.0	0.9	0.0	0.0	0.1	0.6	0.1	0.4
Karaga	7,664	100	35.7	63.6	0.1	0.0	0.1	0.0	0.4	0.0	0.1
Gushiegu	11,150	100	54.7	43.6	0.5	0.0	0.1	0.0	0.7	0.0	0.5
Saboba	9,011	100	19.3	78.6	0.6	0.0	0.2	0.1	0.8	0.1	0.3
Chereponi	7,116	100	14.7	84.1	0.2	0.1	0.0	0.0	0.8	0.0	0.2
Bunkpurugu- Yunyoo	17,621	100	74.2	25.0	0.1	0.1	0.0	0.0	0.3	0.0	0.2
Mamprusi East	13,895	100	25.3	73.1	0.3	0.0	0.1	0.1	0.8	0.1	0.3
Mamprusi West	19,646	100	16.5	82.3	0.2	0.0	0.1	0.0	0.7	0.1	0.2

Source: 2010 Population and Housing Census

## 12.7 Room Occupancy by District

A room is defined as a space in the housing unit or other living quarters, that is at least four square metres enclosed by walls reaching from the floor to the ceiling or roof, covering at least a height of about two metres, of a size large enough to hold a bed for an adult.

At the regional level, households occupying three rooms constitute the highest proportion (15.4%) as shown in Table 12.6. There are variations in the number of rooms occupied by households. Tamale Metropolis has the highest proportion of households that occupy a single room (28.2%) and Bunkpurugu-Yunyoo (1.5%) has the lowest. In Tolon Kumbungu District, about a third of households have nine rooms or more. This is followed closely by East Mamprusi (28.1%) while Bole has the smallest proportion of households (2.4%) occupying nine rooms or more.

**Table 12.6: Rooms per household by district**

Districts	Household	Total	1	2	3	4	5	6	7	8	9+
		%	%	%	%	%	%	%	%	%	%
All Districts	318,119	100	11.2	14.4	15.4	13.9	10.9	9.2	6.4	5.3	13.3
Bole	10,160	100	26.5	25.1	17.9	12.2	7.3	4.8	2.3	1.5	2.4
Sawla-Tuna-Kalba	14,906	100	12.0	19.3	21.4	17.6	10.3	7.4	3.6	3.4	5.0
West Gonja	11,048	100	12.7	18.9	17.5	14.3	9.6	8.2	4.8	4.5	9.6
Central Gonja	11,413	100	10.0	20.7	22.1	16.6	9.9	6.7	4.7	3.3	5.9
East Gonja	18,811	100	12.1	20.6	18.8	15.8	9.9	7.6	4.7	4.2	6.4
Kpandai	16,394	100	10.6	19.8	18.8	16.6	10.1	8.1	4.8	3.9	7.3
Nanumba South	11,487	100	6.7	12.9	17.3	15.7	11.5	9.9	6.6	5.6	13.9
Nanumba North	16,914	100	5.7	13.1	16.7	15.5	11.7	10.4	6.3	5.8	14.8
Zabzugu-Tatale	13,553	100	3.1	9.6	15.9	17.2	13.6	10.7	6.9	6.5	16.5
Yendi Municipal	21,563	100	6.4	11.0	15.9	14.1	12.2	9.0	7.4	5.8	18.1
Tamale Metropolis	58,855	100	28.2	20.9	14.9	9.5	6.8	5.0	3.9	2.9	8.0
Tolon Kumbungu	12,243	100	1.9	4.7	8.4	11.3	11.3	11.3	9.8	8.7	32.6
Savelugu Nanton	14,669	100	6.1	10.2	12.5	12.9	12.5	10.8	8.5	6.4	20.2
Karaga	7,664	100	2.1	5.8	9.8	14.0	12.9	13.1	9.1	8.3	24.9
Gushiegu	11,150	100	3.2	8.4	14.1	14.2	12.5	11.5	8.9	7.4	19.7
Saboba	9,011	100	7.1	18.0	20.8	16.7	12.3	9.2	5.3	4.2	6.4
Chereponi	7,116	100	6.0	12.5	18.4	18.9	13.9	9.9	6.9	5.2	8.4
Bunkpurugu-Yunyoo	17,621	100	1.5	3.6	7.9	13.2	17.6	17.7	12.9	10.2	15.4
Mamprusi East	13,895	100	2.6	4.5	8.8	12.1	12.2	13.5	9.6	8.7	28.1
Mamprusi West	19,646	100	5.7	9.3	13.5	15.3	12.5	11.0	8.3	7.0	17.3

Source: 2010 Population and Housing Census

## 12.8 Sleeping Rooms Occupied by Household

Information on the number of sleeping rooms occupied by a household provides an indication of the level of crowding and the adequacy of housing stock. The higher the socio-economic status of the household, the larger the number of rooms it occupies. Hence, the number of rooms occupied is also a measure of the socio-economic status of the household.

Table 12.7 shows the distribution of the number of sleeping rooms occupied by households, by district. At regional level, about a fifth of households use two rooms for sleeping. At district level, Bole has about a third (32.4%) of households that use one room for sleeping while Kpandai has 29.6 percent of households that occupy two rooms. With regard to the proportion of households that use nine sleeping rooms or more, Karaga District has the highest, at 13.3 percent

**Table 12.7: Sleeping Rooms per Household by District**

Districts	Household	Total Percent	1	2	3	4	5	6	7	8	9+
All Districts	318,119	100.0	15.7	22.4	19.9	14.4	9.0	6.1	3.7	2.7	6.1
Bole	10,160	100.0	32.4	31.7	16.2	10.0	4.5	2.5	1.0	0.7	1.1
Sawla-Tuna-Kalba	14,906	100.0	19.7	28.7	22.2	13.9	6.3	4.0	1.8	1.6	1.7
West Gonja	11,048	100.0	18.3	25.1	18.9	14.3	7.7	6.0	3.3	2.1	4.3
Central Gonja	11,413	100.0	15.0	29.0	21.7	14.5	8.1	4.6	2.4	2.0	2.8
East Gonja	18,811	100.0	16.8	27.2	21.1	14.3	7.7	5.4	2.7	2.0	2.8
Kpandai	16,394	100.0	17.3	29.6	19.9	14.1	7.2	5.0	2.4	2.0	2.6
Nanumba South	11,487	100.0	9.9	20.2	20.4	16.9	10.4	7.5	4.6	3.2	6.9
Nanumba North	16,914	100.0	9.3	20.6	20.1	15.2	10.9	7.6	4.6	3.9	7.9
Zabzugu-Tatale	13,553	100.0	6.7	17.6	20.1	16.8	12.3	8.1	4.9	3.7	9.8
Yendi Municipal	21,563	100.0	9.8	18.3	19.8	14.3	10.1	7.3	5.0	3.8	11.5
Tamale Metropolis	58,855	100.0	34.0	23.3	15.4	8.9	5.5	3.6	2.7	1.8	4.7
Tolon Kumbungu	12,243	100.0	4.2	15.3	20.4	17.8	12.8	9.4	5.8	4.6	9.7
Savelugu Nanton	14,669	100.0	9.0	17.3	18.8	15.4	12.3	8.3	5.2	3.8	9.8
Karaga	7,664	100.0	4.0	12.5	17.7	16.7	12.7	10.4	6.6	6.2	13.3
Gushiegu	11,150	100.0	5.9	16.7	19.7	16.5	12.1	8.6	5.4	4.4	10.8
Saboba	9,011	100.0	13.6	31.7	23.1	15.1	7.8	3.8	1.6	1.3	2.1
Chereponi	7,116	100.0	9.3	24.3	24.7	18.0	9.6	6.1	3.0	1.8	3.2
Bunkpurugu-Yunyoo	17,621	100.0	6.0	23.2	28.6	19.8	10.7	5.5	2.4	1.6	2.1
Mamprusi East	13,895	100.0	5.4	15.6	21.1	17.4	12.3	8.6	5.4	4.4	9.8
Mamprusi West	19,646	100.0	8.4	19.2	20.6	17.0	11.2	7.8	5.2	3.0	7.4

Source: 2010 Population and Housing Census

## 12.9 Holdings and Tenancy by District

In the region as whole, 84.1 percent of housing units belong to the households that occupy them (Table 12.8). Except Tamale Metropolis (57.4%), over 80.0 percent of dwelling units in each district are owned by a household member. In all districts apart from Bole, where 9.6 percent of dwellings are owned by relatives who are not household members, this category of dwelling ownership is below 8.0 percent. Slightly above one quarter (26.2%) of dwelling units are owned by private individuals in Tamale Metropolis who are not household members. This figure is a significant increase from the 19.9 percent recorded in 2000.

**Table 12.8: Ownership of dwellings by district**

	Total	%	Owned by household member	Being purchased (e.g. mortgage)	Relative not a household member	Other private individual	Private employer	Other private agency	Public/Govt. owners hip	Other
Ghana	5,467,05	100.0	52.7	0.8	15.6	26.3	1.5	0.4	2.2	0.4
Northern region	318,119	100.0	84.1	0.4	5.2	7.6	0.4	0.1	1.8	0.3
Bole	10,160	100.0	79.0	0.2	6.7	11.0	0.3	0.2	2.3	0.3
Sawla-Tuna-Kalba	14,906	100.0	87.4	0.6	5.5	4.7	0.6	0.2	1.0	0.1
West Gonja	11,048	100.0	85.4	0.2	3.0	6.4	0.4	0.2	4.3	0.1
Central Gonja	11,413	100.0	91.5	0.3	2.6	3.9	0.2	0.2	1.1	0.2
East Gonja	18,811	100.0	87.5	0.2	4.2	6.0	0.3	0.2	1.3	0.3
Kpandai	16,394	100.0	87.4	0.4	7.8	3.3	0.2	0.0	0.8	0.1
Nanumba South	11,487	100.0	91.2	0.6	5.1	1.9	0.1	0.0	0.9	0.1
Nanumba North	16,914	100.0	90.2	0.5	4.0	3.6	0.2	0.1	1.2	0.1
Zabzugu-Tatale	13,553	100.0	93.6	0.3	2.6	1.7	0.1	0.1	1.4	0.1
Yendi Municipal	21,563	100.0	90.6	0.3	3.5	3.6	0.3	0.1	1.4	0.3
Tamale Metropolis	58,855	100.0	57.4	0.6	9.6	26.2	1.1	0.2	4.2	0.8
Tolon Kumbungu	12,243	100.0	96.1	0.1	0.8	1.1	0.1	0.3	1.5	0.1
Savelugu-Nanton	14,669	100.0	89.3	0.7	4.6	2.9	0.1	0.0	1.5	0.7
Karaga	7,664	100.0	94.7	0.1	3.5	0.8	0.1	0.1	0.6	0.1
Gushiegu	11,150	100.0	95.5	0.3	1.7	1.1	0.2	0.2	1.1	0.1
Saboba	9,011	100.0	85.2	0.5	8.1	3.7	0.7	0.2	1.4	0.2
Chereponi	7,116	100.0	87.3	1.0	6.9	3.5	0.1	0.0	1.1	0.1
Bunkpurugu-Yunyoo	17,621	100.0	94.7	0.1	2.8	1.4	0.1	0.1	0.7	0.1
Mamprusi East	13,895	100.0	93.8	0.3	2.3	1.8	0.2	0.1	1.5	0.0
Mamprusi West	19,646	100.0	90.2	0.6	4.9	3.2	0.3	0.1	0.7	0.1

Source: 2010 Population and Housing Census

## 12.10 Tenure/Holding Arrangement

Table 12.9 indicates that in the region as whole, 83.2 percent of dwelling units are owner-occupied. About 10.5 percent are rented and 5.6 percent are rent free while less than 0.4 percent are perching. The proportion of owner-occupied dwellings varies from 55.1 percent in Tamale Metropolis to 95.8 percent in Tolon Kumbungu and Gushiegu districts. With the exception of Tamale Metropolis where the proportion of rented dwellings is 35.4 percent, renting does not appear to be common as a tenancy arrangement in the rest of the districts. Rent-free dwellings are fairly common in Saboba (12.5%) and Chereponi (11.3%).

**Table 12.9: Present holding/tenancy arrangement by district**

	Total	Percent	Owner occupied	Renting	Rent- free	Perching	Squatting	Other
Ghana	5,467,054	100.0	47.2	31.1	20.8	0.5	0.3	0.2
Northern region	318,119	100.0	83.2	10.5	5.6	0.4	0.1	0.3
Bole	10,160	100.0	76.4	13.5	9.5	0.2	0.1	0.3
Sawla-Tuna-Kalba	14,906	100.0	85.0	7.7	7.0	0.3	0.1	0.0
West Gonja	11,048	100.0	84.0	9.3	6.0	0.2	0.3	0.1
Central Gonja	11,413	100.0	90.4	5.8	3.3	0.2	0.0	0.3
East Gonja	18,811	100.0	85.8	8.3	5.3	0.3	0.0	0.2
Kpandai	16,394	100.0	85.7	4.5	9.4	0.3	0.1	0.0
Nanumba South	11,487	100.0	90.8	2.6	5.4	1.1	0.0	0.1
Nanumba North	16,914	100.0	89.6	4.8	4.4	1.0	0.0	0.1
Zabzugu-Tatale	13,553	100.0	93.4	3.0	2.8	0.5	0.0	0.2
Yendi Municipal	21,563	100.0	90.8	5.1	3.3	0.5	0.2	0.1
Tamale Metropolis	58,855	100.0	55.1	35.4	8.4	0.2	0.0	0.8
Tolon-Kumbungu	12,243	100.0	95.8	2.6	1.1	0.4	0.1	0.1
Savelugu-Nanton	14,669	100.0	91.6	3.7	3.3	0.7	0.1	0.4
Karaga	7,664	100.0	94.7	1.1	3.6	0.3	0.0	0.1
Gushiegu	11,150	100.0	95.8	2.1	1.3	0.5	0.1	0.2
Saboba	9,011	100.0	82.5	4.4	12.5	0.4	0.1	0.0
Chereponi	7,116	100.0	83.7	4.7	11.3	0.1	0.0	0.2
Bunkpurugu-Yunyoo	17,621	100.0	94.4	1.8	3.1	0.6	0.1	0.0
Mamprusi East	13,895	100.0	93.7	2.5	3.2	0.5	0.0	0.1
Mamprusi West	19,646	100.0	91.2	4.7	3.8	0.2	0.0	0.0

Source: GSS, 2010 Population and Housing Census

### 12.11 Lighting and Cooking Facilities by District and Locality

Table 12.10 shows that 42.3 percent of households in the Northern region use kerosene lamp as their main source of lighting in their dwellings, 36.1 percent use electricity (a 14.1 percent increase over the 2000 figure) and 19.0 percent use flashlight/torch. Tamale Metropolis has 78.8 percent of its households using electricity while Bunkpurugu-Yunyoo has 9.9 percent of its households using electricity. Zabzugu Tatale has 72.3 percent of its households using kerosene lamp followed by Nanumba South with 60.9 percent and Nanumba North with 60.7 percent. In Bole District, more households (60.7%) use flashlight/torch than in any other district.

**Table 12.10: Main source of lighting by district**

	Total	Percent	Electricity (mains)	Electricity (private generator)	Kerosene lamp	Gas lamp	Solar energy	Candle	Flashlight / Torch	Firewood	Crop residue	Other
Ghana	5,467,054	100	64.2	0.7	17.8	0.2	0.2	0.8	15.7	0.2	0.1	0.2
Northern region	318,119	100	36.1	0.7	42.3	0.3	0.3	0.2	19.0	0.7	0.2	0.1
Bole	10,160	100	23.8	1.2	12.4	0.6	0.2	0.2	60.7	0.6	0.1	0.2
Sawla-Tuna-Kalba	14,906	100	16.0	0.4	27.2	0.2	0.3	0.1	53.1	1.6	0.2	0.9
West Gonja	11,048	100	33.7	0.4	32.2	0.2	1.7	0.2	30.8	0.5	0.2	0.0
Central Gonja	11,413	100	15.3	0.5	51.0	0.2	1.1	0.0	30.6	0.8	0.2	0.2
East Gonja	18,811	100	32.1	0.6	45.6	0.2	0.3	0.6	19.6	0.6	0.3	0.0
Kpandai	16,394	100	29.6	0.9	51.6	0.3	0.2	0.0	16.7	0.4	0.1	0.0
Nanumba South	11,487	100	30.4	0.6	60.9	0.3	0.1	0.1	7.1	0.4	0.2	0.0
Nanumba North	16,914	100	31.1	0.7	60.7	0.4	0.2	0.0	5.9	0.6	0.3	0.0
Zabzugu Tatale	13,553	100	18.9	0.9	72.3	0.4	0.2	0.1	6.2	0.8	0.4	0.0
Yendi Municipal	21,563	100	28.4	0.6	59.3	0.3	0.2	0.1	10.1	0.6	0.3	0.0
Tamale Metropolis	58,855	100	78.8	0.7	15.1	0.1	0.1	0.3	4.5	0.3	0.1	0.1
Tolon Kumbungu	12,243	100	39.0	0.6	49.3	0.4	0.2	0.0	9.6	0.6	0.3	0.0
Savelugu Nanton	14,669	100	42.0	0.9	37.8	0.3	0.5	0.1	17.3	0.5	0.5	0.2
Karaga	7,664	100	18.1	0.8	51.8	0.2	0.2	0.1	26.9	1.4	0.4	0.1
Gushiegu	11,150	100	18.2	1.1	52.1	0.2	0.7	0.1	26.0	1.0	0.5	0.1
Saboba	9,011	100	19.0	0.5	56.3	0.6	0.3	0.0	22.1	0.9	0.2	0.0
Chereponi	7,116	100	20.3	0.6	59.8	0.2	0.3	0.0	16.0	2.2	0.6	0.0
Bunkpurugu-Yunyoo	17,621	100	9.9	0.4	57.4	0.2	0.7	0.0	30.2	0.8	0.2	0.0
Mamprusi East	13,895	100	38.7	0.9	42.6	0.2	0.1	0.2	15.0	1.7	0.1	0.4
Mamprusi West	19,646	100	26.8	0.6	38.0	0.4	0.3	0.1	32.6	0.6	0.3	0.3

Source: 2010 Population and Housing Census

## **12.12 Main Source of Cooking Fuel**

Table 12.11 shows the distribution of the type of fuel used by households for cooking. In the region, about 76.5 percent of households use wood as the main source of fuel for cooking while 16.4 percent use charcoal and 7.1 percent use other forms of energy. Except for the Tamale Metropolis (29.1%), more than 60.0 percent of households in the remaining districts use wood as their main source of cooking fuel. The Tamale Metropolis also has the highest proportion of households (13.4%) that use liquefied petroleum gas (LPG).

## **12.13 Cooking space used by Household**

A cooking space is a separate room, usually referred to as a kitchen, equipped and intended primarily for the purpose of preparing meals. Table 12.12 shows that 48.9 percent of households in the region use an open space in their compound for cooking, while 29.2 percent use a kitchen either exclusively or shared with other households. The remaining 21.9 percent of households use other spaces such as the verandah or bedroom for cooking. At district level, the distribution of the types of cooking space is generally similar to that at regional level. Savelugu Nanton District, at 78.2 percent, has the highest proportion of households that uses open space for cooking. This is followed closely by Gushiegu and Saboba where 78.1 percent and 76.7 percent respectively of households use an open space for cooking.

## **12.14 Bathing Facilities**

Table 12.13 shows the distribution of bathing facilities of households, by district. A bathing facility refers to a place where members of the household take their bath. It distinguishes between the availability of a separate room for bathing in the living quarters, an open cubicle for bathing in the house, a public bathhouse and other types of bathing space.

In the region as a whole, 29.9 percent of households have a shared separate bathroom, while the proportion with an own bathroom for exclusive use is 34.0 percent and the shared open cubicle is 15.3 percent.

Among the districts, Bunkpurugu-Yunyoo has nearly 60.0 percent of households with their own exclusive bathroom, followed by Saboba District at 52.0 percent. With regard to shared separate bathroom in the same house, Tolon Kumbungu has 43.7 percent, followed by Savelugu Nanton where the proportion is 42.3 percent. Between 2.0 percent to 20.0 percent make use of open spaces around the house for bathing.

**Table 12.11: Main source of cooking fuel for households**

	Households	%	None/ no cooking	Wood	Gas	Electricity	Kerosene	Charcoal	Crop residue	Sawdust	Animal waste	Other
All districts	318,119	100	2.1	76.5	3.3	0.4	0.4	16.4	0.6	0.2	0.0	0.1
Bole	10,160	100	4.1	68.3	2.1	0.2	0.1	24.5	0.5	0.0	0.0	0.1
Sawla-Tuna-Kalba	14,906	100	2.5	84.2	0.9	0.1	0.1	11.5	0.6	0.0	0.0	0.0
West Gonja	11,048	100	2.2	79.7	1.7	0.2	0.2	15.4	0.6	0.0	0.0	0.0
Central Gonja	11,413	100	1.6	88.4	0.8	0.2	0.3	8.0	0.6	0.0	0.0	0.0
East Gonja	18,811	100	2.1	78.7	1.3	0.2	1.0	1.6	0.5	0.1	0.0	0.1
Kpandai	16,394	100	1.5	89.5	0.6	0.3	0.3	7.5	0.3	0.0	0.0	0.0
Nanumba South	11,487	100	1.2	94.1	0.7	0.4	0.9	2.2	0.6	0.0	0.0	0.0
Nanumba North	16,914	100	1.2	87.9	1.2	0.2	0.5	8.2	0.6	0.1	0.0	0.0
Zabzugu-Tatale	13,553	100	0.6	92.3	0.7	0.2	0.2	5.6	0.4	0.0	0.0	0.0
Yendi Municipal	21,563	100	1.3	85.3	1.0	0.2	0.4	11.1	0.4	0.1	0.0	0.1
Tamale Metropolis	58,855	100	5.3	29.1	13.4	1.5	0.4	48.6	0.4	0.7	0.1	0.6
Tamale South	12,071	100	3.3	51.5	7.9	1.1	0.3	33.7	0.7	1.3	0.0	0.2
Tamale Central	23,337	100	7.8	10.8	12.6	0.3	0.5	66.8	0.1	0.3	0.0	0.8
Tamale North	23,447	100	3.7	35.9	17.1	2.8	0.3	38.2	0.6	0.8	0.1	0.6
Tolon Kumbungu	12,243	100	0.8	93.8	1.8	0.2	0.4	2.1	0.9	0.1	0.0	0.0
Savelugu Nanton	14,669	100	1.5	89.2	1.3	0.2	0.1	7.0	0.6	0.0	0.0	0.0
Karaga	7,664	100	0.4	95.8	1.0	0.1	0.2	1.8	0.7	0.0	0.0	0.0
Gushiegu	11,150	100	0.8	93.9	0.7	0.2	0.2	3.5	0.8	0.0	0.0	0.0
Saboba	9,011	100	0.7	88.1	1.2	0.2	0.2	8.9	0.7	0.0	0.0	0.0
Chereponi	7,116	100	1.4	87.9	0.7	0.2	0.3	8.4	0.5	0.0	0.0	0.8
Bunkpurugu-Yunyoo	17,621	100	0.9	91.1	0.5	0.2	0.1	6.5	0.6	0.0	0.0	0.0
Mamprusi East	13,895	100	1.0	86.1	1.0	0.2	0.4	10.3	0.9	0.0	0.0	0.1
Mamprusi West	19,646	100	0.9	87.4	0.8	0.1	0.3	9.7	0.7	0.0	0.0	0.0

Source: 2010 Population and Housing Census

**Table 12.12: Cooking space used by household by district**

Districts	Households	%	No cooking space	Separate room exclusive use of household	Separate room shared with other households	Enclosure without roof	Structure with roof but without walls	Bedroom /Hall/ Living room)	Verandah	Open space in compound	Other
All Districts	318,119	100	3.4	25.8	3.4	3.5	3.5	0.4	10.7	48.9	0.4
Bole	10,160	100	5.5	23.2	2.7	1.0	4.1	0.6	19.3	43.3	0.3
Sawla-Tuna-Kalba	14,906	100	5.7	47.2	3.0	2.0	2.5	1.3	12	26.1	0.2
West Gonja	11,048	100	2.8	14.5	1.9	3.5	4.0	0.4	10.5	62.3	0.1
Central Gonja	11,413	100	2.4	17.0	1.4	1.2	10.9	0.6	6.2	60.2	0.1
East Gonja	18,811	100	3.9	21.3	3.7	2.6	14.0	0.2	8.2	45.9	0.2
Kpandai	16,394	100	3.5	38.0	11.4	1.4	10.7	0.2	4.2	30.3	0.3
Nanumba South	11,487	100	2.8	27.2	7.2	2.4	5.8	0.5	2.1	51.7	0.3
Nanumba North	16,914	100	3.5	11.8	3.4	1.9	4.2	0.4	5.8	68.8	0.2
Zabzugu-Tatale	13,553	100	1.8	26.0	4.1	1.7	4.0	0.2	4.2	57.8	0.2
Yendi Municipal	21,563	100	2.7	14.1	2.5	1.2	3.3	0.3	6.1	69.5	0.3
Tamale Metropolis	58,855	100	5.7	13.3	1.7	0.5	0.7	0.6	33.2	44.1	0.2
Tolon Kumbungu	12,243	100	1.2	16.5	2.6	1.1	0.5	0.4	2.3	74.9	0.5
Savelugu Nanton	14,669	100	1.9	10.9	3.7	1.0	0.6	0.1	3.4	78.2	0.2
Karaga	7,664	100	0.8	12.3	2.7	2.9	1.5	0.1	1.2	78.1	0.4
Gushiegu	11,150	100	1.4	8.4	2.9	4.7	2.0	0.6	3.2	76.7	0.1
Saboba	9,011	100	2.3	37.8	3.6	0.9	0.6	0.2	4.3	50.1	0.2
Chereponi	7,116	100	3.9	51.3	3.6	2.6	2.8	1.9	4.9	28.8	0.2
Bunkpurugu-Yunyoo	17,621	100	3.3	77.6	2.6	2.7	0.4	0.2	1.6	11.4	0.2
Mamprusi East	13,895	100	2.2	35.4	3.1	25.4	1.4	0.2	3.4	28.7	0.2
Mamprusi West	19,646	100	2.6	41.7	4.5	15.0	1.0	0.3	4.7	29.9	0.3

Source: 2010 Population and Housing Census

**Table 12.13: Type of bathing facility used by households by district**

District	Households	%	Own bathroom for exclusive use	Shared separate bathroom in the same house	Private open cubicle	Shared open cubicle	Public bath house	Bathroom in another house	Open space around house	River/pond/lake/dam	Other
All Districts	318,119	100.0	34.0	29.9	6.9	15.3	3.9	0.8	8.6	0.3	0.2
Bole	10,160	100.0	25.8	17.7	9.3	19.3	3.4	3.8	20.0	0.3	0.3
Sawla-Tuna-Kalba	14,906	100.0	49.7	19.0	8.8	6.4	1.1	1.2	13.6	0.1	0.1
West Gonja	11,048	100.0	29.7	18	12.5	16.9	4	0.9	16.8	0.2	0.8
Central Gonja	11,413	100.0	29.0	16.9	13.8	14.3	5.4	1.9	16.7	1.5	0.4
East Gonja	18,811	100.0	35.3	25	6.4	8.5	4.8	1.4	16.6	1.6	0.4
Kpandai	16,394	100.0	49.7	20.5	5.9	8.7	1.3	4.3	9.2	0.2	0.1
Nanumba South	11,487	100.0	35.1	29.5	6.5	17	4.5	0.5	6.4	0.2	0.3
Nanumba North	16,914	100.0	33.3	28.7	6.5	19.6	1.5	0.4	9.2	0.2	0.5
Zabzugu-Tatale	13,553	100.0	32.5	33.9	7.4	13.8	4.2	0.9	6.8	0.2	0.1
Yendi Municipal	21,563	100.0	29.8	29.8	5.4	17.8	6.6	0.3	9.9	0.2	0.2
Tamale Metropolis	58,855	100.0	26.0	37.8	4.8	20.6	6.4	0.5	3.7	0.1	0.2
Tolon Kumbungu	12,243	100.0	22.9	43.7	5.4	18.1	3.9	0.1	5.6	0.1	0.1
Savelugu Nanton	14,669	100.0	24.9	42.3	6.5	15.7	3.5	0.2	6.3	0.2	0.2
Karaga	7,664	100.0	27.8	39.8	3.7	13.6	6.7	0.2	7.6	0.4	0.1
Gushiegu	11,150	100.0	25.8	30.9	5.7	19.1	4.3	0.2	13.3	0.5	0.2
Saboba	9,011	100.0	52.0	29.1	6.3	7.7	0.2	0.4	4.2	0.1	0.0
Chereponi	7,116	100.0	55.3	30.7	2.4	5.0	2.7	0.3	3.4	0.1	0.1
Bunkpurugu-Yunyoo	17,621	100.0	59.3	16.3	10.1	8.8	0.5	0.2	4.7	0.1	0.1
Mamprusi East	13,895	100.0	36.3	30.1	8.9	16.9	2.3	0.1	5.2	0.1	0.1
Mamprusi West	19,646	100.0	27.9	36.7	7.9	16.9	2.9	0.2	7.1	0.3	0.1

Source: 2010 Population and Housing Census

## 12.15 Type of toilet facilities by districts

Table 12.14 shows the distribution of toilets facilities by district. The majority of households in the region (72.6%) have no toilet facility and, therefore use the bush or open field. Less than one fifth of households (16.6%) use a public toilet. Among the districts, Sawla-Tuna-Kalba has the largest proportion (91.6%) of households without a toilet facility. The use of water closet is as low as 2.4 percent in the region as a whole. About 10.1 percent of households in Tamale Metropolis use a water closet, which is the highest proportion in the region. The majority of households in Tamale Metropolis (44.8%), however, make use of a public toilet facility. There is, therefore, the need for Metropolitan, Municipal and District Assemblies to enforce the appropriate bye-laws so that landlords/ladies provide toilet facilities in their houses for the use of the tenants.

**Table 12.14: Type of toilet facilities by household and district**

	Total	Per- cent	No facilities (bush /beach/ field)	WC	Pit latrine	KVIP	Bucket /Pan	Public toilet (WC/ KVIP/ Pit/ Pan etc.)	Other
Ghana	5,467,054	100.0	19.3	15.4	19.0	10.5	0.7	34.6	0.4
Northern region	318,119	100.0	72.6	2.4	2.9	4.6	0.4	16.6	0.6
Bole	10,160	100.0	69.2	1.8	3.0	5.3	0.2	20.0	0.5
Sawla-Tuna-Kalba	14,906	100.0	91.6	0.5	1.6	1.3	0.0	4.3	0.8
West Gonja	11,048	100.0	78.7	1.5	1.6	4.6	0.3	12.9	0.3
Central Gonja	11,413	100.0	91.4	0.5	1.0	1.1	0.0	5.5	0.6
East Gonja	18,811	100.0	83.3	0.9	1.3	2.9	0.2	11.0	0.3
Kpandai	16,394	100.0	83.1	0.3	4.5	1.5	0.1	10.5	0.1
Nanumba South	11,487	100.0	87.5	0.2	0.3	1.1	0.1	10.6	0.2
Nanumba North	16,914	100.0	85.5	0.6	1.7	1.5	0.1	10.0	0.6
Zabzugu-Tatale	13,553	100.0	77.0	0.6	3.1	5.6	0.1	12.8	0.9
Yendi Municipal	21,563	100.0	75.3	1.0	2.5	3.3	0.4	16.6	0.8
Tamale Metropolis	58,855	100.0	34.1	10.1	1.7	7.0	1.4	44.8	0.8
Tolon Kumbungu	12,243	100.0	79.7	0.8	3.4	5.4	0.2	10.2	0.3
Savelugu Nanton	14,669	100.0	67.2	0.5	3.6	8.7	0.3	19.5	0.2
Karaga	7,664	100.0	77.6	0.2	5.6	5.7	0.1	10.5	0.3
Gushiegu	11,150	100.0	84.0	0.3	2.1	5.3	0.1	7.3	0.8
Saboba	9,011	100.0	88.6	1.2	1.6	5.1	0.0	3.3	0.2
Chereponi	7,116	100.0	86.6	0.2	1.6	2.0	0.0	9.3	0.3
Bunkpurugu-Yunyoo	17,621	100.0	80.5	0.3	10.7	3.3	0.1	4.8	0.3
Mamprusi East	13,895	100.0	86.0	0.8	2.4	4.3	0.2	5.8	0.5
Mamprusi West	19,646	100.0	77.7	0.6	5.3	8.7	0.1	6.4	1.2

Source: 2010 Population and Housing Census

## 12.16 Waste disposal by district

The main method of solid waste disposal in the Northern region is 38.7 percent of households using the public dump site (open space), 26.4 percent dumping indiscriminately, 10.9 percent burning their solid waste and 6.2 percent employing the services of collectors (Table 12.15). A greater proportion of households in Bunkpurugu-Yunyoo (15.9%) use collectors than in the other districts. The use of public dump (open space) varies from 13.2 percent in Bunkpurugu-Yunyoo to 58.2 percent in Karaga. Dumping indiscriminately also varies between 12.0 percent and 49.0 percent for Tamale Metropolis and Sawla-Tuna-Kalba respectively.

**Table 12.15: Main method of solid waste disposal by district**

	Total	Percent	Collected	Burned by household	Public dump (container)	Public dump (open space)	Dumped indiscriminately	Buried by household	Other
Ghana	5,467,054	100.0	14.4	10.7	23.8	37.7	9.1	3.3	1.0
Northern region	318,119	100.0	6.2	10.9	14.8	38.7	26.4	2.2	0.8
Bole	10,160	100.0	5.0	1.9	5.1	49.4	34.3	3.4	0.8
Sawla-Tuna-Kalba	14,906	100.0	4.3	3.5	4.7	36.4	49.0	0.7	1.3
West Gonja	11,048	100.0	5.1	6.2	8.0	44.2	33.7	2.2	0.6
Central Gonja	11,413	100.0	7.5	10.4	2.6	50.2	26.9	1.5	0.9
East Gonja	18,811	100.0	7.0	9.9	11.6	41.2	29.1	0.6	0.6
Kpandai	16,394	100.0	5.9	5.4	8.4	52.7	25.7	1.6	0.4
Nanumba South	11,487	100.0	3.8	3.9	9.4	54.9	27.2	0.4	0.4
Nanumba North	16,914	100.0	3.6	7.0	7.8	47.6	31.5	1.7	0.8
Zabzugu Tatale	13,553	100.0	4.6	6.8	11.0	47.6	28.1	1.2	0.7
Yendi Municipal	21,563	100.0	4.9	6.8	19.9	37.3	28.0	2.4	0.8
Tamale Metropolis	58,855	100.0	6.7	13.4	43.2	20.7	12.0	3.4	0.6
Tolon Kumbungu	12,243	100.0	5.9	12.4	1.5	57.7	17.0	3.9	1.6
Savelugu Nanton	14,669	100.0	4.2	7.6	14.5	49.8	21.9	1.5	0.5
Karaga	7,664	100.0	3.0	5.9	8.2	58.2	23.5	0.8	0.4
Gushiegu	11,150	100.0	5.4	8.3	9.4	42.5	31.3	2.5	0.5
Saboba	9,011	100.0	5.3	9.6	4.4	38.8	38.6	2.6	0.6
Chereponi	7,116	100.0	9.6	15.3	12.9	17.6	42.6	1.5	0.4
Bunkpurugu-Yunyoo	17,621	100.0	15.9	40.6	2.4	13.2	22.3	4.3	1.2
Mamprusi East	13,895	100.0	5.8	15.0	7.7	37.9	30.4	1.5	1.6
Mamprusi West	19,646	100.0	6.3	10.7	4.2	44.9	30.5	2.8	0.6

Source: 2010 Population and Housing Census

Table 12.16 shows that 56.2 percent of households in the region dispose of their liquid waste by throwing it onto the street/outside and a little over a quarter (25.5%) dispose of theirs by throwing onto the compound of their homes, 6.3 percent throw into gutters, 5.1 percent through drainage into pit (soak away), with only 2.1 percent through the sewerage system. Tamale Metropolis has 3.3 percent of its households that dispose liquid waste through the sewerage system. In Savelugu Nanton and Kpandai districts, 71.3 percent and 44.6 percent of households respectively dispose of their liquid waste indiscriminately.

**Table 12.16: Liquid waste disposal by district**

	Total	Percent	Through the sewerage system	Through drainage system into a gutter	Through drainage into a pit (soak away)	Thrown onto the street/outside	Thrown into gutter	Thrown onto compound	Other
Ghana	5,467,054	100.0	3.4	10.9	3.1	28.1	18.7	35.2	0.7
Northern region	318,119	100.0	2.1	4.4	5.1	56.2	6.3	25.5	0.5
Bole	10,160	100.0	0.7	1.7	2.7	45.6	4.6	44.2	0.5
Sawla-Tuna-Kalba	14,906	100.0	1.4	1.1	0.6	67.7	2.3	26.0	1.0
West Gonja	11,048	100.0	0.7	1.8	4.1	48.7	4.7	39.6	0.5
Central Gonja	11,413	100.0	1.6	0.5	5.2	49.6	3.7	38.5	0.9
East Gonja	18,811	100.0	2.6	1.5	4.2	51.8	3.2	36.3	0.3
Kpandai	16,394	100.0	2.7	1.8	5.0	44.6	4.7	41.0	0.2
Nanumba South	11,487	100.0	0.6	5.8	7.1	52.4	12.7	21.2	0.2
Nanumba North	16,914	100.0	1.5	3.0	5.6	54.4	6.6	28.5	0.3
Zabzugu Tatale	13,553	100.0	0.9	2.9	8.2	54.8	2.6	29.8	0.8
Yendi Municipal	21,563	100.0	1.6	3.6	5.8	60.4	5.3	22.7	0.6
Tamale Metropolis	58,855	100.0	3.3	13.2	4.7	47.2	15.2	16.0	0.4
Tolon Kumbungu	12,243	100.0	1.6	1.9	6.1	63.7	2.6	23.4	0.7
Savelugu Nanton	14,669	100.0	1.3	2.8	6.4	71.3	4.9	12.8	0.5
Karaga	7,664	100.0	1.3	1.5	6.4	56.5	4.7	29.3	0.3
Gushiegu	11,150	100.0	3.2	2.6	3.2	65.5	4.5	20.3	0.8
Saboba	9,011	100.0	0.2	0.6	1.6	51.4	1.0	44.7	0.6
Chereponi	7,116	100.0	1.9	0.4	2.1	56.0	2.9	36.5	0.3
Bunkpurugu-Yunyoo	17,621	100.0	2.3	3.4	10.7	57.9	2.7	22.6	0.4
Mamprusi East	13,895	100.0	3.2	2.9	5.2	71.1	3.2	14.0	0.5
Mamprusi West	19,646	100.0	2.8	2.7	4.0	70.6	3.4	15.9	0.5

Source: 2010 Population and Housing Census

## **12.18 Source of water (drinking and cooking) by district**

### **Main source of drinking water**

Water is a necessity of life which has no substitute. The data in Table 12.17 show that the commonest sources of drinking water in the region are borehole/tube well (35.1%), river/stream (17.4%), pipe-borne outside dwelling (12.2%), pipe-borne inside dwelling (8.7%), dugout/pond/lake/dam/canal (7.6%), public tap/standpipe (6.9%), protected well (5.6%) and unprotected well (4.2%). Putting all the protected sources together, means that 69.6 percent of the population in the region have access to potable water. This is an increase of 30.2 percent over the 2000 figure.

With respect to the districts, Tamale Metropolis has a greater proportion of households using pipe-borne water (87.9%) than the other districts, while West Gonja has a greater proportion of its inhabitants using borehole/tube well (71.1%).

### **Main source of water for other domestic use**

Table 12.18 shows that in the region, almost a third (32.0%) of households use borehole/pump/tube well water for other domestic purposes while about 20.0 percent use river/stream water for domestic purposes. At district level, West Gonja has about two thirds (65.2%) of households that fetch water from borehole/pump/tube well for domestic use. Tamale Metropolis has 39.7 percent and 39.1 percent of households that use of pipe-borne water inside or outside dwellings for domestic purposes respectively. More than a third of households (37.5%) in Tolon Kumbungu District depend mainly on dugout/pond/lake/dam and canal water for other domestic uses.

**Table 12.17: Main source of drinking water**

	Total	%	Pipe-borne inside dwelling	Pipe-borne outside dwelling	Public tap/ Standpipe	Bore-hole/ Pump/ Tube well	Protected well	Rain water	Protected spring	Bottled water	Sachet water	Tanker supply/Vendor provided	Unprotected well	Unprotected spring	River/ Stream	Dugout /Pond/ Lake/ Dam/ Canal	Other
GHANA	5,467,054	100.0	14.5	19.0	13.0	23.2	5.9	0.7	0.4	0.4	9.0	1.1	2.1	0.2	9.2	1.4	0.1
NORTHERN																	
All Districts	318,119	100.0	8.7	12.2	6.9	35.1	5.6	0.6	0.3	0.1	0.4	0.3	4.2	0.3	17.4	7.6	0.1
Bole	10,160	100.0	6.0	6.8	5.8	59.4	4.4	0.2	0.2	0.1	4.0	2.4	0.7	0.0	8.8	1.2	0.0
Sawla-Tuna-Kalba	14,906	100.0	0.9	8.0	5.8	61.5	1.3	0.5	0.6	0.0	0.1	0.0	0.6	1.0	17.2	2.5	0.0
West Gonja	11,048	100.0	1.9	2.9	0.3	71.1	2.6	0.2	0.5	0.0	0.3	0.2	2.8	0.3	12.9	4.0	0.2
Central Gonja	11,413	100.0	0.3	5.2	3.5	16.7	5.4	2.2	0.1	0.0	0.6	0.0	2.6	0.3	41.7	21.3	0.1
East Gonja	18,811	100.0	1.4	1.6	0.4	15.8	23.8	2.0	0.2	0.0	0.8	0.1	3.1	1.0	30.0	19.6	0.1
Kpandai	16,394	100.0	0.9	10.1	16.1	24.6	1.7	0.4	0.1	0.0	0.2	0.0	1.4	0.9	39.5	4.0	0.1
Nanumba South	11,487	100.0	0.9	8.3	5.5	51.8	0.3	0.8	0.1	0.0	0.0	0.0	0.2	0.1	26.4	5.6	0.0
Nanumba North	16,914	100.0	1.1	5.4	8.3	47.9	5.3	0.1	0.4	0.1	0.3	0.0	1.4	0.1	23.7	5.9	0.0
Zabzugu-Tatale	13,553	100.0	1.3	4.2	11.6	60.4	1.3	0.3	0.3	0.1	0.2	0.1	1.2	0.1	17.5	1.6	0.0
Yendi Municipal	21,563	100.0	4.8	10.6	8.5	45.4	2.5	0.3	0.6	0.1	0.1	0.1	2.3	0.1	20.3	4.3	0.0
Tamale Metropolis	58,855	100.0	39.9	39.8	8.2	1.5	1.2	0.7	0.4	0.1	0.2	0.7	0.3	0.1	0.9	5.7	0.1
Tolon Kumbungu	12,243	100.0	1.3	6.1	13.9	24.9	5.1	0.8	0.1	0.2	0.4	0.6	2.0	0.7	12.8	31.1	0.0
Savelugu Nanton	14,669	100.0	1.5	8.2	18.6	39.6	3.4	1.2	0.2	0.3	0.3	0.5	1.1	0.1	11.8	13.2	0.0
Karaga	7,664	100.0	0.1	2.4	1.5	47.5	2.4	0.8	0.1	0.1	0.2	0.0	3.3	0.4	17.6	23.5	0.1
Gushiegu	11,150	100.0	0.9	6.0	6.7	55.1	3.9	0.9	0.3	0.1	0.2	0.0	1.9	0.3	16.2	7.7	0.0
Saboba	9,011	100.0	2.6	5.3	1.5	47.2	1.7	1.0	0.2	0.1	0.4	0.0	3.8	0.6	32.1	3.5	0.1
Chereponi	7,116	100.0	0.1	1.2	1.0	48.7	6.2	0.3	0.3	0.0	0.1	0.1	5.2	0.1	19.3	17.0	0.5
Bunkpurugu-Yunyoo	17,621	100.0	0.3	4.0	0.2	52.9	3.8	0.1	0.3	0.0	0.1	0.0	12.8	0.3	25.1	0.0	0.0
Mamprusi East	13,895	100.0	1.6	4.4	6.6	36.8	11.8	0.4	0.4	0.0	0.2	0.1	12.5	0.9	23.4	0.9	0.1
Mamprusi West	19,646	100.0	2.2	6.4	2.3	30.5	23.5	0.1	0.3	0.1	0.3	0.1	26.9	0.3	5.1	2.0	0.0

Source GSS, 2010 Population and Housing Census

**Table 12.18: Main source of water for other domestic use by district**

District	Households	%	Pipe-borne inside dwelling	Pipe-borne outside dwelling	Public tap/ Stand pipe	Borehole/ pump/ tube well	Protected well	Rain water	Protected spring	Tanker supply/ vendor provided	Unprotected well	Unprotected spring	River/ stream	Dugout / pond/ lake/ dam/ canal	Other
All Districts	318,119	100	8.7	11.8	6.1	32.0	6.2	0.7	0.3	0.4	4.2	0.3	19.9	9.2	0.2
Bole	10,160	100	6.2	6.1	5.4	57.1	5.3	0.7	0.1	4.6	1.1	0.4	9.9	2.7	0.3
Sawla-Tuna-Kalba	14,906	100	1.0	8.0	5.4	56.0	1.4	0.5	0.5	0.0	0.5	0.9	20.5	4.7	0.5
West Gonja	11,048	100	1.6	3.2	0.2	65.2	2.6	0.3	0.4	0.2	3.1	0.3	17.9	4.9	0.1
Central Gonja	11,413	100	0.5	5.4	3.1	11.5	6.4	1.1	0.1	0.0	2.4	0.3	43.6	25.4	0.2
East Gonja	18,811	100	0.8	1.3	0.3	12.7	25.9	1.9	0.1	0.1	3.1	0.8	31.8	21.0	0.2
Kpandai	16,394	100	1.1	8.9	14.6	23.7	3.1	0.4	0.2	0.1	1.3	0.7	41.3	4.4	0.3
Nanumba South	11,487	100	1.0	8.4	3.9	46.9	0.4	0.8	0.2	0.0	0.2	0.0	29.7	8.4	0.1
Nanumba North	16,914	100	1.2	5.3	8.0	45.1	5.6	0.2	0.3	0.2	1.6	0.1	25.7	6.5	0.3
Zabzugu Tatale	13,553	100	1.7	3.5	11.1	54.2	1.8	0.4	0.2	0.1	1.3	0.1	23.2	2.0	0.4
Yendi Municipal	21,563	100	4.7	10.5	7.6	41.8	2.8	0.6	0.5	0.2	1.8	0.0	23.6	5.6	0.2
Tamale Metropolis	58,855	100	39.7	39.1	7.9	1.6	1.4	0.6	0.4	0.7	0.3	0.0	1.1	6.8	0.2
Tolon Kumbungu	12,243	100	1.2	5.4	10.1	22.3	6.2	0.7	0.1	0.1	2.7	0.5	13.1	37.5	0.1
Savelugu Nanton	14,669	100	1.6	7.0	14.9	37.2	5.7	1.7	0.2	0.6	1.3	0.1	13.9	15.6	0.1
Karaga	7,664	100	0.2	2.2	1.1	45.0	2.5	0.8	0.2	0.0	3.4	0.3	19.4	24.8	0.2
Gushiegu	11,150	100	0.8	5.5	6.3	49.3	5.3	0.9	0.2	0.1	2.1	0.1	19.0	10.1	0.1
Saboba	9,011	100	2.6	5.3	0.5	43.2	1.2	1.1	0.1	0.0	3.7	1.0	35.5	5.3	0.6
Chereponi	7,116	100	0.1	1.2	0.8	43.5	6.0	0.2	0.2	0.0	4.7	0.1	22.3	20.7	0.1
Bunkpurugu-Yunyoo	17,621	100	0.4	2.8	0.1	46.0	4.0	0.2	0.2	0.0	12.5	0.2	33.0	0.2	0.4
Mamprusi East	13,895	100	1.7	4.4	5.5	33.6	12.2	0.4	0.3	0.2	11.0	0.8	28.8	0.9	0.1
Mamprusi West	19,646	100	2.1	5.9	2.7	28.8	23.3	0.4	0.3	0.1	26.9	0.4	6.1	2.8	0.2

Source GSS, 2010 Population and Housing Census

# **CHAPTER THIRTEEN**

## **SUMMARY OF FINDINGS**

### **13.1 Introduction**

The 2010 population and housing census provide data for many important purposes. It supports public and private sector planning and policy formulation, particularly in areas such as education, housing, transport, medical and social services. This report presents a comparative analysis of the demographic, social, and economic characteristics of the 20 districts of the Northern region. It critically examines the social, cultural characteristics of each district in relation to the general well-being of the people of the district.

### **13.2 Demographic Characteristics**

#### **Population Size and Distribution**

According to the results of the 2010 Population and Housing Census, the population of the region is 2,479,461, representing 10.1 percent of the total population of Ghana. The region thus becomes the fourth largest region in terms of population. The population of the region increased by 36.1 percent between 2000 and 2010. The region recorded an intercensal growth rate of 2.9 percent between 2000 and 2010. Tamale Metropolis had the largest share (15.0%) of the population of the region. Each of the other districts accounts for less than 10.0 percent of the total population of the region. The region has less than one-third of its population living in urban areas. Kpandai, Tolon Kumbugu, and Saboba have urban population of less than 10.0 percent. In contrast, Tamale Metropolis is the most urbanized district with 73.8 percent of its population living in the urban areas. The population density of the region increased from 26 persons per square kilometer in 2000 to 35 persons per square kilometer in 2010.

#### **Age-Sex Structure**

The region generally depicts a youthful population with 44.9 percent of the population aged below 15 years. The aged population of the region is decreasing. The population aged 65 years and older has declined from 4.8 percent in 2000 to 4.4 percent in 2010. The median age for the region is 18 years. Among the districts of the region, Kpandai and Nanumba North districts have the highest proportion (47.6%) of people aged below 15 in its population. In contrast, Tamale Metropolis recorded the lowest (36.7) proportion of people aged below 15 years. The dependency ratio for the Northern region is 96.8. About 12 districts (Sawla-Tuna-Kalba, Kpandai, Nanumba South, Nanumba North, Karaga, Gushiegu, Saboba, Chereponi, Bunkpurugu Yunyoo, Mamprusi East, and Mamprusi West) have dependency ratios above 100.0. The region's sex ratio is 98.4. Bole, East Gonja, Kpandai, Nanumba South, and Tamale district have sex ratios above parity (more than 100). Karaga district has more females than males with a sex ratio of 92.5 which happens to be the lowest in the region.

## **Household Composition and Structure**

Headship of households in the region is predominantly by males. 47,631 households out of 318,119 are headed by females as against 85.5 percent of household headed by males. The proportion of female headed households is 50.1 percent in rural localities. In both urban and rural areas, household heads are largely within the 30-54 years age group. The average household size of the Northern region is 7.7 persons which is higher than the national average of 4.4 households. The trend of male headed households is observed throughout the districts. The share of one member household is highest (12.9%) in Tamale Metropolis and lowest in both Zabzugu Tatali (1.9%) and Karaga (1.9%). Domestic households comprising head, spouse(s) and biological/adopted children were common only in Bole (26.1%), East Gonja (37.7%) and Kpandai (37.1%). Indeed, households comprising of the head and multiple spouse only are non-existent in the region.

### **13.3 Social Characteristics**

#### **Nationality**

About 93.9 percent of the population of the Northern region are Ghanaians by birth. West Gonja has the highest proportion (7.8%) of non-Ghanaian population in the region.

#### **Ethnicity**

About 52.7 percent of the population was of Mole-Dagbon ethnicity. Gurma is the next predominant ethnic group making up 27.3 percent of the population. Kpandai, Nanumba South, Nanumba North, Zabzugu Tatali, Saboba, and Bunkpurugu Yunyoo districts are the regions where people of the Gurma ethnic origin are mostly concentrated. A greater proportion of the Guan ethnic group is in Bole, West Gonja, Centra Gonja, and East Gonja. About 3.7 percent of the population are from the Akan ethnicity whilst only 1.7 percent are Ewes. Chereponi has the largest number of Akans (67.8%) and East Gonja on the other hand, has 9.3 percent of its population to be Ewes.

#### **Religion**

The largest religious group of the region is Islam with 60.0 percent of the population being Muslims. Out of the 21.0 percent Christian population, Catholics constitute 7.6 percent. The traditionalists constitute 16.0 percent showing a decrease of 5.3 percentage points from 2000. Savelugu-Nanton has the highest proportion of Muslims (95.4%) whilst Saboba has the lowest proportion (9.5%) of Muslims.

#### **Marital Status**

One out of every five persons married in the Northern region is less than 19 years. This could probably be due to the cultural practice of betrothal of young girls. The results also indicated that 38.9 percent of persons aged 12 years and older have never been married as against 54.3 percent that are married. Again, 47.2 percent of males have never been married compared with only 31.0 percent for females. As regards the widowed, 7.1 percent of females are widowed as against 1.3

percent of males who are widowed. More than half (56.9%) of the population in the rural areas are married. Postgraduates are more likely to be married than any other level of education. 82.6 percent of postgraduates are married while 68.5 percent of those that have not attained any level of education are married. The proportion of those who have never attended school and are widowed is higher (5.9%) than it is among those who have completed Middle School (4.0%). About 70.0 percent of traditionalists are married. Among the Islamic group, 55.1 percent of them are married. Those with the means of livelihood are more likely to marry than those who are unemployed. About two-thirds of those employed are married. In contrast, 62.7 percent of those who are economically inactive have never married.

### **Information Communication Technology**

The Northern region records 22.3 percent of the population aged 12 and older owning mobile phones. Mobile phone ownership for males is higher than females for all age groups. Apart from Tamale Metropolis which has mobile phone ownership of 38.7 percent, all other districts have mobile phone ownership of less than 10.0 percent. The proportion of females owning mobile phone is higher than male ownership in Tamale Metropolis, West Gonja and Bole. Mobile phone ownership increases with higher education. For those with more than primary education, 94.8 percent of them have mobile phones. Only 16.1 percent of those who have never attended school have mobile phones. Mobile phone penetration is not that encouraging in the region. Whereas 43.1 percent of urban population own mobile phones, only 12.1 percent of rural population own mobile phones. The situation is not different in all the administrative districts of the region. Only 5.7 percent of rural population in Mamprusi East district own mobile phones whereas Karaga has the lowest urban population who owns mobile phones (17.1%).

More than a quarter (28.8%) of the population aged 12 years and older who are unemployed have mobile phones as against 23.9 percent of the employed who own mobile phones. It is only 16.6 percent of employed-females who own mobile phones. Internet usage is very low in the region. It is only 2.1 percent of the population 12 years and older use internet in the region. More males (3.0%) than females (1.2%) use internet in the region. Chereponi has the lowest internet usage (0.6%) in the region. Internet usage is positively associated with education. The proportion of the population with no education using internet is 0.3 percent and it increases up to 56.6 percent for those with higher education. The urban-rural digital divide in the region is not too different from what pertains in other regions. The proportion of urban population using internet in the region is 4.8 percent compared to 2.1 percent for rural population. All the districts apart from Tamale Metropolis have rural internet usage of less than 1.0 percent. Tamale Metropolis has the highest proportion of households owning desktop or laptop computers (69.7%). Male headed households in the region are more likely to own desktop or laptop computers.

### **Education and Literacy**

Literacy, which is low (37.5%) in the region, varies from district to district and is lower for females than for males in all districts. Apart from Tamale Metropolis, the proportion of non-literate population is higher for rural localities as compared to urban localities. The least proportion of urban literate is in Tolon Kumbugu district (4.3%).

In all districts except Tamale Metropolis, more than half of females aged 6 years and older have never been to school. The highest level of education attained for most of the population in all the districts is primary education. As usual, the difference between the male and female proportions increases with higher levels of educational attainment.

### **Fertility, Mortality and Migration**

The main child bearing years for women in the Northern region are between ages 20 and the early 30s. A woman who begins child bearing at age 15 in the Northern region will on average give birth to three children by the end of her reproductive years at age 49. The mean age of child bearing for the region is 32.8 years which happens to be the third highest in the country. General fertility for the region is approximately 102, implying that for every 1,000 women in the region's population, there are 102 births. Child bearing in the region starts in the early ages between 12-24 years. The crude birth rate for the region is 24.0 for the urban localities and 34.8 for the rural localities. There are variations in fertility across the districts. The lowest total fertility can be found in Zabzugu Tatali and Karaga (2.9% each).

Under-five mortality has declined by 42 percent for the period 2000-2010. It must be stated that even though under-five mortality in the Northern region has been decreasing, the rate is still quite high as compared with the rates in the other regions except Upper East region. The incidence of death to infants ranges from 59 per 1000 live births in East Gonja district to 87 deaths per 1000 live births in Tolon Kumbugu and Chereponi districts.

## **13.4 Economic Characteristics**

### **Type of Activity**

Since Tamale Metropolis is the most concentrated in terms of population density and also the most urbanized district in the region, it has the highest proportion (14.3%) of the economically active population in the Northern region. Chereponi district has the lowest proportion of economically active population (2.0%). In all the districts, the proportion of the economically active population who are employed in the rural areas are higher than the urban areas. This could probably be due to the high agrarian economy in the rural areas. The proportion of the economically active population unemployed is higher in the Tamale Metropolis followed by Chereponi (4.0%) and Nanumba North (3.7%).

### **Occupation and Industry**

In 2010, about 74.0 percent of the employed were engaged in skilled agriculture, forestry and fishery whereas those engaged in craft and related works form 8.1 percent. Agriculture, forestry and fishery is the major occupation in all the districts except Tamale Metropolis. About 0.8 percent of the working population in the Northern region are managers. Service and sales workers form 9.3 percent. Tamale Metropolis, West Gonja, and Bole have the proportion of managers (2.6%, 1.0% and 0.9% respectively) above the regional average of 0.8 percent.

Apart from Agriculture, forestry and fishery, the next largest industry of the employed is wholesale, retail and repair of motor vehicles and motorcycles (9.2%). However, the largest

industry of the employed in the Tamale Metropolis is Wholesale, retail and repair of motor vehicles and motorcycles employing 30.4 percent of the working population. About 9.3 percent of the employed in the Bole district are engaged in mining and quarrying compared to 1.0 percent each in Sawla-Tuna-Kalba, West Gonja, and Tamale Metropolis. Real estate activities and Activities of extraterritorial organizations and bodies are virtually nonexistent in the region.

### **Employment Status**

More than half (58.6%) of the economically active population are self-employed without employees. In effect, the proportion of the economically active population in vulnerable employment (contributing family worker and self-employed without employees) is 87.1 percent. The highest proportion of self-employed without employees is found in Saboba (67.0%). Apart from Tamale Metropolis (22.1%), Bole (10.9%), and West Gonja (6.9%), all the districts have the proportion of the economically active population who are employees to be less than the regional average of 6.4 percent. Gushiegu district has the highest proportion (1.5%) of domestic employees (househelps).

### **Employment Sector**

About 95 percent of the employed persons in the region are in the private informal sector. The region has just 3.7 percent of the employed working in the public sector. Bole district has the highest proportion (0.2%) of the employed working with International Organisations.

### **Disability**

The Northern region has 2.5 percent of its population to be persons living with disabilities and this is highest (31.1%) amongst persons within the 0-14 year age group. Most of the persons with disabilities (5.4%) within the region are found in the Bunkpurugu Yonyo district. Kpandai district recorded the lowest proportion (1.5%) of persons with disabilities. A greater proportion of the urban population (3.3%) are persons with disabilities compared to 2.7 percent of those in rural localities. The major type of disability within the region is sight disability (28.7%). The situation is not different across the districts with Mamprusi West having as much as 43.1 percent of the population with disability having visual (sight) impairment. More than half (51.9%) of the disabled population in the region are males. Apart from sight impairment, the next common disability type suffered by women in the region is emotional disability (24.0%).

More than half (53.0%) of all persons with disability in the Northern region are married. Karaga district has the highest proportion (64.1%) of persons with disabilities who are married. Tolon Kumbugu district has the smallest proportion (23.8%) of persons with disabilities who had never married. Majority of persons with disabilities in the region (66.5%) have never attended school. Similar trend is observed across all the districts. The district with the highest proportion of persons with disabilities who have attained tertiary education is the Tamale Metropolis (1.7%). The highest educational attainment for persons with disabilities in the region and across the districts is basic education. The non-literate disabled population is 73.3 percent. About 13.0 percent of the disabled population are literate in English and Ghanaian language. More than 60.0 percent of the region's population of persons with disabilities are employed. Kpandai and Karaga districts recorded the lowest (0.7% each) proportion of persons with disabilities who are

unemployed. Zabzugu Tatali and Nanumba South are districts that have as much as 72.9 and 72.4 percent respectively of their persons with disabilities being employed.

## **13.5 Agriculture**

### **Households in Agriculture**

About 9.6 percent of total households engaged in Agriculture in Ghana are in the Northern region. The average household size in agriculture for the region is 8.5 percent. Karaga district has the highest average household size of 10.2 persons per agricultural household. Close to 8.0 percent of the national urban households in agriculture are in the Northern region. The average urban agricultural household size for the Northern region is 8.9 percent. Bunkpurugu Yonyo district has the lowest urban household size of 6.0. The region also has an average rural household size of 8.4 persons per household which surprisingly is lower than the urban average of 8.9. Kpandai district recorded the lowest rural average household size of 6.8 persons per agricultural household.

There is an indication of male dominance in agriculture in the Northern region. In all, 90.7 percent of male-headed households as against 9.3 percent of female-headed households are into agriculture. This pattern is observed across all districts in the region. Bunkpurugu Yonyo district has as high as 27.3 percent of female-headed households in agriculture.

Of the 5,276,514 persons engaged in agriculture nationwide, 13.4 percent are in the Northern region. About 83.0 percent of all persons engaged in agriculture in the region are in the rural areas. The age group of the head of household with the highest proportion in agriculture in the region is 40-44 year age group which has 13.5 percent. Gushiegu district had the highest proportion (15.0%) of heads within the 40-44 age group in agriculture as against Bunkpurugu Yonyo district which has the least proportion (12.2%) of heads within the age group 40-44 who are in agriculture.

The Northern region has 95.9 percent of households in crop farming, 60.9 percent in livestock rearing, 0.9 percent in tree growing, and 0.2 percent in fish farming. Yendi Municipality has the highest proportion of households (97.4%) in agriculture to be engaged in crop farming. Mono cropping is the most practiced in the Northern region (42.1%) followed by mixed cropping (31.4%). About 26 percent of farms in the Northern region are used for maize cultivation and 16.2 percent are used for yam cultivation.

## **13.6 Housing Conditions**

The Northern region has a housing stock of 257,311 representing an increase of 47.5 over the total housing stock recorded in 2000. As usual, Tamale Metropolis (the regional capital) is the district with the highest housing stock recording 13.9 percent of the total regional housing stock followed by Yendi Municipality with 7.4 percent. Chereponi is the district with the least number (1.8%) of housing stock.

The average household size for the region is 7.7 and the average households per house for the region is 1.2. The population per house for the region is 9.5. West Mamprusi has the highest persons per house (13 persons) and Bole has the least with 7 persons per house.

### **Type of Dwelling**

Most of the people in region live in Huts/Buildings on the same compound. About 64.0 percent of dwellings in the region are Huts/Buildings on the same compound. West Mamprusi has about 77.0 percent of dwellings as Huts/Buildings. Sawla-Tuna-Kalba has 48.7 percent of dwellings as Separate houses. Gonja Central has 11.3 percent of dwellings as Semi-detached houses.

The main construction material for the outer wall of dwelling units in the region is mud bricks or earth. Bunkpurugu Yonyo has 94.8 percent of the outer walls of dwellings units made of mud bricks or earth. Most districts recorded a figure higher than the regional average of 72.9 percent. Tamale Metropolis has a relatively high proportion (58.7%) of dwellings being constructed with Cement blocks/concrete.

Remarkably, 56.6 percent of dwellings in the region are roofed with metal sheets whilst only 34.9 percent are roofed with Thatch/Palm leaf or raffia. Most districts have the proportion of dwellings with metal sheets roof above the regional figure of 56.6 percent. Bole and Sawla-Tuna-Kalba have 20.2% and 32.2% respectively of dwellings roofed with Mud/Mud bricks or Earth. Zabzugu Tatali also has 0.7 percent of dwellings roofed with Roofing tiles.

The region has Cement/concrete as the major construction material for the floor of dwellings forming 67.4 percent of all dwellings. Bunkpurugu Yonyo is the district with the highest proportion of dwellings (74.2%) with Mud as the main construction material for the floor. Saboba district has 0.2 percent of floor materials as wood and it is the highest for the region. East Gonja and Nanumba North has 0.9 percent each of floor materials made of stones.

The monetary measure of living standards also takes into consideration the number of sleeping rooms occupied by a household of some average household size. Most households in the Northern region (22.4%) use two rooms for sleeping. Karaga district has 13.3 percent of households using nine rooms and more for sleeping and it is the highest in the region. About 34.0 percent of households in the Tamale Metropolis use one (single) room for sleeping, followed closely by Sawla-Tuna-Kalba with 32.4 percent. Majority of households in all districts use between two and four rooms for sleeping.

Most households in the region (84.1%) occupy their own housing units. The story is not different in all districts. Apart from Tamale Metropolis where only 57.4 percent of households occupy their own housing units, about 80.0 percent of households in all districts occupy their own housing units. Tamale Metropolis however, has seen an increase of 19.9 percent of private individual ownership of dwelling units over what was recorded in 2000. Chereponi has the highest proportion (1.0%) of purchased (mortgaged) dwellings. About 2.2 percent of households live in public/government housing units, another 1.5 percent live in housing units owned by private employers. About 10.5 percent of dwellings units are rented. Close to 13.0 percent of dwellings are occupied free (rent-free).

Kerosene is an important source of lighting in many dwellings in the Northern region. About 42.3 percent of households in the Northern region use kerosene lamp as their main source of lighting. Currently, 36.1 percent of households use electricity in the region indicating an increase of 14.1 percent over what was recorded in 2000. Bunkpurugu Yonyo has just about 10.0 percent of its households using electricity as the main source of lighting in their dwellings. More households (60.7%) in Bole use flashlight/torch as their main source of lighting.

Wood is the main source of fuel for cooking in the region. More than 90 percent of households in the region use wood and charcoal as their main fuel for cooking. Tamale Metropolis has the highest proportion (13.4%) of households using Liquefied Petroleum Gas (LPG). About 49.0 percent of households in the region use open space in their compound for cooking.

Three out of every ten households in the region use shared separate bathroom, and another 34.0 percent own bathroom for exclusive use. Bunkpurugu Yonyo has the highest proportion (59.3%) of households with own bathroom for exclusive use. Some 1.6 percent households in East Gonja use River/pond/lake or dam as their bathing facility.

Majority of households (72.6%) do not have any toilet facility, hence tend to use the bush or open field as their toilet facility. More than 91.0 percent of households in Sawla-Tuna-Kalba do not have toilet facilities. Water closet usage in the region is far less than 3.0 percent. Tamale Metropolis is the district with the highest (10.1%) proportion of households using water closet.

The main method of solid waste disposal in the region is public dump and about 39.0 percent of households in the region use it. Some 26.4 percent of households dump their solid waste indiscriminately. Only 6.2 percent of households in the region employ the services of refuse collectors. Bunkpurugu Yonyo is the district with the highest proportion of household (15.9%) using the services of refuse collectors. 56.2 percent of households in the region dispose their liquid waste by throwing it onto the street/outside. Only 2.1 percent of households in the region dispose of their liquid waste through the sewerage system. Savelugu Nanton has 71.3 percent of households disposing of their liquid waste indiscriminately.

Many household (35.1%) use Borehole/Tube well as their main source of drinking water. Another 17.4 percent use River/Stream as their main source of drinking water. Indeed access to portable water in the region has increased by 30.2 percent since 2000. Mamprusi West has the highest proportion (26.9%) of households using unprotected well as their source of drinking water. About 4.0 percent of households in Bole use satchet water as their source of drinking water. For other domestic uses, 32.0 percent of households use borehole/pump or tube well. More than a third of households in Tolon Kumbungu district depend mainly on dugout/pond/lake/dam or canal water for other domestic use.

### **13.7 Recommendation:**

The Northern region is the largest region in the country in terms of land mass and the fourth largest in terms of Population size. The population of the Northern region increased by 36.1 percent between 2000 and 2010, with an intercensal growth rate of 2.9 percent which is higher than the national average of 2.5. With the limited resources in the region, the high population growth rate could have a negative impact on the living standards of people in the region. To

reduce this high population growth rate, some cultural practices like early betrothal of young girls which increase the rate of fertility should be curbed. It however portrays a potential increase in the labour force in the near future. Again, young girls should be encouraged to aspire for higher education. The youthful nature of the region's population and the subsequent high dependency ratio (98.6%) implies that the region has a relatively low labour force. Schools and job opportunities should be provided to accommodate the youthful population to enhance their effective contribution to the economic growth of the country. The region has very low literacy levels (37.5%). This could impact negatively on the use of Information Communication Technology especially the use of the internet (only 1.2 percent of persons 12 years and older in the region use the internet). The Ministry of Education and other relevant stakeholders should work together to create an enabling environment for education. People should be encouraged to send their children to school and ensure that they complete at least basic education. The introduction of the disability module in this census is an opportunity to get social, demographic and economic data on the disabled. This should help the 2.5 percent of persons living with disability in the region to have their concerns addressed. More Special schools should be provided to promote school attendance for people living with disability. Jobs which can be done by the disabled should be reserved for them.

Most of the economically active population in the Northern region live in the rural areas mostly working in the area of agriculture, forestry and fishery (74.0%) and own-account sector. Own account workers and contributing family workers have been described by the International Labour Organisation as vulnerable employment. The insecurity in these sectors has served as push factors forcing the youth to migrate to the southern part of the country in search of greener pastures. The Government and the District Assemblies and the private sector should be encouraged to go into partnership with the private sector to set up agro-based industries and other manufacturing industries to remove the limited opportunities and to help reduce poverty. With respect to crops that are cultivated in the region, it is interesting to note that the number of sheanut farms is not anything to write about. This is to say that most of the sheanuts are picked from the wild. It will therefore be recommended that the cooperative organizations should organize the women not only to pick the nuts from the wild but also to go into the cultivation of the sheanut plant; this should be supported by SADA.

Most of the houses in the region are built with mud-bricks and without toilet facilities and portable water. The by-laws which make the provision of toilet facilities in houses mandatory should be enforced. Communities should be encouraged to at least dig pit latrines instead of using large parcels of land for "free range" defecation. The provision of bore-holes should be increased. Corporate organizations should be given tax relief if they will drill some number of bore-holes in the region. The use of wood as the main source of fuel should be discouraged; otherwise it will be very difficult to stop the desertification going on in the country. More education needs to be carried out to persuade more people to use LPG for cooking instead of wood fuel, in order to reduce pressure on the environment. The constant cutting of trees as fuel for cooking could eventually lead to the depletion of the vegetation cover which will in turn result in desertification, potentially aggravating the prevalent climatic conditions of the region such as drought or erratic rainfall, thereby affecting agricultural productivity. This recommendation will depend very much on the availability of gas in all the districts.

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