



# 2010

## POPULATION & HOUSING CENSUS

### DISTRICT ANALYTICAL REPORT

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### GARU TEMPANE DISTRICT



Canada 

MINISTRY OF FOREIGN AFFAIRS OF DENMARK  
**DANIDA** | INTERNATIONAL  
DEVELOPMENT COOPERATION

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## PREFACE AND ACKNOWLEDGEMENT

No meaningful developmental activity can be undertaken 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, in addition to its socio-economic characteristics are all important in development planning.

A population census is the most important source of data on the size, composition, growth and distribution of a country's 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 national resources and government services, including the allocation of government funds among various regions, districts and other sub-national populations to education, health and other social services.

The Ghana Statistical Service (GSS) is delighted to provide data users, especially the Metropolitan, Municipal and District Assemblies, with district-level analytical reports based on the 2010 PHC data to facilitate their planning and decision-making.

The District Analytical Report for the Garu Tempane District is one of the 216 district census reports aimed at making data available to planners and decision makers at the district level. In addition to presenting the district profile, the report discusses the social and economic dimensions of demographic variables and their implications for policy formulation, planning and interventions. The conclusions and recommendations drawn from the district report are expected to serve as a basis for improving the quality of life of Ghanaians through evidence-based decision-making, monitoring and evaluation of developmental goals and intervention programmes.

For ease of accessibility to the census data, the district report and other census reports produced by the GSS will be disseminated widely in both print and electronic formats. The report will also be posted 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. While appreciating the contribution of our Development Partners (DPs) towards the successful implementation of the Census, we wish to specifically acknowledge the Department for Foreign Affairs, Trade and Development (DFATD) formerly the Canadian International Development Agency (CIDA) and the Danish International Development Agency (DANIDA) for providing resources for the preparation of all the 216 district reports. Our gratitude also goes to the Metropolitan, Municipal and District Assemblies, the Ministry of Local Government, Consultant Guides, Consultant Editors, Project Steering Committee members and their respective institutions for their invaluable support during the report writing exercise. Finally, we wish to thank all the report writers, including the GSS staff who contributed to the preparation of the reports, for their dedication and diligence in ensuring the timely and successful completion of the district census reports.



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## ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ASDR	Age-Sex Specific Death Rate (Mortality)
CEB	Children Ever Born
CHPS	Community-based Health Planning Services
CIC	Community Information Centre
CIDA	Canadian International Development Agency
CMR	Child Mortality Rate
CS	Children Surviving
DANIDA	Danish International Development Agency
DFID	Department for International Development
DMTDP	District Medium Term Development Plan
EA	Enumeration Area
ECOWAS	Economic Community of West African States
EMIS	Education Management Information System
EU	European Union
FAO	Food and Agriculture Organisation
FCUBE	Free Compulsory Universal Basic Education
GES	Ghana Education Service
GETFund	Ghana Education Trust Fund
GPRTU	Ghana Private Road Transport Union
GSDP	Ghana Statistics Development Plan
GSS	Ghana Statistical Service
HIV	Human Immune Virus
ICT	Information Communication Technology
ICT4AD	National ICT for Accelerated Development Policy
ICU	International Communication Union
IMR	Infant Mortality Rate
ISCO	International Standard Classification of Occupation
ISIC	International Standard Classification of Industry
ISSER	Institute of Statistical Social and Economic Research
JHS	Junior High School
JSS	Junior Secondary School
LEAP	Livelihood Empowerment Against Poverty Programme
LESDEP	Local Enterprise and Skills Development
LISGIS	Liberia Institute of Statistics and Geo-Information Services
MDGs	Millennium Development Goals



MER	Migration Effectiveness Ratio
MICS	Multiple Indicator Cluster Survey
MMDAs	Metropolitan, Municipal and District Assemblies
MMR	Maternal Mortality Rate
MOE	Ministry of Education
MOFA	Ministry of Food and Agriculture
MOTI	Ministry of Trade and Industry
MTDP	Medium Term Development Plan
NCA	National Communication Authority
NCPEC	National Census Publicity and Evaluation Committee
NCTAC	National Census Technical Advisory Committee
NDPC	National Development Planning Commission
NGOs	Non-Governmental Organisations
NHIS	National Health Insurance Scheme
NIPORT	National Institute of Population Research and Training
OIC	Opportunities Industrialisation Centre
PAS	Population Analysis Spread sheet
PASEX	Population Analysis System
PDA	Personal Digital Assistant (Palm Top Computer)
PES	Post Enumeration Survey
PHC	Population and Housing Census
PNDC	Provisional National Council
PPP	Public-Private Partnerships
PWDs	Persons with Disabilities
SADA	Savannah Accelerated Development Authority
SAP	Structural Adjustment Programme
SHS	Senior High School
SMAM	Singulate Mean Age at Marriage
SSS	Senior Secondary School
U5MR	Under Five Mortality Rate
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Education Fund
W.C	Water Closet
WHO	World Health Organization
ZIMSTAT	Zimbabwe National Statistics Age

# EXECUTIVE SUMMARY

## Introduction

The district census report is the first of its kind since the first post-independence census was conducted in 1960. The report provides basic information about the district. It gives a brief background of the district, describing its physical features, political and administrative structure, socio-cultural structure and economy. Using data from the 2010 Population and Housing Census (2010 PHC), the report discusses the population characteristics of the district, fertility, mortality, migration, marital status, literacy and education, economic activity status, occupation, employment; Information Communication Technology (ICT), disability, agricultural activities and housing conditions of the district. The key findings of the analysis are as follows (references are to the relevant sections of the report):

## Population size, structure and composition

The population of Garu Tempane District, according to the 2010 Population and Housing Census, is 130,003 representing 1.2 percent of the region's total population. Males constitute 47.9 percent and females represent 52.3 percent. Over ninety five percent of the population is rural. The district has a sex ratio of 91.2. The population of the district is youthful (46.0%) depicting a broad base population pyramid which tapers off with a small number of elderly persons (7.8%). The total age dependency ratio for the District is 116.9, the age dependency ratio for males is higher (137.2) than that of females (101.5).

## Fertility, mortality and migration

The Total Fertility Rate for the district is 3.9. The General Fertility Rate is 106.2 births per 1000 women aged 15-49 years which is the second highest for the region. The Crude Birth Rate (CBR) is 22.7 per 1000 population. The crude death rate for the district is 9.89 per 1000. Accident/violence/homicide/suicide accounted for 7.5 percent of all deaths while other causes constitute 92.5 percent of deaths in the district. Majority of migrants (53.9 percent) living in the district were born in another region while 37.9 percent were born elsewhere in the Upper West Region. For migrants born in another region, those born in Ashanti Region constitute 34.9 percent followed by Western Region 8.3 percent and Brong Ahafo 6.9 percent.

## Household Size, composition and structure

The district has a household population of 128,623 with a total number of 17,520 households. The average household size in the district is 7.3 persons per household. Children constitute the largest proportion of the household members accounting for 58.4 percent. Spouses form about 0.4 percent. Nuclear households (head, spouse(s) and children) constitute 17.9 percent of the total number of households in the district.

## Marital status

About five in ten (53.6%) of the population aged 12 years and older are married, 37.3 percent have never married, 0.2 percent are in consensual unions, 7.30.8 percent are widowed, 3.9 percent are divorced and 0.6 percent are separated. By age 25-29 years, more than half of females (57.6%) are married compared with 48.7 of males. At age 65 and above, widowed females account for as high as 53.0 percent while widowed males account for only 7.8 percent. Among the married, 84.0 percent have no education while about 23.9 percent of the unmarried have never been to school. More than half of the married population (46.5%) are

employed, 0.5 percent is unemployed and 6.6 percent are economically not active. A reasonable proportion of those who have never married (16.9%) are economically not active with 0.5 percent unemployed.

### **Nationality**

The proportion of Ghanaians by birth in the district is 92.6 percent. Those who have naturalised constitute 1.2 percent and the non-Ghanaian population in the district is 3.1 percent.

### **Literacy and education**

Of the population 11 years and above, 39.6 percent are literate and 60.4 percent are non-literate. The proportion of literate males is higher (50.1 %) than that of females (49.9%). About people 33.5 indicated they could speak and write both English and Ghanaian languages. Of the population aged 3 years and above (59,744) in the district, 50.0 percent has never attended school, 42.6 percent are currently attending and 7.4 percent have attended in the past.

### **Economic Activity Status**

About 77.2 percent of the population aged 15 years and older are economically active while 22.8 per cent are economically not active. Of the economically active population, 98.5 percent are employed while 1.5 percent is unemployed. For those who are economically not active, a large proportion of them are students (38.8%), 20.9% perform household duties and 8.6 percent are disabled or too sick to work. About 38.6 percent of the unemployed are seeking work for the first time.

### **Occupation**

Of the employed population, about 85.2 percent are engaged as skilled agricultural, forestry and fishery workers, 5.1 percent in service and sales, 5.8 percent in craft and related trade, and 2.2 percent are engaged as managers, professionals, and technicians.

### **Employment status and sector**

Of the population 15 years and older 60.4 percent are self-employed without employees, 31.8 percent are contributing family workers, 0.7 percent are casual workers and 1.1 percent are domestic employees (house helps). Overall, men constitute the highest proportion in each employment category although females dominate in the areas of contributing family workers and apprentice. The private informal sector is the largest employer in the district, employing 97.0 percent of the population followed by the public sector with 1.8 percent.

### **Information Communication Technology**

Of the population 12 years and above, 14.7 percent have mobile phones. Males who own mobile phones constitute 10.0 percent as compared to 0.4 percent of females. A little under one percent (0.6%) of the population 12 years and older uses internet facilities in the district. Only 165 households representing 0.9 percent of the total households in the district have desktop/laptop computers.

### **Disability**

About 4.3 percent of the district's total population has one form of disability or the other. The proportion of the male population with disability is slightly higher (4.6%) than females

(4.1%). The types of disability in the district include sight, hearing, speech, physical, intellect, and emotion. Persons with sight disability recorded the highest of 43.2 percent followed by Hearing (24.2) and physical disability (22.3%). About 30.7 percent of the population with disability are in the urban localities. There are more females with sight, and physical disabilities than males in both the urban and rural localities. Of the population disabled, 79.0 percent have never been to school.

### **Agriculture**

As high as 95.4 percent of households in the district are engaged in agriculture. In the rural localities, nine out of ten households (97.2%) are agricultural households while in the urban localities, approximately seventy percent of households are into agriculture. Majority of agricultural households in the district (98.8%) are involved in crop farming. Poultry (chicken) is the dominant animal reared in the district

### **Housing**

The housing stock of Garu Tempene District is 13,383 representing 11.7 percent of the total number of houses in the Upper East Region. The average number of persons per house is 9.6.

#### ***Type, tenancy arrangement and ownership of dwelling units***

Over 65.0% of all dwelling units in the district are compound houses; 15.7 percent are separate houses and 2.1 percent are semi-detached houses. Almost 95.0 percent of all dwelling units in the district are owned by members of the household; 1.4 percent is owned by private individuals; 2.4 percent are owned by a relative who is not a member of the household and only 0.7 percent is owned by public or government. Less than one percent (0.2%) of the dwelling units is owned through mortgage schemes.

#### ***Material for construction of outer wall, floor and roof***

The main construction material for outer walls of dwelling units in the district is mud/mud bricks or earth accounting for 90.4 percent with cement/concrete constituting 4.6 percent of outer walls of dwelling units in the district. Cement (49.6%) and mud/earth (48.2%) are the two main materials used in the construction of floors of dwelling units in the district. Metal sheets are the main roofing material (57.7 %) for dwelling units in the district.

#### ***Room occupancy***

One room constitutes the highest percentage (32.8%) of sleeping rooms occupied by households in housing units in the district. About 0.1 percent of households with 10 or more members occupy single rooms.

#### ***Utilities and household facilities***

The three main sources of lighting in dwelling units in the district are flashlight/torch (51.0%), kerosene lamp (34.9%) and electricity (11.1%). The main source of fuel for cooking for most households in the district is wood (79.9%). The proportion for rural (81.9%) is higher than that of urban (50.6%). The four main sources of water in the district are borehole, river stream, public tap and pipe borne water. Over half of the households in the district (59.8%) drink water from Bore-hole/Pump/Tube well.

Close to 92.0 percent of households in the district have no toilet facility and use (bush/beach/field). KVIP accounts for 3.3 percent, Pit latrine 2.2 percent and Public toilet (WC/KVIP/PitPan/etc.) 1.3 percent of all toilet facilities in the district. While 28.2 percent of

households own their toilet facilities, 21.7 percent of households use Shared separate bathroom in the same house.

***Waste disposal***

The most widely used method of solid waste disposal in the district is indiscriminate dumping in the open space which accounts for 23.9 percent; followed by Burned by household, 22.9 percent. House to house waste collection accounts for 19.9 percent. For liquid waste disposal, Thrown onto the street/outside is most predominant, accounting for (47.5%) and Thrown onto compound (31.0%). These constitute the two most common methods used by households in the district.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

The Garu-Tempene District was carved out of the Bawku-East District in 2004 and forms part of the thirteen (13) Districts in the Upper East Region of Ghana. The District has its administrative capital at Garu. The Garu-Tempene District Assembly was established in 2004 as defined by the Local Government Legislative Instrument (L.I. 1769).

The District lies in the south-eastern part of the Upper East Region of Ghana. It covers an area of 1060.91 square/km. It lies approximately on latitude  $11^{\circ}38'N$  and  $11^{\circ}N$  and longitude  $0^{\circ}06'E$  and  $0^{\circ}23'E$ .

The District shares boundaries with Bawku Municipal to the north; Bunkpurugu-Yunyoo District to the south; Bawku West District to the west; and the Republic of Togo to the east.

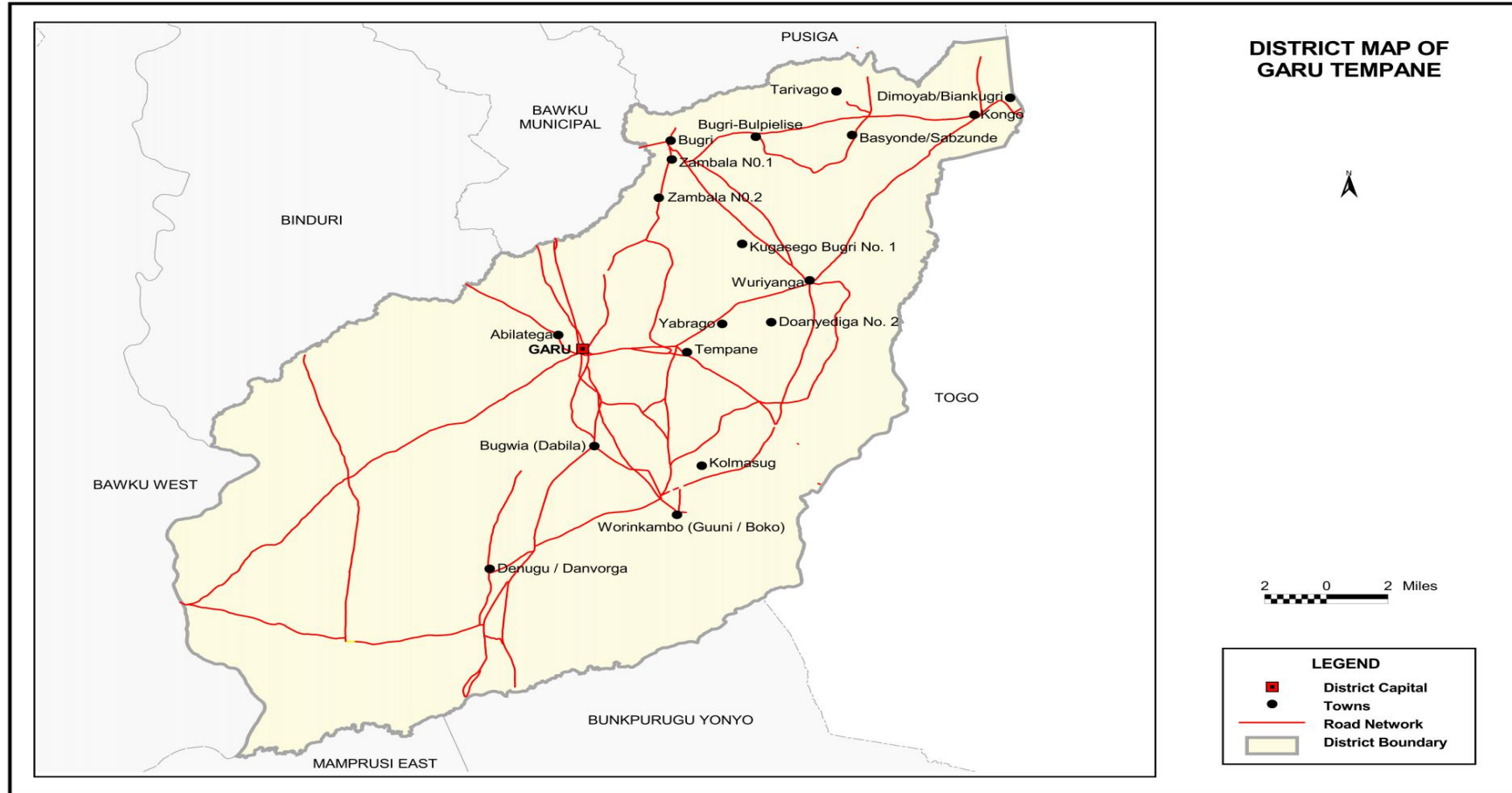
### 1.2 Physical Features

The District forms an extension of the Gambaga scarp and is underlain mainly by birrimian and granite rock formations separated in parts by thinly to moderately bedded sandstones. The relief of the District easily marks the highest point of the Upper East Region. With regards to areas that borders the White Volta and its tributaries the relief is generally low and slightly undulating with heights of 120-150 metres above sea level. The rest of the District consists of a series of plateau surfaces. The average height of the plateau is 400 metres above sea level, but isolated peaks rise beyond 430 metres.

The White Volta and its tributaries are the most significant of which the Tamne drains the District. The others are Pawnaba-Kiyinchongo streams. These rivers have strong irregular seasonal flow patterns. They flow from June to December with peaks in August and September. During the wet season they flow excessively followed by recession and low water levels during off seasons. The water from the rivers supports onion, water-melon and vegetable cultivation in the dry season. Except in a few areas around the river basins where the drainage becomes poor because of seasonal flooding, the area is generally well drained.

Garu-Tempene is part of the interior continental climatic zone of the country characterised by pronounced dry and wet seasons. The two seasons are influenced by two alternate air masses. One of them is the cold, dusty and dry harmattan air or the North East Trade winds which blows mostly from late November to early March in the north-eastern direction. During that period, rainfall is entirely absent and humidity is very low, sometimes less than 10mm and relative humidity rarely exceeds 20 percent during the day but may rise up to 60 percent during the night and early morning. Temperature is usually modest at this time of the year by tropical standards ( $26^{\circ}$ - $28^{\circ}$  C). Between March and May temperatures could be as high as  $38^{\circ}$ C. The highest mean monthly temperature is  $40^{\circ}$ C, which occurs in April while the lowest temperature of  $18^{\circ}$  C occurs in December/January.

**Figure 1.1: Map of Garu-Tempene District**



Source: Ghana Statistical Service, GIS

The second air mass laden with moisture from the Atlantic Ocean blows between May and October. During this period the area comes under the influence of the deep tropical maritime air mass. The air mass, together with rising convection currents, provides the District with rains. Total rainfall amounts to an average of 800mm per annum.

During this period (May to October) the rainfall is torrential, unpredictable and unreliable. The large quantity of rainwater is normally lost through evapo-transpiration from open surfaces partly due to the bare and dry nature of the ground. This affects availability of water for agriculture and domestic consumption. It is estimated that a volume of between 1.55 to 1.65 cubic metres per square area of the rainfall is lost per annum. Rains during this period of the year support the on-season cultivation of the major food and cash crops in the District.

The vegetation of the District is mainly of the Sahel savannah type, consisting of fire swept grassland separating deciduous trees among which can be seen a few broad-leaved species. The most densely vegetated forest reserves include: Denugu, Siisi, Kpatua, Nakinting, Kariyata and Wakpesi. Other isolated places are Karateshie and Tarivargo forest reserves. This vegetation supports livestock development in the area. It also contains some economic trees like shea and dawadawa which support livelihoods in the area.

The oldest rocks of the north-eastern part of Ghana are those of the pre-Cambrian basement complex. The basement is made up of granite, exposed over the western and northern parts of the District as tabular hills.

In the basement complex, ground water is found in weathered mantle in abundant quantities. The quality of ground water from the basement complex makes it ideally suitable for drinking and irrigation purposes. It is therefore not difficult to drill boreholes or construct dams in the area.

The District is covered with three main soil types:

- a) Red and brown sandy loam and clays associated with horn blended granular.
- b) Moderately deep, pale brown coarse sandy loams associated with biotitic granites.
- c) Gray sandy loams and clays in river valleys.
- d) These support a variety of crop production in the District, mainly cereals and legumes. These soil types can also support brick and tile and pottery industries.

There are limestone deposits in the western part of the District notably in the Worikambo area. This could be exploited for the manufacture of paint and chalk. There are also clear signs of diamond deposits.

### **1.3 Political Administration**

The Assembly is composed of 45 members including the District Chief Executive and two (2) Members of Parliament from the area. Of the 45 members, 31 are elected and 14 government appointees. The membership is also made up of 6 females and 39 males. Only two out of the 31 elected members are women and four women are appointed. The District is a double constituency. The sub-structures of the assembly consist of 9 Area Councils, 30 Electoral Areas and 30 Unit Committees. Many of the decentralized departments and other agencies now operate in the District.

Traditional authorities also play an important role in governance. There are five divisional chiefs with sub-chiefs and sectional heads. They help the District assembly in revenue



mobilization, mobilization of communal labour for the execution of projects, awareness creation in environmental protection and in security and justice. More conscious collaboration between the traditional authorities and the local authorities is a necessary ingredient for sustained good governance.

## **1.4 Social and Cultural Structure**

The predominant ethnic groups in the District are Kusasis, Busangas, Mosis, Bimobas and Mamprusis. Apart from that there are quite a number of migrants from other parts of the country, especially the south, and neighbouring countries of Togo and Burkina Faso.

Annual festivals are observed in the District. The festivals are celebrated by the different ethnic groups at the beginning of the harvest or after the harvest season. On these occasions, apart from merry making, traditional sacrifices are made to the gods of the land. This is done in acknowledgement of their blessings in the past and to implore their help and protection for the future.

The most widespread festivals of the District are the *Samanpid* of the Kusasis, *Ziisar* of the Kusasis and Bimobas and the *Danjuar* festival of the Bimobas.

Traditional marriage entails the distinctive practice of payment of a bride-price; the system where the family of the bridegroom meets some marriage expenses including the payment of 2 or 3 cows to the family of the bride. This practice is a prerequisite for all marriages in the District and can therefore be preceded by other forms of marriages but cannot be compromised by any other form. This practice of paying bride price, however, has led to so many hardships in many families and has even contributed to broken homes where indebtedness or debt servicing situation lasts for long periods. The temptation to withdraw female children from school to give up for marriage has had a serious toll in contributing to high school dropout among girls. It also discourages the youth from marriage which is a recipe for promiscuity.

The dominant religions are Islam, Christianity and Traditional African Religion. There are also some few nonbelievers.

## **1.5 Economy**

Agriculture is the dominant occupation of the people of the District. Women and men play almost the same roles in farming activities in the District. The major crops grown are maize, millet, groundnuts, onions and watermelon. Livestock such as pigs, cattle, sheep and goats are also kept by farmers. Poultry, especially guinea fowls production, is quite significant.

The long dry season coupled with the inadequate number of irrigable dams contribute to the migration by the youth of the District to the southern sector of the country during the lean season in search of menial jobs. Other areas that offer employment to the people are public service, food processing, textile and leather works, and retail/whole sale.

## **1.6 Census Methodology, Concepts and Definitions**

### **1.6.1 Introduction**

Ghana Statistical Service (GSS) was guided by the principle of international comparability and the need to obtain accurate information in the 2010 Population and Housing Census (2010 PHC). The Census was, therefore, 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.

Experience from previous post independence censuses of Ghana (1960, 1970, 1984 and 2000) was taken into consideration in developing the methodologies for conducting the 2010 PHC. 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.

## **1.6.2 Pre-enumeration activities**

### **Development of census project document and work plans**

A large scale statistical operation, such as the 2010 Population and Housing Census required meticulous planning for its successful implementation. A working group of the Ghana Statistical Service prepared the census project document with the assistance of two consultants. The document contains the rationale and objectives of the census, census organisation, a work plan as well as a budget. The project document was launched in November 2008 as part of the Ghana Statistics Development Plan (GSDP) and reviewed in November 2009.

### **Census secretariat and committees**

A well-structured management and supervisory framework that outlines the responsibilities of the various stakeholders is essential for the effective implementation of a population and housing census. To implement the 2010 PHC, a National Census Secretariat was set up in January 2008 and comprised professional and technical staff of GSS as well as staff of other Ministries, Departments and Agencies (MDAs) seconded to GSS. The Census Secretariat was primarily responsible for the day-to-day planning and implementation of the census activities. The Secretariat had 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 the planning of the Census. In 2009, the Census Secretariat was re-organised with the Government Statistician as the National Chief Census Officer and overall Coordinator, assisted by a Census Management Team and a Census Coordinating Team. The Census Management Team had oversight responsibility for the implementation of the Census. It also had the responsibility of taking 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.

A number of census committees were also set up at both national and sub-national levels to provide guidance and assistance with respect to resource mobilization and technical advice. 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 and the District Census Implementation Committee, respectively.

The Regional and District Census Implementation Committees were inter-sectoral in their composition. Members of the Committees were mainly from decentralized departments with

the Regional and District Coordinating Directors chairing the Regional Census Implementation Committee and District Census Implementation Committee, respectively. The Committees contributed to the planning of district, community and locality level activities in areas of publicity and field operations. They supported the Regional and District Census Officers in the recruitment and training of field personnel (enumerators and supervisors), as well as mobilizing logistical support for the census.

### **Selection of census topics**

The topics selected for the 2010 Population and Housing Census were based on recommendations contained in the UN Principles and Recommendations for 2010 Round of Population and Housing Censuses and the African Addendum to that document as well as the needs of data users. 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 included in the census.

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

### **Census mapping**

A timely and well implemented census mapping is pivotal to the success of any population and housing census. Mapping delineates the country into enumeration areas to facilitate smooth enumeration of the population. The updating of the 2000 Census Enumeration Area (EA) maps started in the last quarter of 2007 with the acquisition of topographic sheets of all indices from the Survey and Mapping Division of the Lands Commission. In addition, digital sheets were also procured for the Geographical Information System Unit.

The Cartography Unit of the Census Secretariat collaborated with the Survey and Mapping Division of the Lands Commission and the Centre for Remote Sensing and Geographic Information Services (CERSGIS) of the Department of Geography and Resource Development, University of Ghana, to determine the viability of migrating from analog to digital mapping for the 2010 PHC, as recommended in the 2000 PHC Administrative Report. Field cartographic work started in March 2008 and was completed in February 2010.

### **Development of questionnaire and manuals**

For effective data collection, there is the need to design appropriate documents to solicit the required information from respondents. GSS consulted widely with main data users in the process of the questionnaire development. Data users including MDAs, research institutions, civil society organisations and development partners were given the opportunity to indicate the type of questions they wanted to be included in the census questionnaire.

Documents developed for the census included the questionnaire and manuals, and field operation documents. The field operation documents included Enumerator's Visitation Record Book, Supervisor's Record Book, and other operational control forms. These record

books served as operational and quality control tools to assist enumerators and supervisors to control and monitor their field duties respectively.

### **Pre-tests and trial census**

It is internationally recognized that an essential element in census planning is the pre-testing of the questionnaire and related instructions. The objective of the pre-test is to test the questionnaire, the definition of its concepts and the instructions for filling out the questionnaire.

The census questionnaire was pre-tested twice in the course of its development. The first pre-test was carried out in March 2009 to find out the suitability of the questions and the instructions provided. It also tested the adequacy and completeness of the responses and how respondents understood the questions. The second pre-test was done in 10 selected enumeration areas in August, 2009. The objective of the second pre-test was to examine the sequence of the questions, test the new questions, such as, date of birth and migration, and assess how the introduction of 'date of birth' could help to reduce 'age heaping'. With regard to questions on fertility, the pre-tests sought to find out the difference, if any, between proxy responses and responses by the respondents themselves. Both pre-tests were carried in the Greater Accra Region. Experience from the pre-tests was used to improve the final census questionnaire.

A trial census which is a dress rehearsal of all the activities and procedures that are planned for the main census was carried out in October/November 2009. These included recruitment and training, distribution of census materials, administration of the questionnaire and other census forms, enumeration of the various categories of the population (household, institutional and floating population), and data processing. The trial census was held in six selected districts across the country namely; Saboba (Northern Region), Chereponi (Northern Region), Sene (Brong Ahafo Region), Bia (Western Region), Awutu Senya (Central Region), and Osu Klottey Sub-Metro (Greater Accra Region). A number of factors were considered in selecting the trial census districts. These included: administrative boundary issues, ecological zone, and accessibility, enumeration of floating population/outdoor-sleepers, fast growing areas, institutional population, and enumeration areas with scattered settlements.

The trial census provided GSS with an opportunity to assess its plans and procedures as well as the state of preparedness for the conduct of the 2010 PHC. The common errors found during editing of the completed questionnaires resulted in modifications to the census questionnaire, enumerator manuals and other documents. The results of the trial census assisted GSS to arrive at technically sound decisions on the ideal number of persons per questionnaire, number of persons in the household roster, migration questions, placement of the mortality question, serial numbering of houses/housing structures and method of collection of information on community facilities. Lessons learnt from the trial census also guided the planning of the recruitment process, the procedures for training of census field staff and the publicity and education interventions.

### **1.6.3 Census Enumeration**

#### **Method of enumeration and field work**

All post- independence censuses (1960, 1970, 1984, and 2000) conducted in Ghana used the de facto method of enumeration where people are enumerated at where they were on census night and not where they usually reside. The same method was adopted for the 2010 PHC.

The de facto count is preferred because it provides a simple and straight forward way of counting the population since it is based on a physical fact of presence and can hardly be misinterpreted. It is thought that the method also minimizes the risks of under-enumeration and over enumeration. The canvasser method, which involves trained field personnel visiting houses and households identified in their respective enumeration areas, was adopted for the 2010 PHC.

The main census enumeration involved the canvassing of all categories of the population by trained enumerators, using questionnaires prepared and tested during the pre-enumeration phase. Specific arrangements were made for the coverage of special population groups, such as the homeless and the floating population. The fieldwork began on 21st September 2010 with the identification of EA boundaries, listing of structures, enumeration of institutional population and floating population.

The week preceding the Census Night was used by field personnel to list houses and other structures in their enumeration areas. Enumerators were also mobilized to enumerate residents/inmates of institutions, such as, schools and prisons. They returned to the institutions during the enumeration period to reconcile the information they obtained from individuals and also to cross out names of those who were absent from the institutions on Census Night. Out-door sleepers (floating population) were also enumerated on the Census Night.

Enumeration of the household population started on Monday, 27<sup>th</sup> September, 2010. Enumerators visited houses, compounds and structures in their enumeration areas and started enumerating all households including visitors who spent the Census Night in the households. Enumeration was carried out in the order in which houses/structures were listed and where the members of the household were absent, the enumerator left a call-back-card indicating when he/she would come back to enumerate the household. The enumeration process took off smoothly with enumerators poised on completing their assignments on schedule since many of them were teachers and had to return to school. However, many enumerators ran short of questionnaires after a few days' work.

Enumeration resumed in all districts when the questionnaire shortage was resolved and by 17<sup>th</sup> October, 2010, enumeration was completed in most districts. Enumerators who had finished their work were mobilized to assist in the enumeration of localities that were yet to be enumerated in some regional capitals and other fast growing areas. Flooded areas and other inaccessible localities were also enumerated after the end of the official enumeration period. Because some enumeration areas in fast growing cities and towns, such as, Accra Metropolitan Area, Kumasi, Kasafo and Techiman were not properly demarcated and some were characterized by large EAs, some enumerators were unable to complete their assigned tasks within the stipulated time.

#### **1.6.4 Post enumeration survey**

In line with United Nations recommendations, GSS conducted a Post Enumeration Survey (PES) in April, 2011 to check content and coverage error. The PES was also to serve as an important tool in providing feedback regarding operational matters such as concepts and procedures in order to help improve future census operations. The PES 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.
- 1.3 percent of the population was erroneously included in the census.
- 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%).

### **1.6.5 Release and dissemination of results**

The provisional results of the census were released in February 2011 and the final results in May 2012. A National Analytical report, six thematic reports, a Census Atlas, 10 Regional Reports and a report on Demographic, Social, Economic and Housing were prepared and disseminated in 2013.

### **1.6.6 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 that 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 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). In 2012, 46 new districts were created to bring the total number of districts to 216. There was urgent need for data for the 46 newly created districts for planning and decision-making. To meet this demand, the 2010 Census data was re-programmed into 216 districts after carrying out additional fieldwork and consultations with stakeholders in the districts affected by the creation of the new districts.

### **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 26th 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 he/she:

- i. 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.
- ii. Did not work, but had jobs to return to.
- iii. 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 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.

## **1.7 Organization of the report**

The report consists of nine chapters. Chapter one provides basic information about the district. It gives a brief background of the district, describing its physical features, political and administrative structure, social and cultural structure, economy and the methodology and concepts used in the report. Chapter two discusses the population size, composition and age structure. It further discusses the migratory pattern in the district as well as fertility and mortality.

In chapter three, the focus is on household size, composition and headship as well as the marital characteristics and nationality of the inhabitants of the district. The chapter also discusses the religious affiliations and the educational statuses of the members of the district.

Chapter four focuses on economic characteristics such as economic activity status, occupation, industries and the employment status and sectors that the people are employed.

Information Communication Technology (ICT) is discussed in chapter five. It analyses mobile phone ownership, internet use and ownership of desktop/laptop computers while chapter six is devoted to Persons living with disabilities (PWDs) and their socio-demographic characteristics. Chapter seven concentrates on the agricultural activities of the households, describing the types of farming activities, livestock rearing and numbers of livestock reared.

In chapter eight, housing conditions such as housing stock, type of dwelling and construction materials, room occupancy, holding and tenancy, lighting and cooking facilities, bathing and toilet facilities, waste disposal and source of water for drinking or for other domestic use in the district are discussed and analyzed in detail. The final chapter, Chapter nine presents the summary of findings and conclusions. It also discusses the policy implications of the findings for the district.

## **CHAPTER TWO**

### **DEMOGRAPHIC CHARACTERISTICS**

#### **2.1 Introduction**

The demographic characteristics of a District provide important basis for policy and decision making in the District. Changes in a district's population size and age-sex composition occur through changes in fertility, mortality and migration levels.

The 2010 Population and Housing Census counted each person present in Ghana irrespective of nationality. This chapter analyses the size, composition of age, and sex structure and age dependency ratio by type of locality in the Garu Tempane District.

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

Table 2.1 presents the age structure of the District by sex. From the Table, total population of the District is 130, 003. The males' population in the District is 62,025 which represent 47.7 percent of the total population while that of the females' population is 67,978 which also represent 52.3 percent. The sex ratio which is the number of males to 100 females is 91.2 for all ages.

The sex ratio rises gradually from the 0-4 age group (106.3) through to the 15-19 age group (115.1). The ratio however drops to 95.2 at the 20-24 age group but rises again from 67.5 for age group 65-69 to 113.6 for age group 95-99. This development could be as a result of out-migration for most males who travel to the southern part of Ghana in search of job opportunities. These people however return home when they go on retirement or too old to work.

Table 2.2 also shows that the District is still rural with only 6,265 (4.8%) of the total population living in the urban centres.

The age-dependency ratio is the ratio of persons in the dependent ages (generally under age 15 and over age 64) to those in the economically productive ages (15-64 years) in the population. As shown in Table 2.1, the age dependency is 116.9 for gender, 137.3 for males and 101.2 females. This development implies that the number of persons in the active age group (15-64) is lower vis-a-vis those in the dependent group. This means that there are approximately 117 persons in the dependant ages for every 100 persons in the working ages. The ratio is lower for the population in the urban centres (86.5) than those in the rural areas (118.7). This relationship however does not translate into economic dependency since some of the people in the 0-14 and 65+ could be working while some of those in the 15-64 may not.

**Table 2.1: Age structure by sex**

Age Group	Both Sexes		Males		Females		Sex Ratio
	Number	Percent	Number	Percent	Number	Percent	
All Ages	130,003	100.0	62,025	100.0	67,978	100.0	91.2
0 – 4	19,493	15.0	10,046	16.2	9,447	13.9	106.3
5 – 9	22,030	16.9	11,396	18.4	10,634	15.6	107.2
10 – 14	18,398	14.2	9,819	15.8	8,579	12.6	114.5
15 – 19	14,135	10.9	7,565	12.2	6,570	9.7	115.1
20 – 24	7,758	6.0	3,784	6.1	3,974	5.8	95.2
25 – 29	6,609	5.1	2,683	4.3	3,926	5.8	68.3
30 – 34	6,123	4.7	2,226	3.6	3,897	5.7	57.1
35 – 39	5,550	4.3	2,075	3.3	3,475	5.1	59.7
40 – 44	5,288	4.1	1,948	3.1	3,340	4.9	58.3
45 – 49	4,326	3.3	1,724	2.8	2,602	3.8	66.3
50 – 54	4,362	3.4	1,765	2.8	2,597	3.8	68
55 – 59	2,370	1.8	1,033	1.7	1,337	2.0	77.3
60 – 64	3,406	2.6	1,339	2.2	2,067	3.0	64.8
65 – 69	2,074	1.6	836	1.3	1,238	1.8	67.5
70 – 74	3,004	2.3	1,269	2.0	1,735	2.6	73.1
75 – 79	1,797	1.4	881	1.4	916	1.3	96.2
80 – 84	1,546	1.2	736	1.2	810	1.2	90.9
85 +	1,736	1.3	900	1.5	934	1.4	96.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 2.2 shows a spatial distribution of the District's population which depicts it as predominantly rural (95.2%). Regarding the District's population distribution, rural accessibility remains a priority for poverty reduction, economic development as well as the attainment of the Millennium Development Goals.

The 2.2 also indicate that the District's share of the regional population is 12.4 percent. With the urban areas proportion to be 2.9 percent while rural localities 15.0 percent.

**Table 2.2: Population size by locality of residence and sex**

Region/District/ Sex	All Localities		Urban		Rural	
	Number	Percent	Number	Percent	Number	Percent
Upper East	1,046,545	100.0	219,646	21.0	826,899	79.0
<b>District</b>						
Total	130,003	100.0	6,265	4.8	123,738	95.2
Male	62,025	47.7	2,947	47.0	59,078	47.7
Female	67,978	52.3	3,318	53.0	64,660	52.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

The age dependency ratio is conventionally defined as people in the dependent ages (0-14 and 65 and over) divided by the economically active population (15-64 years) multiplied by 100. The bigger the dependency ratio, the larger the economic burden of the potential working population. This assertion however is an assumption and might not reflect realities. It assumes that all persons aged 0-14 years or 65 years and older do not work or cannot work and are therefore dependent on others. It also assumes that all persons aged 15-64 years are working.

The total dependency ratio for the District as shown in the Table is 116.9, however according to localities urban has 86.5, while rural 118.7. However, the child dependency and old age dependency are 100 and 16.9 respectively.

**Table 2.3: Age dependency ratio by locality**

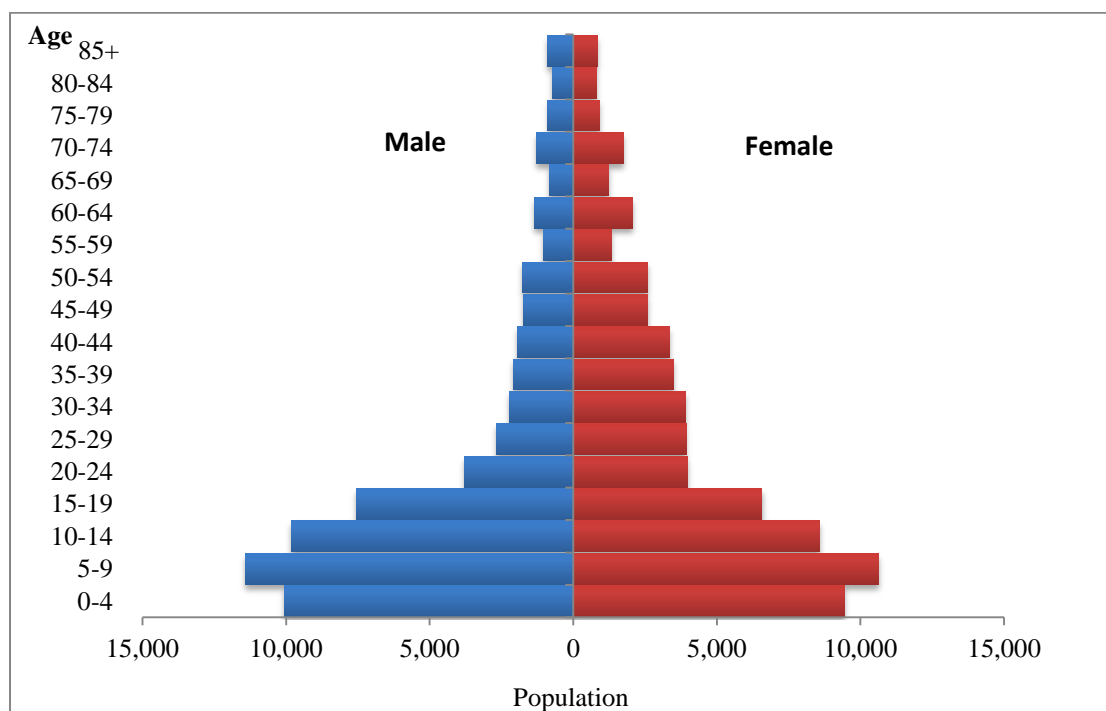
Age group/ratio	Total	Urban	Rural
All Ages	130,003	6,265	123,738
0-14	59,921	2,625	57,296
15-64	59,927	3,359	56,568
65+	10,155	281	9,874
<b>Total dependency ratio</b>	<b>116.9</b>	<b>86.5</b>	<b>118.7</b>
<b>Child dependency ratio</b>	<b>100</b>	<b>78.1</b>	<b>101.3</b>
<b>Old age dependency ratio</b>	<b>16.9</b>	<b>8.4</b>	<b>17.5</b>

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 2.3 Age-Sex Structure

From Figure 2.1, the District has a youthful population structure, with a broad base which consists of large numbers of children and youth (0-24 years) and a conical top of a small number of elderly people. Therefore, the population in the District has great potential for socio-economic development. The structure of the District's population is basically shaped by the effects of high fertility and decreasing mortality rates. The situation informs policy makers to make policies that are geared towards the youth.

**Figure 2.1: Age-sex structure of the population**



Source: Ghana Statistical Service, 2010 Population and Housing Census

## 2.4 Fertility, Mortality and Migration

### 2.4.1 Fertility

Fertility refers to the actual birth performance, that is, the frequency or childbearing among a population while fecundity denotes the physiological capacity of a woman, man or couple to reproduce (International Union for the Scientific Study of Population, 1982).

The Crude Birth Rate (CBR) is defined as the number of births per 1,000 populations in a given year ('crude' because it relates to the entire population rather than the section of the population capable of giving birth).

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 or 15-49. This analysis uses women who are between 15 - 49 years since some women can give birth even after 45 years.

This indicator shows the potential for population change in the country. A rate of two children per woman is considered the replacement rate for a population, resulting in relative stability in terms of total numbers. Rates above two children indicate a population is growing in size and whose median age is declining. Higher rates may also indicate difficulties for families, in some situations, to feed and educate their children and for women to enter the labour force. Rates below two children indicate populations decreasing in size and growing older

During the 2010 PHC data was collected on - births and deaths in the last 12 months preceding the census and responses obtained relates to children ever born and children surviving and these -are used to estimate fertility and mortality rates as proxy measures of social and economic development or as specific indicators of the health status of the population.

Table 2.4 show that there are 2,951 births in the District in the 12 months preceding the census. Bawku Municipality recorded the highest number of births (4,684) but with the second lowest crude birth rate of 21.5 per 1000 population. Kasena-Nankana West recorded the least number of births (1,309) and least crude birth rate of 18.5 per 1000 population. As shown by the Table, Builsa District has the highest crude birth rate of 25.3 per 1000. The crude birth rate of Garu Tempene District is 22.7 per 1000 population and is same for the Upper East Region.

**Table 2.4: Reported total fertility rate, general fertility rate and crude birth rate by district**

District	Population	Number of women 15-49 years	Number of births in last 12 months	Total Fertility Rate	General Fertility Rate	Crude Birth Rate
All Districts	1,046,545	243,377	23,728	3.4	97.5	22.7
Builsa	92,991	21,571	2,355	3.9	109.2	25.3
KasenaNankana West	70,667	16,820	1,309	2.8	77.8	18.5
KasenaNankana East	109,944	25,941	2,539	3.4	97.9	23.1
Bolgatanga Municipal	131,550	34,909	3,089	3.0	88.5	23.5
TalensiNabdum	115,020	24,786	2,593	3.6	104.6	22.5
Bongo	84,545	19,593	1,982	3.6	101.2	23.4
Bawku West	94,034	20,951	2,226	3.7	106.2	23.7
<b>GaruTempene</b>	<b>130,003</b>	<b>27,784</b>	<b>2,951</b>	<b>3.9</b>	<b>106.2</b>	<b>22.7</b>
Bawku Municipal	217,791	51,022	4,684	3.3	91.8	21.5

Source: Ghana Statistical Service, 2010 Population and Housing Census



## 2.4.2 Mortality

The quality of life in the Garu Tempane District rests ultimately on the basic conditions which influence health, morbidity and mortality in the population. Mortality levels, patterns, trends and differentials are very important indicators of the health status of the population. This information plays a vital role in development planning in general, and the planning, monitoring and evaluation of the expansion of and efficiency of healthcare delivery in particular. For this reason, mortality is one of the crucial components of population dynamics.

This section discusses the data gathered on mortality in the 2010 Population and Housing Census. Specific issues discussed include, deaths in households, crude death rates, causes of deaths and age-specific deaths in the Garu Tempane District. The 2010 PHC measured mortality rates on the responses of respondents to questions on births and deaths in the last 12 months preceding the census.

### Survival rate of children ever born

The number of children surviving out of the number ever born alive is a measure of the overall level of mortality. However, unlike information from death registration data, it cannot measure the age pattern of death, which is crucial for the study of age-related morbidity and mortality. The survival rate is the percentage of all children ever born who are still alive at the time of the census, irrespective of the current age of the child.

Children ever born and children surviving are presented in Table 2.5. The Table shows that, out of the total number 161,179 children ever born in the District by female population 12 years and older, 130,388 were surviving, giving the survival rate of children ever born as 80.9 percent. This figure depicts a very high level of mortality in the District.

**Table 2.5: Female population 12 years and older by age, children ever born, children surviving and sex of child**

Age	Number of female	Children Ever Born			Children Surviving		
		Both Sexes	Male	Female	Both Sexes	Male	Female
All Ages	44,197	161,179	81,156	80,023	130,388	65,392	64,996
12-14	4,879	12	8	4	10	6	4
15-19	6,570	465	225	240	408	194	214
20-24	3,974	3,627	1,884	1,743	3,252	1,648	1,604
25-29	3,926	9,662	4,993	4,669	8,662	4,420	4,242
30-34	3,897	16,049	8,200	7,849	14,301	7,263	7,038
35-39	3,475	18,248	9,180	9,068	16,026	8,084	7,942
40-44	3,340	20,198	10,185	10,013	17,180	8,674	8,506
45-49	2,602	16,501	8,204	8,297	13,719	6,801	6,918
50-54	2,597	17,464	8,677	8,787	13,961	6,938	7,023
55-59	1,337	9,032	4,495	4,537	7,043	3,494	3,549
60+	7,600	49,921	25,105	24,816	35,826	17,870	17,956

Source: Ghana Statistical Service, 2010 Population and Housing Census

Crude Death Rate (CDR) refers to the number of deaths per 1000 population in a given year (crude because, although deaths occur in the entire population the rate of occurrence is not uniform or evenly distributed among all ages).

Table 2.6 shows that a total of 1,287 deaths were recorded in the households over the last 12 months preceding the enumeration in the District. This is the fourth highest after Bolgatanga

Municipality, Talensi Nabdam District and Bawku Municipality in descending order of deaths in the region. The crude death rate which is the number of deaths per 1000 of the population in a given year is 9.89 in the Garu Tempene District. This implies that 10 out of 1000 persons died over the past 12 months preceding the enumeration.

**Table 2.6: Total population, deaths in households and crude death rate, by district**

District	Total population	Deaths in Households	Crude death rate (per 1000)
All Districts	1,046,545	11,339	10.83
Builsa	92,991	815	8.76
Kasena Nankana West	70,667	566	8.01
Kasena Nankana East	109,944	1,217	11.07
Bolgatanga Municipal	131,550	2,269	17.25
Talensi Nabdam	115,020	1,691	14.7
Bongo	84,545	1,093	12.93
Bawku West	94,034	838	8.91
<b>Garu Tempene</b>	<b>130,003</b>	<b>1,287</b>	<b>9.89</b>
Bawku Municipal	217,791	1,563	7.18

Source: Ghana Statistical Service, 2010 Population and Housing Census

As shown in Table 2.7, deaths due to accident/violence/homicide/suicide constitute 7.5 percent of all deaths in the District. This is low considering the regional average of 15.2 percent. However, it is a critical issue to be considered in priority setting. Deaths through all other forms account for 92.5 percent of the causes of deaths in the District.

**Table 2.7: Death due to accidents/violence /homicide/suicide**

Death	Accident/Violence/ Homicide/Suicide		All other Causes
	Number	Percent	
Upper East	11,339	15.2	84.8
Builsa	815	5.4	94.6
Kasena Nankana West	566	8.3	91.7
Kasena Nankana East	1,217	7.1	92.9
Bolgatanga Municipal	2,269	41.4	58.6
Talensi Nabdam	1,691	14.4	85.6
Bongo	1,093	5.6	94.4
Bawku West	838	5.1	94.9
<b>Garu Tempene</b>	<b>1,287</b>	<b>7.5</b>	<b>92.5</b>
Bawku Municipal	1,563	10.1	89.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

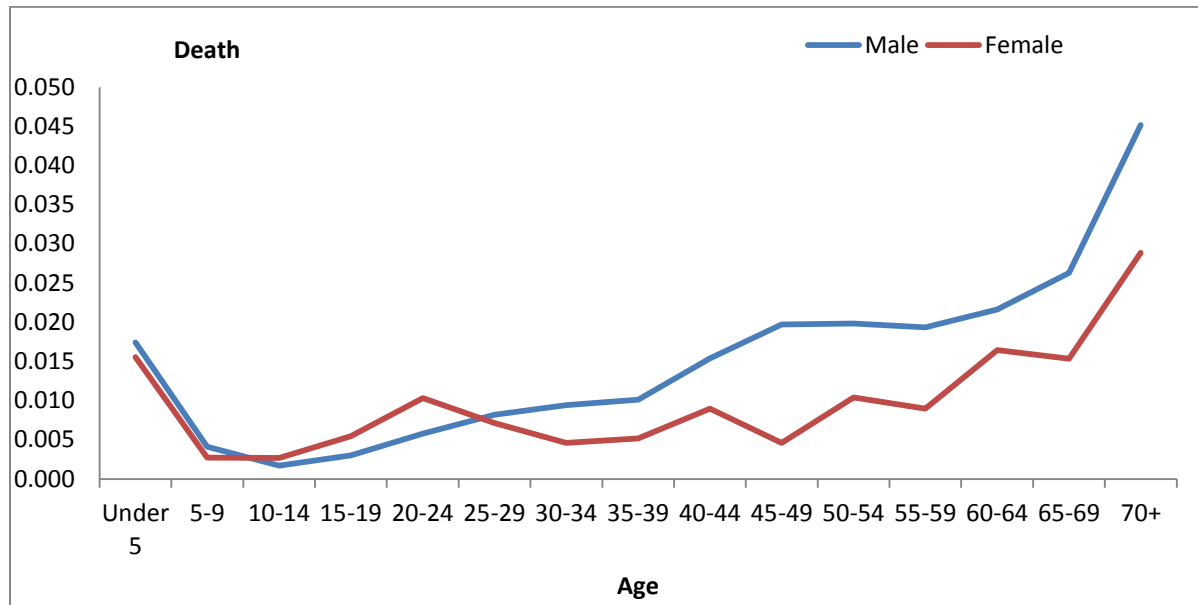
Age- Specific Death Rate (ASDR): The age specific death rate is computed as a ratio of deaths of people in a specific age group, for example 15-19 years, to the population in that age group (15-19 years) multiplied by 1,000. The rate is often computed for males and females separately.

The pattern of Age-Specific Death Rate (ASDR) is displayed on Figure 2.2. Death rates are higher amongst the males and females categories at age group 0-4 years. This declines for both males and females categories in the age group 5-9. At this point, death rates are steady

for both sexes but that of the females cohort begin to rise higher than that of the males, until age group 25-29 where the mortality rate for male overtakes the female.

The probable reason for the higher death rates among females than males in mid-twenties age brackets (20-24 age groups) is the high maternal mortality among females in their reproductive age group. In the older ages males mortality is higher than the females perhaps due to the fact that males become weak and sick as a result of difficult and dangerous activities they are involved in during their youthful ages.

**Figure 2.2: Age-specific death rate**



Source: Ghana Statistical Service, 2010 Population and Housing Census

### 2.4.3 Migration

The census sought information on place of birth in relation to locality of enumeration. Birthplace and migratory pattern are, therefore, analysed by comparing locality of birth with locality of enumeration. Persons born in the locality of enumeration are assumed not to have had any migratory history. This may not necessarily be the case since some people who might have moved outside their locality of birth could have returned to that locality for the census or on visit or on retirement. Their migratory moves would thus be lost. Birthplace in relation to place of enumeration is, therefore, only a crude measure of migration. The information is restricted to Ghanaians by birth and therefore does not capture the true volume of movement into the District.

Table 2.8 shows the birthplace by duration of residence of migrant. A total of 6,123 people in the District were born outside the District. This figure is considered as the total migrants in the District as at the reference period. Those born elsewhere in the Upper East Region constitute 2324 (38.0%). About 3171(51.8%) is born elsewhere in another region in Ghana whilst 628(17.4%) is born outside Ghana. Of those born elsewhere in another region in Ghana, majority 2,135 (67.3%) is born in the Ashanti Region and of this group, most (31.1%) stayed there between 1-4years.

Also, of those born in the Upper East Region, the majority (40.9%) lived there for 20 or more years and the least (8.7%) staying between 5-9 years. About 40.9 percent of those born outside Ghana lived there for about 20 years or more.

**Table 2.8: Birthplace by duration of residence of migrants**

Birthplace	Number	Duration of residence (%)				
		Less than 1 year	1-4 years	5-9 years	10-19 years	20+ years
Total	6,123	22.5	22.6	12.1	12.8	20.6
Born elsewhere in the region	2,324	19	14.8	8.7	16.6	40.9
<b>Born elsewhere in another region:</b>						
Western	510	29.2	33.3	17.5	12.7	7.3
Central	56	23.2	33.9	5.4	21.4	16.1
Greater Accra	86	17.4	33.7	17.4	11.6	19.8
Volta	82	37.8	23.2	18.3	3.7	17.1
Eastern	140	20.7	29.3	17.1	15.7	17.1
Ashanti	2,135	28.5	31.1	15.2	12.8	12.4
Brong Ahafo	421	26.8	32.5	21.4	12.8	6.4
Northern	284	33.1	29.2	12.7	11.6	13.4
Upper East	-	-	-	-	-	-
Upper west	85	30.6	27.1	18.8	9.4	14.1
Outside Ghana	628	9.6	27.9	16.2	24.4	22

Source: Ghana Statistical Service, 2010 Population and Housing Census

## CHAPTER THREE

### SOCIAL CHARACTERISTICS

#### 3.1 Introduction

This chapter provides comprehensive and detailed social and cultural characteristics of the District. There are a number of social and cultural issues of human societies that affect their cohesion and the kinds of interests different groups may wish to protect as they seek solutions to better their lots. For this reason, the 2010 Population and Housing Census gathered data on household composition, headship and size of households in the District. Also collected were data on marital status, literacy and education, nationality, religion and economic activities.

#### 3.2 Size, Household Composition and Headship

The 2010 Population and Housing Census (PHC) defined, household as consisting of a person or group of persons who live together in the same house or compound, share housekeeping arrangements and are cared for as one unit. Members of a household are not necessarily related by blood, since non-relatives can form a household. The composition of a typical Ghanaian household mirrors the social structure that permeates the entire country. The composition of a household is therefore defined bearing in mind the nature of the relationship that exists amongst members of the household and to the one person they accept and recognize as the head of the household. The head is responsible for the management and upkeep of the house and the members of the household.

Table 3.1 presents information on the total household population and household size in the District. The total household population in the District is 128,623. The total number of households in the District is 17,520.

The average household size for the District is 7.3, which is higher than the regional value of 5.8 and national figure of 4.4 persons per household.

**Table 3.1: Household size by locality**

Categories	Total country	Region	District	Urban	Rural
Total household population	24,076,327	1,034,704	128,623	6,230	122,393
Number of households	5,467,054	177,629	17,520	1,096	16,424
Average households per house	1.6	1.6	1.3	1.5	1.3
Average household size	4.4	5.8	7.3	5.7	7.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 3.2 shows household population by composition and sex. There are a total of 128,623 people living in households in the District. Out of this number, 13.6 percent of the population in the households are heads. Children are treasured in the Ghanaian society and they show a person's social status. The Table lays credence to this situation as 51.1 percent of the household population is made of children. The extended family system is still a very important aspect of the family structure in the District. Out of the population in households, 10 percent are other relatives living in the household, 5.2 percent are grandchildren, 3.1 percent are parents/parent in-law and 1.1 percent are son/daughter in-law.

The Table further shows that, 61,344 of the household population are males while 67,279 are females. Of the male population, 23.9 percent are heads of the household while 4.3 percent of females act as heads of the households. There are more children in the male headed households (58.4 %) than in the female headed households (44.4%). There are more other relatives living in the female headed household (15.1%) than in male headed households (4.5%). This trend is seen among all other groups of the extended family system except those that are in the grandchild category where a slightly more (5.5%) in the male headed households as against 4.9 percent in the female headed households.

**Table 3.2: Household population by composition and sex**

Household composition	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	128,623	100.0	61,344	100.0	67,279	100.0
Head	17,520	13.6	14,660	23.9	2,860	4.3
Spouse (wife/husband)	13,069	10.2	251	0.4	12,818	19.1
Child (son/daughter)	65,719	51.1	35,841	58.4	29,878	44.4
Parent/Parent in-law	3,978	3.1	498	0.8	3,480	5.2
Son/Daughter in-law	1,375	1.1	84	0.1	1,291	1.9
Grandchild	6,678	5.2	3,389	5.5	3,289	4.9
Brother/Sister	4,483	3.5	2,525	4.1	1,958	2.9
Step child	1,457	1.1	753	1.2	704	1.1
Adopted/Foster child	519	0.4	279	0.5	240	0.4
Other relative	12,876	10.0	2,749	4.5	10,127	15.1
Non-relative	949	0.7	315	0.5	634	0.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 3.3 shows the composition of households by type of locality. Out of the total number of people who live in households less than one percent (0.4 %) lives alone and assume headship of their household from the Table it also reveals that among nuclear family, households with head, spouse(s) and biological/ adopted children only for both localities is common with a proportion of 17.9 percent while among extended family, household with head, spouse(s), biological/adopted children and relative of the head only is 60.0 percent. Also households composition based on localities types indicates heads only to be 1.5 percent while among nuclear family household, head, spouse(s) and biological/ adopted children only is 18.3 percent and extended family household, head, spouse(s) biological /adopted children and relatives of the head only is 41.1 percent. With regards to rural localities, head only accounts for less than one percent (0.3%) while among nuclear family household, head, spouse(s) and biological /adopted children is common with a proportion of 17.8 percent with regards to extended family household, head, spouse(s), biological /adopted children and relatives of the head only represent the most common with proportion 60.9 percent.

**Table 3.3: Household Composition by type of locality**

Household Composition	Total		Urban		Rural	
	Number	Percent	Number	Percent	Number	Percent
Total	128,623	100.0	6,230	100.0	122,393	100.0
Head only	467	0.4	92	1.5	375	0.3
<b>Nuclear family</b>						
Household with head and a spouse only	492	0.4	52	0.8	440	0.4
Household with head and biological/adopted children only	5,856	4.6	604	9.7	5,252	4.3
Household with head spouse(s) and biological/adopted children only	22,984	17.9	1,142	18.3	21,842	17.8
<b>Extended family</b>						
Household with head spouse(s) biological/adopted children and relatives of the head only	77,147	60.0	2,558	41.1	74,589	60.9
Household with head spouse(s) biological/adopted children relatives and nonrelatives of the head	3,725	2.9	134	2.2	3,591	2.9
Household with head spouse(s) and other composition	3,349	2.6	244	3.9	3,105	2.5
Household with head biological/adopted children and relatives of the head only	8,678	6.7	907	14.6	7,771	6.3
Household with head biological/adopted children relatives and nonrelatives of the head	728	0.6	119	1.9	609	0.5
Household with head and other composition but no spouse	5,197	4.0	378	6.1	4,819	3.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 3.4 shows household population by structure and sex. The Table replicates the regional picture of more females than males in the population. With a total household population of 128,623, the Table shows that there are 67,279 females and 61,344 males in the District.

The extended family which includes the family head, spouse(s), children and other relations makes up 60 percent of the total household size. Of the total male population in the households, 59.2percent are in the extended households as against 60.7 percent of female population.

Also nuclear (head, spouse, and children) accounts for 17.9 percent while male represent 19.8 percent and female 16.1 percent. Persons who are single parent extended are 6.8 percent for both sexes while male is 6.3 percent and female 7.1 percent.

### 3.3 Marital Status

The institution of marriage is highly valued in the Ghanaian society. It determines the perception society has about an individual of marriage age. It is an indicator of social responsibility, trust and achievement. All adults are expected to marry. There are however exceptions, those afflicted by terminal diseases, serious illness or deformity that make them unable to marry. Voluntary celibacy is frowned upon in traditional Ghana. It is the wish of most adults to marry at one point in their lives.

This aspect looks at marital status of persons 12 years or older. The eligibility for this question is based on the average age of menarche and also on the practice in some parts of the country where girls as young as 12 years old could be given out for marriage (GSS, 2002).

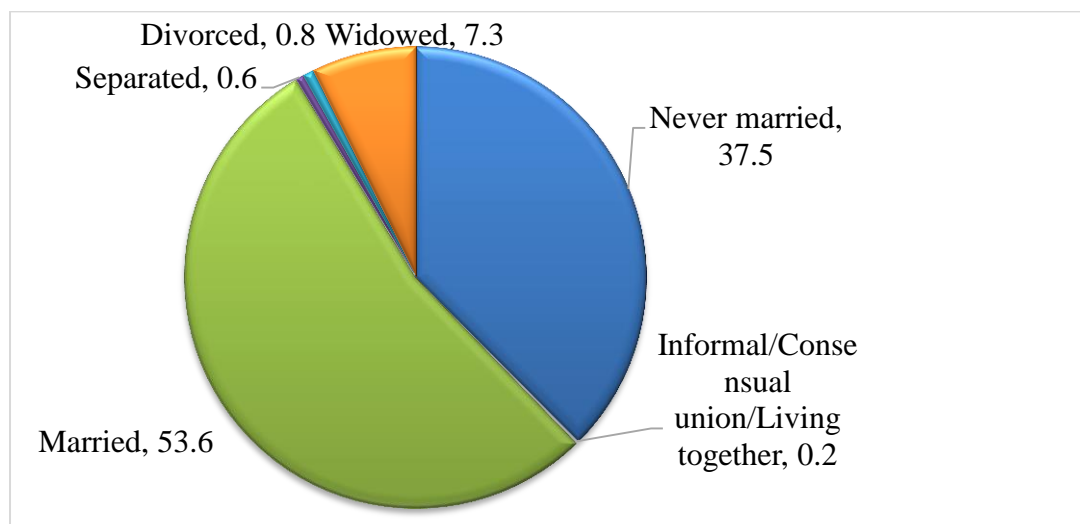
**Table 3.4: Household population by structure and sex**

Household structure	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	128,623	100.0	61,344	100.0	67,279	100.0
Head only	467	0.4	295	0.5	172	0.3
Head and a spouse only	492	0.4	254	0.4	238	0.4
Nuclear (Head, spouse(s) and children)	22,984	17.9	12,135	19.8	10,849	16.1
Extended (Head, spouse(s), children and Head's relatives)	77,147	60.0	36,298	59.2	40,849	60.7
Extended + non relatives	3,725	2.9	1,753	2.9	1,972	2.9
Head, spouse(s) and other composition	3,349	2.6	1,551	2.5	1,798	2.7
Single parent Nuclear	5,856	4.6	2,578	4.2	3,278	4.9
Single parent Extended	8,678	6.8	3,888	6.3	4,790	7.1
Single parent Extended + non relative	728	0.6	310	0.5	418	0.6
Head and other composition but no spouse	5,197	4.0	2,282	3.7	2,915	4.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

Figure 3.1 shows persons 12 years and older by marital status. Out of the total of 80,527 persons aged 12 years or older, 37.5 percent reported as never married, 0.2 percent reported as being in the informal/consensual/living together category. The proportion of the population reported as married, constitutes 53.6 percent, while 0.6 percent were reported as separated. Persons who are divorced and widowed, constitutes (0.8% and 7.3%) respectively.

**Figure 3.1: Marital status**



Ghana Statistical Service, 2010 Population and Housing Census

### 3.3.1 Marital status by sex and age

Most adults would wish to get married at one time or the other and this is more so with females. To ascertain this, the data in Table 3.3 considers persons 12 years and older by marital status.



Table 3.5 examines the distribution of marital characteristics by age and sex in Garu Tempane District. The Table reveals that among both sexes, the total population that are married accounts for the highest proportion of 53.6 percent and never married accounts for 37.5 percent and informal/consensual union and living together the least of 0.2 percent.

**Table 3.5: Persons 12 years and older by sex, age-group and marital status**

Sex/Age-group	Number	Total	Never married	Informal/ Consensual union/Living together	Married	Separated	Divorced	Widowed
<b>Both Sexes</b>								
Total	80,527	100.0	37.5	0.2	53.6	0.6	0.8	7.3
12 - 14	10,445	100.0	93.8	0.1	6.2	0.0	0.0	0.0
15 - 19	14,135	100.0	90.2	0.1	9.3	0.1	0.1	0.2
20 - 24	7,758	100.0	58.9	0.4	38.9	0.7	0.5	0.5
25 - 29	6,609	100.0	25.5	0.3	71.8	0.8	0.7	0.8
30 - 34	6,123	100.0	8.4	0.3	87.7	0.9	1.1	1.6
35 - 39	5,550	100.0	4.4	0.3	91.1	0.9	1.2	2.3
40 - 44	5,288	100.0	2.6	0.3	89.3	1.1	1.4	5.4
45 - 49	4,326	100.0	2.4	0.2	86.5	0.9	1.4	8.7
50 - 54	4,362	100.0	1.5	0.2	84.0	0.8	1.5	12.0
55 - 59	2,370	100.0	1.2	0.3	80.0	0.7	1.1	16.6
60 - 64	3,406	100.0	2.8	0.2	74.7	0.9	1.4	20.1
65+	10,155	100.0	2.4	0.1	63.6	0.5	1.1	32.4
<b>Male</b>								
Total	36,330	100.0	48.1	0.2	48.7	0.5	0.9	1.6
12 - 14	5,566	100.0	93.6	0.1	6.3	0.0	0.0	0.0
15 - 19	7,565	100.0	93.4	0.1	6.3	0.1	0.1	0.1
20 - 24	3,784	100.0	79.7	0.3	18.9	0.3	0.3	0.4
25 - 29	2,683	100.0	45.5	0.5	52.4	0.4	0.8	0.4
30 - 34	2,226	100.0	17.6	0.2	78.6	1.2	2.1	0.4
35 - 39	2,075	100.0	8.0	0.3	88.3	1.2	1.7	0.5
40 - 44	1,948	100.0	4.3	0.3	91.1	1.4	1.8	1.1
45 - 49	1,724	100.0	3.7	0.3	91.3	0.9	2.2	1.6
50 - 54	1,765	100.0	2.2	0.2	93.1	1.2	1.7	1.6
55 - 59	1,033	100.0	1.5	0.3	92.4	0.8	1.3	3.7
60 - 64	1,339	100.0	3.5	0.1	89.5	1.4	2.0	3.5
65+	4,622	100.0	3.2	0.2	86.9	0.6	1.3	7.8
<b>Female</b>								
Total	44,197	100.0	28.9	0.2	57.6	0.6	0.7	12.0
12 - 14	4,879	100.0	93.9	0.1	6.0	0.0	0.0	0.0
15 - 19	6,570	100.0	86.6	0.2	12.7	0.1	0.2	0.3
20 - 24	3,974	100.0	39.1	0.6	57.9	1.1	0.7	0.7
25 - 29	3,926	100.0	11.8	0.1	85.1	1.1	0.7	1.1
30 - 34	3,897	100.0	3.2	0.3	92.9	0.8	0.6	2.2
35 - 39	3,475	100.0	2.2	0.3	92.7	0.7	0.9	3.3
40 - 44	3,340	100.0	1.6	0.2	88.3	0.9	1.2	7.9
45 - 49	2,602	100.0	1.5	0.1	83.2	0.8	0.9	13.4
50 - 54	2,597	100.0	1.0	0.2	77.7	0.6	1.3	19.1
55 - 59	1,337	100.0	1.0	0.4	70.4	0.7	1.0	26.6
60 - 64	2,067	100.0	2.3	0.2	65.2	0.5	1.0	30.8
65+	5,533	100.0	1.7	0.0	44.0	0.3	0.9	53.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

With regards to the male category the total population is 36,330 and population never married and married accounts for (48.1% and 48.7%) respectively and informal/consensual union and living together 0.2 percent the least. With regards to the females' category the total population is 44,197, never married 28.9 percent, married 57.6 percent while informal/consensual union/living together 0.2 percent.

A comparison of males and females categories reveals more females are married than males and also more females are widowed than males (7.3%). Also the Table shows that females marry relatively earlier. More than half of the female population marry at age 20-24 years (57.9%) whereas that for the males, more than half marry at age 25-29 years (52.4%).

The reason for the imbalance with the widowed category may be due to the issue of polygamous marriages. The death of one female will result in only one male widower in a monogamous marriage or no widower at all if the male is in a polygamous union. On the other hand, the death of one male will result in more than one widowed female in a polygamous marriage. Polygamy is widely practiced in the District as 41 percent of the population practice Islam and 16 percent are Traditionalists. These two religions permit polygamy. Furthermore, the relatively lower proportion of widowed males as compared to females reflects the higher level of mortality among males and also suggests that males are more likely than females to remarry upon the death of a spouse (GSS, 1999). Males also generally marry relatively younger females and therefore tend to die leaving their much younger widows who, for traditional or cultural reasons, may never remarry or marry much later, if at all.

Furthermore, the data reveal differences in marital status categories for both males and females. It can be seen from the Table that issues on separation and divorce are of minimal concern as no age group for both sexes record up to one percent of divorce or separated marriage cases.

### **3.3.2 Marital status and education**

Table 3.6 shows population of persons 12 years and older by sex, marital status and level of education. The Table reveals that 62.1 percent of the population 12 years and older have no formal education. There were 32.2 and 4.0 percent of the population whose highest education level was basic and secondary education respectively. Furthermore the proportion of the population 12 years and older with vocational/technical/commercial education was 0.3percent. Only a few (0.2%) had education up to the tertiary level.

From the Table, with the exception of the never married category that recorded 66.7 percent for basic education, all the other categories under marital status recorded over 60 percent with no education. The proportion of married males with no education is more than three-quarters (77.3%).

The proportion with basic education is 15.8percent, while 3.5percent has secondary education. Also, 0.5 percent had vocational/technical/commercial education and 2.2 percent has post middle/secondary certificate/diploma and 0.6 percent tertiary education.

The expectation is that those who are never married would have stayed longer in school. However, this is not the case, as the proportion of males who are never married in the post middle/secondary certificate/diploma and tertiary level are 1.5 percent and 0.2 percent respectively. The proportions of the population who are married with both post

middle/secondary certificate/diploma and tertiary are slightly higher (2.2% and 0.6% respectively) than those who have never married.

The Table also shows that 88.7 percent of married females have no education, 9.7percent with basic level education and 1.0 percent with secondary education. Further, only 0.2 percent of married females have vocational/technical/commercial level education, 0.4 percent have post middle/secondary certificate/diploma and 0.1 percent have tertiary level education.

As stated earlier, females marry early (age group 20-24) and so it is expected that they would not stay longer in school compared to their male counterparts. The Table confirms this assertion for the never married category as the proportions of females at basic school level (67.6%) dropped steadily as they climb higher to secondary (6.0%), post middle/secondary certificate/diploma (0.7%) and tertiary (0.1%) as compared to their male counterparts with 66.0 percent at basic level and 8.8 percent at the secondary level.

**Table 3.6: Persons 12 years and older by sex, marital status and level of education**

Sex/Marital status	Number	All levels	No Education	Basic <sup>1</sup>	Secondary <sup>2</sup>	Voc/ Tech/ Com	Post middle/ secondary certificate/ diploma <sup>3</sup>	Tertiary <sup>4</sup>
<b>Both Sexes</b>								
Total	80,527	100	62.1	32.2	4.0	0.3	1.1	0.2
Never married	30,230	100	23.9	66.7	7.6	0.4	1.2	0.2
Informal/Consensual union/Living together	162	100	63.0	16.0	11.7	0.6	8.0	0.6
Married	43,164	100	84.0	12.2	2.0	0.3	1.2	0.3
Separated	454	100	80.4	14.3	4.0	0.0	1.3	0.0
Divorced	622	100	81.8	14.6	1.4	1.1	1.0	0.0
Widowed	5,895	100	94.3	5.1	0.3	0.0	0.2	0.1
<b>Male</b>								
Total	36,330	100	51.4	39.8	6.0	0.4	1.9	0.4
Never married	17,467	100	23.1	66.0	8.8	0.3	1.5	0.2
Informal/Consensual union/Living together	70	100	52.9	12.9	14.3	1.4	17.1	1.4
Married	17,699	100	77.3	15.8	3.5	0.5	2.2	0.6
Separated	198	100	77.3	16.2	6.1	0.0	0.5	0.0
Divorced	323	100	76.8	18.0	1.9	1.9	1.5	0.0
Widowed	573	100	90.8	7.3	0.9	0.2	0.3	0.5
<b>Female</b>								
Total	44,197	100	71.0	25.9	2.4	0.3	0.5	0.1
Never married	12,763	100	25.0	67.6	6.0	0.6	0.7	0.1
Informal/Consensual union/Living together	92	100	70.7	18.5	9.8	0.0	1.1	0.0
Married	25,465	100	88.7	9.7	1.0	0.2	0.4	0.1
Separated	256	100	82.8	12.9	2.3	0.0	2.0	0.0
Divorced	299	100	87.3	11.0	1.0	0.3	0.3	0.0
Widowed	5,322	100	94.7	4.9	0.2	0.0	0.1	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

<sup>1</sup>Basic: Primary, Middle and JSS/JHS <sup>2</sup>Secondary: SSS/SHS and Secondary

<sup>3</sup>Post Middle/ Sec. Cert/ Diploma: Teacher training/college of education, Agriculture, Nursing, University Diploma, HND, etc.

<sup>4</sup>Tertiary: Bachelor Degree and Post Graduate or higher

### 3.3.3 Marital status and economic activity status

Table 3.7 shows marital status by economic activity among the population aged 12 years and older in the District. Out of the specified population of 80,527, those employed accounts for 72.0 percent, unemployed 1.0 percent and economically not active are 27.0 percent. With this background, the Table further indicates out of those who are married (46.5%) are employed for those who are never married (20.3%) are employed and for those who are widowed (4.0%) are employed.

For males category total males employed is 31.9 percent, total male unemployed is 0.5 percent and total males that are economically not active is 12.7 percent. Males who are married (19.0 %) are unemployed, males that are never married (12.0%) are unemployed. Total females population who are employed is 40.0 percent while total females unemployed are 0.6 percent and the total females population who are economically not active is 14.3 percent. For married females (27%) are employed and never married (8.2%) are employed.

**Table 3.7: Persons 12 years and older by sex, marital status and economic activity status**

Sex/Marital status	Total		Employed		Unemployed		Economically not active	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Both Sexes</b>								
Total	80,527	100.0	57,942	72.0	840	1.0	21,745	27.0
Never married	30,230	100.0	16,315	20.3	331	0.4	13,584	16.9
Informal/Consensual union/Living together	162	100.0	121	0.2	5	0.0	36	0.0
Married	43,164	100.0	37,436	46.5	412	0.5	5,316	6.6
Separated	454	100.0	355	0.4	23	0.0	76	0.1
Divorced	622	100.0	479	0.6	9	0.0	134	0.2
Widowed	5,895	100.0	3,236	4.0	60	0.1	2,599	3.2
<b>Male</b>								
Total	36,330	100.0	25,724	31.9	371	0.5	10,235	12.7
Never married	17,467	100.0	9,696	12.0	195	0.2	7,576	9.4
Informal/Consensual union/Living together	70	100.0	54	0.1	1	0.0	15	0.0
Married	17,699	100.0	15,295	19.0	159	0.2	2,245	2.8
Separated	198	100.0	155	0.2	8	0.0	35	0.0
Divorced	323	100.0	249	0.3	3	0.0	71	0.1
Widowed	573	100.0	275	0.3	5	0.0	293	0.4
<b>Female</b>								
Total	44,197	100.0	32,218	40.0	469	0.6	11,510	14.3
Never married	12,763	100.0	6,619	8.2	136	0.2	6,008	7.5
Informal/Consensual union/Living together	92	100.0	67	0.1	4	0.0	21	0.0
Married	25,465	100.0	22,141	27.5	253	0.3	3,071	3.8
Separated	256	100.0	200	0.2	15	0.0	41	0.1
Divorced	299	100.0	230	0.3	6	0.0	63	0.1
Widowed	5,322	100.0	2,961	3.7	55	0.1	2,306	2.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 3.4 Nationality

The nationality of the population of Garu-Tempne as shown in Table 3.8 reveals that persons of Ghanaian origin constitute the largest percentage of the population (92.6%). Ghanaians with dual citizenship constitute a very small percentage (3.0%). About 3.1 percent of the population are non-Ghanaians; and Ghanaians by naturalization constitute a little above one percent (1.2%). There are differences in terms of sex of nationality of the population of District.

The District shares boundaries with the Republic of Togo and this may account for the large number (2,886) of foreign nationals from the ECOWAS region.

**Table 3.8: Population by nationality and sex**

Nationality	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	130,003	100.0	62,025	100.0	67,978	100.0
Ghanaian by birth	120,434	92.6	57,449	92.6	62,985	92.7
Dual Nationality	3,938	3.0	1,760	2.8	2,178	3.2
Ghanaian by naturalisation	1,596	1.2	722	1.2	874	1.3
ECOWAS	2,886	2.2	1,556	2.5	1,330	2.0
Africa other than ECOWAS	738	0.6	340	0.5	398	0.6
Other	411	0.3	198	0.3	213	0.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 3.5 Religious Affiliation

Table 3.9 shows the population by religion and sex. Islam is the dominant religion in the District. From the Table, Islam is the largest with 41 percent of the population. Christian faiths constitute 39.7 percent; however, 2.4 percent of the population does not belong to any religious faith.

**Table 3.9: Population by religion and sex**

Religion	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	130,003	100.0	62,025	100.0	67,978	100.0
No Religion	3,061	2.4	1,522	2.5	1,539	2.3
Catholic	15,338	11.8	6,759	10.9	8,579	12.6
Protestant (Anglican Lutheran etc.)	19,425	14.9	8,767	14.1	10,658	15.7
Pentecostal/Charismatic	14,127	10.9	6,247	10.1	7,880	11.6
Other Christians	2,751	2.1	1,235	2.0	1,516	2.2
Islam	53,317	41.0	26,090	42.1	27,227	40.1
Traditionalist	20,837	16.0	10,887	17.6	9,950	14.6
Other (Specify)	1,147	0.9	518	0.8	629	0.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

Considering religious affiliation by gender, 42.1 percent of the total female population are in the Christian fraternity compared to 37.1 percent of males who are Christians.

### 3.6 Literacy and Education

Education serves as the backbone of development in every geographical area. Any nation with a high illiterate human resource base is likely to face grave challenges in its development drive. Today there is growing agreement that literacy is at the centre of all

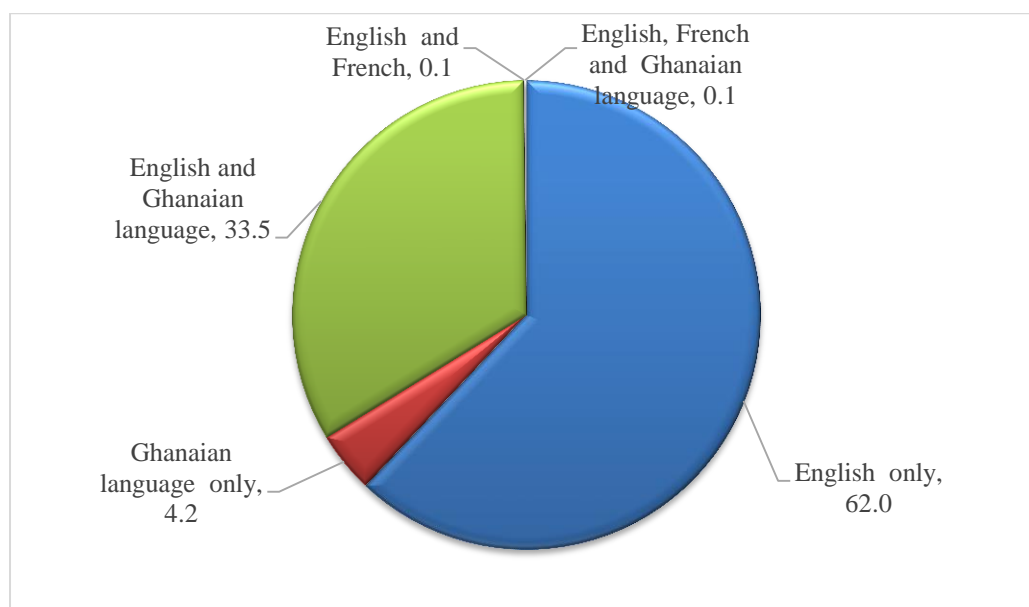
learning as it is the foundation for lifelong learning. Education is essential to social and human development because of its ability to transform lives.

The 2010 census defines literacy to mean a persons’ ability to read and write a simple statement with understanding. Literacy therefore is more than the ability to write or distinguish between the various letters of the alphabet and counting numbers. While literacy can be acquired through informal channels, the formal system of education remains the best process for improving access to information and shapes the world view of the individual.

Education on the other hand, is the process of gaining knowledge, learning forms of proper conduct and acquiring technical competency in a specific field. It involves cultivating the mind and instilling values that enable an individual to distinguish between the right and the wrong. Education in the census is, however, referred to as full time education in an educational institution such as, nursery, kindergarten (Pre-school), Primary, Junior Secondary, Junior High School, Middle, Senior Secondary, Senior High School, Secondary, Vocational, Commercial or Technical, Teacher Training College, University or similar type of school where a person spends or has spent at least four (4) hours a day receiving general education in which the emphasis is not on trade training.

The literacy status of persons 11 years and older who are literate for the District are presented in Figure 3.2. On the average, a little more than a half (62.0%) of the total population who are literate, can read English only whereas only 4.2 percent of the literate population can read Ghanaian language only. The percentage of those who are literate in English and Ghanaian Language is 33.5 percent. Very small percentage (0.1%) of the population is literate in English and French, and English, French and Ghanaian language.

**Figure 3.2: Population 11 years and older by literacy status**



Ghana Statistical Service, 2010 Population and Housing Census

### 3.6.1 Literacy status and age

Table 3.11 shows the literacy status of persons 11 years and older by sex. As indicated on the Table, 39.6 percent of population aged 11 years and above are literate. A higher proportion of males are literate 19025 (50.1%) compared to their female counterparts 14015 (38.8%). A

high percentage of literate population in the 11-14 (66.3%) and 15-19 (65.2%) age groups are literate in English language only. This trend is the same for males population 11-14 (64.9%) and 15-19 (63.5%) and for female population 11-14 (67.9%) and 15-19 (67.3%).

**Table 3.10: Population 11 years and older by sex, age and literacy status**

Age group	None (not literate)	Literate	Total	English only	Ghanaian language only	English and Ghanaian language	English and French	English, French and Ghanaian language
<b>Both sexes</b>								
Total	50,484	33,040	100	62.0	4.2	33.5	0.1	0.1
12-14	2,088	11,354	100	66.3	4.8	28.8	0.1	0.0
15-19	3,316	10,819	100	65.2	3.3	31.4	0.1	0.0
20-24	3,695	4,063	100	57.8	3.4	38.6	0.1	0.1
25-29	4,570	2,039	100	52.0	5.3	42.0	0.3	0.2
30-34	4,892	1,231	100	53.0	5.4	41.4	-	0.2
35-39	4,740	810	100	51.4	5.9	42.2	0.2	0.2
40-44	4,673	615	100	53.3	5.7	40.2	0.3	0.5
45-49	3,856	470	100	54.3	4.7	40.0	0.4	0.6
50-54	3,935	427	100	46.4	6.6	46.6	-	0.5
55-59	2,114	256	100	50.8	4.7	44.1	0.4	-
60-64	3,107	299	100	52.2	3.7	42.8	0.3	1.0
65+	9,498	657	100	56.5	4.0	39.6	-	-
<b>Male</b>								
Total	18,922	19,025	100	59.6	4.6	35.6	0.1	0.1
12-14	1,123	6,060	100	64.9	5.3	29.7	0.0	0.0
15-19	1,453	6,112	100	63.6	3.5	32.8	0.1	0.0
20-24	1,258	2,526	100	56.0	3.8	40.1	-	0.1
25-29	1,435	1,248	100	49.0	5.4	44.9	0.3	0.4
30-34	1,444	782	100	48.7	6.3	44.6	-	0.4
35-39	1,548	527	100	47.2	5.3	46.9	0.4	0.2
40-44	1,561	387	100	49.4	6.7	42.6	0.5	0.8
45-49	1,402	322	100	50.3	4.3	44.1	0.3	0.9
50-54	1,476	289	100	45.3	5.2	48.8	-	0.7
55-59	838	195	100	45.6	5.6	48.2	0.5	-
60-64	1,147	192	100	50.5	4.2	43.8	-	1.6
65+	4,237	385	100	52.2	4.4	43.4	-	-
<b>Female</b>								
Total	31,562	14,015	100	65.3	3.8	30.7	0.1	0.0
12-14	965	5,294	100	67.9	4.2	27.7	0.1	0.0
15-19	1,863	4,707	100	67.3	3.0	29.5	0.1	0.1
20-24	2,437	1,537	100	60.8	2.7	36.2	0.2	-
25-29	3,135	791	100	56.8	5.3	37.5	0.4	-
30-34	3,448	449	100	60.4	3.8	35.9	-	-
35-39	3,192	283	100	59.0	7.1	33.6	-	0.4
40-44	3,112	228	100	60.1	3.9	36.0	-	-
45-49	2,454	148	100	62.8	5.4	31.1	0.7	-
50-54	2,459	138	100	48.6	9.4	42.0	-	-
55-59	1,276	61	100	67.2	1.6	31.1	-	-
60-64	1,960	107	100	55.1	2.8	41.1	0.9	-
65+	5,261	272	100	62.5	3.3	34.2	-	-

Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 3.11 shows population aged 3 years and above, by level of education, school attendance and by sex. The Table reveals that out of the population within the ages 3 years and older, 50,995 are currently attending school at different levels of education while 5,243 have attended school in the past. The Table also shows that, 58.5 percent of the population currently attending school are at primary level whereas 45.9 percent of population who have attended school in the past were at the primary level.



**Table 3.11: Population 3 years and older by level of education, school attendance and sex**

Level of education	Currently attending						Attended in the past					
	Both sexes		Male		Female		Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	50,995	100.0	27,570	100.0	23,425	100.0	8,857	100.0	5,243	100.0	3,614	100.0
Nursery	4,485	8.8	2,269	8.2	2,216	9.5	-	-	-	-	-	-
Kindergarten	5,933	11.6	3,015	10.9	2,918	12.5	-	-	-	-	-	-
Primary	29,825	58.5	15,962	57.9	13,863	59.2	4,694	53.0	2,406	45.9	2,288	63.3
JSS/JHS	8,188	16.1	4,625	16.8	3,563	15.2	1,439	16.2	776	14.8	663	18.3
Middle	-	-	-	-	-	-	710	8	579	11.0	131	3.6
SSS/SHS	2,124	4.2	1,406	5.1	718	3.1	820	9.3	577	11.0	243	6.7
Secondary	-	-	-	-	-	-	281	3.2	201	3.8	80	2.2
Vocational/Technical/ Commercial	101	0.2	44	0.2	57	0.2	173	2	111	2.1	62	1.7
Post middle/secondary certificate	133	0.3	93	0.3	40	0.2	323	3.6	252	4.8	71	2.0
Tertiary	206	0.4	156	0.6	50	0.2	417	4.7	341	6.5	76	2.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

## CHAPTER FOUR

### ECONOMIC CHARACTERISTICS

#### 4.1 Introduction

Data on the economic characteristics of any population is significant for development planning. Again, economic characteristics of a place serve as development indicators to assess its economic growth. It is against this background that the economic characteristics of the population are examined in this chapter. The issues focused include economic activities, employment status, industry and occupation of the total population in the District.

#### 4.2 Economic Activity Status

Table 4.1 presents information on Population 15 years and older by status of economic activity and sex. The Table reveals that there are 70,082 people of ages 15 years and older in the District. Out of this number, 77.2 percent are economically active (employed and unemployed) and 22.8 percent economically not active.

Under the economically active cohort, 98.5 percent are employed with only 0.6 percent of the employed doing voluntary work as their form of work for both sexes. The male population has 98.4 percent employed, with only 0.7 percent doing voluntary work. Similarly, 98.5 percent of the female population is employed with 0.5 percent in voluntary employment.

**Table 4.1: Population 15 years and older by economic activity status and sex**

Activity status	Total		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
<b>Total</b>	70,082	100.0	30,764	100.0	39,318	100.0
<b>Economically active</b>	<b>54,117</b>	<b>77.2</b>	<b>23,588</b>	<b>76.7</b>	<b>30,529</b>	<b>77.6</b>
<i>Employed</i>	<b>53,280</b>	<b>98.5</b>	<b>23,218</b>	<b>98.4</b>	<b>30,062</b>	<b>98.5</b>
<i>Worked</i>	51,858	97.3	22,553	97.1	29,305	97.5
<i>Did not work but had job to go back to</i>	1,097	2.1	493	2.1	604	2.0
<i>Did voluntary work without pay</i>	325	0.6	172	0.7	153	0.5
<i>Unemployed</i>	<b>837</b>	<b>1.5</b>	<b>370</b>	<b>1.6</b>	<b>467</b>	<b>1.5</b>
<i>Worked before, seeking work and available</i>	514	61.4	210	56.8	304	65.1
<i>Seeking work for the first time and available</i>	323	38.6	160	43.2	163	34.9
<b>Economically not active</b>	<b>15,965</b>	<b>22.8</b>	<b>7,176</b>	<b>23.3</b>	<b>8,789</b>	<b>22.4</b>
Did home duties (household chore)	3,337	20.9	1,169	16.3	2,168	24.7
Full time education	6,193	38.8	3,659	51	2,534	28.8
Pensioner/Retired	107	0.7	61	0.9	46	0.5
Disabled/Sick	1,371	8.6	610	8.5	761	8.7
Too old/young	4,497	28.2	1,468	20.5	3,029	34.5
Other	460	2.9	209	2.9	251	2.9

Source: Ghana Statistical Service, 2010 Population and Housing Census

Out of the economically not active population, 20.9 percent do home duties, 38.8 percent are in full time education while 28.2 percent for both sexes belong to the cohort too old/young to work. Furthermore, 23.3 percent of the male population are economically not active while 22.4 percent of the female population being economically not active.

Slight differences exist between the sexes regarding their economically active populations, with that for male being 76.7 percent and of female 77.6 percent.

It is worth noting that about one-half (51.0%) of the male population who belong to the economically not active cohort is pursuing full time education with the least (0.9%) belonging to pensioner/retired category. For the female category, 34.5 percent of the economically not active group belongs to the too old/young sub-group; with 0.5 percent being pensioner/retired

The economically active include both employed and unemployed persons who are available and looking for work. From the economically active population, 98.5 percent are employed and 1.5 percent unemployed. On the average, three out of four persons aged 15 and older are economically active in the District.

A larger number of the employed population is female 56.4 percent whereas employed male population is 43.6 percent. However, similar trend appears on the economically not active population with 55.1 percent female and 44.9 percent male.

#### 4.2.1 Economic activity status and age

The economic activity status as presented in Table 4.2 also shows that persons below 40 years have a high proportion (55.7%) of the employed population 15 years and older. The trend is the same for those in the unemployed cohort having over 60 percent being under 40 years.

**Table 4.2: Population 15 years and older by sex, age and activity status**

Age group	All Status		Employed		Unemployed		Economically not active	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Both sexes</b>								
Total	70,082	100.0	53,280	100	837	100.0	15,965	100.0
15 - 19	14,135	20.2	7,850	14.7	105	12.5	6,180	38.7
20 - 24	7,758	11.1	5,471	10.3	187	22.3	2,100	13.2
25 - 29	6,609	9.4	5,631	10.6	144	17.2	834	5.2
30 - 34	6,123	8.7	5,564	10.4	88	10.5	471	3.0
35 - 39	5,550	7.9	5,160	9.7	52	6.2	338	2.1
40 - 44	5,288	7.5	4,895	9.2	60	7.2	333	2.1
45 - 49	4,326	6.2	3,985	7.5	36	4.3	305	1.9
50 - 54	4,362	6.2	3,933	7.4	41	4.9	388	2.4
55 - 59	2,370	3.4	2,098	3.9	14	1.7	258	1.6
60 - 64	3,406	4.9	2,715	5.1	83	9.9	608	3.8
65+	10,155	14.5	5,978	11.2	27	3.2	4,150	26.0
<b>Male</b>								
Total	30,764	100.0	23,218	100	370	100.0	7,176	100.0
15 - 19	7,565	24.6	4,187	18	57	15.4	3,321	46.3
20 - 24	3,784	12.3	2,493	10.7	83	22.4	1,208	16.8
25 - 29	2,683	8.7	2,222	9.6	63	17.0	398	5.5
30 - 34	2,226	7.2	2,002	8.6	42	11.4	182	2.5
35 - 39	2,075	6.7	1,929	8.3	22	5.9	124	1.7
40 - 44	1,948	6.3	1,834	7.9	14	3.8	100	1.4
45 - 49	1,724	5.6	1,616	7	11	3.0	97	1.4
50 - 54	1,765	5.7	1,628	7	17	4.6	120	1.7
55 - 59	1,033	3.4	954	4.1	9	2.4	70	1.0
60 - 64	1,339	4.4	1,144	4.9	40	10.8	155	2.2
65+	4,622	15.0	3,209	13.8	12	3.2	1,401	19.5

**Table 4.2: Population 15 years and older by sex, age and activity status (cont'd)**

Age group Both sexes	All Status		Employed		Unemployed		Economically not active	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Female</b>								
Total	39,318	100.0	30,062	100.0	467	100.0	8,789	100.0
15 - 19	6,570	16.7	3,663	12.2	48	10.3	2,859	32.5
20 - 24	3,974	10.1	2,978	9.9	104	22.3	892	10.1
25 - 29	3,926	10.0	3,409	11.3	81	17.3	436	5.0
30 - 34	3,897	9.9	3,562	11.8	46	9.9	289	3.3
35 - 39	3,475	8.8	3,231	10.7	30	6.4	214	2.4
40 - 44	3,340	8.5	3,061	10.2	46	9.9	233	2.7
45 - 49	2,602	6.6	2,369	7.9	25	5.4	208	2.4
50 - 54	2,597	6.6	2,305	7.7	24	5.1	268	3.0
55 - 59	1,337	3.4	1,144	3.8	5	1.1	188	2.1
60 - 64	2,067	5.3	1,571	5.2	43	9.2	453	5.2
65+	5,533	14.1	2,769	9.2	15	3.2	2,749	31.3

Source: Ghana Statistical Service, 2010 Population and Housing Census

The population in the age group 15-19 has the largest employed population (14.7%) of total employed as well as the largest (38.7%) of economically not active population.

### 4.3 Occupation

Occupation refers to the type of work a person is engaged in at the establishment where the person works. Table 4.3 reveals that, skilled agricultural, forestry and fishery workers are the dominant occupation in the District that account for 85.2 percent. The majority (88.4%) of males find themselves within the skilled agricultural forestry and fishery compared to 82.8 percent of females who are engaged in the same sectors. The two leading occupational categories do not require skilled expertise and high educational training. They occupation which require high skills and several years of training such as managers, professionals and technicians and associate professionals account for only 2.2 percent of the employed persons. The proportion of males in the various occupations was higher than females, with the exception of service and sales workers. Both sexes recorded the same proportion for managers.

**Table 4.3: Employed population 15 years and older by occupation and sex**

Occupation	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	53,280	100.0	23,218	100.0	30,062	100.0
Managers	214	0.4	94	0.4	120	0.4
Professionals	736	1.4	558	2.4	178	0.6
Technicians and associate professionals	191	0.4	146	0.6	45	0.1
Clerical support workers	148	0.3	116	0.5	32	0.1
Service and sales workers	2,725	5.1	626	2.7	2,099	7.0
Skilled agricultural forestry and fishery workers	45,406	85.2	20,524	88.4	24,882	82.8
Craft and related trades workers	3,082	5.8	626	2.7	2,456	8.2
Plant and machine operators and assemblers	282	0.5	228	1.0	54	0.2
Elementary occupations	493	0.9	297	1.3	196	0.7
Other occupations	3	0.0	3	0.0	0	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 4.4 Industry

Industry refers to the type of product produced or services rendered at the respondent's workplace. Agriculture, forestry and fishing constitute the largest industry that employs 69.3 percent of the workforce aged 15 years and above as depicted in Table 4.4. Other major industries that include manufacturing (8%) and wholesale and retail; repair of motor vehicles and motorcycles (8.3%). Twenty-six (26) people are engaged in activities of extraterritorial organizations and bodies and as low as nine (9) people in real estate activities.

The majority (72.6%) of males and (66.4%) of females are employed in the agriculture, forestry and fishing sectors in the District.

**Table 4.4: Employed population 15 years and older by industry and sex**

Industry	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	439,559	100.0	206,437	100.0	233,122	100.0
Agriculture forestry and fishing	304,581	69.3	149,866	72.6	154,715	66.4
Mining and quarrying	3,659	0.8	2,440	1.2	1,219	0.5
Manufacturing	35,193	8.0	9,058	4.4	26,135	11.2
Electricity gas steam and air conditioning supply	219	0.0	195	0.1	24	0.0
Water supply; sewerage waste management and remediation activities	705	0.2	496	0.2	209	0.1
Construction	4,581	1.0	4,294	2.1	287	0.1
Wholesale and retail; repair of motor vehicles and motorcycles	36,545	8.3	12,616	6.1	23,929	10.3
Transportation and storage	3,876	0.9	3,657	1.8	219	0.1
Accommodation and food service activities	11,497	2.6	1,194	0.6	10,303	4.4
Information and communication	428	0.1	328	0.2	100	0.0
Financial and insurance activities	782	0.2	554	0.3	228	0.1
Real estate activities	9	0.0	8	0.0	1	0.0
Professional scientific and technical activities	1,553	0.4	775	0.4	778	0.3
Administrative and support service activities	1,810	0.4	1,460	0.7	350	0.2
Public administration and defence; compulsory social security	4,655	1.1	3,510	1.7	1,145	0.5
Education	10,866	2.5	6,970	3.4	3,896	1.7
Human health and social work activities	4,006	0.9	2,062	1.0	1,944	0.8
Arts entertainment and recreation	623	0.1	543	0.3	80	0.0
Other service activities	8,692	2.0	3,643	1.8	5,049	2.2
Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use	5,253	1.2	2,749	1.3	2,504	1.1
Activities of extraterritorial organizations and bodies	26	0.0	19	0.0	7	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 4.5 Employment Status

The data on employment status presented in Table 4.5 shows that 60.4 percent of the workforce was self-employed without employees. The corresponding proportion of females was 57 percent and for males 64.9 percent.

The Table also reveals that, self-employed with employees accounts for 1.9 percent in the employed population. The proportion of self-employed males with employees is 1.7 percent while that of female 2.0 percent. The proportion of employed people who are employees is 3.1 percent. Comparatively, the employee male population (5%) while female (1.6%). Contributing family workers comprise 31.8 percent, while 26 percent is males and 36.3 percent females; apprentices constitute 0.8 percent, while 0.3 percent is male and 1.2 percent is female.

**Table 4.5: Employed population 15 years and older by employment status and sex**

Employment Status	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	53,280	100.0	23,218	100.0	30,062	100.0
Employee	1,637	3.1	1,165	5.0	472	1.6
Self-employed without employee(s)	32,198	60.4	15,069	64.9	17,129	57.0
Self-employed with employee(s)	986	1.9	384	1.7	602	2.0
Casual worker	354	0.7	177	0.8	177	0.6
Contributing family worker	16,944	31.8	6,030	26.0	10,914	36.3
Apprentice	437	0.8	76	0.3	361	1.2
Domestic employee (House help)	586	1.1	253	1.1	333	1.1
Other	138	0.3	64	0.3	74	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 4.6 Employment Sector

The proportion of employed females as shown in Table 4.6, working in the private informal sector is 98.2 percent while that of males is 95.5 percent. Among the workforce, 0.9 percent is employed in the private formal sector. The public sector, covering Government Ministries, Departments and Agencies, employs 1.8 percent of the total employed population. The proportion of males and females employed in the public sector are 3.1 percent and 0.8 percent respectively.

**Table 4.6: Employed population 15 years and older by employment sector and sex**

Employment Sector	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Total	53,280	100.0	23,218	100.0	30,062	100.0
Public (Government)	944	1.8	710	3.1	234	0.8
Private Formal	486	0.9	246	1.1	240	0.8
Private Informal	51,671	97.0	22,163	95.5	29,508	98.2
Semi-Public/Parastatal	27	0.1	19	0.1	8	0.0
NGOs (Local and International)	149	0.3	78	0.3	71	0.2
Other International Organisations	3	0.0	2	0.0	1	0.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

# CHAPTER FIVE

## INFORMATION COMMUNICATION TECHNOLOGY

### 5.1 Introduction

Access to Information Communication Technology (ICT) is essential as it increases people's knowledge and awareness of what is taking place around them even at the global level. The world is now linked together with advanced communication technology and access to information is through the computer, mobile phone and internet facilities which are essential for living a meaningful life. Globally, education or various systems of learning is now based on information and technology. Information and Communication Technologies have become important tools in today's knowledge-based information society and economy. The role of ICT in an emerging economy such as Ghana's, has been widely recognized at various levels.

The recognition is reflected in actions such as the development and deployment of a national ICT infrastructure, institutional and regulatory framework for managing the sector, promoting the use of ICT in all sectors of the economy, implementing e-governance in all government institutions and the construction of a National Data Centre as well as Regional Innovation Centres. Data on ownership of mobile phones and usage of internet were collected for persons aged 12 years and older.

### 5.2 Ownership of Mobile Phones

Cellular phone has formally become the most widely-used telecommunication tool in the District and has been spreading faster than any telecommunication technology. From Table 5.1, there are 80,527 persons aged 12 years and above in the District. Out of that number, 14.7percent of them have mobile phones. The Table further reveals that, 10.3percent of males 12 years and older owned mobile phones compared to 4.5 percent of females.

### 5.3 Use of Internet

The Internet has become a very useful communication facility for people, businesses and organizations. Some of the common uses of the internet include electronic mailing, accessing information, conducting business transactions, social networking and shopping.

Out of the total population aged 12 years and above, 0.6 percent use internet facility. Table 5.1 shows that 0.4percent of males 12 years and older use internet facility compared to 0.2 percent of the female population 12 years and older.

**Table 5.1: Population 12 years and older by mobile phone ownership, internet facility usage and sex**

Sex	Population 12 years and older		Population having mobile phone		Population using internet facility	
	Number	Percent	Number	Percent	Number	Percent
Total	80,527	100.0	11,866	14.7	460	0.6
Male	36,330	45.1	8,281	10.3	292	0.4
Female	44,197	54.9	3,585	4.5	168	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 5.4 Household ownership of Desktop or Laptop Computers

Desktop and laptop computers are useful for accessing and processing information, including the use of the internet, electronic mail and other services. For the District as a whole, only 0.9 percent of households own desktop/laptop computers as depicted by Table 5.2. Again, 83.7 percent of male-headed households have desktop/laptop computers compared to 16.3 percent of female-headed household.

**Table 5.2: Households having desktop/laptop computers and sex of head**

Sex	Number of households		Households having laptops/desktop computers	
	Number	Percent	Number	Percent
Total	17,520	100.0	165	0.9
Male	14,660	83.7	145	0.8
Female	2,860	16.3	20	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census



# CHAPTER SIX

## DISABILITY

### 6.1 Introduction

People with disabilities (PWDs) have been defined as persons who are unable to or are restricted in the performance of certain specific life tasks/activities due to loss or malfunction of some part of the body as a result of impairment or malformation (GSS, 2010). Children with disability are usually not offered the same opportunity for development as a result of being ostracized by parents. PWDs would not usually be allowed to participate in some social activities.

Disability issues have come to the forefront in recent times in the country and stakeholders are identifying ways of supporting people with disabilities. The Act on PWD, 2006 (Act 715) requires public buildings to provide appropriate facilities to make them accessible to persons with disabilities. Furthermore, there are attempts to minimise poverty among Persons with Disabilities (PWD) particularly outside the formal sector of employment and to enhance their social image through dignified labour. These and many other interventions call for official statistics on persons with disabilities.

The 2010 Population and Housing Census (2010 PHC) collected detailed information on disability such as, their proportion in the population, types of disability, distribution by type of locality, economic activities as well as education and literacy, in the Garu-Tempene District. Information on multiple disabilities was collected as a result; persons under the disabled group may have more than one type of disability. This chapter therefore discusses details of the disability information collected in the 2010 PHC.

### 6.2 Population with Disability

There are 5,639 persons with disabilities in the Garu-Tempene District representing 4.3 percent of the District's population as illustrated in Table 6.1. Again, the sex composition of the population with disability indicates that, the proportion of males with some form of disability is 4.6 percent compared to 4.1 percent of females.

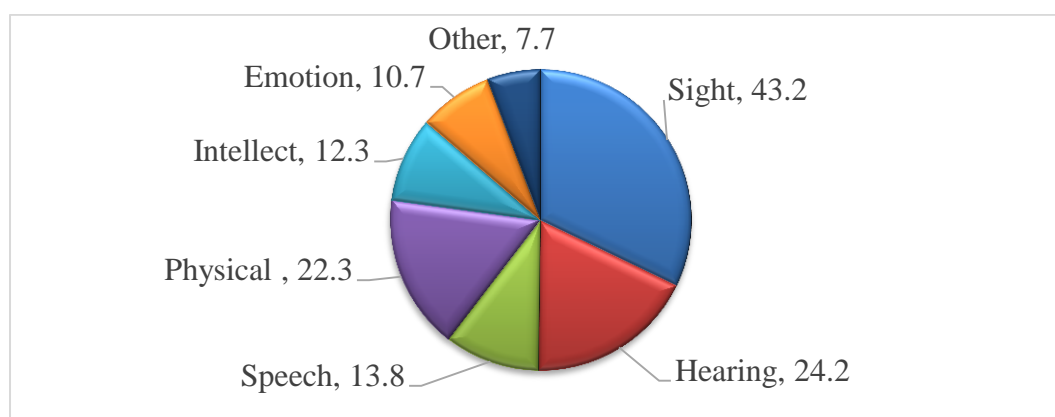
### 6.3 Type of Disability

Figure 6.1 shows the various types of disability in the Garu-Tempene District. Sight disability and hearing impairment are the most common types of disability in the Garu-Tempene District constituting 43.2 and 24.2 percent respectively. The least reported type of disability is emotional (10.7%).

### 6.4 Distribution by Type of Locality and Sex

The proportion of population with disability varies considerably among the rural and urban populations. On the whole, the proportions with disability are higher (4.4%) in the rural areas of the District than in the urban areas (3.2%). Sight disability is the prominent form of disability among the female and male population which accounts for 45.2 percent and 41.1 percent respectively. Again, sight disability is the prominent form of disability in both urban and rural area which represents 48.5 percent and 43.0 percent respectively.

**Figure 6.1: Type of disabilities**



Source: Ghana Statistical Service, 2010 Population and Housing Census

**Table 6.1: Population by type of locality, disability type and sex**

Disability Type	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
<b>All localities</b>						
Total	130,003	100.0	62,025	100.0	67,978	100.0
Without disability	124,364	95.7	59,195	95.4	65,169	95.9
With disability	5,639	4.3	2,830	4.6	2,809	4.1
Sight	2,434	43.2	1,164	41.1	1,270	45.2
Hearing	1,367	24.2	640	22.6	727	25.9
Speech	780	13.8	454	16.0	326	11.6
Physical	1,258	22.3	631	22.3	627	22.3
Intellect	692	12.3	357	12.6	335	11.9
Emotion	605	10.7	331	11.7	274	9.8
Other	434	7.7	211	7.5	223	7.9
<b>Urban</b>						
Total	6,265	100.0	2,947	100.0	3,318	100.0
Without disability	6,063	96.8	2,851	96.7	3,212	96.8
With disability	202	3.2	96	3.3	106	3.2
Sight	98	48.5	43	44.8	55	51.9
Hearing	46	22.8	19	19.8	27	25.5
Speech	28	13.9	14	14.6	14	13.2
Physical	62	30.7	27	28.1	35	33.0
Intellect	31	15.3	18	18.8	13	12.3
Emotion	15	7.4	8	8.3	7	6.6
Other	23	11.4	9	9.4	14	13.2
<b>Rural</b>						
Total	123,738	100.0	59,078	100.0	64,660	100.0
Without disability	118,301	95.6	56,344	95.4	61,957	95.8
With disability	5,437	4.4	2,734	4.6	2,703	4.2
Sight	2,336	43.0	1,121	41.0	1,215	45.0
Hearing	1,321	24.3	621	22.7	700	25.9
Speech	752	13.8	440	16.1	312	11.5
Physical	1,196	22.0	604	22.1	592	21.9
Intellect	661	12.2	339	12.4	322	11.9
Emotion	590	10.9	323	11.8	267	9.9
Other	411	7.6	202	7.4	209	7.7

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 6.5 Disability and Activity

Table 6.2 shows that, for the population 15 years and older with disability for both sexes' persons who are employed accounts for 59.0 percent, unemployed 0.9 percent while those who are economically not active is 40.1 percent. With regards to the males category persons with disability that are employed represents 61.8 percent while the unemployed accounts for 0.9 percent and economically not active 37.2 percent. The females' categories with disability that are employed accounts for 56.4 percent, unemployed 0.8 percent while economically not active 42.8 percent. For all categories with the various types of disabilities who are employed accounts for proportions that are above 50 percent. This implies that though persons are with disabilities but a greater number of them are employed.

**Table 6.2: Persons 15 years and older with disability by economic activity status and sex**

Sex/Disability type	All Status		Employed		Unemployed		Economically Not Active	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Both sexes</b>								
<b>Total</b>	70,082	100.0	53,280	76.0	837	1.2	15,965	22.8
Without disability	65,694	100.0	50,689	77.2	799	1.2	14,206	21.6
With disability	4,388	100.0	2,591	59.0	38	0.9	1,759	40.1
Sight	2,067	100.0	1,155	55.9	13	0.6	899	43.5
Hearing	980	100.0	591	60.3	8	0.8	381	38.9
Speech	461	100.0	283	61.4	2	0.4	176	38.2
Physical	997	100.0	543	54.5	11	1.1	443	44.4
Intellect	521	100.0	281	53.9	7	1.3	233	44.7
Emotion	461	100.0	283	61.4	4	0.9	174	37.7
Other	303	100.0	185	61.1	2	0.7	116	38.3
<b>Male</b>								
<b>Total</b>	30,764	100.0	23,218	75.5	370	1.2	7,176	23.3
Without disability	28,649	100.0	21,910	76.5	350	1.2	6,389	22.3
With disability	2,115	100.0	1,308	61.8	20	0.9	787	37.2
Sight	954	100.0	561	58.8	9	0.9	384	40.3
Hearing	420	100.0	286	68.1	3	0.7	131	31.2
Speech	252	100.0	167	66.3	0	0.0	85	33.7
Physical	477	100.0	261	54.7	2	0.4	214	44.9
Intellect	254	100.0	145	57.1	4	1.6	105	41.3
Emotion	247	100.0	155	62.8	2	0.8	90	36.4
Other	139	100.0	81	58.3	1	0.7	57	41.0
<b>Female</b>								
<b>Total</b>	39,318	100.0	30,062	76.5	467	1.2	8,789	22.4
Without disability	37,045	100.0	28,779	77.7	449	1.2	7,817	21.1
With disability	2,273	100.0	1,283	56.4	18	0.8	972	42.8
Sight	1,113	100.0	594	53.4	4	0.4	515	46.3
Hearing	560	100.0	305	54.5	5	0.9	250	44.6
Speech	209	100.0	116	55.5	2	1.0	91	43.5
Physical	520	100.0	282	54.2	9	1.7	229	44.0
Intellect	267	100.0	136	50.9	3	1.1	128	47.9
Emotion	214	100.0	128	59.8	2	0.9	84	39.3
Other	164	100.0	104	63.4	1	0.6	59	36.0

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 6.6 Disability, Education and Literacy

In the 2010 PHC, data on disability type, level of education and literacy were collected on population aged 3 years and older. Table 6.3 shows that the District has a population of 119,596. Of this figure, for both sexes' persons with some forms of disabilities are 5,502. Over seventy percent (71.5%) of PWDs have never been to school, pre-school represents 3.4 percent, and basic school represents 22.9 percent and for senior high/higher 2.2 percent. The proportion for persons with the various types of disabilities who have never attended school accounts for higher proportions for persons with sight 79.0 percent and intellectual 75.7 percent. However in all the causes' persons with various types of disabilities who have never attended school accounts for proportions that are above 50 percent. With regards to male category person with disability who have never attended school accounts for 65.5 percent, pre-school 3.9 percent, basic school 27.0 percent while senior high/higher 3.6percent. Persons with sight and intellectual disabilities accounts for (73.2% and 70.8%) respectively which are higher forms of disabilities among persons who have never attended school. Though persons with various forms of disabilities and have never attended school account for proportions that are higher than 50 percent. But from the Table it reveals that persons with the various forms of disabilities and have attain pre-school, basic school and senior high/higher accounts for proportions that are lower than 50 percent.

Females category on the Table show that persons with disabilities who have never attended school represents 77.4 percent, pre-school 2.9 percent , basic school 18.8 percent and senior high /higher 0.8 percent. Persons with sight and intellectual accounts for (84.2% and 80.7%) among persons who have never attended school, although persons with the various forms of disabilities and have never attended school all have proportions above 50 percent. It is however release that persons with the various forms of disabilities and have attain pre-school, basic school, senior high/higher accounts for far lower than 50 percent.

**Table 6.3: Population 3 years and older by sex, disability type and level of education**

Disability type	Total		Never attended		Pre-school		Basic		Senior high/ Higher	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total</b>	119,596	100.0	59,744	50.0	10,418	8.7	44,856	37.5	4,578	3.8
No disability	114,094	100.0	55,810	48.9	10,231	9.0	43,596	38.2	4,457	3.9
With a disability	5,502	100.0	3,934	71.5	187	3.4	1,260	22.9	121	2.2
Sight	2,382	100.0	1,882	79.0	52	2.2	414	17.4	34	1.4
Hearing	1,346	100.0	913	67.8	62	4.6	346	25.7	25	1.9
Speech	742	100.0	445	60.0	52	7.0	226	30.5	19	2.6
Physical	1,232	100.0	843	68.4	29	2.4	319	25.9	41	3.3
Intellectual	670	100.0	507	75.7	13	1.9	140	20.9	10	1.5
Emotional	587	100.0	397	67.6	17	2.9	161	27.4	12	2.0
Other	424	100.0	256	60.4	26	6.1	135	31.8	7	1.7
<b>Male</b>										
Total	56,619	100.0	23,806	42.0	5,284	9.3	24,348	43.0	3,181	5.6
No disability	53,874	100.0	22,007	40.8	5,177	9.6	23,607	43.8	3,083	5.7
With a disability	2,745	100.0	1,799	65.5	107	3.9	741	27.0	98	3.6
Sight	1,128	100.0	826	73.2	25	2.2	250	22.2	27	2.4
Hearing	625	100.0	381	61.0	41	6.6	184	29.4	19	3.0
Speech	432	100.0	240	55.6	36	8.3	142	32.9	14	3.2
Physical	615	100.0	371	60.3	21	3.4	190	30.9	33	5.4
Intellectual	343	100.0	243	70.8	8	2.3	83	24.2	9	2.6
Emotional	320	100.0	200	62.5	10	3.1	99	30.9	11	3.4
Other	205	100.0	108	52.7	13	6.3	77	37.6	7	3.4
<b>Female</b>										
Total	62,977	100.0	35,938	57.1	5,134	8.2	20,508	32.6	1,397	2.2
No disability	60,220	100.0	33,803	56.1	5,054	8.4	19,989	33.2	1,374	2.3
With a disability	2,757	100.0	2,135	77.4	80	2.9	519	18.8	23	0.8
Sight	1,254	100.0	1,056	84.2	27	2.2	164	13.1	7	0.6
Hearing	721	100.0	532	73.8	21	2.9	162	22.5	6	0.8
Speech	310	100.0	205	66.1	16	5.2	84	27.1	5	1.6
Physical	617	100.0	472	76.5	8	1.3	129	20.9	8	1.3
Intellectual	327	100.0	264	80.7	5	1.5	57	17.4	1	0.3
Emotional	267	100.0	197	73.8	7	2.6	62	23.2	1	0.4
Other	219	100.0	148	67.6	13	5.9	58	26.5	0	0.0

Source: Ghana statistical Service, 2010 Population and Housing Census

# CHAPTER SEVEN

## AGRICULTURAL ACTIVITIES

### 7.1 Introduction

In Ghana agriculture has been the mainstay of the economy. The Food and Agricultural Organization (FAO 2012) has noted that despite the unquestionable importance of agriculture, it is arguably the least known sector of many economies. Any strategy geared towards reducing poverty and food insecurity must be based on timely and accurate information that can help to measure the impact of agricultural policies and programmes

The census data presented on agricultural activity include households who are engaged in agricultural activities by locality types (rural/urban) and types of farming activities these households engage.

### 7.2 Households in Agriculture

The 2010 PHC defined an agricultural household as one in which at least one member in the household is engaged in an agricultural activity. Table 7.1 is a distribution of households in agriculture and that not in agriculture. Over 95 percent (95.4%) of households in the District are engaged in agriculture. As expected, more rural households (97.2%) are engaged in agriculture than urban households (68.3%).

#### 7.2.1 Type of farming

Table 7.1 shows crop farming as the major type (98.8%) of agriculture activity for households engaged in agriculture, followed by livestock rearing (86.1%) and tree planting (0.4%). Fish farming is the least (0.1%) agricultural activities undertaken by agricultural households in the District.

**Table 7.1: Households by agricultural activities and locality**

Agricultural Activity	Total		Urban		Rural	
	Number	Percent	Number	Percent	Number	Percent
<b>Total Households</b>	17,520	100.0	1,096	100.0	16,424	100.0
Households engaged in Agriculture	16,718	95.4	749	68.3	15,969	97.2
Households not engaged in Agriculture	802	4.6	347	31.7	455	2.8
<i>Crop Farming</i>	16,524	98.8	711	94.9	15,813	99.0
<i>Tree Planting</i>	72	0.4	0	0.0	72	0.5
<i>Livestock Rearing</i>	14,386	86.1	501	66.9	13,885	86.9
<i>Fish Farming</i>	15	0.1	0	0.0	15	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

There are many more households engaged in crop farming (99.0%) in the rural settlements compared to the urban ones (94.9%). Similarly more livestock rearing is done in the rural (86.9%) than in the urban areas (66.9%). This gives credence to the notion that the rural areas feed the urban ones. A little bit of tree planting (0.5%) is going on rural areas. There is the need to step up afforestation projects in the District.

### 7.3 Types of Livestock and other Animals Reared

Table 7.2 shows chicken as the most reared birds in the District (214,830). Snail farming is not undertaken in the District. Guinea fowl (110,296), goat (91,121), sheep (76,732) and cattle (52,906) are among the common animals kept in the District.

**Table 7.2: Distribution of livestock, other animals and keepers**

Type of livestock	Animals		Keepers		Average Animal per Keeper
	Number	Percent	Number	Percent	
Beehives	550	0.1	90	0.2	6
Cattle	52,906	9.3	5,821	14.3	9
Chicken	214,830	37.8	9,991	24.6	22.5
Dove	5,766	1.0	236	0.6	24
Duck	1,668	0.3	153	0.4	11
Goat	91,121	16.0	9,737	23.9	9
Grass-cutter	835	0.1	89	0.2	9
Guinea fowl	110,296	19.4	5,268	13.0	21
Ostrich	2,111	0.4	113	0.3	19
Pig	8,327	1.5	1,283	3.2	7
Rabbit	736	0.1	79	0.2	9
Sheep	76,732	13.5	7,490	18.4	10
Silk worm	177	0.0	14	0.0	13
Snail	0	0.0	0	0.0	0
Turkey	58	0.0	12	0.0	5
Other (specify)	1,759	0.3	271	0.7	7
Fish farming	47	0.0	6	0.0	8
Inland fishing	231	0.0	8	0.0	29
Marine fishing	1	0.0	1	0.0	1

Source: Ghana Statistical Service, 2010 Population and Housing Census

Guinea fowl meat is an important source of protein for the people in the District. It is also a popular bird that is reared for commercial purposes. The average number of guinea fowl per keeper in the District stands at 21. The wide spread rearing of this bird prompted their keepers to form an association to be able to access loans and that may have been a factor for including Garu-Tempene District in the Savannah Accelerated Development Agency(SADA) guinea fowl project.

# CHAPTER EIGHT

## HOUSING CONDITIONS

### 8.1 Introduction

The 2010 Population and Housing Census is the second time data is collected on housing during a national census. A number of housing characteristics and associated conditions such as overcrowding, supply of basic services such as drinking water and sanitation facilities (toilet and bathroom) are important information required for monitoring progress in human development.

This chapter presents the findings on housing and housing conditions that pertained in the Garu-Tempene District. It examines the housing stock, type of dwelling, room occupancy, holding and tenancy, lighting and cooking facilities, bathing and toilet facilities, waste disposal and source of water for domestic use among others.

### 8.2 Housing Stock

The total stock of houses reported in the District during the 2010 Ghana Population and Housing Census stands at 13,383 as shown on Table 8.1. The rural areas have a larger housing stock (12,659) than the urban ones (724). The rural areas also have a higher number of households (16,424) than the urban areas (1,096). On the average there are 1.3 households per house for the District, with the urban areas having 1.5 and the rural 1.3. Also the average household size is 7.3 for the District with the urban average household size being lower (5.7) than the District and the rural average slightly higher (7.5). Population per house in the District is 9.6 persons with the rural average being 9.7 persons and urban 8.6.

**Table 8.1: Stock of houses and households by type of locality**

Categories	Total country	Region	District	Urban	Rural
Total population	24,658,823	1,046,545	130,003	6,265	123,738
Total household population	24,076,327	1,034,704	128,623	6,230	122,393
Number of houses	3,392,745	114,034	13,383	724	12,659
Number of households	5,467,054	177,629	17,520	1,096	16,424
Average households per house	1.6	1.6	1.3	1.5	1.3
Population per house*	7.1	9.1	9.6	8.6	9.7
Average household size	4.4	5.8	7.3	5.7	7.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 8.3 Type of Dwelling, Holding and Tenancy Arrangement

#### 8.3.1 Holding and tenancy arrangement

On Table 8.2 dwelling units owned by a household member constitute the most common dwelling units in the District (94.9%), followed by dwellings owned by a relative of the household who is not a household member (2.4%). Dwelling units owned by other private individual account for 1.4 percent of dwelling units occupied by households. Other types of ownership constitute small percentages.

The majority (95.5%) of males headed households live in dwellings owned by a household member compared to 91.5 percent of their female counterparts who live in dwellings owned



by a household member. The Table shows that more dwelling units owned by household members are in the rural areas (96%) than in the urban ones (78.4%).

**Table 8.2: Ownership status of dwelling by sex of household head and type of locality**

Ownership Status	Total Country	Region	Total		Male headed	Female headed	Urban	Rural
			Number	Percent				
Total	5,467,054	177,629	17,520	100.0	100.0	100.0	100.0	100.0
Owned by household member	2,883,236	154,016	16,624	94.9	95.5	91.5	78.4	96.0
Being purchased (e.g. mortgage)	45,630	721	32	0.2	0.2	0.2	0.2	0.2
Relative not a household member	851,630	6,035	413	2.4	1.9	4.7	6.0	2.1
Other private individual	1,439,021	12,181	249	1.4	1.3	2.2	10.7	0.8
Private employer	83,610	480	19	0.1	0.1	0.1	0.2	0.1
Other private agency	21,123	267	28	0.2	0.2	0.2	2.1	0.0
Public/Government ownership	118,804	3,686	115	0.7	0.6	0.7	0.9	0.6
Other	24,000	243	40	0.2	0.2	0.3	1.6	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 8.3.2 Type of dwelling

Table 8.3 reveals that there are 17,520 occupied dwelling units for households who live in housing units in the Garu-Tempene District. The majority of the households (65.5%) live in rooms in compound houses. Beside this, a good number of households also reside in separate houses (15.7%) and huts/buildings in the same compound (11.8%). Smaller proportions of households reside in living quarters attached to office/shop (0.2%) and other types of dwelling units (0.2%). The smallest proportion of households resides in improvised homes (kiosk containers etc) (0.1%) and tents (0.1%).

Table 8.3 further shows that many more households in rural areas (73.1%) reside in rooms in compound houses than in urban (65.0%) settlements in the District. Also, a good number of households in both rural and urban areas reside in separate houses 8.6 percent and 16.2 percent; and in huts/buildings in the same compound 6.6percent and 12.2percent respectively.

In the rural areas, fewer households reside in both tents and improvised homes (kiosk and container etc). This scenario is not surprising as the most families live in the rural areas in the District.

**Table 8.3: Type of occupied dwelling unit by sex of household head and type of locality**

Dwelling unit	District							
	Total Country	Region	Total		Male headed	Female headed	Urban	Rural
			Number	Percent				
Total	5,467,054	177,629	17,520	100.0	100.0	100.0	100.0	100.0
Separate house	1,471,391	29,787	2,752	15.7	15.8	15.3	8.6	16.2
Semi-detached house	391,548	6,836	365	2.1	2.1	2.2	2.1	2.1
Flat/Apartment	256,355	1,459	56	0.3	0.3	0.3	1.2	0.3
Compound house (rooms)	2,942,147	103,666	11,475	65.5	65.8	64.2	73.1	65.0
Huts/Buildings (same compound)	170,957	22,735	2,069	11.8	12.0	11.0	6.6	12.2
Huts/Buildings (different compound)	36,410	11,616	666	3.8	3.4	5.8	6.9	3.6
Tent	10,343	300	21	0.1	0.1	0.1	0.0	0.1
Improvised home (kiosk/container etc.)	90,934	183	9	0.1	0.1	0.0	0.0	0.1
Living quarters attached to office/shop	20,499	348	28	0.2	0.1	0.3	0.0	0.2
Uncompleted building	66,624	554	42	0.2	0.2	0.6	1.6	0.2
Other	9,846	145	37	0.2	0.2	0.2	0.0	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.4 Construction Materials

### 8.4.1 Materials for outer walls

On Table 8.4 the main material for outer wall in the District is mud brick and earth which represents 90.4 percent. The percentage of dwellings with such walls is 75.2 percent in urban areas and 91.4 percent in rural areas. The use of burnt bricks and bamboo is the least throughout the District. The use of cement blocks/concrete for outer wall (4.6%) however, is higher in the urban areas (24.1%) than in the rural ones (3.3%).

**Table 8.4: Main construction material for outer wall of dwelling unit by type of locality**

Material for outer wall	Total country	Region	Total		Urban	Rural
			Number	Percent		
Total	5,817,607	182,845	17,879	100.0	100.0	100.0
Mud brick/Earth	1,991,540	147,624	16,155	90.4	75.2	91.4
Wood	200,594	1,606	184	1.0	0.5	1.1
Metal sheet/Slate/Asbestos	43,708	855	94	0.5	0.1	0.6
Stone	11,330	372	74	0.4	0.0	0.4
Burnt bricks	38,237	233	3	0.0	0.0	0.0
Cement blocks/Concrete	3,342,462	29,321	821	4.6	24.1	3.3
Landcrete	104,270	1,890	413	2.3	0.1	2.5
Bamboo	8,206	54	4	0.0	0.0	0.0
Palm leaf/Thatch (grass)/Raffia	38,054	435	99	0.6	0.1	0.6
Other	39,206	455	32	0.2	0.0	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 8.4.2 Materials for floor

Table 8.5 shows that the main material for floor in the District is cement and concrete, used for 49.6 percent of floors in the District. The percentage of dwellings with such floors is nearly 50 percent (49.6%) in both urban and rural areas. The use of earth/mud is the second major material used for constructing the floors of dwelling units and constitutes a proportion of 48.2 percent. The use of wood, vinyl tiles and terrazzo/terrazzo tiles are the least used materials throughout the District. While earth/mud is used more in the rural areas (49.8%), cement/concrete is used more in the urban areas (74%).

**Table 8.5: Main construction materials for the floor of dwelling unit by type of locality**

Material for the floor	Total		District			
	Country	Region	Total		Urban	Rural
			Number	Percent		
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Earth/Mud	872,161	56,272	8,443	48.2	24.8	49.8
Cement/Concrete	4,255,611	116,911	8,685	49.6	74.0	47.9
Stone	32,817	1,623	241	1.4	0.6	1.4
Burnt brick	6,537	89	12	0.1	0.0	0.1
Wood	52,856	49	6	0.0	0.1	0.0
Vinyl tiles	57,032	196	3	0.0	0.1	0.0
Ceramic/Porcelain/Granite/Marble tiles	88,500	1,181	88	0.5	0.4	0.5
Terrazzo/Terrazzo tiles	85,973	401	5	0.0	0.0	0.0
Other	15,567	907	37	0.2	0.0	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 8.4.3 Materials for roofing

Metal sheet is the main material for roofing (57.7%) in the District as shown in Table 8.6. The percentage of dwellings with such roofs exceeds 50.0 percent in both urban and rural areas. The use of roofing tile 0.1percent is the least throughout the District. The use of metal sheet is higher in the urban areas (79.6%) than rural areas (56.3%). However the use of thatch/palm leaf or raffia which is the second preferred roofing material is higher in the rural areas than the urban areas (34.5% and 9.2% respectively).

**Table 8.6: Main construction material for roofing of dwelling unit by type of locality**

Main roofing materials	Total		Total			
	Country	Region	Total		Urban	Rural
			Number	Percent		
Total	5,817,607	182,845	17,879	100.0	100.0	100.0
Mud/Mud bricks/Earth	80,644	22,227	1,006	5.6	9.3	5.4
Wood	45,547	3,085	124	0.7	0.2	0.7
Metal sheet	4,152,259	122,942	10,323	57.7	79.6	56.3
Slate/Asbestos	759,039	646	75	0.4	0.0	0.4
Cement/Concrete	141,072	879	47	0.3	1.4	0.2
Roofing tile	31,456	162	25	0.1	0.1	0.1
Bamboo	71,049	586	136	0.8	0.1	0.8
Thatch/Palm leaf or Raffia	500,606	30,722	5,881	32.9	9.2	34.5
Other	35,935	1,596	262	1.5	0.1	1.6

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.5 Room Occupancy

Table 8.7 shows the distribution of sleeping rooms in occupied housing units in the District. On the whole the single rooms constitute the highest percentage (32.8%) of all the types of rooms occupied in housing units by single households. The 10+ household sizes living in nine rooms or more recorded the highest occupancy. This could be as a result of the rural nature of the District where the extended family system dominates.

A proportion of 2.9 percent of the household size 10+ of the population living in three or less rooms is a major concern in tackling the issue of crowding in rooms. It could serve as a breeding ground for the transmission of communicable diseases.

**Table 8.7: Household size and number of sleeping rooms occupied in dwelling unit**

House- hold size	Total		Number of sleeping rooms								
	Number	Percent	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six rooms	Seven rooms	Eight rooms	Nine rooms or more
Total	17,520	100.0	3.5	7.3	11.1	13.7	11.8	12.0	9.1	7.4	24.1
1	467	100.0	32.8	18.4	17.6	13.5	5.1	4.3	1.7	4.3	2.4
2	809	100.0	15.9	20.5	19.8	16.3	8.0	7.3	2.8	3.2	6.1
3	1,293	100.0	9.4	17.6	18.9	14.9	10.9	8.8	6.8	3.8	8.9
4	1,725	100.0	4.9	13.8	19.9	17.7	11.4	11.4	5.6	4.3	11.0
5	2,013	100.0	3.2	11.7	16.7	17.5	14.1	11.7	7.8	4.5	12.8
6	2,068	100.0	1.5	6.9	13.1	17.1	16.1	14.0	8.9	6.8	15.7
7	1,912	100.0	1.0	4.7	11.1	17.4	13.3	14.7	9.7	7.2	20.9
8	1,581	100.0	0.6	2.7	8.2	14.0	15.6	14.2	11.8	8.2	24.6
9	1,274	100.0	0.1	1.5	6.0	11.6	11.5	15.2	13.2	10.1	30.7
10+	4,378	100.0	0.1	0.6	2.2	6.6	8.5	11.4	11.5	11.5	47.7

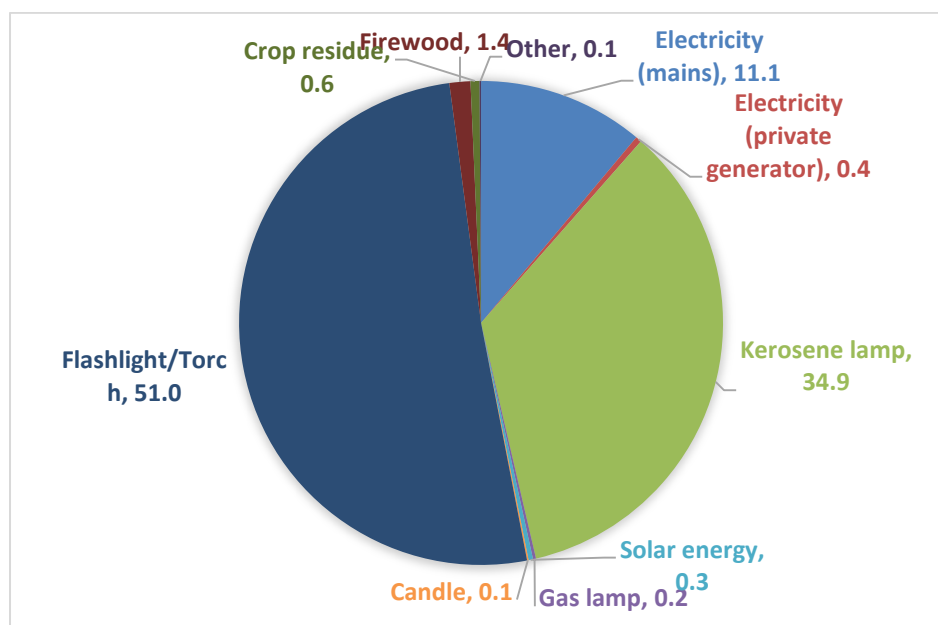
Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.6 Access to Utilities and Household Facilities

### 8.6.1 Main source of lighting

Figure 8.1 shows the main sources of lighting for households in the District. Flash light/Torch is the major source of lighting (51.0%) followed by the use of kerosene lamps (34.9%), electricity (main) (11.1%). Other sources recorded small percentages.

**Figure 8.1: Source of lighting for households**



Source: Ghana Statistical Service, 2010 Population and Housing Census

Table 8.8 shows that there is a higher use of flash light/touch (53.3%) in rural areas than urban areas (15.9%). The use of kerosene lamps is also higher in the rural areas (35.6%) than urban areas (23.4%).

**Table 8.8: Main source of lighting of dwelling unit by type of locality**

Main source of lighting	Total Country	Region	Total		Urban	Rural
			Number	Percent		
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Electricity (mains)	3,511,065	42,866	1,945	11.1	58.3	8.0
Electricity (private generator)	36,142	1,009	74	0.4	0.6	0.4
Kerosene lamp	971,807	80,752	6,108	34.9	23.4	35.6
Gas lamp	9,378	412	38	0.2	0.1	0.2
Solar energy	9,194	612	54	0.3	1.3	0.2
Candle	41,214	293	14	0.1	0.1	0.1
Flashlight/Torch	858,651	49,068	8,927	51.0	15.9	53.3
Firewood	13,241	1,191	242	1.4	0.2	1.5
Crop residue	4,623	830	97	0.6	0.1	0.6
Other	11,739	596	21	0.1	0.0	0.1

Source: Ghana Statistical Service, 2010 Population and Housing Census

### 8.6.2 Main source of cooking fuel

Cooking is a daily activity undertaken by almost every household unit. However, how the cooking is done depends on the sources of fuel and cooking space. The three main sources of cooking fuel in the District are shown in Table 8.9. The Table indicates that wood is the main (79.9%) cooking fuel used in the District. Crop residue is the second (13.6%) in the District. The use of wood is higher in rural areas (81.9%) than urban areas (50.6%). The low proportion of gas usage (1.2%) in the District might mainly be due to the unavailability of liquefied petroleum gas (LPG) in the District as the nearest area to buy the commodity is the regional capital Bolgatanga, about 100 kilometres away.

Again from the Table it shows that most households use an open space in the compound for cooking (41.0%), with a small proportion (1.4%) of households with no cooking space. About one-third of households (30.8%) use a room exclusively for cooking. Other households used enclosure without roof (19.2%) for cooking. The use of separate room exclusive by household is higher in rural areas (30.9%) than urban areas (29.0%). The use of veranda as a cooking space is commonly practice in urban areas (18.6%) than rural areas (2.2%).

**Table 8.9: Main source of cooking fuel, and cooking space used by households**

Main source of cooking	Total Country	Region	Total		Urban	Rural
			Number	Percent		
<b>Main source of cooking fuel for household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
None no cooking	306,118	3,272	110	0.6	3.7	0.4
Wood	2,197,083	107,310	14,005	79.9	50.6	81.9
Gas	996,518	8,735	212	1.2	4.2	1.0
Electricity	29,794	383	32	0.2	0.0	0.2
Kerosene	29,868	402	27	0.2	0.4	0.1
Charcoal	1,844,290	27,021	724	4.1	40.4	1.7
Crop residue	45,292	29,725	2,387	13.6	0.6	14.5
Saw dust	8,000	93	10	0.1	0.0	0.1
Animal waste	2,332	124	12	0.1	0.0	0.1
Other	7,759	564	1	0.0	0.0	0.0
<b>Cooking space used by household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
No cooking space	386,883	6,822	238	1.4	3.6	1.2
Separate room for exclusive use of household	1,817,018	75,393	5,394	30.8	29.0	30.9
Separate room shared with other household(s)	410,765	4,664	383	2.2	1.9	2.2
Enclosure without roof	117,614	31,567	3,356	19.2	12.5	19.6
Structure with roof but without walls	349,832	1,788	282	1.6	1.3	1.6
Bedroom/Hall/Living room)	74,525	572	36	0.2	0.2	0.2
Verandah	1,173,946	18,444	569	3.2	18.6	2.2
Open space in compound	1,115,464	38,038	7,177	41.0	30.7	41.6
Other	21,007	341	85	0.5	2.1	0.4

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.7 Main Source of Water for Drinking and for other Domestic Use

Table 8.10 shows that bore-hole/pump/tube well water is the main source of drinking water for households in the District (59.8%), protected well (13.8%), unprotected well (9.2%), pipe-borne outside dwelling (5.9%) and river/stream 4.9 percent. The use of bottle water tanker vendor supply is unknown in the District.

Again from Table 8.10 bore-hole/pump/tube well is the most used source of water for other domestic activities in the District (57.0%). The rural areas accounts for higher use (57.8%) of boreholes/pump/tube well than the urban area (45.3%). The use of unprotected well outside dwelling for other domestic use of household is high in the urban areas (18.2%) than in rural areas (8.7%).

**Table 8.10: Main source of water of dwelling unit for drinking and other domestic purposes**

Main source of drinking water	Total		Total		Urban	Rural
	Country	Region	Number	Percent		
<b>Main source of drinking water for household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Pipe-borne inside dwelling	790,493	11,577	136	0.8	0.2	0.8
Pipe-borne outside dwelling	1,039,667	15,063	1,032	5.9	15.6	5.2
Public tap/Standpipe	712,375	5,179	458	2.6	10.4	2.1
Bore-hole/Pump/Tube well	1,267,688	101,817	10,469	59.8	52.5	60.2
Protected well	321,091	22,805	2,412	13.8	8.8	14.1
Rain water	39,438	223	15	0.1	0.0	0.1
Protected spring	19,345	683	71	0.4	0.1	0.4
Bottled water	20,261	82	8	0.0	0.0	0.0
Sachet water	490,283	694	56	0.3	2.3	0.2
Tanker supply/Vendor provided	58,400	267	5	0.0	0.0	0.0
Unprotected well	112,567	11,083	1,618	9.2	10.0	9.2
Unprotected spring	12,222	378	32	0.2	0.0	0.2
River/Stream	502,804	4,452	862	4.9	0.2	5.2
Dugout/Pond/Lake/Dam/Canal	76,448	3,175	346	2.0	0.0	2.1
Other	3,972	151	0	0.0	0.0	0.0
<b>Main source of water for other domestic use of household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Pipe-borne inside dwelling	905,566	11,408	137	0.8	0.1	0.8
Pipe-borne outside dwelling	1,089,030	13,957	999	5.7	11.5	5.3
Public tap/Standpipe	704,293	4,541	384	2.2	7.0	1.9
Bore-hole/Pump/Tube well	1,280,465	98,487	9,986	57.0	45.3	57.8
Protected well	465,775	24,798	2,608	14.9	16.5	14.8
Rain water	39,916	330	14	0.1	0.0	0.1
Protected spring	18,854	672	76	0.4	0.3	0.4
Tanker supply/Vendor provided	100,048	301	4	0.0	0.0	0.0
Unprotected well	152,055	11,607	1,625	9.3	18.2	8.7
Unprotected spring	15,738	650	94	0.5	0.8	0.5
River/Stream	588,590	6,125	1,119	6.4	0.4	6.8
Dugout/Pond/Lake/Dam/Canal	96,422	4,518	440	2.5	0.0	2.7
Other	10,302	235	34	0.2	0.0	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.8 Bathing and Toilet Facilities

Table 8.11 shows that 28.2 percent of households in the District use their own bathroom for bathing, with 21.7 percent of households using shared /separate bathroom in the same house. About eighteen (18.4%) percent of households use shared open cubicle. Bathroom in another house was the least type of bathing facility. The use of private open cubicle is common (13.5%) in rural areas than urban areas (10.3%).

**Table 8.11: Type of toilet facility and bathing facility used by household by type of locality**

Type of Toilet Facility	Total Country	Region	Total		Urban	Rural
			Number	Percent		
<b>Toilet facility used by household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
No facilities (bush/beach/field)	1,056,382	146,329	16,098	91.9	71.0	93.3
W.C.	839,611	6,050	87	0.5	2.1	0.4
Pit latrine	1,040,883	5,266	393	2.2	6.6	2.0
KVIP	572,824	6,196	584	3.3	15.6	2.5
Bucket/Pan	40,678	405	11	0.1	0.1	0.1
Public toilet (WC/KVIP/PitPan/etc.)	1,893,291	12,828	231	1.3	4.6	1.1
Other	23,385	555	116	0.7	0.1	0.7
<b>Bathing facility used by household</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Own bathroom for exclusive use	1,535,392	73,345	4,934	28.2	23.3	28.5
Shared separate bathroom in the same house	1,818,522	33,370	3,800	21.7	27.5	21.3
Private open cubicle	381,979	26,114	2,334	13.3	10.3	13.5
Shared open cubicle	1,000,257	21,111	3,216	18.4	33.3	17.4
Public bath house	140,501	2,391	152	0.9	2.5	0.8
Bathroom in another house	187,337	479	7	0.0	0.1	0.0
Open space around house	372,556	19,987	3,000	17.1	2.9	18.1
River/Pond/Lake/Dam	14,234	437	39	0.2	0.1	0.2
Other	16,276	395	38	0.2	0.1	0.2

Source: Ghana Statistical Service, 2010 Population and Housing Census

## 8.9 Method of Waste Disposal

### 8.9.1 Solid waste disposal

Table 8.12 presents different methods of solid and liquid waste disposal by households. The most common method of disposal of solid waste is dumping of waste discriminatory (23.9%). Solid waste that is collected, accounts for 19.9 percent, while 22.9 percent of households solid waste is burnt. The incidence of dumping indiscriminately is higher in rural areas (24.4%) than in urban areas (17.2%)

### 8.9.2 Liquid waste disposal

The various methods by which liquid waste is disposed of by households are presented in Table 8.12. The majority (47.5%) of households in the District throw their liquid waste onto the street/outside the compounds of their houses, followed by throwing onto compounds of their houses (31%). Also the use of soak away as a method of liquid waste disposal accounts for 12.1 percent in the District. Throwing of liquid waste onto the street is higher in urban areas (68.9%) than rural areas (46.0%).



**Table 8.12: Method of solid and liquid waste disposal by type of locality**

Method of Solid and Liquid	National	Region	Total		Urban	Rural
			Number	Percent		
<b>Solid waste</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Collected	785,889	19,758	3,491	19.9	5.3	20.9
Burned by household	584,820	44,337	4,016	22.9	42.7	21.6
Public dump (container)	1,299,654	14,057	355	2.0	17.2	1.0
Public dump (open space)	2,061,403	55,459	3,376	19.3	14.2	19.6
Dumped indiscriminately	498,868	25,994	4,193	23.9	17.2	24.4
Buried by household	182,615	12,201	1,855	10.6	2.6	11.1
Other	53,805	5,823	234	1.3	0.7	1.4
<b>Liquid waste</b>						
Total	5,467,054	177,629	17,520	100.0	100.0	100.0
Through the sewerage system	183,169	4,062	601	3.4	0.4	3.6
Through drainage system into a gutter	594,404	7,676	489	2.8	1.3	2.9
Through drainage into a pit (soak away)	167,555	12,031	2,113	12.1	2.6	12.7
Thrown onto the street/outside	1,538,550	105,548	8,318	47.5	68.9	46.0
Thrown into gutter	1,020,096	6,029	482	2.8	8.9	2.3
Thrown onto compound	1,924,986	41,258	5,436	31.0	17.7	31.9
Other	38,294	1,025	81	0.5	0.4	0.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

# **CHAPTER NINE**

## **SUMMARY OF FINDINGS, CONCLUSIONS AND POLICY RECOMMENDATIONS**

### **9.1 Introduction**

The overall level of development and demographic structure of the District conceals differences between and within urban and rural localities. As such, there are bound to be differences in the population and development needs and priorities between and within these localities.

The objective is to make available to the general public, the results of the 2010 Population and Housing Census and recommendations for planning and policy interventions in the District.

### **9.2 Summary of Findings**

#### **9.2.1 Demographic Characteristics**

##### *Population size, growth and density*

The 2010 Population and Housing Census reported a total population of 130,003 for the District. The male population in the District is 62,025 which represents 47.7 percent of total population while that of the female population is 67,978 which also represent 52.3 percent. The sex ratio which is the number of males to 100 females is 91.2 for all ages.

The District's share of the regional population is 12.4 percent, 2.9 percent for urban localities and 15.0 percent for rural localities.

##### *Age Structure*

From Figure 2.1, the District has a youthful population structure, with a broad base consisting of large numbers of children and youth (0-24 years) and a conical top of a small number of elderly people. The population in the District has great potential for socio-economic development.

The age structure of the District is like that of the national, it has a broad base indicating a large number of youth or children and a conical top showing a small number of elderly persons.

The age-sex structure as illustrated by the population pyramid shows that, in the District, there are more females (52.3%) than males (47.7%) in 2010; this is similar to the national proportion of 51.2 percent females. The age structure for the sexes, however, varies. The percentage of males in the age group 0-14 years (24.0%) is higher than that of females (22.0%) while the percentage of females in the age group 15-64 years (26.0%) is higher than that of males (20.1%). Among the elderly 65 years and older, the percentage of females (4.3%) is higher than that of males (3.6%). This is in conformity with what pertains almost everywhere in the world; females normally outlive males.

The old adolescent (15-19 years) and young adults (20-24 years) have a population of 21,893 which is 16.8 percent of the District's population

### ***Urban and rural distribution***

The spatial distribution of the District's population shows that it is predominantly rural (95.2%).

### ***Fertility***

There are 2,951 births in the District in the last 12 months preceding the census. The crude birth rate of the District is the same for the Upper East Region and stands at 22.7 per 1000 population.

### ***Mortality***

According to the 2010 PHC, out of the total number 161,179 children ever born in the District by the female population 12 years and older, 130,388 are surviving, giving the survival rate of children ever born as 80.9 percent. This figure depicts a very high level of mortality in the District.

A total of 1,287 deaths were recorded in the households over the last 12 months preceding the enumeration in the District. The crude death rate which is the number of deaths per 1000 of the population in a given year is 9.89 in the Garu Tempane District. This implies that 10 out of 1000 persons dead over the past 12 months preceding the enumeration.

Deaths due to accident/violence/homicide/suicide constitute 7.5 percent of all deaths in the District. This is low considering the regional average of 15.2 percent. However, it is a critical issue to be considered in priority setting. Death through all other causes account for 92.5 percent in the District.

### ***Migration***

The census shows that a total of 6,123 people in the District were born outside the District. This figure is considered as the total migrants in the District as at the reference period. Those born elsewhere in the Upper East Region constitute 38.0 percent. About 51.8 percent born elsewhere in another region in Ghana whilst 17.4 were born outside Ghana. Of those born elsewhere in another region in Ghana, the majority (67.3%) were born in the Ashanti Region and of this group most (31.1%) stayed there between 1-4years.

Also, of those born in the in the Upper East Region, the majority (40.9%) lived there for 20 or more years and the least (8.7%) stayed between 5-9 years. About 40.9 percent of those born outside Ghana lived there for about 20 years or more.

### ***Religious affiliation***

Islam is the largest region in the District with 41 percent of the population. Adherents to Christian faith constitute 39.7 percent; however, 2.4 percent of the population does not belong to any religious faith.

## **9.2.2 Social Characteristics**

### ***Households***

There are 128,623 people living in households in the District. Out of this number, 13.6 percent constitute households heads. Children are treasured in the Ghanaian society and they show a person's social status. Out of the total number of people living in households in the District, 51.1 percent are children. The extended family system is still a very important aspect

of the family structure in the District. Out of the population in households, 10 percent are other relatives living in the household, 5.2 percent are grandchildren 3.1 percent are parents/parent in-law, and 1.1 percent are son/daughter in-laws.

Also, 47.7 percent of the household population are males while 52.3 percent females. Of the male population, 23.9 percent are heads of the household while 4.3 percent of females population are heads of the households. There are more children in the male headed households (58.4 %) than there are in the female headed households (44.4%). There are more other relatives living in the female headed household (15.1%) than those living in male headed households (4.5%). This trend is seen among all other groups of the extended family system except those in the grandchildren category where there are slightly more (5.5%) in the male headed households as against 4.9 percent in the female headed households.

### ***Household types***

With regard to the composition of households by type of locality, out of the total number of people who live in households less than one percent (0.4 %) lives alone and assume headship of their households. It also reveals that among nuclear family households with head, spouse(s) and biological/ adopted children only for both localities is common with a proportion of 17.9 percent while among extended family, households with head spouse(s) biological/adopted children and relative of the head only is 60.0 percent. Also households composition based on localities types indicates heads only to be 1.5 percent while among nuclear family household with head, spouse(s) and biological/ adopted children only is 18.3 percent and extended family household with head, spouse(s), biological /adopted children and relatives of the head only is 41.1 percent. With regards to rural localities head only accounts for less than one percent (0.3%), while among nuclear family household with head, spouse(s) and biological /adopted children is common with a proportion of 17.8 percent with regards to extended family household with head, spouse(s), biological /adopted children and relatives of the head only represent the most common with proportion 60.9 percent.

Also nuclear (head, spouse, and children) accounts for 17.9 percent while males represent 19.8 percent and females 16.1 percent. Persons who are single parent extended are 6.8 percent for both sexes while males are 6.3 percent and females 7.1 percent.

Out of the total number of people who live in households, only 0.4 percent lives alone and assume headship of their households and 19.7 percent resides in urban area while 80.3 percent in rural area. The majority of the people (76.8%) who live in households belong to the extended family system from which only 4.4 percent resides in urban area and 95.6 percent in rural area. Also, 22.8 percent of people who live in households belong to the nuclear family system and 6.1 percent reside in urban areas while 93.9 percent in rural areas.

### ***Ownership of mobile phones***

Cellular phone has formally become the most widely-used telecommunication tool in the District and has been spreading faster than any telecommunication technology. There are 80,527 persons aged 12 years and older in the District. Of the number, 14.7 percent of them have mobile phones. Also, 69.8 percent of males 12 years and older have mobile phones compared to 63.5 percent of females.

### ***Use of internet***

The Internet has become a very useful communication facility for people, businesses and organizations. Some of the common uses of the internet include electronic mailing, accessing information, conducting business transactions, social networking and shopping.

Out of the total population aged 12 years and above, 0.6 percent use internet facility. Also, 63.5 percent of males 12 years and older have internet access or use the internet, while 36.5 percent of the female population 12 years and older have access to internet or use internet facility in the District.

### ***Ownership of desktop/laptop***

Desktop and laptop computers are useful for accessing and processing information, including the use of the Internet, electronic mail and other services. For the District as a whole, only 0.9 percent of households own desktop/laptop computers. Again, 87.9 percent of male households own desktop/laptop computers compared to 12.1 percent of female household

### ***Marital status***

Out of the total of 80,527 persons aged 12 years or older, 37.5 percent reported as never married, 0.2 percent reported as being in the Informal/consensual/living together category. The proportion of the population reported as married, constitute 53.6 percent, while 0.6 percent were reported as separated. People who reported to have divorced and widowed, constitute 0.8 and 7.3 percent respectively.

The age groups 12-14, 15-19 and 20-24 reported proportions that were above 50 percent (93.8%, 90.2% and 58.9% respectively) of the population that never married.

Marital status by age and sex reveals that among both sexes category the total population that are married accounts for the highest proportion of 53.6 percent and never married accounts for 37.5 percent and informal/consensual union and living together the least of 0.2 percent. With regards to the male category the total population is 36,330 and population never married and married accounts for (48.1% and 48.7%) respectively and informal/consensual union and living together 0.2 percent the least. With regards to the females category the total population is 44,197, with never married to be 28.9 percent and married 57.6 percent, while informal/consensual union/living together 0.2 percent.

Compared to the male figures, more females are married than males and also more females are widowed than males (7.3%). More than half the female population is married at age 20-24 years (57.9%) whereas more than half of the males marry at age 25-29 years (52.4%).

With regards to marital status and economic activity among the population aged 12 years and older in the District. Out of the specified population of 80,527, those employed accounts for 72.0 percent, unemployed 1.0 percent and economically not active are 27.0 percent. Out of those who are married (46.5%) are employed for those who are never married (20.3%) are employed and for those who are widowed (4.0%) are employed.

For males category total males employed is 31.9 percent , total males unemployed is 0.5 percent and total males that are economically not active is 12.7 percent. Males who are married (19.0 %) are unemployed, males that are never married (12.0%) are unemployed. Total females population who are employed is 40.0 percent while total females unemployed

are 0.6 percent and the total females population who are economically not active is 14.3 percent. For married females (27%) are employed and never married (8.2%) are employed.

### ***Literacy***

On the average, a little more than half (62.0%) of the total population is literate in English only whereas only 4.2 percent of the literate population reported to be literate in Ghanaian language only. The percentage of those who are literate in English and Ghanaian Language is 33.5 percent. Very small percentage (0.1%) of the population reported to be literate in English and French, and English, French and Ghanaian language.

Out of the population 11 years and older, 79.6 percent are literate. There are high proportions of males who are literate (50.1%) than females (38.8%). A high percentage of the literate population in the 11-14 (66.3%) and 15-19 (65.2%) age groups are literate in English language only. This trend is the same for male population 11-14 (64.9%) and 15-19 (63.5%) and for females 11-14 (67.9%) and 15-19 (67.3%).

### ***Education***

The population within the ages 3 years and older in the District, 50,995 are currently attending school at different levels of education while 5,243 have attended school in the past. Also, 58.5 percent of the population currently attending school are at primary level whereas 45.9 percent of population who have attended school in the past were at the primary level.

There are slightly more females (18.3%) than males (14.8%) among the proportion of population who have attended school in the past at the JSS/JHS level and the proportions who are currently in school at the primary level( 58.2% and 57.9%) respectively.

### ***Disability***

There are 5,639 persons with disabilities in the Garu-Tempene District that represents 4.3 percent of the population. Again, the sex composition of the population with disability indicates that, the proportion of males with some form of disability is 4.6 percent and that for females 4.1 percent. Persons with disabilities in the District are 5,639 which represent 4.3 percent. Sight disability and hearing impairment are the most common types of disability in the Garu-Tempene District which constitute 43.2 and 24.2 percent respectively. The least reported type is emotional (10.7%) disability.

The percentage with disability varies considerably among the rural and urban populations. On the whole, the proportion with disability is more (4.4%) in the rural than in the urban areas (3.2%). Sight disability is the prominent form of disability among the females and males populations that accounts for 45.2 percent and 41.1 percent respectively. Again, sight disability is the prominent form of disability in both urban and rural area which represent 48.5 percent and 43.0 percent respectively.

Also, 59.9 percent of PWDs 15 years and older are within the economically active population (employed and unemployed population) of the District, out of which 98.6 percent are employed and 1.4 percent unemployed. Again, of the total employed population 15 years and older, 4.9 percent are PWDs. Persons with sight disability are more likely to be employed (2.2%) while hearing disability (1.1%). Of the economically not active population 15 years and older, 11.0 percent are PWDs.

Of the employed population there are more employed males PWDs (5.6%) than females PWDs (4.3%). The dominance of sight disability among employed PWDs prevails for both males (2.4%) and females (2.0%).

Educational status is generally low among population with disability. There are 119,596 persons who ages 3 years and older out of which 5,502 are PWDs. The population 3 years and older with disability who have never attended school are 3,934 (71.5%), those with basic education 1,447 (26.3%) and those with vocational education and higher are 121(2.2%) which comprises post graduate (3), bachelor's degree (4), post-Secondary (33), vocational (16) and Senior High School (65).

A population of 1,882 persons with sight disability reported never attended school, with hearing disabilities (913) and physically challenged (843). Furthermore, 466 persons with sight disability reported to have basic (nursery, kindergarten, primary and JSS/JHS) education, while the number of persons with other forms of disability who have basic education (168). There are male PWDs (7 persons) with university degree and higher qualification but no female PWDs with such qualification. Also, there are more female PWDs who have never attended school (77.4%) than male PWDs (65.5%).

The population 15 years and older with disability for both sexes who are employed accounts for 59.0 percent unemployed 0.9 percent while those who are economically not active is 40.1 percent. With regards to the males category persons with disability who are employed represents 61.8 percent while the unemployed accounts for 0.9 percent and the economically not active 37.2 percent. The female category with disability that are employed accounts for 56.4 percent and the unemployed 0.8 percent while the economically not active 42.8 percent. For all categories with the various types of disabilities who are employed accounts for proportions that are above 50 percent. This implies that though persons are with disabilities but a greater number of them are employed.

Data on disability type, level of education and literacy were collected on population aged 3 years and older. Out of the District population of 119,596, for both sexes' persons with some forms of disabilities is 5,502. Over seventy percent (71.5%) of PWDs have never been to school, pre-school represents 3.4 percent, and basic school represents 22.9 percent while senior high/higher 2.2 percent.

### **9.2.3 Economic Characteristics**

The economically active include both employed and unemployed persons who are available and looking for work. On the average, three out of four persons (77.2%) aged 15 and older who are economically active in the District as portrayed by Figure 4.1. Differences exist between the sexes, with the economically activity proportion of the males being slightly lower (76.7%) than that of the females (77.6%).

Under the economically active cohort, 98.5 percent is employed with only 0.6 percent of the employed doing voluntary work as their form of work for both sexes. The male population has 98.4 percent being employed with only 0.7 percent doing voluntary work under the employed sub-group. The female population has a proportion of 98.5 percent being employed with 0.5 percent doing voluntary work under the employed sub-group.

The unemployed sub-group has a majority of 61.4 percent of the population who are in the worked before, seeking work and available sub-group for both sexes. Of that same sub-group, 56.8 percent is male while 65.1 percent female.

About 22.8 percent of the population 15 years and older are economically not active. Of that number, 20.9 percent do home duties, 38.8 percent is in full time education while 28.2 percent belong to the cohort too old/young to work for both sexes. Further, 23.3 percent of the male population are economically not active while 22.4 percent of the female are economically not active.

The majority (51.0%) of the male population who belong to the economically not active cohort are in full time education with a small fraction (0.9%) belonging to pensioner/retired category. For the female category, the majority (34.5%) of the economically not active are in the too old/young sub-group with a small fraction (0.5%) in the pensioner/retired category.

The majority of the employed in the male category are below age 40. The same majority apply to the male category under the unemployed sub-group. Furthermore, the majority of the economically not active is also below age 40. The female population also follows the same trend having the majority of the employed, unemployed and economically not active under age 40.

Occupation refers to the type of work the person is engaged in at the establishment where the person works. Skilled agricultural, forestry and fishery workers are the dominant occupation in the District that accounts for 85.2 percent. Many more males (84.4%) than females (82.8%) are within the skilled agricultural forestry and fishery workers.

Agriculture, forestry and fishing constitute the largest industry, employing 69.3 percent of the workforce aged 15 years and older. Activities of extraterritorial organizations and bodies and electricity gas stream and air conditioning supply constitute a very small workforce aged 15 years and above. Other industries include manufacturing (8%) and wholesale and retail; repair of motor vehicles and motorcycles (8.3%).

#### **9.2.4 Agricultural Activity**

Agriculture is the dominant occupation in the District that employs over 95 percent (95.4%) of households. Rural households are engaged more in agriculture (97.2%) than their urban counterparts (68.3%).

Crop farming is the most common type of agriculture activity (98.8%), livestock rearing (86.1%) and tree planting (0.4%). Fish farming is the least agricultural activity undertaken by agricultural households in the District (0.1%).

Crop farming is more (99.0%) in the rural areas than in the urban ones (94.9%). Livestock rearing is also more in the rural areas (86.9%) than in urban ones (66.9%). Tree planting is high in rural areas (0.5%) than in urban ones (0.0%).

Chickens are the most reared birds in the District (214,830). Guinea fowls (110,296), goat (91,121), sheep (76,732) and cattle (52,906) are among the animals kept in the District.

Guinea fowl meat is an important source of protein for the people in the District. It is also a popular animal that is reared for commercial purposes. The average number per keeper is 21. The wide spread rearing of this bird prompted their keepers to form an association to be able



to access loans and that may have been a factor for including Garu-Tempene District in the Savannah Accelerated development Agency(SADA) Guinea fowl project.

### **9.2.5 Housing Condition and Facilities**

The total stock of houses in the District during the 2010 Population and Housing Census represent 17,520. The rural areas tend to have higher number of houses (12,659) than the urban areas (724). The rural areas reported a higher number of households (16,424) than urban ones (1,096). The District is predominantly rural that accounts for rural areas with more houses and households than the urban areas. On the average there are 1.3 households per house for the District, with the urban areas representing 1.5 and the rural areas 1.3. Also the average household size is 7.3 for the District. The rural areas have an average household size of 7.7 which is higher than the District average, while the urban areas have an average household size of 5.7. Population per house in the District accounts for 9.6 people per house with a rural areas average of 9.7 persons per house and urban areas 8.6.

#### ***Number of rooms***

On the whole the single room constitutes a high percentage (89.6%) of all the types of rooms occupied in housing units by single households. The 10+ household reported the least occupancy in single room (0.1%) but is (47.7%) occupancy for 9 rooms or more housing unit.

#### ***Types of dwelling units for households***

There are 17,520 occupied dwelling units for households who live in housing units in the Garu-Tempene District. The majority of the households live in rooms in compound houses (65.5%). Beside this, a good number of households also reside in separate houses (15.7%) and huts/buildings in the same compound (11.8%). Smaller proportions of households reside in living quarters attached to office/shop (0.2%) and other types of dwelling units (0.2%). A small proportion of households resides in improvised homes (kiosk containers etc) (0.1%) and tents (0.1%).

The majority of the households in both rural and urban areas reside in rooms in compound houses (73.1% and 65.0%) respectively. Also, a good number of households in both rural and urban areas reside in separate houses 8.6 percent and 16.2 percent respectively and in huts/buildings in the same compound 6.6 percent and 12.2 percent respectively.

At the rural areas, fewer households reside in both tents and improvised homes (kiosk and container etc.).

#### ***Tenancy status***

Dwelling units owned by a household member constitute the most dwelling units in the District (94.9%) and dwellings owned by a relative of the household who is not a household member (1.9%). Dwelling units owned by other private individual accounts for 1.3percent dwellings occupied by households. Other types of ownership constitute small percentages.

The majority (95.5%) of dwelling units by male headed are owned by a household member, while 91.5 percent of their female counterparts live in dwellings owned by a household member. Also more dwelling units owned by household member were reported in the rural areas (96%) than in the urban ones (78.4%).

### ***Main source of lighting***

Flash light/torch is the major source of lighting (51.0%) in the District, the use of kerosene lamps (34.9%) and electricity (main) (11.1%).

The use of flash light/touch (53.3%) is common in rural areas than urban areas (15.9%). The use of kerosene lamps is also widely used in the rural areas (35.6%) than urban areas (23.4%).

### ***Main source of cooking fuel***

Wood is the main (79.9%) cooking fuel used in the District. Crop residue is the next source cooking fuel (13.6%). There is low proportion use of gas in the District and this could be due to the unavailability of liquefied petroleum gas (LPG) in the District as the nearest area to buy the commodity is the regional capital Bolgatanga.

Many more households use an open space in the compound for cooking (41.0%). A low proportion (1.4%) has no cooking space. A significant proportion (30.8%) uses a room exclusively for cooking. Other households use enclosure without roof (19.2%) for cooking. The use of separate room for exclusive use of household is high in rural (30.9%) than urban areas (29.0%). The use of veranda as a space for cooking is common in urban (18.6%) than rural areas (2.2%).

### ***Toilet facilities***

About ninety two percent (91.9%) of households in the district have no toilet facilities (bush/beach/field) and resort to open defecation. The district is predominantly rural that perhaps account for more households resorting to open defecation. Many more households in rural areas (93.3%) reported to have no facilities than urban settlements (71.0%). Also more households use public toilets in the urban areas (4.6%) than in the rural areas (1.1%).

### ***Bathroom facilities***

About one-third of (28.2) of households in the District exclusively use their own bathroom for bathing, with 21.7 percent of households using shared separate bathroom in the same house. About 18.4 percent of households use shared open cubicle. Bathroom in another house is the least used type of bathing facility. The use of private open cubicle is high (13.5%) in rural than urban areas (10.3%). Households in the District that use their own bathroom for bathing, 21.7 percent of households use shared /separate bathroom in the same house. About eighteen percent (18.4%) of households use shared open cubicle. Bathroom in another house is the least type of bathing facility. The use of private open cubicle is higher (13.5%) in rural areas than urban areas (10.3%).

### ***Waste disposal (Solid Waste)***

The most common method of disposal of solid waste is dumping the waste discriminatory (23.9%). The incidence of dumping indiscriminately is common in rural areas (5.2%) than in urban ones (3.2%)

### ***Waste disposal (Liquid Waste)***

The majority (47.5%) of households in the District throw their liquid waste onto the street/outside the compounds of their houses and throwing onto compounds of their houses (31%). Also the use of soak away as a method of liquid waste disposal accounts for 12.1

percent of liquid waste disposal in the District. Throwing of liquid waste onto the street is widely practice in urban areas (68.9%) than rural areas (46.0%).

### ***Source of drinking water***

Bore-hole/pump/tube well water is the main source of drinking water for households in the District (59.8%), protected well (13.8%), unprotected well (9.2%), pipe-borne outside dwelling (5.9%) and river/stream ( 4.9%). The use of bottle water, tanker supply/vendor provided and other forms of water supply is low in the District.

Again bore-hole/pump/tube well is the commonest source of water for other domestic activities in the District (57.0%). The rural areas reported a high use (57.8%) of boreholes/pump/tube well than the urban area (45.3%). The use of unprotected well outside dwelling is high in the urban areas (18.2%) than in rural ones (8.7%).

### ***Cooking space***

Most households (41.0%) use open space in the compound for cooking. A small proportion (1.4%) of household did not have cooking space. A significant proportion (30.8%) used a room exclusively for cooking. Other households use enclosure without roof (19.2%) for cooking. The use of separate room for exclusive use of household was higher in rural areas (30.9%) than urban areas (29.0%). The use of veranda as cooking space is more in urban (18.6%) than rural areas (2.2%).

## **9.3 Conclusions**

The 2010 Population and Housing Census have provided adequate data for planners, decision makers and other key players in the development sector. It is therefore prudent that policies formulated are informed by these data for the socio-economic development of the District and Nation as a whole.

The District is the third largest in the Upper East Region with 12.4 percent share of the population. It has a female dominated population with a ratio of 91.2 percent. The District has the same crude birth rate as that of the Region, 22.7 per 1000 persons of the population and a crude death rate of 9.9.

The District is largely rural and as such the penetration of communication technology is quite low. A small proportion of the population has mobile phones most of which are females. Also, few households own desktop computers. The proportion of the population with internet facilities is also low.

The majority of the population who have reached marital age are either married or ever married. Female marry earlier than male. The majority of the married population have no education. With the exception of the never married category with 66.7 percent having basic level, all the other categories under marital status reported over 60 percent of the population with no education. The proportion of married males with no education is more than half (77.3%). The proportion with basic education is 15.8 percent, while 3.5 percent reported to have some form of secondary education. Also, 0.5 percent reported to have vocational/technical/commercial education and 2.2 percent post middle/secondary certificate/diploma and 0.6 percent tertiary education.

The proportion of the population 12 years and older currently married is high for the employed (64.6%). Almost fifty percent (49.1%) of the unemployed are married and also nearly one out of five (24.5%) of those not economically active are married.

An opposite trend is depicted for the never married. The majority of the economically not active (62.5%) have never married. A good proportion of the unemployed (39.4%) has also never married and only about a quarter (28.2%) of the employed has never married.

About a half (52.6%) of unemployed males and 74.0 percent economically not active male who have never married is an indication of the fact that men are more likely to postpone marriage until they are financially independent.

There are more married women who are employed (68.7%) than those unemployed (53.9%). Women no longer leave men to provide everything for the family but take part of the responsibility by engaging in income earning activities.

#### **9.4 Policy implications**

Various programmes, projects and activities have been implemented over the years to address the population and development problems of the country, but problems of implementation have made it difficult to make progress. The already documented policies, programmes, projects and activities are extensive and comprehensive enough to meet the needs and priorities of individual Districts, sub-Districts and communities. Careful assessment is needed to identify policies and interventions, appropriate to meet individual District and community needs and circumstances.

The planning, execution and monitoring of various interventions should adopt the District/community “ownership” strategies. Interventions should also be in phases or stages. Mass education programmes should be embarked upon and pursued with all seriousness before introducing interventions to educate people on the benefits of each intervention, to the individual and to the community, as well as on the consequences of not implementing the interventions on a sustainable basis. Consideration should be given to the following issues peculiar to the Garu-Tempene and similar to other Districts.

Open defecation is still on the rise and a serious case in the District. The 2010 population and housing census revealed that 91.9 percent of the District’s population practise open defecation. The District assembly has to intensify efforts aimed at ending open defecation in the District to promote best practices of environmental hygiene. Probably the District collaboration with UNICEF to use the Community Led Total Sanitation (CLTS) tool and support communities to construct household latrines to attain a District wide open defecation free communities in the shortest possible time would be a good measure so that the people would be free of communicable diseases. Together with this, the Assembly Members could be made to sign an undertaking to embark on a vigorous sensitization to ensure that those who do not have latrines defecate in a hole they dig.

The assembly must as a matter of urgency pass by-laws to force house owners to include sanitary facilities in the plans they submit to the assembly for approval before construction works begin on all buildings be it residential or commercial. The stakeholders must also set out an enforcement mechanism to identify and appropriately punish people who flout the by-laws.

The District assembly and all other stakeholders must invest in education, health and other basic social needs, to ensure an improved quality of life for the population as the population of the District is largely youthful. Literacy in the District is also low. More than half (60.4%) of the population 11 years and older is not literate. A larger proportion of females are not in school. It is for this reason that the government is determined to make education accessible and affordable to every child through expansion and improvement in education infrastructure and service delivery. However, the impact of this is not significant in the district. Many communities still do not have schools and those with schools do not have requisite teaching and learning materials and staff.

The district assembly therefore has to liaise with relevant stakeholders including the non-formal education division, school for life and others to develop a comprehensive and integrated package to improve literacy level of the district. Also, the people should be educated on the need to send the girl-child to school and have her retained for a better future. Secondly, existing cultural practices, in relation to the position of women and girls in society, should be critically examined and modified where appropriate. There should be intensified education on the benefits of schooling to help stem girl-child dropout from schools, to provide incentives and attractive conditions to help retain girls in school. The school feeding program, free text book and school uniforms and a host of other such programs to retain pupils in school are already in place but need to be intensified.

A large proportion of the District's population lack basic IT knowledge and have limited capacities of using other electronics. For the District as a whole, only 0.9 percent of households own desktop/laptop computers and 0.6 percent use internet facility. Even the privileged ones that have tertiary education as far as to the university level do not have IT knowledge, probably because they do not have the opportunity to equip themselves with the basics of IT. However, the importance of ICT at the world stage is steadily on the rise and calls on everyone to be part. For this reason the District assembly would need to liaise with Ministry of Communication, Ghana Investment Fund for Electronics and Communication (GIFEC) and bodies who are into the ICT forward move to establish a Community Information Centre (CIC) and equip existing schools and other educational institutions with requisite IT equipment to support the promotion of access and usage of computers in particular.

Most households in the District are engaged in agriculture (95.4%). Crop farming is the most common type of agriculture activity that households engage in (98.8%) and is primarily rain fed. Meanwhile, this part of the country where the District is located has one season of irregular and unreliable rainfall. This places many households in crisis, as they do not get good returns from their economic activities. This in a large extent, affects Internally Generated Fund that accrue to the District Assembly. The District Assembly therefore has to collaborate with relevant authorities such as MOFA, SADA, Ghana Irrigation Authority and others to diversify agriculture and commence irrigation farming to promote all year round farming and off rain season activities to support households.

The bare ground is a concern to all stakeholders involved in the District, it is therefore imperative that the District assembly together with the private sector to set up gas station(s) in the District to help the transition of the people from the usage of firewood and charcoal to LPG which is more environmentally friendly and safer.

Many government agencies are usually reluctant to part with data, this barrier may be overcome by the District forging trust and playing a lead role in establishing working

relationships over time, and ensuring that the necessary policies over use of the data are well understood and publicized. In addition, District assemblies should be looking at working with agencies at national and regional levels to facilitate the process of data sharing.

In conclusion, adequate data are made available by the 2010 PHC for planners, decision makers and other key players in development. It is therefore prudent that policies formulated are informed by these data in order to ensure the socio-economic development of the District and nation as a whole.

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Ghana Living Standard Survey

## APPENDICES

**Table A1: Household Composition by type of locality**

Household Composition	Total		Urban		Rural	
	Number	Percent	Urban	Percent	Rural	Percent
Household with head and a spouse only	492	0.4	52	0.8	440	0.4
Household with head and biological/adopted children only	5,856	4.6	604	9.7	5,252	4.3
Household with head spouse(s) and biological/adopted children only	22,984	17.9	1,142	18.3	21,842	17.8
Household with head spouse(s) biological/adopted children and relatives of the head only	77,147	60.0	2,558	41.1	74,589	60.9
Household with head spouse(s) biological/adopted children relatives and nonrelatives of the head	3,725	2.9	134	2.2	3,591	2.9
Household with head spouse(s) and other composition	3,349	2.6	244	3.9	3,105	2.5
Household with head biological/adopted children and relatives of the head only	8,678	6.7	907	14.6	7,771	6.3
Household with head biological/adopted children relatives and nonrelatives of the head	728	0.6	119	1.9	609	0.5
Household with head and other composition but no spouse	5,197	4.0	378	6.1	4,819	3.9

Source: Ghana Statistical Service, 2010 Population and Housing Census



**Table A2: Population 3 years and older by sex, disability type and level of education**

Sex/Disability type	Total	Educational level attained									
		Never attended	Nursery	Kinder garten	Primary	Middle/ JSS/ JHS	Sec./SSS/ SHS	Voc./Tech /Comm.	Post sec	Bachelor degree	Post graduate (Cert. Diploma Masters PHD etc.)
<b>Total</b>	119,596	59,744	4,485	5,933	34,519	10,337	3,225	274	891	147	41
No disability	114,094	55,810	4,387	5,844	33,539	10,057	3,160	258	858	143	38
With a disability	5,502	3,934	98	89	980	280	65	16	33	4	3
Sight	2,382	1,882	34	18	313	101	11	6	12	2	3
Hearing	1,346	913	34	28	284	62	18	3	2	2	0
Speech	742	445	31	21	189	37	12	2	5	0	0
Physical	1,232	843	17	12	234	85	28	4	9	0	0
Intellectual	670	507	9	4	110	30	5	1	4	0	0
Emotional	587	397	12	5	124	37	9	1	2	0	0
Other	424	256	17	9	100	35	6	0	1	0	0
<b>Male</b>											
<b>Total</b>	56,619	23,806	2,269	3,015	18,368	5,980	2,184	155	684	124	34
No disability	53,874	22,007	2,213	2,964	17,808	5,799	2,131	147	654	120	31
With a disability	2,745	1,799	56	51	560	181	53	8	30	4	3
Sight	1,128	826	16	9	186	64	7	4	11	2	3
Hearing	625	381	23	18	145	39	15	1	1	2	0
Speech	432	240	21	15	116	26	11	0	3	0	0
Physical	615	371	14	7	137	53	22	2	9	0	0
Intellectual	343	243	6	2	64	19	5	0	4	0	0
Emotional	320	200	7	3	74	25	8	1	2	0	0
Other	205	108	9	4	57	20	6	0	1	0	0
<b>Female</b>											
<b>Total</b>	62,977	35,938	2,216	2,918	16,151	4,357	1,041	119	207	23	7
No disability	60,220	33,803	2,174	2,880	15,731	4,258	1,029	111	204	23	7
With a disability	2,757	2,135	42	38	420	99	12	8	3	0	0
Sight	1,254	1,056	18	9	127	37	4	2	1	0	0
Hearing	721	532	11	10	139	23	3	2	1	0	0
Speech	310	205	10	6	73	11	1	2	2	0	0
Physical	617	472	3	5	97	32	6	2	0	0	0
Intellectual	327	264	3	2	46	11	0	1	0	0	0
Emotional	267	197	5	2	50	12	1	0	0	0	0
Other	219	148	8	5	43	15	0	0	0	0	0

Source: Ghana Statistical Service, 2010 Population and Housing Census

**Table A3: Population by nationality and sex**

Nationality	Both sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
<b>Total</b>	130,003	100.0	62,025	100.0	67,978	100.0
Ghanaian by birth	120,434	92.6	57,449	92.6	62,985	92.7
Dual nationality (Ghanaian & Other)	3,938	3.0	1,760	2.8	2,178	3.2
Ghanaian by naturalisation	1,596	1.2	722	1.2	874	3.2
ECOWAS	2,886	2.2	1,556	2.5	1,330	3.2
African other than ECOWAS	738	0.6	340	0.5	398	3.2
Others	411	0.3	198	0.3	213	3.2
<b>Bawku Municipal</b>						
<b>Total</b>	98,538	100.0	47,254	100.0	51,284	100.0
Ghanaian by birth	83,500	84.7	40,063	84.8	43,437	84.7
Dual nationality (Ghanaian & Other)	6,372	6.5	2,957	6.3	3,415	6.7
Ghanaian by naturalisation	3,130	3.2	1,481	3.1	1,649	3.2
ECOWAS	4,928	5.0	2,443	5.2	2,485	4.8
African other than ECOWAS	423	0.4	207	0.4	216	0.4
Others	185	0.2	103	0.2	82	0.2
<b>Builsa South</b>						
<b>Total</b>	36,514	100.0	18,100	100.0	18,414	100.0
Ghanaian by birth	35,081	96.1	17,403	96.1	17,678	96.0
Dual nationality (Ghanaian & Other)	575	1.6	273	1.5	302	1.6
Ghanaian by naturalisation	194	0.5	99	0.5	95	0.5
ECOWAS	303	0.8	144	0.8	159	0.9
African other than ECOWAS	190	0.5	98	0.5	92	0.5
Others	171	0.5	83	0.5	88	0.5

Source: Ghana Statistical Service, 2010 Population and Housing Census

**Table A4: Population by sex, nature of households and houses in the 20 largest communities**

S/No.	Community Name	Total	Male	Female	House holds	Houses
1	Garu	6,265	2,947	3,318	1,096	724
2	Denugu / Danvorga	4,180	2,033	2,147	515	468
3	Basyonde/Sabzunde	3,965	1,902	2,063	518	463
4	Tempane	3,714	1,744	1,970	598	502
5	Wuriyanga	3,003	1,476	1,527	392	245
6	Yabrago	2,747	1,328	1,419	348	263
7	Bugri-Bulpielsie	2,316	1,086	1,230	301	231
8	Kongo	2,302	1,074	1,228	304	249
9	Zambala No.1	1,692	802	890	232	164
10	Worinkambo (Guuni / Boko)	1,624	762	862	230	140
11	Bugwia (Dabila)	1,467	731	736	188	158
12	Tambalugu	1,450	687	763	154	134
13	Zambala No.2	1,425	646	779	202	162
14	Dimoyab/Biankugri	1,407	719	688	166	143
15	Tarivago	1,309	618	691	148	126
16	Abilatega	1,258	625	633	202	148
17	Kolmasug	1,204	563	641	214	122
18	Bugri	1,198	599	599	154	129
19	Kugasego Bugri No.1	1,163	583	580	147	113
20	Doanyediga No.2	1,158	532	626	111	83

Source: Ghana Statistical Service, 2010 Population and Housing Census

**Table A5: Population by age group in the 20 largest communities**

S/ No.	Community Name	All ages	0-4	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
1	Garu	6,265	830	938	857	773	556	473	372	322	261	198	205	81	118	64	90	127
2	Denugu Danvorga	4,180	569	726	586	512	307	218	177	173	166	120	128	84	86	69	89	170
3	Basyonde/Sabzunde	3,965	607	625	596	417	261	212	242	197	152	127	153	43	79	45	81	128
4	Tempane	3,714	531	584	504	392	279	237	197	200	143	134	128	60	73	44	79	129
5	Wuriyanga	3,003	479	550	382	305	152	188	193	151	137	109	83	36	61	43	52	82
6	Yabrago	2,747	375	444	384	309	168	130	130	116	90	98	85	55	94	39	82	148
7	Bugri-Bulpielsie	2,316	324	354	301	243	156	131	77	99	96	79	95	43	84	21	79	134
8	Kongo	2,302	505	401	282	198	117	143	146	109	78	56	79	27	46	20	33	62
9	Zambala No.1	1,692	195	237	262	213	119	104	82	70	64	76	74	33	51	24	40	48
10	Worinkambo (Guuni/Boko)	1,624	225	295	243	165	84	52	70	71	81	48	56	61	46	26	41	60
11	Bugwia (Dabila)	1,467	177	254	219	175	107	82	73	62	70	30	50	22	45	30	31	40
12	Tambalugu	1,450	249	259	221	166	83	52	45	55	50	49	54	16	35	26	37	53
13	Zambala No.2	1,425	191	226	201	170	55	52	74	62	54	42	54	34	54	37	33	86
14	Dimoyab/Biankugri	1,407	240	288	245	98	67	78	114	56	76	33	33	7	27	7	19	19
15	Tarivago	1,309	174	214	194	130	86	71	50	38	59	32	51	18	51	19	39	83
16	Abilatega	1,258	171	201	183	157	68	67	65	47	52	65	39	27	23	19	21	53
17	Kolmasug	1,204	173	167	169	130	80	74	82	62	47	47	29	29	23	16	21	55
18	Bugri	1,198	182	216	188	137	63	63	45	63	52	41	30	28	16	20	20	34
19	Kugasego Bugri No.1	1,163	133	165	171	145	73	55	47	47	33	49	54	14	44	19	42	72
20	Doanyediga No.2	1,158	183	199	145	123	63	54	44	43	42	57	39	27	33	31	33	42

Source: Ghana Statistical Service, 2010 Population and Housing Census

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