

# 2020 Comprehensive Food Security and Vulnerability Analysis (CFSVA)

## GHANA



# Comprehensive Food Security and Vulnerability Analysis (CFSVA) GHANA



# List of Acronyms

<b>CAPI</b>	Computer-Assisted Personal Interview
<b>CARI</b>	Consolidated Approach to Reporting Indicators of Food Security
<b>CH</b>	Cadre Harmonize
<b>CILSS</b>	Permanent Interstate Committee for Drought Control in the Sahel
<b>DHS</b>	Demographic and Health Survey
<b>EA</b>	Enumeration Area
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FCS</b>	Food Consumption Score
<b>FIES</b>	Food Insecurity Experience Scale
<b>FNS</b>	Food and Nutrition Security
<b>GHS</b>	Ghana Health Service
<b>GLSS</b>	Ghana Living Standards Survey
<b>GoG</b>	Government of Ghana
<b>GSS</b>	Ghana Statistical Service
<b>IFPRI</b>	International Food Policy Research Institute
<b>ITN</b>	Insecticide Treated Net
<b>IYCF</b>	Infant and Young Child Feeding
<b>LLIN</b>	Long-Lasting Insecticide-Treated Nets
<b>MICS</b>	Multiple Indicators Clusters Survey
<b>MMDW</b>	Minimum Dietary Diversity of Women
<b>MoFA</b>	Ministry of Food and Agriculture
<b>MoH</b>	Ministry of Health
<b>NADMO</b>	National Disaster Management Organization
<b>NDPC</b>	National Development Planning Commission
<b>PEF</b>	Pandemic Emergency Financing Facility
<b>RCO</b>	United Nations Resident Coordinator's Office
<b>SDG</b>	Sustainable Development Goals
<b>WFP</b>	World Food Programme
<b>WHO</b>	World Health Organization
<b>WI</b>	Wealth Index

# Preface

The Government of Ghana (GoG), through the Ministry of Food and Agriculture (MoFA) and the Ghana Statistical Service (GSS), in collaboration with the United Nations World Food Programme (WFP) and the Food and Agriculture Organization of the United Nations (FAO) conducted a nationwide Comprehensive Food Security and Vulnerability Analysis (CFSVA) for Ghana in 2020.

This nationwide CFSVA provides a situational analysis on the food security situation in Ghana across all the 260 Administrative Districts. This is the fourth CFSVA conducted in Ghana but the first to be done in all 260 Administrative Districts. The planning and data collection for this CFSVA was done in November and December 2020, respectively, despite the global COVID-19 pandemic.

This CFSVA provides a comprehensive and detailed analysis of who the food insecure and vulnerable people are in the country, where they live, how many they are, why they are food insecure/vulnerable, what can be done to save their lives and livelihoods, how the situation is likely to evolve, and the risks associated with them as well as the impact of COVID-19 on food security.

The results of the CFSVA will also provide up-to-date information on Ghana's food security status, serve as a benchmark for tracking progress of Sustainable Development Goal (SDG)2, foster better targeting of Food and Nutrition Security and Social Protection Programmes, and serve as a framework for implementation and monitoring of food and nutrition interventions in Ghana.

The 2020 CFSVA was made possible through cooperation and technical support from GoG, United Nations Resident Coordinator's Office (RCO), and other key partners and organizations in Ghana. The World Bank, through the Pandemic Emergency Financing Facility (PEF), WFP and FAO, provided funding for this project.

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Our profound appreciation goes to the CFSVA Steering Committee chaired by the Government Statistician – Professor Samuel Kobina Annim – and to all the representatives from GSS, MoFA, Ministry of Local Government and Rural Development, National Development Planning Commission, WFP, and FAO.

We thank the Management of the WFP Country Office in Accra – Rukia Yacoub (former Country Director) and Alessia Decaterina (former Deputy Country Director) – for their support in mobilizing resources and developing the concept for the 2020 CFSVA. We are also grateful to the current management of WFP – Anna Mukiibi-Bunnya (Deputy Country Director and Head of Programme), Sib Ollo (Senior Research, Assessment and Monitoring Advisor from WFP Regional Office in Dakar), Emma Anaman (Programme Policy Officer) and Vera Boohene (Communication and Partnership Officer) for their supervisory roles and continuous push for this CFSVA report to be finalized. We also appreciate the immense support from all WFP staff (Accra, Tamale, and Dakar).

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# Executive Summary

Food security is a fundamental aspect of human and social development. Per the 1999 World Food Summit working definition, food security describes a situation in which “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

However, the complexity of food security as a phenomenon resulting from multiple drivers – including food availability, accessibility, affordability, and the stability of all the aforementioned – poses significant challenges for assessment.

WFP has been at the forefront of efforts in Ghana, Africa, and across the world to define robust methodologies for assessing food security, perform food security surveys, and provide stakeholders with policy-actionable evidence-based analysis.

This 2020 CFSVA report is the most comprehensive food security assessment yet undertaken in Ghana by GSS and MoFA, with technical and financial support from WFP and FAO.

The three overarching objectives of the 2020 CFSVA are to:

1. Identify where, when, and who Ghana’s food insecure are, as the basis for remedial policy action to tackle food insecurity, including targeting of Food and Nutrition Security (FNS) social protection programmes, and building disaster preparedness and response capabilities
2. Initiate preliminary analysis on the unprecedented dataset generated by the CFSVA to investigate explanations of food insecurity outcomes – nationally and regionally – as the basis for adapting preventive policy actions that address root causes, including monitoring and ‘early warning systems,’ enhancement of food and marketing systems, livelihood promotion and infrastructure development
3. Evaluate key thematic issues in the contemporary context, including the impact of COVID-19 and other shocks,

and the impact of food insecurity on women empowerment and child nutrition.

These objectives have been fulfilled under the 2020 Ghana CFSVA through a household-level assessment of food security in Ghana’s 260 administrative districts across four spatial dimensions: urban/rural (“residence”), administrative region (16 regions), ecological zone (seven zones) and livelihood zone (13 zones).

The study interviewed 67,140 household heads across 4,476 sample points or Enumeration Areas (EAs) from the 260 districts. Per the 2020 CFSVA, food insecurity in Ghana stands at 11.7 percent, implying a food insecure population of 3.6 million people.

Out of the 3.6 million implied food insecure people in the country, the results of the study suggest that 5.2 percent – an implied 1.6 million people – are severely food insecure, and 6.5 percent – an implied 2 million people – are moderately food insecure.

Of Ghana’s 3.6 million implied food insecure people, 78 percent – an implied 2.8 million people – are located in rural areas, and 22 percent – an implied 0.8 million people – are located in urban areas. The results also show that 18.2 percent of Ghana’s rural population are food insecure, of which 7.3 percent are severely food insecure and 10.9 percent are moderately food insecure. The findings further show that 5.5 percent of Ghana’s urban population are food insecure, of which 3.2 percent are severely food insecure and 2.3 percent are moderately food insecure.

On a regional basis, food insecurity is a truly national challenge, with all regions except one (Oti) having an implied food insecure population in excess of 100,000. Most of Ghana’s food insecure live in the Guinea Savannah and Deciduous Forest zones, with pockets of food insecurity across the other zones. According to the findings, 18 percent are located in the Upper East region; 17 percent in the Northern region; and 13 percent in the Ashanti region. The region with the highest prevalence of food insecurity is Upper East, with a rate of 49 percent. Two other regions – North-East and Northern – have food insecurity prevalence rates exceeding 30 percent (33

percent and 31 percent, respectively).

Looking at food insecurity through the lens of social factors, the study suggests that food insecurity varies significantly by livelihood groups. However, it is notable that food insecurity is prevalent among households across all livelihood groups, even among skilled labour and salaried workers. Among the livelihood groups, households dependent on livestock rearing (30.4 percent) have the highest prevalence of food insecurity. These are followed by households in food crop production (19.7 percent), unskilled manual labourers (15.0 percent), as well as households dependent on remittances (11.3 percent), fishing (10.9 percent), traders (6.4 percent), skilled manual labourers (4.6 percent) and salaried workers (2.8 percent).

There is a higher prevalence of food insecurity among male-headed households (14.1 percent) than female-headed households (9.5 percent). The survey suggests that the higher the educational level of the household head, the lower the prevalence of household food insecurity. Overall, there is a higher prevalence of food insecurity among 'migrant households' (15.9 percent) than non-migrant households (11.1 percent). Finally, the study shows that households with access to land have significantly higher prevalence of food insecurity than those without access to land.

Not all food insecurity is permanent in nature. Food insecurity may be caused or exacerbated by 'shocks' which can reduce the availability, diversity, quality, or affordability of food to households. Shocks that are typical in Ghana include drought and other climatic phenomena; food price levels and adverse economic conditions; fire and other perils, and loss of life; health; employment and other social phenomena. COVID-19 has been an atypical shock, but one which has been particularly impactful on household food security.

Nine out of 10 households (90 percent) experienced at least one form of shock during the period under review. The top five shocks experienced by respondent households include: COVID-19 (63.8 percent), high food prices (34.1 percent), late rain/drought/no water (21.6 percent), inadequate money to buy food or cover other basic needs (14.3 percent), and reduced income of a household member (13.4 percent). Urban households had a higher prevalence of each of the featured categories of shock than their rural counterparts, except for shocks associated with late rain/dry spell and inadequate money for basic needs. The data reveal varied prevalence of COVID-19 shocks, ranging from

a high of 76 percent in the Western region to a low of 41 percent in the Upper West region. It is noted that urban households – which tend to have lower prevalence of food insecurity – were more extensively affected by COVID-19 shocks than rural households.

Household Dietary Diversity is classified according to the number of food groups out of 12, the household consumes as meals: low dietary diversity (0-4), medium diversity (5-8), and high diversity (9-12). Overall, about four out of five households (80.5 percent) exhibit high dietary diversity, one in seven households (14.6 percent) exhibit medium diversity, while one in 20 households (4.9 percent) exhibit low diversity. Disaggregating the data shows a clear link between dietary diversity and food consumption. Among the poor food consuming households, dietary diversity is classified as high (39.8 percent of households), medium (33.2 percent of households), and low (27 percent of households). In the borderline food consuming households, dietary diversity is classified as high (62.1 percent of households), medium (27.4 percent of households), and low (10.6 percent of households). Amongst households within the acceptable food consumption group, dietary diversity is classified as high in 86.1 percent of households, medium in 11.3 percent, and poor in only 2.5 percent of households. Overall, food insecure households consume less diverse food groups.

Minimum Dietary Diversity of Women (MDDW) indicates whether at least five out of 10 specified food groups were eaten by women aged 15-49 years the day or night before. The dietary diversity of women in Ghana was 58.9 percent. MDDW was similar among women across all regions.

The 2020 CFSVA evaluated the principal determinants of a child's nutritional status – including early initiation of breastfeeding, continued breastfeeding at 12 months, introduction of complementary foods, and dietary diversity. Overall, early initiation rate of breastfeeding was 63.9 percent. Breastfeeding among children 12 to 15 months remains nearly universal (91 percent), and all regions had at least 80 percent of children 12 to 15 months continuing breastfeeding beyond one year. Children between the ages of six and eight months who received solid/semi-solid/soft food were 85.2 percent out of 1,794 children. One in six Ghanaian children aged six to 23 months (16.9 percent) have a sufficiently diverse diet, consuming at least four different food groups a day prior to the survey.

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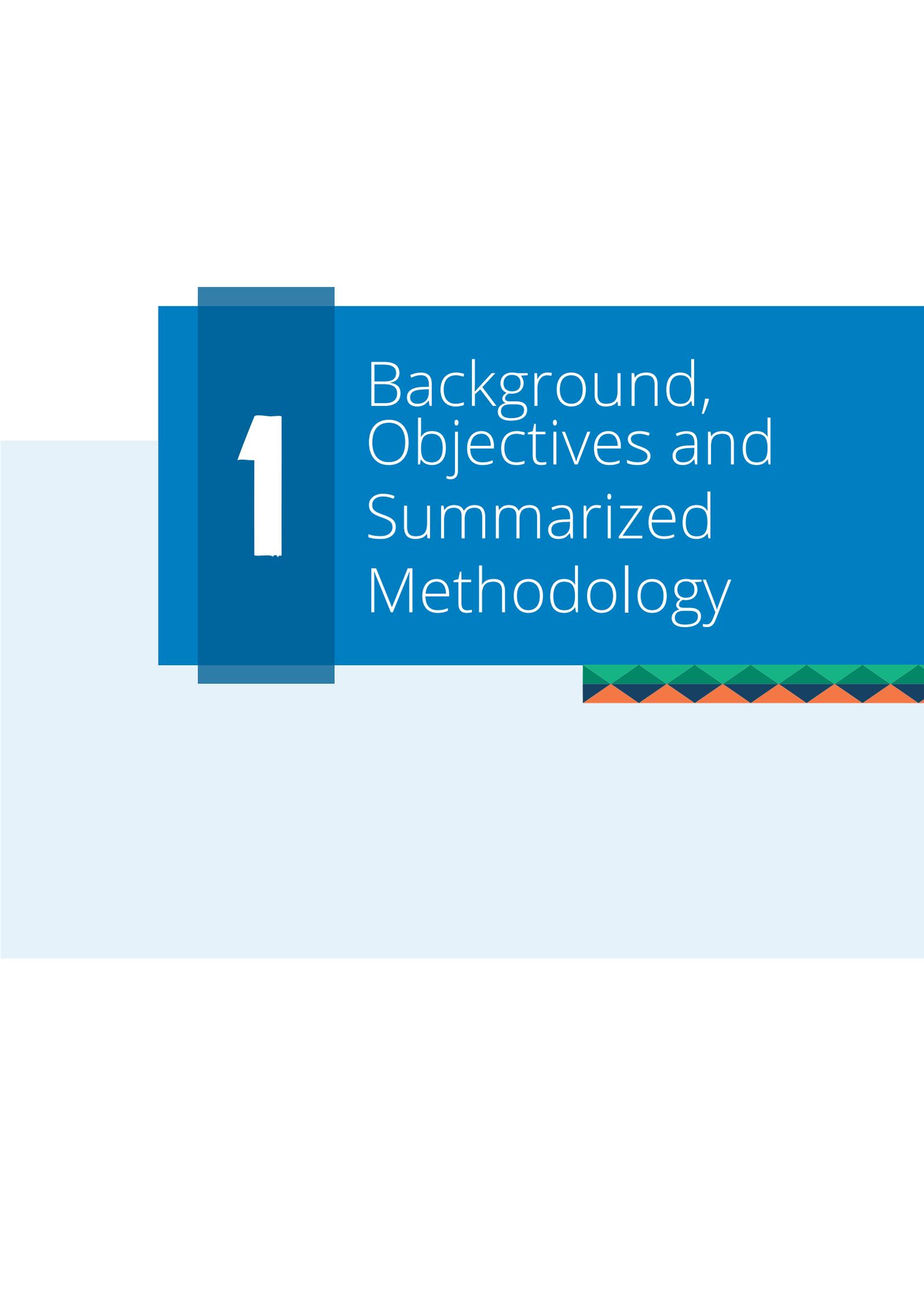
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1

# Background, Objectives and Summarized Methodology

## 1.1 Background

Food security is a fundamental aspect of human and social development. Per the 1999 World Food Summit working definition, food security describes a situation in which “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

However, the complexity of food security as a phenomenon resulting from multiple drivers – including food availability, accessibility, affordability, and the stability of all the aforementioned – poses significant challenges for assessment.

WFP has been at the forefront of efforts in Ghana, Africa, and across the world to define robust methodologies for assessing food security, perform food security surveys, and provide stakeholders with policy-actionable evidence-based analysis.

In 2004, WFP conducted the first ever CFSVA in Ghana. This assessment was limited to five regions (Ashanti, Central, Northern, Upper East, and Upper West).

In 2009, a nationwide region-by-region CFSVA was conducted, led by GSS and MoFA, with support from WFP. The 2009 CFSVA report revealed that about 1.2 million people, representing 5 percent of the total population of Ghana, were classified as ‘food insecure’ using indicators and a classification typically adopted by WFP in their own assessments, as described later in this document. Approximately 38 percent of Ghana’s food insecure population, or 453 000 people, were located in Upper West, Upper East, and Northern regions, making them the most food insecure and vulnerable in the country.

Subsequently in 2012, another CFSVA was conducted to cover all districts in those three northern regions to ascertain the socio-economic and food security situations on a more disaggregated basis.

This 2020 CFSVA report is the most comprehensive food security assessment undertaken in GSS and MoFA with technical and financial support from WFP and FAO. This exercise involved a nationwide survey with district-level analysis covering all 260 districts in the country. Of the four CFSVA surveys

undertaken to date, only the 2009 and 2020 surveys have had national coverage. The 2009 survey interviewed 3,851 respondent households in 321 EAs sampled at the regional level. In contrast, the 2020 CFSVA survey interviewed 65,309 respondent household heads in 4,476 EAs sampled at the district level.

## 1.2 Objectives

The three overarching objectives of the 2020 CFSVA are to:

- i. Identify where, when, and who Ghana’s food insecure are, as the basis for remedial policy action to tackle food insecurity, including (among others) targeting of Food and Nutrition Security (FNS) and social protection programmes, and building disaster preparedness and response capabilities
- ii. Initiate preliminary analysis on the unprecedented dataset generated by the CFSVA to investigate explanations of food insecurity outcomes<sup>1</sup> – nationally and region-by-region – as the basis for adapting preventive policy actions that address root causes, including monitoring and ‘early warning systems,’ enhancement of food and marketing systems, livelihood promotion and infrastructure development
- iii. Evaluate key thematic issues in the contemporary context, including the impact of COVID-19 and other shocks, food insecurity and its impact on women empowerment and child nutrition

These objectives have been fulfilled under the 2020 Ghana CFSVA through a household-level assessment of food security in Ghana’s 260 administrative districts across four spatial dimensions: urban/rural (“residence”), administrative region (16 regions), ecological zone (seven zones) and livelihood zone (13 zones).

The district-level analysis in this report has been designed to fulfil recommendations emerging from the following reference documents: the Ghana Zero Hunger Strategic Review Report (2018), the Food and Nutrition Security Strategy for the Medium-Term Plan by National Development Planning Commission (NDPC), the Cadre Harmonize (CH)/Food and Nutrition Security Working Group in Ghana,

<sup>1</sup> A range of causal factors were appraised including spatial dimensions, wealth, livelihoods, household size and composition, dependence on markets, and vulnerability to shock as set out below.

and national surveys including the Ghana Living Standards Survey (GLSS), the Multiple Indicators Clusters Survey (MICS), and the Demographic and Health Survey (DHS).

### 1.3 Household Food Security Classification

In keeping with the classifications of previous CFSVA reports<sup>2</sup>, this report classified household food security as a combination of two composite indicators (see Annex 1 for further information):

- Food Consumption Score (FCS)
- Wealth Index (WI).

An ad-hoc composite index has been developed by combining the two indicators to create four categories of household classification (see Figure 1 below):

- **“Severely” food insecure** - households with poor food consumption
- **“Moderately” food insecure** - households with borderline food consumption and in the two lowest (poorest) wealth quintiles
- **“Mildly” food insecure** - households with borderline food consumption and in the three highest (wealthiest) quintiles
- **“Food secure”** - households with acceptable food consumption, irrespective

of the WI.

In certain places in this report<sup>3</sup>, for purposes of simplification, households labeled “severely” or “moderately” food insecure in Figure 1 are simply classified as food insecure while households labeled “mildly” food secure<sup>4</sup> or food secure are classified food secure.

### 1.4 Summary of Study Methodology<sup>5</sup>

Sampling drew on the 2009 CFSVA regional food insecurity prevalence data and the GSS 2020 Population and Housing Census. A two-stage sampling design was used to estimate key indicators at the national and urban/rural areas in the 16 administrative regions and 260 districts in the country.

The first stage selection involved selecting 4,476 sample points or EAs from the 260 districts. The second stage selection had a fixed number of 15 households selected in each EA using a random number generator to electronically select 15 households from a household listing frame, which was obtained during fieldwork compiled from each EA.

The field officers interviewed only the pre-selected households. No replacements and no changes of the pre-selected households were allowed during the field data collection stage, in order to prevent bias.

■ **Figure 1: Household Food Security Classification**

		WEALTH INDEX (WI)				
		Poorest	Poor	Wealthy	Wealthier	Wealthiest
FOOD CONSUMPTION SCORE (FCS)	Poor	Severely Food Insecure				
	Borderline	Mildly Food Insecure				
	Acceptable	Food Secure				

<sup>2</sup> The same operational definition of food insecurity and categories for classification as used in 2004 and in 2009 were retained in 2012 for comparability purposes, but it must be immediately noted that, when the 2030 Agenda for Sustainable Development established the Sustainable Development Goals (SDGs) and Targets in 2015, different definitions of “moderate” and “severe” food insecurity as well as a new indicator based on the Food Insecurity Experience Scale (FIES), were adopted by the international community as the standard reference to report progress towards SDG Target 2.1. In the 2019 edition of *The State of Food Security and Nutrition in the world*, FAO, WFP, IFAD, WHO and UNICEF reported that 7.6 percent of the population in Ghana were “severely food insecure” according to the standard SDG definition, as an average over the 2014-16 period, a percentage that rose to 8.4 percent in 2017-19. To correctly interpret those figures against the previous CFSVA assessments in 2004, 2009 and 2012, and against the figures in this report, it must be considered that the “food insecurity” category defined in this document approximates the “severe food insecurity” category defined for SDG monitoring purposes.

<sup>3</sup> Note that these labels do not correspond to the ones used in the context of global SDG monitoring, as for example in the *State of Food Security and Nutrition report (SOFI)*. “Food insecurity” as used in this report should be compared to “severe food insecurity” as used in SOFI.

<sup>4</sup> Food insecurity experienced by mildly food secure households is likely to be temporary because these households are wealthier and may be able to use their resources to access food.

<sup>5</sup> See Annex 2 for additional methodological notes.

Primary data collection was preceded by a five-day training for 883 field enumerators, of which 801 were then deployed in 267 groups of three – a team lead and two team members – to collect data from 4,476 EAs sampled from each of 260 districts in the 16 regions between November 9 to December 6, 2020.

The study was designed to interview 67,140 household heads. However, only 65,309 participated in the study. The study response rate therefore was 97.27 percent.

Several limitations to the study are observed. Delays in the mobilization of funds pushed project implementation from 2018 to the first quarter of 2020. The COVID-19 pandemic lockdown and other restrictions further delayed implementation to the last quarter of 2020.

Anthropometric data (weight-for-height, height-for-age, and weight-for-age) of children 0-59 months, which are key for measuring the nutritional status of children, could not be collected due to COVID-19 precautions. This therefore limits comparability in some dimensions with results of previous surveys. Also, owing to resourcing limitations and COVID-19 restrictions, focus group discussions – a key component of previous CFSVA studies – could not be organized. Thus, qualitative data for in-depth understanding of district-specific food insecurity and vulnerability issues could not be collected to complement the quantitative household interviews.

# 2

## Where are Ghana's Food Insecure?





This Chapter identifies the location of Ghana's food insecure population based on the 2020 CFSVA through analysis of food insecurity across five geographic variables:

- (i) at the national level
- (ii) across the rural-urban divide
- (iii) by ecological zone
- (iv) by livelihood zone
- (v) by region

For each variable, the review comprises:

- **Composition analysis:** the split of Ghana's total food insecure population by geographical area type
- **Prevalence analysis:** the rate of food insecurity in each geographical area

Both of these analytical perspectives have policy salience. The split of total food insecure population by area type can help guide prioritization of resources to target the highest numbers of food insecure households in absolute terms. The food insecurity prevalence rates speak to the efficiencies of delivering policy interventions based on 'hotspots' where large numbers of food insecure households are likely to be located.

## 2.1 National Food Security Status

Per the 2020 CFSVA, food insecurity<sup>6</sup> in Ghana stands at 11.7 percent, implying a food insecure population of 3.6 million people<sup>7</sup>, as depicted in Diagram 1.

Of the 3.6 million implied food insecure people in the country, the survey suggests that 5.2 percent – an implied 1.6 million people – are severely food insecure, and 6.5 percent – an implied 2.0 million people – are moderately food insecure.

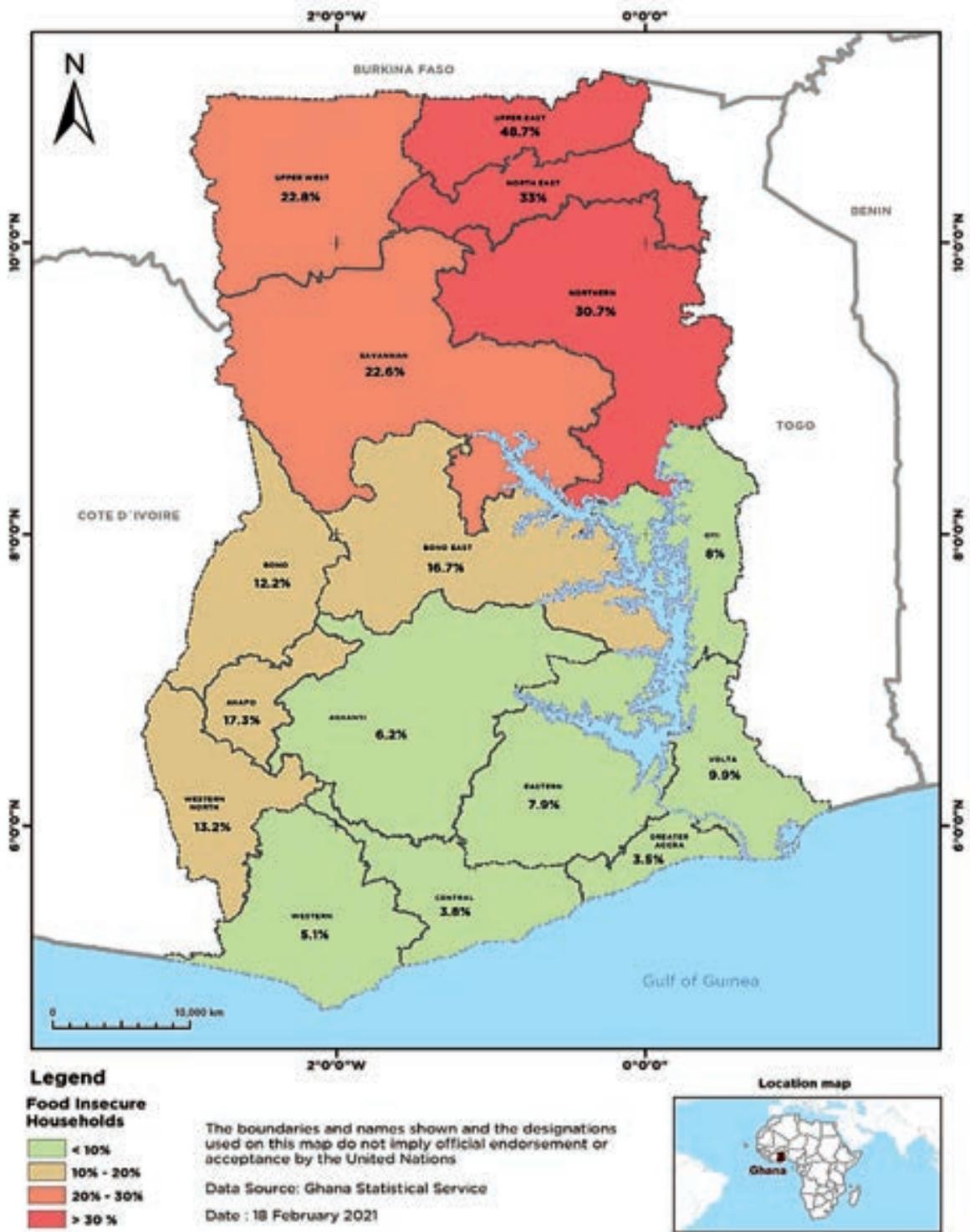
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<sup>6</sup> Recalling, per the definitional methodology set out in Section 1, 'food insecure' households comprise those that are classified as severely or moderately food insecure, while 'food secure' households comprise those that are classified as mildly food insecure or food secure.

<sup>7</sup> The number of food insecure people in absolute terms is calculated here, and throughout this Report, pro rata to Ghana's total population of 30,955,202 per the 2020 Population Estimate sourced from Ghana Statistical Service.

■ **Diagram 1a: National Food Security Status (Regional)**

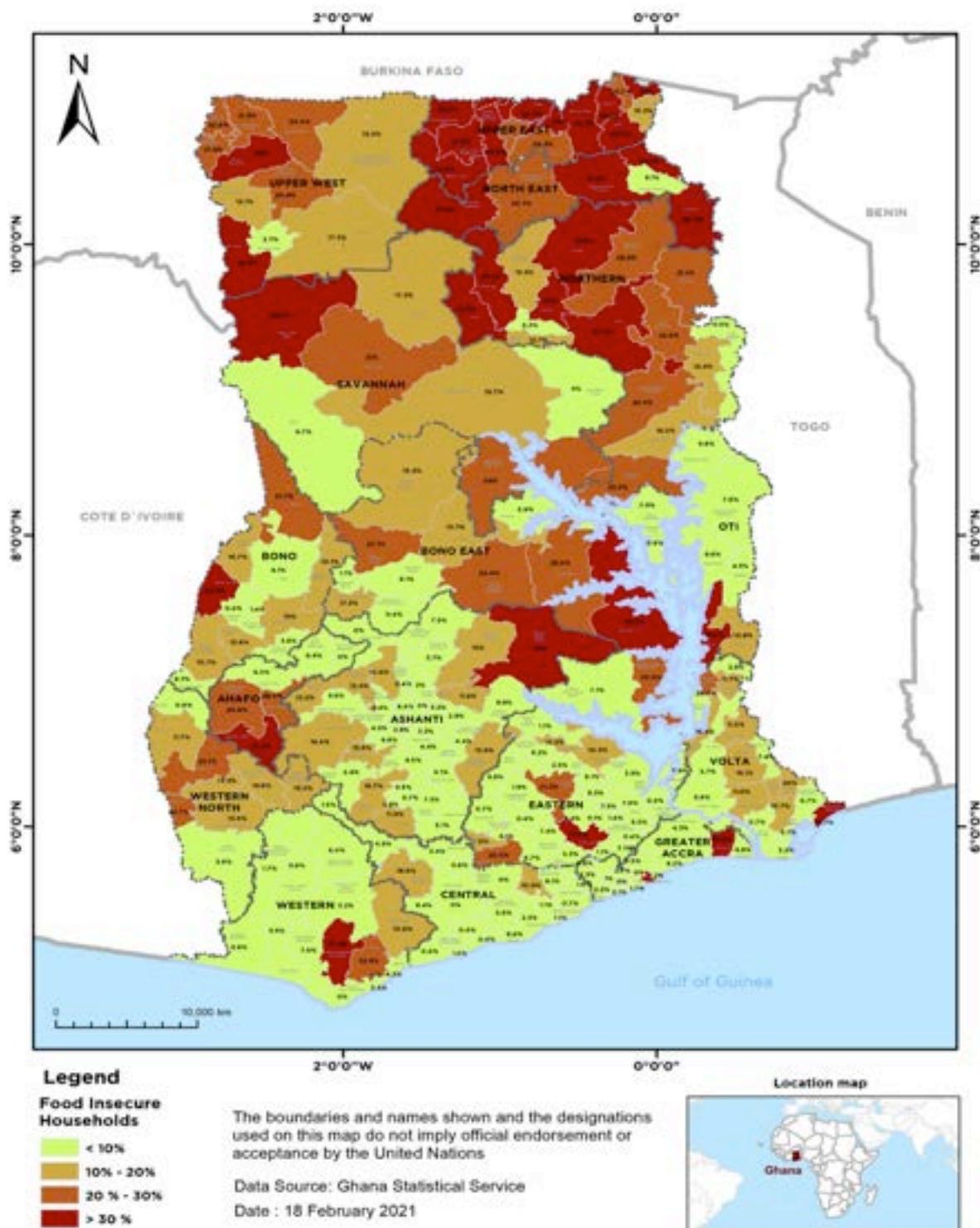
## FOOD INSECURITY SITUATION IN GHANA, BY REGIONS (2020)



Source: CFSVA Survey 2020

■ Diagram 1b: National Food Security Status (District)

## DISTRICT FOOD INSECURE HOUSEHOLDS IN GHANA (2020)



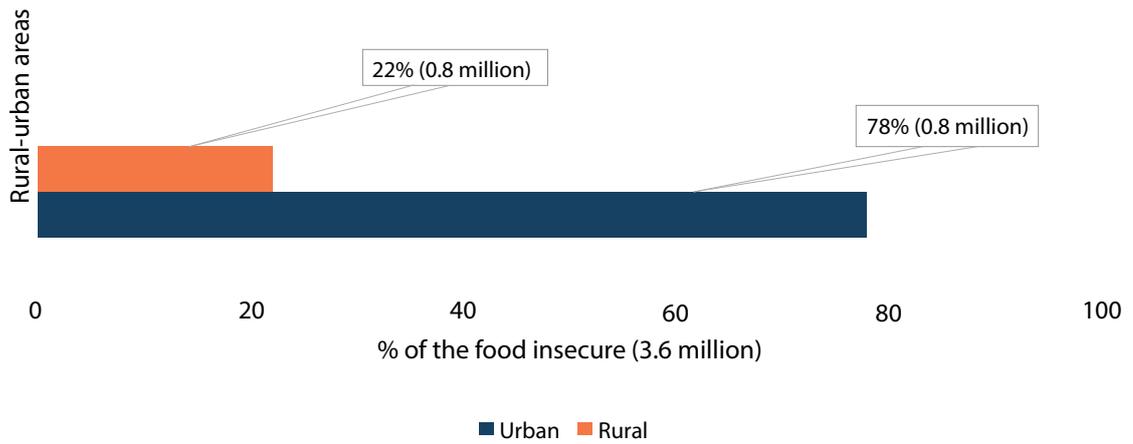
Source: CFSVA Survey 2020

## 2.2 Food Security and the Rural-Urban Divide

### Composition Analysis

Of Ghana's 3.6 million implied food insecure people, 78 percent – an implied 2.8 million people – are located in rural areas, and 22 percent – an implied 0.8 million people – are located in urban areas, as depicted in Diagram 2.

■ **Diagram 2: Food Security Breakdown between Rural and Urban Areas**

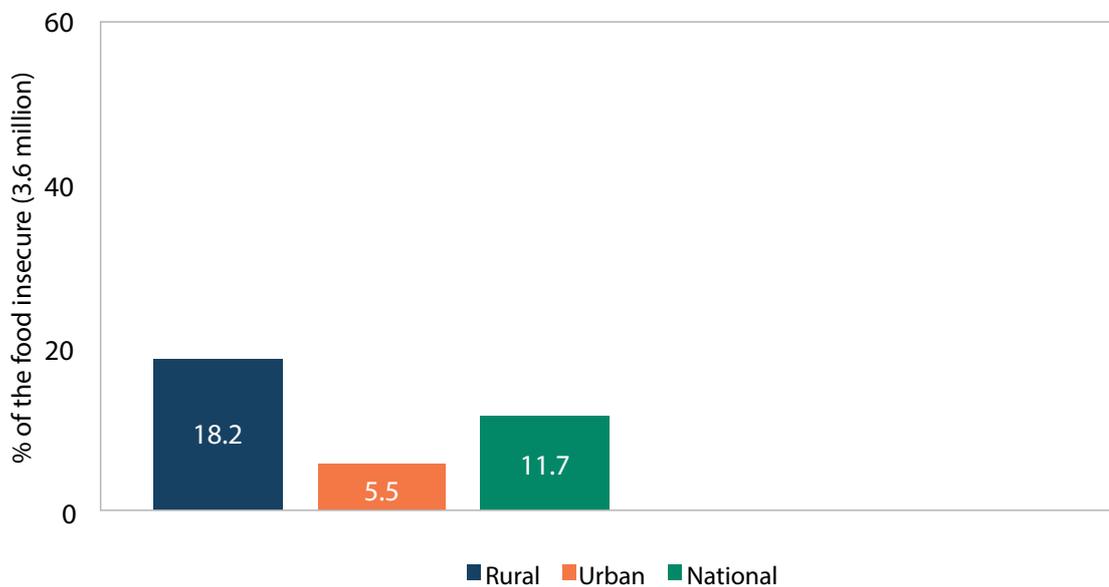


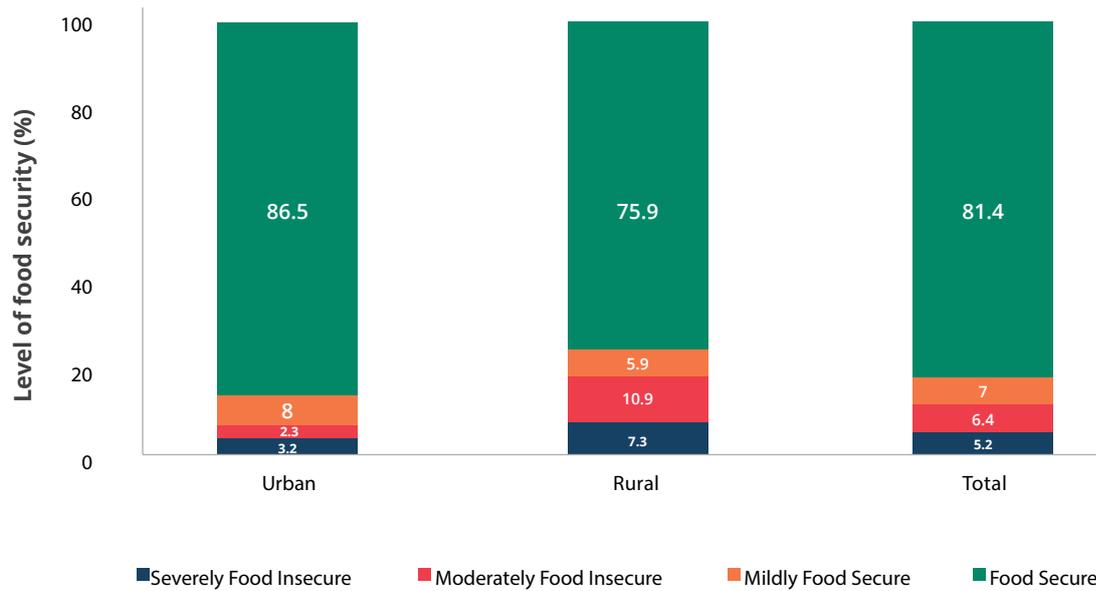
Source: CFSVA Survey 2020

### Prevalence Analysis

The rural areas have higher prevalence of food insecurity than the urban areas, as depicted in Diagram 3. About two in ten (18.2 percent) of Ghana’s rural population are food insecure, of which 7.3 percent are severely food insecure and 10.9 percent are moderately food insecure. About 5.5 percent of Ghana’s urban population are food insecure, of which 3.2 percent are severely food insecure and 2.3 percent are moderately food insecure.

■ **Diagram 3: Rural and Urban Food Insecurity Prevalence**



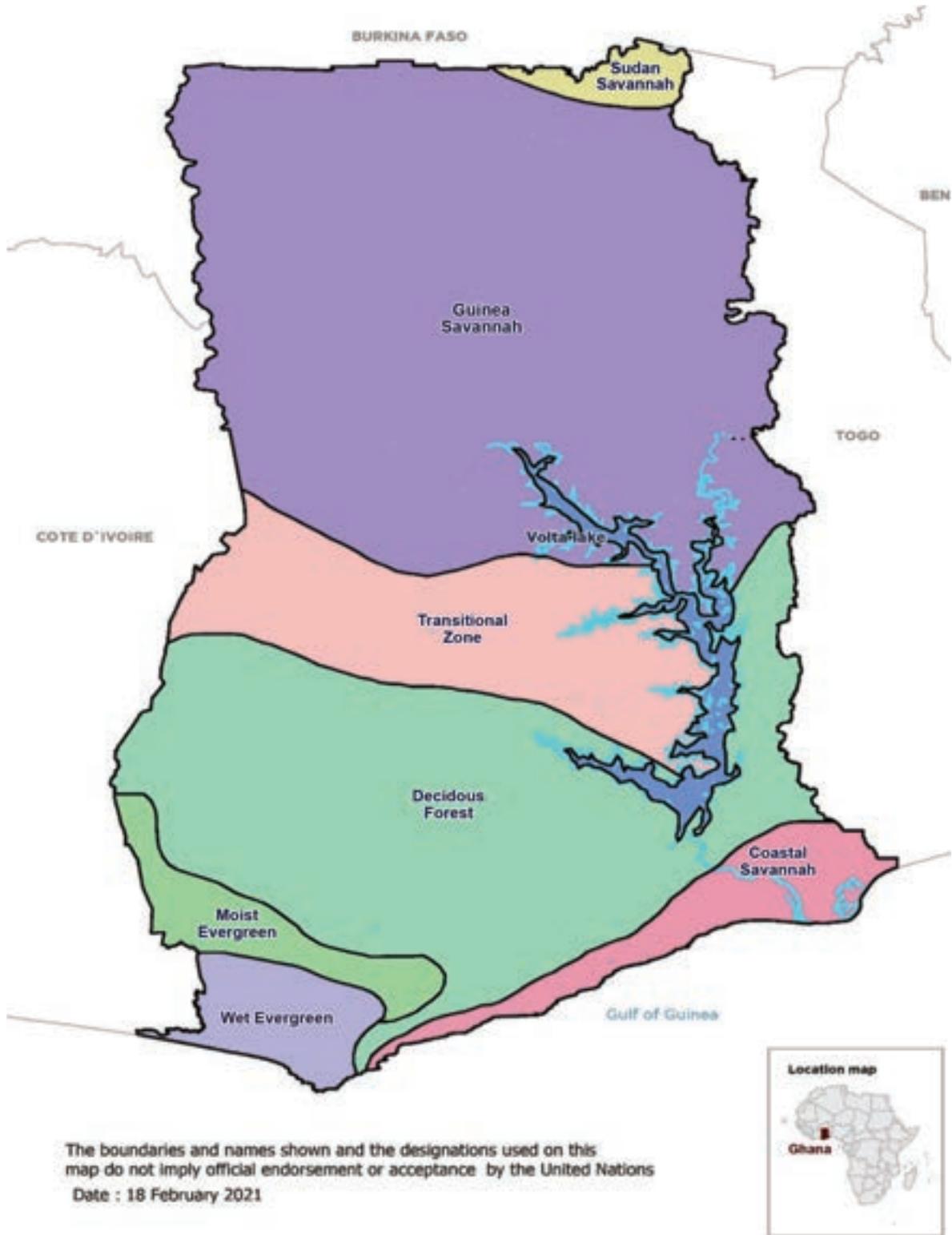


Source: CFSVA Survey 2020

## 2.3 Food Security, by Ecological Zone

Ghana may be divided into eight ecological zones per the Ghana Statistical Service, as depicted in Diagram 4: Sudan Savannah, Guinea Savannah, Transitional Zone, Volta Lake, Deciduous Forest, Coastal Savannah (in the south east), Moist Evergreen, and Wet evergreen (in the south west).

■ **Diagram 4: Ecological Zones**



Source: CFSVA Survey 2020

### **Composition Analysis**

Most of Ghana's food insecure live in the Guinea Savannah and Deciduous Forest zones, with pockets of food insecurity across the other zones

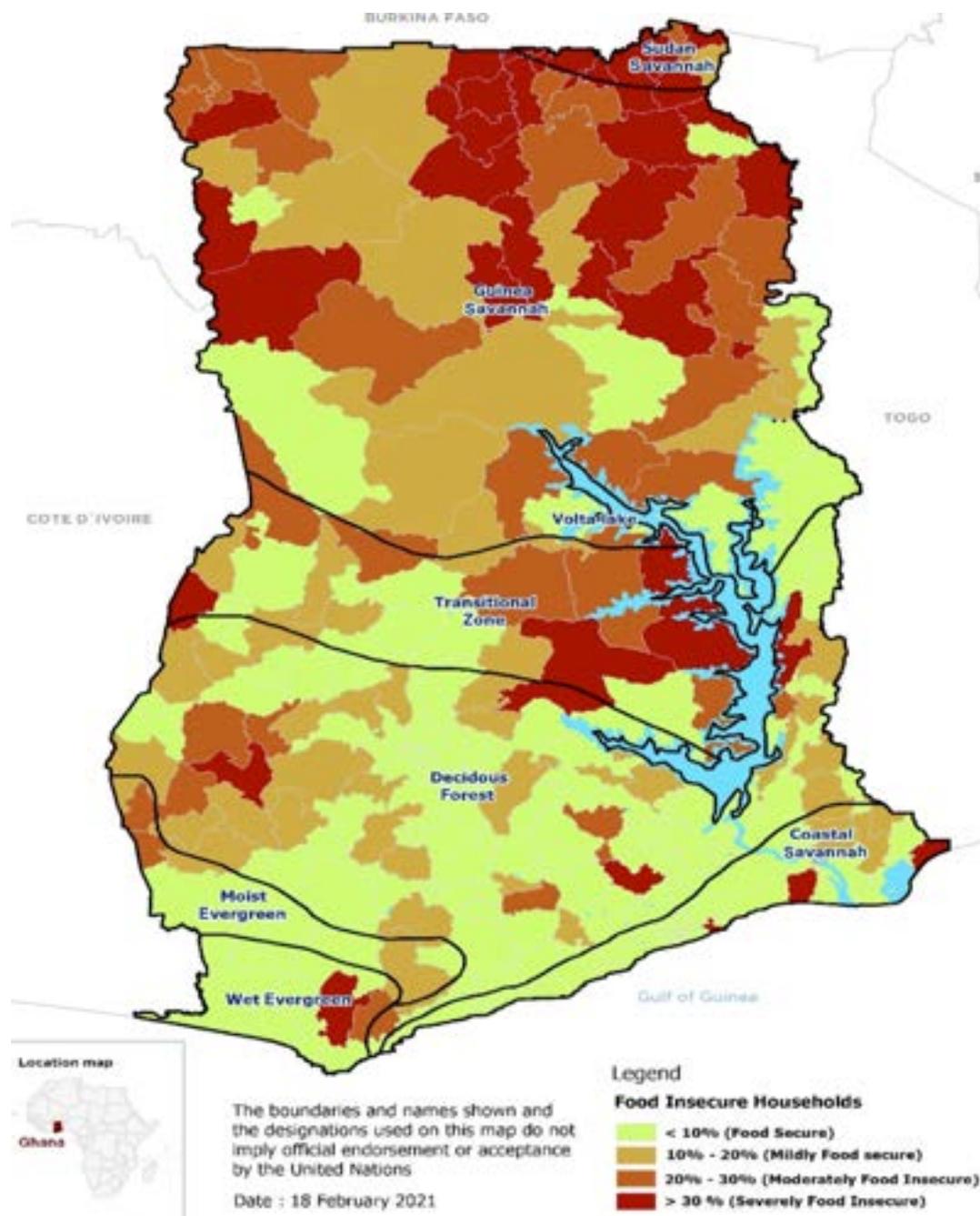
Of Ghana's 3.6 million implied food insecure people in the country:

- 46 percent (an implied 1.6 million people) are located in the Guinea Savannah zone;
- 28 percent (an implied 1.0 million people) in the Deciduous Forest zone;
- 11 percent (an implied 0.4 million people) in the Sudan Savannah zone;
- 7 percent (an implied 0.3 million people) in the Transitional zone;
- 6 percent (an implied 0.2 million people) are located in the Coastal Savannah zone;
- 1 percent (an implied 0.04 million people) are located in the Moist Evergreen zone; and
- significantly less than 1 percent are located in the Wet Evergreen and Volta Lake zones.

## Prevalence Analysis

There is wide divergence in the prevalence of food insecurity by ecological zone, as depicted in Diagram 5 below.

■ **Diagram 5: Ecological Zone Food Insecurity Prevalence**



Source: CFSVA Survey 2020

The ecological zone with the highest food insecurity prevalence is Sudan Savannah (49 percent).

Guinea Savannah has 30 percent of food insecure households, while the Transitional zone records 16 percent.

The other five zones have food insecurity prevalence rates lower than 10 percent, including the Volta Lake zone (9 percent), the Moist Evergreen and Deciduous Forest zones (8 percent each), and the Wet Evergreen and Coastal Savannah zones (5 percent each).

## 2.4 Food Security, by Livelihood Zone

According to Professor Saa Dittoh in consultation with FAO (2010), Ghana may be divided into 13 livelihood zones, reflective of the range of agricultural activities that households can typically undertake, as depicted in Diagram 6.

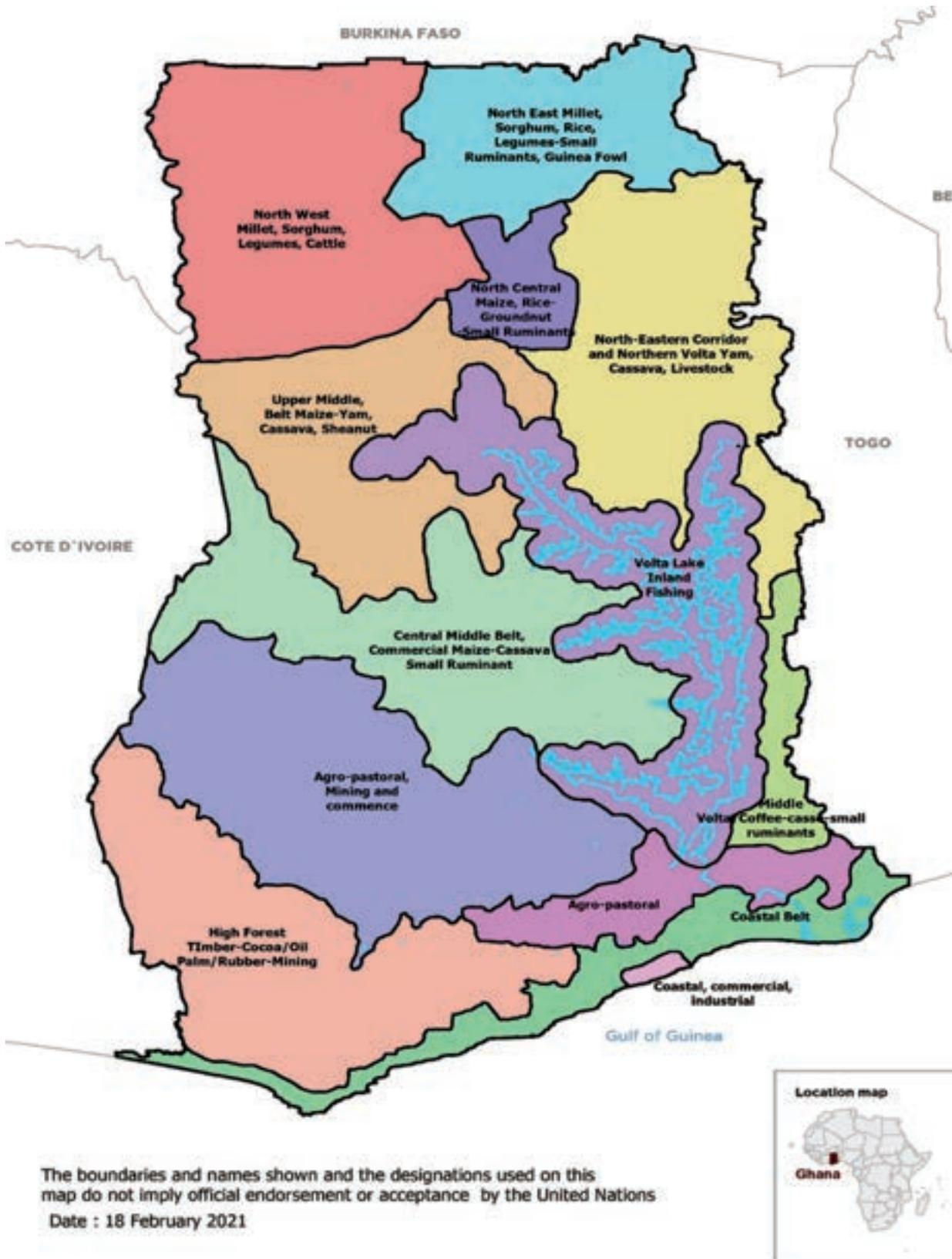
## Composition Analysis

Ghana's food insecure are spread across these different livelihood zones.

Of the implied 3.6 million food insecure in the country:

- 25 percent (an implied 0.9 million people) are located in the North East Millet, Sorghum, Rice, Legumes-Small Ruminants, Guinea Fowl zone;
- 14 percent (an implied 0.5 million people) in the Agro-pastoral, Mining and Commerce zone;
- 12 percent (an implied 0.4 million people) in the North-Eastern Corridor and Northern Volta Yam, Cassava, Livestock zone;
- 10 percent (an implied 0.4 million people) in the North West Millet, Sorghum, Legumes, Cattle zone; and
- the residual 39 percent (1.4 million people) spread across the other nine zones.

■ **Diagram 6: Food Security Breakdown between Livelihood Zones**

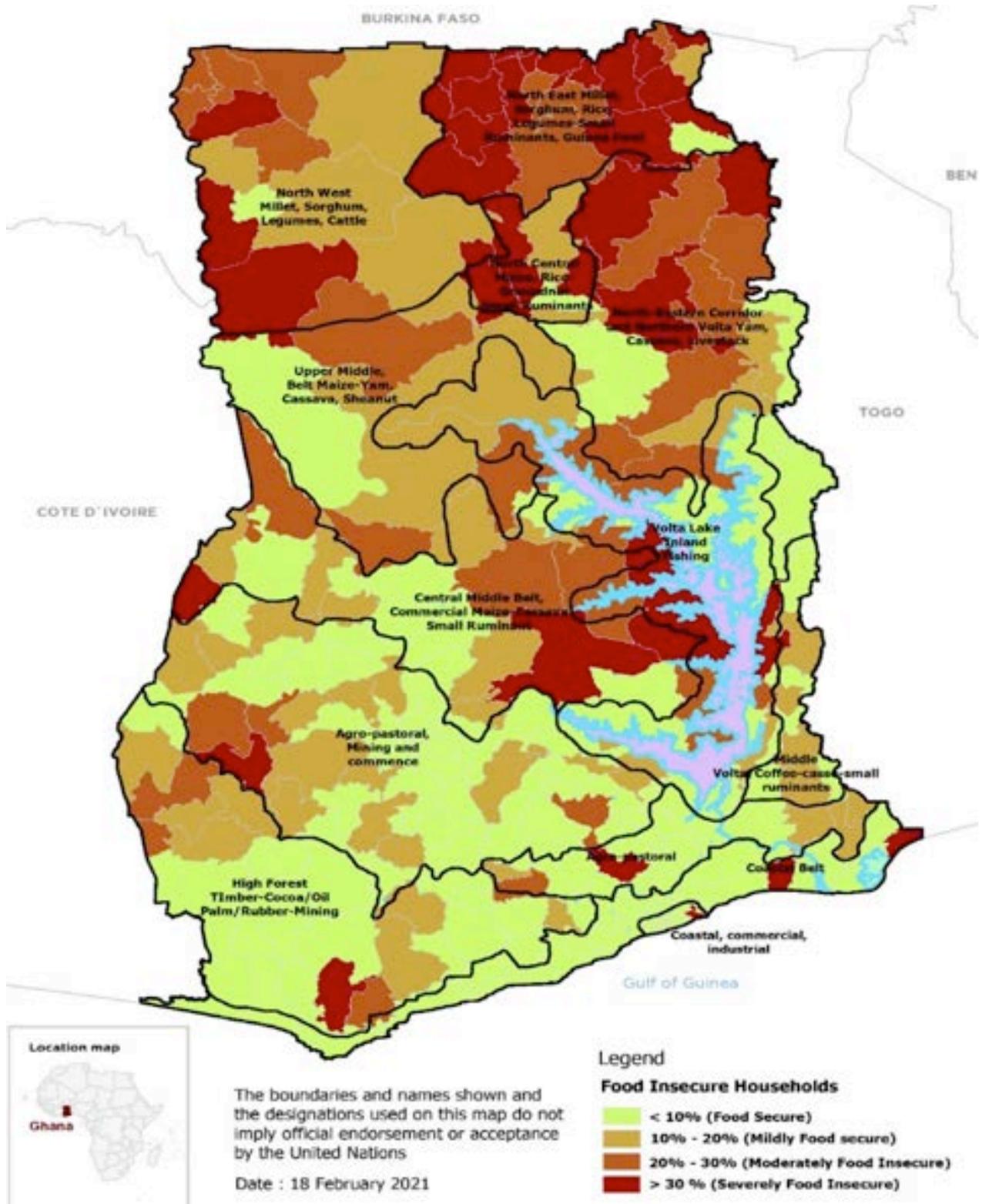


Source: CFSVA Survey 2020

## Prevalence Analysis

There is wide variance also in the prevalence of food insecurity by livelihood zone, as depicted in Diagram 7 below.

■ **Diagram 7: Livelihood Zone Food Insecurity Prevalence**



Source: CFSVA Survey 2020

The livelihood zone with the highest food insecurity prevalence is North East Millet, Sorghum, Rice, Legumes-Small Ruminants, and Guinea Fowl with a rate of 45 percent. Two livelihood zones i.e., North-Eastern Corridor and Northern Volta Yam, Cassava, Livestock; and North Central Maize, Rice-Groundnut-Small Ruminants followed with the rate of 33 percent and 28 percent, respectively. These are followed by the North West Millet, Sorghum, Legumes, Cattle at 25 percent.

Three zones have prevalence rates ranging from 19 percent in Upper Middle Belt Maize-Yam, Cassava, Shea Nut, to 15 percent in Central Middle Belt, Commercial Maize-Cassava Small Ruminant, and 13 percent in Volta Lake Inland Fishing.

The other six zones have food insecurity prevalence rates lower than 10 percent.

## 2.5 Food Security, by Region

### Composition Analysis

Food insecurity is a national challenge, with all regions except one (Oti) having an implied food insecure population in excess of 100,000.

Of the implied 3.6 million percent of food insecure in the country, three regions have the highest food insecure populations:

- 18 percent (an implied 0.6 million people) are located in the Upper East region
- 17 percent (an implied 0.6 million people) in the Northern region

- 13 percent (an implied 0.5 million people) in the Ashanti region.

Two out of Ghana's 16 regions – Eastern and Volta – have implied food insecure populations ranging between 200,000 and 300,000.

Ten regions – Upper West, North East, Greater Accra, Bono East, Western North, Bono, Western, Savannah, Central and Ahafo – have implied food insecure populations ranging between 100,000 and 200,000.

Oti is the sole region with a food insecure population of less than 100,000.

### Prevalence Analysis

Prevalence rates range between 49 percent (Upper East) and 4 percent (Greater Accra), as per Diagram 8.

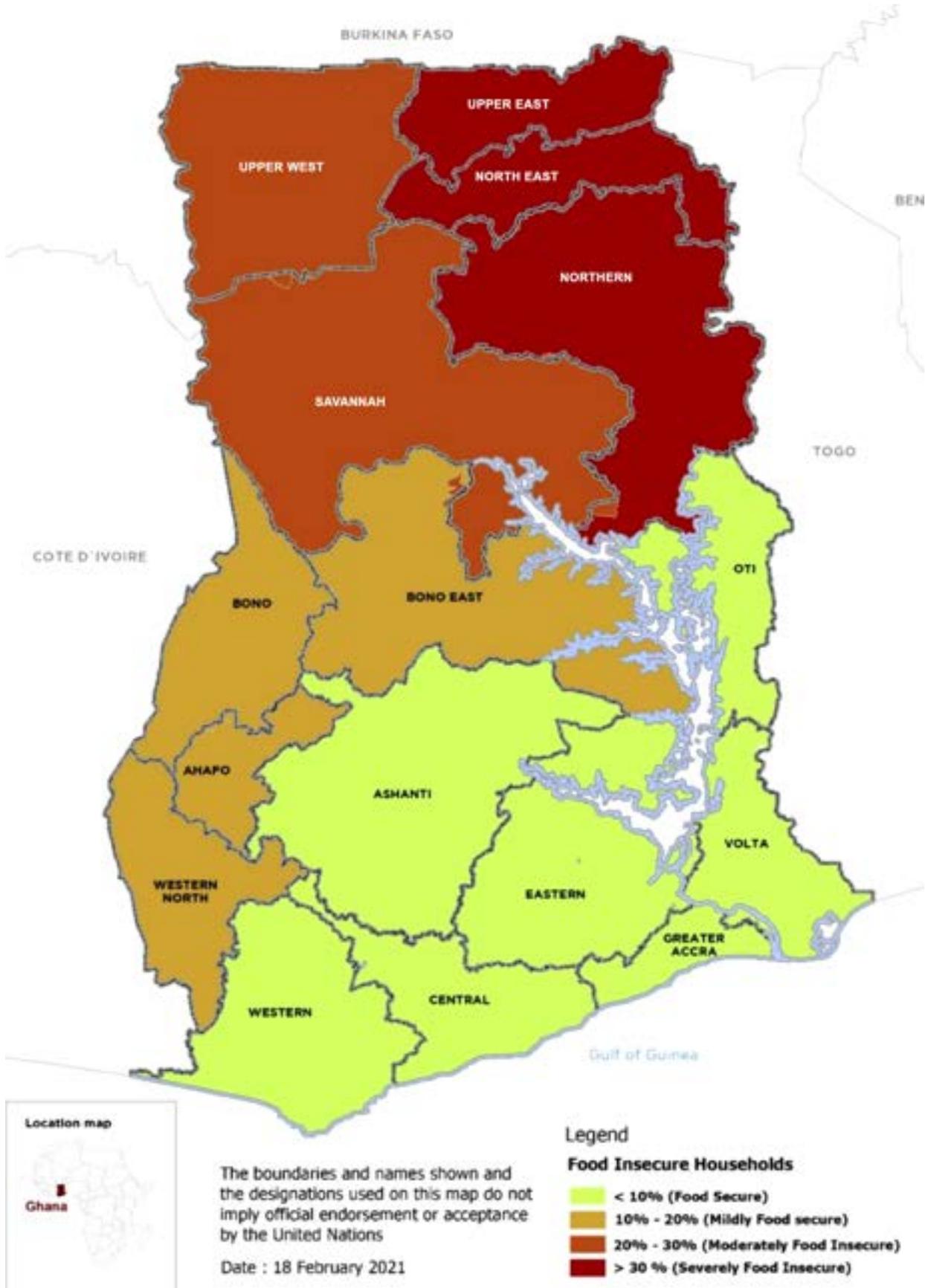
Three regions in the north have the highest food insecurity prevalence – Upper East (49 percent), North-East (33 percent), and Northern (31 percent).

Two other regions – Upper West (23 percent) and Savannah (23 percent) – have prevalence exceeding 20 percent.

Six regions – Ahafo, Bono East, Western North, Bono, Volta and Oti – have prevalence exceeding 10 percent.

The residual four regions – Eastern, Western, Central and Greater Accra – have food insecurity prevalence below 10 percent.

■ **Diagram 8: Food Insecurity Prevalence, by Region**



Source: CFSVA Survey 2020

# 3

## Who are Ghana's Food Insecure?





This Chapter assesses prevalence of food insecurity by nine selected household characteristics drawn from the 2020 CFSVA Survey:

- (i) sex of household head
- (ii) educational level of household head
- (iii) livelihood type of household head
- (iv) household size
- (v) household wealth
- (vi) household migration status
- (vii) household coping strategy
- (viii) share of household expenditure spent on food
- (ix) household access to land

### 3.1 Food Insecurity, by Sex of Household Head

Overall, there is a higher prevalence of food insecurity among male-headed households (14.1 percent) than female-headed households (9.5 percent), as depicted in Diagram 9.

The pattern is repeated in rural and urban settings. In rural areas, the prevalence of food

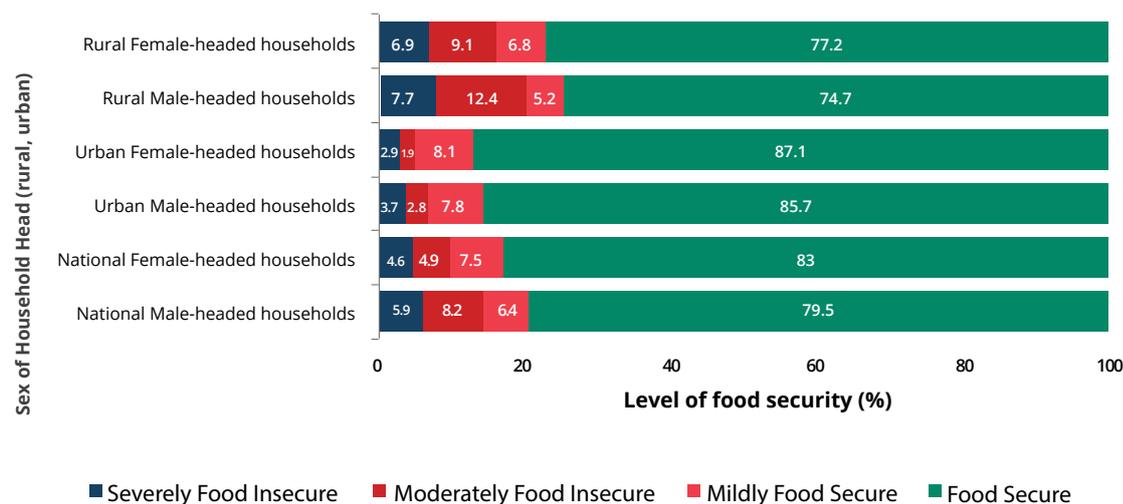
insecurity among male-headed households stands at 20.1 percent, compared with 16.0 percent among female-headed households; in urban areas, prevalence among male-headed households stands at 6.5 percent, compared with 4.8 percent among female-headed households.

### 3.2 Food Insecurity, by Educational Level of Household Head

The findings of the study show a direct relationship between the educational levels of household heads and the prevalence of household food insecurity. Overall, the higher the educational level of the household head, the lower the prevalence of household food insecurity, as depicted in Diagram 10.

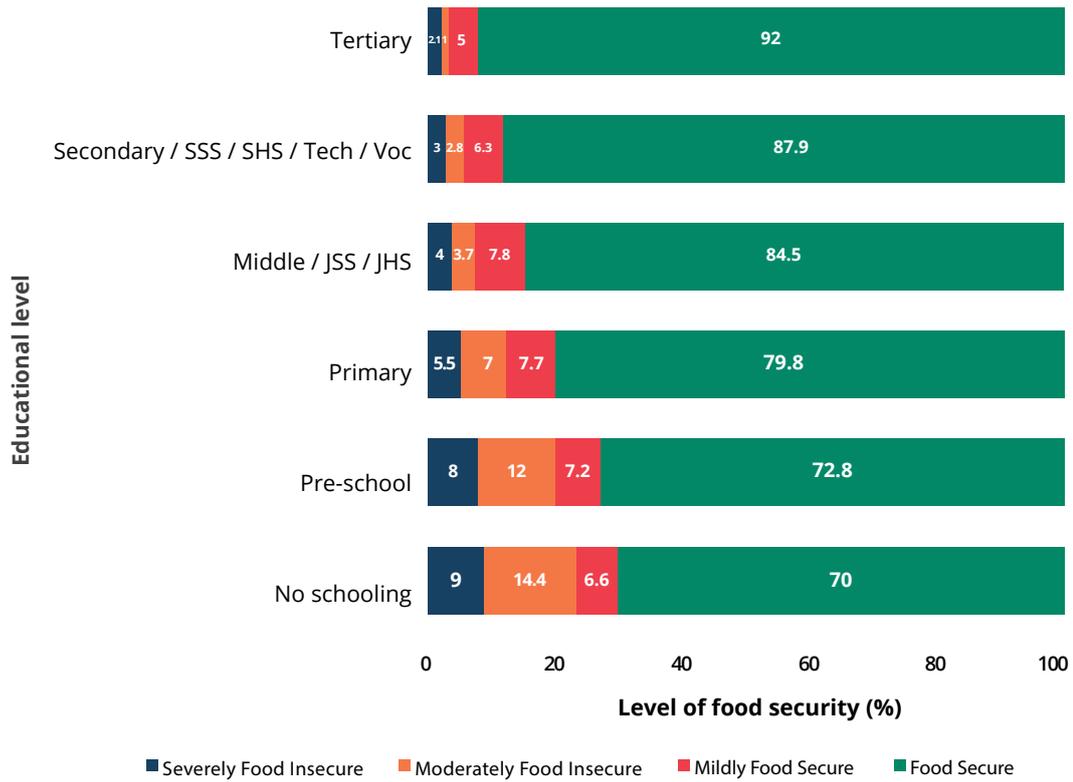
Households headed by tertiary level graduates have the lowest prevalence of food insecurity (3 percent). These are followed by households headed by second cycle graduates (5.8 percent), middle school/JSS/JHS graduates (7.7 percent), primary school graduates (12.5 percent), and pre-school (20 percent). Household headed by persons with no formal education have the highest prevalence of food insecurity (23.4 percent).

■ Diagram 9: Prevalence of Food Insecurity, by Sex of Household Head (Rural, Urban)



Source: 2020 CFSVA

■ **Diagram 10: Prevalence of Food Insecurity, by Educational Level of Household Head**



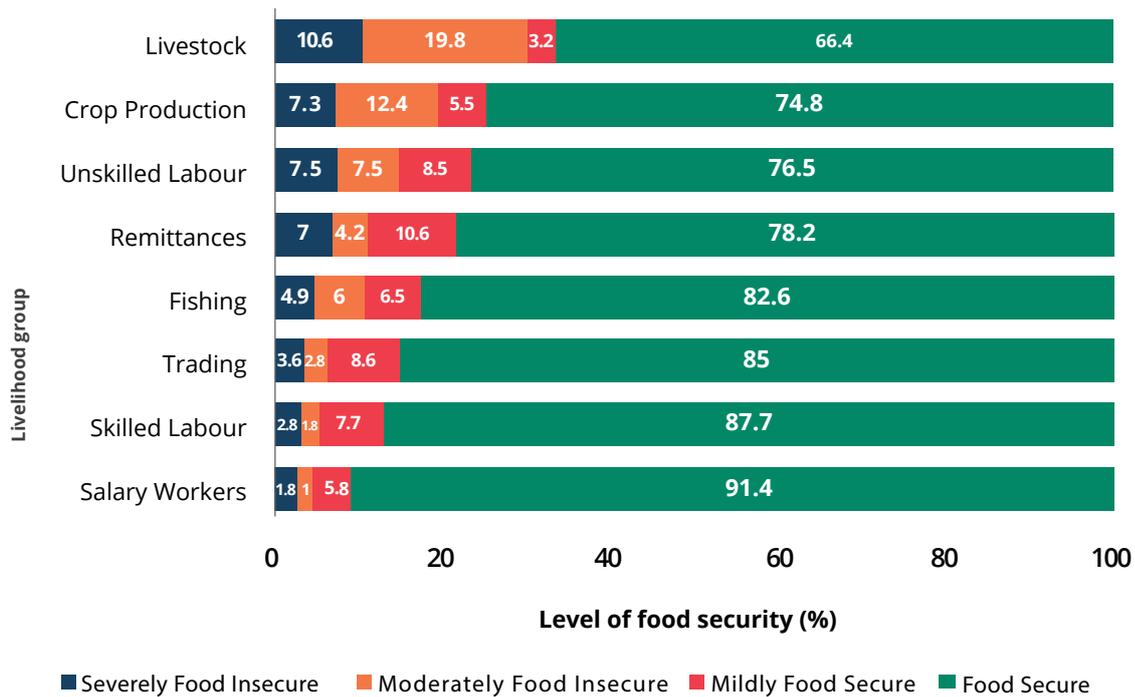
Source: 2020 CFSVA

### 3.3 Food Insecurity, by Livelihood Group of Household Head

The study suggests that food insecurity varies significantly by livelihood groups, as depicted in Diagram 11. However, it is notable that food insecurity is prevalent among households across all livelihood groups, even skilled labour and salaried workers.

Households dependent on livestock rearing have the highest prevalence of food insecurity (30.4 percent). They are followed by households dependent on food crop production (19.7 percent), unskilled manual labourers (15.0 percent), remittances (11.3 percent), fishing (10.9 percent), traders (6.4 percent), skilled manual labourers (4.6 percent), and salaried workers (2.8 percent).

■ **Diagram 11: Prevalence of Food Insecurity, by Livelihood Group**



Source: 2020 CFSVA

### 3.4 Food Insecurity, by Household Size

Overall, the data suggest that the larger the household, the higher the prevalence of food insecurity, as depicted in Diagram 12.

Households with more than seven people have the highest prevalence of food insecurity (15.8 percent). These are followed by households with between five and seven people (12.2 percent). Households with fewer than five people have the lowest prevalence of food insecurity (10.1 percent).

Households with fewer than five people are mostly found in the urban areas (57.6 percent), while households with between five and seven members (35.3 percent) and those with more than seven members (18.2 percent) are mostly found in the rural areas.

■ **Diagram 12: Prevalence of Food Insecurity, by Household Size**

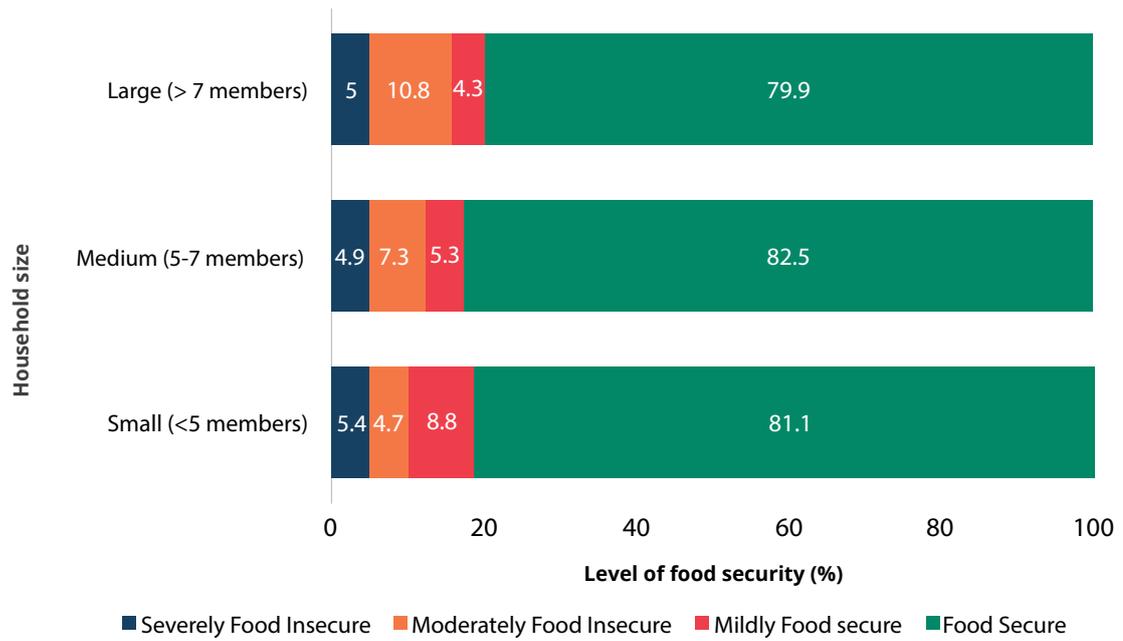
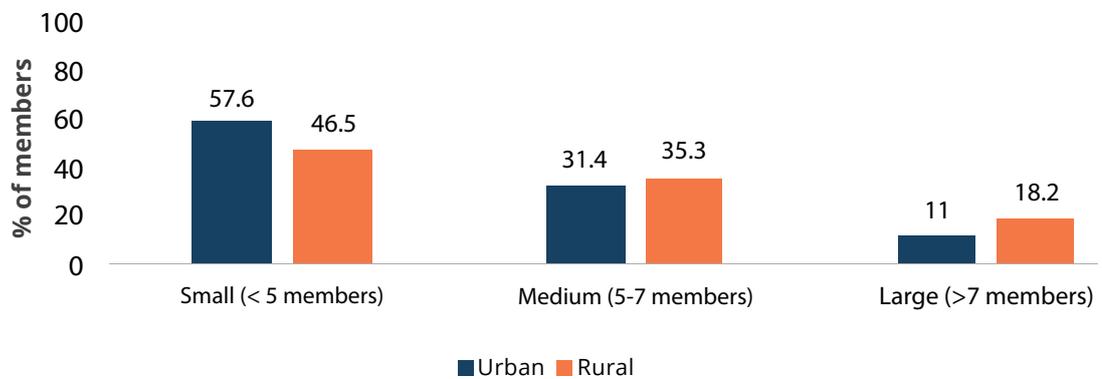


Diagram 13 shows household size by residence (rural/urban). It is worth noting that in rural areas, more household members in general means a higher agricultural labour force, more production, and therefore more availability of food.

■ **Diagram 13: Household Size, by Residence**

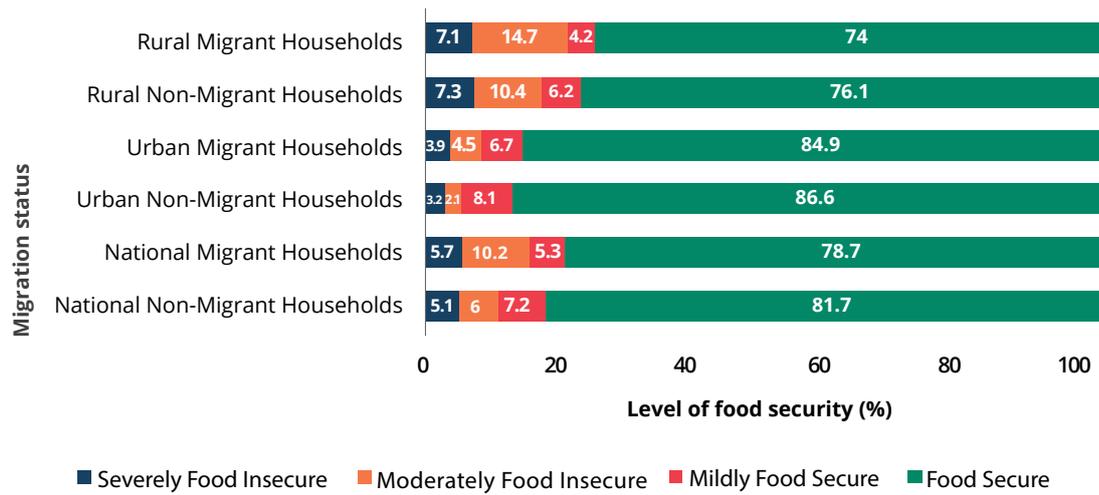


Source: 2020 CFSVA

### 3.5 Food Insecurity, by Household Migration Status

Overall, there is higher prevalence of food insecurity among households from which migration has taken place ('migrant households,' 15.9 percent) than 'non-migrant households' (11.1 percent), as depicted in Diagram 14.

■ **Diagram 14: Prevalence of Food Insecurity, by Household Migration Status**



Source: 2020 CFSVA

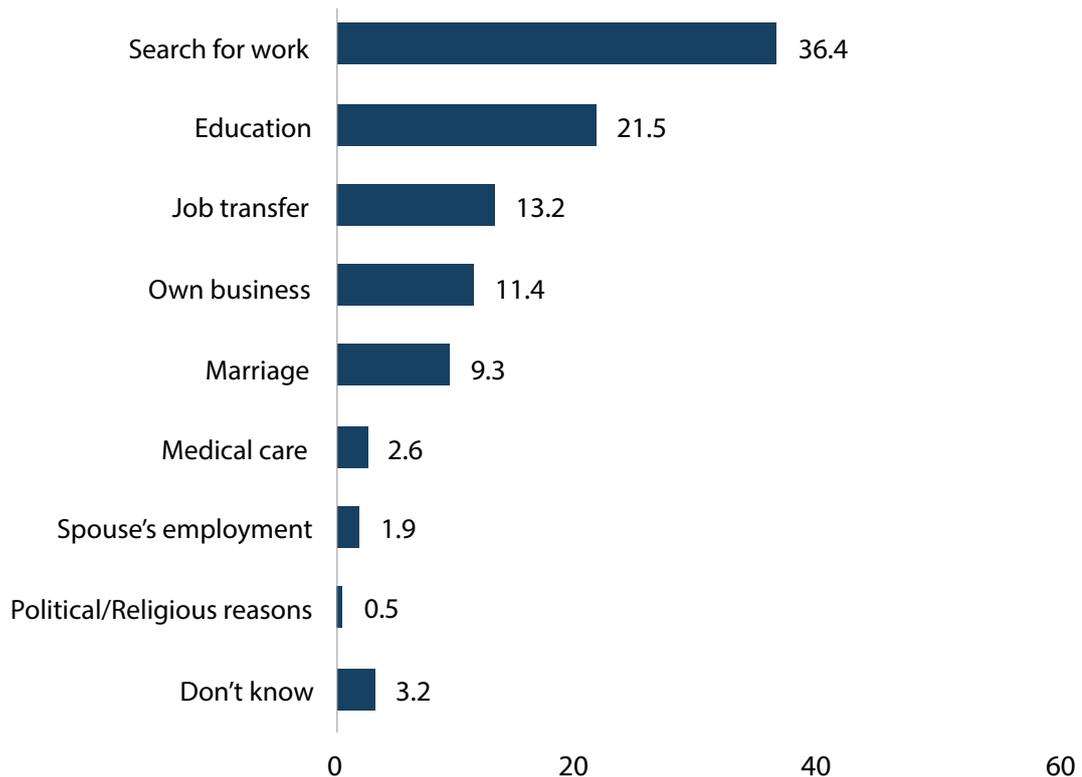
While this pattern also holds for ‘migrant households’ in rural areas (21.8 percent) over their ‘non-migrant’ counterparts (17.7 percent), the pattern is reversed in urban areas where ‘migrant households’ have lower prevalence of food insecurity (5.3 percent) than ‘non-migrant households’ (8.4 percent).

Moreover, even in rural areas, ‘non-migrant households’ have higher prevalence of severe food insecurity (7.3 percent) than their ‘migrant’ counterparts (7.1 percent).

Reasons for migration are set out in Diagram 15. The main reasons are:

- Search for work (36 percent)
- Education (22 percent)
- Job transfer (13 percent)
- Own business (11 percent)
- Marriage (9 percent)

■ **Diagram 15: Reasons for Migration**



Source: 2020 CFSVA

### 3.6 Food Security, by Household Coping Strategy

In the context of food insecurity, coping strategies<sup>8</sup> are mechanisms households adopt to respond to lack/inadequacy of food, or money to buy food, or depletion of livelihood assets. There are three types of livelihood coping strategies:

- **Stress coping strategies** are the mildest form of coping strategies, and may even be used by food secure households, with activities including borrowing money, spending savings, etc. The result of these activities is to reduce resilience to future shocks.
- **Crisis coping strategies** are a more severe form of coping strategies, involving activities such as selling productive assets, reducing expenditure on health and education, and withdrawal of children from school. The result of these activities is to directly reduce future productivity and income.
- **Emergency coping strategies** are the most extreme form of coping strategies, involving activities such as selling one's land, begging, and engagement in illegal income activities such as prostitution and theft. These activities undermine future productivity and income more extensively, and are the more difficult to reverse.

The study suggests that prevalence of food insecurity is in line with the severity of the household coping strategy adopted, as depicted in Diagram 16.

The households that do not have the need to adopt a coping strategy have the lowest prevalence of food insecurity (10.5 percent). These are followed by households that adopt stress coping strategies (12.3 percent) and then those that adopt crisis coping strategies (14.1 percent). The households that adopt emergency coping strategy – the most severe strategy – exhibit highest prevalence of food insecurity (22.0 percent).

<sup>8</sup>Source: Consolidated Approach to Reporting Indicators of Food Security (CARI) Guidelines, WFP, 2015, pages 27 - 47

■ **Diagram 16: Prevalence of Food Insecurity, by Household Coping Strategy**



Source: 2020 CFSVA

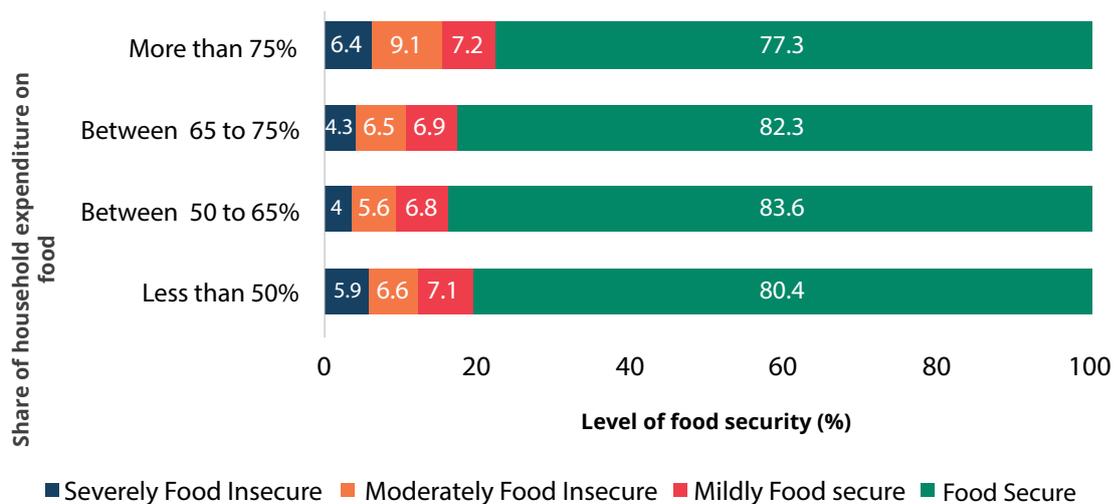
### 3.7 Food Insecurity, by Share of Household Expenditure on Food

Overall, the higher the share of household expenditure spent on food, the higher the prevalence of household food insecurity, as depicted in Diagram 17.

Households spending more than 75 percent of expenditure on food have the highest prevalence of food insecurity (15.5 percent). They are followed by those spending 65-75 percent of expenditure on food (10.8 percent), and then those spending 50- 65 percent (9.6 percent).

However, the relationship is not fully linear<sup>9</sup> – households in which less than half of expenditure goes to food exhibit higher prevalence of food insecurity than households in both the 50-65 percent and 65-75 percent brackets.

■ **Diagram 17: Prevalence of Food Insecurity, by Share of Household Expenditure on Food**



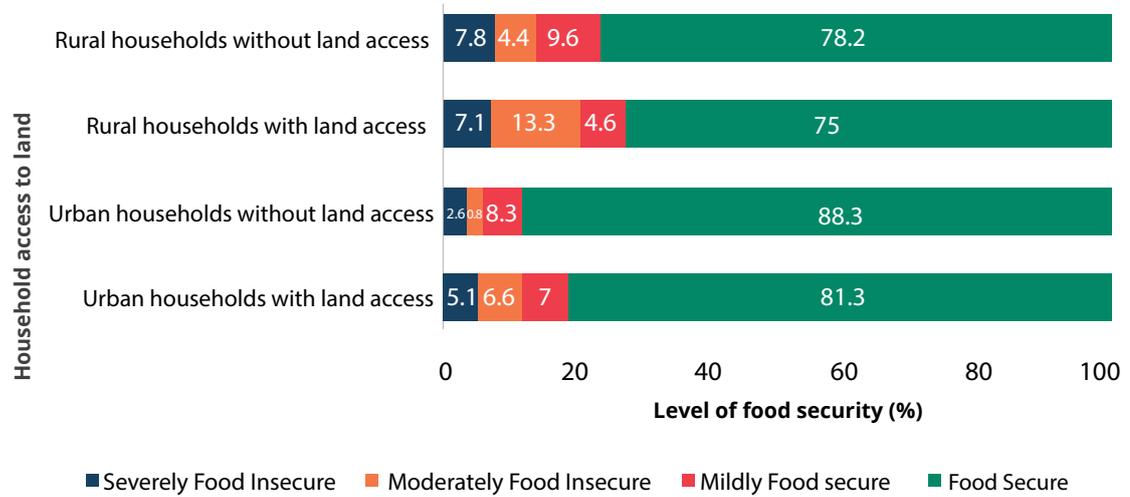
Source: 2020 CFSVA

<sup>9</sup> This may be in some part due to the ranges used. Less than 50 percent and above 75 percent may have more respondents.

### 3.8 Food Security, by Household Access to Land

The study shows that households with access to land have significantly higher prevalence of food insecurity than those without access to land, as depicted in Diagram 18.

■ **Diagram 18: Prevalence of Food insecurity, by Household Access to Land**



Source: 2020 CFSVA

The pattern is repeated in the rural and urban settings. In rural areas, the prevalence of food insecurity among households without access to land stands at 12.2 percent, compared with 20.4 percent among households with land access. In urban areas, prevalence among households without access to land stands at 3.4 percent, compared with 11.7 percent among households with land access.

# 4

## When Does Ghana's Food Insecurity Occur? – Shocks and Impact of COVID-19





Not all forms of food insecurity are permanent in nature. Food insecurity may be caused or exacerbated by ‘shocks,’ which can reduce the availability, diversity, quality, or affordability of food to households.

Shocks that are typical in Ghana include drought and other climatic conditions; food price levels and other economic phenomena; fire and other perils; loss of life, health, employment and other social occurrences. COVID-19 has been an atypical shock, but one which has been particularly impactful on household food security.

This Chapter presents results on the shocks and risks experienced by households in the 12 months prior to the study, with specific analysis on the impact of COVID-19.

## 4.1 Households Experiencing Shocks

Nine out of 10 households (90 percent) experienced at least one form of shock during the period under review.

■ **Table 1: Proportion of Households which Experienced at Least One Shock**

Response	Sampled Households	%
Do not experienced shock	6,721	10.3
Experienced shocks	58,588	89.7
<b>Total</b>	<b>65,309</b>	<b>100</b>

Source: 2020 CFSVA

## 4.2 Shocks Experienced

All households indicated having experienced at least one of the 15 kinds of shock. The top five shocks experienced by respondent households include COVID-19 (63.8 percent), high food prices (34.1 percent), late rain/drought/no water (21.6 percent), inadequate money to buy food or cover other basic needs (14.3 percent), and reduced income of a household member (13.4 percent).

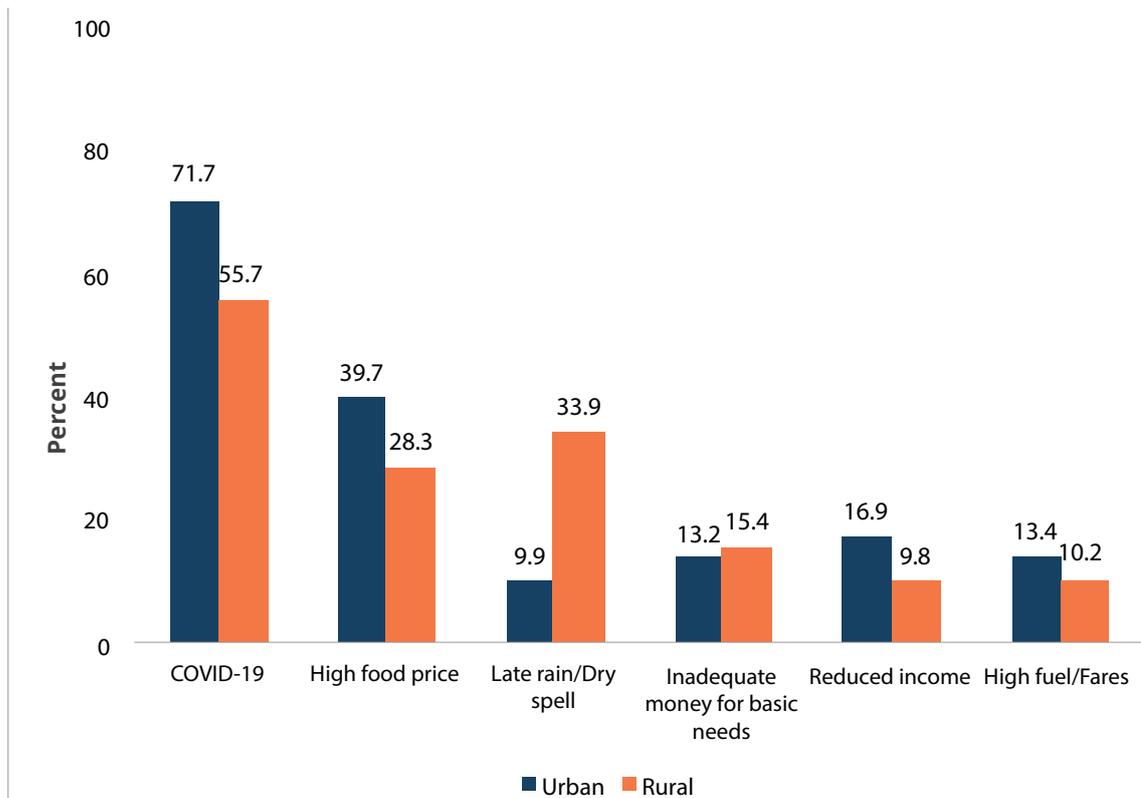
Table 2 provides details of all 15 shocks experienced by households and ranks them by importance.

Table 2: Types of Shock Experienced, by Respondent

Shock Type	Did not Experience Shocks (%)	Experienced Shocks (%)	Total Number of Households	Ranking by Experience of Shocks
1. COVID-19	36.2	63.8	58,588	1
2. High food prices	65.9	34.1	58,588	2
3. Late rain/drought/no water	78.4	21.6	58,588	3
4. Not enough money to buy food or cover other basic needs	85.7	14.3	58,588	4
5. Reduced income of a household member	86.6	13.4	58,588	5
6. High fuel/transportation prices	88.1	11.9	58,588	6
7. Sudden price fluctuations	88.5	11.5	58,588	7
8. Crop pests/diseases	90.0	10.0	58,588	8
9. Early or heavy rains/floods	93.0	7.0	58,588	9
10. Animal disease/death	95.8	4.2	58,588	10
11. Loss of employment of a household member	96.0	4.0	58,588	11
12. Debt to reimburse	97.2	2.8	58,588	12
13. Delayed pay/salary	97.3	2.7	58,588	13
14. Fire (brush)	98.5	1.5	58,588	14
15. Landslides, (sea) erosion / tidal wave	99.5	0.5	58,588	15

Diagram 19 assesses the relative levels of shock prevalence between rural and urban areas.

Diagram 19: Shocks, by Residence



Source: 2020 CFSVA

Diagram 19 shows that urban households had higher prevalence of each of the featured categories of shocks than their rural counterparts, except for shocks associated with late rain/dry spell and insufficient money for basic needs.

Table 3 takes a deeper look at COVID-19 shocks according to region. The data reveal disparate prevalence of COVID-19 shocks, ranging from a high of 76 percent (Western) to a low of 41 percent (Upper West). It is noted that urban households – which tend to have lower prevalence of food insecurity – were more extensively affected by COVID-19 shocks than rural households.

■ **Table 3: COVID-19 Shock Rankings, by Region**

COVID-19 Shock				
Region	Did not Experience COVID-19 Shock (%)	Experienced COVID-19 Shock (%)	Total Number of Households	COVID-19 Shock Ranking
Western	23.9	76.1	4,349	1
Greater Accra	26.2	73.8	9,174	2
Ashanti	29.5	70.5	11,132	3
Central	34.1	65.9	5,206	4
Eastern	35.6	64.4	6,076	5
Volta	36.3	63.7	3,796	6
Bono	40.6	59.4	2,228	7
Savannah	42.6	57.4	1,171	8
North East	42.7	57.3	1,028	9
Western North	43.7	56.3	1,845	10
Bono East	45.9	54.1	2,331	11
Ahafo	47.4	52.6	1,067	12
Upper East	50.3	49.7	2,528	13
Northern	50.9	49.1	3,642	14
Oti	59.3	40.7	1,494	15
Upper West	59.4	40.6	1,523	16
<b>Residence</b>				
Urban	28.3	71.7	29,907	1
Rural	44.3	55.7	28,681	2
<b>National</b>	<b>36.15</b>	<b>63.85</b>	<b>58,588</b>	

Source: 2020 CFSVA

Western region had the highest proportion of households experiencing COVID-19 shocks (76.1 percent), followed by Greater Accra (73.8 percent) and Ashanti (70.5 percent). Oti (40.7 percent) and Upper West (40.6 percent) had the lowest number of households that experienced COVID-19 shocks.

### 4.3 COVID-19 Shock Rankings, by Ecological and Livelihood Zones

Table 4 presents details of COVID-19 shock prevalence by ecological and livelihood zones.

Table 4: Covid-19 Shock Prevalence, by Ecological and Livelihood Zones

COVID-19 Shock Prevalence				
	Did not Experience COVID-19 Shock (%)	Experienced COVID-19 Shock (%)	Total Number of Households	COVID-19 Shock Rankings
<b>Ecological Zone</b>				
Wet Evergreen	19.8	80.2	1,811	1
Coastal Savannah	27.2	72.8	14,056	2
Moist Evergreen	29.3	70.7	1,539	3
Deciduous Forest	35.2	64.8	25,996	4
Transitional Zone	37.8	62.2	3,526	5
Sudan Savannah	43.5	56.5	1,415	6
Guinea Savannah	53.1	46.9	9,957	7
Volta Lake	56.5	43.5	287	8
<b>Livelihood Zones</b>				
Coastal Belt/Savannah	25.2	74.8	9,994	1
Coastal (Commercial, Industrial)	27.5	72.5	5,005	2
Agro-Pastoral, Mining and Commerce	32.8	67.2	14,859	3
Middle Volta/Coffee-Cassava-Small Ruminants	33.9	66.1	1,322	4
Central Middle Belt (Commercial Maize-Cassava Small Ruminant)	36.1	63.9	3,836	5
High Forest Timber-Cocoa/Oil Palm/Rubber-Mining	36.2	63.8	6,484	6
Agro Pastoral	37.3	62.7	3,904	7
North Central Maize, Rice-Groundnut-Small Ruminants	45.2	54.8	1,232	8
North-Eastern Corridor and Northern Volta Yam, Cassava, Livestock	47.7	52.3	2,832	9
North East Millet, Sorghum, Rice, Legumes-Small Ruminants, Guinea Fowl	48.6	51.4	3,357	10
North West Millet, Sorghum, Legumes, Cattle	54.3	45.7	1,828	11
Upper Middle, Belt Maize-Yam, Cassava, Sheanut	54.4	45.6	826	12
Volta Lake Inland Fishing	57.8	42.2	3,109	13
<b>National</b>	<b>56.6</b>	<b>63.8</b>	<b>58,588</b>	

Source: 2020 CFSVA

By ecological zone, large majorities of households in the Wet Evergreen Forest (80.2 percent) and Coastal Savannah (72.8 percent) experienced COVID-19 shocks. Fewer households in the Guinea Savannah zone and the Volta Lake basin were affected as compared to the Wet Evergreen and Coastal Savannah zones.

By livelihood zones, the Coastal Savannah (74.8 percent) and Coastal Commercial/Industrial (72.5 percent) zone households were the most affected, while households in the Upper Middle Belt maize-yam, cassava, shea nut (45.6 percent) and Volta Lake Inland Fishing (42.2 percent) zones were the least affected.

## 4.4 COVID-19 Shock, by Livelihood, Food Security and Wealth Quintile

This section presents prevalence of COVID-19 shock by livelihood, food security and wealth quintile, as depicted in Table 5.

■ **Table 5: COVID-19 Impact on Livelihoods of Households**

COVID-19 Shock				
	Did not experience COVID-19 Shock (%)	Experienced COVID-19 Shock (%)	Total Number of Households	COVID-19 Shock Ranking
<b>Livelihood Group</b>				
Salary Workers	26.3	73.7	8,371	1
Skilled Labor	26.8	73.2	7,670	2
Trading	29.3	70.7	10,954	3
Remittances	34.8	65.2	3,920	4
Fishing	37.2	62.8	691	5
Unskilled Labor	37.2	62.8	2,255	6
Others	39.0	61.0	728	7
Livestock	43.7	56.3	1,488	8
Crop Production	47.3	52.7	20,286	9
<b>Food Security</b>				
Food Secure	34.3	65.7	47,659	1
Mildly Food Secure	35.7	64.3	4,075	2
Severely Food Insecure	48.7	51.3	3,001	3
Moderately Food Insecure	49.5	50.5	3,853	4
<b>Wealth Quintiles</b>				
Wealthiest	23.7	76.3	13,742	1
Wealthier	29.9	70.1	12,145	2
Wealthy	38.2	61.8	11,238	3
Poorer	45.6	54.4	10,604	4
Poorest	47.6	52.4	10,859	5
<b>National</b>	<b>56.6</b>	<b>63.8</b>	<b>58,588</b>	

Source: 2020 CFSVA

Households with salaried workers (73.7 percent) and skilled labour (73.2 percent) as their main income source were the most affected, while those dependent on livestock and crop production were least affected (56.3 percent and 52.7 percent, respectively).

By food security status, food secure households (65.7 percent) were more affected by COVID-19 restrictions than households that are mildly food secure (64.3 percent), severely food insecure (51.3 percent) and moderately food insecure (50.5 percent).

By wealth quintiles, more households in the wealthiest quintile (76.3 percent) were affected than the wealthier (70.1 percent), wealthy (61.8 percent), poorer (54.4 percent), and the poorest (52.4 percent).

These outcomes may be because the urban areas – where households tend to be more food secure and wealthy – were hardest hit by COVID-19.

## 4.5 COVID-19 and Households' Ability to Engage in Income-Generating Activities, by Residence

The sustainability of household livelihoods is dependent on their ability to engage in income generation activities. With COVID-19 restrictions put in place to control the spread of the virus, the study sought to find out how these restrictions affected household income generation, disaggregated between urban and rural areas. Table 6 shares the findings.

■ **Table 6: COVID-19 and Households' Ability to Engage in Income-Generating Activities, by Residence**

Able to Engage in Income-Generating Activities Under COVID-19 Restrictions?			
Locality	Engaged in Income-Generating Activities (%)	Not Engaged in Income-Generating Activities (%)	Total
Urban	38.8	61.2	29,907
Rural	32.3	67.7	28,681
<b>Total</b>	<b>35.6</b>	<b>64.4</b>	<b>58,588</b>

Source: 2020 CFSVA

Majorities of households in both rural and urban areas (67.7 percent and 61.2 percent, respectively) indicated that they were not able to engage in household income-generating activities due to COVID-19 restrictions. Nonetheless, significant proportions of households in both the urban and rural areas (38.8 percent and 32.2 percent, respectively) were able to carry out their income-generating activities.

For rural and urban households that could not continue with their household income-generating activities, a total of six reasons were offered. Table 7 provide details.

■ **Table 7: Reasons for Inability of Household Members to Practice/Continue Income-Generating Activity during COVID-19, by Locality (64.4% Representing 37,731 Households)**

Reason	Locality (%)		Total (N)
	Urban	Rural	
Curfew and lockdown measures	51.3%	35.9%	4,770,066
Reduction of working time	19.6%	27.4%	2,465,774
Closed workplace and cannot work from home	24.3%	15.0%	2,163,942
Temporary lay-off due to COVID-19	18.2%	17.3%	1,909,030
Sick or not feeling well	8.0%	13.0%	1,093,012
Other	10.6%	15.1%	1,348,627
Need to care for a sick household member	2.3%	4.4%	343,127

Source: 2020 CFSVA

Curfew restrictions and the lockdown measures were cited as the foremost reason, hindering more than half of urban households (51.3 percent) and close to four in 10 rural households (35.9 percent) from undertaking income-generating activities.

■ **Table 8: Households Receiving Remittances before COVID-19**

Region	Not Receiving Remittances	Response (%)		Total
		Receiving Remittances	Not Applicable	
Western	26.7%	9.6%	63.7%	2,139,930
Central	36.5%	22.4%	41.0%	2,535,152
Greater Accra	25.1%	11.3%	63.6%	4,857,082
Volta	33.5%	26.4%	40.2%	1,871,855
Eastern	38.1%	21.7%	40.2%	3,228,879
Ashanti	29.1%	20.5%	50.4%	5,710,331
Western North	43.8%	8.4%	47.8%	931,438
Ahafo	33.8%	17.0%	49.2%	596,333
Bono	43.0%	15.0%	42.0%	1,133,055
Bono East	45.1%	13.2%	41.7%	1,102,986
Oti	40.3%	13.0%	46.7%	743,187
Northern	38.6%	10.9%	50.5%	1,908,375
Savannah	46.8%	6.8%	46.4%	581,247
North East	47.1%	13.5%	39.3%	575,313
Upper East	54.3%	13.1%	32.6%	1,274,082
Upper West	41.5%	13.6%	44.9%	850,506
<b>Total</b>	<b>34.8%</b>	<b>16.3%</b>	<b>48.9%</b>	<b>30,039,751</b>

Source: 2020 CFSVA

The survey also explored the impact of COVID-19 since March 2020, by region, on the frequency and/or the amount of money sent by a household member working outside the community or the country, as depicted in Table 9 below.

■ **Table 9: Change in Funds Sent by Migrants to Households**

Region	Response (%)			
	Increased	Decreased	No change	Not Applicable
Western	0.7%	10.4%	8.1%	80.7%
Central	0.8%	24.7%	11.6%	63.0%
Greater Accra	0.7%	14.5%	7.3%	77.5%
Volta	2.4%	23.9%	16.0%	57.6%
Eastern	1.6%	21.1%	13.9%	63.4%
Ashanti	0.9%	19.7%	10.2%	69.2%
Western North	0.5%	11.1%	8.4%	79.9%
Ahafo	3.6%	20.8%	8.5%	67.1%
Bono	0.3%	17.2%	15.0%	67.4%
Bono East	1.5%	19.0%	8.0%	71.5%
Oti	0.4%	16.2%	8.5%	75.0%
Northern	2.6%	22.3%	8.4%	66.7%
Savannah	0.4%	17.0%	13.8%	68.8%
North East	1.5%	22.9%	18.2%	57.4%
Upper East	1.2%	30.2%	8.7%	59.8%
Upper West	0.5%	12.4%	17.7%	69.3%
<b>Total</b>	<b>1.2%</b>	<b>19.0%</b>	<b>10.7%</b>	<b>69.2%</b>

Source: 2020 CFSVA

Table 9 above shows that most of the households that ordinarily receive money from a household member working outside the community or country experienced a reduction in the amounts received post COVID-19. On average, one in 10 (10.7 percent) experienced no change, and a very insignificant proportion (1.2 percent) experienced an increase. Upper East saw the highest proportion of applicable households experiencing a reduction in funds received (30.2 percent), with Western experiencing the least (10.4 percent).

# 5

## Explaining Food Insecurity – Preliminary Statistical Analysis





## 5.1 Introduction

This section incorporates a preliminary statistical analysis of the drivers of food insecurity based on the CFSVA 2020 dataset, which is unprecedented in its scale and scope.

The purpose of the statistical analysis is to perform a preliminary evaluation of the relative importance of various household respondent characteristics in explaining food insecurity outcomes. This analysis, which is constrained by the scope of this report which is intended as a general summary, is provided as a starting point which may be built upon by additional research efforts in the future.

In this analysis, it is recalled – as set out in Section One – that a food insecure household is one that is characterized as “severely food insecure” or “moderately food insecure” based on the combination of the two composite indicators – the Food Consumption Score (FCS) and the Wealth Index.

The household characteristics, featuring as independent variables in the analysis, are those set out under Sections Two (urban/rural, ecological zone, livelihood zone, region) and

<sup>10</sup> Mean of the household head age

Three (sex of household head, educational level of household head, livelihood type of household head, household size, household wealth, household migration status, household coping strategy, share of household expenditure spent on food, and household access to land).

The specific way these independent variables are analyzed are specified in the methodological description provided below:

## 5.2 Dependent and Independent Variables

Food insecurity has been considered as the dependent variable. The independent variables include region, place of residence (rural/urban), livelihood zone, ecological zone, level of education (no schooling vs. other levels), (preschool\_prim vs. other levels), (mid\_second vs. other levels), (tertiaries vs. other levels), age of household head (< 44 year vs. >=44 year<sup>10</sup>), family size (<5 persons vs. >=5 persons), sex of head of household (male vs. female), presence of migration in the household (no vs. yes), household access to land (no vs. yes).

■ **Table 10: Statistical Analysis of Food Insecurity against Respondents' Geographical Location**

	Total Number	Number of Food Insecure (FI)	% of Food Insecure (FI)	P-Value
<b>Region</b>				
Western	3573	169	4.7	0.000
Central	6045	220	3.6	
Great Accra	5951	198	3.3	
Volta	5067	547	10.8	
Eastern	9246	749	8.1	
Ashanti	11031	762	6.9	
Western North	1995	292	14.6	
Ahofo	1320	237	18.0	
Bono	2651	344	13.0	
Bono_East	2418	388	16.0	
Oti	1779	178	10.0	
Northern	4204	1346	32.0	
Savannah East	1540	348	22.6	
North East	1322	446	33.7	
Upper East	3938	1951	49.5	
Upper West	3229	770	23.8	
<b>Residence</b>				
Rural	36622	6934	18.9	0.000
Urban	28687	2011	7.0	

Ecological Zone	Total Number	Number of Food Insecure (FI)	% of Food Insecure (FI)	P-Value
Coastal Savannah	11830	534	4.5	0.000
Deciduous Forest	30531	2523	8.3	
Guinea Savannah	13832	4074	29.5	
Moist Evergreen	1409	119	8.4	
Sudan Savannah	1940	950	49.0	
Transitional Zone	3942	639	16.2	
Volta Lake	342	32	9.4	
Wet Evergreen	1483	74	5.0	
<b>Livelihood zone</b>				
Agro-pastoral	5573	503	9.0	
Agro-pastoral, Mining and Commerce	16550	1229	7.4	
Central Middle Belt, Commercial Maize-Cassava Small Ruminant	4331	635	14.7	
Coastal Belt	8509	373	4.4	
Coastal, Commercial, Industrial	3669	67	1.8	
High Forest Timber-Cocoa / Oil Palm / Rubber-Mining	6258	550	8.8	
Middle Volta/Coffee-casse-small Ruminants	1866	172	9.2	
North Central Maize, Rice-Groundnut-Small Ruminants	1646	463	28.1	
North East Millet, Sorghum, Rice, Legumes-Small Ruminants, Guinea Fowl	5027	2270	45.2	
North West Millet, Sorghum, Legumes, Cattle	3615	889	24.6	
North-Eastern Corridor and Northern Volta Yam, Cassava, Livestock	3111	1036	33.3	
Upper Middle, Belt Maize-Yam, Cassava, Shea Nut	1066	202	18.9	
Volta Lake Inland Fishing	4088	556	13.6	

A bivariate analysis was done to investigate the relationship between the dependent variable, food insecurity, and other independent variables as shown in Table 10 (geographic factors) and Table 11 (social factors) below.

As shown in Table 10, there is a relationship between all the geographical variables (region, area of residence, ecological zone and livelihood zone) and the food insecurity level, which is statistically verified since the P-Value is less than 0.05.

While the overall food insecurity in Ghana stands at 11.7 percent, based on the CFSVA survey outcomes, the analysis reveals identifiable pockets in which prevalence levels increase to nearly half:

- **Region:** Upper East (49.5%),
- **Ecological Zone:** Sudan Savannah (49.0%)
- **Livelihood Zone:** North East Millet, Sorghum, Rice, Legumes-Small Ruminants, Guinea Fowl (45.2%)

In addition, there are other pockets of food insecurity in which prevalence levels increase above a quarter:

- Regions: North East (33.7%), Northern (32.0%)
- Ecological Zone: Guinea Savannah (29.5%)
- Livelihood Zone: North-Eastern Corridor and Northern Volta Yam, Cassava, Livestock (33.3%), North Central Maize, Rice-Groundnut-Small Ruminants

Given that the ecological and livelihood zones with the highest food insecurity prevalence are those found in the regions also having highest overall food insecurity prevalence, further research may seek to understand the root causes of food insecurity in these regions looking more closely at the interplay of the ecology, the livelihoods and other region-specific factors.

This will be important in helping shape the targeting of preventive policy and administrative measures to address food insecurity.

**Table 11: Statistical Analysis of the Behaviour of Social Factors in Relation to Levels of Food Insecurity**

Social Factor	Total Number	Number of Food Insecure (FI)	% of Food Insecure	P-value
<b>Education</b>				
No schooling	17803	4539	25.5	0.000
Prescol_primary	9672	1429	14.8	
Mid_second	31709	2751	8.7	
Tertiary	6125	226	3.7	
<b>Age Classes</b>				0.000
<44 years	36320	4397	12.1	
>=44 years	28989	4548	15.7	
<b>HH Size</b>				0.004
less 5 pers	33680	4003	11.9	
5 to 7 pers	21870	3198	14.6	
>=7 pers	9748	1735	17.8	
<b>HH Head Sex</b>				0.000
Male	31292	5069	16.2	
Female	34017	3876	11.4	
<b>Income Livelihood</b>				
Salary Workers	8,863	297	3.3	
Trading	11,422	891	7.8	
Skilled Labour	7855	458	5.8	
Unskilled Labour	2631	430	16.3	
Crop Production	24021	5,070	24.1	
Remittances	4486	605	13.5	
Fishing	772	88	12.4	
Livestock	1898	660	34.8	
Others	923	227	24.6	
<b>Migration in the Household</b>				
Yes	6860	1237	18.0	0.000
No	58449	7708	13.2	
<b>HH Food Expenditure as % of Total Expenditure</b>				0.000

Social Factor	Total Number	Number of Food Insecure (FI)	% of Food Insecure	P-value
Less than 50%	29614	4504	15.2	
50% to 65%	21153	2350	11.1	
65% to 75%	9118	1131	12.4	
Greater 75%	5335	894	16.8	
<b>HH Coping Strategy</b>				0.000
HH not adopting coping strategies	45802	5696	12.4	
Stress coping strategies	12471	1777	14.2	
Crisis coping strategies	3469	581	16.7	
Emergencies coping strategies	3567	891	25.0	
<b>Access to Land</b>				0.00
No	30203	2023	6.7	
Yes	35106	6922	19.7	

Table 11 shows a relationship between all the social variables (education, age, household size, sex of household head, income livelihood, migration, food expenditure, coping strategy, access to land) and the food insecurity level, which is statistically verified since the P-Value is less than 0.05.

Food insecurity by social variable tends to be less acute than by geographical variable. Pockets of food insecurity above 25% prevalence rate comprise:

- **Education:** no schooling (25.5%)
- **Income livelihood:** livestock (34.8%), with crop production just below the threshold at 24.6%
- **Coping strategy:** emergencies (25.0%)

Further analysis may examine the linkages between these social variables and the food insecurity outcome, in particular, to understand the causal factors underpinning these numbers.

### 5.3 Multivariate Analysis

For the multiple logistic regression analysis, only variables with P-value less than 0.05 were tested. These relationships were adjusted for factors that could affect household food insecurity, including region, place of residence (rural/urban), livelihood zone, ecological zone, sex of head of household, level of education of the head of household, age of the head of household, household size, migration of any

members of the household, access to land by the household by using multiple-logistic regression model (with the backward method), to assess the associated effects on household food insecurity.

According to the results of multiple logistic regression models, adjusted odds ratio (OR) with 95% confidence interval (CI) was reported in this analysis.

#### 5.3.1 Logistic Regression Model

Logistic regression is the explanatory multivariate analysis model used in this study. The measure of association calculated in this model is the Odds Ratio, which quantifies the strength of the association between the occurrences of an event. The choice of the explanatory variables integrated into the model is based on prior knowledge of the phenomenon of food insecurity in order not to omit confounding factors already identified. In this model, food insecurity represents the dependent variable while the impact on food insecurity by other factors such as the region, ecological zone, livelihood zone, urban and rural, sex of the head of household, the age of the head of household, the level of education of the head of household, the main sources of income, access to land, and migration are considered as independent variables.

The use of the logistic regression model is to confirm or disprove the initial findings of the bivariate analysis and to quantify it by taking into account the possible risk factors associated with food insecurity, and by adjusting for each

of the variables present. Therefore, the independent variables used in the analysis are those mentioned above.

This logistic regression model was performed using STATA software (STATA version 14). For each of the variables in the model, the modality with the lowest prevalence of food insecurity was chosen as the reference. The table below reflects how the model shows the strong association of the independent variables where the Prob = 0.00.

Logistic regression	Number of obs	=	62,728
	LR chi2(56)	=	9644.79
	Prob > chi2	=	0.0000
Log likelihood = -20367.004	Pseudo R2	=	0.1914

### 5.3.2 Logistic Regression

The inclusion or exclusion of variables is based on the significance of the association of dependent and independent variables. Thus, according to the table below, the variables included for the rest of the analysis show P-values below 5 percent. Only the migration variable is excluded in the final model where the P-Value is not significant.

Table 12 presents the results of the model. For the regions, the Odds Ratios show the risk of being food insecure compared to Greater Accra which is used as the base reference. As an example, the risk of being food insecure in the Upper East Region is about 21 times higher than it is in the Greater Accra Region. On the other hand, in the Central Region, the risk is almost 0.36 – approximately one-third the risk of being food insecure in Greater Accra.

Globally, each factor where both the Odds Ratio and the Confidence Interval is greater than 1 is associated with high food insecurity risk. On the other hand, where the Odds Ratio and the Confidence Interval is less than 1 there is lower association with food insecurity risk.

■ **Table 12: Explanatory Factors Associated with Food Insecurity Outcomes**

	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
<b>Region</b>					
Central	.3645502	.0502894	-7.31	0.000	.2781857 .4777271
Western	.5120819	.0837022	-4.09	0.000	.3717119 .7054599
Volta	1.091549	.1397554	0.68	0.494	.8492984 1.402897
Eastern	.8140707	.1170755	-1.43	0.153	.6141107 1.079139
Ashanti	.7737806	.1165289	-1.70	0.089	.5760094 1.039456
Eastern North	1.037548	.1617931	0.24	0.813	.7643174 1.408455
Ahofo	2.225634	.3630365	4.90	0.000	1.616625 3.064068
Bono 9	1.279528	.2056896	1.53	0.125	.9337172 1.753412
Bono East	1.296692	.2129518	1.58	0.114	.9398239 1.789069
OTI	.8784074	.1473159	-0.77	0.439	.6323285 1.220251
Nothern	3.099662	.6015438	5.83	0.000	2.118965 4.534245
Savannah	1.743439	.3391118	2.86	0.004	1.190808 2.552535
North East	5.811924	1.349459	7.58	0.000	3.687068 9.161334
Upper East	21.46092	5.290686	12.44	0.000	13.23745 34.793010
Upper West	1.571964	.3579685	1.99	0.047	1.00602 2.456285
<b>Livelihood Zone</b>					
Agro-pastoral, Mining and commerce	3.201129	.6636187	5.61	0.000	2.132272 4.805779
Central Middle Belt, Commercial Mai	4.65575	1.031672	6.94	0.000	3.015581 7.188002
Coastal Belt	2.80198	.452678	6.38	0.000	2.041493 3.845759
Agro-pastoral	4.270996	.8482293	7.31	0.000	2.893867 6.30347
High Forest Timber-Cocoa/Oil Palm	5.257041	1.09284	7.98	0.000	3.497781 7.901146
Middle Volta/Coffee-casse-small	3.425403	.7966737	5.29	0.000	2.171405 5.403591
North Central Maize, Rice-Groundn	7.175049	1.757098	8.05	0.000	4.439909 11.59513
North East Millet, Sorghum, Rice	2.879534	.8031825	3.79	0.000	1.666857 4.974462
North West Millet, Sorghum, Legum	10.2912	2.703029	8.88	0.000	6.15027 17.22019
North-Eastern Corridor	7.459772	1.780553	8.42	0.000	4.672556 11.90958
Upper Middle, Belt Maize-Yam,Cas	6.978263	1.672086	8.11	0.000	4.363028 11.16109
Volta Lake Inland Fishing inland	5.442118	1.188356	7.76	0.000	3.547295 8.34908
<b>Ecological_zone</b>					
Decidous Forest	.9801959	.1121544	-0.17	0.861	.7832819 1.226613
Guinea Savannah	.4853693	.0850361	-4.13	0.000	.3443047 .6842294
Moist Evergreen	.7450352	.1216526	-1.80	0.071	.5409896 1.026041
Sudan Savannah	.3855065	.0726261	-5.06	0.000	.2664849 .5576873
Transitional Zone	1.012836	.1564491	0.08	0.934	.7482675 1.370948
Volta Lake	.5697965	.1359653	-2.36	0.018	.3569483 .9095659
Wet Evergreen	.8226222	.1537234	-1.04	0.296	.5703435 1.186491
<b>Level of education</b>					
Prescol and primary	2.691027	.2309084	11.54	0.000	2.274464 3.183881
Mid and secondary	1.993642	.1623219	8.47	0.000	1.699584 2.338578
No schooling	3.045105	.2529515	13.41	0.000	2.587584 3.583522
<b>Sex_Male</b>	1.177077	.033043	5.81	0.000	1.114063 1.243655

<b>Livelihood Income</b>							
Trading	1.7991	.1399275	7.55	0.000	1.544728	2.09536	
Skilled Labour	1.381716	.11691	3.82	0.000	1.170568	1.630951	
Unskilled Labour	3.036064	.2718493	12.40	0.000	2.547383	3.618492	
Crop production	3.03044	.2240851	14.99	0.000	2.621585	3.50306	
Remittances	2.839403	.2373955	12.48	0.000	2.410239	3.344983	
Fishing	2.748312	.3949617	7.03	0.000	2.073669	3.642443	
Livestock	3.835486	.3420443	15.07	0.000	3.22041	4.568037	
Others	5.078443	.5691112	14.50	0.000	4.077007	6.325862	
<b>Food Class Expenditure</b>							
Less than 50%	1.466204	.0449439	12.48	0.000	1.38071	1.556993	
Between 65 to 75%	.9998125	.0425578	-0.00	0.996	.9197853	1.086802	
More than 75%	1.13693	.0543579	2.68	0.007	1.03523	1.248621	
<b>Access_land</b>	<b>Yes</b>	1.245907	.0469602	5.83	0.000	1.157184	1.341432
<b>Age of Head of HH less than 44 years</b>							
	<b>No</b>	1.090696	.02967	3.19	0.001	1.034067	1.150427
<b>HH Size by Classes</b>							
	5-7 pers	.8373842	.0248088	-5.99	0.000	.7901446	.887448
	more than 7	.8151004	.0299946	-5.56	0.000	.7583821	.8760606
<b>Coping Behaviour</b>							
	Stress coping strategies	1.137267	.0381948	3.83	0.000	1.064817	1.214646
	Crisis coping strategies	1.393151	.0742591	6.22	0.000	1.254951	1.546571
	Emergencies coping strategies	1.998194	.094189	14.69	0.000	1.821858	2.191598
	_cons	.0036055	.0005544	-36.59	0.000	.0026674	.0048735

Table 12 largely confirms the outcomes from the bivariate analysis presented above. In particular, the Odds Ratios for certain regions and livelihood zones demonstrate the high risk of food insecurity in the respective geographic locations.

However, viewed in terms of Odds Ratios, the social variables, while generating lower Odds Ratios overall than the geographic variables, starkly depict underlying inequalities in which those households lacking education have three times the risk of food insecurity than those who have had access to tertiary level education.

Likewise, the income livelihood category demonstrates the high risk of most kinds of unskilled and rural labour when compared with salary and skilled workers.

The model shows, as demonstrated in Table 13 below, that about 19 percent of food insecurity outcomes can be explained by the variables included in the model (Prob > chi2 = 0.7209). The residual 81 percent of food insecurity outcomes are understood to be explained by idiosyncratic factors at the household level. Further research may explore whether additional explanations for food insecurity outcomes can be found within the residual 81 percent, whether drawn from the CFSVA dataset or from external data. In addition, further research may evaluate the relative contribution of the variables to the 19 percent of explainable food insecurity outcomes, in particular to confirm which variables make the largest contributions.

■ **Table 13: Proportion of Food Insecurity Outcomes Explained in the Model**

Logistic Model for Food-Insecure, Goodness-of-Fit Test	
(Table collapsed on quantiles of estimated probabilities)	
Number of observations	= 62728
Number of groups	= 10
Hosmer-Lemeshow chi2(8)	= 5.34
Prob > chi2	= 0.7209

# 6

## Food Security, Dietary Diversity and Frequency of Consumption





## 6.1 Household Dietary Diversity (Three-Way Classification)

Diagram 20 provides the results for the three food consumption groups classified by their food consumption scores - poor (0-21), borderline (21.5-35) and acceptable (>35) - according to WFP Consolidated Approach to Reporting Indicators of Food Security (CARI) Guidelines as outlined in Section 1.4.

Household Dietary Diversity<sup>11</sup>, on the other hand, is classified according to the number of food groups, out of 12, the household consumes as meals: low dietary diversity (0-4), medium diversity (5-8) and high diversity (9-12).

Overall, four in five households (80.5 percent) exhibit high dietary diversity, one in seven households (14.6 percent) exhibit medium diversity, while one out of 20 households (4.9 percent) exhibit low diversity. Disaggregating the data shows a clear link between dietary diversity and food consumption.

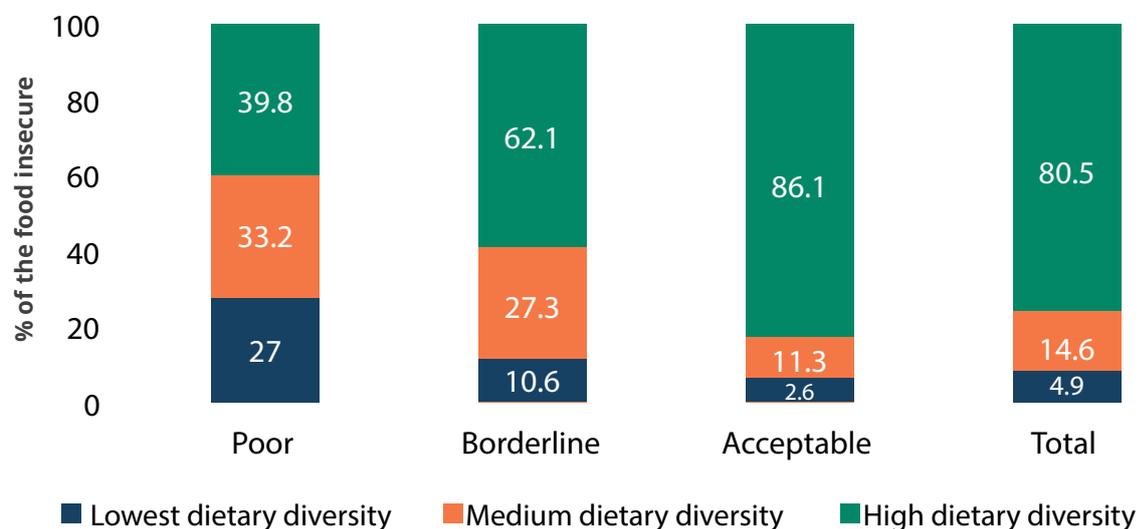
Among the poor food consuming households, dietary diversity is classified as high in 39.8 percent of households, medium in 33.2 percent of households, and low in 27 percent.

In the borderline food consuming households, dietary diversity is classified as high in 62.1 percent of households, medium in 27.4 percent, and low in 10.6 percent.

Among households within the acceptable food consumption group, dietary diversity is classified as high in 86.1 percent of households, medium in 11.3 percent, and poor in just 2.5 percent.

Food insecure households consume less diverse food groups and food secure households consume more diverse food groups.

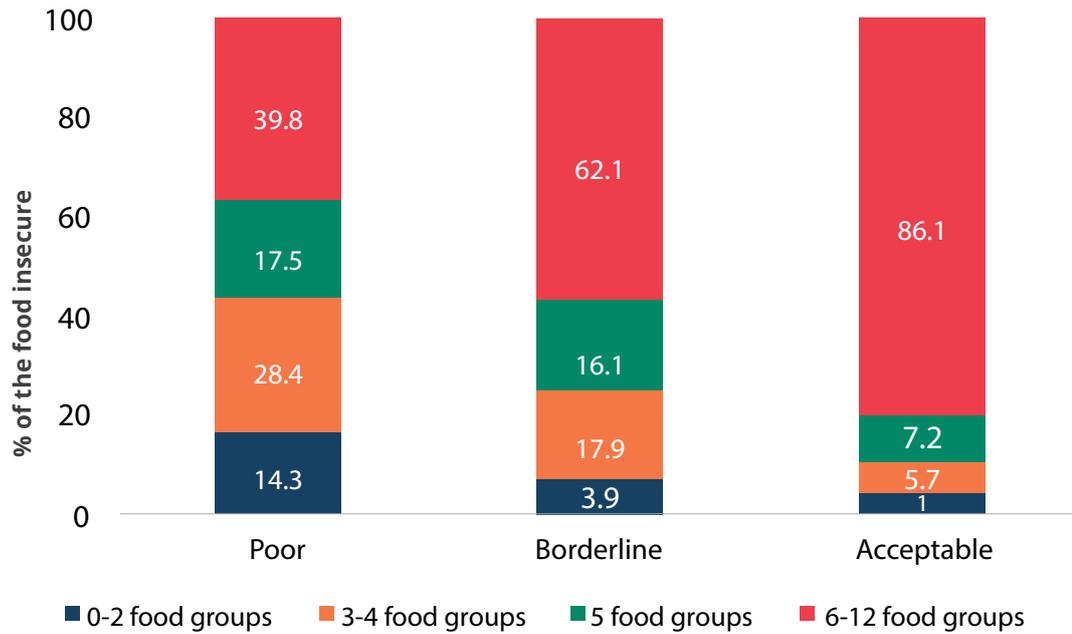
■ **Diagram 20: Household Dietary Diversity (Three-Way Classification), by Food Consumption**



Source: 2020 CFSVA

11 Source: Guidelines for measuring household and individual dietary diversity, FAO

■ **Diagram 21: Number of Food Groups, by Food Consumption Level**

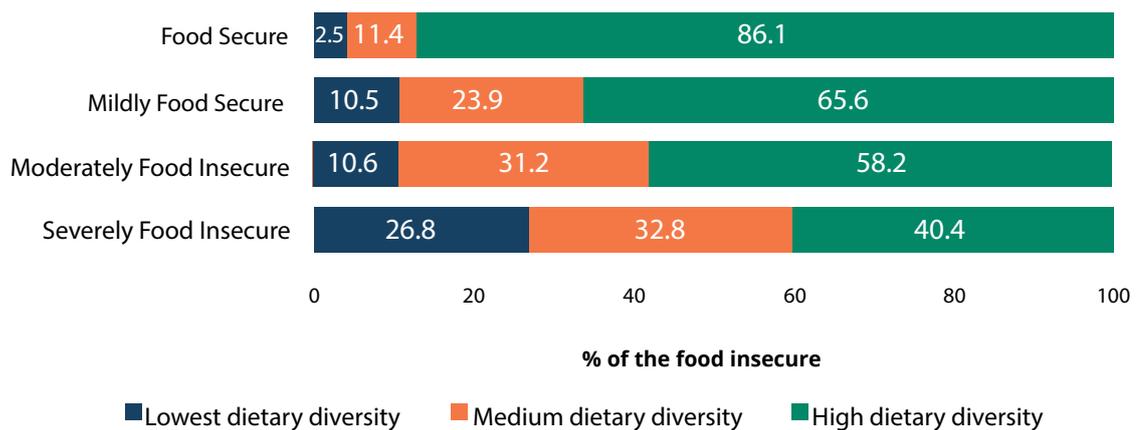


Source: 2020 CFSVA

## 6.2 Food Insecurity and Dietary Diversity (Three-Way Classification)

Diagram 22 shows the dietary diversity of households by their food security statuses, using the three-way dietary classification (low, medium, and high dietary diversities) as under Section 6.1. The data show clearly that households with higher prevalence of food insecurity have significantly lower dietary diversity.

■ **Diagram 22: Food Insecurity, by Level of Dietary Diversity**

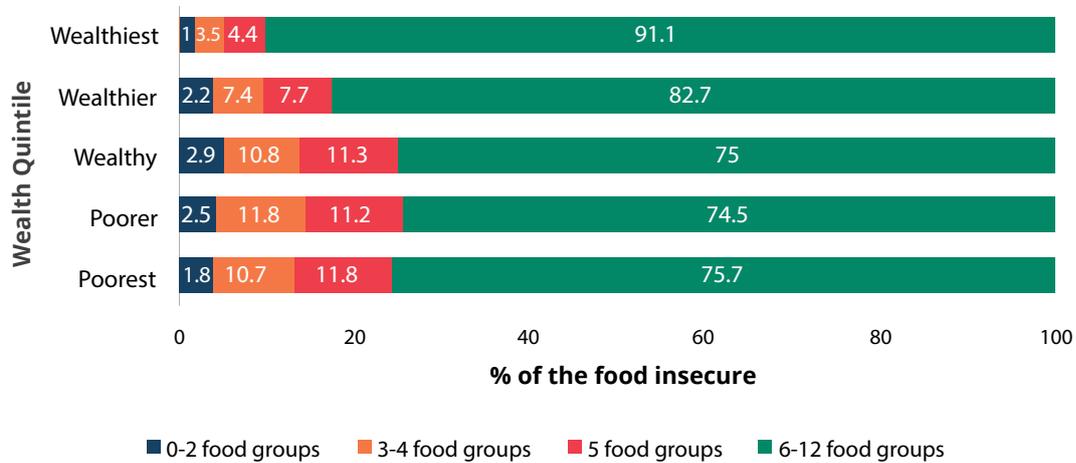


Source: 2020 CFSVA

### 6.3 Dietary Diversity, by Household Wealth Quintile

Diagram 23 depicts dietary diversity by household wealth quintile. Generally, wealthier households consume more diversified meals than poor counterparts. However, this is particularly pronounced among the wealthiest and wealthier households. The wealthy, poorer, and poorest households appear to have similar levels of dietary diversity.

■ **Diagram 23: Dietary Diversity, by Household Wealth Quintile**



Source: 2020 CFSVA

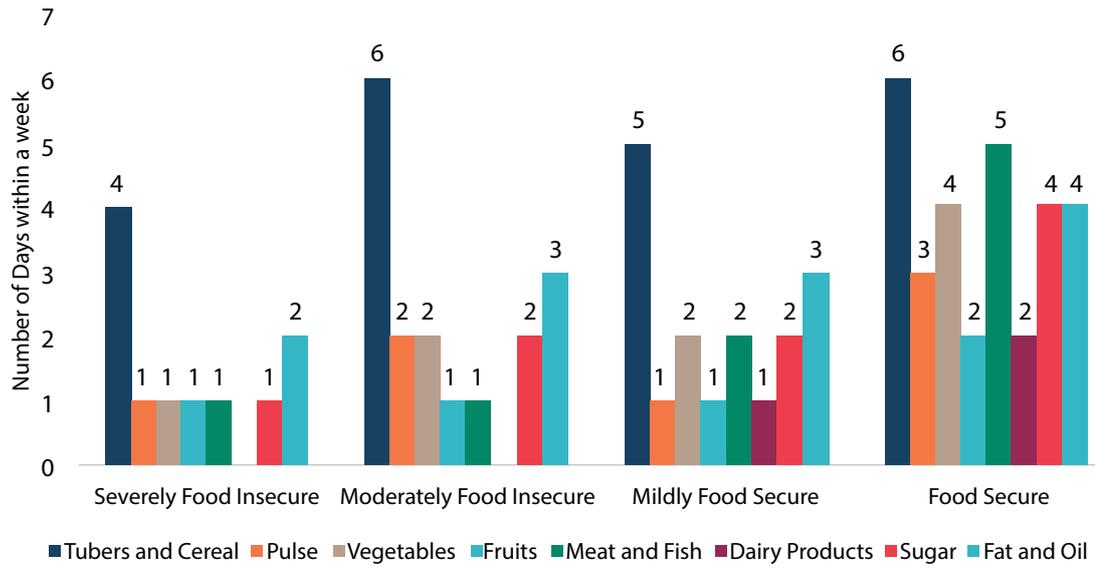
### 6.4 Food Category Consumption Frequency, by Household Food Security Levels

Diagram 24 compares the frequency in the number of days per week (i.e., out of seven days) each food type is consumed by households in the respective food security groups. Overall, food insecure households consume all food categories fewer times per week than food secure households, with the partial exception of tubers and cereals, which are the main staples.

The highest variance between food secure and food insecure households can be found in the meat and fish category, featuring five days per week for food secure households and only once a week for food insecure households.

It is also pertinent to note that, while food secure households consume dairy products one to two days per week, food insecure households eat almost no dairy products at all.

■ **Diagram 24: Food Category Consumption Frequency, by Household Food Security Levels**



Source: 2020 CFSVA

# 7

## Gender Analysis and Child Nutrition





## 7.1 Dietary Practices of Women

### 7.1.1 Minimum Dietary Diversity of Women (MDDW) 15-49 Years<sup>12</sup>

MDDW is a dichotomous indicator of whether or not at least five out of ten specified food groups were eaten by women aged 15 to 49 the day or night before the survey. The proportion of women aged 15 to 49 who meet this minimum in a population can be used as a proxy measure for better adequacy of micronutrients, a significant feature of diet quality.

Tables 14 shows that the dietary diversity of women in Ghana was 58.9 percent. Among women across regions, MDDW was similar and does not differ widely. Northern region was the region with the highest proportion of women (62.1 percent) meeting the minimum dietary diversity (i.e., eating from at least five food groups a day prior to the survey). The Upper East region was the region with the least proportion of women aged 15 to 49 who consumed at least five food groups a day prior to the survey (57.6 percent). Irrespective of the place of residence, MDDW is similar, with minimum dietary diversity of rural and urban women being 60.0 percent and 59.6 percent, respectively.

**Table 14: Dietary Diversity of Women 15-49 Years, by Region and Place of Residence**

Region	Number	Percentage of Women in Each Category (%)	
		Meet MDDW	Do not Meet MDDW
<b>Region</b>			
Western	2651	61.8	38.2
Central	3847	59.4	40.6
Greater Accra	5342	59.1	40.9
Volta	3866	60.6	39.4
Eastern	5152	58.9	41.1
Ashanti	7363	60.0	40.0
Western North	1877	59.8	40.2
Ahafo	1077	61.9	38.1
Bono	2090	61.0	39.0
Bono East	1773	59.0	41.0
Oti	1607	60.4	39.6
Northern	3208	62.1	37.9
Savannah	1388	58.1	41.9
North East	1232	58.8	41.2
Upper East	2602	57.6	42.4
Upper West	2060	59.4	40.6
<b>Residence</b>			
Urban	21072	59.6	40.4
Rural	20063	60.0	40.0
<b>National</b>	<b>47135</b>	<b>59.8</b>	<b>40.2</b>

### 7.1.2 Consumption of Various Food Groups

The 2020 Ghana CFSVA revealed that staples (cereals and tubers) remain the most consumed food group among Ghanaian women of reproductive age. Almost all women (97.3 percent) consumed food made from cereals and tubers in the 24 hours prior to the interview. This was followed by meat/poultry/fish and its products (consumed by 93.3 percent). Milk and milk products were the least consumed food group (47.4 percent). Dark green leafy vegetables, regarded as the rich source of iron, were consumed by 64.4 percent. This was similar among rural and urban women (64.5 percent and 64.4 percent, respectively) (Table 15).

<sup>12</sup> Source: Guidelines for measuring household and individual dietary diversity, FAO

■ **Table 15: Percentage Consumption of Various Food Groups, by Region and Residence (%)**

Admin Level	Cereals and Tubers	Eggs	Beans or Peas	Dark Green Leafy Vegetables	Other Vitamin A-Rich Fruits, Vegetables	Milk / milk Products	Nuts/ Seeds	Other Vegetables	Meat, Poultry & Fish	Other Fruits	N
<b>Region</b>											
Western	97.3	61.6	52.9	66.7	61.7	50.2	60.2	60.0	94.5	46.0	2640
Central	98.4	56.2	51.3	63.6	59.2	45.6	59.0	62.3	93.1	45.6	3823
Greater Accra	98.1	58.2	49.3	64.4	60.2	46.2	57.6	61.0	93.3	48.0	5309
Volta	98.1	59.2	52.9	65.2	60.8	49.1	60.6	61.3	94.1	50.1	3844
Eastern	97.6	57.0	51.5	66.3	58.4	45.8	59.8	61.2	92.9	47.1	5126
Ashanti	97.8	58.0	50.4	63.2	60.1	48.0	58.4	60.6	92.8	46.4	7320
Western North	97.8	54.6	50.6	66.4	59.3	46.5	58.6	62.4	92.8	46.3	1870
Ahafo	98.7	59.9	51.8	67.1	59.7	50.7	62.4	61.6	95.1	49.5	1076
Bono	98.3	59.0	54.9	65.5	60.0	47.2	59.9	61.9	92.6	50.0	2075
Bono East	98.4	57.2	48.2	62.7	57.3	46.4	57.3	61.5	92.3	46.8	1764
Oti	97.6	55.1	52.3	64.9	60.3	46.8	58.8	59.2	93.1	49.5	1597
Northern	97.6	60.4	55.1	66.1	61.9	49.5	60.2	61.2	93.3	48.2	3194
Savannah	98.2	57.1	48.5	60.2	57.3	46.6	57.9	59.6	94.1	44.2	1381
North East	98.0	57.4	51.8	62.5	60.0	50.1	58.5	60.9	92.3	46.2	1226
Upper East	98.3	57.8	51.2	62.2	57.6	44.8	56.8	60.9	93.8	46.6	2583
Upper West	97.6	59.2	49.9	62.8	61.7	47.5	58.0	58.0	94.3	46.2	2050
<b>Residence</b>											
Urban	98.0	58.1	51.1	64.4	60.0	46.8	58.8	60.7	93.2	46.9	20948
Rural	97.9	58.0	51.6	64.5	59.7	47.8	59.1	61.1	93.4	47.5	25930
<b>National</b>	<b>97.9</b>	<b>58.1</b>	<b>51.4</b>	<b>64.4</b>	<b>59.8</b>	<b>47.4</b>	<b>58.9</b>	<b>60.9</b>	<b>93.3</b>	<b>47.3</b>	<b>46878</b>

Source: 2020 CFSVA

## 7.2 Infant and Young Child Feeding

### 7.2.1 Breastfeeding and Complementary Feeding

The 2020 CFSVA evaluated the feeding practices, including early initiation of breastfeeding, introduction of complementary foods, continued breastfeeding at 12 months, and dietary diversity. The pattern of infant feeding has important influences on both the child and the mother. Feeding practices are the principal determinants of a child's nutritional status. Poor nutritional status in young children expose them to greater risks of morbidity. Biologically, breastfeeding suppresses the mother's return to fertile status and affects the length of the birth interval as well as the level of fertility. These effects are influenced by both the duration and frequency of breastfeeding and the age at which the child receives foods and liquids to complement breast milk.

### 7.2.2 Initiation of Breastfeeding

Early initiation of breastfeeding is an important lifesaving intervention for both the mother and the child and has the potential to reduce neonatal mortality. Early suckling stimulates the release of prolactin, which helps in the production of milk, and oxytocin, which is responsible for the ejection of milk. It also stimulates contraction of the uterus after childbirth and reduces postpartum blood

loss. The first milk known as colostrum, produced in the first few days after delivery, is highly nutritious and contains antibodies that provide natural immunity to the infant. It is recommended that children be fed colostrum immediately after birth (within one hour) and that they continue to be exclusively breastfed even if the regular breast milk has not yet started to flow. In Ghana, all newborn babies are expected to be put to breast immediately after delivery unless it is medically impossible. Also, all healthcare providers, at the point of delivery, are encouraged to support newly delivered mothers to put their babies to breast immediately after delivery.

Table 16 presents the percentage of children born in the two years (0-23 months) preceding the survey, according to whether they were put to breast immediately after birth within one day (one hour to 24 hours), more than a day (24 hours and above) or the mother cannot remember (Don't know). Overall, early initiation rate of breastfeeding in this survey was in the majority (63.9 percent). Only about a quarter of the babies (23.7 percent) were breastfed within one hour to 24 hours and very few children (7.5 percent) were breastfed after 24 hours in the country. Early initiation rate of breastfeeding was marginally higher among children in rural areas (65.3 percent) as compared to their urban counterparts (62.7 percent). Among rural children, about one in five (21.3%) were put to breast within a day as compared to a quarter (25.0%) of children in the urban areas.

The proportion of babies put to breast within one hour of birth ranges from 69.1 percent in the Western North region to 55.9 percent in the Ahafo region. With the exception of the Ahafo and Bono East regions, all regions had early initiation rates of breastfeeding of at least 60 percent for children aged 6-23 months during the period of the survey.

The findings showed an improvement of the early initiation rate of breastfeeding when compared with other nationally representative studies such as 2014 GDHS and 2017/2018 MICS, where early initiation rate was reported to be 55.6 percent and 52 percent, respectively.

■ **Table 16: Initiation of Breastfeeding, by Region and Residence**

Region	Period of Breastfeeding Initiation after Birth (%)				
	Immediately or <60 minutes	1 hour but <24 hours	24 hours	Don't know	
Western	61.0	27.0	7.0	5.0	582
Central	62.9	22.1	9.1	5.9	814
Greater Accra	62.0	26.2	7.8	4.0	961
Volta	65.8	22.9	7.7	3.6	691
Eastern	63.3	24.4	8.4	3.9	836
Ashanti	65.0	24.3	6.2	4.6	1244
Western North	69.1	19.4	5.2	6.4	330
Ahafo	55.9	28.4	10.4	5.2	211
Bono	65.3	20.5	7.9	6.2	404
Bono East	58.5	27.4	9.0	5.0	398
Oti	60.1	25.3	7.8	6.9	348
Northern	68.2	21.8	6.0	4.0	701
Savannah	62.2	21.2	9.4	7.2	307
North East	63.1	22.1	7.7	7.0	271
Upper East	67.6	22.9	7.1	2.4	411
Upper West	67.4	20.2	6.8	5.5	470
<b>Residence</b>					
Urban	62.7	25.0	7.7	4.7	4515
Rural	65.3	22.3	7.4	5.0	4464
<b>National</b>	<b>63.9</b>	<b>23.7</b>	<b>7.5</b>	<b>4.9</b>	<b>8979</b>

Source: 2020 CFSVA

### 7.2.3 Continuous Breastfeeding, by Place of Residence

Breastfeeding continues to make a significant nutritional contribution as a major energy source well beyond the first year of life and by providing the growing infant with key nutrients. Studies in developing countries indicate that continuing, frequent breastfeeding is associated with higher linear growth and further protects the health of children by delaying postpartum maternal fertility and reducing the risk of morbidity and mortality for children. Among children recovering from infections, continued breastfeeding can also prevent dehydration. The World Health Organization (WHO) recommends that “Infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or beyond.”

Ghana has adopted the above recommendation and the National Nutrition and Child Health Policies recommend mothers to breastfeed their children exclusively for the first six months and thereafter complement it with family foods till the child is two years or more.

Continued breastfeeding among children aged 12-15 months is assessed as a measure for the above-quoted recommendation on breastfeeding beyond one year of the child’s life. Breastfeeding among children aged 12-15 months remains nearly universal (91.0 percent) in the 2020 CFSVA. All regions had at least 80 percent of children aged 12-15 months continuing breastfeeding beyond one year and this practice did not vary significantly by place of residence (90.5 percent in urban vs. 90.0 percent in rural areas) (Table 17). Though the rate remains high, continued breastfeeding has marginally declined, relative to the 93.1 percent reported in the 2017 Ghana Micronutrients Survey.

■ **Table 17: Proportion of Continuous Breastfeeding among Children 12-15 Months, by Region and Place of Residence**

Region	Continuous Breastfeeding for Children 12-15 months (%)		
	Breastfeeding	No Breastfeeding	N
Western	89.9	10.1	109
Central	91.0	9.0	167
Greater Accra	95.3	4.7	170
Volta	93.5	6.5	139
Eastern	86.9	13.1	153
Ashanti	90.5	9.5	241
Western North	96.2	3.8	78
Ahafo	86.1	13.9	36
Bono	91.3	8.8	80
Bono East	88.6	11.4	79
Oti	88.5	11.5	52
Northern	88.6	11.4	123
Savannah	93.1	6.9	72
North East	86.2	13.8	58
Upper East	94.3	5.7	88
Upper West	91.0	9.0	89
<b>Residence</b>			
Urban	91.5	8.5	862
Rural	90.5	9.5	872
<b>National</b>	<b>91.0</b>	<b>9.0</b>	<b>1734</b>

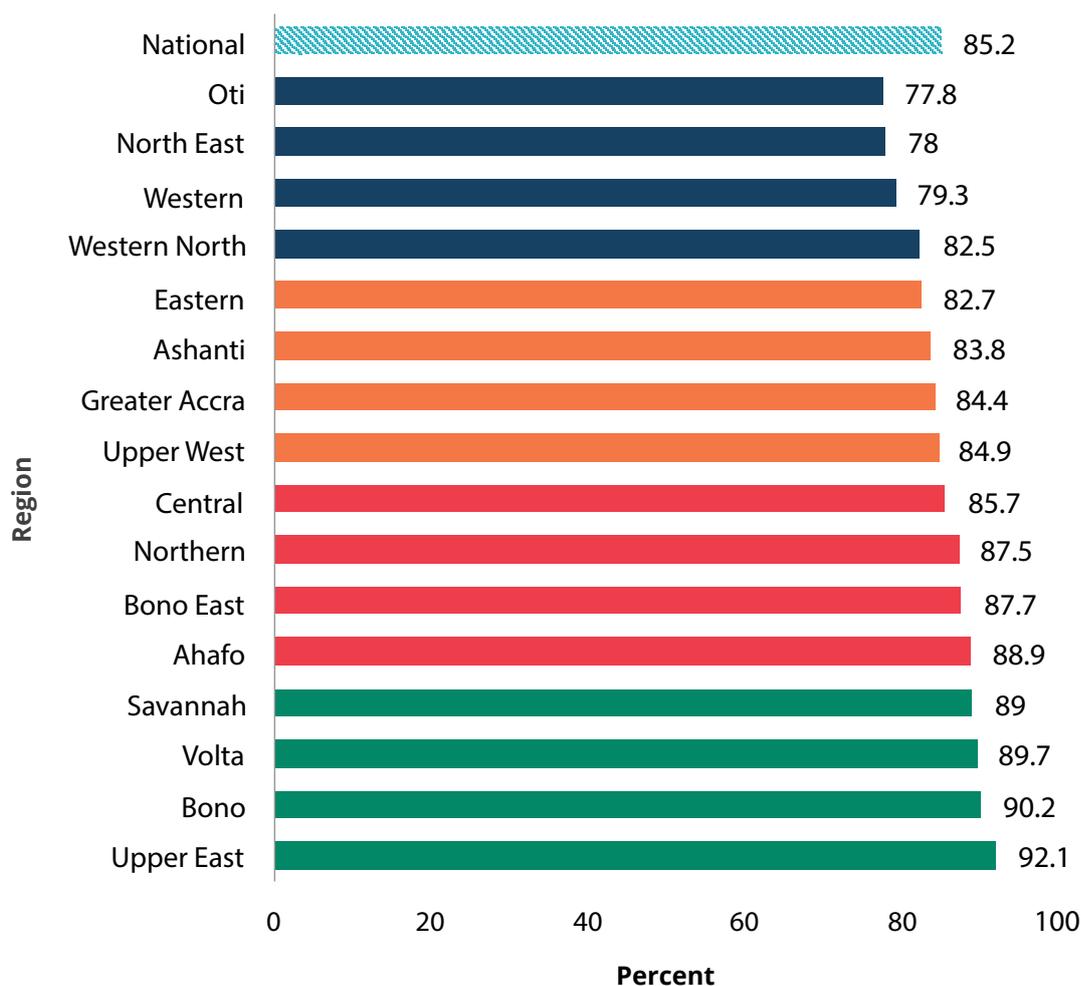
Source: 2020 CFSVA

## 7.2.4 Introduction to Complementary Foods

Appropriate Infant and Young Child Feeding (IYCF) practices include breastfeeding through age 2, introduction of solid and semi-solid foods at age 6 months, and gradual increases in the amount of food given and frequency of feeding as the child gets older. According to age-specific guidelines, children should be provided with timely and healthy complementary foods to complement breast milk nutrients as these may no longer be sufficient to ensure proper growth and development of the infant. As early or late introduction may both lead to malnutrition, complementary feeding should not begin significantly before or later than 6 months.

Diagram 25 shows that 85.2 percent of 1,794 children within the ages of 6-8 months had received solid/semi-solid/soft food a day prior to the survey.

■ **Diagram 25: Proportion of Children 6-8 Months Who Received Semi-Solid/Solid/Soft Foods a Day Prior to the Survey**



Source: 2020 CFSVA

The data also show that 906 children (84.9 percent of children aged 6-8 months) in the rural areas received complementary feeds a day prior to the survey, as compared with 888 (85.6 percent) in the urban areas.

The proportion of timely introduction of complementary foods ranges from 92.1 percent in Upper East region to 77.8 percent in Oti region.

Relative to the 2017/2018 MICS, the proportion of children aged 6-8 months who received complementary foods a day prior to the survey increased from 79 percent to 85.2 percent in the current study. There is, however, a decline when compared with the 94.7 percent reported in the

2017 GMS. This could be due to methodological differences and a relatively small sample size in the 2017 GMS as compared to the current MICS and the present study.

### 7.2.5 Minimum Dietary Diversity of Children Aged 6-23 Months<sup>13</sup>

A child requires adequate complementary foods after six months for normal growth as at this age breast milk alone is no longer sufficient to maintain the child's recommended daily allowances of nutritional requirements to enhance healthy growth and development. Inadequate complementary feeding may lead to malnutrition and frequent illnesses, which may result in mortality. Complementary feeding is particularly important in sub-Saharan African countries, including Ghana where stunting is highly prevalent. Promotion of breastfeeding and appropriate complementary feeding could prevent growth faltering and deaths among children under 5 years.

To ensure proper growth and development of children, the first 1,000 days of a child's life is

crucial. This period spans from conception to 23 months of the child's life. The complementary feeding period (six to 23 months) forms the major components of the first 1000-day period and promoting optimal nutrition during this period is crucial. To promote healthy growth and development particularly in the first two years of a child's life, the Global IYCF Strategy has been adopted and implemented in Ghana. It is intended as a framework for actions to protect, promote, and support appropriate infant and young child feeding. The comprehensive strategy consists of actions to raise awareness through counselling and to provide support for adequate complementary feeding within the age 6-23 months.

Table 18 shows that fewer than two in 10 Ghanaian children aged 6-23 months (16.9 percent) have a sufficiently diverse diet, consuming at least four different food groups a day prior to the survey. Regional variations exist, as minimum dietary diversity ranges from 18.5 percent in Bono East region to 12.4 percent in the Western North. There is a marginal difference in the proportion of children aged 6-23 months having a sufficiently

<sup>13</sup>Source: Guidelines for measuring household and individual dietary diversity, FAO

■ **Table 18: Percentage of Children 6-23 months Meeting Minimum Dietary Diversity**

Region	Meets Minimum Dietary Diversity (%)	Does Not Meet Minimum Dietary Diversity (%)	N
Western	15.5	84.5	466
Central	17.2	82.8	641
Greater Accra	17.9	82.1	722
Volta	17.2	82.8	551
Eastern	17.8	82.2	634
Ashanti	17.4	82.6	987
Western North	12.4	87.6	258
Ahafo	18.2	81.8	170
Bono	16.7	83.3	299
Bono East	18.5	81.5	313
Oti	16.0	84.0	269
Northern	16.9	83.1	528
Savannah	18.2	81.8	236
North East	17.8	82.2	208
Upper East	12.6	87.4	318
Upper West	17.1	82.9	380
<b>Residence</b>			
Urban	17.5	82.5	3453
Rural	16.3	83.7	3527
<b>National</b>	<b>16.9</b>	<b>83.1</b>	<b>6980</b>

Source: 2020 CFSVA

diversified diet in urban areas (17.5 percent) as compared to their counterparts in the rural areas (16.3 percent). Minimum dietary diversity of Ghanaian children consistently remains just about three in 10 as reported in the 2014 GDHS (28 percent) and 2017/2018 MICS (29 percent).

### 7.2.6 Food Groups Consumed in the 24 Hours Prior to the Interview

Table 19 shows cereals/tubers were the most consumed food group among children aged 6-23 months, with most (93.9 percent) consuming it a day prior to the survey. Less than half were given eggs (44.5 percent), pulse products (37.4 percent), and milk and dairy products (37.2 percent). About six in 10 children consumed fruits and vegetables (60.6 percent) and meat, fish and poultry or its products (62.2 percent). It is worth noting that there was no noticeable difference in the consumption of each food group across regions and place of residence.

■ **Table 19: Food Groups Consumed in the 24 Hours Prior to the Survey for Children Aged 6-23 Months (%)**

	Cereals and Tubers	Eggs	Pulse Product	Fruits & Vegetables Rich in VIT A	Meat, Fish and Product	Milk and Dairy Products	Any Other Fruits or Vegetables	N
<b>Region</b>								
Western	96.8	43.8	35.0	60.8	64.3	36.5	36.5	400
Central	93.9	43.0	36.2	62.6	62.6	34.5	33.1	553
Greater Accra	93.1	44.8	39.2	61.3	64.1	36.7	34.8	607
Volta	96.2	42.5	35.1	58.8	65.9	34.9	38.3	478
Eastern	92.8	47.0	34.6	59.4	60.2	37.2	37.8	540
Ashanti	94.5	44.1	35.9	57.7	58.8	38.6	32.5	869
Western North	95.1	43.5	27.8	49.8	54.3	36.8	30.9	223
Ahafo	93.8	50.3	40.0	60.0	65.5	40.0	37.9	145
Bono	92.0	45.2	34.1	61.3	62.8	39.1	33.7	261
Bono East	97.1	40.8	38.3	55.2	57.4	42.2	31.8	277
Oti	95.9	37.7	35.9	52.3	59.1	37.7	30.9	220
Northern	92.2	46.1	39.2	62.1	63.0	33.5	35.7	451
Savannah	94.7	47.6	34.5	57.3	63.1	39.8	35.0	206
North East	97.2	46.7	31.7	58.9	62.2	43.3	35.0	180
Upper East	95.3	38.3	29.6	54.4	59.5	31.4	29.6	274
Upper West	96.3	46.0	31.0	57.7	59.5	35.6	35.6	326
<b>Residence</b>								
Urban	94.3	45.2	36.5	59.4	62.3	36.6	34.9	2990
Rural	94.8	43.1	34.3	58.1	60.7	37.2	34.0	3020
<b>National</b>	<b>93.9</b>	<b>44.5</b>	<b>37.4</b>	<b>60.6</b>	<b>62.2</b>	<b>37.2</b>	<b>36.0</b>	<b>8753</b>

Source: 2020 CFSVA

### 7.2.7 Recent Illness among Children Aged 0-59 Months

Overall, one in six children (15.5 percent) had diarrhoea, while nearly three in 10 (28.8 percent) had fever, and a quarter (24.5 percent) had cough in the two weeks prior to the survey (Table 20). There was marginal regional variation as the experience of diarrhoea among children ranges from 17.3 percent in the Savannah region to 12.3 percent in the Upper East region. Rural and urban children had similar experiences of diarrhoea, fever, and cough.

■ **Table 20: Occurrence of Diarrhoea, Fever and Cough Among Children Under 5 Years, by Region and Residence (%)**

	Diarrhoea	Fever	Cough	N
<b>Region</b>				
Western	15.7	26.2	24.1	1757
Central	16.5	28.0	25.2	2749
Greater Accra	15.8	29.0	26.4	3906
Volta	15.2	27.6	23.9	2595
Eastern	14.6	26.8	24.6	3271
Ashanti	15.7	29.0	24.8	5075
Western North	15.2	27.4	23.7	1360
Ahafo	17.1	30.1	25.4	767
Bono	16.3	27.9	22.8	1353
Bono East	16.4	30.2	25.2	1304
Oti	15.3	27.5	24.5	1198
Northern	15.0	25.7	21.7	2144
Savannah	17.3	28.9	26.1	1039
North East	15.5	27.6	24.2	894
Upper East	12.3	28.5	23.1	1632
Upper West	14.5	27.5	24.7	1458
<b>Residence</b>				
Urban	15.9	28.3	25.1	14853
Rural	15.1	27.7	24.0	17649
<b>National</b>	<b>15.5</b>	<b>28.0</b>	<b>24.5</b>	<b>32502</b>

Source: 2020 CFSVA

### 7.3 Vitamin A Supplementation Among Children Under Five Years (0-59 Months)

Vitamin A supplementation has earned a considerable amount of attention as a cost-effective public health measure that prevents blindness and decreases the risk of morbidity and mortality in children. Ghana adopted the supplementation of children aged 6-59 months with Vitamin A and implementation has been on-going for the past two and half decades. The main objective of Vitamin A supplementation is to reduce Vitamin A deficiency-related consequences such as blindness and associated morbidity and mortality among children aged 6-59 months. In Ghana, two in 10 children aged 6-59 months (20.8 percent) are Vitamin A deficient, as reported in the 2017 Ghana Micronutrients survey. This level of deficiency implies a moderate public health importance, according to WHO, and requires continuous supplementation of the children in the country.

The 2020 CFSVA assessed the coverage level of the Vitamin A supplementation classified according to whether the child had received Vitamin A in the six months prior to the survey, or not. Table 21 shows overall coverage of the Vitamin among children aged 6-59 months to be 73.6 percent. Among children aged 6-11 months and those aged 12-59 months, Vitamin A supplementation coverage was 79.1 percent and 73.0 percent, respectively (Table 21). There are no significant regional and residential variations in the coverage of Vitamin A among children aged 6-59 months.

■ **Table 21: Proportion of Children 6-59 Months Receiving Vitamin A in the Six Months Preceding the Survey, by Region and Place of Residence**

Region	6-11 months (%)			12-59 months (%)			6-59 months (%)		
	Don't know	Not Covered	N	Don't know	Not Covered	N	Don't know	No Covered	N
Western	8.1	13.2	1369	9.4	17.8	1505	9.3	17.4	136
Central	5.2	16.5	2096	8.3	17.5	2326	8.0	17.4	230
Greater Accra	7.0	16.5	3047	8.8	18.1	3374	8.7	18.0	327
Volta	5.6	13.8	2049	9.3	19.8	2245	9.0	19.2	196
Eastern	8.2	11.5	2527	9.0	16.9	2831	8.9	16.3	304
Ashanti	6.6	13.4	3955	9.1	19.5	4396	8.9	18.9	441
Western North	5.5	14.2	1068	9.4	16.6	1195	9.0	16.3	127
Ahafo	8.5	25.4	613	9.5	17.3	672	9.4	18.0	59
Bono	6.9	13.1	1050	10.1	18.8	1180	9.7	18.1	130
Bono East	8.4	12.6	1034	9.4	18.0	1129	9.3	17.5	95
Oti	2.6	15.5	943	9.5	16.9	1059	8.8	16.7	116
Northern	6.4	15.2	1651	8.5	17.1	1822	8.3	16.9	171
Savannah	7.0	22.5	840	7.6	15.6	911	7.6	16.1	71
North East	6.3	10.0	683	8.9	20.4	763	8.7	19.3	80
Upper East	5.8	12.4	1278	8.5	17.4	1399	8.2	17.0	121
Upper West	6.3	13.3	1123	10.8	16.1	1266	10.3	15.8	143
<b>Residence</b>									
Urban	7.1	14.7	11531	9.1	17.7	12786	8.9	17.4	1255
Rural	6.1	14.1	13795	9.1	18.2	15287	8.8	17.8	1492
<b>National</b>	<b>6.6</b>	<b>14.4</b>	<b>25326</b>	<b>9.1</b>	<b>18.0</b>	<b>28073</b>	<b>8.8</b>	<b>17.6</b>	<b>2747</b>

**N:** Total number of children in each age group

**Not Covered:** Child did not take Vitamin A in the six months prior to the survey

**Covered:** Child took Vitamin A capsules in the six months prior to the survey

## 7.4 Coverage of Measles Vaccination Among Children Aged 9-59 Months

Measles is a highly contagious disease caused by a virus, which usually results in a high fever and rash, and can lead to blindness, encephalitis, or death.

Table 22 shows 87.5 percent of children had received measles-containing vaccines. All the regions had more than 80 percent of children receiving measles vaccines. Among children who were said to have received measles vaccines, only one in 6 (18.0 percent) were confirmed through the child health records. The remaining 69.5 percent were responses from their caregivers or mothers. Eastern, Upper East, and Oti regions were the three regions with the highest percentage of children receiving measles vaccination, while Ahafo, North East, and Volta regions recorded the least measles vaccination coverage. The coverage of measles vaccination was equal in the urban and rural areas (87.7 percent vs. 87.4 percent).

■ **Table 22: Measles Vaccination Coverage for Children Aged 9-59 Months (%)**

Region	Did Child Ever Receive a Measles Vaccination?				Coverage (%)	N
	Don't Know	No	Yes, With Card	Yes, Confirmed by Mother		
Western	5.7	7.1	19.9	67.3	87.2	1096
Central	5.1	6.5	18.9	69.5	88.4	1648
Greater Accra	6.1	7.0	18.8	68.0	86.8	2387
Volta	6.6	8.0	20.1	65.4	85.4	1579
Eastern	4.4	5.8	18.6	71.2	89.8	1972
Ashanti	5.5	7.2	16.4	70.8	87.3	3037
Western North	6.2	4.8	16.7	72.2	88.9	849
Ahafo	6.3	10.1	13.6	70.0	83.6	477
Bono	7.0	5.5	17.9	69.6	87.5	829
Bono East	6.5	5.9	15.5	72.0	87.6	812
Oti	4.2	6.7	20.5	68.6	89.1	741
Northern	6.5	6.1	17.9	69.5	87.3	1304
Savannah	5.3	7.5	19.5	67.7	87.1	677
North East	6.7	8.1	18.9	66.3	85.2	534
Upper East	5.0	5.4	16.4	73.2	89.6	1029
Upper West	6.5	6.5	17.4	69.6	87.1	883
<b>Residence</b>						
Urban	5.8	6.5	18.2	69.5	87.7	9073
Rural	5.7	6.9	17.9	69.5	87.4	10781
<b>National</b>	<b>5.7</b>	<b>6.7</b>	<b>18.0</b>	<b>69.5</b>	<b>87.5</b>	<b>19854</b>

Source: 2020 CFSVA

## 7.5 Household Ownership and Use of Insecticide-Treated Nets (ITNs) by Children

Malaria remains a public health problem in Ghana and one of the leading causes of mortality in sub-Saharan Africa, although preventable. The disease affects all ages but children under 5 years and pregnant women are the most vulnerable groups. The effect of malaria is not only limited to health, but also other social and economic sectors.

Use of ITNs, and in particular long-lasting insecticide-treated nets (LLINs), is a form of personal protection that reduces illness, severe diseases, and death in endemic regions. LLINs are promoted by the WHO and Roll Back Malaria partners as a cost-effective and sustainable method for protection against malaria. Promoting LLINs is a primary health intervention designed to reduce malaria transmission in Ghana.

In Ghana, the Ministry of Health (MoH) recommends household use of LLINs as they greatly reduce the cost and the operational difficulties associated with retreatment of nets. Most mosquito nets are provided free of charge by the MoH and GHS through several channels, such as mass distribution campaigns and targeted distributions through schools, child welfare clinics, and antenatal clinics.

All households in the 2020 CFSVA were asked whether they owned a mosquito net. Table 23 shows household ownership of nets by type (any mosquito net, ITN, or LLIN) and whether a child under 5 years in households with mosquito net slept in the net the night before the interview.

Overall, 75.4 percent of households in Ghana own nets. Ownership of an ITN does not differ markedly by region and residence. Households in the Greater Accra region are least likely to own an ITNS (73.2 percent), while households in the North East are most likely to own one (78.1 percent). Three-quarters of households in the rural and urban areas own ITNS (75.8 percent and 75.0 percent, respectively).

■ **Table 23: Percentage Household Ownership of Insecticides Treated Bed-net and Utilization by Children, by Region and Rural-Urban Residence**

Region	Did Household Own an Insecticide Treated Net (%)			Did Child Sleep Under Insecticides Treated Net a Night Before the Interview (%)		
	No	Yes	N	No	Yes	N
Western	26.7	73.3	1757	16.1	83.9	1288
Central	23.1	76.9	2749	16.6	83.4	2113
Greater Accra	26.8	73.2	3906	14.9	85.1	2858
Volta	24.4	75.6	2595	16.8	83.2	1963
Eastern	23.8	76.2	3271	15.1	84.9	2494
Ashanti	25.0	75.0	5075	15.2	84.8	3804
Western North	24.4	75.6	1360	15.0	85.0	1028
Ahafo	24.9	75.1	767	14.8	85.2	576
Bono	22.1	77.9	1353	17.1	82.9	1054
Bono East	26.0	74.0	1304	16.4	83.6	965
Oti	23.0	77.0	1198	13.0	87.0	922
Northern	24.1	75.9	2144	15.4	84.6	1627
Savannah	24.6	75.4	1039	15.2	84.8	783
North East	21.9	78.1	894	14.5	85.5	698
Upper East	24.2	75.8	1632	16.7	83.3	1237
Upper West	24.6	75.4	1458	15.3	84.7	1100
<b>Residence</b>						
Urban	25.0	75.0	14853	15.7	84.3	11135
Rural	24.2	75.8	17649	15.4	84.6	13375
<b>National</b>	<b>24.6</b>	<b>75.4</b>	<b>32502</b>	<b>15.5</b>	<b>84.5</b>	<b>24510</b>



# 8

## Conclusion



The 2020 CFSVA shows that 11.7 percent of households in Ghana (i.e., 3.6 million people) are food insecure. However, there are regional, district, and urban/rural differences with pockets of food insecurity dotted across the country. The region with the highest prevalence of food insecurity is Upper East (49 percent), followed by North East (33 percent) and Northern (31 percent). At the district level, Kasena Nankana West in the Upper East region recorded the highest prevalence rate of 78.8 percent, followed by Karaga in the Northern region (75.9 percent) and Builsa South in Upper East region (74.5 percent). Factors such as the single season for crop production (which results in long dry spells), high level of migration, low level of education for most heads of households, high level of exposure to natural disasters like floods especially from spillage from the Bagre Dam in Burkina Faso, and bush fires contribute to the high prevalence of food insecurity in the northern part of Ghana.

Unlike the 2009 nationwide CFSVA, which was analyzed at the regional level, the 2020 assessment, for the first time in the history of the CFSVA, analyzed district-level data on food and nutrition security, and can be used for investigating district-level causes of food insecurity. Food security information at the district level is valuable for geographical targeting for food and nutrition security, livelihood, as well as social protection interventions.

The findings also reveal a higher prevalence of food insecurity among male-headed households (14.1 percent) than female-headed households (9.5 percent). Also, it was observed that the higher the educational level of the household head, the lower the prevalence of household food insecurity. Overall, there is a higher prevalence of food insecurity among households from which migration has taken place ('migrant households,' 15.9 percent) than 'non-migrant households' (11.1 percent).

Most households perceive food security as only the availability or production of the food, without paying attention to other dimensions of food security such as accessibility, utilization, and stability. Most agriculture-related projects and interventions usually focus on productivity enhancements with little attention to crop diversification, nutrition-sensitive agriculture, market-based approaches to value chain development, and initiatives to mitigate shocks.

The study further reveals that, food insecurity varies significantly across all livelihood activities or groups. However, it is notable that food insecurity is prevalent among households across all livelihood groups, including skilled labour and salaried workers. Among the livelihood groups, households dependent on livestock rearing have the highest prevalence of food insecurity (30.4 percent), followed by households that depend on food crop production (19.7 percent), unskilled manual labourers (15.0 percent), remittances (11.3 percent), and fishing (10.9 percent).

Majority of households interviewed (90 percent) experienced at least one form of shock during the year 2020. The top five shocks experienced by respondent households included COVID-19 (cited by 63.8 percent), high food prices (34.1 percent), late rain/drought/no water (21.6 percent), insufficient money to buy food or cover other basic needs (14.3 percent), and reduced income of a household member (13.4 percent). Urban households have a higher prevalence of each of the featured categories of shock than their rural counterparts, except for shocks associated with late rain/dry spell and insufficient money for basic needs. The data reveals disparate prevalence of COVID-19 shocks among regions, ranging from a high of 76 percent in the Western region to a low of 41 percent in the Upper West region. It is noted that urban households – which tend to have lower prevalence of food insecurity – were more extensively affected by COVID-19 shocks than rural households.

Household Dietary Diversity is classified according to the number of food groups, out of 12 food groups the household consumes as meals: low dietary diversity (0-4), medium diversity (5-8), and high diversity (9-12). Overall, 80.5 percent of households have high dietary diversity, 14.6 percent have medium diversity, while 4.9 percent fall under low dietary diversity. There is a link between dietary diversity and food consumption. Among the poor-food-consuming households, dietary diversity is high among 39.8 percent of households, medium among 33.2 percent, and low among 27 percent. In the borderline-food-consuming households, dietary diversity is high among 62.1 percent of households, medium among 27.4 percent and low among 10.6 percent of households. Among households within the acceptable food consumption group, dietary diversity is high among 86.1 percent of households, medium in 11.3 percent, and low among only 2.5 percent

of households. Generally, food insecure households consume less diverse food groups.

Minimum Dietary Diversity of Women (MDDW) indicates whether at least five out of ten specified food groups were eaten by women aged 15-49 years the day or night the survey. The dietary diversity of women (15-49 years) in Ghana was 58.9 percent.

Overall, early initiation rate of breastfeeding was 63.9 percent. Breastfeeding among children aged 12-15 months remains nearly universal (91 percent), and all regions had at least 80 percent of children aged 12-15 months continuing breastfeeding beyond one year. About nine in 10 children within the ages of 6-8 months (85.2 percent) received solid/semi-solid/soft food. About one in six children aged 6-23months (16.9 percent) had a sufficiently diverse diet, consuming at least four different food groups a day prior to the survey.



# 9

## Recommendations



Based on the findings and conclusions above, the following recommendations were proposed:

## 9.1 Programmatic Recommendations:

- i. There is the need for proper and effective coordination and harmonization of food and nutrition security interventions by the MoFA, especially in the northern part of Ghana.
- ii. Climate Smart Agriculture activities should be promoted and adopted.
- iii. Education on Nutrition and Social Behavioural Change Communication (SBCC) should be promoted at the community level to increase the consumption of locally available nutritious foods and specialized nutritious foods.
- iv. There is the need to improve community and household resilience, especially during the lean season as households often face economic hardship during these periods in the northern part of Ghana. This could be done through seasonal implementation of cash transfers linked to Livelihood Empowerment against Poverty (LEAP), as well as support for livelihood activities for the affected populations.
- v. Capacity strengthening of government (MoFA and GHS) to collect and monitor food and nutrition security situation on quarterly basis should be institutionalized.
- vi. MoFA should promote crop diversification, intensification, and extension.
- vii. There is the need to encourage increased investment in livestock, poultry, and fisheries sub-sectors.
- viii. There is also the need for further research to link food security to migration, education, shocks, etc.
- ix. E-commerce for agriculture should be promoted to entice youth to enter agriculture-related businesses along the value chain.
- x. There should be increased investment in climate adaptation measures that could sustain agricultural production and household resilience during climatic disturbances such as long dry spells and flooding.
- xi. Water harvesting/storage and reconstruction of dams for irrigation for backyard farming should be promoted.
- xii. Decent jobs should be created for youth and women, especially in the rural areas, to curb migration.
- xiii. Geographical targeting and implementation of food and nutrition projects should be based on the results of the CFSVA.
- xiv. Regional Coordinating Councils and MMDAs should be encouraged to use the CFSVA for planning of food and nutrition, as well as social protection projects at the decentralized levels.
- xv. COVID-19 protocols should be observed strictly, especially in the urban centres, and vaccination against COVID-19 should be encouraged.

## 9.2 Policy Recommendations:

- i. All-year-round irrigation and mechanization schemes should be developed and promoted to support large and small-scale farming.
- ii. The current policy on subsidy of agricultural inputs under the Planting for Food and Jobs (PFJ) programme should be re-packaged to target food and cash crop farmers and agro-pastoralists in food insecure areas.

# ANNEXES



## ANNEX 1: DEFINITION OF FOOD INSECURITY

In this report, in continuity with previous CFSVA reports<sup>14</sup>, household food security is classified according to a combination of two composite indicators:

- Food Consumption Score (FCS)
- Wealth Index (WI)

The FCS combines dietary diversity, frequency of consumption, and the relative nutritional importance of different food groups in a single score intended to represent a household's overall food consumption status. Based on predetermined thresholds, a household's food consumption status (WFP VAM) is then classified as poor ( $FCS \leq 21$ ), borderline ( $FCS > 21$  and  $\leq 35$ ), and acceptable ( $FCS > 35$ ). The statuses are defined as follows:

- i. poor food consumption implies a household does not consume staples and vegetables every day, and never or very seldom consumes protein-rich food such as meat and dairy.
- ii. borderline food consumption implies a household consumes staples and vegetables every day, accompanied by oil and pulses a few times a week.
- iii. acceptable food consumption implies a household consumes staples and vegetables every day, frequently accompanied by oil and pulses, and occasionally accompanied by meat, fish and dairy vegetables.

The Wealth Index is a composite measure of a household's cumulative living standards. The Wealth Index is calculated using easy-to-collect data on a household's ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities.

Generated with a statistical procedure known as principal components analysis, the Wealth Index places individual households on a continuous scale of relative wealth. All interviewed households are placed into five wealth quintiles to compare the influence of wealth on various population, health and nutrition indicators.

The five wealth quintiles scale was used to classify households into poorest, poor, wealthy, wealthier, and wealthiest quintiles. However, for the purpose of the classifications adopted in this report, households in the poorest and poor quintiles are simply referred to as poor, whereas household in the last three quintiles are referred as wealthy.

## ANNEX 2:

# DETAILED METHODOLOGY – SAMPLING, DATA COLLECTION, ETC.

## Sampling Procedure

The 2009 CFSVA regional food insecurity prevalence rates were applied in determining the sample sizes for each district within the regions in the 2020 assessment. The food insecurity prevalence rates for the old regions were used as proxies in determining the sample sizes for districts in the newly created regions.

The sampling plan for this study then had a complex design with a combination of stratified sampling in the selection of EAs within districts and systematic sampling for households.

A design effect was therefore used to calculate effective sample sizes, i.e., the actual sample size divided by the effective sample size (the effective sample size is what you would expect if you were using SRS).

The design effect is defined as the ratio of the variance of an estimate under a sampling plan to the variance of the same estimate from a simple random sample with same number of observation units.

Thus, using experience from the previous survey (2009), a design effect of 2.0 was allowed for the variables, and a target “precision” of 5 percent (95% confidence interval) as reference for all the districts.<sup>15</sup>

In addition, a potential non-response rate of 7-10 percent (as derived from evidence from the 2009 survey) was used to adjust the sample size, reaching the final number of a minimum of 15 households per EA.

Table 24 shows the total number of households sampled per region.

■ **Table 24: Determination of the Sample Size, by Region**

Region	Food Insecurity from CFSVA 2009 for Regions	Precision Level	Design Effect (DE)	Sample HH Within Districts in Regions
Western	0.07	0.05	2	234
Central	0.08	0.05	2	265
Greater Accra	0.04	0.05	2	198
Volta	0.1	0.05	2	281
Eastern	0.12	0.05	2	291
Ashanti	0.17	0.05	2	260
Western North	0.07	0.05	2	219
Ahafo	0.14	0.05	2	225
Bono	0.14	0.05	2	225
Bono East	0.14	0.05	2	225
Oti	0.14	0.05	2	225
Northern	0.17	0.05	2	260
Savannah	0.14	0.05	2	225
North East	0.14	0.05	2	225
Upper East	0.35	0.05	2	273
Upper West	0.48	0.05	2	300

Source: 2020 CFSVA

<sup>15</sup>From the SAGE encyclopedia of Survey Research Methods (<http://methods.sagepub.com/Reference/encyclopedia-of-survey-research-methods>):

- “The design effect (deff) is a survey statistic computed as the quotient of the variability in the parameter estimate of interest resulting from the sampling design and the variability in the estimate that would be obtained from a simple random sample of the same size.”
- “Precision in statistical surveys relates to the variation of a survey estimator for a population parameter that is attributable to having sampled a portion of the full population of interest using a specific probability-based sampling design.”

Note that both statistics are defined with reference to a parameter of interest which, in this case, is taken to be the population mean of a quantitative variable.

The determination of the sample sizes for all districts are in Table 25.

■ **Table 25: Determination of the Sample Size, by District**

Region	Districts	No. of EAs Selected
Western	Jomoro Municipal (Half-Assini)	16
Western	Ellembelle (Nkroful)	16
Western	Nzema East Municipal (Axim)	16
Western	Ahanta West Municipal (Agona Nkwanta)	16
Western	Effia Kwesimintsim Municipal (Kwesimintsim)	16
Western	STMA	36
Western	Shama (Shama)	16
Western	Wassa East (Daboase)	16
Western	Mpohor (Mpohor)	16
Western	Tarkwa-Nsuaem Municipal (Tarkwa)	16
Western	Prestea/Huni Valley Municipal (Bogoso)	16
Western	Wassa Amenfi East Municipal (Wassa Akropong)	16
Western	Wassa Amenfi Central (Manso Amenfi)	16
Western	Wassa Amenfi West Municipal (Asankragua)	16
Central	Komenda Edina Eguafu Abirem Municipal (Elmina)	18
Central	Cape Coast Metro	32
Central	Abura Asebu Kwamankese (Abura-Dunkwa)	18
Central	Twifo Heman Lower Denkyira (Hemang)	18
Central	Twifo Ati Morkwa (Twifo Praso)	18
Central	Upper Denkyira East Municipal (Dunkwa-On-Offin)	18
Central	Upper Denkyira West (Diaso)	18
Central	Mfantiman Municipal (Saltpond)	18
Central	Assin South (Nsuaem Kyekyewere)	18
Central	Assin North (Assin Breku)	18
Central	Assin Fosu Municipal (Assin Fosu)	18
Central	Ekumfi (Essakyir)	18
Central	Gomoa West (Apam)	18
Central	Gomoa Central (Afransi)	18
Central	Asikuma Odoben Brakwa (Bremas Asikuma)	18
Central	Ajumako Enyan Essiam (Ajumako)	18
Central	Effutu Municipal (Winneba)	18
Central	Gomoa East (Potsin)	18
Central	Awutu Senya East Municipal (Kasoa)	18
Central	Awutu Senya (Awutu Beraku)	18
Central	Agona East (Agona Nsaba)	18
Central	Agona West Municipal (Agona Swedru)	18
Greater Accra	Ga South Municipal (Ngleshie Amanfro)	13
Greater Accra	Weija Gbawe Municipal (Weija)	13
Greater Accra	Ga Central Municipal (Sowutuom)	13
Greater Accra	Ga North Municipal (Ofankor)	13
Greater Accra	Ga West Municipal (Amasaman)	13
Greater Accra	Ablekuma North Municipal (Darkuman)	13
Greater Accra	Ablekuma West Municipal	13
Greater Accra	Ablekuma Central Municipal (Lartebiokorshie)	13

Region	Districts	No. of EAs Selected
Greater Accra	AMA	31
Greater Accra	Korle Klottey Municipal (Adabraka)	13
Greater Accra	Ayawaso Central Municipal (Kokomlemle)	13
Greater Accra	Ayawaso East Municipal (Nima)	13
Greater Accra	Ayawaso North Municipal (Accra Newtown)	13
Greater Accra	Ayawaso West Municipal (Dzorwulu)	13
Greater Accra	Okaikoi North Municipal (Tesano)	13
Greater Accra	Adentan Municipal (Adentan)	13
Greater Accra	Ga East Municipal (Abokobi)	13
Greater Accra	La Nkwantanang Madina Municipal (Madina)	13
Greater Accra	Shai Osudoku (Dodowa)	13
Greater Accra	La Dade-Kotopon Municipal (La)	13
Greater Accra	Ledzokuku Municipal (Teshie)	13
Greater Accra	Krowor Municipal (Nungua)	13
Greater Accra	Tema West Municipal (Tema Comm. 18)	13
Greater Accra	TMA	33
Greater Accra	Kpone Katamanso Municipal (Kpone)	13
Greater Accra	Ashaiman Municipal (Ashaiman)	13
Greater Accra	Ningo Prampram (Prampram)	13
Greater Accra	Ada West (Sege)	13
Greater Accra	Ada East (Ada-Foah)	13
Volta	South Tongu (Sogakope)	19
Volta	Anloga (Anloga)	19
Volta	Keta Municipal (Keta)	19
Volta	Ketu South Municipal (Denu)	19
Volta	Ketu North Municipal (Dzodze)	19
Volta	Akatsi North (Ave Dakpa)	19
Volta	Akatsi South (Akatsi)	19
Volta	Central Tongu (Adidome)	19
Volta	North Tongu (Battor Dugame)	19
Volta	Ho West (Dzoloakpuita)	19
Volta	Adaklu (Adaklu Waya)	19
Volta	Agortime-Ziope (Agortime-Kpetoe)	19
Volta	Ho Municipal (Ho)	19
Volta	South Dayi (Kpeve)	19
Volta	Afadzato South (Ve Golokwati)	19
Volta	North Dayi (Amfoega)	19
Volta	Kpando Municipal (Kpando)	19
Volta	Hohoe Municipal (Hohoe)	19
Eastern	Birim South (Akim Swedru)	19
Eastern	Birim Central Municipal (Akim Oda)	19
Eastern	Achiase (Achiase)	19
Eastern	Asene Manso Akroso (Manso)	19
Eastern	West Akim Municipal (Asamankese)	19
Eastern	Upper West Akim (Adeiso)	19
Eastern	Ayensuano (Coaltar)	19
Eastern	Denkyembuor (Akwatia)	19

Region	Districts	No. of EAs Selected
Eastern	Akyemansa (Ofoase)	19
Eastern	Kwaebibirem Municipal (Kade)	19
Eastern	Birim North (New Abirem)	19
Eastern	Kwahu South (Mpraeso)	19
Eastern	Kwahu West Municipal (Nkawkaw)	19
Eastern	Kwahu East (Abetifi)	19
Eastern	Kwahu Afram Plains South (Tease)	19
Eastern	Kwahu Afram Plains North (Donkorkrom)	19
Eastern	Fanteakwa North (Begoro)	19
Eastern	Atiwa West (Kwabeng)	19
Eastern	Atiwa East (Anyinam)	19
Eastern	Nsawam Adoagyiri Municipal (Nsawam)	19
Eastern	Akwapim South (Aburi)	19
Eastern	Akwapim North Municipal (Akropong Akwapim)	19
Eastern	Okere (Adukrom)	19
Eastern	New Juaben South Municipal (Koforidua)	19
Eastern	New Juaben North Municipal (Effiduase)	19
Eastern	Suhum Municipal (Suhum)	19
Eastern	Abuakwa South Municipal (Kibi)	19
Eastern	Abuakwa North Municipal (Kukurantumi)	19
Eastern	Fanteakwa South (Osino)	19
Eastern	Yilo Krobo Municipal (Somanya)	19
Eastern	Lower Manya Krobo Municipal (Odumasi-Krobo)	19
Eastern	Asuogyaman (Atimpoku)	19
Eastern	Upper Manya Krobo (Asesewa)	19
Ashanti	Amansie South (Manso Adubia)	17
Ashanti	Amansie Central (Jacobu)	17
Ashanti	Akrofuom (Akrofuom)	17
Ashanti	Adansi South (New Edubiase)	17
Ashanti	Adansi Asokwa (Adansi Asokwa)	17
Ashanti	Obuasi East (Tutka)	17
Ashanti	Obuasi Municipal (Obuasi)	17
Ashanti	Adansi North (Fomena)	17
Ashanti	Bekwai Municipal (Bekwai)	17
Ashanti	Amansie West (Manso Nkwanta)	17
Ashanti	Atwima Kwanwoma (Foase)	17
Ashanti	Atwima Nwabiagya North (Barekese)	17
Ashanti	Atwima Nwabiagya South Municipal (Nkawie Kuma)	17
Ashanti	Atwima Mponua (Nyinahin)	17
Ashanti	Bosomtwe (Kuntanase)	17
Ashanti	Bosome Freho (Asiwa)	17
Ashanti	Asante Akim Central Municipal (Konongo-Odumase)	17
Ashanti	Asante Akim South Municipal (Juaso)	17
Ashanti	Asante Akim North (Agogo)	17
Ashanti	Sekyere Kumawu (Kumawu)	17
Ashanti	Sekyere East (Effiduase)	17
Ashanti	Juaben Municipal (Juaben)	17

Region	Districts	No. of EAs Selected
Ashanti	Ejisu Municipal (Ejisu)	17
Ashanti	Sekyere South (Agona)	17
Ashanti	Mampong Municipal (Mampong)	17
Ashanti	Ejura Sekyedumase Municipal (Ejura)	17
Ashanti	Sekyere Central (Nsuta)	17
Ashanti	Sekyere Afram Plains (Drobonso)	17
Ashanti	Oforikrom Municipal	17
Ashanti	Asokwa Municipal (Asokwa)	17
Ashanti	KMA	43
Ashanti	Kwadaso Municipal (Kwadaso)	17
Ashanti	Suame Municipal (Suame)	17
Ashanti	Old Tafo Municipal (Old Tafo)	17
Ashanti	Asokore Mampong Municipal (Asokore)	17
Ashanti	Kwabre East (Mampong)	17
Ashanti	Afigya Kwabre South (Kodie)	17
Ashanti	Ahafo Ano South West (Mankranso)	17
Ashanti	Ahafo Ano North (Tepa)	17
Ashanti	Ahafo Ano South East (Adugyama)	17
Ashanti	Offinso North (Akomadan)	17
Ashanti	Offinso Municipal (Offinso)	17
Ashanti	Afigya Kwabre North (Boamang)	17
Western North	Aowin Municipal (Enchi)	15
Western North	Sefwi Akontombra (Akontombra)	15
Western North	Suaman (Dadieso)	15
Western North	Bodi (Bodie)	15
Western North	Sefwi Wiawso Municipal (Wiawso)	15
Western North	Bibiani Anhwiaso Bekwai Municipal (Bibiani)	15
Western North	Juaboso (Juaboso)	15
Western North	Bia West (Essam-Debiso)	15
Western North	Bia East (Adabokrom)	15
Ahafo	Asunafo South (Kukuom)	15
Ahafo	Asunafo North Municipal (Goaso)	15
Ahafo	Asutifi South (Hwidiem)	15
Ahafo	Asutifi North (Kenyasi)	15
Ahafo	Tano North Municipal (Duayaw Nkwanta)	15
Ahafo	Tano South Municipal (Bechem)	15
Bono	Dormaa West (Nkran Nkwanta)	15
Bono	Dormaa Municipal (Dormaa Ahenkro)	15
Bono	Dormaa East (Wamfie)	15
Bono	Sunyani Municipal (Sunyani)	15
Bono	Sunyani West (Odumasi)	15
Bono	Berekum East Municipal (Berekum)	15
Bono	Berekum West (Jinijini)	15
Bono	Jaman South (Drobo)	15
Bono	Jaman North (Sampa)	15
Bono	Tain (Nsawkaw)	15
Bono	Wenchi Municipal (Wenchi)	15

Region	Districts	No. of EAs Selected
Bono	Banda (Banda Ahenkro)	15
Bono East	Nkoranza South Municipal (Nkoranza)	15
Bono East	Techiman Municipal (Techiman)	15
Bono East	Nkoranza North (Busunya)	15
Bono East	Techiman North (Tuobodom)	15
Bono East	Atebubu Amantin Municipal (Atebubu)	15
Bono East	Sene West (Kwame Danso)	15
Bono East	Sene East (Kajaji)	15
Bono East	Pru West (Prang)	15
Bono East	Pru East (Yeji)	15
Bono East	Kintampo South (Jema)	15
Bono East	Kintampo North Municipal (Kintampo)	15
Oti	Biakoye (Nkonya-Ahenkro)	15
Oti	Jasikan (Jasikan)	15
Oti	Kadjebi (Kadjebi)	15
Oti	Krachi East (Dambai)	15
Oti	Krachi West (Kete-Krachi)	15
Oti	Krachi Nchumuru (Chinderi)	15
Oti	Nkwanta South Municipal (Nkwanta)	15
Oti	Nkwanta North (Kpassa)	15
Northern	Kpandai (Kpandai)	17
Northern	Nanumba South (Wulensi)	17
Northern	Nanumba North Municipal (Bimbilla)	17
Northern	Zabzugu (Zabzugu)	17
Northern	Tatale Sanguli (Tatale)	17
Northern	Saboba (Saboba)	17
Northern	Yendi Municipal (Yendi)	17
Northern	Mion (Sang)	17
Northern	Nanton (Nanton)	17
Northern	TMA	31
Northern	Sagnarigu Municipal (Sagnarigu)	17
Northern	Tolon (Tolon)	17
Northern	Kumbungu (Kumbungu)	17
Northern	Savelugu Municipal (Savelugu)	17
Northern	Karaga (Karaga)	17
Northern	Gushegu Municipal (Gushegu)	17
Savannah	Bole (Bole)	15
Savannah	Sawla Tuna Kalba (Sawla)	15
Savannah	North Gonja (Daboya)	15
Savannah	West Gonja (Damongo)	15
Savannah	Central Gonja (Buipe)	15
Savannah	East Gonja Municipal (Salaga)	15
Savannah	North East Gonja (Kpalbe)	15
North East	Mamprugu Moagduri (Yagaba)	15
North East	West Mamprusi Municipal (Walewale)	15
North East	East Mamprusi Municipal (Gambaga)	15
North East	Bunkpurugu Nakpanduri (Bunkpurugu)	15

Region	Districts	No. of EAs Selected
North East	Yunyoo Nasuan (Yunyoo)	15
North East	Chereponi (Chereponi)	15
Upper East	Builsa South (Fumbisi)	18
Upper East	Builsa North Municipal (Sandema)	18
Upper East	Kasena Nankana Municipal (Navrongo)	18
Upper East	Kasena Nankana West (Paga)	18
Upper East	Bolgatanga Municipal (Bolgatanga)	18
Upper East	Talensi (Tongo)	18
Upper East	Bolgatanga East (Zuarungu)	18
Upper East	Bongo (Bongo)	18
Upper East	Nabdam (Nangodi)	18
Upper East	Bawku West (Zebilla)	18
Upper East	Binduri (Binduri)	18
Upper East	Bawku Municipal (Bawku)	18
Upper East	Garu (Garu)	18
Upper East	Tempane (Tempane)	18
Upper East	Pusiga (Pusiga)	18
Upper West	Wa West (Wechiau)	20
Upper West	Wa East (Fungsi)	20
Upper West	Wa Municipal (Wa)	20
Upper West	Nadowli Kaleo (Nadowli)	20
Upper West	Daffiama Bussie Issa (Issa)	20
Upper West	Sissala East Municipal (Tumu)	20
Upper West	Sissala West (Gwollu)	20
Upper West	Jirapa Municipal (Jirapa)	20
Upper West	Lawra Municipal (Lawra)	20
Upper West	Lambussie Karni (Lambussie)	20
Upper West	Nandom (Nandom)	20
<b>Total</b>		<b>4476</b>

The sampling frame used for the 2020 CFSVA was the updated frame from the 2010 Ghana Population and Housing Census provided by GSS for the 2020 Population and Housing Census. The frame excluded nomadic and institutional populations such as persons in hotels, barracks, and prisons. A two-stage sampling design was used to estimate key indicators at the national and urban/rural areas in the 16 administrative regions and 260 districts in the country.

The first stage involved selecting sample points (clusters) from across the 4,476 EAs. The selection of the number of EAs for each district was done using systematic sampling within the urban and rural stratification of the EAs to ensure representativeness and spread of the EAs within the districts. The second stage selection involved a systematic sampling of households. The simple random sampling is seeded using cluster and timestamp (date and time). The total number of households obtained during the listing of households was divided by a fixed number of 15 as the sample size for each EA to determine the sample interval. The random start became the seeded and random function for each EA and the sample interval relied upon for the selection of the 15 households for interviews. The selection processes were done using CSPro 7.5 logic function. Table 26 provides details.

■ **Table 26: Distributions of Targeted Enumeration Areas and Households, by Region**

Region	Number of Enumeration Areas			Number of Households		
	Urban	Rural	Total	Urban	Rural	Total
Western	116	128	244	1,740	1,920	3,660
Central	200	210	410	3,000	3,150	6,150
Greater Accra	384	35	419	5,760	525	6,285
Volta	94	248	342	1,410	3,720	5,130
Eastern	279	353	632	4,185	5,295	9,480
Ashanti	387	374	761	5,805	5,610	11,415
Western North	29	106	135	435	1,590	2,025
Ahafo	40	50	90	600	750	1,350
Bono	92	88	180	1,380	1,320	2,700
Bono East	67	98	165	1,005	1,470	2,475
Oti	30	90	120	450	1,350	1,800
Northern	130	160	290	1,950	2,400	4,350
Savannah	26	79	105	390	1,185	1,575
North East	20	70	90	300	1,050	1,350
Upper East	64	209	273	960	3,135	4,095
Upper West	34	186	220	510	2,790	3,300
<b>National</b>	<b>1,992</b>	<b>2,484</b>	<b>4,476</b>	<b>29,880</b>	<b>37,260</b>	<b>67,140</b>

Source: 2020 CFSVA

Because of the approximately equal sample sizes in each region, the sample is not self-weighting at the national level, and weighting factors, based on the population in each region, have been added to the data file so that the results will be proportional at the national level.

## Data Collection

### Primary Data

The primary data collection was preceded by a five-day (3-7 November, 2020) training of 883 field enumerators on the data collection tools using a Computer Assisted Personal Interview (CAPI) system. Owing to the restrictions on large gatherings, as part of the Government of Ghana's COVID-19 response, the training workshops were held in five zones: Tamale (185), Sunyani (95), Kumasi (162), Ho (188), and Winneba (235).

Prior to the enumerator training, 50 supervisors pooled from GSS, MoFA, academia and research institutions were trained and pilot tested on the deployment of the CAPI system as trainers in the training zones.

Out of the 883 enumerators, 801 were trained and deployed in 267 groups of three, each comprising a team lead and two team members. These teams collected data in each of the 260 administrative districts.

The remaining 82 trainees were used as buffer against enumerator attrition during field work.

Data was collected in 4,476 EAs sampled from each of 260 districts in the 16 regions from November 9 to December 6, 2020.

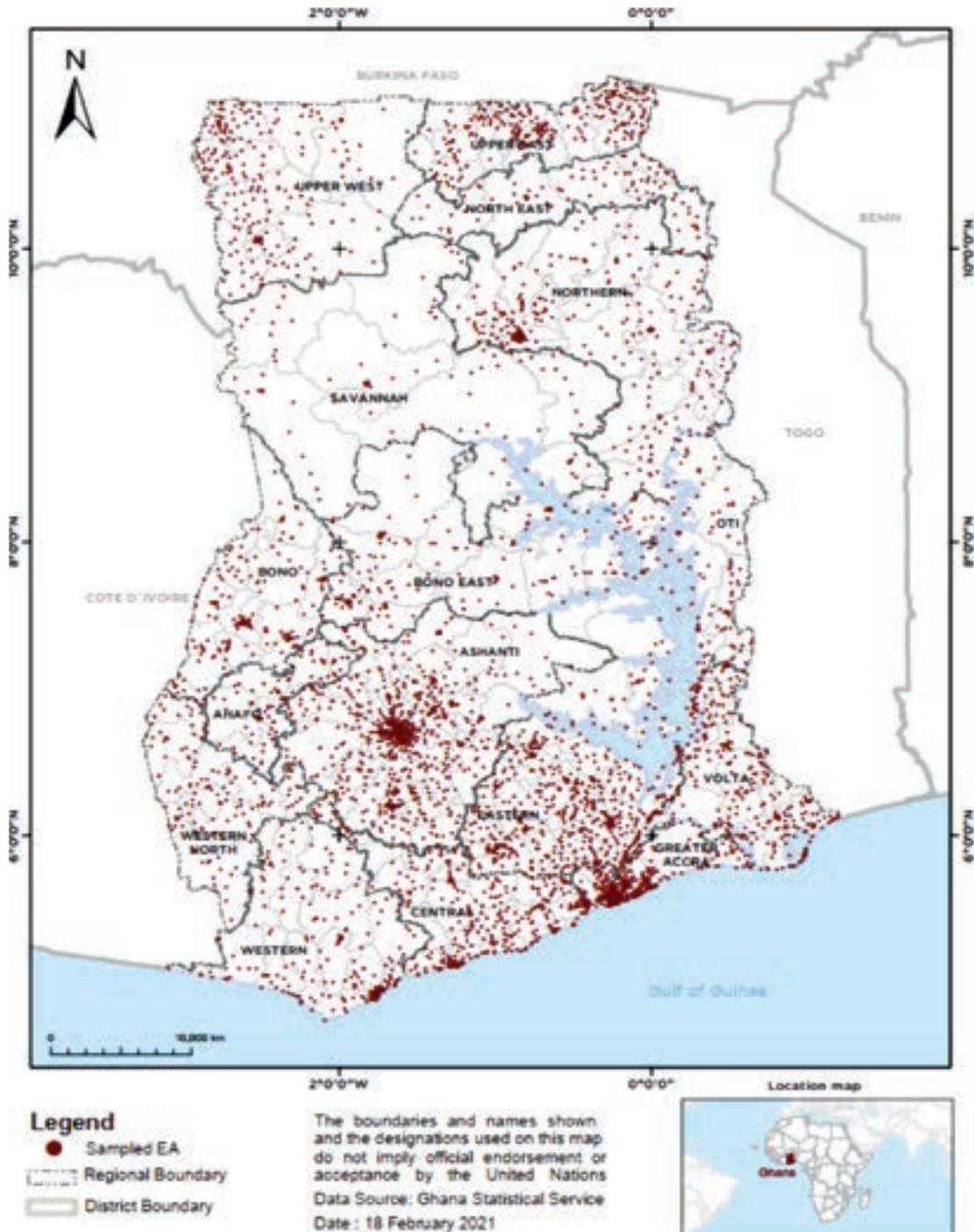
Fifteen households were randomly selected for questionnaire administration after a 100 percent listing of households in each EA selected. By this design 65,396 households were targeted for interviews.

## Secondary Data

Prior to the primary data collection, a detailed desk review was carried out to consolidate information from the previous CFSVA reports, MoFA Facts and Figures, GLSS7, Ghana DHS reports and other relevant publications. The review further provided context for the development of the instruments, study design and method for primary data collection. Diagram 26 shows the sampled EAs for data collection.

■ Diagram 26: EAs Sampled for Data Collection

### SAMPLED EAs FOR CFSVA DATA COLLECTION



## Study Response Rate

The study was designed to interview 67,140 household heads. However, only 65,309 participated in the study, representing a study response rate of 97.27 percent.

Table 27 shows the response rates by region and residence.

■ **Table 27: Response Rates, by Region and Residence**

Region	Respondent Households		
	Targeted (N)	Achieved (N)	Response Rate (%)
Western	3,660	3,573	97.62
Central	6,150	6,045	98.29
Greater Accra	6,285	5,951	94.69
Volta	5,130	5,067	98.77
Eastern	9,480	9,246	97.53
Ashanti	11,415	11,031	96.64
Western North	2,025	1,995	98.52
Ahafo	1,350	1,320	97.78
Bono	2,700	2,651	98.19
Bono East	2,475	2,418	97.70
Oti	1,800	1,779	98.83
Northern	4,350	4,204	96.64
Savannah	1,575	1,540	97.78
North East	1,350	1,322	97.93
Upper East	4,095	3,938	96.17
Upper West	3,300	3,229	97.85
<b>Residence</b>			
Urban	29,880	28,687	96.01
Rural	37,260	36,622	98.29
<b>Total</b>	<b>67,140</b>	<b>65,309</b>	<b>97.27</b>

Source: 2020 CFSVA

The response rate was higher among rural households (98.29 percent) than their urban counterparts (96.01 percent).

By region, household response rates in twelve regions were higher than the national average (97.27 percent). These include Oti (98.83 percent), Volta (98.77 percent), Western North (98.52 percent), Central (98.29 percent), Bono (98.19 percent), and North East (97.93 percent). The rest are Upper West (97.85 percent), Ahafo (97.78 percent), Savannah (97.78 percent), Bono East (97.70 percent), and Western (97.62 percent).

## ANNEX 3: PROFILE OF RESPONDENT HOUSEHOLDS

This section provides information on the characteristics of households in the 2020 CFSVA sample.

Household characteristics include household size; type of dwelling; ownership of dwelling; housing condition; sleeping rooms occupied; main sources of energy for cooking, lighting and drinking water; time spent fetching water; migrant-sending status; and household wealth.

Characteristics of the household heads were also captured in the survey. These include: sex; level of education; occupation; civil status.

The information, as much as possible, is disaggregated by residence (urban/rural), region, and districts. They are also disaggregated by ecological and livelihood zone. All district data are presented in Annex 4 below.

### 1 Characteristics of Respondents

#### 1.1 Sex of Respondents

Table 28 shows the number of respondents by sex, region and residence.

■ **Table 28: Sex of Respondents**

	Sex of Household Head (N)		Total Households (N)	% Female Respondent
	Male	Female		
<b>Region</b>				
Western	1721	1852	3,573	51.8
Central	2497	3548	6,045	58.7
Greater Accra	2252	3699	5,951	62.2
Volta	2150	2917	5,067	57.6
Eastern	4032	5214	9,246	56.4
Ashanti	4679	6352	1,1031	57.6
Western North	1023	972	1,995	48.7
Ahafo	656	664	1,320	50.3
Bono	1046	1605	2,651	60.5
Bono East	1343	1075	2,418	44.5
Oti	1054	725	1,779	40.8
Northern	3143	1061	4,204	25.2
Savannah	1014	526	1,540	34.2
North East	1004	318	1,322	24.1
Upper East	1893	2045	3,938	51.9
Upper West	1785	1444	3,229	44.7
<b>Residence</b>				
Urban	11963	16724	28,687	58.3
Rural	19329	17293	36,622	47.2
<b>National</b>	<b>31,292</b>	<b>34,017</b>	<b>65,309</b>	<b>52.1</b>

Source: 2020 CFSVA

Overall, female participation was more than half (52.1 percent). This means more women participated in the study than men. However, among rural respondents, there were fewer female than male respondents (47.22 percent vs. 52.80 percent), while among urban respondents, there were higher levels of female participation (58.30 percent vs. 41.70 percent among male respondents).

By region, the female participation in nine regions was higher (>50%) than their male counterparts. These include Greater Accra (62.16 percent vs. 37.84 percent), Bono (60.54 percent vs. 39.46 percent), Central (58.69 percent vs. 41.31 percent), Ashanti (57.58 vs. 42.42 percent), Volta (57.57 percent vs. 42.43 percent), Eastern (56.39 percent vs. 43.61 percent), Western (51.83 percent vs. 48.17 percent), Upper East (51.93 percent vs. 48.07 percent), and Ahafo (50.3 percent vs. 49.7 percent). However, in seven (7) regions, female participation was lower than their male counterparts (<50%). These include the North East (24.05 percent vs. 75.95 percent), Northern (25.24 percent vs. 74.76 percent), Savannah (34.16 percent vs. 65.84 percent), Oti (40.75 percent vs. 59.25 percent), Bono East (44.46 percent vs. 55.54 percent), Upper East (44.72 percent vs. 55.28 percent), and Western North (48.72 percent vs. 51.28 percent).

## 1.2 Head of Household's Levels of Education

Respondents' education levels are described in Table 2.2. Generally, about half (49.61%) of respondents had some basic education, 23.13 percent had post-basic education, while 26.78 percent never had any education. Of the 49.61 percent of respondents having some basic education, 1.56 percent completed their education at the pre-school level, 13.25 percent at primary level, and 34.8 percent at middle school/JSS/JHS levels. Of the 23.13 percent of respondents with post-basic education, 13.75 percent completed at the secondary/SSS/SHS/Technical/Vocational levels and 9.38 percent at the tertiary level.

■ **Table 29: Respondents' Level of Education (%)**

Region	Respondent Education Level (%)							Total
	No Schooling	Pre School	Primary	Middle/JSS/JHS	Secondary/SSS/SHS/Tech/Voc	Tertiary	Others	
Western	16.06	0.98	13.21	40.75	17.97	10.55	0.47	3,573
Central	18.31	1.57	14.67	41.92	13.86	9.43	0.24	6,045
Greater Accra	8.86	0.59	9.71	37.34	26.63	15.98	0.89	5,951
Volta	14.72	0.85	17.78	44.80	12.37	9.28	0.20	5,067
Eastern	13.93	1.16	17.12	46.23	11.70	8.89	0.97	9,246
Ashanti	17.46	2.20	12.29	42.42	15.76	9.60	0.26	11,031
Western North	22.41	1.60	15.84	40.05	13.28	6.52	0.30	1,995
Ahafo	26.59	1.82	11.06	38.26	12.42	9.39	0.46	1,320
Bono	21.92	1.21	13.54	39.34	13.43	10.22	0.34	2,651
Bono East	36.56	2.89	14.56	28.62	10.46	6.49	0.41	2,418
Oti	35.98	1.07	17.59	29.62	9.39	6.18	0.17	1,779
Northern	63.18	1.09	6.97	10.01	9.42	8.56	0.76	4,204
Savannah	63.77	1.23	8.70	10.45	10.52	5.06	0.26	1,540
North East	66.34	2.65	9.38	9.15	7.94	4.16	0.38	1,322
Upper East	54.82	2.44	12.39	14.32	8.20	7.24	0.59	3,938
Upper West	54.04	2.76	10.84	14.28	8.55	9.48	0.06	3,229
<b>Residence</b>								
Urban	17.02	1.09	11.31	36.32	19.24	14.42	0.60	28,687
Rural	34.42	1.93	14.77	33.61	9.45	5.43	0.39	36,622
<b>National</b>	<b>26.78</b>	<b>1.56</b>	<b>13.25</b>	<b>34.80</b>	<b>13.75</b>	<b>9.38</b>	<b>0.48</b>	<b>65,309</b>

Source: 2020 CFSVA

The pattern repeats at both at the regional and urban/rural levels with minor variations.

### 1.3 Respondents' Occupation

The respondents' occupations cut across the predominant livelihood groups in society. Most of them belong to the farm and non-farm livelihood groups (41.06 percent and 46.45 percent, respectively), while about one in 10 (12.49%) are unemployed. Table 2.3 provides the breakdown of these livelihood groups.

The non-farm livelihood respondents are involved in sales enterprises (17.6 percent), skilled manual activities (15.69 percent), professional/technical/managerial livelihoods (8.28 percent), as well as unskilled manual activities (4.04 percent). However, about one in a hundred (0.98%) belong to the religious class; they ply their livelihoods as pastors, mallams or traditional priests.

■ **Table 30: Respondents' Occupation (%)**

Region	Main Occupation of Respondents (%)							Total
	Professional / Technical / Managerial	Religious (Clerical / Pastors / Mallams / Traditional)	Sales	Skilled Manual (Carpenters, Mechanics, Hair-Dressers, Seamstresses Etc.)	Unskilled Manual/ Casual (Truck Pushing, Laborers, Housemaids, Etc.)	Farmer	Unemployed	
Western	10.8	0.9	22.9	19.6	5.4	30.0	10.4	3,290
Central	9.2	1.1	23.6	19.1	4.7	27.5	14.9	5,574
Greater Accra	14.1	1.1	30.2	27.6	6.7	3.8	16.6	5,253
Volta	8.6	1.0	22.4	18.4	4.1	31.8	13.8	4,680
Eastern	8.5	1.4	21.7	16.5	3.5	35.5	12.9	8,118
Ashanti	7.9	1.2	21.3	16.5	5.4	32.5	15.3	10,310
Western North	6.2	0.6	10.5	12.7	3.4	57.6	9.2	1,887
Ahafo	9.9	0.6	8.9	14.1	4.3	52.7	9.6	1,267
Bono	8.8	1.2	12.5	14.4	2.8	48.0	12.3	2,517
Bono East	6.0	0.8	11.3	10.4	2.3	58.7	10.5	2,222
Oti	5.1	0.4	13.1	10.7	1.0	60.4	9.4	1,562
Northern	5.9	1.2	5.9	8.8	2.3	66.8	9.1	3,994
Savannah	3.6	0.5	8.3	6.6	2.9	64.6	13.7	1,405
North East	3.4	0.6	4.3	5.6	1.6	77.5	7.0	1,277
Upper East	5.7	0.6	5.6	11.2	3.5	65.2	8.2	3,678
Upper West	8.0	0.3	4.6	8.7	2.4	67.4	8.8	3,051
North	8.3	1.0	17.5	15.7	4.0	41.1	12.5	60,085
<b>Residence</b>								
Urban	13.1	1.4	25.3	22.1	5.2	17.2	15.7	28,687
Rural	4.7	0.7	11.5	10.8	3.1	59.1	10.0	36,622
<b>Total</b>	<b>8.3</b>	<b>1.0</b>	<b>17.5</b>	<b>15.7</b>	<b>4.0</b>	<b>41.1</b>	<b>12.5</b>	<b>65,309</b>

Source: 2020 CFSVA

### 1.4 Marital Status of Household Heads

At the national level, a majority of household heads (78 percent) were married, and about one in 10 were either widows/widowers (7.1 percent) or 'separated' (1.8 percent).

The region with the highest percentage of married household heads was Savannah (92.2 percent), while the highest percentage of household heads who are co-habiting with their partners was recorded in the Eastern region (8.3 percent). Greater Accra had the highest proportion of single household heads (7.3 percent); Bono recorded the highest percentage of household heads who are divorced and widows/widowers (3.6 percent and 11.7 percent, respectively); Volta had the highest percentage of household heads who are separated (4.8 percent).

## 2 Household Characteristic

### 2.1 Household Size

The national average household size is 4.7 with urban areas recording 4.3 and rural areas with 5.1.

At the regional level, the average household size ranges from 3.9 (Volta) to 6.9 (North East).

Household sizes were classified into small (i.e., having <5 members), medium (i.e., 5-7 members), and large (i.e., >7 members).

The small household size scored the highest percentage (52.8 percent), followed by medium size (33 percent), with and large-sized households trailing with a score of 14.3 percent.

### 2.2 The Type of Dwelling of Households

The types of household dwelling include separate/detached/bungalow, semi-detached, flats/apartments, rooms in compound houses, several huts/buildings [same compound], several buildings on the same compound and tents/improvised homes. Table 31 provides results at the national, regional and residence (urban/rural) levels.

Almost half of the households live in compound houses (44.8 percent). The other households are broken down into the following categories: separate/detached/bungalow (16.7 percent), semi-detached (15.4 percent), flats/apartments (8.7 percent), huts/buildings on different compound (2.4 percent), tent/improvised homes (1.1 percent), and others (0.8 percent).

A similar pattern is observed in the findings by residence (urban/rural) and in the regions. Compound houses, separate/detached/bungalow and semi-detached housing are the main dwelling types in both rural and urban areas. By region, compound houses are mostly common in Savannah (57.9 percent), Northern (54.9 percent), Greater Accra (53.1 percent), North East (51.8 percent), and Oti (50.9 percent). Similarly, the proportions of semi-detached housing in nine regions – including Bono (23.6 percent), Ahafo (23.0 percent), Bono East (22.3 percent), Northern (22.3 percent), Upper West (21.7 percent), Volta (20.6 percent), Western (16.7 percent), Western North (16.6 percent), and Eastern (16.3 percent) – are higher than the national total (15.4 percent).

■ **Table 31: Household Dwellings Types, by Residence and Region (%)**

	Separate House (Bungalow)	Semi-detached House	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]	Several Buildings Different Compound	Tent/ Improved Home	Other	Total
<b>Residence</b>									
Urban	14.2	14.2	10.9	51.7	5.9	0.9	1.5	0.8	28,687
Rural	18.6	16.3	6.9	39.4	13.5	3.5	0.9	0.8	36,622
<b>Region</b>									
Western	21.1	16.7	13.0	36.9	6.9	2.5	1.8	1.1	3,573
Central	20.7	12.5	14.9	45.8	4.0	1.1	0.6	0.5	6,045
Greater Accra	15.9	11.0	7.2	53.1	5.2	1.0	4.5	2.1	5,951
Volta	27.2	20.6	7.5	31.8	8.3	3.8	0.6	0.1	5,067
Eastern	20.5	16.3	8.0	45.0	7.5	1.4	0.4	1.1	9,246
Ashanti	19.0	11.6	13.5	46.7	5.6	1.6	1.5	0.5	11,031
Western North	35.6	16.6	6.0	33.1	5.4	0.7	2.2	0.4	1,995
Ahafo	6.7	23.0	8.4	48.3	8.6	1.7	0.6	2.7	1,320
Bono	10.8	23.6	11.8	48.5	2.7	1.5	0.6	0.4	2,651
Bono East	9.8	22.3	6.0	44.5	10.8	3.2	0.5	2.9	2,418
Oti	23.6	13.8	2.0	50.9	7.1	1.0	0.3	1.5	1,779
Northern	2.8	22.3	2.8	54.9	15.2	1.6	0.2	0.3	4,204
Savannah	5.6	10.5	5.3	57.9	17.3	1.9	1.3	0.1	1,540
North East	1.9	5.6	2.5	51.8	32.1	3.3	2.6	0.1	1,322
Upper East	5.6	7.6	4.0	32.9	40.3	9.5	0.1	0.1	3,938
Upper West	11.1	21.7	4.6	41.9	16.1	4.3	0.1	0.1	3,229
<b>National</b>	<b>16.7</b>	<b>15.4</b>	<b>8.7</b>	<b>44.8</b>	<b>10.2</b>	<b>2.4</b>	<b>1.1</b>	<b>0.8</b>	<b>65,309</b>

Source: 2020 CFSVA

## 2.3 Ownership of Dwelling

The dwellings are either owner-occupied, lived-in for free, rented or purchased by mortgage. Some other households are squatting, perching, or caretakers of their dwelling units. Table 32 depicts study findings on dwelling ownership by households.

Overall, 3 out of 5 (60.1 percent) households own their dwelling units, 23.5 percent are renting, and 14 percent occupy their dwellings for free. Others are occupying as caretakers (1.0 percent), squatting (0.4 percent), or perching (0.2 percent). Rural residents are more than twice as likely their urban counterparts to own their dwelling units (75.3 percent vs. 35.9 percent).

■ **Table 32: Type of Ownership of Dwellings, by Residence and Region (%)**

	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't know	Total (N)
<b>Residence</b>									
Urban	47.4	14.8	35.9	0.5	0.0	0.2	1.0	0.1	28,687
Rural	75.3	13.1	10.3	0.2	0.0	0.2	0.9	0.0	36,622
<b>Region</b>									
Western	60.5	13.2	25.2	0.2	0.0	0.0	0.6	0.2	3,573
Central	59.2	16.6	22.7	0.1	0.1	0.1	1.3	0.0	6,045
Greater Accra	45.0	11.3	40.3	1.2	0.0	0.5	1.6	0.1	5,951
Volta	62.1	20.4	16.5	0.1	0.0	0.1	0.8	0.0	5,067
Eastern	58.5	14.2	25.9	0.1	0.0	0.1	1.2	0.0	9,246
Ashanti	49.2	19.1	30.6	0.3	-	0.0	0.8	0.0	11,031
Western North	64.7	18.1	15.7	0.1	-	0.1	1.3	-	1,995
Ahafo	60.9	16.5	19.0	0.4	-	0.4	2.9	-	1,320
Bono	55.7	17.2	24.8	0.1	-	0.2	1.8	0.2	2,651
Bono East	74.0	7.7	17.6	0.2	0.1	0.1	0.4	0.0	2,418
Oti	71.8	15.1	12.6	0.1	0.0	0.1	0.2	0.1	1,779
Northern	81.5	10.2	6.4	0.7	-	0.9	0.2	0.1	4,204
Savannah	89.2	5.8	4.4	-	0.1	0.1	0.4	0.1	1,540
North East	89.9	6.9	2.3	-	-	0.3	0.6	0.1	1,322
Upper East	93.3	1.5	4.8	0.0	0.0	0.0	0.2	0.1	3,938
Upper West	82.8	9.4	6.9	0.2	-	0.1	0.4	0.1	3,229
<b>National / Total</b>	<b>60.9</b>	<b>14.0</b>	<b>23.5</b>	<b>0.4</b>	<b>0.0</b>	<b>0.2</b>	<b>1.0</b>	<b>0.1</b>	<b>65,309</b>

Source: 2020 CFSVA

## 2.4 Housing Conditions

Most households occupy housing units that have been roofed with roofing sheets (87.2 percent) and cement/tiles/terrazzo floors (83.83 percent). However, only 59.4 percent of respondent housing units have improved toilets (WCs, KVIPs, or pit latrines with slab). Overall, there are 96.1 percent of respondents having occupancy rates of fewer than five persons in the household. Table 33 summarizes the housing conditions of respondent households by residence and region.

This pattern repeats at the urban/rural level. The proportion of urban households living in houses with improved roofs (89.13 percent), floors (87.22 percent), and toilet facilities (74.92 percent) is higher than the respective national averages. However, rural households living in houses with improved roofs (85.55 percent), floors ((81.16 percent), and toilets (47.25 percent) are below the respective national averages.

■ **Table 33: Housing Conditions, by Residence and Region**

	Roof Material		Floor Material		Toilet Facility		Crowding		N
	Non Improved (%)	Improved (%)	Non Improved (%)	Improved (%)	Non Improved (%)	Improved (%)	>5 pers (%)	<5 pers (%)	
<b>National</b>	<b>12.80</b>	<b>87.20</b>	<b>16.17</b>	<b>83.83</b>	<b>40.60</b>	<b>59.40</b>	<b>3.86</b>	<b>96.14</b>	<b>65309</b>
<b>Residence</b>									
Urban	10.684	89.316	12.78	87.22	25.08	74.92	4.33	95.67	28687
Rural	14.450	85.550	18.84	81.16	52.75	47.25	3.49	96.51	36622
<b>Regions</b>									
Western	8.23	91.77	16.00	84.00	22.61	77.39	3.75	96.25	3573
Central	13.13	86.87	11.00	89.00	29.91	70.09	5.21	94.79	6045
Greater Accra	19.61	80.39	17.00	83.00	20.06	79.94	5.39	94.61	5951
Volta	7.95	92.05	13.00	87.00	40.83	59.17	3.04	96.96	5067
Eastern	5.88	94.12	17.00	83.00	32.66	67.34	3.59	96.41	9246
Ashanti	6.94	93.06	17.00	83.00	23.79	76.21	5.92	94.08	11031
Western North	4.26	95.74	17.00	83.00	36.14	63.86	4.11	95.89	1995
Ahafo	8.18	91.82	25.00	75.00	25.08	74.92	4.02	95.98	1320
Bono	12.9	87.1	12.00	88.00	27.46	72.54	4.15	95.85	2651
Bono East	22.46	77.54	23.00	77.00	52.4	47.6	3.85	96.15	2418
Oti	14.67	85.33	18.00	82.00	56.66	43.34	3.6	96.40	1779
Northern	24.36	75.64	16.00	84.00	76.95	23.05	1.38	98.62	4204
Savannah	23.70	76.30	14.00	86.00	78.31	21.69	2.01	97.99	1540
North East	35.93	64.07	28.00	72.00	83.49	16.64	0.53	99.47	1322
Upper West	14.02	85.98	14.00	86.00	83.49	16.51	1.58	98.42	3938
Upper East	19.67	80.33	18.00	82.00	65.19	34.81	1.52	98.48	3229
<b>Total</b>	<b>12.8</b>	<b>87.20</b>	<b>16.17</b>	<b>83.83</b>	<b>40.6</b>	<b>59.4</b>	<b>3.86</b>	<b>96.14</b>	<b>65309</b>

Source: 2020 CFSVA

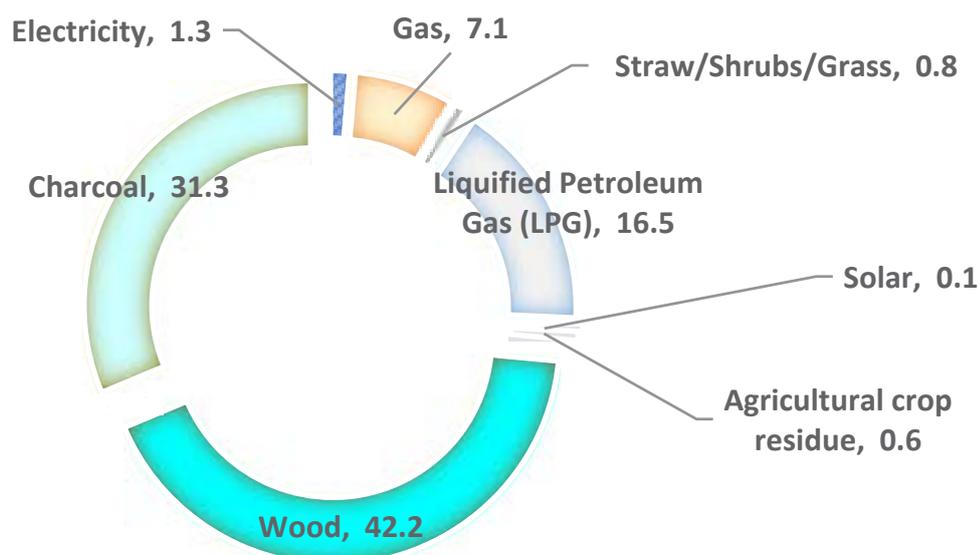
Table 33 presents mixed results for the 16 regions. More households in six regions live in houses with improved roofs, compared with the national average (87.2 percent). The six regions are Western North (95.8 percent), Eastern (94.1 percent), Ashanti (93.1 percent), Volta (92.1 percent), Ahafo (91.8 percent) and Western (91.8 percent). More households in five regions live in houses with cement/tiles/terrazzo floors, compared with the national average (83.8 percent): Central (89 percent), Bono (88 percent), Volta (87 percent), Savannah (86 percent), and Upper East (82%). More households in eight (8) regions live in houses with improved toilets, compared with the national average (59.4 percent): Greater Accra (79.94 percent), Western (77.3 percent), Ashanti (76.21 percent), Ahafo (74.54 percent), Bono (72.56 percent), Central (70.09 percent), and Western North (63.86 percent).

## 2.5 The Main Source of Energy for Cooking

The data show respondents use electricity, gas, liquified petroleum gas (LPG), agricultural crop residues, solar, charcoal, wood, and shrubs as sources of energy for household cooking.

Diagram 27 depicts details of the findings on a national level.

■ **Diagram 27: Sources of Energy for Cooking, by Households (%)**



Overall, the main sources of energy used for cooking are wood (cited by 42.2 percent), charcoal (31.3 percent), LPG (16.5 percent) and gas (7.1 percent). Other energy sources include electricity (1.3 percent), straw/shrubs/grass (0.8 percent), agricultural crop residue (0.6 percent) and solar (0.1 percent).

Table 34 below shows the breakdown of energy sources for cooking by region and residence.

■ **Table 34: Sources of Energy Used by Households, by Region and Residence (%)**

	Electricity	Straw/Shrubs/Grass	Biogas	LPG Combined (GAS + LPG)	Solar	Agric Crop Residue	Wood	Animal dung	Charcoal	Total
<b>Region</b>										
Western	0.5	-	0	30.6	0	0.1	34.9	-	33.9	3,573
Central	0.2	0	-	23.6	0.1	0	36.8	-	39.4	6,045
Greater Accra	0.7	0	0	54.9	0	0	5.8	0	38.6	5,951
Volta	0.8	0	-	19.9	0	0	41.6	-	37.7	5,067
Eastern	3.9	0.8	0	22.9	0	0.1	37.3	0	34.9	9,246
Ashanti	0.6	0	0	25.5	0.1	0	34.2	0	39.5	11,031
<b>Western North</b>										
Ahafo	5.1	0.1	-	11.6	1.8	0.1	60.7	-	20.4	1,320
Bono	0.8	0.1	0.1	14.8	-	-	63.2	0	21	2,651
Bono East	0.8	1.2	-	6.9	-	0.1	67.1	-	24	2,418
Oti	1.8	-	-	3.4	0.2	-	77	-	17.7	1,779
Northern	3.5	0.5	0	3.1	0.2	1.2	73.2	0.3	18	4,204
Savannah	3.5	-	-	0.8	0.2	0.1	79.5	0.1	15.8	1,540
North East	0.5	-	-	3.6	0.2	3.3	82.7	-	9.6	1,322
Upper East	1.6	12.4	-	4	0.1	10.9	56.8	0.1	14.2	3,938
Upper West	1	3.1	0.1	5	0	-	74.3	0	16.5	3,229
<b>Residence</b>										
Urban	1.3	0.3	0	38.6	0	0.1	16.8	0	42.7	28,687
Rural	1.4	1.4	0	7.4	0.2	1.2	69.1	0.1	19.3	36,622
<b>National</b>	<b>1.3</b>	<b>0.8</b>	<b>0</b>	<b>23.6</b>	<b>0.1</b>	<b>0.6</b>	<b>42.2</b>	<b>0</b>	<b>31.3</b>	<b>65,309</b>

Source: 2020 CFSVA

For urban households, charcoal is cited as the most used energy source for cooking (42.7 percent), followed by LPG (38.6 percent), and wood (16.8 percent). However, among rural households, wood is cited as the most-frequently-used energy source for cooking (69.1), followed by charcoal (19.3 percent), LPG (7.4 percent), and electricity (1.4 percent).

While overall across Ghana, wood and charcoal are the main energy sources for cooking, residents in Greater Accra region mostly use LPG is (54.9 percent), followed by charcoal (38.6 percent), and wood (5.8 percent).

## 2.6 Main Source of Lighting in Households

The findings show that kerosene/gas lanterns, battery-powered flashlights/fluorescent/candles, firewood, solar, the national electricity grid, and electric generators/inverters are the main sources of lighting. However, some households have no sources of lighting. Table 35 provides details on main sources of household lighting.

Generally, electricity is the predominant lighting source for households (cited by 80.4 percent). This is followed by battery-powered flash/fluorescent/tube (10.5 percent) and solar light sources (1.4 percent). Other household sources of light include kerosene/gas lanterns (0.8 percent), electric generators/inverters (0.3 percent) and candles/firewood (0.2 percent). However, about six percent (6.4%) of households have no source of lighting.

Findings by residence show a similar pattern for both urban and rural households. Electricity is the dominant source of lighting, albeit with higher use in urban (94.1 percent) compared with rural areas (64.8 percent). Battery-powered flash/fluorescent/tubes are more significant in rural areas (19.2 percent) than urban areas (2.4 percent). More rural households (10.2%) live without any lighting sources than their urban counterparts (2.8 percent).

A higher proportion of households in seven regions use electricity for lighting, compared with the national average: Greater Accra (95.1 percent), Western (90.3 percent), Central (89.3 percent), Eastern (85.8 percent), Volta (85.4 percent), Bono (83.9 percent), and Ashanti (82.4 percent).

A higher proportion of households in nine regions use battery-powered flash/fluorescent/tube light sources for lighting, compared with the national average (10.5 percent). These include Upper East (33.4 percent), Oti (29.8 percent), Upper West (20.7 percent), North East (20.1 percent), Savannah (19.7 percent), Bono East (17.8 percent), Western North (17.6 percent), Northern (15.5 percent), and Ahafo (14.6 percent) regions.

A higher proportion of households in eight regions use solar power for lighting, compared with the national solar average (1.4 percent). These include Savannah (5.0 percent), Oti (4.7 percent), Western North (4.0 percent), Ahafo (3.9 percent), Bono East (3.9 percent), North East and Upper East (2.0 percent), and Ashanti (1.6 percent).

■ **Table 35: Sources of Lighting Used by Households (%)**

Source of Lighting	Kerosene or Gas Lantern	Battery Flashlights / Fluorescent Lights /Tube Light	Candles/ Firewood	Solar	Electric Company	Electric Generator/ Inverter	No Lighting	Total (N)
<b>Residence</b>								
Urban	0.3	2.4	0.1	0.1	94.1	0.2	2.8	28,687
Rural	1.4	19.2	0.3	2.8	65.8	0.3	10.2	36,622
<b>Region</b>								
Western	1.1	3.9	0.1	1.2	90.3	0.3	3.2	3,573
Central	0.4	6.9	0.1	0.5	89.3	0.4	2.5	6,045
Greater Accra	0.0	1.5	0.1	0.2	95.1	0.3	2.7	5,951
Volta	2.4	8.1	0.2	0.2	85.4	0.2	3.5	5,067
Eastern	0.6	7.5	0.1	1.4	85.8	0.2	4.3	9,246
Ashanti	0.2	9.5	0.1	1.6	82.4	0.2	6.0	11,031
Western North	1.2	17.6	0.4	4.0	68.5	0.3	8.1	1,995
Ahafo	2.0	14.6	1.8	3.9	61.2	0.4	16.1	1,320
Bono	0.3	8.8	0.4	1.0	83.9	0.2	5.4	2,651
Bono East	1.7	17.8	0.2	3.9	63.2	0.6	12.7	2,418
Oti	1.1	29.8	0.2	4.7	57.8	0.2	6.3	1,779
Northern	3.7	15.5	0.5	1.1	67.5	0.2	11.4	4,204
Savannah	1.1	19.7	-	5.0	58.1	0.5	15.6	1,540
North East	0.5	20.1	0.1	2.0	70.9	0.2	6.3	1,322
Upper East	0.7	33.4	0.3	0.5	45.0	0.5	19.7	3,938
Upper West	0.3	20.7	0.2	2.0	66.5	0.1	10.2	3,229
<b>National</b>	<b>0.8</b>	<b>10.5</b>	<b>0.2</b>	<b>1.4</b>	<b>80.4</b>	<b>0.3</b>	<b>6.4</b>	<b>65,309</b>

Source: 2020 CFSVA

## 2.7 Main Source of Drinking Water, by Households

The main sources of household drinking water were categorized as within respondent’s own dwelling, within own yard/plot, and outside own dwelling/yard/plot.

Table 36 shows details of household sources of drinking water by region and residence. Overall, the main sources of drinking water sources are often found outside the households’ own dwelling/ yard/plot (cited by 77.3 percent). This is followed by water within dwelling units (14.2 percent) and within the yard/plot of the dwelling units (8.5 percent).

The same pattern is observed for both rural and urban households. The main water source for both urban and rural households is found outside their own dwelling/yard/plot (66.3 percent and 88.7 percent, respectively). However, urban households are more likely than their rural counterparts to have access to water within their own dwelling (21.3 percent vs. 6.8 percent). Also, urban households are more likely than rural households to have their main source of drinking water within their own yard/plot (12.4 percent vs. 4.5 percent).

■ **Table 36: Sources of Drinking Water Used by Households (%)**

	In Own Dwelling	In Own Yard/Plot	Elsewhere	Total
<b>Residence</b>				
Urban	21.3	12.4	66.3	28,687
Rural	6.8	4.5	88.7	36,622
<b>Region</b>				
Western	17.1	9.3	73.6	3,573
Central	12.3	5.7	82.0	6,045
Greater Accra	25.1	12.7	62.2	5,951
Volta	17.0	14.4	68.6	5,067
Eastern	13.3	6.5	80.2	9,246
Ashanti	13.8	11.1	75.1	11,031
Western North	.5	6.4	87.1	1,995
Ahafo	12.9	3.6	83.5	1,320
Bono	11.1	8.3	80.7	2,651
Bono East	12.5	7.4	80.1	2,418
Oti	4.7	2.3	93.0	1,779
Northern	13.4	2.4	84.1	4,204
Savannah	3.0	3.6	93.4	1,540
North East	5.7	4.3	90.1	1,322
Upper East	5.4	6.9	87.7	3,938
Upper West	5.3	5.5	89.1	3,229
<b>National</b>	<b>14.2</b>	<b>8.5</b>	<b>77.3</b>	<b>65,309</b>

Source: 2020 CFSVA

In four regions, proportions of households whose main water sources are outside are lower than the national average (77.3 percent): Ashanti (75.1 percent), Western (73.6 percent), Volta (68.6 percent), and Greater Accra (62.2 percent). In three regions, proportions of households with water in own dwelling are higher than the national average (14.2 percent): Greater Accra (25.1 percent), Western (17.1 percent), and Volta (17.0 percent). In three regions, proportions of households accessing water from own yard/plots are higher than the national average (8.5 percent): Volta (14.4 percent), Greater Accra (12.7 percent), and Ashanti (11.1 percent).

## 2.8 Time Spent Fetching Water

Table 37 presents findings on time spent collecting water. On average, most households (94.3 percent) spend less than 30 minutes fetching water from their main sources while a small number of households (5.7 percent) spend more than 30 minutes fetching water.

Similar patterns are observed by residence. Compared to the national average (5.7 percent), rural households are more likely to spend more than 30 minutes fetching water (8.4 percent). The reverse rather holds true for urban households (2.5 percent).

The regions show patterns similar to the national ones. However, in eight regions, the proportion of households that spend more than 30 minutes fetching water from their main sources is higher than the national average (5.7 percent). These include Northern (25.1 percent), Savannah (12.5 percent), North East (12.4 percent), Oti (10.6 percent), Upper West (10.5 percent), Upper East (10.5 percent), Western North (6 percent), and Volta (5.8 percent).

■ **Table 37: Time Spent Fetching Water by Households (mins)**

Time spent fetching water	< 30 mins (%)	> 30 mins (%)	Total (N)
<b>Region</b>			
Western	98.7	1.3	3,573
Central	98.0	2.0	6,045
Greater Accra	98.5	1.5	5,951
Volta	94.2	5.8	5,067
Eastern	98.7	1.3	9,246
Ashanti	95.1	4.9	11,031
Western North	94.0	6.0	1,995
Ahafo	97.4	2.6	1,320
Bono	97.3	2.7	2,651
Bono East	94.3	5.7	2,418
Oti	89.4	10.6	1,779
Northern	74.9	25.1	4,204
Savannah	87.5	12.5	1,540
North East	87.6	12.4	1,322
Upper East	89.4	10.6	3,938
Upper West	89.4	10.6	3,229
<b>Residence</b>			
Urban	97.5	2.5	28,687
Rural	91.6	8.4	36,622
<b>Total</b>	<b>94.3</b>	<b>5.7</b>	<b>65,309</b>

Source: 2020 CFSVA

### 3. Household Wealth Indices

Respondents' household wealth has been classified into five wealth quintiles. The respondents in the poorest and poor wealth quintiles are collectively referred to as 'poor households.' The respondents in the wealthy, wealthier and wealthiest quintiles are collectively referred to as 'wealthy households.' Table 38 presents the details by region and residence.

At the national level, four in 10 respondents (40 percent) are poor while six in 10 (60 percent) are wealthy. However, there is a variance between rural and urban areas with a significantly higher proportion of poor respondents in rural areas (55.82 percent), compared with urban areas (19.8 percent).

■ **Table 38: Household Wealth Quintiles, by Region**

Region	Wealth Quintile (%)					N	% Households	
	Poorest (1)	Poor (2)	Wealthy (3)	Wealthier (4)	Wealthiest (5)		Poor (1+2)	Wealthy (3+4+5)
Western	10.24	10.64	20.96	29.92	28	3,573	20.88	79.12
Central	13.66	12.11	22.51	28.98	23	6,045	25.77	74.23
Greater Accra	2.89	5.56	11.14	27.98	52	5,951	8.45	91.55
Volta	18.59	16.52	31.85	21.97	11	5,067	35.11	64.89
Eastern	16.27	17.56	19.80	25.28	21	9,246	33.83	66.17
Ashanti	15.91	12.32	19.84	22.09	30	11,031	28.23	71.77
Western North	25.21	17.59	27.07	19.45	11	1,995	42.81	57.19
Ahafo	23.71	18.79	21.36	19.39	17	1,320	42.50	57.50
Bono	18.11	16.60	26.52	20.90	18	2,651	34.70	65.30
Bono East	28.04	25.10	19.98	15.96	11	2,418	53.14	46.86
Oti	33.22	25.41	25.35	12.14	4	1,779	58.63	41.37
Northern	31.83	34.56	20.67	8.37	5	4,204	66.39	33.61
Savannah	31.23	38.83	19.09	7.60	3	1,540	70.06	29.94
North East	31.32	50.15	12.63	3.93	2	1,322	81.47	18.53
Upper East	34.56	46.47	11.20	4.72	3	3,938	81.03	18.97
Upper West	41.44	35.83	13.32	5.82	4	3,229	77.27	22.73
<b>Residence</b>								
Urban	8.30	11.50	17.07	27.08	36	28,687	19.80	80.20
Rural	29.17	26.66	22.31	14.47	7	36,622	55.82	44.18
<b>National</b>	<b>20.00</b>	<b>20.00</b>	<b>20.01</b>	<b>20.01</b>	<b>20</b>	<b>65,309</b>	<b>40.00</b>	<b>60.00</b>

Source: 2020 CFSVA

According to the classification used in the study, more than half of respondent households are poor in eight regions: North East (81.47 percent), Upper East (81.03 percent), Upper West (77.27 percent), Savannah (70.06 percent), Northern (66.39 percent), Oti (58.63 percent), and Bono East (53.14 percent). In nine regions, more than half of respondent households are wealthy: Greater Accra (91.55 percent), Western (79.12 percent), Central (74.23 percent), Ashanti (71.77 percent), Eastern (66.17 percent), Bono (65.3 percent), Volta (64.89 percent), Ahafo (57.5 percent) and Western North (57.19 percent).

## 4 Migrant Sending Status of Households

### 4.1 Migrant Sending Households

Migration in this study encompasses economic migration for work and social migration for a range of reasons including marriage, education, health, and religion (see Section 2.5.3 below for reasons for migration). Migration may be an individual household member decision or a collective household decision. Either way, a household from which an individual/groups of individuals migrate is referred to in this study as a 'migrant sending household.'

Economic migration is a natural reaction to adverse situations. In the context of food security, individuals, with/without support from households in response to high food and fuel prices or other adverse household situations, leave their homes in the hope to find more lucrative employment opportunities in towns and cities. Table 39 summarizes findings on the migrant sending status of respondent households by region and residence.

■ **Table 39: Household Member(s) Away for More 3 Months, by Region and Residence**

% Households With Members Away for >3 months		
	Number	%
<b>Region</b>		
Western	3,573	11.8
Central	6,045	10.1
Greater Accra	5,951	6.0
Volta	5,067	9.5
Eastern	9,246	7.8
Ashanti	11,031	8.1
Western North	1,995	10.5
Ahafo	1,320	9.5
Bono	2,651	8.7
Bono East	2,418	12.5
Oti	1,779	11.4
Northern	4,204	9.4
Savannah	1,540	9.7
North East	1,322	25.1
Upper East	3,938	18.5
Upper West	3,229	20.8
<b>Residence</b>		
Urban	28,687	8.2
Rural	36,622	11.6
<b>Total</b>	<b>65,309</b>	<b>9.8</b>

Source: 2020 CFSVA

Overall, nearly one out of 10 households (9.8 percent) reported having household members or at least one member of the household away for more than three months. Rural households send more migrants than their urban counterparts (11.6 percent vs. 8.2 percent). In eight regions, the proportions of migrant sending households are higher than the national average. This means migration as a response to adverse household conditions is more important in these regions than the rest.

The North East region has the highest number of migrant sending households. It is followed by Upper West (20.8 percent), Upper East (18.5 percent), Bono East (12.5 percent), Western (11.8

percent), Oti (11.4 percent), Western North (10.5 percent), and Central (10.1 percent). Regions in which fewer households send migrants than the national average are: Greater Accra (6.0 percent), Eastern (7.8 percent), Ashanti (8.1 percent), Bono (8.7 percent), Northern (9.4 percent), Volta (9.5 percent), Ahafo (9.5 percent), and Savannah (9.7 percent).

## 4.2 Migrant Destinations

A total of 1,824,413 migrants were sent by the respondent households to different destinations. Table 40 shows the destination details.

■ **Table 40: Destination of migrants**

Destination	Migrants	
	Number (N)	Percentage (%)
Within the district	161,147	8.8
Other district, same region	349,510	19.2
Accra	396,533	21.7
Other major town	160,138	8.8
Other district, other region	630,819	34.6
Outside Ghana	95,377	5.2
Other	30,890	1.7
<b>Total</b>	<b>1,824,413</b>	<b>100</b>

Source: 2020 CFSVA

The destinations of migrants include other districts outside their home region (34.6 percent), Accra (21.7 percent), other districts in the same region (19.2 percent), within the district (8.8 percent), another major town (8.8 percent), outside Ghana (5.2 percent), and other places (1.7 percent).

Thus, a large majority (94.2 percent) of migration is internal with both rural-rural and rural-urban components. More than six in 10 cases of internal migration falls under the rural-rural component: to other regions (34.6 percent), to districts in the same region (19.2 percent), or within their districts (8.8 percent). The rural-urban component accounts for 30.5 percent of the total: to Accra (21.7 percent) and to another major town (8.8 percent).

## 4.3 Reason for Migration

About six in 10 of the migrant sending households (61.2 percent) say that the primary reason for migration is for work, while close to four in 10 say the primary reason is social – education (21.4 percent), marriage (11.2 percent), health (2.6 percent), and religion (0.5 percent).

Table 41 provides detail breakdown by region.

■ **Table 41: Reason for Migration, by Region**

Region	Migration Reason (%)						Total (N)
	Don't know	Work	Marriage	Political/ Religious	Education	Medical care	
Western	1.8	59.7	18.7	0.5	18.1	1.2	3,573
Central	1.3	57.6	8.5	0.2	28.7	3.7	6,045
Greater Accra	8.5	50.1	10.2	0.6	24.3	6.3	5,951
Volta	3.3	70.9	8.0	0.1	15.7	2.0	5,067
Eastern	2.6	63.6	8.2	0.5	20.7	4.4	9,246
Ashanti	4.1	56.8	12.9	1.1	23.1	2.0	11,031
Western North	1.6	32.0	15.6	0.2	46.1	4.5	1,995
Ahafo	1.6	62.2	16.7	0.0	18.3	1.1	1,320
Bono	1.1	66.5	14.9	0.9	15.2	1.5	2,651
Bono East	3.4	52.2	11.0	0.3	30.5	2.7	2,418
Oti	2.5	58.0	16.5	1.0	18.5	3.5	1,779
Northern	4.3	53.3	10.0	1.3	27.6	3.5	4,204
Savannah	5.8	57.9	10.7	0.4	23.3	1.9	1,540
North East	0.2	69.8	12.7	0.0	16.6	.8	1,322
Upper East	2.0	87.6	2.7	0.0	7.3	0.4	3,938
Upper West	3.5	68.7	11.5	0.0	15.9	0.3	3,229
<b>Total</b>	<b>3.2</b>	<b>61.2</b>	<b>11.2</b>	<b>.5%</b>	<b>21.4</b>	<b>2.6</b>	<b>65,309</b>

Source: 2020 CFSVA

In seven regions, the proportions of households with migrants leaving for work is higher than the national average. These include Upper East (87.6 percent), Volta (70.9 percent), North East (69.8 percent), Upper West (68.7 percent), Bono (66.5 percent), Eastern (63.6 percent), and Ahafo (62.2 percent). In six regions, the proportions of households with migrants leaving for education is higher than the national average. These include Western North (46.1 percent), Bono East (30.5 percent), Central (28.7 percent), Northern (27.6 percent), Greater Accra (24.3 percent) and Savannah (23.3 percent).

Also, in seven regions, the proportions of households with migrants leaving for purposes of marriage is higher than the national average. These include Western (18.7 percent), Ahafo (16.7 percent), Oti (16.5 percent), Western North (15.6 percent), Bono (14.9 percent), Ashanti (12.9 percent), and North East (12.7 percent). Five regions have higher proportions of households with migrants leaving for medical care, compared to the national average. These include Greater Accra (6.3 percent), Western North (4.5 percent), Eastern (4.4 percent), Central (3.7 percent) and Bono East (2.7 percent).

Similar variations are also observed at the district level. For example, work is cited as a reason for migration by 100% of households in Ablekuma Central, Okai Koi North, West Akim, Lower Manya Krobo, Juaben, Berekum West and Mamprugu Moagduri (i.e., the proportion of the populace who migrated did so purely for work), whereas in Biakoye, Nsawan Adoagiri, Asene Manso Akroso, and Ga South work is cited by 0%.

Education is cited by 100 percent of households in Nsawam Adoagyiri and Biakoye, and by 50 percent of households in about 19 districts. Ayawaso East records the highest proportion of households who cite marriage as the main reason for migration (75 percent), while the highest proportion who cite political/religious reasons are found in Ahafo Ano South (38.6 percent). Interestingly, Ga South and Asene Manso Akroso record the highest proportion of households citing medical care. About four in 10 (39.1 percent) in Nanumba South did not know the reason for migration (See Appendix 7 for details).

## 4.4 Migrants Contribution Household Income Prior to Departure

The study looked at the contribution of migrants to the household prior to and after departure.

More than half of migrant sending households (51.4 percent) say the migrant(s) contributed to household income prior to their departure. Table 42 presents the regional details. About six in 10 or more households in the Western region (66.3 percent) and Ahafo region (60.9 percent) say the migrants were contributing to household income prior to their departure, but only half of that proportion say same in the Western North (30.4 percent) (See Table 42 below for details).

■ **Table 42: Contributors to Household Income Prior to Departure**

Region	Migrant Contribution to Household Income Prior to Departure		N
	% No	% Yes	
Western	33.7	66.3	3,573
Central	50.1	49.9	6,045
Greater Accra	57.7	42.3	5,951
Volta	41.1	58.9	5,067
Eastern	47.7	52.3	9,246
Ashanti	52.5	47.5	11,031
Western North	69.6	30.4	1,995
Ahafo	39.1	60.9	1,320
Bono	47.3	52.7	2,651
Bono East	56.8	43.2	2,418
Oti	50.1	49.9	1,779
Northern	47.3	52.7	4,204
Savannah	49.6	50.4	1,540
North East	46.4	53.6	1,322
Upper East	42.0	58.0	3,938
Upper West	48.7	51.3	3,229
<b>National</b>	<b>48.6</b>	<b>51.4</b>	<b>65,309</b>

Source: 2020CFSVA

It is noted that across all the regions, most migrant household members were contributing to their household income prior to their departure/migration.

At the district level, the proportions of migrants who contributed to household income prior to their departure range from 0 percent in Ga South, Ga North, Biakoye, Afigya Kwabre North, Sekyere East, Shai Osudoku, Asene Manso Akroso, Nsawam Adoagyiri and Kwahu Afram Plains South to 100 percent in Sunyani Municipal, Ayawaso East, and Lower Manya Krobo.

## 4.5 Types of Support Provided by the Migrants (Post-Departure)

Household respondents were asked to identify the type of support provided by the migrants after their departure. Table 43 shows details at the regional level. Some of the migrants provide one or more support to the households.

■ **Table 43: Types of Support Provided by Migrants**

Region	Type of Support Provided (%)					Total (N)
	Food	Money	Clothing	Electronic Devices	Other Items	
Western	21.7	66.3	10.1	3.1	29.5	3,573
Central	26.2	65.4	20.2	6.4	25.3	6,045
Greater Accra	25.0	50.9	6.3	3.3	40.5	5,951
Volta	28.9	63.7	9.2	2.8	27.8	5,067
Eastern	21.3	64.3	11.0	2.8	30.7	9,246
Ashanti	20.7	61.4	9.3	6.2	31.3	11,031
Western North	10.7	26.7	6.2	6.7	66.0	1,995
Ahafo	27.9	77.8	14.3	6.6	16.5	1,320
Bono	19.6	71.4	17.1	3.9	23.5	2,651
Bono East	26.5	64.7	22.4	9.8	29.9	2,418
Oti	13.2	58.2	17.0	3.2	35.5	1,779
Northern	19.6	61.9	20.0	11.5	29.0	4,204
Savannah	19.4	60.1	5.1	0.8	36.4	1,540
North East	16.8	62.6	25.4	11.5	32.7	1,322
Upper East	11.1	62.4	7.7	2.4	32.6	3,938
Upper West	30.6	62.6	20.6	7.9	24.7	3,229
<b>National</b>	<b>16.0</b>	<b>45.1</b>	<b>10.5</b>	<b>4.2</b>	<b>24.2</b>	<b>65,309</b>

Source: 2020 CFSVA

The type of support mostly provided by migrants after their departure is money (cited by 45.1 percent), followed by food (16.0 percent), clothing (10.5 percent), and electronic items (4.2 percent). There is a wide range of “other items” provided (24.2 percent) which include building materials (roofing sheet, cement etc.), agro-chemicals and seedlings, fertilizer, medicines/drugs, vehicles, etc. In most regions, money accounts for 60 to 70 percent of the support provided, with only Western North and Greater Accra falling outside this range (26.7 percent and 50.9 percent, respectively). Food support typically ranges from 30.6 percent in the Upper West to 10.7 percent in Western North.

## ANNEX 4: DISTRICT-LEVEL DATA

APPENDIX 1: Types of Dwelling Places, by Districts (%)

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]	Several Huts/ Buildings [Different Compound]	Tent/ Improvised Home	Other	Total (N)
Jomoro	21.4	6.7	33.6	18.5	2.1	-	12.6	238
Ellembelle	32.1	11.8	10.1	3.8	-	-	1.3	237
Nzema East	30.1	20.3	29.7	0.8	-	1.7	0.4	236
Ahanta West	38.4	10.7	41.7	1.2	0.8	-	-	242
Effia-Kwesimintim	14.8	33.5	44.9	-	-	-	-	236
STMA	11.0	17.1	63.6	1.5	0.6	-	0.6	527
Shama	14.7	0.4	43.7	3.8	4.2	-	-	238
Wassa East	31.9	11.5	21.7	7.7	7.7	4.3	-	235
Mpohor	12.1	11.2	10.7	6.5	2.8	-	-	214
Tarkwa Nsuaem	29.1	12.8	43.2	8.1	1.3	0.9	-	234
Prestea/Huni Valley	21.9	18.9	28.8	9.4	0.9	18.9	-	233
Wassa Amenfi East	18.0	3.0	52.4	9.4	3.4	-	-	233
Wassa Amenfi Central	2.9	8.0	32.8	12.6	2.9	1.7	-	238
Wassa Amenfi West	28.0	10.3	24.6	20.7	11.2	-	0.4	232
KEEA Municipal	17.4	5.2	48.9	0.4	7.8	0.4	0.7	270
Cape	15.7	30.8	38.9	1.3	-	0.2	0.2	478
Abura Asebu Kwamankese	26.8	3.0	45.3	14.7	-	-	-	265
Mfantseman Municipal	19.6	34.2	25.4	1.2	-	0.4	-	260
Ekumfi	27.1	3.7	64.3	0.7	-	0.4	1.1	269

	Separate House (Bungalow)		Flat/ Apartment		Room(s) [Compound House]		Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home		Other		Total (N)
Gomoa West	30.9	5.3	52.5	9.4	-	-	-	-	-	-	-	-	-	-	265
Effutu Municipal	1.1	42.4	41.7	-	-	-	0.4	0.8	0.4	0.8	0.4	0.8	0.4	0.4	264
Gomoa Central	7.5	7.1	66.5	9.4	9.4	0.4	0.4	0.8	0.4	0.8	1.9	0.8	1.9	0.8	266
Gomoa East	66.5	3.7	11.2	9.3	9.3	0.7	0.7	2.6	0.7	2.6	-	2.6	-	0.4	269
Awutu Senya East Municipal	19.5	6.4	34.5	5.6	5.6	0.7	0.7	-	0.7	-	2.2	-	2.2	0.4	267
Awutu Senya	20.6	23.2	39.3	2.2	2.2	-	-	-	-	-	-	-	-	0.4	267
Agona East	28.6	18.1	42.9	0.4	0.4	-	-	0.4	-	0.4	-	0.4	-	-	259
Agona West Municipal	4.9	19.1	54.3	4.5	4.5	2.6	2.6	1.1	1.1	-	-	-	-	-	267
Asikuma Odoben Brakwa	34.1	0.4	61.2	-	-	-	-	-	-	-	-	-	0.4	-	258
Ajumaku Enyan Essiam	16.5	5.6	56.8	1.5	1.5	-	-	-	-	-	-	-	2.3	-	266
Assin South	26.4	18.8	27.8	10.1	10.1	0.4	0.4	-	-	-	-	-	-	-	277
Twifo Heman Lower Denkyira	31.0	10.3	33.0	-	-	-	-	-	-	-	-	-	1.5	-	261
Twifo Ati Morkwa	12.9	25.9	31.9	1.9	1.9	6.1	6.1	-	-	-	-	-	-	-	263
Assin Fosu Municipal	21.2	15.4	40.4	8.8	8.8	1.2	1.2	-	-	-	-	-	-	-	260
Assin North	16.0	7.3	56.1	6.1	6.1	4.2	4.2	5.3	5.3	-	-	-	-	-	262
Upper Denkyira East Municipal	10.5	9.8	73.7	1.1	1.1	-	-	-	-	-	-	-	-	-	266
Upper Denkyira West	4.1	19.2	66.9	1.1	1.1	0.4	0.4	0.4	0.4	0.8	0.8	0.4	0.8	-	266
Ga South Municipal	6.2	16.4	56.5	7.3	7.3	1.7	1.7	6.2	6.2	-	-	-	-	-	177
Weija Gbawe Municipal	22.3	7.1	28.8	33.2	33.2	0.5	0.5	3.8	3.8	0.5	0.5	3.8	0.5	-	184
Ga Central Municipal	22.9	18.8	51.6	2.1	2.1	0.5	0.5	-	-	1.6	1.6	-	1.6	-	192
Ablekuma North Municipal	-	17.8	73.3	-	-	-	-	-	-	8.4	8.4	-	8.4	-	191
Ablekuma West Municipal	18.7	11.8	50.3	1.6	1.6	-	-	-	-	-	-	-	-	-	187
Ablekuma Central	8.5	1.1	84.1	-	-	0.5	0.5	1.1	1.1	4.2	4.2	1.1	4.2	-	189
AMA	2.3	3.5	73.8	5.8	5.8	0.7	0.7	1.9	1.9	2.8	2.8	1.9	2.8	-	431

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home	Other	Total (N)
Korle Klotey Municipal	10.6	4.8	73.0	2.6	1.1	2.6	3.2	189		
Ayawaso Central Municipal	9.7	-	76.8	-	0.5	-	-	185		
Ayawaso East	4.5	4.5	89.8	-	-	-	-	176		
Ayawaso North Municipal	5.9	3.8	83.8	0.5	-	2.7	0.5	185		
La Dadekotopon Municipal	11.5	12.1	55.7	1.1	1.1	7.5	2.3	174		
Ledzokuku Municipal	13.4	2.3	71.5	4.1	0.6	4.1	2.9	172		
Krowor Municipal	15.7	2.1	65.4	4.2	0.5	-	2.6	191		
Ayawaso West	36.2	3.2	21.1	1.1	-	26.5	0.5	185		
Adentan Municipal	15.3	11.5	19.7	12.0	6.0	34.4	1.1	183		
Okai Koi North	9.2	2.2	77.3	1.6	0.5	2.2	0.5	185		
Ga North Municipal	20.2	17.6	44.6	3.1	-	7.3	1.0	193		
Ga West Municipal	15.7	8.4	15.2	5.2	1.0	-	2.6	191		
Ga East	34.1	5.4	21.1	6.5	0.5	20.0	4.9	185		
La Nkwantanan- Madina Municipal	23.1	6.0	57.7	4.4	1.1	4.9	1.6	182		
Kpone Katamanso Municipal	21.2	28.0	36.3	3.1	-	6.7	4.1	193		
Ashaiman Municipal	3.1	7.3	81.2	2.1	-	-	0.5	191		
Tema West Municipal	22.6	7.9	22.1	1.1	0.5	3.2	4.2	190		
Tema Metro	14.4	0.6	45.9	6.8	1.6	2.7	4.5	486		
Ningo Prampram	62.4	7.7	7.2	6.2	1.0	-	-	194		
Shai Osudoku	18.7	7.0	56.1	2.7	2.1	-	-	187		
Ada West	20.8	4.2	50.0	2.6	1.0	-	-	192		
Ada East	9.4	-	39.8	26.2	5.2	0.5	2.1	191		
South Tongu	4.6	6.0	28.8	38.2	13.0	-	-	285		
Anloga	19.4	4.2	44.7	6.3	2.8	1.1	-	284		

	Separate House (Bungalow)		Flat/ Apartment		Room(s) [Compound House]		Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home		Other		Total (N)
Keta Municipal	12.0	12.4	22.6	2.8	7.8	0.4	-	283							
Ketu South	18.8	1.8	48.0	3.0	1.1	-	271								
Ketu North	26.0	28.4	13.3	13.7	14.4	0.4	285								
Akatsi North	69.6	0.4	17.9	9.6	0.4	-	280								
Akatsi South	24.6	8.6	40.7	12.1	4.3	-	280								
Central Tongu	13.7	23.5	17.2	9.5	10.2	1.1	285								
North Tongu	20.7	3.2	43.2	18.2	6.8	-	280								
Ho-West	47.9	0.7	37.2	7.1	1.4	-	282								
Adaklu	90.7	-	5.4	1.1	-	0.4	280								
Agortime Ziope	3.2	9.8	41.1	6.3	0.7	0.4	285								
Ho Municipal	24.0	4.3	19.0	1.1	1.1	-	279								
South Dayi	23.5	10.3	54.1	2.5	-	0.7	281								
Afadzato South	21.7	5.3	50.9	3.9	3.2	5.7	281								
North Dayi	28.6	3.6	24.6	7.9	0.4	-	280								
Kpando Municipal	9.5	11.3	9.2	6.0	0.4	1.4	283								
Hohoe Municipal	32.9	1.1	54.8	0.4	-	-	283								
Birim South	9.2	1.4	84.8	2.8	-	0.4	282								
Birim Central Municipal	9.5	7.4	64.3	9.9	-	0.4	283								
Achiase	8.6	4.5	48.1	0.4	0.4	-	268								
Asene Manso Akroso	18.7	0.7	35.9	23.2	5.6	4.2	284								
West Akim Municipal	6.3	11.2	54.7	10.5	2.5	1.4	285								
Upper West Akim	6.0	1.4	32.9	1.4	1.1	-	283								
Ayensuano	27.4	1.8	54.8	0.7	1.1	-	281								
Nsawam Adoagyiri Municipal	12.3	6.0	35.4	15.8	0.7	0.4	285								

	Separate House (Bungalow)		Flat/ Apartment		Room(s) [Compound House]		Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home		Total (N)
Akwapim South	28.7		8.2		48.9		3.9		0.7		0.7	0.7	282
Akwapim North Municipal	33.1		3.6		32.0		17.6		2.9		-	-	278
Okere	39.9		3.2		40.9		2.5		-		-	-	281
New Juaben South Municipal	21.7		10.1		49.1		14.1		0.7		-	0.7	277
New Juaben North	24.4		5.7		55.6		10.0		-		-	-	279
Suhum Municipal	23.2		10.9		44.9		5.1		0.7		-	0.4	276
Abuakwa North	11.2		14.1		64.3		0.7		-		-	-	277
Abuakwa South	5.2		5.2		44.8		8.7		1.7		-	8.4	286
Denkyembuor	13.0		4.6		44.6		28.8		-		-	0.4	285
Akyemansa	22.8		2.1		62.1		4.6		-		-	0.4	285
Kwaebibirem	32.2		10.1		44.2		0.4		0.8		-	-	258
Birim North	52.7		3.2		29.0		1.1		-		1.1	0.4	283
Atiwa West	16.5		10.8		51.6		1.1		-		0.7	0.4	279
Atiwa East	14.3		6.8		52.3		15.8		-		0.4	-	279
Fanteakwa South	34.4		5.0		28.0		4.7		1.4		-	1.8	279
Yilo Krobo Municipal	3.3		3.3		53.3		1.1		0.4		-	-	276
Lower Manya Krobo	38.4		9.7		44.1		4.3		-		-	-	279
Asuogyaman	26.4		18.0		5.3		8.5		2.5		0.4	2.8	284
Upper Manya Krobo	29.4		16.0		48.6		1.4		-		0.4	-	282
Fanteakwa North	10.7		37.4		42.7		4.3		1.1		-	-	281
Kwahu South	9.9		2.5		52.7		3.9		2.5		-	-	283
Kwahu West Municipal	39.7		8.2		42.9		5.3		1.1		-	1.1	282
Kwahu East	17.6		21.9		40.1		9.0		0.4		0.4	-	279
Kwahu Afram Plains South	12.4		3.5		26.2		5.7		4.6		0.4	0.4	282

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]	Several Huts/ Buildings [Different Compound]	Tent/ Improved Home	Other	Total (N)
	Kwahu Afram Plains North	17.3	5.3	25.8	18.7	13.1	0.7	9.2
Amansie South	25.6	3.7	53.3	3.7	2.4	-	0.4	246
Amansie Central	22.3	6.8	55.8	0.4	0.8	-	-	251
Akrofrom	6.7	38.1	42.1	0.4	0.4	0.4	7.5	252
Adansi South	30.6	2.7	23.5	4.3	0.4	-	-	255
Adansi Asokwa	13.5	2.8	31.3	15.5	4.0	-	-	252
Obuasi East	22.6	19.4	55.2	1.2	-	-	0.8	249
Obuasi Municipal	24.5	9.6	64.7	-	-	-	-	246
Adansi North	29.7	11.0	34.6	2.4	-	-	-	252
Bekwai Municipal	31.7	8.3	54.8	1.6	-	-	-	244
Amansie West	36.9	1.6	51.6	-	0.4	-	-	250
Atwima Kwanwoma	18.8	18.0	35.6	2.8	0.4	0.8	4.4	250
Bosomtwi	27.2	7.6	38.8	23.2	0.4	-	-	237
Bosome Freho	24.9	15.2	50.6	6.3	0.8	-	-	249
Asante Akim Central Municipal	2.0	36.9	50.2	8.4	-	-	-	251
Asante Akim South Municipal	1.2	30.7	47.4	7.2	2.0	2.4	1.6	251
Asante Akim North	4.8	13.5	45.8	22.7	1.2	3.2	0.4	251
Sekyere Kumawu	8.4	5.6	47.8	8.0	2.8	-	-	250
Sekyere East	2.8	4.8	40.4	0.8	-	0.4	-	252
Juaben Municipal	34.9	4.8	55.6	1.6	0.4	0.4	0.4	246
Ejisu Municipal	11.4	18.7	54.1	0.4	-	-	-	241
Oforikrom Municipal	9.5	38.2	49.4	0.4	-	-	-	232
Asokwa Municipal	1.3	24.1	37.5	1.7	-	6.0	0.4	604
KMA	10.1	17.4	58.9	1.7	0.2	0.5	0.3	

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]	Several Huts/ Buildings [Different Compound]	Tent/ Improvised Home	Other	Total (N)
Kwadaso Municipal	17.6	24.4	39.6	3.2	-	1.2	-	250
Suame Municipal	1.2	15.2	76.4	-	-	2.0	-	250
Old Tafo Municipal	4.1	19.5	70.7	0.4	-	4.5	-	246
Asokore Mampong Municipal	3.6	24.5	67.9	1.6	0.8	0.8	-	249
Kwabre East Municipal	22.5	8.0	48.2	-	-	-	-	249
Afigya Kwabre South	24.9	19.7	48.2	1.6	-	0.4	-	249
Atwima Nwabiagya North	43.1	10.1	28.6	0.8	-	-	-	248
Atwima Nwabiagya South Municipal	49.2	16.4	20.1	4.1	-	-	-	244
Atwima Mponua	-	3.9	17.2	2.0	0.8	38.7	-	256
Ahafo Ano South West	2.0	30.5	39.0	13.7	11.2	0.4	-	249
Ahafo Ano North	47.2	1.6	29.3	15.4	1.2	-	-	246
Ahafo Ano South East	54.2	3.6	39.4	-	-	0.4	0.8	251
Offinso North	13.5	3.3	52.5	9.4	1.6	-	0.4	244
Offinso Municipal	16.6	4.5	52.2	13.8	1.2	-	0.4	247
Afigya Kwabre North	27.1	8.5	59.1	-	-	-	-	247
Sekyere South	27.1	4.5	68.0	-	-	-	-	247
Mampong Municipal	3.7	24.5	52.2	6.5	9.0	-	0.4	245
Ejura Sekyedumase Municipal	15.5	9.5	60.3	4.8	0.8	0.8	0.4	252
Sekyere Central	56.1	4.1	23.6	6.1	0.4	-	2.0	246
Sekyere Afram Plains	1.6	0.4	22.1	45.8	27.3	1.6	-	253
Aowin Municipal	56.0	4.4	20.9	1.8	-	-	-	225
Sefwi Akontombra	45.2	8.1	4.1	15.4	1.4	15.4	-	221
Suaman	6.8	11.0	47.5	6.4	-	3.7	-	219
Bodi	23.4	14.0	57.2	0.5	-	-	-	222

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Same Compound]	Several Huts/ Buildings [Different Compound]	Tent/ Improved Home	Other	Total (N)
Sefwi Wiawso	31.1	3.2	43.7	5.0	-	0.5	0.9	222
Bibiani Ahwiaso Bekwai	12.5	7.1	41.1	-	0.9	0.4	1.8	224
Juaboso	46.6	1.4	24.7	11.9	1.4	-	-	219
Bia West	51.1	2.7	18.8	7.6	2.7	-	0.4	223
Bia East	47.7	1.8	40.5	-	-	-	-	220
Asunafo South	9.1	5.5	77.3	1.4	0.9	0.5	0.5	220
Asunafo North	4.9	2.7	36.3	24.7	2.7	0.9	11.7	223
Asutifi South	2.3	2.3	66.5	7.8	0.5	2.3	-	218
Asutifi North	12.9	25.9	24.1	9.8	0.9	-	0.4	224
Tano North	5.5	10.5	16.8	2.7	0.5	-	1.4	220
Tano South	5.1	3.3	70.2	4.7	4.7	-	2.3	215
Dormaa West	0.5	2.8	20.2	0.5	0.5	0.5	-	218
Dormaa Central Municipal	22.2	29.3	36.9	2.2	-	0.4	0.9	225
Dormaa East	23.4	6.4	45.9	10.6	0.9	-	0.5	218
Sunyani Municipal	1.8	22.0	63.2	1.8	1.3	-	1.8	223
Unyani West	7.3	16.4	49.1	2.7	8.2	-	0.5	220
Berekum East Municipal	9.7	6.0	60.8	2.3	2.3	-	-	217
Berekum West	14.2	10.2	28.0	2.7	-	-	0.4	225
Jaman South	2.7	1.8	60.6	0.5	0.9	0.9	-	221
Jaman North	2.7	11.3	82.0	0.9	-	-	-	222
Tain	2.2	7.6	59.6	5.4	3.1	0.9	-	223
Wenchi Municipal	28.0	4.1	54.1	1.4	0.9	-	0.5	218
Banda	15.4	23.5	21.7	1.4	0.5	5.0	-	221
Nkoranza South	0.9	10.8	59.2	11.2	3.6	-	0.4	223

	Separate House (Bungalow)		Flat/ Apartment		Room(s) [Compound House]		Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home		Other	Total (N)
Techiman Municipal	15.2		14.7		32.7		4.6		-		-	0.9	0.5	217
Nkoranza North	2.7		1.4		59.5		23.0		9.9		0.9	0.5		222
Techiman North	0.4		7.6		74.9		2.2		0.4		-	1.3		223
Atebubu Amantin	-		8.1		68.8		16.3		1.4		-	-		221
Sene West	17.7		2.7		37.3		18.2		3.2		0.5	-		220
Sene East	19.5		0.5		31.9		10.5		1.0		0.5	29.0		210
Pru West	7.8		2.7		63.0		18.7		1.8		1.8	1.4		219
Pru East	7.2		1.4		21.3		1.8		4.5		-	-		221
Kintampo South	3.6		7.2		10.4		8.1		7.2		0.5	-		221
Kintampo North	33.5		9.0		29.0		4.1		1.8		0.9	-		221
Biakoye	26.7		0.4		39.1		2.7		0.9		-	-		225
Jasikan	48.2		1.4		42.8		0.5		-		-	-		222
Kadjebi	0.4		0.9		44.4		26.5		3.6		0.9	9.4		223
Krachi East	5.0		0.9		77.2		8.2		0.5		0.5	-		219
Krachi West	41.9		7.8		18.9		6.9		2.3		0.9	-		217
Krachi Nchumuru	61.4		3.5		24.1		7.0		-		-	-		228
Nkwanta South	0.4		0.4		77.1		0.9		-		-	0.4		223
Nkwanta North	3.6		0.5		83.8		4.5		0.5		-	1.8		222
Kpandai	2.8		4.3		74.3		6.7		2.0		0.4	3.6		253
Nanumba South	1.6		2.4		61.9		29.0		2.0		0.8	-		252
Nanumba North	0.4		4.0		94.4		0.8		-		0.4	-		249
Zabzugu	-		3.3		49.2		4.5		0.4		-	-		242
Tatale	8.2		5.9		33.7		-		-		-	-		255
Saboba	2.4		2.4		64.0		23.1		2.4		-	-		247

	Separate House (Bungalow)	Flat/ Apartment	Room(s) [Compound House]	Several Huts/ Buildings [Compound]		Tent/ Improvised Home	Other	Total (N)
				Several Huts/ Buildings [Same Compound]	Several Huts/ Buildings [Different Compound]			
Yendi Municipal	0.8	0.4	81.0	12.3	4.8	0.4	-	252
Mion	-	0.4	76.7	11.6	7.6	-	0.4	249
Nanton	0.4	-	36.9	27.8	0.8	0.4	-	252
TMA_Tamale	4.4	1.5	68.1	17.0	0.2	-	0.2	458
Sagnerigu Municipal	14.7	8.0	49.8	3.2	1.2	-	0.4	251
Tolon	-	1.3	47.5	39.9	1.7	-	-	238
Kumbungu	0.8	0.4	39.7	1.6	-	-	-	252
Savelugu Municipal	1.2	3.6	19.5	8.8	0.4	-	-	251
Karaga	0.8	-	61.0	7.5	-	-	0.4	254
Gushiegu	4.8	8.0	9.2	49.0	2.8	0.4	-	249
Bole	1.8	1.8	92.9	3.1	-	-	-	224
Sawla Tuna Kalba	22.5	13.9	46.9	1.0	0.5	-	-	209
North Gonja	1.4	0.5	56.8	35.9	0.9	-	-	220
West Gonja	9.1	9.1	42.0	3.7	0.9	-	0.5	219
Central Gonja	1.3	0.9	58.3	25.6	3.1	0.4	-	223
East Gonja	0.5	10.4	75.6	5.0	-	8.6	-	221
North East Gonja	4.0	0.9	32.1	46.0	7.6	-	0.4	224
Mamprugu Moagduri	1.4	5.1	39.6	44.7	3.7	0.9	-	217
West Mamprusi Municipal	2.3	3.6	50.2	21.3	10.0	0.5	-	221
East Mamprusi Municipal	-	1.8	27.1	67.0	3.6	-	-	221
Bunkpurugu Nakpanduri	6.7	1.3	49.1	14.7	0.9	14.3	-	224
Yunyoo Nasuan	0.5	2.7	75.0	20.0	0.9	-	0.5	220
Chereponi	0.5	0.5	69.9	25.6	0.9	-	-	219
Builisa South	11.2	1.1	61.4	18.7	1.1	-	-	267
Builisa North	2.3	0.4	1.1	54.1	30.8	-	-	266

	Separate House (Bungalow)		Flat/ Apartment		Room(s) [Compound House]		Several Huts/ Buildings [Same Compound]		Several Huts/ Buildings [Different Compound]		Tent/ Improvised Home		Total (N)
Kassena Nankana Municipal	15.8	1.5	31.7	24.5	21.9	0.4	-	-	0.4	-	-	265	
Kassena Nankana West	13.2	8.3	55.3	20.3	-	0.4	-	-	0.4	-	-	266	
Bolgatanga Municipal	9.4	6.3	21.2	37.6	15.7	-	0.4	-	-	0.4	-	255	
Talensi	4.9	13.2	38.3	28.9	13.5	-	-	-	-	-	-	266	
Bolgatanga East	9.1	9.9	46.4	22.4	1.9	-	-	-	-	-	-	263	
Bongo	1.9	0.4	11.9	70.5	12.3	-	0.4	-	-	0.4	-	268	
Nabdram	4.9	1.1	11.4	70.3	11.0	-	-	-	-	-	-	263	
Bawku West	2.7	1.5	37.5	52.3	5.7	-	-	-	-	-	-	264	
Binduri	0.4	13.7	6.7	34.1	18.0	-	-	-	-	-	-	255	
Bawku Municipal	1.9	-	29.1	64.4	3.8	-	-	-	-	-	-	261	
Garu	1.6	0.8	28.1	47.8	1.6	-	-	-	-	-	-	249	
Tempene	3.4	0.4	29.3	58.3	4.9	-	-	-	-	-	-	266	
Pusiga	0.4	1.1	83.0	-	0.4	-	-	-	-	-	-	264	
Wa West	1.0	16.6	6.1	31.1	0.3	-	-	-	-	-	-	296	
Wa East	27.9	0.7	35.0	16.7	3.7	0.3	1.0	-	0.3	1.0	-	294	
Wa Municipal	15.4	1.0	54.7	14.1	0.3	-	-	-	-	-	-	298	
Nadowli-Kaleo	1.3	8.8	45.8	3.4	-	-	-	-	-	-	-	297	
Daffiama Bussie	11.4	1.4	41.5	18.0	1.4	-	-	-	-	-	-	289	
Sissala East	6.7	1.4	30.6	17.3	9.2	-	-	-	-	-	-	284	
Sissala West	14.6	5.8	55.6	0.3	0.3	-	-	-	-	-	-	295	
Jirapa	20.1	3.8	28.7	17.1	16.7	1.0	-	-	1.0	-	-	293	
Lawra	0.3	4.8	71.4	20.4	0.3	-	-	-	-	-	-	294	
Lambussie-Karni	16.8	2.3	52.3	17.4	2.0	-	-	-	-	-	-	298	
Nandom	6.9	4.1	38.1	21.3	13.7	-	-	-	-	-	-	291	
<b>National</b>	<b>16.7</b>	<b>8.7</b>	<b>44.8</b>	<b>10.2</b>	<b>2.4</b>	<b>1.1</b>	<b>0.8</b>	<b>1.1</b>	<b>1.1</b>	<b>0.8</b>	<b>1.1</b>	<b>309</b>	

**APPENDIX 2: Ownership of Dwelling, by Households (%)**  
Type of Household Dwellings, by District

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Jomoro	62.5	19.0	16.5	0.0	0.0	0.0	2.0	0.0	140,687
Ellembelle	74.3	13.7	10.7	0.0	0.4	0.0	0.9	0.0	132,669
Nzema East	62.3	16.1	20.9	0.0	0.0	0.0	0.6	0.0	141,855
Ahanta West	81.0	2.2	14.8	0.0	0.3	0.0	1.3	0.3	123,106
Effia-Kwesimintim	38.1	13.5	48.4	0.0	0.0	0.0	0.0	0.0	122,387
STMA	38.6	16.6	43.1	0.5	0.0	0.1	0.8	0.2	345,266
Shama	54.1	26.0	19.8	0.0	0.0	0.0	0.0	0.0	181,541
Wassa East	84.8	4.4	9.5	0.0	0.0	0.2	1.1	0.0	169,294
Mpohor	67.8	10.2	19.4	1.3	0.0	0.0	1.4	0.0	141,845
Tarkwa Nsuaem	50.0	5.3	44.7	0.0	0.0	0.0	0.0	0.0	166,178
Prestea/Huni Valley	63.9	12.1	24.0	0.0	0.0	0.0	0.0	0.0	134,033
Wassa Amenfi East	72.7	9.9	17.1	0.0	0.0	0.3	0.0	0.0	118,003
Wassa Amenfi Central	75.2	12.0	12.7	0.0	0.0	0.0	0.0	0.0	95,228
Wassa Amenfi West	59.0	16.8	21.2	0.0	0.0	0.0	0.0	3.0	115,691
Komenda Edina Eguafo Abirem Municipal	53.3	20.4	25.9	0.0	0.0	0.0	0.0	0.3	104,107
Cape	46.5	18.7	32.8	0.4	0.4	0.0	1.3	0.0	235,943
Abura Asebu Kwamankese	48.6	38.0	13.4	0.0	0.0	0.0	0.0	0.0	111,578
Mfantseman Municipal	58.8	17.5	22.4	0.0	0.0	0.2	1.1	0.0	71,599
Ekumfi	55.5	27.4	17.1	0.0	0.0	0.0	0.0	0.0	84,223
Gomoa West	50.2	29.4	19.7	0.0	0.0	0.0	0.7	0.0	74,343
Effutu Municipal	67.3	21.4	10.6	0.0	0.0	0.0	0.0	0.7	54,638
Gomoa Central	45.0	27.2	27.0	0.0	0.0	0.0	0.9	0.0	60,030
Gomoa East	71.3	6.3	21.8	0.0	0.0	0.0	0.6	0.0	107,241
Awutu Senya East Municipal	50.5	13.3	35.5	0.0	0.0	0.0	0.7	0.0	135,370

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Awutu Senya	60.3	10.8	28.6	0.0	0.0	0.0	0.3	0.0	110,626
Agona East	85.2	0.1	14.7	0.0	0.0	0.0	0.0	0.0	98,704
Agona West Municipal	63.1	1.7	29.3	0.0	0.0	0.4	5.5	0.0	99,980
Asikuma Odoben Brakwa	78.4	7.8	13.8	0.0	0.0	0.0	0.0	0.0	126,538
Ajumaku Enyan Essiam	52.7	27.4	9.7	0.0	0.0	0.0	10.2	0.0	142,285
Assin South	70.2	6.1	23.7	0.0	0.0	0.0	0.0	0.0	144,772
Twifo Heman Lower Denkyira	81.6	4.1	13.7	0.0	0.0	0.0	0.6	0.0	139,527
Twifo Ati Morkwa	49.2	33.9	16.9	0.0	0.0	0.0	0.0	0.0	126,253
Assin Fosu Municipal	47.0	17.5	35.1	0.4	0.0	0.0	0.0	0.0	152,561
Assin North	70.4	14.5	10.4	0.7	0.0	0.7	3.4	0.0	103,635
Upper Denkyira East Municipal	41.3	21.4	35.7	0.0	0.4	1.3	0.0	0.0	114,673
Upper Denkyira West	65.1	11.2	22.2	0.0	0.0	0.4	1.0	0.0	126,284
Ga South Municipal	53.8	20.3	26.0	0.0	0.0	0.0	0.0	0.0	167,691
Weija Gbawe Municipal	36.6	10.0	50.7	0.0	0.0	1.0	1.7	0.0	171,573
Ga Central Municipal	39.3	5.1	53.6	0.9	0.0	1.1	0.0	0.0	133,210
Ablekuma North Municipal	33.2	12.8	53.5	0.0	0.0	0.0	0.2	0.2	151,772
Ablekuma West Municipal	47.3	11.6	41.1	0.0	0.0	0.0	0.0	0.0	119,040
Ablekuma Central	38.5	3.3	57.4	0.0	0.0	0.0	0.9	0.0	170,784
AMA	44.8	11.2	38.8	1.0	0.0	2.9	1.2	0.0	305,924
Korle Klotey Municipal	26.6	31.2	41.0	0.6	0.0	0.3	0.0	0.3	147,299
Ayawaso Central Municipal	34.9	2.2	63.0	0.0	0.0	0.0	0.0	0.0	111,986
Ayawaso East	29.5	4.2	66.2	0.0	0.0	0.0	0.0	0.0	85,969
Ayawaso North Municipal	29.8	7.1	61.9	0.0	0.0	0.5	0.8	0.0	160,095
La Dadekotopon Municipal	41.5	16.4	41.2	0.4	0.0	0.0	0.0	0.5	129,663
Ledzokuku Municipal	27.1	18.2	51.8	0.6	0.0	0.6	1.7	0.0	119,812

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Krowor Municipal	37.5	7.0	52.8	0.2	0.2	0.0	2.2	0.0	103,386
Ayawaso West	38.7	11.0	33.7	12.3	0.0	0.7	3.5	0.0	243,760
Adentan Municipal	37.4	8.0	51.9	0.0	0.0	0.0	2.0	0.6	112,144
Okai Koi North	46.5	7.3	40.6	0.0	0.0	0.5	5.2	0.0	116,188
Ga North Municipal	76.2	1.8	19.6	0.0	0.0	0.0	2.5	0.0	226,549
Ga West Municipal	38.6	8.5	35.6	6.9	0.0	0.9	9.6	0.0	145,995
Ga East	43.1	9.0	41.8	3.6	0.0	0.6	1.8	0.0	171,474
La Nkwantanan- Madina Munic	53.0	4.5	41.2	0.0	0.0	0.0	1.4	0.0	150,949
Kpone Katamanso Municipal	30.5	0.0	69.2	0.0	0.0	0.3	0.0	0.0	136,128
Ashaiman Municipal	55.9	14.5	27.2	0.0	0.0	0.0	0.3	2.0	178,007
Tema West Municipal	56.2	15.6	19.9	1.3	1.0	0.4	5.7	0.0	99,980
Tema Metro	24.7	17.4	57.9	0.0	0.0	0.0	0.0	0.0	300,813
Ningo Prampram	65.6	9.8	18.5	1.9	0.0	0.0	4.2	0.0	229,300
Shai Osudoku	70.2	4.4	23.4	0.0	0.0	0.0	2.0	0.0	219,417
Ada West	64.9	10.9	21.2	0.4	0.0	2.3	0.2	0.0	162,553
Ada East	49.4	30.4	19.3	0.0	0.0	0.0	0.5	0.3	232,648
South Tongu	86.6	1.0	11.9	0.0	0.0	0.0	0.6	0.0	95,272
Anloga	67.7	20.1	12.2	0.0	0.0	0.0	0.0	0.0	141,628
Keta Municipal	52.0	37.2	9.7	0.4	0.0	0.0	0.7	0.0	201,343
Ketu South	62.1	27.7	9.7	0.0	0.0	0.0	0.5	0.0	115,158
Ketu North	42.3	49.8	7.7	0.0	0.0	0.0	0.2	0.0	131,830
Akatsi North	69.8	21.4	7.9	1.0	0.0	0.0	0.0	0.0	60,488
Akatsi South	68.2	13.5	17.4	0.0	0.0	0.0	0.9	0.0	114,408
Central Tongu	74.2	14.4	3.4	0.2	0.0	0.4	7.5	0.0	88,020
North Tongu	68.6	14.8	16.6	0.0	0.0	0.0	0.0	0.0	84,758

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Ho-West	80.0	6.8	11.7	0.0	0.0	0.0	1.6	0.0	89,798
Adaklu	83.0	4.3	11.5	0.0	0.0	0.0	1.3	0.0	70,587
Agotime Ziophe	67.7	16.0	16.3	0.0	0.0	0.0	0.0	0.0	136,928
Ho Municipal	52.0	12.4	35.6	0.0	0.0	0.0	0.0	0.0	113,816
South Dayi	62.3	6.0	30.0	0.0	0.0	0.7	1.0	0.0	66,044
Afadzato South	66.5	22.6	9.7	0.0	0.0	0.4	0.0	0.8	82,985
North Dayi	57.9	27.7	13.9	0.0	0.0	0.0	0.4	0.0	62,023
Kpando Municipal	43.2	22.2	34.5	0.0	0.0	0.0	0.1	0.0	53,194
Hohoe Municipal	40.6	17.2	41.3	0.0	0.6	0.0	0.3	0.0	138,841
Birim South	67.5	12.5	20.0	0.0	0.0	0.0	0.0	0.0	120,686
Birim Central Municipal	32.5	24.8	42.1	0.2	0.0	0.0	0.3	0.0	136,558
Achiase	70.6	19.1	10.3	0.0	0.0	0.0	0.0	0.0	97,324
Asene Manso Akroso	78.6	6.8	14.1	0.0	0.0	0.0	0.0	0.4	98,213
West Akim Municipal	53.2	3.1	41.7	0.0	0.0	0.0	2.1	0.0	98,804
Upper West Akim	62.6	16.0	21.1	0.0	0.0	0.0	0.3	0.0	122,760
Ayensuano	77.2	0.4	19.8	0.3	0.0	0.0	2.4	0.0	94,012
Nsawam Adoagyiri Municipal	45.1	22.3	32.4	0.0	0.0	0.0	0.2	0.0	145,851
Akwapim South	55.9	12.9	28.4	1.0	0.0	0.0	1.8	0.0	101,362
Akwapim North Municipal	50.1	21.0	26.4	0.0	0.0	0.0	2.6	0.0	139,502
Okere	64.6	12.5	22.4	0.0	0.0	0.0	0.3	0.1	77,638
New Juaben South Municipal	42.0	17.3	40.7	0.0	0.0	0.0	0.0	0.0	145,889
New Juaben North	46.2	10.8	43.0	0.0	0.0	0.0	0.0	0.0	129,519
Suhum Municipal	56.1	9.7	33.0	0.1	0.0	0.0	1.1	0.0	85,755
Abuakwa North	45.6	24.6	28.9	0.0	0.0	0.0	0.9	0.0	98,366
Abuakwa South	53.9	20.1	24.0	0.0	0.0	0.5	1.5	0.0	77,481

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Denkyembuor	56.5	3.2	38.0	0.5	0.0	0.0	1.8	0.0	123,335
Akyemansa	66.3	14.0	19.3	0.0	0.0	0.0	0.3	0.0	71,726
Kwaebibirem	41.1	25.9	31.3	0.0	0.0	0.3	1.4	0.0	71,036
Birim North	61.7	9.8	28.5	0.0	0.0	0.0	0.0	0.0	66,517
Atiwa West	63.5	19.9	16.1	0.0	0.1	0.1	0.0	0.3	70,396
Atiwa East	63.0	12.5	24.0	0.0	0.0	0.0	0.5	0.0	72,854
Fanteakwa South	68.0	5.4	24.3	0.0	0.6	0.0	1.7	0.0	65,388
Yilo Krobo Municipal	74.0	6.8	19.0	0.0	0.0	0.2	0.0	0.0	61,104
Lower Manya Krobo	48.6	26.7	24.1	0.0	0.0	0.0	0.6	0.0	70,527
Asuogyaman	62.9	7.2	29.3	0.2	0.0	0.0	0.4	0.0	56,671
Upper Manya Krobo	73.2	15.1	9.0	0.0	0.0	0.0	2.7	0.0	127,383
Fanteakwa North	55.2	19.6	23.9	0.0	0.0	0.7	0.6	0.0	87,162
Kwahu South	62.0	14.0	14.2	0.0	0.0	1.2	8.6	0.0	71,836
Kwahu West Municipal	46.5	9.6	39.6	0.0	0.0	0.0	4.4	0.0	98,428
Kwahu East	56.1	15.1	24.3	0.3	0.3	0.0	3.9	0.0	57,404
Kwahu Afram Plains South	73.2	10.5	15.9	0.0	0.0	0.0	0.5	0.0	140,298
Kwahu Afram Plains North	80.3	11.8	7.2	0.0	0.0	0.0	0.7	0.0	124,549
Amansie South	67.4	10.5	21.6	0.2	0.0	0.0	0.3	0.0	111,052
Amansie Central	74.9	10.8	13.9	0.4	0.0	0.0	0.0	0.0	138,715
Akrofrom	69.2	18.7	11.8	0.0	0.0	0.0	0.2	0.1	104,867
Adansi South	62.8	19.8	17.4	0.0	0.0	0.0	0.0	0.0	154,406
Adansi Asokwa	73.7	7.0	17.0	0.6	0.0	0.0	1.4	0.3	133,629
Obuasi East	45.4	8.6	45.9	0.0	0.0	0.0	0.0	0.0	126,170
Obuasi Municipal	39.4	12.7	46.9	0.0	0.0	0.0	1.0	0.0	188,161
Adansi North	47.9	30.8	21.2	0.0	0.0	0.2	0.0	0.0	125,731

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Bekwai Municipal	63.2	14.3	19.8	0.0	0.0	0.0	2.7	0.0	110,337
Amansie West	65.9	14.9	19.2	0.0	0.0	0.0	0.0	0.0	90,963
Atwima Kwanwoma	36.7	29.8	27.1	0.3	0.0	0.4	5.8	0.0	114,469
Bosomtwi	47.9	23.1	27.4	0.0	0.0	0.0	1.6	0.0	104,592
Bosome Freho	74.2	10.8	13.8	0.7	0.0	0.0	0.5	0.0	138,314
Asante Akim Central Municipal	43.5	15.6	38.6	0.0	0.0	0.0	2.3	0.0	82,772
Asante Akim South Municipal	65.9	17.5	16.0	0.0	0.0	0.0	0.5	0.0	118,730
Asante Akim North	52.7	18.5	27.8	0.0	0.0	0.0	1.0	0.0	119,782
Sekyere Kumawu	64.5	8.3	26.9	0.0	0.0	0.0	0.4	0.0	126,871
Sekyere East	45.2	33.1	21.2	0.0	0.0	0.0	0.5	0.0	110,110
Juaben Municipal	52.4	21.4	23.9	0.9	0.0	0.0	1.0	0.4	85,318
Ejisu Municipal	41.5	27.5	29.0	1.2	0.0	0.0	0.8	0.0	59,657
Oforikrom Municipal	25.1	27.5	46.9	0.0	0.0	0.0	0.5	0.0	82,754
Asokwa Municipal	18.1	29.6	51.6	0.0	0.0	0.0	0.6	0.0	152,277
KMA	28.2	19.6	51.1	0.3	0.0	0.0	0.4	0.3	431,017
Kwadaso Municipal	28.7	25.2	43.8	2.2	0.0	0.0	0.0	0.0	106,095
Suame Municipal	27.7	16.8	55.0	0.0	0.0	0.0	0.6	0.0	153,365
Old Tafo Municipal	22.8	21.7	52.1	2.2	0.0	0.0	1.2	0.0	162,532
Asokore Mampong Municipal	39.3	12.4	47.5	0.4	0.0	0.0	0.4	0.0	226,230
Kwabre East Municipal	48.2	18.7	31.4	1.4	0.0	0.0	0.2	0.0	205,947
Afigya Kwabre South	42.2	18.4	39.1	0.0	0.0	0.0	0.3	0.0	146,160
Atwima Nwabiagya North	45.0	22.4	31.9	0.0	0.0	0.0	0.7	0.0	96,828
Atwima Nwabiagya South Municipal	51.1	11.6	34.8	0.0	0.0	0.0	2.5	0.0	146,724
Atwima Mponua	77.9	14.8	7.2	0.0	0.0	0.0	0.0	0.0	180,227
Ahafo Ano South West	55.9	15.8	27.8	0.0	0.0	0.0	0.5	0.0	110,754

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Ahafo Ano North	37.4	36.4	26.2	0.0	0.0	0.0	0.0	0.0	173,163
Ahafo Ano South East	59.1	26.8	14.1	0.0	0.0	0.0	0.0	0.0	138,637
Offinso North	54.3	27.8	17.9	0.0	0.0	0.0	0.0	0.0	148,534
Offinso Municipal	53.3	21.2	25.6	0.0	0.0	0.0	0.0	0.0	95,862
Afigya Kwabre North	50.5	15.8	30.8	0.0	0.0	0.0	2.9	0.0	94,928
Sekyere South	31.6	46.1	22.3	0.0	0.0	0.0	0.0	0.0	116,699
Mampong Municipal	59.9	10.2	28.6	0.4	0.0	0.0	0.9	0.0	124,383
Ejura Sekyedumase Municipal	56.6	5.6	36.5	0.0	0.0	0.0	1.3	0.0	71,802
Sekyere Central	72.4	12.5	12.6	0.6	0.0	0.0	1.9	0.0	94,850
Sekyere Afram Plains	77.1	11.0	10.4	0.0	0.0	0.0	1.5	0.0	73,764
Aowin Municipal	75.4	10.8	13.7	0.0	0.0	0.0	0.0	0.0	110,608
Sefwi Akontombra	69.0	10.3	18.7	0.5	0.0	0.0	1.5	0.0	91,921
Suaman	68.7	8.5	22.3	0.0	0.0	0.0	0.4	0.0	104,954
Bodi	58.9	28.8	11.2	0.0	0.0	0.2	0.9	0.0	77,735
Sefwi Wiawso	59.1	21.3	19.6	0.0	0.0	0.0	0.0	0.0	95,653
Bibiani Ahwiaso Bekwai	47.5	22.4	29.7	0.0	0.0	0.0	0.4	0.0	62,716
Juaboso	67.6	16.0	13.9	0.9	0.0	0.0	1.6	0.0	66,695
Bia West	55.7	25.5	17.9	0.0	0.0	0.6	0.3	0.0	161,640
Bia East	72.9	18.8	3.6	0.0	0.0	0.0	4.7	0.0	157,586
Asunafo South	73.7	5.6	15.5	0.0	0.0	0.0	5.1	0.0	70,522
Asunafo North	52.9	27.5	19.6	0.0	0.0	0.0	0.0	0.0	87,937
Asutifi South	55.9	8.9	25.4	0.6	0.0	2.6	6.6	0.0	97,812
Asutifi North	65.5	9.6	17.6	0.6	0.0	0.0	6.8	0.0	98,252
Tano North	66.6	19.5	13.3	0.6	0.0	0.0	0.0	0.0	148,574
Tano South	48.9	25.2	25.6	0.0	0.0	0.0	0.3	0.0	85,704

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Dormaa West	70.4	15.9	7.5	0.0	0.0	1.1	5.1	0.0	131,524
Dormaa Central Municipal	70.1	14.0	14.8	0.0	0.0	0.0	1.1	0.0	95,954
Dormaa East	57.8	20.3	21.4	0.0	0.0	0.0	0.5	0.	81,437
Sunyani Municipal	32.8	15.4	48.3	0.0	0.0	0.0	2.9	0.5	71,870
Sunyani West	47.2	17.6	33.2	0.0	0.0	0.0	2.0	0.0	81,683
Berekum East Municipal	29.3	3.6	61.2	0.5	0.0	0.2	4.1	1.2	125,767
Berekum West	57.3	16.5	25.3	0.0	0.0	0.0	0.9	0.0	124,426
Jaman South	57.2	31.6	11.2	0.0	0.0	0.0	0.0	0.0	84,855
Jaman North	63.3	26.5	10.2	0.0	0.0	0.0	0.0	0.0	108,660
Tain	43.0	31.4	23.6	0.8	0.0	0.6	0.6	0.0	73,359
Wenchi Municipal	48.1	17.3	34.6	0.0	0.0	0.0	0.0	0.0	71,551
Banda	87.5	2.7	7.6	0.4	0.0	0.0	1.8	0.0	76,948
Nkoranza South	69.3	6.1	24.2	0.0	0.0	0.0	0.0	0.5	114,499
Techiman Municipal	54.7	10.6	34.6	0.0	0.0	0.0	0.0	0.0	73,421
Nkoranza North	80.2	6.5	12.5	0.0	0.6	0.0	0.3	0.0	98,453
Techiman North	72.9	7.2	19.2	0.3	0.0	0.0	0.3	0.0	144,735
Atebubu Amantin	73.4	4.8	20.7	0.0	0.0	0.0	1.0	0.0	83,963
Sene West	77.2	10.2	10.6	0.3	0.0	0.5	1.2	0.0	137,387
Sene East	88.7	7.4	3.2	0.0	0.0	0.0	0.8	0.0	101,920
Pru West	76.2	12.0	11.7	0.1	0.0	0.0	0.0	0.0	106,669
Pru East	70.6	6.9	22.5	0.0	0.0	0.0	0.0	0.0	71,756
Kintampo South	75.3	4.8	18.2	0.8	0.3	0.0	0.6	0.0	98,477
Kintampo North	66.3	6.7	27.0	0.0	0.0	0.0	0.0	0.0	71,095
Biakoye	60.7	21.6	15.8	0.0	0.0	0.0	1.8	0.0	53,582
Jasikan	75.2	7.2	17.3	0.0	0.0	0.0	0.3	0.0	60,642

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Kadjebi	52.9	22.7	24.0	0.0	0.4	0.0	0.0	0.0	79,453
Krachi East	78.1	11.9	10.0	0.0	0.0	0.0	0.0	0.0	153,034
Krachi West	68.8	17.8	12.8	0.0	0.0	0.0	0.0	0.6	116,125
Krachi Nchumuru	75.6	11.9	11.9	0.0	0.0	0.0	0.6	0.0	103,832
Nkwanta South	81.9	7.5	10.6	0.0	0.0	0.0	0.0	0.0	71,287
Nkwanta North	73.2	20.7	5.3	0.4	0.0	0.4	0.0	0.0	102,861
Kpandai	93.5	3.3	2.8	0.0	0.0	0.4	0.0	0.0	96,118
Nanumba South	94.1	4.1	0.5	0.0	0.0	0.0	0.1	1.1	172,078
Nanumba North	85.0	11.7	3.3	0.0	0.0	0.0	0.0	0.0	151,548
Zabzugu	65.3	7.5	8.6	8.7	0.0	10.0	0.0	0.0	134,551
Tatale	92.7	1.2	5.6	0.0	0.0	0.0	0.4	0.0	102,434
Saboba	91.5	4.7	2.8	0.3	0.0	0.3	0.4	0.0	147,089
Yendi Municipal	66.9	25.9	7.2	0.0	0.0	0.0	0.0	0.0	125,232
Mion	88.8	9.2	0.0	0.0	0.0	0.8	1.2	0.0	108,820
Nanton	99.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	139,075
Tma_Tamale	63.9	19.2	16.7	0.1	0.0	0.0	0.2	0.0	215,555
Sagnerigu Municipal	57.3	4.9	36.8	0.0	0.0	0.0	0.5	0.5	107,212
Tolon	78.4	21.6	0.0	0.0	0.0	0.0	0.0	0.0	89,217
Kumbungu	79.7	17.8	1.6	0.0	0.0	0.6	0.3	0.0	71,079
Savelugu Municipal	75.5	20.4	4.0	0.0	0.0	0.0	0.0	0.0	83,554
Karaga	88.1	9.8	1.5	0.0	0.0	0.7	0.0	0.0	77,274
Gushiegu	95.9	1.3	0.8	1.4	0.0	0.3	0.3	0.0	71,126
Bole	82.5	11.4	5.5	0.0	0.0	0.0	0.6	0.0	84,201
Sawla Tuna Kalba	80.1	13.0	5.8	0.0	0.0	1.0	0.0	0.0	62,551
North Gonja	95.7	2.5	1.8	0.0	0.0	0.0	0.0	0.0	97,984

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
West Gonja	90.7	0.4	8.6	0.0	0.3	0.0	0.0	0.0	84,370
Central Gonja	89.8	3.7	6.5	0.0	0.0	0.0	0.0	0.0	67,808
East Gonja	93.7	1.0	4.1	0.0	0.0	0.0	0.6	0.6	87,116
North East Gonja	88.5	10.4	0.0	0.0	0.0	0.0	1.2	0.0	93,471
Mamprugu Moagduri	83.4	15.1	0.9	0.0	0.0	0.0	0.0	0.6	60,346
West Mamprusi Municipal	79.8	12.4	6.0	0.0	0.0	0.0	1.7	0.0	84,975
East Mamprusi Municipal	89.5	9.3	0.7	0.0	0.0	0.0	0.5	0.0	155,506
Bunkpurugu Nakpanduri	92.4	2.2	4.8	0.0	0.0	0.5	0.2	0.0	100,158
Yunyoo Nasuan	97.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	79,458
Chereponi	95.2	0.9	1.7	0.0	0.0	1.0	1.2	0.0	94,366
Builisa South	99.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	84,264
Builisa North	90.7	0.7	6.9	0.0	0.0	0.0	1.7	0.0	76,020
Kassena Nankana Municipal	87.9	3.2	8.9	0.0	0.0	0.0	0.0	0.0	78,357
Kassena Nankana West	94.3	0.9	4.8	0.0	0.0	0.0	0.0	0.0	90,191
Bolgatanga Municipal	77.2	3.1	19.2	0.0	0.4	0.0	0.0	0.0	82,742
Talensi	94.2	2.4	2.8	0.0	0.0	0.7	0.0	0.0	84,376
Bolgatanga East	91.0	5.5	3.5	0.0	0.0	0.0	0.0	0.0	65,786
Bongo	97.3	0.5	1.9	0.4	0.0	0.0	0.0	0.0	113,231
Nabdam	97.9	0.0	2.1	0.0	0.0	0.0	0.0	0.0	101,694
Bawku West	95.2	0.2	4.6	0.0	0.0	0.0	0.0	0.0	91,426
Binduri	96.4	0.9	2.7	0.0	0.0	0.0	0.0	0.0	107,896
Bawku Municipal	92.5	0.0	7.5	0.0	0.0	0.0	0.0	0.0	80,257
Garu	91.6	0.7	7.7	0.0	0.0	0.0	0.0	0.0	71,206
Tempane	98.3	0.0	0.9	0.0	0.0	0.0	0.8	0.0	77,139
Pusiga	91.2	7.1	0.3	0.0	0.0	0.0	0.0	1.4	69,055

Household Ownership/ Type of Locality	Owner Occupied	Don't Own but Live for Free	Pay Rent	Squatter	Mortgage	Perching	Caretaking	Don't Know	Total
Wa West	97.7	0.3	1.2	0.0	0.0	0.0	0.7	0.0	84,730
Wa East	93.1	6.2	0.8	0.0	0.0	0.0	0.0	0.0	68,515
Wa Municipal	75.0	4.3	18.7	0.0	0.0	0.0	2.0	0.0	94,237
Nadowli-Kaleo	81.0	13.2	5.3	0.0	0.0	0.0	0.5	0.0	78,919
Daffiama Bussie	92.2	5.6	2.2	0.0	0.0	0.0	0.0	0.0	58,372
Sissala East	64.2	26.7	5.4	2.2	0.0	1.3	0.2	0.0	76,222
Sissala West	93.2	3.3	3.3	0.0	0.0	0.0	0.1	0.0	53,520
Jirapa	93.5	1.8	4.6	0.0	0.0	0.0	0.0	0.0	49,673
Lawra	85.1	2.4	11.4	0.0	0.0	0.0	0.5	0.6	72,049
Lambussie-Karni	69.2	23.1	7.5	0.0	0.0	0.0	0.0	0.2	117,748
Nandom	84.1	5.7	9.4	0.2	0.0	0.0	0.0	0.5	94,456
<b>National</b>	<b>60.9</b>	<b>14.0</b>	<b>23.5</b>	<b>0.4</b>	<b>0.0</b>	<b>0.2</b>	<b>1.0</b>	<b>0.1</b>	<b>29,844,322</b>

### APPENDIX 3: Number of Sleeping Rooms Occupied by Households, by Locality (%)

Locality	Sleeping Rooms (%)		
	<5	>5	Total (N)
Jomoro	99.7	0.3	140,687
Ellembelle	94.4	5.6	141,558
Nzema East	91.3	8.7	141,855
Ahanta West	90.8	9.2	123,107
Effia-Kwesimintim	99.1	0.9	122,387
STMA	95.4	4.6	347,044
Shama	94.8	5.2	181,541
Wassa East	97.6	2.4	169,294
Mpohor	94.0	6.0	142,217
Tarkwa Nsuaem	99.1	0.9	166,179
Prestea/Huni Valley	97.4	2.6	134,033
Wassa Amenfi East	96.8	3.2	118,003
Wassa Amenfi Central	99.0	1.0	95,229
Wassa Amenfi West	95.8	4.2	115,691
Komenda Edina Eguafu Abirem Municipal	87.4	12.6	106,220
Cape	97.7	2.3	235,942
Abura Asebu Kwamankese	97.0	3.0	111,578
Mfantiman Municipal	89.5	10.5	71,599
Ekumfi	97.2	2.8	86,431
Gomoa West	96.2	3.8	74,343
Effutu Municipal	93.5	6.5	54,872
Gomoa Central	91.9	8.1	61,077
Gomoa East	97.9	2.1	107,241
Awutu Senya East Municipal	91.5	8.5	135,371
Awutu Senya	96.1	3.9	110,627
Agona East	94.2	5.8	98,874
Agona West Municipal	95.8	4.2	100,334
Asikuma Odoben Brakwa	95.4	4.6	127,454
Ajumaku Enyan Essiam	87.2	12.8	142,642
Assin South	95.9	4.1	144,772
Twifo Heman Lower Denkyira	94.1	5.9	140,369
Twifo Ati Morkwa	96.0	4.0	126,253
Assin Fosu Municipal	96.5	3.5	152,562
Assin North	95.8	4.2	103,869
Upper Denkyira East Municipal	93.5	6.5	114,673
Upper Denkyira West	99.2	0.8	128,052
Ga South Municipal	89.3	10.7	167,691
Weija Gbawe Municipal	90.8	9.2	171,574
Ga Central Municipal	95.9	4.1	133,766
Ablekuma North Municipal	95.2	4.8	154,720
Ablekuma West Municipal	98.2	1.8	119,040

Locality	Sleeping Rooms (%)		Total (N)
	<5	>5	
Ablekuma Central	95.0	5.0	170,783
AMA	95.5	4.5	304,826
Korle Klotey Municipal	97.6	2.4	147,300
Ayawaso Central Municipal	96.2	3.8	111,552
Ayawaso East	97.2	2.8	85,969
Ayawaso North Municipal	93.1	6.9	159,367
La Dadekotopon Municipal	97.1	2.9	129,174
Ledzokuku Municipal	94.9	5.1	127,243
Krowor Municipal	97.0	3.0	103,385
Ayawaso West	93.0	7.0	244,480
Adentan Municipal	97.1	2.9	127,145
Okai Koi North	96.5	3.5	116,188
Ga North Municipal	92.2	7.8	226,551
Ga West Municipal	94.7	5.3	151,617
Ga East	99.3	0.7	171,783
La Nkwantanan- Madina Munic	95.6	4.4	150,948
Kpone Katamanso Municipal	88.7	11.3	135,727
Ashaiman Municipal	95.7	4.3	178,007
Tema West Municipal	98.1	1.9	102,334
Tema Metro	90.8	9.2	302,357
Ningo Prampram	92.1	7.9	229,300
Shai Osudoku	90.0	10.0	219,926
Ada West	96.5	3.5	175,715
Ada East	96.0	4.0	234,129
South Tongu	93.9	6.1	95,273
Anloga	98.7	1.3	141,628
Keta Municipal	99.1	0.9	201,343
Ketu South	97.7	2.3	115,158
Ketu North	98.8	1.2	131,829
Akatsi North	96.2	3.8	60,488
Akatsi South	98.5	1.5	114,409
Central Tongu	99.6	0.4	88,020
North Tongu	96.1	3.9	84,758
Ho-West	97.8	2.2	101,410
Adaklu	98.2	1.8	72,094
Agortime Ziope	93.5	6.5	136,928
Ho Municipal	97.6	2.4	113,816
South Dayi	92.5	7.5	77,177
Afadzato South	95.0	5.0	83,466
North Dayi	97.8	2.2	62,023
Kpando Municipal	97.3	2.7	53,194
Hohoe Municipal	95.6	4.4	138,841
Birim South	92.0	8.0	130,911
Birim Central Municipal	96.6	3.4	136,559

Locality	Sleeping Rooms (%)		Total (N)
	<5	>5	
Achiase	97.1	2.9	97,088
Asene Manso Akroso	97.3	2.7	101,019
West Akim Municipal	98.7	1.3	98,803
Upper West Akim	95.3	4.7	122,760
Ayensuano	97.5	2.5	93,470
Nsawam Adoagyiri Municipal	93.2	6.8	145,852
Akwapim South	96.3	3.7	101,486
Akwapim North Municipal	98.6	1.4	140,886
Okere	98.1	1.9	77,638
New Juaben South Municipal	97.6	2.4	146,255
New Juaben North	98.2	1.8	131,326
Suhum Municipal	96.6	3.4	85,754
Abuakwa North	98.9	1.1	98,366
Abuakwa South	93.4	6.6	78,274
Denkyembuor	92.0	8.0	123,979
Akyemansa	98.3	1.7	71,726
Kwaebibirem	94.9	5.1	71,038
Birim North	91.1	8.9	66,517
Atiwa West	95.7	4.3	70,607
Atiwa East	95.5	4.5	74,023
Fanteakwa South	97.7	2.3	65,389
Yilo Krobo Municipal	96.8	3.2	61,104
Lower Manya Krobo	97.2	2.8	70,527
Asuogyaman	95.7	4.3	56,671
Upper Manya Krobo	100.0	-	127,384
Fanteakwa North	99.8	0.2	87,161
Kwahu South	99.3	0.7	72,211
Kwahu West Municipal	94.2	5.8	99,550
Kwahu East	94.6	5.4	58,318
Kwahu Afram Plains South	92.4	7.6	140,298
Kwahu Afram Plains North	99.6	0.4	124,328
Amansie South	98.5	1.5	111,051
Amansie Central	91.9	8.1	138,715
Akrofrom	92.9	7.1	104,452
Adansi South	94.5	5.5	159,014
Adansi Asokwa	95.8	4.2	133,630
Obuasi East	94.7	5.3	126,595
Obuasi Municipal	97.1	2.9	190,612
Adansi North	93.5	6.5	125,730
Bekwai Municipal	94.2	5.8	111,017
Amansie West	93.5	6.5	90,963
Atwima Kwanwoma	92.4	7.6	114,469
Bosomtwi	95.1	4.9	104,841
Bosome Freho	97.7	2.3	138,314

Locality	Sleeping Rooms (%)		Total (N)
	<5	>5	
Asante Akim Central Municipal	90.0	10.0	82,881
Asante Akim South Municipal	96.4	3.6	118,730
Asante Akim North	93.8	6.2	129,383
Sekyere Kumawu	96.8	3.2	126,871
Sekyere East	97.3	2.7	110,110
Juaben Municipal	91.0	9.0	85,318
Ejisu Municipal	89.9	10.1	59,986
Oforikrom Municipal	92.0	8.0	82,946
Asokwa Municipal	95.6	4.4	152,277
KMA	94.7	5.3	433,442
Kwadaso Municipal	93.9	6.1	106,528
Suame Municipal	91.0	9.0	153,364
Old Tafo Municipal	96.4	3.6	163,673
Asokore Mampong Municipal	89.6	10.4	225,665
Kwabre East Municipal	95.3	4.7	206,994
Afigya Kwabre South	92.4	7.6	145,590
Atwima Nwabiagya North	91.6	8.4	96,827
Atwima Nwabiagya South Municipal	96.8	3.2	146,724
Atwima Mponua	98.5	1.5	180,226
Ahafo Ano South West	97.8	2.2	112,482
Ahafo Ano North	91.5	8.5	175,647
Ahafo Ano South East	96.1	3.9	139,390
Offinso North	96.8	3.2	148,534
Offinso Municipal	95.8	4.2	96,279
Afigya Kwabre North	87.7	12.3	94,928
Sekyere South	90.6	9.4	116,699
Mampong Municipal	96.5	3.5	124,383
Ejura Sekyedumase Municipal	94.2	5.8	72,309
Sekyere Central	96.3	3.7	95,578
Sekyere Afram Plains	94.4	5.6	73,764
Aowin Municipal	97.5	2.5	110,608
Sefwi Akontombra	94.2	5.8	92,644
Suaman	98.8	1.2	104,954
Bodi	98.0	2.0	77,735
Sefwi Wiawso	96.6	3.4	96,019
Bibiani Ahwiaso Bekwai	93.6	6.4	62,716
Juaboso	93.5	6.5	67,027
Bia West	98.8	1.2	161,352
Bia East	94.4	5.6	157,587
Asunafo South	95.7	4.3	70,522
Asunafo North	98.2	1.8	87,936
Asutifi South	98.3	1.7	100,629
Asutifi North	96.3	3.7	98,254
Tano North	97.6	2.4	148,574

Locality	Sleeping Rooms (%)		Total (N)
	<5	>5	
Tano South	90.8	9.2	90,417
Dormaa West	99.7	0.3	131,870
Dormaa Central Municipal	100.0	-	95,953
Dormaa East	91.9	8.1	81,437
Sunyani Municipal	93.9	6.1	73,975
Unyani West	92.7	7.3	81,684
Berekum East Municipal	100.0	-	126,242
Berekum West	94.6	5.4	124,216
Jaman South	96.2	3.8	84,855
Jaman North	98.0	2.0	110,756
Tain	91.3	8.7	73,359
Wenchi Municipal	91.9	8.1	71,551
Banda	98.8	1.2	76,483
Nkoranza South	94.6	5.4	114,500
Techiman Municipal	94.1	5.9	73,421
Nkoranza North	96.3	3.7	98,453
Techiman North	97.4	2.6	144,736
Atebubu Amantin	92.3	7.7	84,573
Sene West	98.2	1.8	137,388
Sene East	94.4	5.6	101,920
Pru West	99.2	0.8	106,670
Pru East	97.5	2.5	71,757
Kintampo South	96.0	4.0	98,477
Kintampo North	99.4	0.6	71,094
Biakoye	94.3	5.7	53,581
Jasikan	98.1	1.9	60,643
Kadjebi	96.3	3.7	79,452
Krachi East	97.1	2.9	153,034
Krachi West	94.5	5.5	116,124
Krachi Nchumuru	96.4	3.6	103,833
Nkwanta South	96.8	3.2	72,065
Nkwanta North	96.7	3.3	104,456
Kpandai	97.0	3.0	96,757
Nanumba South	99.6	0.4	171,147
Nanumba North	97.4	2.6	151,547
Zabzugu	100.0	-	134,552
Tatale	97.5	2.5	116,609
Saboba	98.8	1.2	147,088
Yendi Municipal	99.3	0.7	125,231
Mion	99.3	0.7	107,214
Nanton	100.0	-	139,667
TMA_Tamale	97.7	2.3	214,560
Sagnerigu Municipal	99.2	0.8	107,794
Tolon	99.3	0.7	88,967

Locality	Sleeping Rooms (%)		Total (N)
	<5	>5	
Kumbungu	99.6	0.4	71,079
Savelugu Municipal	97.4	2.6	83,977
Karaga	97.6	2.4	77,044
Gushiegu	98.5	1.5	70,766
Bole	99.5	0.5	84,508
Sawla Tuna Kalba	97.7	2.3	64,631
North Gonja	99.0	1.0	98,435
West Gonja	98.1	1.9	85,278
Central Gonja	94.3	5.7	67,808
East Gonja	97.0	3.0	87,115
North East Gonja	99.5	0.5	93,472
Mamprugu Moagduri	99.2	0.8	60,346
West Mamprusi Municipal	100.0	-	84,975
East Mamprusi Municipal	97.4	2.6	155,505
Bunkpurugu Nakpanduri	100.0	-	100,157
Yunyoo Nasuan	99.7	0.3	79,963
Chereponi	100.0	-	93,907
Builsa South	99.6	0.4	84,264
Builsa North	98.0	2.0	76,021
Kassena Nankana Municipal	97.1	2.9	77,976
Kassena Nankana West	98.3	1.7	90,190
Bolgatanga Municipal	99.4	0.6	82,742
Talensi	95.3	4.7	84,602
Bolgatanga East	99.7	0.3	65,786
Bongo	98.5	1.5	113,231
Nabdam	97.6	2.4	101,913
Bawku West	98.8	1.2	91,425
Binduri	99.2	0.8	107,896
Bawku Municipal	97.9	2.1	79,938
Garu	99.8	0.2	71,206
Tempene	97.5	2.5	77,140
Pusiga	99.4	0.6	69,055
Wa West	98.5	1.5	84,731
Wa East	99.0	1.0	68,730
Wa Municipal	98.5	1.5	94,237
Nadowli-Kaleo	99.5	0.5	78,919
Daffiama Bussie	98.0	2.0	59,030
Sissala East	99.5	0.5	76,641
Sissala West	98.7	1.3	53,585
Jirapa	98.7	1.3	49,673
Lawra	99.7	0.3	72,319
Lambussie-Karni	100.0	-	117,748
Nandom	95.8	4.2	94,893
<b>National</b>	<b>95.9</b>	<b>4.1</b>	<b>30,022,163</b>

#### APPENDIX 4: Main Materials Used for Roof of Dwellings, by Locality (%)

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm- leaves	Mud / Mud Bricks / Earth	Card- board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Jomoro	-	67.1	-	-	9.1	-	-	-	-	-	1.1	-	22.7	140,687
Ellembelle	-	89.3	-	2.1	-	-	-	-	-	0.6	0.5	-	7.5	141,557
Nzema East	0.39	75.55	-	11.26	-	-	-	5.62	7.18	-	-	-	-	141,854
Ahanta West	2.8	30.5	0.2	1.2	-	-	-	54.3	7.0	1.1	2.7	-	0.2	123,106
Effia-Kwesimintim	20.3	67.8	-	-	-	-	-	0.2	-	-	11.7	-	-	122,386
STMA	1.0	63.1	0.1	-	-	-	-	6.7	-	-	10.4	-	18.7	347,044
Shama	0.5	89.4	-	-	1.0	-	-	6.3	0.2	0.8	1.9	-	-	181,542
Wassa East	-	96.0	-	3.3	0.7	-	-	-	-	-	-	-	-	169,293
Mpohor	20.9	72.2	-	0.5	1.5	1.8	-	0.5	-	-	2.0	0.5	-	143,323
Tarkwa Nsuaem	-	93.8	0.5	0.4	-	-	-	0.5	-	-	1.5	-	3.2	166,180
Prestea/Huni Valley	1.4	87.6	-	-	2.4	0.3	-	7.5	-	0.9	-	-	-	134,035
Wassa Amenfi East	1.3	62.5	-	-	-	-	0.2	35.6	-	-	0.4	-	-	118,002
Wassa Amenfi Central	0.6	96.2	-	0.9	0.4	1.2	-	-	-	-	0.7	-	-	95,229
Wassa Amenfi West	1.0	88.4	-	-	1.0	-	-	-	-	-	1.0	-	8.6	115,692
Komenda Edina Eguafo Abirem Municipal	0.3	45.8	-	-	-	-	-	-	-	-	1.5	-	52.4	106,220
Cape	17.3	46.1	0.2	0.3	2.4	-	-	0.5	0.1	-	1.5	1.0	30.7	235,943
Abura Asebu Kwamankese	0.1	84.4	-	-	-	-	0.6	-	-	1.0	0.7	-	13.1	111,577
Mfantseman Municipal	1.3	82.9	1.1	0.2	-	-	-	-	-	-	-	-	14.6	71,598
Ekumfi	-	57.9	-	-	2.1	0.4	-	-	-	-	0.2	-	39.3	86,431
Gomoa West	0.4	89.1	-	-	0.8	-	-	-	8.1	0.3	0.4	-	0.8	74,342
Effutu Municipal	1.5	65.3	-	0.3	-	-	-	0.2	0.1	0.4	1.0	0.3	30.8	54,872

Type of Roofing by Locality	Roofing Tiles	Corrugated Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Gomoa Central	0.3	98.0	-	-	-	-	-	1.7	-	-	-	-	-	61,077
Gomoa East	0.2	99.5	-	-	-	-	-	-	-	-	-	-	0.3	107,241
Awutu Senya East Municipal	-	72.5	-	0.3	-	-	-	-	0.3	4.0	1.9	10.9	14.0	135,371
Awutu Senya	10.9	55.6	-	-	-	-	-	18.3	4.0	1.9	0.3	0.5	8.6	110,627
Agona East	0.6	68.8	-	-	-	-	-	28.8	-	-	1.4	0.4	-	98,875
Agona West Municipal	0.3	97.0	0.6	0.8	-	0.8	-	0.3	-	-	0.2	-	-	100,334
Asikuma Odoben Brakwa	0.8	95.4	0.5	1.4	0.9	-	-	1.0	-	-	-	-	-	127,454
Ajumaku Enyan Essiam	-	97.7	-	-	0.5	-	-	-	-	-	-	-	1.8	142,641
Assin South	0.2	72.8	0.3	-	0.1	0.2	-	26.3	-	-	-	-	-	144,771
Twifo Herman Lower Denkyira	-	94.0	2.2	0.7	2.5	-	-	-	-	-	-	-	0.7	140,368
Twifo Ati Morkwa	1.0	70.7	-	0.9	-	-	-	-	-	-	-	-	27.5	126,252
Assin Fosu Municipal	-	99.5	-	-	-	-	-	-	-	0.5	-	-	-	152,562
Assin North	-	97.5	-	1.9	0.7	-	-	-	-	-	-	-	-	103,868
Upper Denkyira East Municipal	1.2	97.8	-	-	0.3	-	-	-	-	-	0.7	-	-	114,671
Upper Denkyira West	-	99.6	-	-	-	-	-	0.2	-	-	0.2	-	-	128,051
Ga South Municipal	3.2	55.3	0.9	-	0.3	0.2	-	0.6	4.3	0.8	5.3	28.2	0.9	167,691
Weija Gbawe Municipal	1.5	58.0	-	-	-	1.8	-	0.3	18.7	1.2	4.3	-	14.2	171,573
Ga Central Municipal	10.9	84.2	-	-	-	-	-	-	-	-	4.4	0.5	-	133,766
Ablekuma North Municipal	4.4	78.8	5.8	-	-	-	-	-	2.7	-	4.5	3.4	0.5	154,720
Ablekuma West Municipal	1.0	15.1	-	0.6	-	-	-	0.9	-	-	8.0	28.6	45.8	119,041
Ablekuma Central	36.6	57.8	1.0	-	-	-	-	-	-	-	2.0	2.5	-	170,784
AMA	1.1	65.1	1.4	-	0.4	-	-	-	-	0.7	8.4	1.5	21.4	305,924
Korle Klotey Municipal	2.2	49.1	-	-	-	-	-	-	-	-	-	-	48.8	147,300
Ayawaso Central Municipal	8.5	89.2	0.4	-	-	0.5	-	0.8	-	-	0.6	-	-	111,984
Ayawaso East	9.1	88.4	-	-	-	-	-	-	-	1.6	0.5	0.3	-	85,969
Ayawaso North Municipal	0.8	95.2	0.8	-	-	-	-	-	1.0	-	1.4	-	0.8	160,095

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
La Dadekotoon Municipal	17.2	58.9	1.1	-	-	0.3	-	0.4	0.9	0.3	6.1	2.1	12.6	129,664
Ledzokuku Municipal	-	15.8	-	-	-	-	-	-	-	-	-	0.6	83.7	127,243
Krowor Municipal	2.0	63.2	0.7	-	-	-	0.4	-	-	2.7	6.0	17.4	7.7	103,384
Ayawaso West	8.9	77.9	0.4	-	-	0.1	0.3	-	0.4	0.6	3.5	6.4	1.4	244,480
Adentan Municipal	3.3	69.4	-	-	-	-	-	1.0	1.1	2.3	-	8.2	14.6	128,481
Okai Koi North	8.0	87.7	0.9	-	-	-	-	1.9	-	0.5	1.1	-	-	116,188
Ga North Municipal	2.8	96.0	-	-	0.8	-	-	-	-	-	0.4	-	-	226,551
Ga West Municipal	7.5	79.7	-	-	-	0.8	-	1.8	1.1	0.3	1.6	2.7	4.5	151,617
Ga East	2.0	37.2	-	-	-	-	-	34.2	-	-	1.2	16.8	8.7	171,784
La Nkwantanang- Madina Municipal	0.8	97.6	-	-	-	-	-	0.3	0.3	-	-	-	0.9	150,949
Kpone Katamanso Municipal	2.3	45.1	-	-	-	-	-	-	1.9	0.9	2.2	46.0	1.7	136,129
Ashaiman Municipal	9.5	85.1	0.8	-	-	-	-	0.8	-	-	1.9	1.1	0.9	178,006
Tema West Municipal	22.2	46.0	-	-	-	-	0.5	19.2	0.5	0.8	1.8	4.1	4.9	102,333
Tema Metro	7.6	35.2	0.2	-	-	-	-	4.2	2.6	0.3	1.3	1.3	47.5	302,357
Ningo Prampram	6.8	83.1	1.2	-	-	1.3	0.7	1.9	2.1	0.5	2.4	-	-	229,298
Shai Osudoku	2.3	95.9	-	-	0.6	-	-	-	-	-	0.2	1.1	-	219,925
Ada West	24.2	57.2	-	-	5.3	7.7	-	4.1	1.5	-	-	-	-	175,715
Ada East	17.3	66.9	-	-	7.8	0.9	-	-	-	2.0	1.3	3.8	-	234,129
South Tongu	-	93.6	-	-	3.7	1.2	-	-	-	-	-	-	1.5	95,273
Anloga	4.0	54.9	0.7	0.5	6.7	0.6	-	2.3	28.4	1.8	-	0.3	-	141,628
Keta Municipal	0.1	76.4	-	-	4.4	1.9	-	-	-	-	0.2	-	16.9	201,342
Ketu South	1.8	94.9	-	-	1.1	-	-	-	-	-	0.3	-	2.0	115,157
Ketu North	-	90.6	0.3	-	7.1	0.5	-	-	0.3	-	1.2	-	-	131,830
Akatsi North	-	82.7	-	0.1	16.5	0.7	-	-	-	-	-	-	-	60,489

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Akatsi South	-	85.3	0.3	-	14.4	-	-	-	-	-	-	-	-	114,408
Central Tongu	1.6	68.4	1.1	-	16.6	2.1	-	-	-	-	9.7	0.5	-	88,018
North Tongu	9.0	70.5	0.3	0.2	8.7	-	2.1	8.5	0.2	-	-	-	0.5	84,758
Ho-West	-	97.9	-	-	0.6	-	-	-	-	-	-	-	-	101,411
Adaklu	1.1	94.8	0.4	-	3.7	-	-	-	-	-	-	-	-	72,093
Agortime Ziophe	-	67.1	0.5	0.8	10.5	7.4	-	-	-	-	12.6	1.2	-	136,928
Ho Municipal	-	97.3	-	-	-	-	-	-	-	-	-	-	2.7	113,816
South Dayi	0.2	98.2	0.4	-	-	-	-	-	-	-	1.3	-	-	77,176
Afadzato South	6.4	89.3	-	-	4.3	-	-	-	-	-	-	-	-	83,466
North Dayi	0.7	98.2	-	-	-	0.4	-	-	-	-	0.7	-	-	62,023
Kpando Municipal	39.2	56.3	0.6	0.5	-	0.3	-	0.5	0.9	0.9	-	0.5	0.3	53,192
Hohoe Municipal	0.4	98.3	-	-	-	-	-	-	-	-	0.4	0.3	0.4	138,840
Birim South	1.0	97.4	0.8	-	-	-	-	-	-	-	0.4	-	0.4	130,910
Birim Central Municipal	0.3	68.2	-	-	-	-	-	15.5	-	-	0.6	15.4	-	136,557
Achiase	0.3	97.9	-	0.8	0.7	-	-	-	-	-	0.2	-	-	97,324
Asene Manso Akroso	-	99.1	0.4	0.2	0.2	-	-	0.2	-	-	-	-	-	101,181
West Akim Municipal	-	99.4	0.3	0.3	-	-	-	-	-	-	-	-	-	98,803
Upper West Akim	-	98.7	-	0.5	-	-	-	-	-	-	0.7	-	-	122,760
Ayensuano	0.3	97.7	0.3	-	-	-	-	-	-	-	0.5	0.8	0.3	94,013
Nsawam Adoagyiri Municipal	1.4	85.5	-	0.2	-	-	-	-	-	-	0.4	0.3	12.2	145,850
Akwapim South	3.0	88.9	0.5	0.2	-	-	-	-	-	1.8	3.9	1.7	-	101,484
Akwapim North Municipal	0.2	99.0	-	0.4	-	-	-	-	-	0.4	-	-	-	140,887
Okere	0.2	99.5	-	-	-	0.3	-	-	-	-	-	-	-	77,637
New Juaben South Municipal	0.6	82.2	-	-	-	-	-	-	-	-	0.8	-	16.4	146,255
New Juaben North	4.3	94.3	-	-	-	1.0	-	-	-	-	0.4	-	-	131,326

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm- leaves	Mud / Mud Bricks / Earth	Card- board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Suhum Municipal	3.2	95.6	0.3	-	-	-	-	-	-	-	0.9	-	-	85,754
Abuakwa North	0.5	99.5	-	-	-	-	-	-	-	-	-	-	-	98,366
Abuakwa South	0.8	98.5	0.5	-	-	-	-	-	-	-	0.2	-	-	78,274
Denkyembuor	0.8	98.3	-	-	0.2	-	-	-	-	-	0.7	-	-	124,226
Akyemansa	0.8	98.0	-	-	-	-	-	0.3	-	-	-	0.4	0.5	71,726
Kwaebibirem	0.3	97.7	0.4	-	-	-	-	-	-	-	1.7	-	-	71,036
Birim North	1.1	97.2	-	-	-	-	0.2	-	-	-	1.5	-	-	66,517
Atiwa West	-	99.0	0.3	-	-	0.3	-	0.3	-	-	-	-	-	70,607
Atiwa East	1.5	95.9	-	-	-	0.3	-	0.5	-	-	0.5	1.2	-	74,022
Fanteakwa South	0.9	88.8	5.2	1.2	-	1.4	-	-	-	-	1.0	1.5	-	65,390
Yilo Krobo Municipal	-	98.1	-	-	1.9	-	-	-	-	-	-	-	-	61,103
Lower Manya Krobo	1.1	97.9	-	-	-	-	-	-	-	-	-	-	1.0	70,527
Asuogyaman	1.8	95.6	-	0.3	1.0	-	-	-	-	0.5	-	0.9	-	56,672
Upper Manya Krobo	2.3	88.9	0.2	-	2.4	-	-	-	-	-	-	6.2	-	127,384
Fanteakwa North	5.0	94.3	0.5	-	0.2	-	-	-	-	-	-	-	-	87,161
Kwahu South	1.8	94.3	-	-	2.5	-	-	0.5	-	-	0.5	0.3	-	72,211
Kwahu West Municipal	0.2	66.7	-	-	-	-	0.2	-	-	-	-	32.9	-	99,550
Kwahu East	7.9	84.3	-	0.3	5.2	0.2	-	-	-	-	0.2	1.7	-	58,516
Kwahu Afram Plains South	-	74.1	0.5	10.2	14.4	0.8	-	-	-	-	-	-	-	140,299
Kwahu Afram Plains North	-	65.9	3.5	9.9	18.2	0.5	-	-	-	-	0.4	1.6	-	124,549
Amansie South	0.8	61.3	-	-	0.3	-	-	36.5	-	0.7	0.3	-	-	111,051
Amansie Central	0.2	86.5	10.0	-	2.6	-	-	0.4	-	0.3	-	-	-	138,715
Akrofrom	0.6	97.0	-	1.0	0.5	-	-	0.5	-	0.3	-	-	-	104,866
Adansi South	28.2	71.5	-	-	0.3	-	-	-	-	-	-	-	-	159,015
Adansi Asokwa	0.5	97.8	-	-	0.1	1.3	-	-	-	-	0.4	-	-	133,630

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Obuasi East	0.9	98.1	-	-	-	-	-	-	-	-	0.8	0.2	-	126,596
Obuasi Municipal	0.3	97.7	-	-	0.7	-	-	-	-	0.3	1.0	-	-	190,612
Adansi North	0.9	96.5	0.4	0.7	-	-	-	-	-	-	1.5	-	-	125,730
Bekwai Municipal	-	97.2	-	1.2	-	-	-	-	-	1.1	-	-	0.5	111,017
Amansie West	3.4	94.4	-	-	0.4	-	-	-	-	1.5	-	-	0.2	90,963
Atwima Kwanwoma	-	75.9	-	-	-	-	-	0.5	-	-	-	23.6	-	114,470
Bosomtwi	-	99.3	-	-	-	-	-	-	0.7	-	-	-	-	105,036
Bosome Freho	-	97.7	0.4	-	-	1.5	-	-	-	-	0.4	-	-	138,314
Asante Akim Central Municipal	-	69.3	-	-	-	-	-	21.4	-	-	1.4	7.9	-	82,882
Asante Akim South Municipal	-	98.3	1.2	-	0.4	-	-	-	-	-	-	-	-	118,730
Asante Akim North	2.3	88.6	1.6	-	6.9	0.3	-	-	-	0.3	-	-	-	129,382
Sekyerere Kumawu	1.9	87.4	2.2	0.6	5.1	-	-	-	1.2	0.5	1.0	-	-	126,871
Sekyerere East	0.5	99.5	-	-	-	-	-	-	-	-	-	-	-	110,110
Juaben Municipal	2.6	88.3	0.3	-	0.3	-	-	-	0.3	-	-	8.2	-	85,316
Ejisu Municipal	-	97.6	-	-	-	0.6	-	0.4	-	0.5	-	-	0.9	59,987
Oforikrom Municipal	3.5	93.8	-	-	-	-	-	0.4	0.6	0.2	1.0	-	0.6	82,945
Asokwa Municipal	6.3	92.1	-	-	-	-	-	1.6	-	-	-	-	-	152,277
KMA	2.1	96.4	0.4	-	-	-	-	-	-	0.1	0.7	-	0.3	434,313
Kwadaso Municipal	1.7	94.5	1.4	-	-	-	-	2.0	-	-	0.4	-	-	106,528
Suame Municipal	0.5	97.7	-	-	-	-	-	-	-	-	1.8	-	-	153,365
Old Tafo Municipal	4.2	62.6	0.7	-	-	-	10.7	0.9	-	0.4	20.6	-	-	163,674
Asokore Mampong Municipal	2.8	93.6	-	-	0.2	-	-	-	-	1.3	2.1	-	-	226,229
Kwabre East Municipal	1.8	93.1	-	-	-	-	-	-	-	1.4	3.5	-	0.2	206,995
Afigya Kwabre South	0.3	88.1	0.9	-	0.5	-	-	-	-	0.1	0.8	9.4	-	146,536
Atwima Nwabiyaga North	1.9	98.1	-	-	-	-	-	-	-	-	-	-	-	96,828

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm- leaves	Mud / Mud Bricks / Earth	Card- board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Atwima Nwabiagya South Municipal	10.5	86.7	-	-	0.3	-	-	0.5	-	-	2.0	-	-	146,724
Atwima Mponua	0.8	94.7	1.1	-	-	2.5	-	-	0.4	0.4	0.4	-	-	180,228
Ahafo Ano South West	-	73.6	-	0.5	0.8	-	-	-	1.7	0.2	23.3	-	-	112,482
Ahafo Ano North	-	98.6	0.6	-	0.5	0.3	-	-	-	-	-	-	-	175,647
Ahafo Ano South East	1.5	96.0	-	-	2.2	0.3	-	-	-	-	-	-	-	139,798
Offinso North	0.3	81.9	-	9.1	7.1	-	-	-	0.4	1.3	-	-	-	148,534
Offinso Municipal	-	94.9	3.6	1.5	-	-	-	-	-	-	-	-	-	96,279
Afigya Kwabre North	-	92.2	0.5	2.1	0.5	-	-	4.6	-	-	-	-	-	94,928
Sekyere South	-	98.7	-	-	-	-	-	-	0.5	0.4	-	-	0.4	116,699
Mampong Municipal	-	89.4	0.7	0.4	8.1	0.4	-	-	-	0.9	-	-	-	124,385
Ejura Sekyedumase Municipal	-	65.8	0.2	-	1.8	0.4	-	-	-	0.4	31.4	-	-	72,307
Sekyere Central	0.6	51.0	-	0.4	44.3	-	-	0.8	-	-	1.2	1.6	-	95,577
Sekyere Afram Plains	1.2	41.0	-	2.5	36.4	9.2	-	-	0.4	3.0	3.4	2.8	-	73,764
Aowin Municipal	-	92.5	-	4.3	1.5	1.2	-	-	0.4	0.1	-	-	-	110,608
Sefwi Akontombra	-	61.1	-	7.1	2.5	-	-	28.8	-	0.5	-	-	-	92,643
Suaman	-	93.8	-	-	4.5	-	-	-	0.7	1.0	-	-	0.1	104,954
Bodi	-	93.1	1.4	3.5	1.2	-	-	-	-	0.8	-	-	-	77,735
Sefwi Wiawso	0.3	96.6	-	0.6	2.3	-	-	-	0.3	-	-	-	-	96,019
Bibiani Ahwiaso Bekwai	1.0	97.9	-	-	-	-	-	-	-	1.1	-	-	-	62,715
Juaboso	1.9	80.0	-	0.3	1.7	-	-	-	-	-	-	16.1	-	67,025
Bia West	3.3	95.3	-	-	1.0	-	-	-	-	0.5	-	-	-	162,148
Bia East	-	99.8	-	-	-	-	-	-	-	0.2	-	-	-	157,588
Asunafo South	-	83.3	-	-	-	-	-	0.4	-	-	-	16.3	-	70,523
Asunafo North	-	98.2	-	0.4	-	-	-	-	-	1.4	-	-	-	87,937

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/ Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Asutifi South	-	61.3	8.8	0.4	0.7	0.5	-	27.6	-	-	-	0.7	-	100,629
Asutifi North	-	93.0	0.3	3.0	2.1	0.7	-	0.6	0.3	-	-	-	-	98,255
Tano North	0.8	75.4	-	-	10.0	7.5	-	-	-	-	5.8	0.6	-	148,574
Tano South	-	68.8	-	-	5.4	0.3	-	23.4	-	-	2.2	-	-	90,416
Dormaa West	-	98.8	-	-	-	-	-	-	-	-	1.2	-	-	131,870
Dormaa Central Municipal	-	97.7	-	0.9	1.4	-	-	-	-	-	-	-	-	95,953
Dormaa East	2.7	74.4	0.7	0.9	3.7	-	-	16.5	-	-	0.5	0.7	-	81,438
Sunyani Municipal	3.4	89.9	0.6	-	0.1	-	-	-	4.3	-	-	1.6	-	73,975
Unyani West	-	89.0	0.4	0.7	1.9	-	-	-	-	-	0.4	7.6	-	81,683
Berekum East Municipal	0.4	97.9	-	-	-	-	-	0.5	-	-	-	1.2	-	126,242
Berekum West	1.0	97.2	0.8	-	-	-	-	-	-	-	0.9	-	-	124,424
Jaman South	0.4	97.5	0.2	0.9	1.0	-	-	-	-	-	-	-	-	84,855
Jaman North	-	96.8	-	-	-	1.0	-	-	-	-	2.3	-	-	110,756
Tain	0.4	96.7	0.4	0.9	1.5	0.1	-	-	-	-	-	-	-	73,359
Wenchi Municipal	-	29.0	0.2	-	15.3	-	-	-	-	-	-	30.9	24.6	71,551
Banda	0.4	38.9	-	-	5.5	0.8	0.4	-	-	-	0.6	52.0	1.3	76,947
Nkoranza South	-	67.0	-	-	11.4	-	-	21.6	-	-	-	-	-	114,499
Techiman Municipal	0.9	85.1	-	-	7.3	-	-	4.8	-	-	1.0	0.8	-	73,422
Nkoranza North	0.2	59.0	-	6.6	33.9	0.3	-	-	-	-	-	-	-	98,453
Techiman North	0.3	58.0	-	-	7.1	0.6	-	32.1	-	-	1.8	-	-	144,736
Atebubu Amantin	-	76.5	-	-	20.7	2.0	-	-	-	-	-	-	0.8	84,573
Sene West	-	67.2	-	-	24.1	8.6	-	-	-	-	-	-	-	137,387
Sene East	-	28.4	-	0.3	50.5	0.3	-	-	-	-	0.2	19.4	1.0	101,919
Pru West	0.2	73.1	-	0.3	26.5	-	-	-	-	-	-	-	-	106,670
Pru East	-	77.2	-	-	20.9	1.9	-	-	-	-	-	-	-	71,757

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Kintampo South	-	36.7	-	0.8	11.0	0.5	-	-	-	-	0.7	0.3	-	196,953
Kintampo North	-	87.8	0.6	-	11.1	-	-	-	-	-	0.6	-	-	71,096
Biakoye	-	92.5	-	1.8	5.7	-	-	-	-	-	-	-	-	53,581
Jasikan	-	99.0	-	-	-	1.0	-	-	-	-	-	-	-	60,643
Kadjebi	-	-	-	-	-	-	-	-	-	-	-	-	-	79,453
Krachi East	0.2	84.1	0.9	-	14.7	-	-	-	-	-	-	-	-	153,033
Krachi West	1.1	86.8	-	-	11.4	-	-	-	0.4	-	0.2	-	-	116,124
Krachi Nchumuru	-	81.6	-	-	17.6	0.4	-	-	-	-	0.4	-	-	103,833
Nkwanta South	-	83.1	-	-	1.5	-	-	-	-	-	-	15.4	-	72,065
Nkwanta North	-	94.4	-	-	4.8	-	-	-	-	-	0.8	-	-	104,457
Kpandai	1.6	89.2	0.3	-	7.5	0.3	0.4	-	-	-	0.6	-	-	96,757
Nanumba South	-	68.8	0.5	0.2	1.0	23.7	0.4	1.1	-	-	1.1	2.7	0.6	172,078
Nanumba North	-	95.7	0.2	-	3.4	-	-	0.2	-	-	0.4	-	-	151,546
Zabzugu	1.2	93.8	0.3	-	4.0	-	-	0.8	-	-	-	-	-	134,553
Tatale	0.9	95.8	-	-	2.3	-	-	-	-	-	0.5	0.5	-	116,608
Saboba	0.8	42.8	0.4	-	11.5	-	-	13.7	-	-	0.4	30.3	-	147,088
Yendi Municipal	-	51.6	-	-	19.4	-	-	28.8	-	-	0.3	-	-	125,232
Mion	-	47.7	12.3	-	26.7	3.3	-	-	0.3	-	0.9	7.5	1.3	108,821
Nanton	17.0	60.3	0.2	-	18.0	3.1	-	-	-	-	0.3	1.0	-	139,667
TMA_Tamale	1.1	73.8	0.4	0.9	4.2	-	-	0.6	-	-	18.5	0.4	-	215,555
Sagnerigu Municipal	0.5	95.9	-	-	1.9	-	-	-	-	-	1.6	-	-	107,794
Tolon	0.4	33.0	-	-	48.4	2.8	-	12.8	-	-	2.7	-	-	89,216
Kumbungu	-	48.1	-	0.7	36.4	-	-	14.0	-	0.5	0.4	-	-	71,079
Savelugu Municipal	2.7	76.6	1.1	0.6	18.0	0.2	-	-	-	-	0.5	0.2	-	83,978
Karaga	4.2	44.5	-	-	20.8	29.6	-	-	-	-	-	0.8	-	77,274

Type of Roofing by Locality	Roofing Tiles	Corrugated Metal Sheets	Wood Planks	Palm / Bamboo	Thatch / Palm-leaves	Mud / Mud Bricks / Earth	Card-board	Metal	Calamine /Cement Fiber	Ceramic / Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Gushiegu	1.9	39.4	1.2	-	44.4	4.1	-	-	3.7	1.1	0.6	2.5	1.2	71,125
Bole	-	94.7	1.9	-	-	1.9	0.6	-	-	0.5	0.3	-	-	84,507
Sawla Tuna Kalba	0.4	60.6	-	-	-	6.0	-	32.3	-	-	0.7	-	-	64,631
North Gonja	-	58.8	1.1	-	35.5	3.6	-	-	-	-	0.7	0.3	-	98,434
West Gonja	9.8	25.9	-	-	14.5	-	-	47.8	-	-	1.6	0.2	-	85,277
Central Gonja	-	48.7	0.4	-	21.8	5.0	-	-	-	-	0.8	23.3	-	67,808
East Gonja	-	83.1	6.3	1.1	8.5	0.3	-	0.6	-	-	-	-	-	87,115
North East Gonja	0.9	70.1	-	-	28.3	-	-	-	-	0.4	-	-	0.4	93,472
Mamprugu Moagduri	-	63.9	-	-	6.4	6.6	-	16.7	-	-	-	6.3	-	60,346
West Mamprusi Municipal	2.5	59.4	0.6	-	15.7	5.3	0.2	-	-	-	1.7	14.0	0.6	84,974
East Mamprusi Municipal	-	45.9	-	-	43.0	0.2	-	-	-	-	1.8	9.0	-	155,505
Bunkpurugu Nakpanduri	-	66.6	0.8	-	32.6	-	-	-	-	-	-	-	-	100,158
Yunyoo Nasuan	14.2	41.7	-	-	43.2	0.4	-	-	-	-	-	-	0.5	79,963
Chereponi	0.4	69.8	-	-	28.6	0.7	-	-	-	-	0.5	-	-	94,366
Builisa South	-	55.8	0.5	-	5.4	20.1	0.2	-	0.2	1.4	2.6	13.8	-	84,264
Builisa North	0.4	67.1	1.1	-	7.5	23.9	-	-	-	-	-	-	-	76,021
Kassena Nankana Municipal	-	86.4	-	-	-	8.5	-	-	-	-	-	5.1	-	78,357
Kassena Nankana West	-	90.0	-	-	-	9.9	-	-	-	-	0.2	-	-	90,190
Bolgatanga Municipal	5.3	85.3	-	-	-	4.9	1.0	1.4	0.4	-	1.7	-	-	82,743
Talensi	-	92.3	-	-	3.5	0.7	-	0.3	-	-	2.7	0.5	-	84,602
Bolgatanga East	0.2	97.4	-	-	0.3	2.0	-	-	-	-	-	-	-	65,786
Bongo	0.3	95.1	0.8	-	-	2.7	-	-	-	-	1.2	-	-	113,231
Nabdram	0.7	82.9	-	-	15.9	-	-	-	-	-	0.6	-	-	101,913
Bawku West	-	91.1	-	-	2.2	6.1	-	-	-	-	0.6	-	-	91,425

Type of Roofing by Locality	Roofing Tiles	Corrugated Iron/Metal Sheets	Wood Planks	Palm/Bamboo	Thatch/Palm-leaves	Mud/Mud Bricks/Earth	Card-board	Metal	Calamine/Cement Fiber	Ceramic/Brick Tiles	Cement	Roofing Shingles	Asbestos Sheets	Total
Binduri	-	95.3	-	-	2.4	0.4	-	-	-	-	1.6	0.3	-	107,897
Bawku Municipal	-	96.2	-	-	2.8	0.5	-	-	-	-	-	0.5	-	80,257
Garu	-	71.9	1.1	-	19.3	6.9	-	0.1	-	0.0	-	0.7	-	71,206
Tempene	-	39.7	2.4	2.9	12.4	17.2	-	22.3	-	-	0.1	3.0	-	77,138
Pusiga	-	62.4	-	-	0.4	-	-	36.9	-	-	0.3	-	-	69,055
Wa West	-	63.3	1.8	-	-	7.6	-	-	-	-	0.3	11.6	15.5	84,731
Wa East	-	85.7	-	-	-	14.3	-	-	-	-	-	-	-	68,730
Wa Municipal	0.8	53.9	-	-	-	0.1	-	0.3	-	-	-	44.9	-	94,237
Nadowli-Kaleo	-	68.1	0.9	-	0.7	1.3	-	29.0	-	-	-	-	-	78,919
Daffiama Bussie	-	58.2	-	-	5.1	6.5	-	-	-	-	-	0.6	29.6	59,029
Sissala East	-	95.2	0.4	-	1.7	0.2	-	0.5	-	-	1.6	0.5	-	76,641
Sissala West	-	98.8	-	-	-	0.5	-	-	-	-	0.3	0.3	-	53,585
Jirapa	-	91.6	-	-	1.8	2.9	-	-	-	-	0.3	3.4	-	49,673
Lawra	-	97.0	0.2	-	2.4	0.4	-	-	-	-	-	-	-	72,320
Lambussie-Karni	-	83.3	0.2	-	-	4.7	-	-	-	0.8	0.3	10.7	-	117,749
Nandom	0.2	53.5	0.3	-	0.4	2.7	-	-	-	-	-	-	42.9	94,893
<b>National</b>	<b>2.6</b>	<b>79.5</b>	<b>0.5</b>	<b>0.4</b>	<b>4.4</b>	<b>1.1</b>	<b>0.1</b>	<b>2.9</b>	<b>0.5</b>	<b>0.2</b>	<b>1.4</b>	<b>2.7</b>	<b>3.8</b>	<b>30,039,734</b>

**APPENDIX 5:  
Sources of Energy Used for Cooking, by Households and Locality (%)**

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Jomoro	0.2	0	0	27.2	0	0	46.9	0	25.7	139,020
Ellembelle	0	0	0	20	0	0	52.2	0	27.8	141,558
Nzema East	0	0	0.1	18.1	0	0	43.4	0	38.4	141,421
Ahanta West	0	0	0	21.6	0	0	37.4	0	41.1	123,106
Effia Kwesimintim	0	0	0.6	90.4	0	0	0	0	8.9	122,387
STMA	1.1	0	0	50.6	0	0	1.5	0	46.8	345,074
Shama	0.8	0	0	16.7	0	0.7	17.1	0	64.7	178,426
Wassa East	0.2	0	0	13.9	0	0	72.9	0	13	169,294
Mpohor	2.4	0	0	19.2	0.6	0	40.2	0	37.6	141,355
Tarkwa Nsuaem	0.3	0	0	44.2	0	0	18.4	0	37.1	166,178
Prestea/Huni Valley	0	0	0	35.6	0	0	43.5	0	20.8	132,985
Wassa Amenfi East	0	0	0	3.6	0	0	58.3	0	38.2	108,497
Wassa Amenfi Central	0	0	0	6.6	0	0	74.9	0	18.6	95,229
Wassa Amenfi West	0	0	0	29.4	0	0	47.6	0	23.1	111,885
Komenda Edina Eguafo Abirem Municipal	0	0	0	17	0	0	20.1	0	62.9	106,219
Cape	0.1	0.1	0	50	0.5	0	7.6	0	41.7	235,090
Abura Asebu Kwamankese	0.5	0	0	12.6	0	0.2	46.4	0	40.3	111,437
Mfantseman Municipal	0	0	0	16.9	0	0	5.9	0	77.2	71,599
Ekumfi	0.6	0	0	9.3	0	0	19	0	71.1	86,293
Gomoa West	0	0	0	12.7	0	0	35.3	0	52	74,343
Effutu Municipal	0	0	0	30	0	0	2.4	0	67.6	54,872

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Gomoa Central	0	0	0	26.3	0	0	33.2	0	40.5	54,457
Gomoa East	0	0	0	44.8	0	0	6.9	0	48.3	107,241
Awutu Senya East Municipal	0	0	0	45	0	0.4	1.2	0	53.5	133,717
Awutu Senya	0	0	0	23	0	0	24.8	0	52.2	108,409
Agona East	0.4	0	0	16.5	0	0	53.1	0	29.9	97,820
Agona West Municipal	0.2	0	0	38.1	0	0	21.3	0	40.5	99,964
Asikuma Odoben Brakwa	1.5	0	0	6.3	0.3	0	67	0	24.9	126,922
Ajumaku Enyan Essiam	0	0	0	10.6	0	0	68	0	21.3	140,941
Assin South	0	0	0	14.2	0	0	63.6	0	22.2	144,771
Twifo Heman Lower Denkyira	0	0	0	16.2	0	0	66.8	0	17	140,369
Twifo Ati Morkwa	0	0	0	15.4	0	0	56.9	0	27.7	102,855
Assin Fosu Municipal	0.3	0	0	29.8	0	0	34.8	0	35.1	152,232
Assin North	0	0	0	8	0	0	79.3	0	12.8	103,867
Upper Denkyira East Municipal	0.3	0	0	23.4	0.5	0	39.8	0	36.1	114,349
Upper Denkyira West	0	0	0	21.9	0	0	35.5	0	42.6	127,742
Ga South Municipal	0	0	0	50.7	0	0	9.1	0	40.2	167,691
Weija Gbawe Municipal	0.4	1.1	0	56.9	0	0	0.3	0	41.4	170,905
Ga Central Municipal	0	0	0	71.9	0	0	3.8	0	24.3	133,766
Ablekuma North Municipal	0	0	0	67.3	0	0	8.1	0	24.6	146,184
Ablekuma West Municipal	0.3	0	0	73	0	0	0	0	26.7	115,031
Ablekuma Central	0.5	0	0	67.4	0	0	0	0	32.2	161,617
AMA	0.2	0	0	48.3	0	0	0	0	51.5	299,286
Korle Klotey Municipal	0	0	0	55.4	0	0	0	0	44.6	145,709

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Ayawaso Central Municipal	0.3	0	0	75.2	0	0	0.2	0	24.2	111,985
Ayawaso East	0.8	0	0	60	0	0	0.7	0	38.5	85,710
Ayawaso North Municipal	1.9	0	0	50.6	0	0	1.3	0	46.2	156,542
La Dadekotopon Municipal	0	0	0	77.9	0	0	0	0	22	127,423
Ledzokuku Municipal	0	0	0	58.9	0	0	0.6	0	40.5	121,531
Krowor Municipal	1.3	0	0	69.8	0	0	0	0.7	28.2	102,548
Ayawaso West	0.3	0	0	64.6	0	0	4.9	0	30.2	242,092
Adentan Municipal	0.5	0	0	65.3	0	0	0	0	34.1	125,689
Okai Koi North	0	0	0	59.1	0	0	1.8	0	39.1	116,188
Ga North Municipal	0	0	0	49.6	0	0	10.2	0	40.2	226,551
Ga West Municipal	1.6	0	0	58.8	0	0	4.9	0	34.6	148,043
Ga East	1.8	0	0	55	0	0	1.8	0	41.5	166,786
La Nkwantanano Madina Municipal	0.9	0	0	63.8	0	0	2.7	0	32.6	150,949
Kpone Katamanso Municipal	0	0	0	58.2	0	0	1.3	0	40.5	135,677
Ashaiman Municipal	3.2	0	0.6	67.3	0	0	0.3	0	28.5	178,006
Tema West Municipal	0	0	0	78.3	0	0	1.5	0	20.1	97,421
Tema Metro	0.6	0	0	47	0	0.2	0	0	52.2	300,218
Ningo Prampram	0	0	0	46	0.7	0	11.7	0	41.6	229,299
Shai Osudoku	0	0	0	31.9	0	0	24.7	0	43.5	219,925
Ada West	5	0	0	15.4	0	0	25.1	0	54.5	174,237
Ada East	0	0	0	27.2	0	0	25.5	0	47.3	230,967
South Tongu	0	0	0	13.9	0	0	50.4	0	35.7	95,272
Anloga	1	0	0	34.5	0.2	0	42.4	0	21.9	141,628
Keta Municipal	0.4	0	0	27.1	0	0	16.5	0	56	201,343

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Ketu South	1.8	0	0	30.1	0	0	15.1	0	53	114,481
Ketu North	0.2	0	0	13.4	0	0	54.5	0	32	131,829
Akatsi North	0.3	0	0	4.8	0	0	71.6	0	23.4	60,405
Akatsi South	0.2	0	0	14.5	0	0	43.9	0	41.3	114,185
Central Tongu	4.9	0	0	8.6	0	0	66.8	0	19.7	88,020
North Tongu	5.4	0	0	15.1	0	0	39.2	0	40.2	84,757
Ho-West	0	0	0	10.9	0	0	48.7	0	40.4	101,410
Adaklu	0	0	0	11	0	0	73.4	0	15.6	72,094
Agortime Ziopie	0	0.2	0	10.1	0	0	61.6	0	28.1	136,929
Ho Municipal	0	0	0	46.7	0	0.5	21.9	0	30.9	111,707
South Dayi	0.2	0	0	13.8	0	0	37.1	0	48.8	76,878
Afadzato South	0	0	0	5.9	0	0	65	0	29.1	83,466
North Dayi	0.8	0	0	13.2	0	0	48.3	0	37.8	61,184
Kpando Municipal	0.3	0	0	21.3	0.1	0	28.5	0	49.8	53,193
Hohoe Municipal	0.6	0	0	30.1	0	0	16.3	0	53	138,106
Birim South	2.7	0	0	22.6	0	0	48.3	0	26.4	127,511
Birim Central Municipal	0	0	0	34.3	0	1.3	20.6	0	43.8	136,559
Achiase	20.9	0.3	0	13.1	0	0	39.5	0	26.2	97,087
Asene Manso Akroso	0.3	0	0	15.1	0	0	61.1	0	23.5	101,181
West Akim Municipal	0	0	0	25.3	0	0	45.5	0	29.2	98,505
Upper West Akim	0.3	0	0	13.4	0	0	60.3	0	25.9	122,760
Ayensuano	51.7	0	0	1.8	0	0	41.1	0	5.4	94,012
Nsawam Adoagyiri Municipal	0	0	0	43.6	0	0	7.3	0	49.1	143,815
Akwapim South	1.6	0	0	33	0	0	36	0	29.4	100,429

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Akwapim North Municipal	0	0	0	42.4	0	0	12.4	0	45.1	139,502
Okere	1	0	0	11.1	0	0.5	45.3	0	42.1	77,638
New Juaben South Municipal	1	0	0	56.6	0	0	1.8	0	40.6	140,967
New Juaben North	7.1	0	0	9.8	0	0	41.9	0	41.1	130,760
Suhum Municipal	7.1	0	0	9.8	0	0	41.9	0	41.1	85,455
Abuakwa North	0	0	0	35	0	0	17.6	0	47.4	98,366
Abuakwa South	1	0	0	15.1	0	0.9	47.5	0	35.5	77,103
Denkyembuor	10.4	0	0	19.8	0	0	24.2	0	45.5	124,225
Akyemansa	0	0	0	13.8	0	0	62.1	0	24.1	71,726
Kwaebibirem	1.7	0	0	26.3	0	0	40.8	0	31.3	70,838
Birim North	1.1	0	0	22.8	0	0	42.8	0	33.3	66,425
Atiwa West	0.4	0	0	18.8	0	0	45.1	0	35.7	70,544
Atiwa East	30.1	0	0	18.6	0	0	33.5	0	17.7	73,805
Fanteakwa South	1.9	0	0	21.1	0	1.2	50.1	0.2	25.6	65,390
Yilo Krobo Municipal	0.6	0	0	22.4	0	0	47.4	0	29.7	60,803
Lower Manya Krobo	0.3	0	0	25.2	0	0	15.6	0	59.1	70,526
Asuogyaman	0.9	0	0	18.1	0	0	31.5	0	49.6	56,550
Upper Manya Krobo	0	0	0	8	0	0	68.8	0	23.2	127,383
Fanteakwa North	0	0	0	20.6	0	0	44.2	0	35.2	87,161
Kwahu South	0	0	0.2	12.5	0	0.2	56.1	0	30.9	71,876
Kwahu West Municipal	0	0	0	19.9	0	0	29.7	0	50.5	97,665
Kwahu East	0.5	0	0.3	14.5	0	0	44.4	0	40.3	58,516
Kwahu Afram Plains South	0.7	0	0.2	1.2	0	0	61.8	0	36	140,299
Kwahu Afram Plains North	0	21.1	0	2.2	0.7	0	50.5	0	25.5	124,193

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Amanzie South	0.7	0	0	14.1	0	0	37.5	0	47.7	109,089
Amanzie Central	1.2	0	0	8.4	0	0	72	0	18.4	138,242
Akrofrom	0	0	0	9.3	0.6	0	75.8	0	14.3	104,252
Adansi South	0	0	0	15.8	0	0	61.7	0	22.5	159,014
Adansi Asokwa	0	0	0	12.8	0	1	63.8	0	22.4	133,184
Obuasi East	0	0.2	0	50.3	0.3	0	19.3	0	29.8	124,749
Obuasi Municipal	1.9	0	0	50.6	0	0	4.4	0	43.1	179,906
Adansi North	0.3	0	0	19.5	0	0	47.4	0	32.7	124,578
Bekwai Municipal	0.5	0	0	26.4	0	0	40.4	0	32.6	111,018
Amanzie West	0	0	0	11	0	0	69	0	20	87,082
Atwima Kwanwoma	1	0	0	25.5	0	0	18.6	0	54.9	113,399
Bosomtwi	0	0	0	25.3	0	0	25	0	49.7	103,870
Bosome Freho	0	0	0	3.2	0	0	87	0	9.9	138,061
Asante Akim Central Municipal	0	0	0	22.6	0	0	22.8	0.1	54.5	82,882
Asante Akim South Municipal	0.8	0	0	6	0	0	69.5	0	23.8	117,765
Asante Akim North	0	0	0	16.6	0	0	43.5	0	39.8	129,179
Sekyerere Kumawu	0	0	0	7.9	0	0	38.4	0	53.6	124,457
Sekyerere East	0.4	0	0	19.7	0	0	36.5	0	43.4	108,702
Juaben Municipal	0	0	0	5.6	0	0	58.9	0	35.5	85,317
Ejisu Municipal	0.6	0	0	36.6	0	0	19.5	0	43.3	59,690
Oforikrom Municipal	0	0	0	46.7	0	0	1.5	0	51.7	82,003
Asokwa Municipal	0.6	0	0	64.5	0	0	3.8	0	31	152,278
KMA	0.2	0	0	53.3	0	0	0.1	0	46.4	420,948
Kwadaso Municipal	0	0	0	69.8	0	0	2.6	0	27.5	106,528

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Suame Municipal	0	0	0	57	0	0	0	0	42.9	152,694
Old Tafo Municipal	1.6	0	0	32.7	0	0	0	0	65.7	162,488
Asokore Mampong Municipal	0	0	0	43.5	0	0	0.9	0	55.6	219,065
Kwabre East Municipal	0.2	0	0	19.9	0	0	6	0	73.9	202,281
Afigya Kwabre South	1.1	0	0	31.5	0	0	4.1	0	63.3	145,823
Atwima Nwabiagya North	0.7	0	0	26.7	0	0	19.8	0	52.8	95,680
Atwima Nwabiagya South Municipal	1.1	0	0	34	0.3	0	16.5	0	48.1	146,389
Atwima Mponua	1.8	0	0	1.8	0	0	52.3	0	44.1	140,363
Ahafo Ano South West	0.8	0	0	20.9	0	0	50.6	0	27.8	112,483
Ahafo Ano North	0.4	0	0	13.4	0	0	70.1	0	16.2	174,473
Ahafo Ano South East	0	0	0	4.3	0	0	76.3	0	19.3	139,353
Offinso North	0.4	0	0	12.9	0	0	61.5	0.4	24.8	147,683
Offinso Municipal	0.6	0	0	14.8	0	0	38.7	0	46	96,280
Afigya Kwabre North	0	0	0.2	3.8	0	0	48.7	0	47.3	94,574
Sekyere South	0.8	0	0	8.9	0	0	42.8	0	47.5	115,191
Mampong Municipal	0	0	0	17	0	0	29.8	0	53.2	123,924
Ejura Sekyedumase Municipal	0.6	0	0	9.3	0	0	33.2	0	56.9	71,406
Sekyere Central	1.6	0	0	7.3	1.2	0	75.6	0	14.4	95,578
Sekyere Afram Plains	8.4	0	0	2.9	6.9	0	75.7	0	6	73,764
Aowin Municipal	0	0	0	10.7	0	0	74.6	0	14.6	110,489
Sefwi Akontombra	0	0	0	10.3	0	0	80.4	0	9.3	91,720
Suaman	0	0	0	17.3	0	0	57.6	0	25	104,180
Bodi	0	0	0	3.1	0.7	0	86	0	10.2	77,327

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Sefwi Wiawso	0	0	0	9.8	0	0	62.6	0	27.6	94,829
Bibiani Ahwiaso Bekwai	1.2	20.4	0	15.7	0	0.4	32	0	30.4	62,715
Juaboso	0	0	0	8.5	0	0	73.3	0	18.1	66,022
Bia West	0.6	0	0	5	0	0	67.5	0	26.9	161,255
Bia East	0	0	0	1.8	0	0	93.1	0	5.2	157,588
Asunafo South	0	0	0	5.7	0	0	73.8	0	20.5	70,172
Asunafo North	10.1	0	0	10.4	0	0	58	0	21.5	87,413
Asutifi South	0	0	0	19.4	0	0	42.6	0	38	100,630
Asutifi North	21.3	0	0	6.8	11	0.7	49.9	0	10.2	98,253
Tano North	0.3	0	0	16.9	0	0	67	0	15.7	146,523
Tano South	0.3	0.5	0	5.8	0	0	75	0	18.5	90,417
Dormaa West	0	0	0	3.3	0	0	84.5	0	12.2	131,279
Dormaa Central Municipal	0.5	0	0	22.1	0	0	56.3	0	21.2	95,953
Dormaa East	0	0	0.5	13.4	0	0	73	0	13.1	80,488
Sunyani Municipal	0.5	0	0	38.7	0	0	18.7	0	42	73,975
Unyani West	0.6	0	0	15	0	0	47.4	0	36.9	80,817
Berekum East Municipal	2	0	0	33	0	0	29.7	0	35.4	126,241
Berekum West	1.8	0.9	0	16.2	0	0	70	0	11	124,426
Jaman South	1	0	0	10.5	0	0	84.5	0	4	84,855
Jaman North	0	0	0	4.4	0	0	82.5	0	13.1	110,273
Tain	0.3	0	0.6	3.5	0	0	79.9	0.7	15.1	73,269
Wenchi Municipal	0	0	1.1	14.9	0	0	44	0	39.9	71,551
Banda	2.2	0	0	0.7	0	0	79.1	0	18	76,631

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Nkoranza South	1.1	0	0	11.3	0	0	54.6	0	33	111,199
Techiman Municipal	0	0	0	11.2	0	0	33.3	0	55.6	72,847
Nkoranza North	2.5	0	0	3.8	0	0.5	78.7	0	14.5	98,153
Techiman North	0	0	0	6.7	0	0	52.6	0	40.8	144,735
Atebubu Amantin	0	0	0	10.7	0	0	70.7	0	18.6	84,391
Sene West	0	0	0	1.4	0	0	85.9	0	12.7	137,387
Sene East	0	0	0	0.8	0	0	95.1	0	4	101,920
Pru West	0.2	0	0	5	0	0	82.6	0	12.3	105,905
Pru East	7.1	0	0	2	0	0	47.7	0	43.2	71,756
Kintampo South	0.2	6.4	0	4.1	0	0	33	0	6.3	196,638
Kintampo North	0	0.4	0	20.5	0	0.4	51.8	0	27	69,353
Blakoye	0	0	0	2.6	0	0	69.1	0	28.3	53,581
Jasikan	0	0	0	7.2	0	0	77.5	0	15.3	60,228
Kadjebi	0	0	0	7.1	0	0	70.9	0	22	78,201
Krachi East	6.8	0	0	3.3	0	0	69	0	20.9	151,981
Krachi West	0.4	0	0	3.4	0.7	0	71	0	24.5	115,585
Krachi Nchumuru	0	0	0	0.8	0	0	84.4	0	14.8	103,347
Nkwanta South	0	0	0	4.1	0	0	84.8	0	11.1	72,065
Nkwanta North	2.2	0	0	0.7	0.6	0	90.6	0	6	104,092
Kpandai	0.1	0	0	0.3	0	0	96.3	0	3.3	96,757
Nanumba South	0	0	0	1.2	0.5	0	96.2	0	2.1	171,147
Nanumba North	7.8	0	0	1.7	0	0	87.5	0	3.1	148,516
Zabzugu	1.3	0	0	0	0.4	0	53.7	0	44.6	134,552
Totale	0.5	6.4	0.5	0	0	0	84.2	0	8.4	116,212

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Saboba	0	0	0	0.7	0.5	0	91.4	0	7.4	146,122
Yendi Municipal	1.6	0	0	0.3	0	0	69.7	0	28.4	124,393
Mion	4.4	0	0	0	0	4.4	73.8	5.4	11.9	108,820
Nanton	3.7	0	0	0	0	0.5	92.3	0	3.5	136,361
TMA_Tamale	8.9	0.3	0	8	0.8	0	27.5	0	54.5	215,345
Sagnerigu Municipal	2.4	0	0	28.3	0	0	17.5	0	51.8	106,511
Tolon	0.3	0.3	0	0.4	0	0	95.8	0	3.1	89,217
Kumbungu	0	0	0	0.7	0	0	95.5	0	3.8	70,891
Savelugu Municipal	2	0	0	3.4	0	0	78.5	0	16.1	79,705
Karaga	0	0	0	0	0	0	98.5	0	1.5	77,275
Gushiegu	27.6	1	0	1.6	1.4	28.4	37.5	0	2.5	59,684
Bole	3.9	0	0	1.3	0.3	0.8	74.1	0	19.6	83,313
Sawla Tuna Kalba	7.3	0	0	1	0	0	83.3	0	8.5	58,966
North Gonja	1.3	0	0	0.3	1	0	91.2	0	6.2	98,435
West Gonja	11.8	0	0	1.1	0	0	52.4	0.7	34	85,278
Central Gonja	0.6	0	0	0.4	0	0	79.9	0	19.2	67,808
East Gonja	0.6	0	0	1.2	0	0	74.8	0	23.4	87,116
North East Gonja	0.3	0	0	0	0	0	99	0	0.7	91,046
Mamprugu Moagduri	0.9	0	0	1.6	0	0	93.2	0	4.4	60,346
West Mamprusi Municipal	2.1	0	0	17.1	0.3	0	52.7	0	27.8	84,975
East Mamprusi Municipal	0.5	0	0	0.5	0	0	93.8	0	5.2	154,714
Bunkpurugu Nakpanduri	0	0	0	3.1	0.2	0	82.1	0	14.7	100,158
Yunyoo Nasuan	0	0	0	1.9	0	0	98.1	0	0	79,963
Chereponi	0	0	0	0	0.7	20.3	72.4	0	6.6	93,181
Builisa South	1.6	0	0	1	0	0.9	89.3	0	7.2	84,264

Source of Energy, by Locality	Electricity	Straw/ Shrubs/ Grass	Biogas	Liquefied Petroleum Gas (LPG)	Solar	Agricultural Crop Residue	Wood	Animal Dung	Charcoal	Total
Builsa North	0	0.2	0	2.5	0	0	85.4	0	11.8	76,020
Kassena Nankana Municipal	0.9	0	0	8.6	0	23.3	47.7	0	19.5	77,867
Kassena Nankana West	5.2	24.4	0	2.7	0.3	3.8	56.7	0	7.1	90,189
Bolgatanga Municipal	0	25.6	0	14.8	0	0.8	29	0.5	29.4	82,551
Talensi	1.8	13.8	0	1.2	1.1	0	54.1	0	28.1	83,995
Bolgatanga East	1.9	0	0	10.3	0	4.3	62.3	0	21.1	65,785
Bongo	6.6	19.5	0	3.7	0	3.4	55.6	0	11.3	112,688
Nabdam	0	10.6	0	2.2	0	7.9	71.2	0	8.1	101,402
Bawku West	2.1	34.2	0	2.5	0	4.2	45.6	0	11.5	90,437
Binduri	1	0	0	2	0	45.9	47.8	0	3.3	105,731
Bawku Municipal	0	15.5	0	3.3	0	13.3	21.5	0	46.4	80,255
Garu	0	1.7	0	6.4	0	22.3	62.2	0	7.4	70,735
Tempene	0	19	0	0.6	0	1.2	75.2	0	4	77,141
Pusiga	1.3	14.2	0	0	0	31.1	51.7	0.5	1.3	69,055
Wa West	3.9	0	0	0	0	0	92	0	4.1	84,730
Wa East	0	0	0	0.5	0	0	92.6	0	6.9	68,614
Wa Municipal	0.3	2.7	0	22.1	0	0	17.1	0	57.7	94,068
Nadowli0Kaleo	0.3	30.3	0	0.3	0.1	0	57.9	0.2	10.9	78,750
Daffiama Bussie	0	0	0.3	1.3	0	0	93.3	0	5.1	59,030
Sissala East	2.9	0	0	1.4	0.2	0	83	0	12.5	76,288
Sissala West	0	0	0	3.6	0	0	88.9	0	7.5	53,585
Jirapa	3.6	0	0	1.6	0	0	90.1	0	4.7	49,674
Lawra	0	0	0	3.9	0	0	77.1	0	18.9	72,320
Lambussie0Karni	0.5	0	0	8.7	0	0	74	0	16.7	115,429
Nandom	0	0	0.4	3.5	0	0	78.4	0	17.6	94,372
<b>National</b>	<b>1.3</b>	<b>0.8</b>	<b>0</b>	<b>23.6</b>	<b>0.1</b>	<b>0.6</b>	<b>42.2</b>	<b>0</b>	<b>31.3</b>	<b>29,708,007</b>

## APPENDIX 6: Household Member(s) Away for More Than 3 Months – District Level

Region/District	No (%)	Yes (%)	Total (N)
<b>Western</b>			
Jomoro	75.0	25.0	143455
Ellembelle	75.9	24.1	143891
Nzema East	86.6	13.4%	143436
Ahanta West	92.0	8.0	123603
Effia-Kwesimintim	97.4	2.6	124008
STMA	97.4	2.6	355168
Shama	84.3	15.7	182695
Wassa East	84.9	15.1	173451
Mpohor	85.5	14.5	157716
Tarkwa Nsuaem	91.6	8.4	170694
Prestea/Huni Valley	79.2	20.8	137837
Wassa Amenfi East	94.0	6.0	121516
Wassa Amenfi Central	93.8	6.2	95805
Wassa Amenfi West	89.3	10.7	118297
<b>Central</b>			
Komenda Edina Eguafu Abirem Municipal	79.7	20.3	106220
Cape	88.7	11.3	239087
Abura Asebu Kwamankese	96.7	3.3	114684
Mfantseman Municipal	89.4	10.6	74530
Ekumfi	92.0	8.0	86817
Gomoa West	94.2	5.8	76146
Effutu Municipal	91.5	8.5	56323
Gomoa Central	85.8	14.2	61770
Gomoa East	90.5	9.5	107521
Awutu Senya East Municipal	96.9	3.1	136932
Awutu Senya	95.2	4.8	111815
Agona East	86.8	13.2	100108
Agona West Municipal	91.7	8.3	101026
Asikuma Odoben Brakwa	96.5	3.5	132275
Ajumaku Enyan Essiam	87.7	12.3	143907
Assin South	80.1	19.9	146867
Twifo Heman Lower Denkyira	90.9	9.1	144257
Twifo Ati Morkwa	96.0	4.0	129233
Assin Fosu Municipal	80.9	19.1	158041
Assin North	78.8	21.2	106224
Upper Denkyira East Municipal	92.8	7.2	116595
Upper Denkyira West	97.4	2.6	130758
<b>Greater Accra</b>			
Ga South Municipal	98.8	1.2	169608
Weija Gbawe Municipal	89.6	10.	181773
Ga Central Municipal	88.1	11.9	135838

Region/District	No (%)	Yes (%)	Total (N)
Ablekuma North Municipal	96.8	3.2	155107
Ablekuma West Municipal	94.4	5.6	121090
Ablekuma Central	95.8	4.2	176702
AMA	97.1	2.9	316793
Korle Klotey Municipal	94.1	5.9	150467
Ayawaso Central Municipal	95.0	5.0	116781
Ayawaso East	98.0	2.0	90699
Ayawaso North Municipal	82.2	17.8	169871
La Dadekotopon Municipal	88.5	11.5	134687
Ledzokuku Municipal	94.1	5.9	129607
Krowor Municipal	92.9	7.1	103625
Adentan Municipal	93.6	6.4	249193
Okai Koi North	98.2	1.8	131227
Ga North Municipal	97.0	3.0	118076
Ga West Municipal	99.6	.4	230328
Ga East	93.7	6.3	154059
La Nkwantanang-Madina Munic	92.8	7.2	179853
Kpone Katamanso Municipal	92.3	7.7	152499
Ashaiman Municipal	86.4	13.6	138208
Tema West Municipal	95.3	4.7	183167
TMA-Tema Central	89.5	10.5	102852
TMA-Tema East	95.9	4.1	305517
Ningo Prampram	93.5	6.5	230432
Shai Osudoku	99.0	1.0	227164
Ada West	93.0	7.0	180587
Ada East	92.9	7.1	234626
<b>Volta</b>			
South Tongu	86.7	13.3	95273
Anloga	93.1	6.9	142211
Keta Municipal	93.8	6.2	202009
Ketu South	97.4	2.6	120534
Ketu North	89.8	10.2	131830
Akatsi North	95.5	4.5	61406
Akatsi South	87.4	12.6	117143
Central Tongu	89.3	10.7	88020
North Tongu	83.0	17.0	86209
Ho-West	92.6	7.4	102668
Adaklu	98.3	1.7	73506
Agortime Ziope	87.1	12.9	136929
Ho Municipal	92.8	7.2	116704
South Dayi	90.3	9.7	78521
Afadzato South	94.8	5.2	84575
North Dayi	86.6	13.4	62474
Kpando Municipal	88.3	11.7	53579
Hohoe Municipal	82.3	17.7	140726

Region/District	No (%)	Yes (%)	Total (N)
<b>Eastern</b>			
Birim South	89.8	10.2	133115
Birim Central Municipal	82.9	17.1	137764
Achiase	95.2	4.8	102298
Asene Manso Akroso	99.1	.9	101579
West Akim Municipal	95.1	4.9	98803
Upper West Akim	92.8	7.2	123835
Ayensuano	93.4	6.6	94847
Nsawam Adoagyiri Municipal	99.8	.2	145851
Akwapim South	93.4	6.6	102689
Akwapim North Municipal	96.3	3.7	145962
Okere	86.6	13.4	79262
New Juaben South Municipal	94.0	6.0	151647
New Juaben North	97.1	2.9	134088
Suhum Municipal	90.8	9.2	88826
Abuakwa North	74.4	25.6	99506
Abuakwa South	95.9	4.1	78900
Denkyembuor	85.0	15.0	124225
Akyemansa	77.6	22.4	71725
Kwaebibirem	94.2	5.8	72312
Birim North	96.2	3.8	66888
Atiwa West	94.6	5.4	72211
Atiwa East	88.9	11.1	75543
Fanteakwa South	91.5	8.5	67135
Yilo Krobo Municipal	93.3	6.7	63406
Lower Manya Krobo	99.4	.6	72571
Asuogyaman	98.9	1.1	57553
Upper Manya Krobo	83.6	16.4	128950
Fanteakwa North	94.5	5.5	88915
Kwahu South	92.9	7.1	73174
Kwahu West Municipal	96.8	3.2	100590
Kwahu East	87.6	12.4	59752
Kwahu Afram Plains South	98.4	1.6	142008
Kwahu Afram Plains North	90.9	9.1	125100
<b>Ashanti</b>			
Amansie South	93.8	6.2	116421
Amansie Central	90.5	9.5	140819
Akrofrom	95.7	4.3	106182
Adansi South	89.6	10.4	162146
Adansi Asokwa	86.0	14.0	135917
Obuasi East	83.7	16.3	127616
Obuasi Municipal	79.5	20.5	193275
Adansi North	89.2	10.8	125926
Bekwai Municipal	92.4	7.6	111808

Region/District	No (%)	Yes (%)	Total (N)
Amansie West	98.4	1.6	95151
Atwima Kwanwoma	94.8	5.2	115973
Bosomtwi	93.9	6.1	106091
Bosome Freho	93.6	6.4	142750
Asante Akim Central Municipal	87.3	12.7	84517
Asante Akim South Municipal	90.6	9.4	120631
Asante Akim North	98.8	1.2	131020
Sekyere Kumawu	85.3	14.7	129611
Sekyere East	97.2	2.8	111923
Juaben Municipal	96.2	3.8	86413
Ejisu Municipal	96.8	3.2	61745
Oforikrom Municipal	90.8	9.2	84757
Asokwa Municipal	89.0	11.0	156075
KMA	95.1	4.9	453351
Kwadaso Municipal	93.9	6.1	108337
Suame Municipal	86.3	13.7	157464
Old Tafo Municipal	92.7	7.3	168837
Asokore Mampong Municipal	92.3	7.7	233183
Kwabre East Municipal	97.6	2.4	213342
Afigya Kwabre South	96.0	4.0	150735
Atwima Nwabiagya North	86.9	13.1	99526
Atwima Nwabiagya South Municipal	90.8	9.2	153853
Atwima Mponua	93.0	7.0	180965
Ahafo Ano South West	98.3	1.7	115433
Ahafo Ano North	94.1	5.9	180636
Ahafo Ano South East	82.5	17.5	145978
Offinso North	93.1	6.9	153922
Offinso Municipal	96.8	3.2	99495
Afigya Kwabre North	95.9	4.1	98758
Sekyere South	90.9	9.1	120747
Mampong Municipal	98.6	1.4	126785
Ejura Sekyedumase Municipal	90.5	9.5	73271
Sekyere Central	88.6	11.4	97506
Sekyere Afram Plains	86.6	13.4	74617
<b>Western North</b>			
Aowin Municipal	97.9	2.1	111235
Sefwi Akontombra	80.4	19.6	93833
Suaman	91.8	8.2	107415
Bodi	84.6	15.4	79281
Sefwi Wiawso	95.6	4.4	97288
Bibiani Ahwiaso Bekwai	92.6	7.4	63050
Juaboso	87.9	12.1	68799
Bia West	91.1	8.9	163791
Bia East	83.9	16.1	160955

Region/District	No (%)	Yes (%)	Total (N)
<b>Ahafo</b>			
Asunafo South	87.5	12.5	71763
Asunafo North	76.1	23.9	88660
Asutifi South	94.2	5.8	104500
Asutifi North	91.2	8.8	98747
Tano North	96.4	3.6	150530
Tano South	91.8	8.2	94421
<b>Bono</b>			
Dormaa West	85.6	14.4	137681
Dormaa Central Municipal	91.1	8.9	95953
Dormaa East	90.2	9.8	84361
Sunyani Municipal	97.7	2.3	74455
Sunyani West	98.4	1.6	83363
Berekum East Municipal	85.1	14.9	131658
Berekum West	98.7	1.3	124426
Jaman South	94.9	5.1	86212
Jaman North	90.3	9.7	111860
Tain	80.3	19.7	74163
Wenchi Municipal	93.5	6.5	74066
Banda	94.0	6.0	78727
<b>Bono East</b>			
Nkoranza South	84.2	15.8	115127
Techiman Municipal	93.2	6.8	75927
Nkoranza North	92.7	7.3	100010
Techiman North	91.1	8.9	146210
Atebubu Amantin	96.3	3.7	85604
Sene West	81.1	18.9	139021
Sene East	89.0	11.0	107391
Pru West	81.2	18.8	110385
Pru East	97.4	2.6	73230
Kintampo South	84.0	16.0	100414
Kintampo North	75.5	24.5	72132
<b>Oti</b>			
Biakoye	98.6	1.4	53581
Jasikan	90.8	9.2	61189
Kadjebi	90.7	9.3	80132
Krachi East	89.5	10.5	156812
Krachi West	96.4	3.6	120778
Krachi Nchumuru	74.4	25.6	105020
Nkwanta South	82.6	17.4	72460
Nkwanta North	88.3	11.7	105220
Kpandai	95.5	4.5	97189
<b>Northern</b>			
Nanumba South	97.7	2.3	173750

Region/District	No (%)	Yes (%)	Total (N)
Nanumba North	92.3	7.7	153391
Zabzugu	94.8	5.2	135396
Tatale	81.5	18.5	116608
Saboba	84.8	15.2	152519
Yendi Municipal	94.8	5.2	125831
Mion	81.4	18.6	111827
Nanton	79.7	20.3	141263
TMA_Tamale	95.1	4.9	217995
Sagnerigu Municipal	96.3	3.7	109415
Tolon	96.4	3.6	92029
Kumbungu	93.4	6.6	72343
Savelugu Municipal	72.6	27.4	85434
Karaga	93.2	6.8	77274
Gushiegu	95.6	4.4	73031
<b>Savannah</b>			
Bole	89.3	10.7	84703
Sawla Tuna Kalba	82.5	17.5	66454
North Gonja	88.8	11.2	100177
West Gonja	88.9	11.1	88797
Central Gonja	92.7	7.3	68943
East Gonja	91.9	8.1	88126
North East Gonja	96.7	3.3	93784
<b>North East</b>			
Mamprugu Moagduri	80.0	20.0	62808
West Mamprusi Municipal	62.2	37.8	86196
East Mamprusi Municipal	72.0	28.0	157313
Bunkpurugu Nakpanduri	78.5	21.5	100607
Yunyoo Nasuan	68.2	31.8	81768
Chereponi	89.4	10.6	97154
<b>Upper East</b>			
Builsa South	86.0	14.0	86235
Builsa North	95.1	4.9	76921
Kassena Nankana Municipal	94.2	5.8	79526
Kassena Nankana West	86.1	13.9	91798
Bolgatanga Municipal	91.8	8.2	85402
Talensi	85.7	14.3	85554
Bolgatanga East	86.3	13.7	67278
Bongo	76.4	23.6	114470
Nabdam	55.1	44.9	105378
Bawku West	78.3	21.7	94021
Bawku Municipal	88.6	11.4	83076
Garu	65.0	35.0	72441
Tempane	67.6	32.4	78414
Pusiga	88.2	11.8	70826

Region/District	No (%)	Yes (%)	Total (N)
Wa West	59.7	40.3	85461
<b>Upper West</b>			
Wa East	80.5	19.5	69530
Wa Municipal	94.2	5.8	94817
Nadowli-Kaleo	64.8	35.2	79532
Daffiama Bussie	88.4	11.6	61324
Sissala East	82.8	17.2	81020
Sissala West	80.9	19.1	54321
Jirapa	65.2	34.8	50777
Lawra	90.0	10.0	74227
Lambussie-Karni	84.8	15.2	118419
Nandom	75.4	24.6	96011
<b>National</b>	<b>90.2</b>	<b>9.8</b>	<b>30,644,572</b>

## APPENDIX 7 Reason for Migration – District Level

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Jomoro	50.9	23.7	3.6	17.4	0.0	4.4	238
Ellembelle	83.4	9.7	0.0	5.8	0.0	1.1	237
Nzema East	50.3	36.4	0.0	13.3	0.0	0.0	236
Ahanta West	35.3	31.4	0.0	33.3	0.0	0.0	242
Effia-Kwesimintim	58.2	0.0	0.0	41.8	0.0	0.0	236
STMA	64.8	0.0	0.0	13.3	21.9	0.0	527
Shama	71.4	13.9	0.0	9.7	0.0	5.0	238
Wassa East	52.4	16.0	0.0	29.4	0.0	2.2	235
Mpohor	65.4	23.7	0.0	8.7	2.2	0.0	214
Tarkwa Nsuaem	81.9	13.2	0.0	4.8	0.0	0.0	234
Prestea/Huni Valley	39.3	24.1	0.0	33.5	2.4	0.7	233
Wassa Amenfi East	38.1	19.0	0.0	34.5	0.0	8.4	233
Wassa Amenfi Central	66.0	19.8	0.0	14.1	0.0	0.0	238
Wassa Amenfi West	50.8	8.7	0.0	37.7	2.9	0.0	232
KEEA Municipal	79.3	7.4	0.0	9.6	1.6	2.1	270
Cape	37.5	13.7	2.3	39.0	5.5	2.0	478
Abura Asebu Kwamankese	65.1	0.0	0.0	29.4	5.5	0.0	265
Mfantsiman Municipal	61.4	25.5	0.0	1.7	3.2	8.2	260
Ekumfi	57.7	17.1	0.0	25.2	0.0	0.0	269
Gomoa West	79.6	20.4	0.0	0.0	0.0	0.0	265
Effutu Municipal	34.4	24.3	0.0	41.3	0.0	0.0	264
Gomoa Central	61.7	13.6	0.0	23.1	0.0	1.6	266
Gomoa East	27.6	8.8	0.0	57.5	6.0	0.0	269
Awutu Senya East Municipal	51.4	0.0	0.0	33.5	15.1	0.0	267
Awutu Senya	23.6	25.1	0.0	17.1	17.1	17.1	267
Agona East	69.9	1.6	0.0	28.5	0.0	0.0	259
Agona West Municipal	58.8	0.0	0.0	41.2	0.0	0.0	267
Asikuma Odoben Brakwa	58.5	9.4	0.0	32.0	0.0	0.0	258
Ajumaku Enyan Essiam	82.7	9.7	0.0	7.6	0.0	0.0	266
Assin South	82.6	1.5	0.0	13.9	2.1	0.0	277
Twifo Heman Lower Denkyira	29.6	24.8	0.0	45.6	0.0	0.0	261
Twifo Ati Morkwa	81.3	11.5	0.0	7.1	0.0	0.0	263
Assin Fosu Municipal	33.3	6.5	0.0	53.8	6.5	0.0	260
Assin North	60.4	0.0	0.0	23.1	12.8	3.7	262
Upper Denkyira East Municipal	54.1	2.9	0.0	43.0	0.0	0.0	266
Upper Denkyira West	73.7	0.0	0.0	26.3	0.0	0.0	266
Ga South Municipal	0.0	0.0	0.0	29.5	70.5	0.0	177
Weija Gbawe Municipal	45.3	0.0	0.0	38.4	0.0	16.2	184
Ga Central Municipal	74.5	0.0	0.0	11.8	0.0	13.7	192
Ablekuma North Municipal	77.2	0.0	22.8	0.0	0.0	0.0	191
Ablekuma West Municipal	54.7	0.0	0.0	45.3	0.0	0.0	187

District	Work %	Marriage %	Political/ Religious/ reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Ablekuma Central	100.0	0.0	0.0	0.0	0.0	0.0	189
AMA	55.6	17.6	0.0	13.5	13.3	0.0	431
Korle Klotey Municipal	23.1	36.6	0.0	9.5	9.6	21.1	189
Ayawaso Central Municipal	53.6	18.8	0.0	17.7	0.0	9.9	185
Ayawaso East	10.8	75.0	14.2	0.0	0.0	0.0	176
Ayawaso North Municipal	46.8	14.6	1.6	19.7	9.0	8.3	185
La Dadekotopon Municipal	22.9	4.0	0.0	32.3	3.7	37.1	174
Ledzokuku Municipal	38.5	2.2	0.0	27.6	31.7	0.0	172
Krowor Municipal	32.8	8.3	0.0	47.7	11.1	0.0	191
Adentan Municipal	26.0	11.6	0.0	24.1	13.9	24.4	185
Okai Koi North	100.0	0.0	0.0	0.0	0.0	0.0	183
Ga North Municipal	35.3	0.0	0.0	44.4	0.0	20.3	185
Ga West	0.0	0.0					193
Ga East	36.6	0.0	0.0	49.7	0.0	13.7	191
La Nkwantanang- Madina Mun	53.6	0.0	0.	46.4	0.0	0.0	185
Kpone Katamanso Municipal	61.1	17.6	0.0	16.5	4.8	0.0	182
Ashaiman Municipal	83.4	0.0	0.0	0.0	16.6	0.0	193
Tema West Municipal	69.3	14.3	0.0	16.4	0.0	0.0	191
TMA-Tema Central	57.8	13.5	0.0	21.0	7.7	0.0	190
TMA-Tema East	51.5	12.3	0.0	36.2	0.0	0.0	486
Ningo Prampram	69.3	0.0	0.0	10.4	12.2	8.1	194
Shai Osudoku	27.6	0.0	0.0	72.4	0.0	0.0	187
Ada West	52.8	19.4	0.0	19.0	8.8	0.0	192
Ada East	46.8	23.5	0.0	29.6	0.0	0.0	191
South Tongu	82.5	0.0	0.0	12.0	0.0	5.6	285
Anloga	67.2	0.0	0.0	12.3	0.0	20.5	284
Keta Municipal	82.8	0.0	0.0	17.2	0.0	0.0	283
Ketu South	73.9	0.0	0.0	0.0	26.1	0.0	271
Ketu North	80.5	14.7	0.0	1.9	2.9	0.0	285
Akatsi North	33.6	42.5	6.5	17.4	0.0	0.0	280
Akatsi South	80.0	5.8	0.0	14.1	0.0	0.0	280
Central Tongu	48.6	16.8	0.0	34.6	0.0	0.0	285
North Tongu	81.4	4.8	0.0	6.9	1.3	5.6	280
Ho-West	77.9	0.0	0.0	10.6	11.6	0.0	282
Adaklu	33.6	24.6	0.0	41.8	0.0	0.0	280
Agortime Ziope	89.7	2.3	0.0	5.3	1.4	1.3	285
Ho Municipal	50.8	0.0	0.0	43.1	0.0	6.1	279
South Dayi	56.5	0.0	0.0	31.5	12.0	0.0	281
Afadzato South	71.5	8.9	0.0	11.2	0.0	8.4	281
North Dayi	56.3	15.4	0.0	28.3	0.0	0.0	280
Kpando Municipal	56.9	0.0	0.0	38.3	1.0	3.8	283
Hohoe Municipal	59.9	19.7	0.0	13.6	2.8	4.1	283
Birim South	59.6	18.6	0.0	17.7	4.1	0.0	282

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Birim Central Municipal	81.5	3.0	0.0	8.8	2.4	4.4	283
Achiase	80.2	3.0	0.0	13.7	0.0	3.2	268
Asene Manso Akroso	0.0	30.1	0.0	0.0	69.9	0.0	284
West Akim Municipal	100.0	0.0	0.0	0.0	0.0	0.0	285
Upper West Akim	73.2	11.3	0.0	4.8	6.7	4.1	283
Ayensuano	51.8	9.6	0.0	32.6	5.9	0.0	281
Nsawam Adoagyiri Municipal	0.0	0.0	0.0	100.0	0.0	0.0	285
Akwapim South	47.8	0.0	0.0	9.3	29.2	13.7	282
Akwapim North Municipal	16.4	9.3	0.0	74.3	0.0	0.0	278
Okere	73.7	12.8	0.0	13.5	0.0	0.0	281
New Juaben South Municipal	58.3	0.0	0.0	25.9	0.0	15.9	277
New Juaben North	53.1	17.1	0.0	29.8	0.0	0.0	279
Suhum Municipal	72.9	7.3	0.0	19.7	0.0	0.0	276
Abuakwa North	69.3	8.7	0.0	17.3	3.7	0.9	277
Abuakwa South	29.5	0.0	0.0	35.2	35.3	0.0	286
Denkyembuur	81.5	2.6	0.0	6.1	2.2	7.6	285
Akyemansa	72.2	11.4	0.0	16.4	0.0	0.0	285
Kwaebibirem	35.5	8.0	0.0	56.5	0.0	0.0	258
Birim North	67.3	7.8	0.0	19.5	0.0	5.4	283
Atiwa West	40.7	0.0	0.0	39.3	10.0	10.0	279
Atiwa East	82.1	6.3	0.0	11.7	0.0	0.0	279
Fanteakwa South	57.0	16.3	10.3	16.3	0.0	0.0	279
Yilo Krobo Municipal	75.8	6.9	0.0	10.5	6.9	0.0	276
Lower Manya Krobo	100.0	0.0	0.0	0.0	0.0	0.0	279
Asuogyaman	16.0	24.4	0.0	59.6	0.0	0.0	284
Upper Manya Krobo	28.6	11.2	3.1	52.1	5.0	0.0	282
Fanteakwa North	44.5	0.0	0.0	36.9	18.5	0.0	281
Kwahu South	75.4	8.0	0.0	16.5	0.0	0.0	283
Kwahu West Municipal	21.9	7.8	0.0	70.3	0.0	0.0	282
Kwahu East	70.2	17.2	0.0	6.6	0.0	6.0	279
Kwahu Afram Plains South	40.9	0.0	0.0	20.2	38.9	0.0	282
Kwahu Afram Plains North	70.3	12.7	0.0	8.1	8.8	0.0	283
Amansie South	7.2	12.0	0.0	63.3	12.0	5.4	246
Amansie Central	86.1	4.9	0.0	9.0	0.0	0.0	251
Akrofrom	52.2	0.0	0.0	25.7	0.0	22.1	252
Adansi South	59.8	2.4	0.0	34.0	3.8	0.0	255
Adansi Asokwa	68.6	28.9	0.0	0.0	0.0	2.5	252
Obuasi East	62.3	13.9	0.0	23.8	0.0	0.0	252
Obuasi Municipal	55.3	23.1	0.0	21.7	0.0	0.0	249
Adansi North	65.1	0.0	0.0	29.2	5.8	0.0	246
Bekwai Municipal	48.1	1.3	0.0	32.0	4.8	13.9	252
Amansie West	87.1	12.9	0.0	0.0	0.0	0.0	244
Atwima Kwanwoma	56.0	6.8	0.0	37.2	0.0	0.0	250

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Bosomtwi	45.2	6.7	4.0	13.6	5.9	24.6	250
Bosome Freho	7.5	0.0	0.0	57.9	16.7	18.0	237
Asante Akim Central Municipal	76.2	9.8	0.0	10.6	0.0	3.3	249
Asante Akim South Municipal	44.4	19.6	0.0	36.0	0.0	0.0	251
Asante Akim North	47.6	0.0	0.0	52.4	0.0	0.0	251
Sekyere Kumawu	69.5	21.0	0.0	7.6	0.0	1.9	251
Sekyere East	79.4	20.6	0.0	0.0	0.0	0.0	250
Juaben Municipal	89.6	10.4	0.0	0.0	0.0	0.0	252
Ejisu Municipal	70.5	10.5	0.0	19.0	0.0	0.0	246
Oforikrom Municipal	73.7	22.2	0.0	4.1	0.0	0.0	241
Asokwa Municipal	57.5	0.0	0.0	42.5	0.0	0.0	232
KMA	61.7	3.1	5.8	24.8	0.0	4.7	604
Kwadaso Municipal	79.4	5.2	0.0	8.4	0.0	7.0	250
Suame Municipal	25.3	19.1	7.1	26.8	2.1	19.6	250
Old Tafo Municipal	51.7	18.7	0.0	29.6	0.0	0.0	246
Asokore Mampong Municipal	69.6	11.1	3.3	11.7	4.5	0.0	249
Kwabre East Municipal	74.5	7.1	0.0	18.4	0.0	0.0	249
Afigya Kwabre South	67.3	0.0	0.0	32.7	0.0	0.0	249
Atwima Nwabiagya North	75.2	10.9	0.0	10.5	0.0	3.5	248
Atwima Nwabiagya South Muni	75.1	0.0	0.0	15.5	9.4	0.0	244
Atwima Mponua	35.2	48.7	0.0	9.4	0.0	6.7	256
Ahafo Ano South West	24.8	0.0	38.6	36.6	0.0	0.0	249
Ahafo Ano North	53.2	0.0	0.0	33.6	0.0	13.2	246
Ahafo Ano South East	48.4	19.1	0.0	24.8	0.0	7.6	251
Offinso North	67.1	0.0	0.0	22.3	10.7	0.0	244
Offinso Municipal	56.3	23.9	0.0	17.3	0.0	2.5	247
Afigya Kwabre North	62.6	0.0	0.0	37.4	0.0	0.0	247
Sekyere South	67.7	29.6	2.7	0.0	0.0	0.0	247
Mampong Municipal	13.4	0.0	31.2	55.4	0.0	0.0	245
Ejura Sekyedumase Municipal	48.3	0.0	0.0	39.2	5.3	7.2	252
Sekyere Central	20.9	12.4	0.0	55.4	8.1	3.3	246
Sekyere Afram Plains	54.0	4.9	0.0	37.5	0.0	3.7	253
Aowin Municipal	31.2	0.0	0.0	45.2	23.6	0.0	225
Sefwi Akontombra	32.7	14.7	1.2	34.5	17.0	0.0	221
Suaman	18.2	37.1	0.0	32.1	8.7	3.8	219
Bodi	26.9	24.3	0.0	48.8	0.0	0.0	222
Sefwi Wiawso	42.1	6.6	0.0	51.3	0.0	0.0	222
Bibiani Ahwiaso Bekwai	69.0	20.1	0.0	10.9	0.0	0.0	224
Juaboso	31.8	27.2	0.0	26.0	0.0	15.	219
Bia West	70.1	23.5	0.0	6.4	0.0	0.0	223
Bia East	12.1	0.0	0.0	87.9	0.0	0.0	220

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Asunafo South	52.5	18.7	0.0	21.9	6.9	0.0	220
Asunafo North	48.2	30.9	0.0	20.9	0.0	0.0	223
Asutifi South	77.3	0.0	0.0	22.7	0.0	0.0	218
Asutifi North	74.9	7.0	0.0	6.9	0.0	11.1	224
Tano North	74.8	9.1	0.0	16.1	0.0	0.0	220
Tano South	83.5	0.0	0.0	16.5	0.0	0.0	215
Dormaa West	59.9	30.4	0.0	9.7	0.0	0.0	218
Dormaa Central Municipal	77.4	14.8	0.0	7.8	0.0	0.0	225
Dormaa East	57.1	0.0	0.0	34.6	0.0	8.2	218
Sunyani Municipal	76.6	0.0	0.0	23.4	0.0	0.0	223
Sunyani West	56.0	44.0	0.0	0.0	0.0	0.0	220
Berekum East Municipal	52.8	12.8	3.1	22.0	7.3	1.9	217
Berekum West	100.0	0.0	0.0	0.0	0.0	0.0	225
Jaman South	83.6	11.5	0.0	4.9	0.0	0.0	221
Jaman North	79.6	8.9	0.0	11.4	0.0	0.0	222
Tain	73.1	6.9	0.0	20.0	0.0	0.0	223
Wenchi Municipal	63.5	32.3	4.2	0.0	0.0	0.0	218
Banda	74.3	11.0	0.0	14.7	0.0	0.0	221
Nkoranza South	65.0	2.1	2.5	22.6	0.0	7.8	223
Techiman Municipal	64.8	13.3	0.0	21.9	0.0	0.0	217
Nkoranza North	59.2	13.9	0.0	26.8	0.0	0.0	222
Techiman North	14.9	0.0	0.0	80.7	0.0	4.5	223
Atebubu Amantin	78.2	0.0	0.0	21.8	0.0	0.0	221
Sene West	45.6	11.9	0.0	39.3	3.2	0.0	220
Sene East	75.8	8.3	0.0	7.8	5.9	2.2	210
Pru West	50.2	11.6	0.0	32.0	2.3	3.9	219
Pru East	46.2	27.8	0.0	26.0	0.0	0.0	438
Kintampo South	52.4	15.0	0.0	25.8	0.0	6.8	221
Kintampo North	54.8	21.2	0.0	11.1	9.1	3.7	221
Biakoye	0.0	0.0	0.0	100.0	0.0	0.0	225
Jasikan	62.2	10.3	0.0	19.6	7.9	0.0	222
Kadjebi	78.0	6.9	0.0	15.1	0.0	0.0	223
Krachi East	47.6	7.8	0.0	34.9	0.0	9.7	219
Krachi West	73.9	11.4	0.0	14.8	0.0	0.0	217
Krachi Nchumuru	45.5	29.8	2.8	16.1	4.2	1.6	228
Nkwanta South	72.5	14.4	0.0	5.8	6.2	1.2	223
Nkwanta North	67.0	6.2	0.0	21.0	3.3	2.6	222
Kpandai	76.8	0.0	0.0	19.3	4.0	0.0	253
Nanumba South	15.4	0.0	0.0	38.8	6.7	39.1	252
Nanumba North	38.4	20.2	0.0	35.3	6.0	0.0	249
Zabzugu	27.6	11.1	0.0	34.1	8.3	18.9	242
Tatale	69.3	0.0	0.0	27.6	0.0	3.1	255
Saboba	23.2	12.6	3.9	58.5	0.0	1.7	247

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Yendi Municipal	77.4	0.0	0.0	22.6	0.0	0.0	252
Mion	34.1	22.8	3.2	36.5	2.7	0.7	249
Nanton	68.1	11.4	0.0	11.6	5.2	3.7	252
TMA_Tamale	55.3	9.7	2.8	10.0	8.6	13.6	458
Sagnerigu Municipal	2.	22.3	15.2	59.6	0.0	0.0	251
Tolon	92.2	0.0	0.0	0.0	0.0	7.8	238
Kumbungu	70.6	0.0	0.0	20.0	9.3	0.0	252
Savelugu Municipal	78.8	3.0	0.0	13.8	1.9	2.5	251
Karaga	61.5	21.0	0.0	8.1	9.4	0.0	254
Gushiegu	23.9	5.9	0.0	56.2	8.2	5.9	249
Bole	84.5	11.1	0.0	4.4	0.0	0.0	224
Sawla Tuna Kalba	83.2	0.0	0.0	12.2	0.0	4.5	209
North Gonja	44.3	2.5	0.0	38.5	0.0	14.6	220
West Gonja	16.1	31.4	3.4	30.7	5.1	13.3	219
Central Gonja	55.3	0.0	0.0	31.3	13.3	0.0	223
East Gonja	52.1	21.6	0.0	26.2	0.0	0.0	221
North East Gonja	52.7	30.7	0.0	16.6	0.0	0.0	224
Mamprugu Moagduri	100.0	0.0	0.0	0.0	0.0	0.0	217
West Mamprusi Municipal	62.2	18.2	0.0	17.4	2.1	0.0	221
East Mamprusi Municipal	65.0	22.0	0.0	13.0	0.0	0.0	221
Bunkpurugu Nakpanduri	75.4	5.5	0.0	19.1	0.0	0.0	224
Yunyoo Nasuan	68.3	6.1	0.0	25.6	0.0	0.0	220
Chereponi	73.4	0.0	0.0	19.9	4.3	2.5	219
Builsa South	84.8	9.0	0.0	6.2	0.0	0.0	267
Builsa North	67.3	0.0	0.0	26.0	0.0	6.7	266
Kassena Nankana Municipal	41.8	0.0	0.0	51.8	0.0	6.4	265
Kassena Nankana West	92.8	0.0	0.0	3.5	0.0	3.6	266
Bolgatanga Municipal	86.3	5.6	0.0	2.0	6.0	0.0	255
Talensi	85.9	1.2	0.0	12.9	0.0	0.0	266
Bolgatanga East	80.7	5.0	0.0	7.8	0.0	6.5	263
Bongo	92.7	0.0	0.0	5.6	0.0	1.7	268
Nabdam	89.1	5.8	0.0	2.3	0.0	2.8	263
Bawku West	95.8	2.0	0.0	2.3	0.0	0.0	264
Bawku Municipal	88.2	0.0	0.0	7.0	0.0	4.8	255
Garu	85.1	5.8	0.0	5.5	2.4	1.1	261
Tempne	93.0	0.0	0.0	4.4	0.0	2.5	249
Pusiga	84.6	0.0	0.0	15.4	0.0	0.0	266
Wa West	77.4	8.2	0.0	13.3	0.4	0.7	264
Wa East	57.3	19.3	0.0	19.6	0.0	3.8	296
Wa Municipal	70.9	5.5	0.0	23.6	0.0	0.0	294
Nadowli-Kaleo	87.7	6.0	0.0	4.2	0.6	1.5	298
Daffiama Bussie	68.7	9.4	0.0	2.9	0.0	18.9	297
Sissala East	31.9	31.5	0.0	22.7	1.1	12.8	289

District	Work %	Marriage %	Political/ Religious reasons %	Education %	Medical Care %	Don't Know %	Total (N)
Sissala West	59.7	13.5	0.0	14.2	0.0	12.7	284
Jirapa	66.9	11.5	0.0	20.9	0.7	0.0	295
Lawra	64.9	2.7	0.0	32.5	0.0	0.0	293
Lambussie-Karni	69.2	18.5	0.0	11.2	0.0	1.1	294
Nandom	67.2	4.5	0.0	26.4	0.0	1.9	298
National	61.2	11.2	0.5	21.4	2.6	3.2	291

## APPENDIX 8: Contributors to Household Income Prior Departure – District Level

District	No (%)	Yes (%)	Total (N)
<b>Western</b>			
Jomoro	32.8	67.2	29475
Ellembelle	19.7	80.3	33292
Nzema East	24.2	75.8	14754
Ahanta West	18.3	81.7	9893
Effia-Kwesimintim	57.8	42.2	3273
STMA	57.9	42.1	7750
Shama	34.7	65.3	26187
Wassa East	56.7	43.3	25124
Mpohor	47.3	52.7	12315
Tarkwa Nsuaem	18.9	81.1	13425
Prestea/Huni Valley	27.6	72.4	26057
Wassa Amenfi East	68.7	31.3	6586
Wassa Amenfi Central	27.1	72.9	5131
Wassa Amenfi West	27.9	72.1	8587
<b>Central</b>			
Komenda Edina Eguafo Abirem Municipal	28.0	72.0	19072
Cape	39.3	60.7	24759
Abura Asebu Kwamankese	79.3	20.7	3801
Mfantiman Municipal	37.3	62.7	7118
Ekumfi	43.0	57.0	6588
Gomoa West	25.9	74.1	4171
Effutu Municipal	59.1	40.9	3749
Gomoa Central	52.8	47.2	7956
Gomoa East	93.7	6.3	9810
Awutu Senya East Municipal	77.8	22.2	3829
Awutu Senya	57.6	42.4	5045
Agona East	61.8	38.2	12499
Agona West Municipal	96.9	3.1	7202
Asikuma Odoben Brakwa	42.1	57.9	4139
Ajumaku Enyan Essiam	36.8	63.2	17722
Assin South	51.6	48.4	24883
Twifo Heman Lower Denkyira	71.2	28.8	12576
Twifo Ati Morkwa	21.3	78.7	4545
Assin Fosu Municipal	54.8	45.2	19988
Assin North	43.9	56.1	21761
Upper Denkyira East Municipal	36.4	63.6	8061
Upper Denkyira West	35.2	64.8	3367
<b>Greater Accra</b>			
Ga South Municipal	100.0	0.0	2117
Weija Gbawe Municipal	86.8	13.2	13868
Ga Central Municipal	27.6	72.4	16171
Ablekuma North Municipal	31.3	68.7	4962

District	No (%)	Yes (%)	Total
Ablekuma West Municipal	62.8	37.2	6801
Ablekuma Central	22.5	77.5	7505
AMA	40.8	59.2	8801
Korle Klotey Municipal	57.3	42.7	7146
Ayawaso Central Municipal	71.1	28.9	1572
Ayawaso East	0.0	100.0	1829
Ayawaso North Municipal	63.1	36.9	25995
La Dadekotopon Municipal	52.1	47.9	12220
Ledzokuku Municipal	80.5	19.5	7694
Krowor Municipal	54.9	45.1	5733
Adentan Municipal	58.4	41.6	14293
Okai Koi North	50.1	49.9	2331
Ga North Municipal	100.0	0.0	3494
Ga West Municipal	100.0	0.0	927
Ga East	60.7	39.3	9654
La Nkwantanang- Madina Municipal	8.5	91.5	7268
Kpone Katamanso Municipal	64.8	35.2	10758
Ashaiman Municipal	69.5	30.5	18851
Tema West Municipal	76.1	23.9	8574
TMA-Tema Central	38.3	61.7	8298
TMA-Tema East	56.1	43.9	10467
Ningo Prampram	64.5	35.5	13867
Shai Osudoku	100.0	0.0	2351
Ada West	35.6	64.4	12648
Ada East	85.7	14.3	11047
<b>Volta</b>			
South Tongu	14.4	85.6	10933
Anloga	41.7	58.3	9801
Keta Municipal	39.2	60.8	11433
Ketu South	54.2	45.8	3164
Ketu North	45.2	54.8	11307
Akatsi North	76.9	23.1	2738
Akatsi South	16.7	83.3	14795
Central Tongu	36.0	64.0	8890
North Tongu	26.9	73.1	14668
Ho-West	54.4	45.6	7626
Adaklu	23.6	76.4	1253
Agortime Ziope	7.3	92.7	12214
Ho Municipal	91.3	8.7	5784
South Dayi	55.4	44.6	6683
Afadzato South	67.4	32.6	3465
North Dayi	47.3	52.7	7689
Kpando Municipal	62.3	37.7	6284
Hohoe Municipal	64.4	35.6	17669

District	No (%)	Yes (%)	Total
<b>Eastern</b>			
Birim South	52.5	47.5	12547
Birim Central Municipal	53.9	46.1	22684
Achiase	41.5	58.5	4419
Asene Manso Akroso	100.0	0.0	965
West Akim Municipal	39.3	60.7	4491
Upper West Akim	25.7	74.3	7676
Ayensuano	77.1	22.9	6289
Nsawam Adoagyiri Municipal	100.0	0.0	221
Akwapim South	65.2	34.8	6815
Akwapim North Municipal	56.9	43.1	5054
Okere	33.2	66.8	10516
New Juaben South Municipal	50.8	49.2	6615
New Juaben North	39.7	60.3	2949
Suhum Municipal	50.1	49.9	7793
Abuakwa North	38.0	62.0	24095
Abuakwa South	75.5	24.5	3248
Denkyembuor	50.1	49.9	17411
Akyemansa	16.7	83.3	15875
Kwaebibirem	55.0	45.0	3376
Birim North	54.1	45.9	1955
Atiwa West	77.7	22.3	3931
Atiwa East	12.9	87.1	3805
Fanteakwa South	46.3	53.7	4893
Yilo Krobo Municipal	55.8	44.2	4265
Lower Manya Krobo	0.0	100.0	407
Asuogyaman	74.6	25.4	390
Upper Manya Krobo	65.3	34.7	20260
Fanteakwa North	73.3	26.7	4915
Kwahu South	54.1	45.9	4142
Kwahu West Municipal	90.5	9.5	2480
Kwahu East	33.8	66.2	6774
Kwahu Afram Plains South	100.0	0.0	2270
Kwahu Afram Plains North	17.1	82.9	10788
<b>Ashanti</b>			
Amansie South	73.6	26.4	4585
Amansie Central	36.2	63.8	11960
Akrofrom	62.2	37.8	4100
Adansi South	56.3	43.7	9728
Adansi Asokwa	16.8	83.2	17791
Obuasi East	62.4	37.6	17626
Obuasi Municipal	66.2	33.8	27094
Adansi North	43.1	56.9	8797
Bekwai Municipal	47.8	52.2	8335

District	No (%)	Yes (%)	Total
Amansie West	54.3	45.7	1555
Atwima Kwanwoma	57.9	42.1	5980
Bosomtwi	55.7	44.3	3389
Bosome Freho	50.7	49.3	3883
Asante Akim Central Municipal	41.5	58.5	9635
Asante Akim South Municipal	88.4	11.6	7417
Asante Akim North	73.8	26.2	1519
Sekyere Kumawu	58.5	41.5	19105
Sekyere East	100.0	0.0	2475
Juaben Municipal	48.4	51.6	2677
Ejisu Municipal	71.4	28.6	1150
Oforikrom Municipal	81.4	18.6	5910
Asokwa Municipal	76.5	23.5	16720
KMA	62.4	37.6	16691
Kwadaso Municipal	34.1	65.9	6585
Suame Municipal	68.1	31.9	21587
Old Tafo Municipal	33.3	66.7	9430
Asokore Mampong Municipal	37.2	62.8	16230
Kwabre East Municipal	46.7	53.3	5181
Afigya Kwabre South	80.3	19.7	5390
Atwima Nwabiagya North	20.6	79.4	11948
Atwima Nwabiagya South Municipal	57.3	42.7	14200
Atwima Mponua	37.2	62.8	8340
Ahafo Ano South West	29.3	70.7	1681
Ahafo Ano North	88.0	12.0	10594
Ahafo Ano South East	35.2	64.8	22551
Offinso North	28.3	71.7	9010
Offinso Municipal	41.6	58.4	3226
Afigya Kwabre North	100.0	0.0	3849
Sekyere South	46.8	53.2	8015
Mampong Municipal	0	0	
Ejura Sekyedumase Municipal	53.6	46.4	5569
Sekyere Central	56.5	43.5	5134
Sekyere Afram Plains	16.5	83.5	8162
<b>Western North</b>			
Aowin Municipal	10.6	89.4	1760
Sefwi Akontombra	96.1	3.9	16925
Suaman	48.4	51.6	6353
Bodi	32.1	67.9	11396
Sefwi Wiawso	73.1	26.9	4269
Bibiani Ahwiaso Bekwai	26.9	73.1	3999
Juaboso	62.8	37.2	3610
Bia West	81.9	18.1	14622
Bia East	79.3	20.7	22785

District	No (%)	Yes (%)	Total
<b>Ahafo</b>			
Asunafo South	33.9	66.1	8808
Asunafo North	28.1	71.9	21216
Asutifi South	72.2	27.8	6049
Asutifi North	38.6	61.4	7773
Tano North	80.2	19.8	4314
Tano South	25.2	74.8	6679
<b>Bono</b>			
Dormaa West	48.0	52.0	19561
Dormaa Central Municipal	5.5	94.5	7984
Dormaa East	75.9	24.1	6397
Sunyani Municipal	0.0	100.0	1016
Sunyani West	18.5	81.5	959
Berekum East Municipal	51.4	48.6	15924
Berekum West	30.9	69.1	1659
Jaman South	65.0	35.0	4428
Jaman North	43.0	57.0	10499
Tain	57.8	42.2	14577
Wenchi Municipal	61.3	38.7	4570
Banda	31.8	68.2	4723
<b>Bono East</b>			
Nkoranza South	48.7	51.3	17247
Techiman Municipal	75.8	24.2	4479
Nkoranza North	56.0	44.0	5631
Techiman North	92.2	7.8	12693
Atebubu Amantin	31.9	68.1	2499
Sene West	54.8	45.2	25576
Sene East	42.3	57.7	11630
Pru West	78.3	21.7	19467
Pru East	81.4	18.6	1120
Kintampo South	62.9	37.1	13028
Kintampo North	20.3	79.7	17290
<b>Oti</b>			
Biakoye	100.0	0.0	519
Jasikan	37.3	62.7	2132
Kadjebi	70.5	29.5	7463
Krachi East	48.9	51.1	14371
Krachi West	22.8	77.2	4330
Krachi Nchumuru	50.6	49.4	24672
Nkwanta South	22.2	77.8	11818
Nkwanta North	76.0	24.0	11495
Kpandai	42.4	57.6	4243
<b>Northern</b>			
Nanumba South	71.1	28.9	2118

District	No (%)	Yes (%)	Total
Nanumba North	68.9	31.1	10921
Zabzugu	64.3	35.7	7086
Tatale	73.8	26.2	20167
Saboba	76.1	23.9	17943
Yendi Municipal	49.0	51.0	6520
Mion	19.8	80.2	13317
Nanton	26.2	73.8	20904
TMA_Tamale	61.4	38.6	7367
Sagnerigu Municipal	51.8	48.2	3523
Tolon	24.5	75.5	3355
Kumbungu	44.2	55.8	4782
Savelugu Municipal	21.6	78.4	21338
Karaga	11.9	88.1	3697
Gushiegu	61.1	38.9	1464
<b>Savannah</b>			
Bole	29.7	70.3	8538
Sawla Tuna Kalba	41.6	58.4	11642
North Gonja	54.0	46.0	9053
West Gonja	72.7	27.3	7018
Central Gonja	77.3	22.7	4793
East Gonja	44.1	55.9	5747
North East Gonja	34.2	65.8	2739
<b>North East</b>			
Mamprugu Moagduri	33.2	66.8	11983
West Mamprusi Municipal	30.5	69.5	31802
East Mamprusi Municipal	46.9	53.1	38846
Bunkpurugu Nakpanduri	60.7	39.3	17747
Yunyoo Nasuan	62.7	37.3	24187
Chereponi	46.7	53.3	7776
<b>Upper East</b>			
Builsa South	68.5	31.5	9566
Builsa North	75.0	25.0	3302
Kassena Nankana Municipal	74.2	25.8	4431
Kassena Nankana West	68.2	31.8	12486
Bolgatanga Municipal	35.4	64.6	6364
Talensi	43.4	56.6	8857
Bolgatanga East	24.7	75.3	8765
Bongo	23.3	76.7	21889
Nabdam	41.7	58.3	46369
Bawku West	44.9	55.1	20429
Bawku Municipal	48.3	51.7	8522
Garu	18.2	81.8	24957
Tempane	45.8	54.2	21005
Pusiga	63.5	36.5	8368

District	No (%)	Yes (%)	Total
<b>Upper West</b>			
Wa West	68.0	32.0	32559
Wa East	60.4	39.6	12160
Wa Municipal	11.1	88.9	4979
Nadowli-Kaleo	26.9	73.1	27184
Daffiama Bussie	80.8	19.2	5580
Sissala East	59.5	40.5	10447
Sissala West	56.6	43.4	9902
Jirapa	39.8	60.2	17523
Lawra	6.7	93.3	6651
Lambussie-Karni	28.4	71.6	15941
Nandom	66.7	33.3	21976
<b>National</b>	<b>48.6</b>	<b>51.4</b>	<b>2,644,327</b>

### APPENDIX 9: Prevalence of Food Insecurity, by Districts

Region/District	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
<b>Western</b>	2,214,660	3.0	2.1	7.3	87.6	5.1	113,169
Jomoro	199,725	0.6	0.2	2.1	97.1	0.8	1,618
Ellembelle	116,435	2.7	3.7	7.4	86.3	6.4	7,429
Nzema East	80,933	2.7	2.5	17.8	76.9	5.2	4,241
Ahanta West	141,344	0.0	0.0	3.7	96.3	0.0	-
Effia-Kwesimintim	309,514	0.0	0.0	1.2	98.8	0.0	-
<b>STMA</b>	435,009	3.5	0.3	9.4	86.8	3.8	16,487
Shama	109,087	2.3	1.6	13.9	82.2	4.0	4,309
Wassa East	107,849	4.4	8.2	8.1	79.3	12.7	13,643
Mpohor	57,103	20.3	1.7	11.9	66.1	22.0	12,580
Tarkwa Nsuaem	98,994	0.0	0.0	1.1	98.9	0.0	-
Prestea/Huni Valley	211,918	0.0	6.4	3.3	90.4	6.4	13,478
Wassa Amenfi East	111,036	2.2	3.8	8.0	86.1	5.9	6,551
Wassa Amenfi Central	91,790	0.0	1.0	4.2	94.8	1.0	945
<b>Central</b>	2,605,490	1.6	2.2	5.6	90.6	3.8	98,227
Wassa Amenfi West	122,573	0.0	1.7	3.3	95.0	1.7	2,084
Komenda Edina Eguafo Abirem Municipal	171,278	0.5	0.0	0.5	99.0	0.5	874
Cape	201,166	1.1	0.4	3.4	95.1	1.5	3,038
Abura Asebu Kwamankese	138,623	0.1	0.0	0.3	99.6	0.1	180
Mfantsoan Municipal	170,509	0.0	0.3	1.6	98.1	0.3	443
Ekumfi	61,747	7.1	1.6	12.7	78.6	8.7	5,372
Effutu Municipal	81,178	0.8	0.3	8.9	90.0	1.1	885

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Gomoa Central	164,304	0.9	0.4	2.7	96.1	1.3	2,103
Gomoa East	80,694	0.3	0.3	3.1	96.3	0.7	533
Awutu Senya East Municipal	128,332	0.8	0.5	3.3	95.4	1.3	1,707
Awutu Senya	102,772	0.7	0.9	4.0	94.4	1.6	1,655
Agona East	101,674	3.9	4.2	13.3	78.6	8.1	8,256
Agona West Municipal	136,443	5.3	4.0	28.9	61.8	9.3	12,716
Asikuma Odoben Brakwa	153,387	0.0	0.0	0.4	99.7	0.0	-
Ajumaku Enyan Essiam	163,250	2.2	4.3	4.7	88.8	6.6	10,693
Assin South	123,440	0.0	0.0	3.3	96.7	0.0	-
Twifo Herman Lower Denkyira	65,316	1.5	7.1	5.3	86.1	8.6	5,611
Twifo Ati Morkwa	73,119	6.8	13.6	10.7	69.0	20.4	14,887
Assin Fosu Municipal	90,637	0.6	0.2	3.4	95.8	0.8	752
Assin North	80,534	0.8	2.1	2.6	94.5	2.9	2,344
Upper Denkyira East Municipal	86,233	1.7	3.3	15.5	79.5	5.0	4,286
Upper Denkyira West	71,174	0.7	1.0	1.8	96.5	1.7	1,224
<b>Greater Accra Region</b>	5,055,883	2.4	1.1	7.0	89.6	3.5	174,934
Ga South Municipal	295,344	0.3	0.7	3.6	95.5	1.0	2,924
Weija Gbawe Municipal	241,629	2.6	0.0	6.1	91.3	2.6	6,258
Ga Central Municipal	147,820	0.6	0.4	7.3	91.6	1.0	1,537
Ablekuma North Municipal	232,877	2.6	0.0	5.8	91.6	2.6	5,985
Ablekuma West Municipal	75,254	2.1	0.2	11.8	85.9	2.3	1,738
Ablekuma Central	294,022	2.4	0.0	4.6	93.0	2.4	6,968
AMA	555,767	2.9	0.6	23.8	72.7	3.5	19,563
Korle Klotey Municipal	153,452	5.0	0.0	7.2	87.8	5.0	7,703

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Ayawaso East	105,546	0.3	0.0	1.8	97.9	0.3	317
Ayawaso North Municipal	125,789	0.5	0.0	2.9	96.6	0.5	566
La Dadekotopon Municipal	231,306	1.4	0.0	6.1	92.5	1.4	3,215
Ledzokuku Municipal	158,659	1.0	0.6	2.6	95.9	1.5	2,443
Krowor Municipal	128,675	0.8	0.0	2.0	97.2	0.8	1,042
Ayawaso West	89,225	0.8	0.2	4.2	94.7	1.0	928
Adentan Municipal	98,682	0.0	0.0	1.6	98.4	0.0	-
Okai Koi North	287,820	0.0	0.0	1.7	98.3	0.0	-
Ga North Municipal	131,129	1.4	0.0	4.3	94.2	1.4	1,875
Ga West Municipal	127,841	4.0	1.4	22.0	72.6	5.4	6,916
Ga East	186,342	0.8	2.4	1.4	95.4	3.2	5,963
La Nkwantanan- Madina Municipal	141,124	0.7	0.0	5.6	93.8	0.7	988
Kpone Katamanso Municipal	138,529	0.0	0.0	0.9	99.1	0.0	-
Ashaiman Municipal	240,841	0.0	0.0	2.6	97.4	0.0	-
Tema West Municipal	212,926	3.2	0.0	10.8	86.0	3.2	6,707
Tema Metro	74,116	0.4	0.1	2.8	96.6	0.6	408
Ningo Prampram	89,387	4.0	1.9	10.8	83.4	5.8	5,184
Shai Osudoku	65,461	2.2	2.4	1.2	94.2	4.6	3,037
Ada West	74,544	14.2	16.8	13.7	55.3	31.0	23,101
Ada East	90,336	7.4	0.0	5.6	86.9	7.4	6,721
<b>Volta</b>	<b>1,907,679</b>	<b>5.9</b>	<b>4.1</b>	<b>8.0</b>	<b>82.1</b>	<b>10.0</b>	<b>189,814</b>
South Tongu	110,777	0.3	0.2	0.7	98.9	0.4	465
Anloga	104,262	0.6	2.9	4.8	91.6	3.5	3,691
Keta Municipal	81,810	2.6	3.3	8.2	85.9	5.9	4,794

	(1) Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Ketu North	125,956	1.2	5.0	4.7	89.2	6.2	7,771
Akatsi North	37,517	14.2	11.8	11.8	62.2	26.0	9,758
Akatsi South	124,357	7.1	2.1	13.2	77.7	9.1	11,354
Central Tongu	74,908	2.9	7.1	3.4	86.7	10.0	7,476
North Tongu	113,245	0.9	6.5	6.5	86.2	7.4	8,369
Ho-West	119,389	3.0	3.3	5.9	87.8	6.3	7,569
Adaklu	45,962	8.2	7.7	18.1	65.9	16.0	7,336
Agortime Ziope	35,360	2.0	5.3	5.9	86.8	7.3	2,588
Ho Municipal	223,614	7.5	2.5	15.3	74.7	10.0	22,317
South Dayi	58,863	7.6	10.3	8.0	74.2	17.9	10,507
Afadzato South	120,004	5.4	6.2	8.6	79.8	11.6	13,908
North Dayi	50,321	0.0	1.3	2.2	96.5	1.3	659
Kpando Municipal	67,831	17.4	5.9	17.2	59.6	23.3	15,784
Hohoe Municipal	210,769	1.4	0.7	5.5	92.4	2.1	4,363
<b>Eastern</b>	<b>3,318,853</b>	<b>3.8</b>	<b>4.1</b>	<b>9.1</b>	<b>83.1</b>	<b>7.9</b>	<b>261,526</b>
Birim South	58,672	6.0	4.8	8.9	80.3	10.8	6,342
Birim Central Municipal	85,689	3.6	5.5	20.2	70.7	9.1	7,806
Achiase	92,276	11.8	6.8	20.2	61.3	18.6	17,136
Asene Manso Akroso	96,888	3.1	3.3	13.2	80.4	6.4	6,201
West Akim Municipal	136,492	3.2	2.7	10.1	84.0	5.9	8,053
Upper West Akim	109,722	1.1	5.1	3.9	89.9	6.2	6,847
Ayensuano	97,300	8.1	19.6	12.1	60.2	27.7	26,923
Nsawam Adoagyiri Municipal	108,400	0.7	0.0	25.4	73.9	0.7	780
Akwapim South	47,265	1.4	7.1	12.2	79.4	8.5	4,003

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Okere	76,512	3.3	5.7	2.1	88.9	9.0	6,848
New Juaben South Municipal	157,534	0.2	1.0	10.5	88.2	1.3	1,969
New Juaben North	74,025	5.3	2.7	12.0	80.0	8.0	5,922
Suhum Municipal	113,885	4.6	4.1	6.0	85.3	8.7	9,897
Abuakwa North	112,856	7.0	2.3	11.4	79.3	9.3	10,507
Abuakwa South	98,756	4.3	4.3	3.4	88.0	8.6	8,523
Denkyembuor	99,374	0.7	0.0	1.3	98.0	0.7	666
Akyemansa	122,734	0.1	0.3	0.4	99.2	0.4	479
Kwaebibirem	143,336	1.9	0.4	5.3	92.4	2.3	3,297
Birim North	99,464	2.6	6.5	8.7	82.2	9.1	9,061
Atiwa West	76,871	17.0	4.2	12.1	66.8	21.2	16,274
Atiwa East	62,563	2.8	0.4	4.9	92.0	3.2	1,983
Fanteakwa South	61,994	3.4	5.0	5.2	86.4	8.4	5,183
Yilo Krobo Municipal	110,715	1.5	6.2	2.4	89.9	7.7	8,525
Lower Manya Krobo	112,464	0.6	0.0	8.4	91.0	0.6	720
Asuogyaman	123,568	3.3	3.3	6.1	87.2	6.7	8,242
Upper Manya Krobo	90,877	1.2	3.8	5.4	89.6	5.1	4,598
Fanteakwa North	74,911	5.9	3.5	11.0	79.7	9.3	6,982
Kwahu South	87,912	14.8	2.4	25.2	57.6	17.2	15,121
Kwahu West Municipal	117,945	1.1	5.0	9.8	84.1	6.1	7,242
Kwahu East	97,208	1.0	0.3	1.1	97.7	1.2	1,186
Kwahu Afram Plains South	146,026	2.2	4.7	3.4	89.7	6.9	10,076
Kwahu Afram Plains North	129,135	8.3	13.3	3.9	74.5	21.6	27,867
Amanzie South	74,666	0.2	2.1	5.9	91.8	2.3	1,702

	(1) Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
<b>Ashanti</b>	5,924,498	3.1	3.2	7.0	86.8	6.2	369,096
Akrofrom	92,804	2.2	7.5	3.9	86.4	9.7	9,002
Adansi South	50,268	0.4	2.5	0.0	97.0	3.0	1,488
Adansi Asokwa	83,243	4.7	1.9	13.2	80.2	6.6	5,469
Obuasi East	94,182	3.0	3.6	5.1	88.3	6.6	6,207
Obuasi Municipal	114,795	1.6	3.1	14.2	81.2	4.6	5,292
Adansi North	49,522	2.1	3.1	7.9	87.0	5.2	2,565
Bekwai Municipal	146,213	4.2	5.8	9.8	80.3	9.9	14,475
Amansie West	91,905	3.1	14.9	9.7	72.3	18.0	16,534
Atwima Kwanwoma	112,321	4.7	3.3	15.8	76.2	8.0	9,019
Bosomtwi	116,360	0.8	3.5	9.0	86.7	4.3	5,015
Bosome Freho	74,870	1.6	2.7	5.4	90.3	4.3	3,212
Asante Akim Central Municipal	88,597	2.5	1.5	9.8	86.2	4.1	3,588
Asante Akim South Municipal	145,349	4.1	10.3	8.1	77.5	14.4	20,930
Asante Akim North	85,753	2.9	6.8	7.1	83.2	9.8	8,369
Sekyerere Kumawu	81,029	4.5	6.0	8.4	81.2	10.4	8,459
Sekyerere East	77,030	0.6	1.6	1.4	96.4	2.2	1,679
Juaben Municipal	59,915	0.7	2.0	5.7	91.7	2.6	1,582
Ejisu Municipal	118,217	1.1	2.0	6.3	90.6	3.1	3,641
Oforikrom Municipal	375,651	4.2	0.3	15.1	80.4	4.5	16,829
Asokwa Municipal	173,665	0.0	0.0	0.0	100.0	0.0	-
KMA	902,724	2.2	0.3	5.6	91.9	2.5	22,658
Kwadaso Municipal	311,242	1.5	0.3	7.6	90.6	1.8	5,447
Suame Municipal	199,706	0.5	0.0	6.3	93.2	0.5	1,038

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Asokore Mampong Municipal	377,697	0.7	0.0	5.1	94.2	0.7	2,568
Kwabre East Municipal	143,180	0.0	0.0	0.6	99.4	0.0	-
Afigya Kwabre South	117,179	5.1	0.9	10.5	83.5	6.0	6,984
Atwima Nwabiagya North	78,113	1.5	0.7	5.9	91.9	2.2	1,742
Atwima Nwabiagya South Municipal	106,569	3.0	1.2	10.2	85.7	4.2	4,455
Atwima Mponua	147,829	11.9	1.9	8.2	78.0	13.7	20,312
Ahafo Ano South West	77,760	6.5	3.3	6.0	84.3	9.7	7,574
Ahafo Ano North	116,936	7.8	3.5	3.0	85.7	11.3	13,214
Ahafo Ano South East	73,121	5.8	9.4	8.0	76.8	15.2	11,085
Offinso North	70,522	0.0	0.0	2.3	97.7	0.0	-
Offinso Municipal	95,292	9.7	5.5	12.9	71.9	15.2	14,475
Afigya Kwabre North	51,560	0.0	0.2	2.2	97.6	0.2	88
Sekyerere South	116,477	1.6	0.1	2.3	96.0	1.8	2,050
Mampong Municipal	109,125	0.0	3.4	5.0	91.6	3.4	3,721
Ejura Sekyedumase Municipal	105,952	0.8	5.5	8.0	85.6	6.4	6,739
Sekyerere Central	88,307	7.0	9.4	2.1	81.5	16.4	14,474
Sekyerere Afram Plains	35,416	13.0	18.1	4.6	64.3	31.1	11,025
<b>Western North</b>	<b>949,094</b>	<b>7.0</b>	<b>6.2</b>	<b>9.6</b>	<b>77.3</b>	<b>13.2</b>	<b>124,806</b>
Aowin Municipal	157,159	0.2	4.1	6.4	89.3	4.3	6,726
Sefwi Akontombra	109,868	6.3	7.5	12.1	74.1	13.8	15,151
Suaman	27,370	12.6	14.3	10.2	62.9	26.9	7,368
Bodi	71,133	3.4	10.7	11.0	75.0	14.0	9,966
Sefwi Wiawso	185,826	13.8	6.2	22.4	57.6	20.0	37,240
Bibiiani Ahwiaso Bekwai	164,652	11.4	7.0	17.6	64.0	18.4	30,263
Bia West	118,618	5.3	5.4	7.3	82.0	10.7	12,740

	(1) Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Bia East	36,505	0.0	1.1	0.3	98.6	1.1	398
<b>Ahafo</b>	613,049	9.1	8.2	6.7	75.9	17.3	106,303
Asunafo South	120,976	25.6	5.6	6.3	62.5	31.2	37,745
Asunafo North	157,870	4.1	13.5	12.6	69.8	17.6	27,785
Asutifi South	67,763	28.0	2.7	3.0	66.3	30.6	20,763
Asutifi North	66,141	0.7	6.7	1.8	90.8	7.4	4,901
Tano North	281,619	1.1	12.4	3.6	83.0	13.5	37,878
Tano South	101,305	2.4	6.3	15.9	75.4	8.7	8,793
<b>Bono</b>	1,168,807	6.2	6.0	9.2	78.6	12.2	142,594
Dormaa West	60,467	4.8	1.5	14.0	79.7	6.3	3,828
Dormaa Central Municipal	141,999	6.7	3.3	13.9	76.1	10.0	14,143
Dormaa East	64,419	11.2	5.0	13.9	69.8	16.2	10,455
Sunyani Municipal	156,186	1.9	2.2	3.2	92.7	4.1	6,404
Sunyani West	108,031	12.4	5.3	9.8	72.5	17.7	19,111
Berekum East Municipal	117,537	1.0	0.8	0.0	98.3	1.7	1,998
Berekum West	46,564	0.2	0.0	4.7	95.1	0.2	79
Jaman South	117,315	26.8	18.7	11.0	43.4	45.6	53,449
Jaman North	105,210	3.3	14.5	22.9	59.3	17.7	18,664
Tain	111,650	1.0	4.1	2.7	92.2	5.1	5,694
Wenchi Municipal	113,712	3.9	6.7	3.4	86.0	10.6	12,042
Banda	25,717	6.8	16.2	7.2	69.8	23.0	5,915
<b>Bono East</b>	1,133,768	6.2	10.5	8.0	75.3	16.7	189,566
Nkoranza South	126,593	0.1	0.0	0.2	99.7	0.1	165
Nkoranza North	82,622	3.4	4.6	1.6	90.5	8.0	6,577
Techiman North	185,450	7.6	5.1	22.7	64.7	12.6	23,422

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Atebubu Amantin	132,818	10.0	17.7	11.0	61.3	27.6	36,711
Sene West	72,383	10.9	18.9	5.2	65.0	29.8	21,570
Sene East	76,506	13.9	24.0	12.1	50.1	37.9	28,973
Pru West	70,746	2.5	10.4	5.0	82.1	12.8	9,070
Pru East	91,278	1.9	2.5	5.1	90.5	4.4	4,053
Kintampo South	101,494	7.3	20.2	6.5	66.0	27.5	27,931
Kintampo North	119,762	6.8	8.9	9.0	75.3	15.7	18,755
<b>Oti</b>	<b>759,799</b>	<b>3.4</b>	<b>4.6</b>	<b>2.9</b>	<b>89.1</b>	<b>8.0</b>	<b>60,860</b>
Biakoye	82,677	19.9	12.7	8.7	58.8	32.5	26,887
Jasikan	74,281	4.8	5.4	4.2	85.6	10.2	7,577
Kadjebi	74,386	3.5	0.5	2.0	94.1	4.0	2,953
Krachi East	146,402	1.3	6.5	2.7	89.5	7.8	11,434
Krachi West	61,960	0.4	0.4	0.4	98.9	0.7	459
Krachi Nchumuru	91,179	2.8	5.4	1.6	90.2	8.2	7,486
Nkwanta South	147,927	1.8	4.6	2.5	91.1	6.4	9,408
Nkwanta North	80,987	2.5	4.1	4.6	88.8	6.6	5,329
<b>Northern</b>	<b>1,948,913</b>	<b>13.2</b>	<b>17.5</b>	<b>6.6</b>	<b>62.7</b>	<b>30.7</b>	<b>598,706</b>
Kpandai	137,249	15.3	6.7	8.6	69.4	22.0	30,236
Nanumba South	117,895	8.0	7.0	8.4	76.6	15.0	17,625
Nanumba North	178,608	10.9	19.1	9.4	60.7	30.0	53,565
Zabzugu	80,507	0.8	13.8	2.0	83.4	14.6	11,730
Tatale	120,344	37.7	30.7	8.6	23.0	68.4	82,303
Yendi Municipal	148,567	9.5	12.1	3.4	74.9	21.6	32,150
Mion	103,202	10.0	29.5	0.7	59.8	39.5	40,796
Nanton	58,754	18.4	33.7	11.2	36.7	52.1	30,617

	(1) Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
TMA_Tamale	89,155	13.5	6.3	11.0	69.2	19.8	17,671
Sagnerigu Municipal	186,796	1.0	5.1	3.0	91.0	6.0	11,226
Tolon	92,072	11.5	24.4	4.6	59.5	35.9	33,054
Kumbungu	49,626	26.8	34.5	5.2	33.6	61.2	30,376
Savelugu Municipal	116,975	3.5	11.8	12.1	72.5	15.3	17,944
Karaga	98,046	48.4	27.5	1.5	22.6	75.9	74,446
Gushiegu	140,368	17.4	14.5	5.5	62.6	31.9	44,749
<b>Savannah</b>	594,712	9.1	13.5	6.4	71.0	22.7	134,702
Bole	78,010	1.6	4.3	7.6	86.6	5.9	4,571
Sawla Tuna Kalba	126,569	9.9	30.2	7.0	52.9	40.1	50,742
North Gonja	55,169	1.6	18.1	3.7	76.6	19.7	10,857
West Gonja	52,160	8.5	15.0	12.2	64.3	23.6	12,284
Central Gonja	111,318	9.7	10.5	1.1	78.7	20.2	22,520
East Gonja	153,225	32.9	18.1	12.0	37.0	51.0	78,206
North East Gonja	37,681	1.2	2.2	0.9	95.7	3.4	1,277
<b>North East</b>	588,800	9.7	23.3	4.5	62.5	33.0	194,481
Mamprugu Moagduri	59,378	44.5	10.1	0.9	44.5	54.6	32,444
West Mamprusi Municipal	153,361	4.1	15.5	4.3	76.0	19.7	30,151
East Mamprusi Municipal	133,805	2.4	24.2	10.2	63.2	26.6	35,632
Bunkpurugu Nakpanduri	88,365	12.5	22.2	2.8	62.6	34.7	30,636
Yunyoo Nasuan	66,862	1.3	8.0	0.0	90.8	9.2	6,178
<b>Upper East</b>	1,302,718	19.4	29.3	5.2	46.1	48.7	634,293
Builisa South	45,469	28.1	46.5	1.6	23.9	74.5	33,879
Builisa North	70,321	27.9	25.3	3.2	43.6	53.2	37,418
Kassena Nankana Municipal	136,875	14.5	25.2	2.6	57.8	39.7	54,285

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food Secure %	(5) Food Secure %	Food Insecure (2+3) %	Food Insecure Population
Kassena Nankana West	87,987	36.6	42.1	5.3	15.9	78.8	69,307
Bolgatanga Municipal	128,548	13.9	16.9	15.2	54.0	30.8	39,631
Talensi	101,132	2.8	25.0	4.3	67.9	27.9	28,175
Bolgatanga East	35,168	41.9	24.3	11.0	22.7	66.3	23,299
Bongo	105,206	25.5	31.8	4.5	38.2	57.3	60,273
Nabdam	42,126	4.3	27.2	2.7	65.9	31.4	13,240
Bawku West	117,036	15.5	27.4	5.0	52.1	42.9	50,255
Binduri	76,641	26.0	29.1	5.8	39.1	55.1	42,229
Bawku Municipal	122,641	6.7	18.1	10.5	64.7	24.8	30,366
Garu	72,634	8.9	32.0	4.6	54.5	40.8	29,656
Tempane	156,134	26.4	32.8	0.9	39.9	59.2	92,431
Pusiga	71,779	12.3	34.1	1.4	52.1	46.4	33,327
<b>Upper West</b>	<b>868,479</b>	<b>5.2</b>	<b>17.6</b>	<b>2.7</b>	<b>74.6</b>	<b>22.8</b>	<b>197,840</b>
Wa West	100,644	8.8	34.8	0.6	55.8	43.6	43,901
Wa East	89,194	2.3	16.4	0.1	81.2	18.7	16,661
Wa Municipal	132,646	0.6	1.8	2.1	95.4	2.5	3,250
Nadowli-Kaleo	76,114	0.4	11.1	1.0	87.5	11.5	8,761
Daffiama Bussie	40,606	6.5	13.7	1.5	78.3	20.2	8,206
Sissala East	69,923	8.8	8.4	8.8	74.0	17.2	12,020
Sissala West	61,322	2.1	24.8	6.9	66.2	26.9	16,502
Jirapa	109,308	12.8	48.2	0.9	38.1	61.0	66,634
Lawra	67,886	4.0	16.9	3.1	76.0	20.9	14,181
Lambussie-Karni	63,889	1.0	20.0	2.4	76.6	21.0	13,410
Nandom	56,947	12.9	11.4	2.4	73.5	24.2	13,781
<b>National</b>	<b>30,955,202</b>	<b>5.2</b>	<b>6.5</b>	<b>7.0</b>	<b>81.4</b>	<b>11.7</b>	<b>3,606,281</b>

## APPENDIX 10: Prevalence of Food Insecurity, by Region

	(1) 2020 Projected Population (N)	(2) Severely Food Insecure %	(3) Moderately Food Insecure %	(4) Mildly Food secure %	(5) Food Secure %	Food Insecure Food Insecure (2+3) %	Population
Upper East	1,302,718	19.4	29.3	5.2	46.1	48.69	634,293
North East	588,800	9.7	23.3	4.5	62.5	33.03	194,481
Northern	1,948,913	13.2	17.5	6.6	62.7	30.72	598,706
Upper West	868,479	5.2	17.6	2.7	74.6	22.78	197,840
Savannah	594,712	9.1	13.5	6.4	71	22.65	134,702
Ahafo	613,049	9.1	8.2	6.7	75.9	17.34	106,303
Bono East	1,133,768	6.2	10.5	8	75.3	16.72	189,566
Western North	949,094	7.0	6.2	9.6	77.3	13.15	124,806
Bono	1,168,807	6.2	6	9.2	78.6	12.2	142,594
Volta	1,907,679	5.9	4.1	8	82.1	9.96	189,814
Oti	759,799	3.4	4.6	2.9	89.1	8.02	60,860
Eastern	3,318,853	3.8	4.1	9.1	83.1	7.88	261,526
Ashanti	5,924,498	3.1	3.2	7	86.8	6.23	369,096
Western	2,214,660	3	2.1	7.3	87.6	5.1	113,169
Central	2,605,490	1.6	2.2	5.6	90.6	3.77	98,227
Greater Accra Region	5,055,883	2.4	1.1	7	89.6	3.46	174,934
<b>National</b>	<b>30,955,202</b>	<b>5.2</b>	<b>6.5</b>	<b>7</b>	<b>81.4</b>	<b>11.7</b>	<b>3,606,281</b>



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