

Impact Evaluation of the Millennium
Development Authority
(MiDA) Program

**Report of the Baseline Survey
(GLSS 5+)**

FINAL DRAFT

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Table of Contents

List of Tables	4
List of Figures	9
1. Introduction.....	1
1.1 Background	1
1.2 Objectives and Questionnaires	1
1.3 Sample Design and Organization of Survey	2
1.4 Data Processing	4
2. Demographic Characteristics	5
2.1 Introduction.....	5
2.2 Household Composition	5
2.3 Proportion of Households Heads, by Sex and Locality	6
2.4 Average Age of Household Heads, by Locality and Sex	9
2.5 Households by Adult Composition, MiDA Zone and Presence of Children	9
2.6 Distribution of Households, by Presence of Parent and Locality	12
2.7 Age and Sex Distribution of the Population	13
2.8 Marital status and age at first marriage.....	14
2.9 Mean Age at First Marriage, by MiDA Zone, Sex and Locality	15
2.10 Nationality, Ethnicity and Religion.....	16
3. Education	22
3.1 Introduction.....	22
3.2 Educational Attainment	22
3.3 Attendance Rate	24
3.4 Educational Expenses.....	25
3.5 Adult Literacy.....	27
3.6 Apprenticeship Training	30
4. Health	33
4.1 Introduction.....	33
4.2 Health condition in the two weeks preceding the interview	33
4.3 Fertility, pre-natal care and contraceptive use	41
4.4 Child Health.....	46
4.5 HIV/AIDS Awareness	49
4.6 Health Insurance	50
5. Employment	53
5.1 Introduction.....	53
5.2 Economic Activities	53
5.3 Employment and working conditions	57
5.4 Unemployment and Underemployment	68
5.5 Working children	70
5.6 Housekeeping activities	74
6. Migration.....	82
6.1 Migration patterns	82
6.2 Migration Status, by Locality, District and MiDA Zone	82
6.3 Sex and Age Differentials in Migration	84
7. Land	91
7.1 Introduction.....	91
7.2 Land Size	91

7.3	Land Value	93
7.4	Sources of Land	94
7.5	Land Disputes	96
7.6	Land Acquisition	97
7.7	Land Acquisition Arrangements by Owners and Users of Land	98
7.8	Availability of Water for Land Users	99
8.	Household Agriculture	102
8.1	Agricultural activities and assets	102
8.2	Harvesting and disposal of crops	108
8.3	Other agricultural income	118
8.4	Seasonal patterns	119
8.5	Agricultural inputs	125
8.6	Home processing of agricultural produce	126
8.7	Home consumption of own produce	128
9.	Non-Farm Enterprises	132
9.1	Characteristics of non-farm enterprises	132
9.2	People Engaged in Non-Farm Enterprises	139
9.3	Expenditure on Inputs of Non-Farm Enterprises	140
9.4	Revenue of Non-Farm Enterprises	145
10.	Housing	147
10.1	Introduction	147
10.2	Type of Dwelling	147
10.3	Room Occupancy and Housing Density	151
10.4	Housing Conditions	156
10.5	Main Source of Water Supply	159
10.6	Water Operation and Management	165
10.7	Provision of Basic Utilities	166
10.8	Toilet Facilities	171
11	Baseline Poverty Profile	173
11.1	Introduction	173
11.2	Standard of living measure	174
11.3	Poverty line	174
11.4	Poverty levels in MiDA intervention zones – baseline	175
	References	178
	Appendix A: Sampling and Computation of Weights	179
	Appendix B: Supplementary Tables	181

List of Tables

Table 1.1:	Distribution of the enumeration areas, by region and MiDA Zone	3
Table 2.1:	Mean household size, estimated number of households and population in households, by MiDA Zone and locality	5
Table 2.2:	Average age of household head, by sex, MiDA Zone and locality (%).....	9
Table 2.3:	Distribution of households, by adult composition, MiDA Zone and presence of children (%)	10
Table 2.4:	Distribution of households, by adult composition, locality and presence of children (%) ...	10
Table 2.5:	Distribution of households, by district, adult composition and presence of children (%)	11
Table 2.6:	Proportion of children under 18 years, by presence of parent, MiDA Zone and locality (%)	12
Table 2.7:	Age Distribution of population, by MiDA Zone and sex (%)	13
Table 2.8:	Age distribution of population, by locality and sex (%).....	14
Table 2.9:	Distribution of the population (18 years and above), by marital status, MiDA Zone and locality (%).....	15
Table 2.10:	Mean age of population at first marriage, by sex and locality (years).....	16
Table 2.11:	Percentage Distribution of Population, by Nationality, Sex and MiDA Zones.....	16
Table 2.12:	Population, by nationality and sex (%)	17
Table 2.13:	Household heads, by ethnicity and MiDA Zone locality (%)	17
Table 2.14:	Household heads, by district and ethnicity.....	19
Table 2.15:	Household heads, by religious affiliation and MiDA Zone and locality (%).....	20
Table 2.16:	Distribution of household heads, by religious affiliation, district and MiDA Zone (%).....	21
Table 3.1:	Population aged 15 years and older, by educational attainment and sex (%).....	22
Table 3.2:	Population aged 15 years and older, by educational attainment and MiDA Zone (%)	23
Table 3.3:	Gross enrolment in the last 12 months, by sex and locality (%)	24
Table 3.4:	Gross enrolment in the last 12 months in MiDA Zones, by sex and locality (%)	25
Table 3.5:	Average household expenditure per member attending school/college in the last 12 months, by locality (GH¢).....	25
Table 3.6:	Education expenses at various levels in the last 12 months, by locality (GH¢).....	26
Table 3.7:	Adults who can read in English or a Local Language, by sex and locality (%).....	27
Table 3.8:	Adults who can read and at the same time write in English or a Local Language, by Sex and Locality (%)	28
Table 3.9:	Adult numeracy rates (adults who are able to do written calculations), by sex and locality (%).....	29
Table 3.10:	Adult literacy rates (literacy in English only/local language only/both English & local language), by sex and locality (%)	30
Table 3.11:	Apprentices 15 years and over, by main trades learnt, sex and locality (%)	31
Table 3.12:	Average length of apprenticeship training of population 15 years and older, by main trade learnt, sex and locality (months)	32
Table 4.1:	People suffering from an illness or injury during the previous two weeks, by mida zone, age group and sex (%).....	34
Table 4.2:	Proportion of people suffering from an illness or injury who had to stop their usual activity two weeks preceding the interview, by mida zone, age group and sex (percent)	34
Table 4.3:	Proportion of people suffering from an illness or injury who had to stop their usual activity two weeks preceding the interview, by locality, age group and sex (%).....	35
Table 4.4:	Proportion of people who reported ill and consulted health practitioner during the previous two weeks, by age group, mida zone and sex (%)	35
Table 4.5:	People who reported ill and consulted a Health Practitioner in the two weeks preceding interview, by Health Practitioner consulted, MiDA Zone, and sex (%)	36
Table 4.6:	People who reported ill and consulted a health practitioner in the two weeks preceding interview, by health practitioner consulted, locality and sex (%).....	37
Table 4.7:	People who reported ill and consulted a health practitioner in the two weeks preceding interview, by reason for medical consultation, mida zone and sex (%)	37
Table 4.8:	People who reported ill and consulted a health practitioner in the two weeks preceding interview, by reason for medical consultation, locality and sex (%).....	38

Table 4.9:	People who reported ill and underwent medical consultation, by type of facility, mida zone and sex (%)	38
Table 4.10:	Average consultation fees and medicines paid (excluding those who paid nothing), by mida zone and sex (GH¢)	39
Table 4.11:	Average consultation fees and medicines paid (excluding those who paid nothing), by locality and sex (GH¢)	40
Table 4.12:	People who reported ill in the two weeks preceding interview, by financier of medical expenses, mida zone and sex (%)	40
Table 4.13:	People who reported ill in the two weeks preceding interview, by financier of medical expenses, locality and sex (%)	41
Table 4.14:	Pregnancy status of women aged 15-49 years, by locality and age group (%)	41
Table 4.15:	Proportion of Pregnancies in the Last 12 Months Not Resulting In a Live Birth, by Age of Woman and Locality (%)	42
Table 4.16:	Women aged 15-49 years currently pregnant or pregnant during the last 12 months who received pre-natal care, by age and mida zone (%)	43
Table 4.17:	Women aged 12-49 years (or their partners) who are using any contraceptive method to prevent or delay pregnancy, by age and mida zone (%)	44
Table 3.18:	Women aged 12-49 years (or their partners) using any contraceptive method to prevent or delay pregnancy, by age and mida zone (%)	44
Table 4.19:	Women aged 12-49 years (or their partners), by age group and contraceptive method used (%)	45
Table 4.20:	Women aged 12-49 years who used contraceptives, by amount paid and MiDA Zone (%)	46
Table 4.21:	Children aged 5 years and younger who have not been vaccinated, by age of child and MiDA Zone (%)	47
Table 4.22:	Amount paid in GH¢ for vaccination and/or child welfare consultation, by MiDA Zone (%)	48
Table 4.23:	Amount paid in GH¢ for vaccination and/or child welfare consultation, by locality (%)	48
Table 4.24:	Children aged 2-5 years, by locality, age of child and age in months at weaning (%)	49
Table 4.25:	Persons who know that a healthy-looking person may have HIV/AIDS, by locality and MiDA Zone (%)	49
Table 4.26:	Coverage rate of health insurance, by locality, MiDA Zone and sex (%)	50
Table 4.27:	People who are not covered by health insurance, by reason for not registering, locality, MiDA Zone and sex (%)	51
Table 4.28:	People with health insurance coverage, by type of scheme, locality, MiDA Zone and sex (%)	51
Table 4.29:	Expected benefits of scheme, by locality, MiDA Zone and sex (%)	52
Table 5.1:	Currently economically active population and activity rates, by age group, locality and sex	54
Table 5.2:	Current activity rate, by sex, age group and locality (%)	54
Table 5.3:	Current Activity Rate, by Sex, Age Group and MiDA Zone (%)	55
Table 5.4:	Employment status of the currently employed population aged 15 years and older, by sex and locality (%)	56
Table 5.5:	Employment status of the currently employed population aged 15 years and older, by sex and MiDA Zone (%)	56
Table 5.6:	Type of employer for the currently employed population aged 15-64 years, by locality and sex (%)	57
Table 5.7:	Type of employer for the currently employed population aged 15-64 years, by MiDA Zone and sex (%)	58
Table 5.8:	Main occupation of the currently employed population aged 15-64 years, by locality and sex (%)	58
Table 5.9:	Main occupation of the currently employed population aged 15-64 years, by MiDA Zone and sex (%)	59
Table 5.10:	Distribution of the currently employed population aged 15-64 years, by industry group, locality and sex (%)	60
Table 5.11:	Distribution of the currently employed population aged 15-64 years, by industry group, MiDA Zone and sex (%)	60

Table 5.12:	Hours worked per week, by main occupation of currently employed population aged 15 years and older (%).....	62
Table 5.13:	Hours worked per week, by main occupation of currently employed population aged 15 years and older (%).....	63
Table 5.15:	Hours worked per week on main job, by industry of currently employed population aged 15 years and older (%).....	64
Table 5.16:	Hours worked per week on main job, by industry of currently employed population aged 15 years and older (%).....	66
Table 5.17:	Employees with contracts, unions, tax deductions and employee benefits, by sex (%).....	68
Table 5.18:	Unemployment rates, by sex, age and locality (%).....	69
Table 5.19:	Unemployment Rates, by Sex, Age and MiDA Zone (%)	69
Table 5.20:	Currently employed children aged 7-14 years, by type of work, locality and sex (%)	72
Table 5.21:	Currently Employed Children Aged 7-14 Years, by Type of Work, Locality and Sex (%) ..	72
Table 5.22:	Hours worked per week, by industry of currently employed children aged 7-14 years and older (%).....	73
Table 5.23:	Hours worked per week, by industry of currently employed children aged 7-14 years and older (%).....	74
Table 5.24:	Average time spent (minutes) on various housekeeping activities while caring for children, by population aged 7 years and older, by sex and locality	75
Table 5.25:	Average time spent (minutes) on various housekeeping activities while not taking care of children, by population aged 7 years and older, by sex and locality	76
Table 5.26:	Average time spent (minutes) per last 7 days on various housekeeping activities of population aged 7 years and older, by sex and MiDA Zones while caring for children	77
Table 5.27:	Average time spent (minutes) per last 7 days on various housekeeping activities of population aged 7 years and older, by sex and MiDA Zone while not taking care of children	79
Table 5.28:	Average time spent (minutes) in the last 7 days on various housekeeping activities of population aged 7 years and older, by age and sex, while caring for children	80
Table 5.29:	Average time spent (minutes) in the last 7 days on various housekeeping activities of population aged 7 years and older, by age and sex, while not taking care of children	81
Table 6.1:	Extent of migration of population aged 7 years and older, by sex, locality and MiDA Zone (%)	82
Table 6.2:	Migration status, by locality and MiDA Zone (%)	83
Table 6.3:	Migration status, by district (%)	83
Table 6.4:	Migration status, by age and sex (%).....	85
Table 6.5:	Migration status, by age and sex in urban areas (%).....	85
Table 6.6:	Migration status, by age and sex in rural areas (%).....	86
Table 6.7:	Migration status, by age and sex in the Northern MiDA Zone (%).....	87
Table 6.8:	Migration status, by age and sex in Afram Basin MiDA Zone (%)	87
Table 6.9:	Migration status, by age and sex in Southern MiDA Zone (%)	88
Table 6.10:	Migrants, by Current MiDA Zone, Locality and Reasons for Most Recent Migration (%)...	89
Table 6.11:	Migrants, by current district and reasons for most recent migration	90
Table 7.1:	Units Conversions	92
Table 7.2:	Popular units of land measurement in MiDA Zones (%)	92
Table 7.3:	Size of land owned or used by household members in MiDA Zones	93
Table 7.4:	Major sources of land in MiDA Zones (%)	96
Table 7.5:	Land acquisition arrangements, by source and locality (%)	99
Table 7.6:	Land Watered From Source Other Than Rain Water, by Locality (%).....	101
Table 8.1.1:	Percentage and estimated number of households reporting agriculture as main or secondary occupation by MiDA Zone and locality	102
Table 8.1.2:	Proportion and estimated number of households reporting agriculture as main or secondary occupation, by district and locality.....	103
Table 8.1.3:	Percentage of women engaged in agricultural activities by district and locality	104
Table 8.1.4:	Estimated number of households raising different livestock, number of livestock and estimated value, sales and purchases of livestock.....	105
Table 8.1.5:	Percentage of households raising livestock, by district and locality	105

Table 8.1.6:	Proportion of households raising livestock, by MiDA zone and locality (%)	106
Table 8.1.7:	Estimated number of households raising livestock, by locality	107
Table 8.1.8:	Estimated number of households raising livestock, by MiDA zone	107
Table 8.1.9:	Distribution of livestock, by locality.....	108
Table 8.2.1:	Estimated number of households harvesting crops, by locality (major season)	109
Table 8.2.2:	Estimated number of households harvesting crops, by locality (minor season)	111
Table 8.2.4:	Percentage of households selling unprocessed harvest produce, by MiDA zone.....	114
Table 8.2.5:	Estimated annual value of crop sales, by locality (GH¢ million)	116
Table 8.2.6:	Estimated annual value of crop sales, by locality (GH¢ million)	117
Table 8.3.1:	Estimated households in other agricultural production and annual value of sales (GH¢ 000)	118
Table 8.3.2:	Estimated households in other agricultural production and annual value of sales (GH¢ 000), by MiDA zone.....	119
Table 8.5.1	Expenditure on crops and livestock inputs in the last 12 months	126
Table 8.6.1:	Percentage of total households engaged in processing agricultural produce within the last 12 months.....	127
Table 8.6.2:	Percentage of total households engaged in processing agricultural produce, by type of activity	128
Table 8.6.3:	Percentage of households engaged in processing of agricultural produce, by type of activity and months engaged	128
Table 8.7.1:	Average and total annual household consumption of own produce	129
Table 8.7.2:	Value of average and total annual household consumption of own produce, by MiDA Zone	130
Table: 9.1:	Characteristics of Non-Farm Enterprises at Zonal Level (%)	132
Table: 9.2:	Characteristics of Non-Farm Enterprises, by industrial classification	133
Table: 9.3:	Main source of capital for the start of non-farm enterprises, by industrial classification and urban- rural location (%).....	134
Table: 9.4:	Main Source of Capital for the start of Non-Farm Enterprises, by Industrial Classification and MiDA Zone (%).....	135
Table 9.5:	Sources of Assistance for Non-Farm Enterprises, by Industrial Classification and MiDA Zone (%).....	137
Table 9.6:	Sources of Assistance for Non-Farm Enterprises, by Industrial Classification and Urban/Rural Location (%).....	138
Table 9.7:	People Engaged in Non-Farm Enterprises, by MiDA Zone	139
Table 9.8:	People Engaged in Non-Farm Enterprises, by Urban/ Rural Location	140
Table 9.9:	Number of Workers Who Are Household Members.....	140
Table 9.10:	Average Annual Expenditure on Input per Enterprise, by Principal Activities and Urban/Rural Location	141
Table 9.11:	Average annual expenditure on input per enterprise by principal activities & MiDA_Zone	142
Table 9.12:	Estimated annual value of inputs by urban/rural location	143
Table 9.13:	Estimated Annual Value of Inputs, by Principal Activities and MiDA_Zone.....	144
Table 9.14:	Estimated annual revenue per enterprise, by principal activities, MiDA Zone and urban- rural location.....	145
Table 9.15:	Average annual revenue per enterprise by principal activities/MiDA Zone & urban-rural	146
Table 10.1:	Households, by type of dwelling and MiDA Zone (%).....	147
Table 10.2:	Households by type of dwelling and district (%)	148
Table 10.3:	Households, by present occupancy status and MiDA Zone (%).....	148
Table 10.4:	Households, by Present Occupancy Status and District (%).....	149
Table 10.5:	Ownership of rented or rent-free dwelling, by MiDA Zone (%)	150
Table 10.6:	Ownership of rented or rent-free dwelling, by district (%)	150
Table 10.7:	Households in different zones, by number of rooms occupied (%)	151
Table 10.8:	Households in different districts, by number of rooms occupied (%)	152
Table 10.9:	Household Size, by Number of Rooms and Zone (%)	153
Table 10.10:	Average household size and number of rooms, by district	154
Table 10.11:	Housing density indicators, by MiDA Zone	155

Table 10.12:	Housing density indicators, by district.....	155
Table 10.13:	Main construction materials used by households, by MiDA Zone (%)	156
Table 10.14:	Main construction materials for outer wall used by households, by district (%)	158
Table 10.15:	Main construction materials for floor used by households, by district (%)	159
Table 10.16:	Main construction materials for roof used by households, by district (%).....	160
Table 10.17:	Households, by main source of drinking water and MiDA Zone (%)	161
Table 10.18:	Households, by main source of water supply for drinking and district (%)	162
Table 10.19:	Households, by main source of water for general use and MiDA Zone (%).....	163
Table 10.20:	Households, by main source of water for general use and district (%)	164
Table 10.21:	Water supply system operation and management, by MiDA Zone (%)	165
Table 10.22:	Water supply system operation and management, by district (%).....	166
Table 10.23:	Households, by MiDA Zone and use of basic utilities (%)	167
Table 10.24:	Households, by district and main source of lighting (%)	168
Table 10.25:	Households by district and fuel for cooking (%).....	169
Table 10.26:	Households by district and method of rubbish disposal (%)	170
Table 10.27:	Households by MiDA Zone and type of toilet used (%)	170
Table 10.28:	Households by district and type of toilet used (%)	171
Table 11.1:	Baseline poverty profile of MiDA Intervention Zones, by locality	176
Table 11.2:	Aggregate poverty gap by poverty line and locality (GH cedis, million).....	177

List of Figures

Figure 2.1	Percent of household heads by sex, MiDA Zone and locality.....	7
Figure 2.2	Percent of household heads by sex and district	8
Figure 3.1:	Gender gap in education by MiDA Zone (%)	23
Figure 3.2:	Expenditure on education, by locality (GH¢).....	26
Figure 3.3:	Education expenses at various levels	27
Figure 3.4:	Adults who can read and write in any language at the same time, by locality and sex (%)	28
Figure 3.5:	Adult literacy and numeracy rates (adults who can read and write both English language and a local language as well as undertaking a written calculation), by sex and locality (%)	29
Figure 4.1:	Proportion of people suffering from illness or injury in the two weeks preceding interview, by age group (%).....	33
Figure 4.2:	Proportion of pregnancies in the last 12 months not resulting in a live birth, by age of woman and locality (%)	43
Figure 4.3:	Children aged 5 years and younger who have not been vaccinated, by age of child and locality (%).....	47
Figure 5.1:	Estimated Unemployment Rate	70
Figure 5.2:	Employment status of children aged 7-14 years (%)	71
Figure 7.1:	Popular Units of Land Measure (%).....	91
Figure 7.2:	Average Size of Land Owned or Used by Household Members	93
Figure 7.3:	Average land value per acre (GH¢)	94
Figure 7.4:	Major sources of land in urban and rural MiDA Zones (%).....	95
Figure 7.5:	Land disputes.....	96
Figure 7.6:	Common causes of land disputes in MiDA Areas.....	97
Figure 7.7:	Main system of land acquisition in mida zones by people using land they do not own	98
Figure 7.8:	Source of water other than rainwater	100
Figure 8.4.1:	Seasonal patterns of harvesting, selling and buying maize among households that cultivate maize, by MiDA zone.....	120
Figure 8.4.2:	Seasonal patterns of harvesting, selling and buying rice among households that cultivate rice, by MiDA zone	121
Figure 8.4.3:	Seasonal patterns of harvesting, selling and buying sorghum among households that cultivate sorghum, by MiDA zone.	122
Figure 8.4.4:	Seasonal patterns of harvesting, selling and buying millet among households that cultivate millet, by MiDA zone	123
Figure 8.4.5:	Seasonal patterns of harvesting, selling and buying yam among households that cultivate yam.....	124

1. Introduction

1.1 Background

The government of Ghana, through the Millennium Development Authority, is currently implementing the five-year \$547 million Compact signed with the Millennium Challenge Corporation (MCC) of the United States of America. The Compact is aimed at reducing poverty through economic growth and agricultural transformation. There are two main program objectives which will form the basis for the achievement of the overall program goals.

These are: to increase the production and productivity of high-value cash and food crops and to enhance the competitiveness of high-valued cash and food crops in local and international markets. Three projects in the area of agriculture, transportation and rural development form the basis for the achievement of the program objectives. The projects will operate essentially in 23 districts in the Northern Agriculture Zone (Northern Region), the Afram Basin Zone (Ashanti and Eastern regions), and the Southern Horticultural Belt (South-East Coastal Plains). About 230,000 individuals are expected to benefit directly from the Compact interventions while about 1,000,000 people are expected to obtain indirect benefits.

To assist in the impact assessment of the Compact, ISSER is expected to provide technical leadership through provision of advice and guidance on all aspects of the impact evaluation. In this regard, two key data collection activities are planned to be carried out - Ghana Living Standards Survey, Round 5 Plus (GLSS5+) and a Farmer-Based Organization (FBO) Survey. GLSS5+ will be carried out twice, in 2008 (baseline) and 2010/2011. Approximately 9,300 households in 27 Enumeration Areas (EAs) in the original 23 program districts¹ are to be surveyed using the GLSS5+ community and household questionnaires for each round of the survey. ISSER is working with the Ghana Statistical Service (GSS) to conduct the GLSS5+ survey in the MiDA intervention districts.

ISSER has overall leadership of the data collection effort including the design, supervision, analyses and overall quality control of the data. GSS has comparative advantage in its substantial survey infrastructure (enumerators, vehicles, field presence) and is contracted to deliver these services under a separate agreement with MiDA.

1.2 Objectives and Questionnaires

As noted above, the GLSS5+ is to provide information on patterns of household consumption and expenditure at a greater level of disaggregation and to provide the baseline information to support long-term monitoring of the MiDA program. This information will help ISSER and other

¹ The program is being implemented in 30 districts now. This is because 7 additional districts have now been created out of the original 23 districts. The baseline survey used the original 23 districts as domains for sampling and analysis.

institutions to track the long-term evolution of living standards and economic opportunities in Ghana².

To achieve these objectives, in-depth data were collected on the following key elements of socio-economic life using two sets of questionnaires, namely a household questionnaire and a community questionnaire, in addition to the use of geographic position system units (GPS) to measure coordinates representing location of households, community facilities and farm sizes:

- Demographic Characteristics
- Education and Skills / Training
- Health and Fertility Behavior
- Employment and Time Use
- Housing and Housing Conditions
- Land Ownership and Land Transactions
- Agriculture
- Prices of Consumer Items
- Non-farm Household Enterprises; and
- Household Income, Consumption and Expenditure

Among other topics, the survey collects information to facilitate re-contact with the households in 2010/2011. In addition to the standard Ghana Living Standards Survey modules, weight and height measures are collected for all children in sample households, and one farm plot per household was also mapped using GPS mapping units.

The GLSS5+ community module is also different from the standard GLSS rural community module. The community module documents a broad range of natural and institutional features of the community, including political organizations, financial institutions, the presence of various development programs, and community infrastructure. All households and community facilities were mapped using GPS mapping units. It was administered in each EA, including urban EAs.

1.3 Sample Design and Organization of Survey

The survey provides district level indicators for three zones distributed in five regions of Ghana (Table 1.1). In all, 9,315 households from 621 Enumeration Areas (EAs) were interviewed and all the communities that fall in these geographical areas were studied in detail. Fifteen households were selected from each of the EAs.

A two-stage sample design was used for the survey. The first stage involved selecting sample points or clusters from an updated master sampling frame constructed from the 2000 Ghana Population and Housing Census in the second half of 2007. A total of 621 clusters (census enumeration areas) were selected from the master sampling frame. The clusters were selected using systematic sampling with probability proportional to size. A complete household listing

² The evaluation approach is a difference-in-differences estimator, looking at rates of improvement in indicators in the MiDA districts versus other districts. In this regard, a planned nationwide survey involving a random sub-sample of 5,000 households in approximately 334 EAs is expected to provide control information for the overall evaluation of the MiDA program.

was conducted in September 2007 in all the selected clusters to provide a sampling frame for the second stage selection of households.

The second stage of selection involved the systematic sampling of 15 of the households listed in each cluster. The primary objectives of the second stage of selection were to ensure adequate numbers of completed individual interviews to provide estimates for key indicators with acceptable precision at the district level. Other sampling objectives were to facilitate manageable interviewer workload within each sample area and to reduce the effects of intra-class correlation within a sample area on the variance of the survey estimates.

Since the design is not self-weighting, household sample weights were computed and applied for the estimation of the survey results. This was to facilitate estimation of the true contribution of each selected cluster in the sample (Appendix A).

The main field work for the survey covered a five-month period (April – September 2008) in order to ensure that enough household baseline information was taken before a significant number of MiDA interventions begun.

Table 1.1: Distribution of the enumeration areas, by region and MiDA Zone

Region	MiDA Zone			Total	
	Northern Horticulture Zone	Afram Basin	Southern Horticulture Zone	Number of EAs	Percent
Central	-	-	54	54	8.7
Greater Accra	-	-	27	27	4.3
Volta	-	-	162	162	26.1
Eastern	-	81	81	162	26.1
Ashanti	-	81	-	81	13.0
Northern	135	-	-	135	21.7
Total	135	162	324	621	100

The baseline survey for the GLSS 5+ was conducted by a Project Directorate which was assisted by a Project Implementation Committee and a staff of technical officers. A Steering Committee made up of principal officers from ISSER, GSS and MiDA M&E provided advisory services for the survey.

Twenty-five teams were involved in the data collection, 23 of which were actually working in each cycle of the survey. The purpose of the extra two teams was to afford each of the 23 teams the opportunity to take some leave during the period³. Each of the teams was made up of a Supervisor, a Senior Interviewer, four Interviewers and a Driver. A number of supervisory teams

³ There were seven cycles of 21 days plus two days for resting and travelling between clusters for each team.

from ISSER and GSS visited the field at regular intervals to assess progress of work and reshaped the direction of the survey.

1.4 Data Processing

The processing of the survey data began shortly after the fieldwork commenced. Completed questionnaires were returned periodically from the field to the GSS office in Accra, where they were edited by office editors and entered by data entry personnel who were specially trained for this task. Data were entered using CSPro version 3.3. All data were entered twice (100 percent verification). The concurrent processing of the data was to serve as a distinct advantage for data quality, because GSS could have had the opportunity to advise field teams of problems detected during data entry. However, administrative and logistical challenges prevented the team from making full use of this opportunity and it eventually led to several weeks of unanticipated post-entry editing. Data entry and the editing phase of the survey were completed in March 2009.

The remaining sections of the report present detailed information on the living conditions of the people in the zones using the modules covered in the questionnaires. To a large extent the tables and charts reflect descriptive analysis coming out of the first attempt to use the datasets. ISSER is in the process of providing analytical reports that will delve into the detailed relationships of characteristics of individuals and households before the second round of data collection begins.

2. Demographic Characteristics

2.1 Introduction

The survey has a section on household roster and information household members, which was used to identify usual members of households and demographic data such as age, sex and marital status collected on them. These have been organised into

2.2 Household Composition

The Ghana Living Standards Survey 5+ (GLSS 5+) covered twenty-three districts¹ (some of which have since been split) in six regions involving 9,310 households and 3,166,227 estimated number of individuals. The districts are located in the three horticultural zones: Southern Zone with 12 districts, Afram Basin Zone with 6 districts and Northern Zone with 5 districts. The selection of the enumeration areas (EAs) and the households from these EAs was representative at each level.

Table 2.1 presents the mean household size, estimated number of households and population in households, by MiDA Horticultural Zones and locality. The results of the data from the 23 districts show an average household size of 5.8. The mean household size is generally highest in the Northern Horticultural Zone (7.8) and lowest in the Southern Zone (4.7). Also, in terms of locality, the mean household size is higher in rural areas (5.9) compared to urban (5.6).

Table 2.1: Mean household size, estimated number of households and population in households, by MiDA Zone and locality

MiDA Zone	Mean Household Size	Estimated Number of Households	Population in Households
Northern	7.8	142,279	787,363
Afram Basin	6.0	220,053	926,108
Southern	4.7	447,093	1,452,756
Urban	5.6	238,311	858,420
Rural	5.9	571,113	2,307,806
Total	5.8	809,424	3,166,227

Appendix B2.1 shows the mean household size, estimated number of households and population in households by district. The results in Appendix B2.1 are consistent with those of Table 2.1. The districts in the Northern Region record higher mean household sizes, e.g. 9.0 in West Mamprusi, 8.5 in Karaga and 8.2 in Savelugu Nanton. Tamale registered the lowest mean household size among the districts in the Northern Zone due to its urban nature. Districts in the Southern Zone recorded even lower mean household sizes, with Akatsi having as low as 3.6.

Table 2.1 and (Appendix B2.1) also show the estimated number of households in the 23 districts in the three zones. There are 809,424 households in the 23 districts, over 55 percent (447,093) of which are located in districts of the Southern Zone. Districts in the Northern Zone account for the lowest number of households 142,279 (or 17.6 percent). In terms of locality, 571,113 out of the 809,424 households are located in rural areas, accounting for 70.7 percent of total estimated households. The number of households by district (Appendix B2.1) also shows larger numbers of households in the southern districts, such as 75,587 in Akatsi, 61,301 in Ketu and 59,420 in Gomoa. The district with the lowest number of households among all 23 districts is South Tongu with 12,147. In the Afram Basin, the Kwahu North District (65,494) has the highest estimated number of households, followed by Kwahu South (49,042), while Fanteakwa District (17,626) has the lowest estimated number of households. Among the northern districts, Tamale metropolis has the highest number of households (57,959), followed by Tolon Kumbungu (25,363) while Savelugu Nanton (16,724) recorded the lowest estimated households in the Northern Zone.

The estimated total population of districts in the MiDA zones derived from the survey is 3,166,227. The southern zone alone accounts for 1,452,756 (45.9 percent) of the total, with districts in the south such as Ketu (200,876), Akatsi (195,402) and Gomoa (189,289) having high populations. The lowest estimated district population in the southern zone is in South Tongu (48,411). The population distribution pattern also shows higher estimates among districts in the north generally, e.g. Tamale (266,197), Tolon Kumbungu (151,491) and Karaga (140,919) with the lowest estimated population being in Savelugu Nanton (97,345). The Kwahu North District (Afram Plains) in the Afram Basin has the highest estimated population (341,135). The lowest estimated population in the Afram Basin is in Fanteakwa District (70,405).

2.3 Proportion of Households Heads, by Sex and Locality

Figure 2.1 presents the percentage distribution of household heads by sex, MiDA Zone and locality. In total, a higher percentage of households (66.7 percent) are headed by males. This is lower than the 70.5 percent recorded in the GLSS5 (GSS, 2007). The proportion of households headed by males is highest in the north and decreases southwards. It is evident from Figure 2.1 that a relatively higher percentage of households in the Northern Zone (92.6 percent) are headed by males than in the Afram Basin (67.5 percent) and Southern Zone (58.1 percent). The proportion of male-headed households is higher in both rural (67.9 percent) and urban areas (63.84 per cent) than female-headed households, with the proportion being slightly higher in rural areas. However, the proportion of male-headed households is lower in this survey than in the GLSS5. For instance, the proportion of male-headed households reported by the GLSS5 was 85.1 percent in the rural savannah (GSS, 2007).

Figure 2.1 Percent of household heads by sex, MiDA Zone and locality

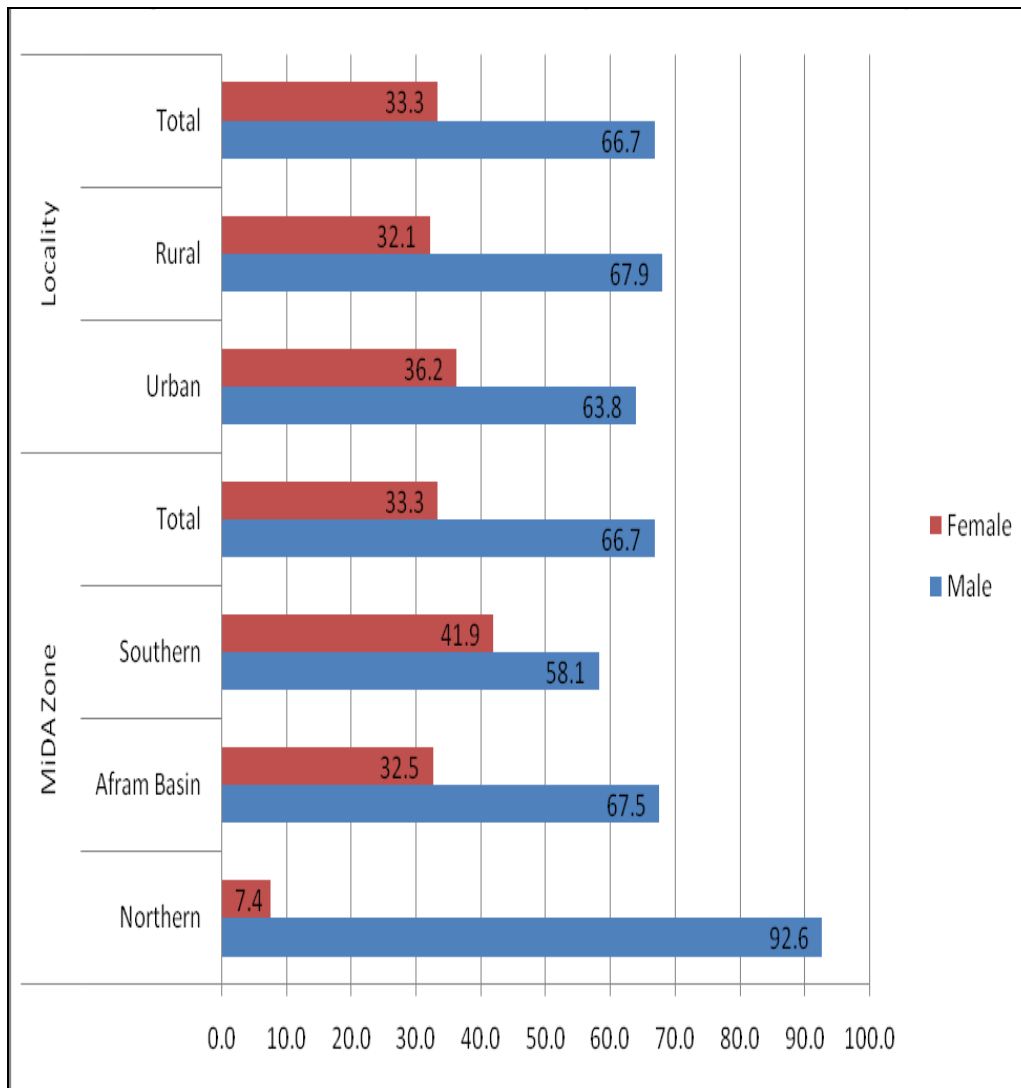
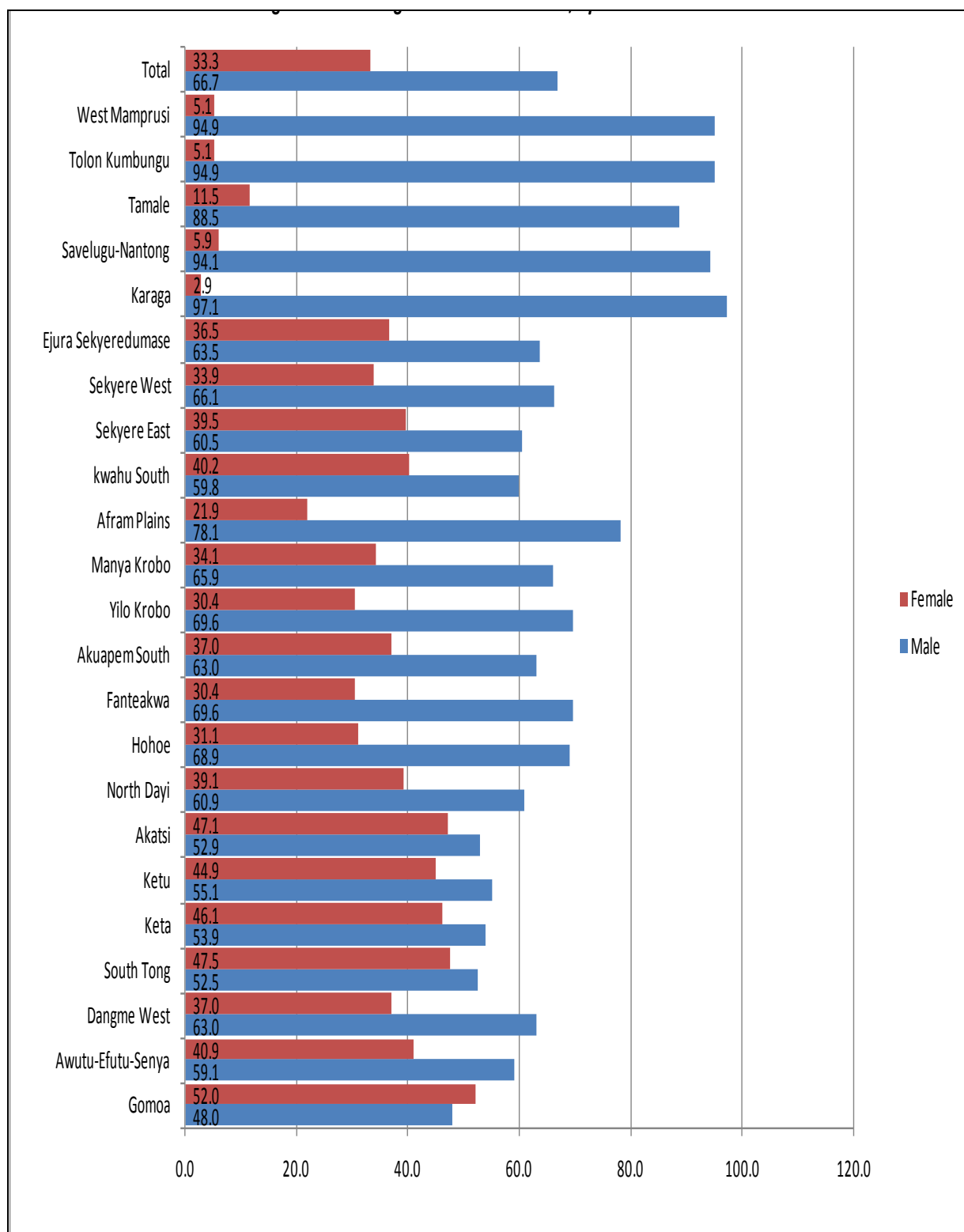


Figure 2.2 below presents the proportional distribution of household heads by sex and district. As with the proportional distribution of household heads by sex, MiDA Zone and locality, the total distribution shows that male-headed households are proportionately more than female-headed households, and in all districts except Gomoa. The proportion of male-headed households is higher in the northern districts e.g. Karaga, 97.1 percent; Tolon Kumbungu 94.9 percent; West Mamprusi 94.9 percent and Savelugu-Nanton 94.1 percent.

Figure 2.2 Percent of household heads by sex and district



2.4 Average Age of Household Heads, by Locality and Sex

In general, the average age of a household head from the survey is 46.6. Table 2.2 shows that the average age of household head is younger for males than for females across all MiDA Zones and between rural and urban localities. The average age of a male household head is 44.4 years, while that of a female household head is 50.9 years. The Afram Basin has the lowest average age of household head – 45.3 years – while the average age of household head in the Southern Horticultural Zone is highest at 47.4 years. Between rural and urban localities, the average age of household head is again lower for males than females. The gap between the average age of males and females is, however, marginal between localities.

Table 2.2: Average age of household head, by sex, MiDA Zone and locality (%)

Sex	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Male	45.3	43.7	44.4	44.4	44.7	44.3	44.4
Female	53.0	48.8	51.6	50.9	48.8	51.9	50.9
Total	45.9	45.3	47.4	46.6	46.2	46.7	46.6

Appendix B2.2 illustrates the average age of household head, by sex and district. It re-emphasizes the higher average age of the female household heads as compared to the average age of the male household heads. Nearly all 23 districts have higher average ages for female household heads than male household heads, the exception being Kwahu South District.

2.5 Households by Adult Composition, MiDA Zone and Presence of Children

Table 2.3 presents the proportional distribution of households, by presence of adults in households and MiDA Zones and presence or absence of children. The survey reveals that the proportion of households with at least one adult of each sex and with children is 74.5 percent. The proportion of this category of households is highest in the Northern Zone (94.6 percent) and decreases to 75.8 percent in the Afram Basin and further to 64.3 percent in the Southern Zone. Table 2.3 also shows that a higher proportion of households with children have more adult females than adult males. For example, 60.7 percent of the households have one adult female compared to 51.7 percent of households with one adult male. Similarly, 36.9 percent of households with children have at least two adult females compared to 25.1 percent of households with at least two adult males.

Table 2.3 also shows that among households without children, 30.8 percent of them have at least one adult of each sex. Unlike households with children, a lower proportion of households without children (40.7 percent) have one adult female than those with one adult male (62.8 percent). Does this suggest that most single household members are males? The proportion of households with at least two adult females and without children (17.7 percent) remains higher than that of households with at least two adult males and without children (9.6 percent). In other words, the results suggest that it is more common to find households with only adult females than adult males. The total numbers of households with or without children are presented in Appendix B2.3.

Table 2.3: Distribution of households, by adult composition, MiDA Zone and presence of children (%)

Adults in Households	MiDA Zone							
	Proportion with Children				Proportion without Children			
	Northern	Afram Basin	Southern	Total	Northern	Afram Basin	Southern	Total
At least one adult of each sex	94.6	75.8	64.3	74.5	45.4	26	30	30.8
One adult male	56.6	54.6	47.6	51.7	67.6	62.3	62.2	62.8
At least two adult males	39.1	23.5	19.7	25.1	23.8	9.07	7.62	9.6
One adult female	50.8	63.8	63.2	60.7	32.8	40.8	41.9	40.7
At least two adult females	48.1	33.9	33.8	36.9	21.1	13.8	18.3	17.7

Table 2.4 shows the proportional distribution of households with and without children, by presence of adults in households and locality. It shows that of the households with children, the proportion with adults is slightly higher in rural areas compared to urban areas. Among households with at least one adult of each sex, 74.7 percent are in the rural areas. Similarly, among households with one adult male and one adult female, 52.3 percent and 61.3 percent respectively are in the rural areas. The corresponding proportions in urban areas are 73.9 percent, 50.2 percent and 58.9 percent respectively for households with one adult of each sex, one adult male and one adult female. This means that in the rural areas, it is more common to see a household with children and with at least one adult of each sex, one adult male and one adult female than in the urban areas.

Table 2.4: Distribution of households, by adult composition, locality and presence of children (%)

Adults in Households	Locality					
	With Children			Without Children		
	Urban	Rural	Total	Urban	Rural	Total
At least one adult of each sex	73.9	74.7	74.5	27.3	32.6	30.8
One adult male	50.2	52.3	51.7	59.7	64.4	62.8
At least, two adult males	25.9	24.8	25.1	11	8.9	9.63
One adult female	58.9	61.3	60.7	39.8	41.2	40.7
At least, two adult females	38.9	36.2	36.9	16.7	18.2	17.7

On the other hand, the percentages of households with children and comprising several adults of the same sex are higher in urban areas. Thus, households with children in urban areas and comprising of at least two adult males (25.9 percent) and at least two adult females (38.9 percent) are proportionately more than corresponding households in rural areas – 24.8 percent and 36.2 percent respectively. Among households without children, the proportions of all categories of adults are higher in rural areas, with the exception of the category of households with at least two adult males which comprise 11 percent of households in urban areas and 8.9

percent in rural areas. The distribution of the estimated number of households by adult composition and presence of children and locality is presented in Appendix B2.4.

With regard to the distribution of households by district, those in the Northern MiDA Zone, i.e. [Karaga (97.5 percent), West Mamprusi (97 percent), Tolon Kumbungu (95.4 percent), Savelugu Nanton (92.9 percent) and Tamale Metropolis (92.2 percent)] have high percentages of households with children and with at least one adult of each sex, compared to the average of 74.5 percent (Table 2.5).

Table 2.5: Distribution of households, by district, adult composition and presence of children (%)

District	Adults in Households									
	Percent With Children					Percent Without Children				
	At least one adult of each sex	One adult male	At least two adult males	One adult female	At least two adult females	At least one adult of each sex	One adult male	At least two adult males	One adult female	At least two adult females
Gomoa	56.1	41.4	17	65.8	32	24.7	63.4	3.13	43.4	14.7
Awutu Efutu Senya	66.9	54.2	15.6	60.4	36.7	18.3	57.3	7.58	39.9	13.5
Dangme West	71.5	48	26.1	61.7	35.7	22.9	63.2	11.1	35.6	13
South Tongu	66.8	47.6	21.7	59.2	38.3	34.2	55.1	12.3	42.2	24.6
Keta	66	47.7	21.1	59.2	37.9	25.5	55.8	8.89	48.9	11.9
Ketu	59.6	46.6	16	66.8	30.2	30.9	59.4	13.5	36.4	21.6
Akatsi	48.2	41	9.95	68.1	29.2	40.1	65.4	1.4	43.5	29.8
North Dayi	72.8	44.6	31.3	53.6	43.3	35	64.8	11.5	48	10.6
Hohoe	74.9	55.4	22	66.9	30.6	32.3	63.9	11.9	45	11.5
Fanteakwa	81.2	63.2	20.6	67.3	30.1	39.9	65.6	15	41.9	17.4
Akuapem South	68.4	50.2	22.1	58.9	37.2	25.8	61	9.1	40.1	15.7
Yilo Krobo	74.6	60.1	18.9	65	30.7	25.9	60.1	12.3	33	20.5
Manya Krobo	67.3	44.7	25.9	62.2	34.5	22.6	63.8	10.2	43.6	4.92
Afram Plains	79.5	54.7	26.1	63	35.7	26.8	65.7	17.1	34.9	9.03
Kwahu South	72.4	56.3	19.9	60.8	35.4	27	60.6	9.09	39.8	17.4
Sekyer East	67.5	50.2	20	67.7	29.6	18.9	65.5	4.79	36.5	12.2
Sekyer West	75.4	51.3	26.6	64.9	32.6	25.9	60.4	6.69	47.5	11.3
Ejura Sekyer	74.5	54.3	22.7	63.3	34.2	24.5	59.7	9.18	42.6	13.1
Karaga	97.5	59.9	38.5	48.3	50.8	73.5	71.7	28.3	60.4	13
Savelugu Nanton	92.9	56.8	39.6	46.1	50.4	40.4	72.7	20.5	32.1	15.1
Tamale	92.2	55.7	36.8	57.6	42	40.8	68	22.1	28.6	22.1
Tolon Kumbungu	95.4	57.3	39.4	44.7	54.1	44.9	61.8	32.8	25.6	24.8
West Mamprusi	97	54	44.1	50.5	48.4	57.4	62.2	26.7	44.3	24.2
Total	74.5	51.7	25.1	60.7	36.9	30.8	62.8	9.63	40.7	17.7

In general, the proportion of households with adults either with or without children appears to be high in the northern districts. Fanteakwa (81.2 percent), Kwahu North (79.5 percent), Sekyere West (75.4 percent), Hohoe (74.9 percent) and Yilo Krobo (74.6 percent) in the Afram Basin and the Southern Zone have higher proportions of households with children and with at least one adult of each sex (Table 2.5). The estimated number of households, by adult in households and district are presented in Appendix 1.5.

2.6 Distribution of Households, by Presence of Parent and Locality

Table 2.6 illustrates the proportion of children under 18, by presence of parent, MiDA Zone and locality. The survey results show that a total of 61.3 percent of children under 18 live with both their parents. Similar to the presence of adults in households with children, the proportion of children living with both parents is highest in the Northern Zone (80.9 percent) and decreases to 66.6 percent in the Afram Basin and further to 45.8 percent in the Southern Zone. It is more common to have children in the Northern Zone living with both their parents than in the Southern Zone. Also a higher proportion of children (21.6 percent) lives with only their mothers than those (3.8 percent) that lives with only their fathers. Hence, a higher proportion of children lives with their mothers alone than their fathers alone. In addition a higher proportion (32.5 percent) of children lives with only their mothers in the Southern Zone than in the Afram Basin (21.0 percent) and the Northern Zone (4.0 percent). Furthermore, 13.3 percent of children in the three MiDA Zones do not live with either of their parents.

Table 2.6: Proportion of children under 18 years, by presence of parent, MiDA Zone and locality (%)

Presence of Parents Household	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Both Parents	80.9	66.6	45.6	61.3	55.3	63.2	61.3
Only Father	3.8	2.4	4.9	3.8	4.0	3.8	3.8
Only Mother	4.0	21.0	32.5	21.6	23.5	21.0	21.6
No Parents	11.3	10.1	16.9	13.3	17.2	12.0	13.3
Total	100	100	100	100	100	100	100

Table 2.6 also shows that a higher proportion of children lives with their parents in rural areas (63.2 percent) than in urban areas (55.3 percent). Single parenting is more common in urban areas than in rural areas. The proportion of children who live with only their father in urban areas (4.0 percent) is slightly higher than the corresponding proportion in rural localities (3.8 percent). Similarly, the proportion of children who live with only their mother in urban areas (23.5 percent) is higher than the corresponding proportion in rural areas (21.0 percent).

Appendix B2.6 presents the proportion of children under 18 by presence of parent and district. Generally, the districts in the Northern Zone have higher proportions of children living with both parents, followed by districts in the Afram Basin.

2.7 Age and Sex Distribution of the Population

Table 2.7 shows the distribution of population by MiDA Zone and sex. The results from the study reveal that 51.4 percent of the population is female compared to 51.5 percent from the GLSS5. This produces a sex ratio of 94.5 males per 100 females, slightly above the GLSS5 report of 94 males per 100 females. In all the MiDA Zones, except in the Northern Zone, the proportion of females is higher than that of males. In the Northern Zone, males form 50.8 percent of the population. Children under 15 constitute 41.2 percent while the over-65 age group constitutes 6.4 percent of the population, yielding a dependency ratio of about 91 percent. This means that for every 100 working population, there are about 91 additional mouths to feed.

It can also be seen in Table 2.7 that the proportion of males in the total population aged 1-19 is higher than that of females. However, beyond age 19, the proportion of females exceeds that of males.

Table 2.7: Age Distribution of population, by MiDA Zone and sex (%)

Age Group								
	Northern		Afram Basin		Southern		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
0-4	8.8	8.1	7.4	7.2	6.3	6.3	7.3	7.1
5-9	8.1	7.0	7.8	7.7	6.5	6.6	7.3	7.0
10-14	6.5	5.1	7.4	6.1	6.4	6.1	6.7	5.8
15-19	5.5	3.9	5.6	4.8	5.5	5.5	5.5	4.8
20-24	3.6	3.6	3.0	3.8	3.4	4.0	3.4	3.8
25-29	3.1	4.3	2.7	3.5	2.9	3.5	2.9	3.7
30-34	2.9	3.4	2.4	3.0	2.4	3.3	2.6	3.3
35-39	2.3	2.9	2.5	2.8	2.6	3.0	2.5	2.9
40-44	2.0	2.3	2.0	2.7	1.9	2.5	2.0	2.5
45-49	1.8	1.8	2.0	1.9	2.1	2.2	2.0	2.0
50-54	1.4	2.4	1.5	1.9	1.7	2.7	1.6	2.4
55-59	0.9	1.1	1.1	1.1	1.2	1.6	1.1	1.3
60-64	1.2	1.0	0.8	1.2	1.2	1.3	1.1	1.2
65-99	2.8	2.2	2.7	3.3	2.8	4.7	2.8	3.6
Total	50.8	49.2	49.1	50.9	46.7	53.3	48.6	51.4

Table 2.8 also shows the age distribution of population, by type of locality and sex and percentage. The female population is higher in both rural and urban areas than the male population. It is also noticeable that the proportion of children in the population is higher in rural areas (43.1 percent) than in urban areas (36.5 percent).

Appendix B2.6 also shows the age distribution of population, by district and sex. Generally the proportion of females is higher than that of males in all the districts. However, the proportion of

males in the population is higher in all the districts in the Northern Zone. Similarly, even though the female population is proportionately greater than that of males in the Afram Basin and Southern MiDA Zone, the proportion of females in the Hohoe District (49.5 percent) in the Southern Zone is lower than that of males (50.5 percent). In the Kwahu North District (Afram Plains) in the Afram Basin also, the proportion of males in the population (50.4 percent) is higher than that of females (49.6 percent).

Table 2.8: Age distribution of population, by locality and sex (%)

Age Group						
	Urban		Rural		Total	
	Male	Female	Male	Female	Male	Female
0-4	6.4	5.7	7.7	7.6	7.3	7.1
5-9	5.9	6.2	7.9	7.3	7.3	7.0
10-14	6.1	6.1	6.9	5.7	6.7	5.8
15-19	5.7	5.6	5.4	4.5	5.5	4.8
20-24	3.8	4.4	3.2	3.6	3.4	3.8
25-29	3.4	4.2	2.7	3.6	2.9	3.7
30-34	2.8	3.6	2.5	3.1	2.6	3.3
35-39	2.8	3.1	2.4	2.9	2.5	2.9
40-44	2.0	2.7	2.0	2.4	2.0	2.5
45-49	2.0	2.2	2.0	1.9	2.0	2.0
50-54	1.6	2.5	1.5	2.3	1.6	2.4
55-59	1.1	1.4	1.1	1.3	1.1	1.3
60-64	1.1	1.2	1.1	1.2	1.1	1.2
65-99	2.6	3.9	2.9	3.5	2.8	3.6
Total	47.2	52.8	49.1	50.9	48.6	51.4

2.8 Marital status and age at first marriage

Table 2.9 indicates that about 22.5 percent of the population 18 years and older has never married before. Of the remaining population aged 18 years and above, 55.9 percent is married, 4.2 percent living in consensual union, 2 percent separated and 6.2 percent divorced. About 9.2 percent is widowed. This means that 77.5 percent of the population aged 18 years and above has ever married or lived with a spouse. Table 2.9 also illustrates that the proportion of the population in this age category currently married is highest in the Northern Zone (68.1 percent) and decreases to 57.7 percent in the Afram Basin and to 48.7 percent in the Southern Zone. The proportion of the population living in consensual union is lowest in the Northern Zone (1.1 percent). The proportion of the population that was married and is now separated is highest (3.2 percent) in the Southern Zone and lowest in the Northern Zone (0.4 percent). The proportion of divorcees is also highest in the Southern Zone (12.1 percent), followed by that of the Afram Basin (7.6 percent) and Northern Zone (1.1 percent).

In terms of locality, the proportion of the population that is married or in consensual union is higher in rural than in urban areas. The proportion married in the rural areas is 58.4 percent compared to 49.8 percent in the urban areas. In like manner, the proportion living in consensual union in rural areas was 4.7 percent compared to 3.0 percent in urban areas. The proportion of the population that is divorced or widowed is also higher in rural areas than in urban areas. The proportion of the population that was once married and is now separated and the proportion that has never married in urban areas are higher than the corresponding proportions in rural areas.

Table 2.9: Distribution of the population (18 years and above), by marital status, MiDA Zone and locality (%)

Marital status	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Married	68.1	57.7	48.7	55.9	49.8	58.4	55.9
Consensual union	1.1	5.6	5.1	4.2	3.0	4.7	4.2
Separated	0.4	1.4	3.2	2.0	2.4	1.9	2.0
Divorced	1.1	7.6	8.0	6.2	6.0	6.2	6.2
Widowed	5.3	7.6	12.1	9.2	8.6	9.5	9.2
Never married	24.0	20.2	22.9	22.5	30.2	19.2	22.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The distribution of the population aged 18 years and older by district follows the pattern of distribution in the MiDA Zones. The proportion of the population married is high throughout the districts in the Northern Zone, ranging from 57.8 percent in Tamale Metropolis to 78.5 percent in Karaga District. The proportions married in the Kwahu North, Hohoe and in Fanteakwa districts are also high, with the lowest proportion (29.9 percent) being in Dangme West District. However, the proportion of people living in consensual union is highest in Yilo Krobo District (22.2 percent) and Dangme West District (11.7 percent). Akatsi District has the highest proportion of divorcees (13.8 percent). The proportion of widows is also highest in Akatsi, Keta and North Dayi districts in that order and lowest in the Kwahu North District. The proportion of the population of marriageable age that has never married at all is highest (35.1 percent) in the Tamale Metropolis (Appendix B2.8).

2.9 Mean Age at First Marriage, by MiDA Zone, Sex and Locality

The survey results show that 22.7 years is the mean age at first marriage, meaning the age at which an individual starts to live with his/her partner. The mean age at first marriage is lower for females, (20.8) than for their male counterparts (25.6). This implies that females marry almost five years earlier than males. Among the MiDA Zones, the earliest age at which people marry for the first time is 19.9 in the Afram Basin and 21.5 in the Southern Zone. In Table 2.10, it is evident that age at first marriage is earlier for females than males in all three MiDA zones. Table 2.10 also illustrates that age at first marriage is lower in rural (22.5 years) than in urban areas (23.4 years), meaning that people generally marry at an earlier age in rural areas than in urban areas. Both males and females generally marry earlier in rural than in urban areas. Appendix B2.9 also shows the mean age of population at first marriage, by sex and district. The mean age at first marriage is low in Kwahu North District (20.7 years).

Table 2.10: Mean age of population at first marriage, by sex and locality (years)

MiDA Zone	Male	Female	Total
Northern Horticultural Zone	26.3	20.5	22.9
Afram Basin Zone	24.4	19.9	21.8
Southern Horticultural Zone	25.9	21.5	23.2
Urban	26.7	21.3	23.4
Rural	25.2	20.7	22.5
Total	25.6	20.8	22.7

2.10 Nationality, Ethnicity and Religion

Table 2.11 gives a picture of the distribution of the population surveyed by sex and nationality. The survey results show, as expected, that the majority of the population studied is Ghanaian by birth (98.6 percent), with another 0.2 percent Ghanaian by naturalization. Other nationals include Liberians (0.4 percent) whose numbers are boosted by their presence in the Buduburam Camp in Awutu Efutu Senya District in the Central Region); Burkinabe (0.2 percent); Togolese (0.2 percent) and other ECOWAS nationals (0.2 percent).

Table 2.11: Percentage Distribution of Population, by Nationality, Sex and MiDA Zones

Sex of Individual	Nationality								Total
	Ghanaian By Birth	Ghanaian Naturalise	Burkinabe	Malian	Nigerian	Togolese	Liberian	Other ECOWAS	
Male	98.6	0.2	0.2	0.1	0.1	0.2	0.4	0.3	100
female	98.7	0.2	0.2	0.1	0.1	0.2	0.3	0.2	100
Total	98.6	0.2	0.2	0.1	0.1	0.2	0.4	0.2	100

Table 2.12 represents the distribution of population, by nationality and MiDA Zone. The results in Table 2.12 confirm the data in Table 2.11. The category Ghanaians by birth ranks highest in all three MiDA Zones for both sexes.

Table 2.13 cross-tabulates the proportion of household heads by ethnicity, MiDA Zone and locality. The table indicates that in the survey area in general, the largest proportion of household heads was Ewe (37.2 percent) followed by Akan (23.7 percent) and Hausa (13.4 percent). Other ethnic groups such as Dagarti, Grussi/Frafra, Kusasi and Kasena Nankani altogether form less than 1 percent of the total number of household heads because of the location of the study in specific regions and districts. By MiDA Zone, the main ethnic group of household heads in the

Northern Zone is Hausa (72.8 percent) while in the Afram Basin, the dominant ethnic group among household heads is Akan (52.4 percent). In the Southern Zone, the dominant ethnic group among household heads is Ewe (55.7 percent).

Table 2.12: Population, by nationality and sex (%)

Nationality	MiDA Zone and Sex of Individual						total
	Northern		Afram Basin		Southern		
	Male	Female	Male	Female	Male	Female	
Ghanaian by Birth	99.0	99.2	98.4	98.2	98.5	98.6	98.7
Ghanaian Naturalised	0.2	0.1	0.2	0.2	0.3	0.3	0.2
Burkinabe	0.4	0.4	0.5	0.6	0.0	0.0	0.3
Malian	0.0	0.0	0.1	0.1	0.2	0.2	0.1
Nigerian	0.0	0.0	0.3	0.3	0.1	0.1	0.1
Togolese	0.0	0.0	0.1	0.3	0.3	0.3	0.2
Liberian	0.2	0.2	0.0	0.0	0.4	0.4	0.2
Other ECOWAS	0.1	0.1	0.3	0.1	0.3	0.2	0.2
Total	100	100	100	100	100	100	100

Table 2.13 also shows the proportional distribution of household heads in the survey area, by district and locality. In urban areas, the principal ethnic group among household heads is Akan (35.1 percent), followed by Ewe (21.9 percent). In rural localities, the commonest ethnic group among household heads is Ewe (43.4 percent) followed by Akan (23.7 percent). Hausa-speaking household heads placed third in both rural and urban areas.

Table 2.13: Household heads, by ethnicity and MiDA Zone locality (%)

Ethnic Group	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Akan	1.7	52.4	22.5	27.0	35.1	23.7	27.0
Ga	0.6	0.2	0.9	0.7	1.2	0.4	0.7
Dangme	0.4	4.7	5.2	4.2	2.8	4.8	4.2
Krobo	0.3	3.6	9.8	6.4	6.5	6.4	6.4
Ewe	0.8	23.4	55.7	37.2	21.9	43.4	37.2
Guan	0.1	2.1	1.6	1.4	1.3	1.5	1.4
Hausa	72.8	1.6	0.3	13.4	17.8	11.6	13.4
Dagomba	11.2	0.7	0.2	2.3	1.7	2.5	2.3
Mamprusi	1.3	2.0	0.3	1.0	1.2	0.8	1.0
Gonja	1.0	1.7	0.2	0.8	1.0	0.6	0.8
Grussi/Frafra	0.2	0.6	0.1	0.2	0.3	0.2	0.2
Dagati	0.7	0.1	0.1	0.2	0.5	0.1	0.2
Kusasi	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Kasena Nankani	1.5	0.1	0.4	0.5	1.2	0.2	0.5
Nanumba	7.4	7.1	2.6	4.7	7.5	3.5	4.7
Other	0.1	0.0	0.2	0.1	0.1	0.1	0.1
Total	100	100	100	100	100	100	100

Table 2.14 also presents the proportion of household heads, by ethnicity and district. It shows that Ewe-speaking household heads are prevalent in specific districts in the Southern Zone, notably in Akatsi (99.7 percent), South Tongu (97.4 percent), Keta (98.3 percent), Ketu (96.7 percent), North Dayi (94.9 percent) and Hohoe (82.7 percent) districts, which are traditional locations of Ewe people. The presence of Ewe-speaking households in Kwahu North District of the Afram Plains is also high (67.1 percent). Akan-speaking household heads are quite widely distributed across many of the districts in the survey area. These include Gomoa (94.6 percent) and Awutu Efutu Senya (62.3 percent) in the Southern Zone, Sekyere West (79.1 percent), Sekyere East (78.2 percent), Kwahu South (76.2 percent), Akwapem South (58.3 percent), Ejura Sekyeredumasi (47.9 percent) and Fanteakwa (47.5 percent) districts in the Afram Basin. Similarly, Hausa speaking household heads are predominant in districts in the Northern Zone such as Tolon Kumbungu (96.5 percent), Savelugu Nanton (96.5 percent) and Karaga (89.1 percent) districts as well as Tamale Metropolis (74.1 percent). Dagomba household heads are concentrated in West Mamprusi District.

The survey also considered the religious affiliation of the population studied, represented by the religion of the household head. Table 2.15 shows the religious affiliation of household heads, by MiDA Zone and locality. About 65 percent of all household heads are Christians, made up of Pentecostals (15.9 percent), Catholics (11.3 percent), Presbyterians (9.9 percent), Methodists (4.4 percent), Spiritualists (2.8 percent), Anglicans (0.8 percent) and other Christians (19.9 percent). Some 20.1 percent of household heads in the survey area profess Islam while 8.2 percent of household heads are traditionalists. In addition, about 0.8 percent of all household heads adhere to other religious faiths such as Buddhism and Rhema, and others.

By MiDA Zone, Islam is the dominant faith in the Northern Zone, with 84.7 percent of all household heads professing Islam. Christianity is dominant in the Afram Basin (80.8 percent) and Southern MiDA Zone (74.3 percent). However, in terms of religious denomination, Pentecostals are predominant in both the Afram Basin (19.8 percent) and Southern Zone (18.8 percent) followed by Presbyterians in the Afram Basin (11.6 percent) and Catholics in the Southern Zone (14.4). A significant percentage of household heads in the Afram Basin (31.8 percent) and the Southern MiDA Zone (18.9 percent) profess to “Other Christian” faiths.

Table 2.14: Household heads, by district and ethnicity

District	Ethnicity																
	Akan	Ga	Dangme	Krobo	Ewe	Guan	Hausa	Dagomba	Mamprusi	Gonja	Grussi/Fra fra	Dagati	Kusasi	Kasena nankani	Nanumba	Other	Total
Gomoa	94.6	0.4	0.0	0.3	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	2.9	0.0	100
Awutu efutu senya	62.3	2.2	1.0	0.1	13.1	7.6	0.8	1.0	1.4	0.2	0.0	0.0	0.2	0.2	9.9	0.0	100
Dangme west	2.2	1.5	73.6	0.9	20.0	0.0	0.0	0.0	0.2	0.8	0.1	0.0	0.0	0.0	0.9	0.0	100
South tongu	0.2	0.5	1.3	0.0	97.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	100
Keta	0.9	0.0	0.0	0.9	98.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
Ketu	0.5	0.4	0.0	0.3	96.7	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.8	0.0	100
Akatsi	0.2	0.0	0.0	0.0	99.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	100
North dayi	1.6	0.0	0.6	0.5	94.9	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.6	0.0	100
Hohoe	0.9	0.0	0.7	0.3	82.7	9.2	1.5	0.0	0.3	0.0	0.0	0.0	0.0	0.2	2.4	1.8	100
Fanteakwa	47.5	0.3	1.0	37.7	9.4	0.2	0.9	0.2	0.3	0.5	0.0	0.0	0.0	0.0	2.1	0.0	100
Akuapem South	58.3	5.7	1.7	2.4	17.9	0.6	1.5	1.1	0.8	1.3	0.9	0.2	0.0	4.3	3.5	0.0	100
Yilo Krobo	5.1	0.5	1.1	85.0	6.8	0.6	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.5	0.0	100
Manya Krobo	3.5	0.8	8.7	69.4	9.1	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.6	7.1	0.0	100
Afram Plains	10.2	0.1	10.7	0.4	67.1	5.2	0.9	0.0	0.7	0.8	0.5	0.0	0.1	0.0	3.5	0.0	100
Kwahu South	76.2	0.2	5.9	1.9	10.6	0.3	0.1	0.4	0.8	0.4	0.2	0.0	0.0	0.2	3.0	0.0	100
Sekyere East	78.2	0.0	0.0	0.0	0.2	0.2	2.1	0.8	1.4	5.1	1.3	0.0	0.2	0.0	10.5	0.0	100
Sekyere West	79.1	0.2	0.2	0.0	0.1	0.4	0.6	2.2	6.5	1.9	0.5	0.2	0.0	0.0	8.2	0.0	100
Ejura sekyeredumas	47.9	0.3	0.0	0.0	1.0	3.7	9.1	2.0	4.2	2.8	1.4	0.3	0.5	0.2	26.6	0.0	100
Karaga	0.0	0.2	0.0	0.0	0.0	0.0	89.1	0.5	0.3	0.0	0.0	0.0	0.0	0.0	9.9	0.0	100
Savelugu nanton	0.3	0.0	0.0	0.0	0.0	0.0	96.5	0.6	1.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	100
Tamale	4.0	1.3	1.1	0.7	1.2	0.2	74.1	1.2	1.1	2.2	0.4	1.1	0.0	1.2	10.4	0.0	100
Tolon Kumbungu	0.0	0.0	0.0	0.0	0.7	0.0	96.9	0.2	0.8	0.6	0.0	0.0	0.0	0.0	0.8	0.0	100
West Mamprusi	0.2	0.0	0.0	0.0	1.0	0.0	0.6	74.4	4.0	0.3	0.0	2.2	0.0	7.4	9.5	0.4	100
Total	27.0	0.7	4.2	6.4	37.2	1.4	13.4	2.3	1.0	0.8	0.2	0.2	0.0	0.5	4.7	0.1	100

In terms of religious affiliation by locality, Islam is dominant in urban localities in the study area, with about 27.5 percent of household heads professing this faith, followed by Catholic household heads (11.3 percent). In rural areas, Pentecostal household heads are a majority (18.3 percent) followed by Catholics (11.3 percent). As in the Afram Basin and the Southern MiDA Zone, a significant percentage of household heads in both urban (21.1 percent) and rural (19.4 percent) localities profess to “Other Christian” faiths.

Table 2.16 below shows the religious affiliation of household heads by district of residence. High percentages of household heads in North Dayi (37.6 percent) and Hohoe (38.0 percent) profess to Catholicism while in Gomoa District, a high percentage of household heads are Methodists. Pentecostalism is quite widespread in many districts, in Dangme West (26.7 percent) for example, Akatsi (44.4 percent) Yilo Krobo (32.2 percent) and in Kwahu North – Afram Plains 33.8 percent of household heads are Pentecostals. “Other Christian” faiths are also quite widespread in many districts. Household heads in Gomoa (23.4 percent), Awutu Efutu Senya (31.6 percent), Dangme West (30.0 percent) South Tongu (21.6 percent), North Dayi (21.0 percent), Fanteakwa (35.9 percent), Akwapem South (28.2 percent), Manya Krobo (26.7

percent), Kwahu North – Afram Plains (39.2 percent), Kwahu South (29.3 percent), Sekyere East (31.9 percent) and Sekyere West (26.4 percent) profess “Other Christian” faiths. High percentages of household heads who profess Islam are found in Northern Zone districts such as Savelugu Nanton (97.1 percent), Tolon Kumbungu (91.3 percent), Karaga (89.5 percent), Tamale Metropolis (80.6 percent) and West Mamprusi District (72.4 percent). A high percentage of household heads in Ejura Sekyeredumase District (38.0 percent) of the Afram Basin Zone also profess Islam. Traditional religion is more common among household heads in Ketu (37.8 percent), Keta (34.1 percent) and Akatsi (25.2 percent)

Table 2.15: Household heads, by religious affiliation and MiDA Zone and locality (%)

Religious Affiliation	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Catholic	3.0	10.2	14.4	11.3	11.3	11.3	11.3
Anglican	0.5	0.7	0.9	0.8	1.6	0.4	0.8
Presbyterian	1.2	11.6	11.8	9.9	10.4	9.7	9.9
Methodist	0.4	5.2	5.3	4.4	5.2	4.1	4.4
Pentecostal	0.9	19.8	18.8	15.9	10.3	18.3	15.9
Spiritualist	0.2	1.5	4.2	2.8	3.7	2.4	2.8
Other Christian	4.5	31.8	18.9	19.9	21.1	19.4	19.9
Islam	84.7	9.5	4.8	20.1	27.5	17.1	20.1
Traditionalist	4.4	1.8	12.5	8.2	3.6	10.1	8.2
No Religion	0.2	7.6	7.0	6.0	5.1	6.3	6.0
Other	0.0	0.3	1.4	0.8	0.3	1.1	0.8
Total	100	100	100	100	100	100	100

Table 2.16: Distribution of household heads, by religious affiliation, district and MiDA Zone (%)

District	Religious Affiliation											
	Catholic	Anglican	Presbyter	Methodist	Pentecost	Spiritual	Other Christian	Islam	Traditional	No Religion	Other	Total
Gomoa	5.8	0.3	0.9	23.8	17.0	10.4	23.4	8.5	2.4	6.3	1.1	100
Awutu Efutu Senya	6.1	0.5	2.2	10.0	13.2	14.8	31.6	7.7	3.9	10.1	0.0	100
Dangme West	10.3	0.1	6.3	3.9	26.7	3.5	30.0	2.4	2.5	14.2	0.0	100
South Tongu	10.8	0.7	16.5	0.4	16.1	1.7	21.6	1.5	13.1	17.7	0.0	100
Keta	18.7	1.5	12.4	0.0	3.4	0.3	15.8	0.0	34.1	6.4	7.4	100
Ketu	16.3	0.5	5.0	0.5	6.3	2.6	14.3	2.6	37.8	13.7	0.3	100
Akatsi	8.9	0.0	6.1	0.1	44.4	0.6	2.8	0.8	25.2	6.6	4.5	100
North Dayi	37.6	3.9	24.0	0.3	3.6	4.1	21.0	2.2	2.6	0.6	0.1	100
Hohoe	38.0	0.9	30.0	0.9	4.4	1.2	17.5	5.9	0.7	0.6	0.0	100
Fanteakwa	10.0	1.1	22.5	3.6	16.2	0.8	35.9	2.6	0.6	5.0	1.6	100
Akuapem South	5.0	1.7	20.4	5.7	18.2	2.0	28.2	13.1	1.2	4.6	0.0	100
Yilo Krobo	14.3	0.7	22.0	5.0	32.2	4.9	16.8	1.8	0.0	1.7	0.7	100
Manya Krobo	12.2	1.8	22.0	3.1	18.8	2.1	26.7	8.7	1.0	3.4	0.3	100
Afram Plains	9.5	0.0	7.5	0.6	33.8	0.5	39.2	4.1	2.0	2.9	0.0	100
Kwahu South	10.3	0.3	18.0	4.7	19.1	2.4	29.3	4.6	1.1	10.1	0.2	100
Sekyere East	11.1	1.3	9.2	10.8	6.8	1.8	31.9	14.7	0.9	11.5	0.0	100
Sekyere West	9.4	1.6	10.6	10.3	16.3	2.4	26.4	9.1	2.8	11.0	0.0	100
Ejura Sekyere	12.4	1.0	5.7	4.6	6.3	0.7	19.4	38.0	3.8	6.8	1.4	100
Karaga	0.5	0.5	0.2	0.0	0.2	0.0	0.6	89.5	8.1	0.6	0.0	100
Savelugu Nanton	0.3	0.0	0.0	0.0	0.4	0.0	0.5	97.1	1.8	0.0	0.0	100
Tamale	5.0	1.0	2.5	0.7	1.4	0.3	7.7	80.6	0.8	0.0	0.0	100
Tolon Kumbungu	1.1	0.0	0.5	0.5	0.8	0.7	0.7	91.3	4.1	0.3	0.0	100
West Mamprusi	4.6	0.2	0.4	0.0	1.1	0.0	7.7	72.4	13.2	0.2	0.3	100
Total	11.3	0.8	9.9	4.4	15.9	2.8	19.9	20.1	8.2	6.0	0.8	100

3. Education

3.1 Introduction

Universally, education is seen as the process by which society deliberately transmits its accumulated knowledge, values, and skills from one generation to another through formal or informal institutions. In the Ghanaian context, education may be described as formal or informal based on whether the institution through which it is acquired or transmitted is itself formal or informal. The main objective of this section is to evaluate the level of attainment of formal education of all household members in the various MiDA intervention zones. Additional information on adult literacy and apprenticeship training acquired by the household members is also discussed at this section.

3.2 Educational Attainment

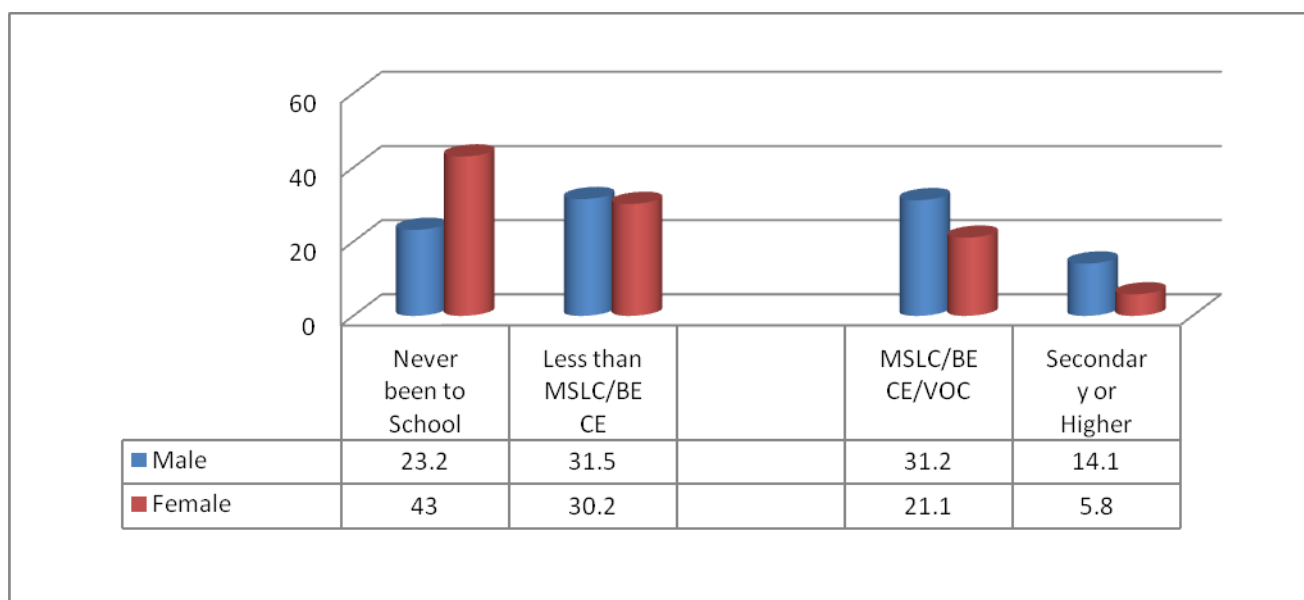
Educational attainment is assessed by the level of formal schooling of all household members at the time of the interview. Table 3.1 shows the level of educational attainment of the adult population, namely, persons aged 15 years and older, by sex.

Table 3.1: Population aged 15 years and older, by educational attainment and sex (%)

Level of Educational Attainment	Percent			Estimate		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Never Been to School	23.2	43.0	34.0	196,602	436,285	632,887
Less Than MSLC/BECE	31.5	30.2	30.8	266,703	306,058	572,761
MSLC/BECE/VOC	31.2	21.1	25.7	263,913	213,856	477,769
Secondary or Higher	14.1	5.8	9.6	119,754	58,728	178,482
Total	100.0	100.0	100.0	846,972	1,014,926	1,861,898

Table 3.1 indicates that a total of 632,887 adults in the 23 MiDA districts have never been to school. This represents 34 percent of the total adult population of 1,861,898 in the MiDA districts. Furthermore, 572,761 people (or 30.8 percent of the total adult population) who were once in school never attained any certificate. While 477,769 people (or 25.7 percent of adults) attained the Middle School Leaving Certificate/Basic Education Certificate Examination/Certificate from a Vocational Institute (MSLC/BECE/VOC), only 9.6 percent (178,482) obtained secondary or higher level academic qualification. The data also indicate a substantial gender gap in education (Figure 3.1).

Figure 3.1: Gender gap in education by MiDA Zone (%)



The clear gender gap in education in MiDA districts is consistent with earlier surveys by the Ghana Statistical Service (GSS). While 43 percent (436,285) of the total adult female population never went to school, only 23.2 percent (196,602) of their male counterparts never went to school. Furthermore, while 14.1 percent (119,754) of the total adult male population of 846,972 had obtained a secondary or a higher level academic qualification, only 5.8 percent (58,728) of the total adult female population of 1,014,926, had attained a similar level.

Table 3.2: Population aged 15 years and older, by educational attainment and MiDA Zone (%)

Highest Educational Attainment	Locality			
	Northern Zone	Afram Basin	Southern Zone	Zonal Average
Never been to school	61.4	23.8	25.9	37.0
Less than MSLC/JSS/VOC	17.9	41.6	31.2	30.2
MSLC/JSS/VOC	10.0	27.7	32.1	23.3
Secondary or Higher	10.7	6.9	10.8	9.5
Total	100.0	100.0	100.0	100.0

In terms of locality, the data indicate that the proportion of adults who have never been to school is higher in the Northern Zone than in the other MiDA intervention zones. While 61.4 percent of the adult population in the Northern Zone have never been to school, only 23.8 percent and 25.9 percent have never been to school in the Afram Basin and Northern Zone respectively (see Appendix B3.1 for district-level information). Interestingly, the proportion of adults with

secondary school or higher certificates appears greater for the Northern Zone than Afram Basin and similar to Southern Zone. While 10.7 percent of the adult population in the Northern Zone have either obtained SSCE/GCE ‘O’/A Level or higher level academic qualifications, only 6.9 percent of their counterparts at the Afram Basin have attained a similar level.

In general, the proportion of adults with academic qualifications is not encouraging – only 32.8 percent of the total adult population in all the three MiDA zones have academic certificates, while 30.2 percent went to school but could not obtain any certificate, 37 percent never went to school at all.

3.3 Attendance Rate

This section looks at school attendance in the 12 months preceding the day of the interview. Table 3.3 specifically looks at school attendance in different age categories, by sex and locality. The table indicates that attendance in urban areas is higher than in rural areas. It is also clear that the attendance rate seems to be normally distributed among the different age categories. The rate appears to be lower at the pre-school stage and then increases until it peaks at the JSS stage and then suddenly declines through the secondary stage to the tertiary level. This might be due to the fact that a lot of children in rural areas do not attend pre-school and many children stop school at JSS level.

Table 3.3: Gross enrolment in the last 12 months, by sex and locality (%)

Age Group	Urban			Rural		
	Male	Female	Total	Male	Female	Total
Pre-school (3-5)	73.1	73.1	73.1	56.4	58.5	57.5
Primary (6-11)	93.8	90.1	92.0	83.4	82.6	83.0
JSS (12-14)	94.4	92.6	93.5	84.9	83.3	84.1
SSS (15-17)	86.9	82.2	84.6	73.2	72.4	72.8
Tertiary (18-25)	46.1	27.8	37.0	39.9	20.9	30.4

On the whole, the attendance rate is highest at JSS level. While 93.5 percent of children of JSS age in urban areas were in school during the last 12 months, the figure for the primary age group in urban areas was 90.1 percent, and only 37.0 percent of the tertiary age group in urban areas also being in school. Children of JSS age recorded the highest attendance rate in rural areas – 84.1 percent – while only 30.4 percent of the tertiary age group in rural areas were in school.

It appears there is no significant gender gap in school attendance rates with the exception of the tertiary level. While 46.1 percent of males in the tertiary age group in urban areas were in school, only 27.8 percent of their female counterparts were in school. The disparity in urban areas for tertiary school attendance is not very different from that in rural areas – 39.9 percent of males of tertiary age were in school along with 20.9 of their female counterparts (Table 3.4).

Table 3.4 shows slight disparity in school attendance rates between sexes within both urban and rural areas of MiDA Zones. However, attendance rates in rural Northern Zone are much lower than in rural Afram Basin and Southern Zone. Furthermore, there is a significant gap in school

attendance rate between the urban Northern Zone and rural Northern Zone. While total school attendance for the urban Northern Zone is 70.4 percent, it is only 51.1 percent in rural Northern Zone.

Table 3.4: Gross enrolment in the last 12 months in MiDA Zones, by sex and locality (%)

MiDA Zone	Urban			Rural		
	Male	Female	Total	Male	Female	Total
Northern	77.0	63.8	70.4	55.5	46.7	51.1
Afram Basin	79.8	74.8	77.3	73.6	67.7	70.6
Southern	77.5	72.5	75.0	77.1	72.4	74.7

3.4 Educational Expenses

This section discusses information on educational expenses incurred by households on each member attending school or college during the 12 months preceding the interview. Table 3.5 presents the average amount of money (in new Ghana cedis) spent on various educational items during the 12 months preceding the interview.

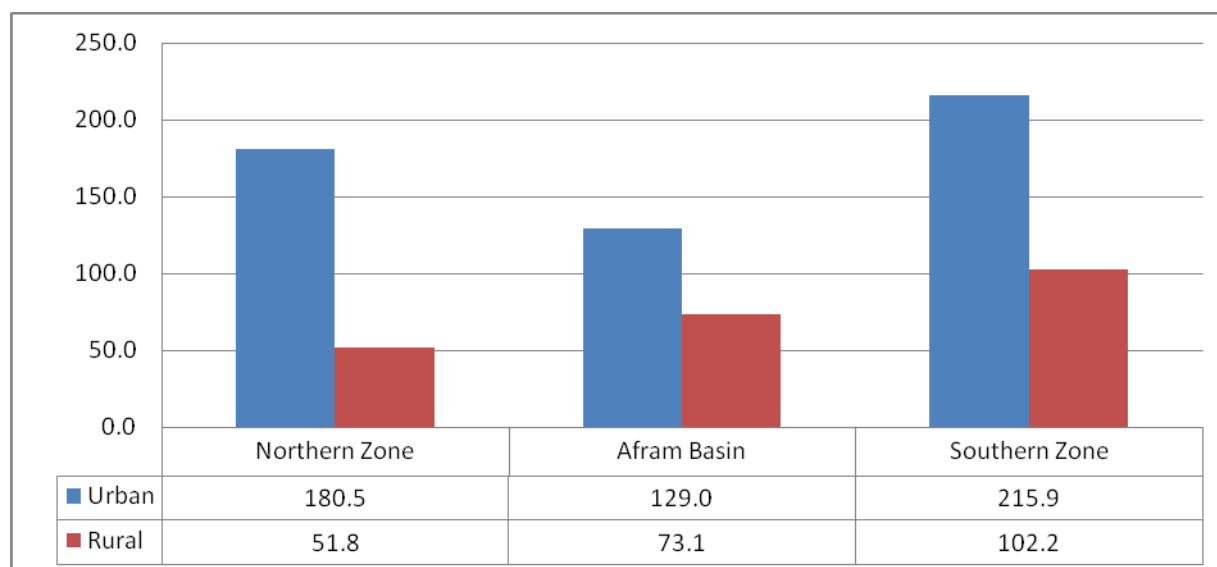
Table 3.5: Average household expenditure per member attending school/college in the last 12 months, by locality (GH¢)

Item	Urban			Rural			All MiDA Zones (Total)	
	Northern	Afram Basin	Southern	Northern	Afram Basin	Southern	GH¢	Percent
School/registration fee	63.3	33.6	68.3	8.6	13.0	20.4	34.5	28.1
Contributions to PTA	3.1	4.3	4.7	1.6	1.9	2.2	3.0	2.4
Uniform & sports clothes	9.0	9.2	10.2	5.8	7.2	7.0	8.1	6.6
Transportation to & from school	24.8	2.8	10.6	2.7	1.9	4.6	7.9	6.4
Books/school supplies	12.4	12.2	15.4	3.8	7.2	9.1	10.0	8.2
Food, boarding & lodging at school	56.7	53.9	91.0	21.2	36.8	49.7	51.6	42.0
Expenses on extra classes	7.2	9.5	12.8	2.1	4.2	6.9	7.1	5.8
In-kind expenses	4.0	3.1	2.9	6.0	0.9	2.3	3.2	2.6
Total	180.5	129	215.9	51.8	73.1	102.2	122.7	100.0

The data indicates that on average, households spend GH¢122.7 annually on each member attending school or college. However, the annual average amount spent varies from one urban or rural area to the other. The urban Southern Zone recorded the highest amount (GH¢215.9) followed by the Northern Zone with an annual average expenditure of GH¢180.5 on education. It is observed from the data that households spend more on food, boarding and lodging at school. In fact, food, boarding and lodging alone accounted for 42 percent of total expenditure, followed by school/registration fees which accounted for 28.1 percent. Even though expenditure on

transportation to and from school is low for all localities, it is relatively high for the urban Northern Zone. Generally, average annual expenditure on education is higher in urban areas than in rural areas (Figure 3.2).

Figure 3.2: Expenditure on education, by locality (GH¢)



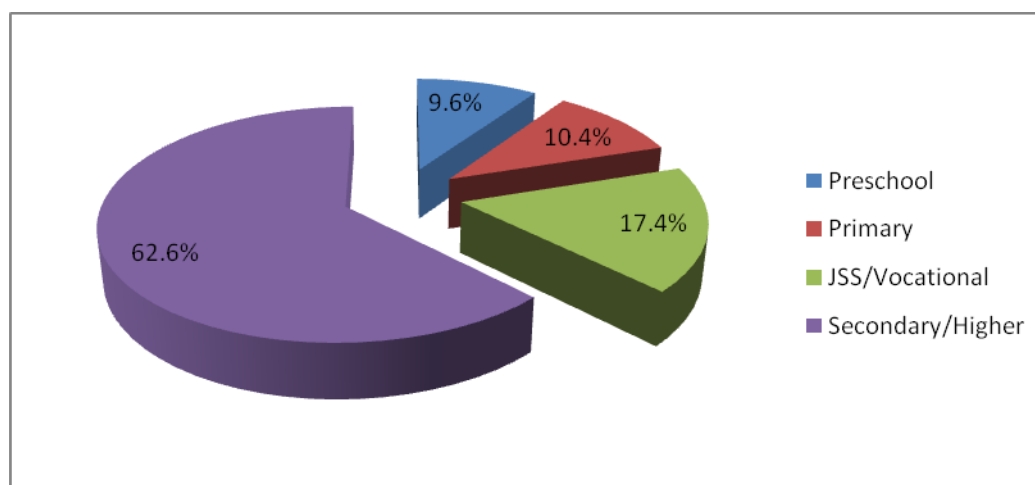
It appears that education expenditure increases as one moves higher up the academic ladder (Table 3.6; see also Appendix Tables 2.4; 2.5; 2.6 and 2.7).

Table 3.6: Education expenses at various levels in the last 12 months, by locality (GH¢)

Item	Urban			Rural			All MiDA Zones (Total)	
	Northern Zone	Afram Basin	Southern Zone	Northern Zone	Afram Basin	Southern Zone	GH¢	Percent
Pre-School	84.4	102.6	129.3	26.5	49.0	62.5	75.7	9.6
Primary	99.4	87.5	143.3	32.5	54.8	72.4	81.7	10.4
JSS/Vocational	132.8	123.3	193.1	93.4	117.1	147.9	150.6	17.4
Secondary or Higher	791.2	391.7	619.8	320.3	399.7	437.2	493.0	62.6
Total	1,107.8	705.1	1,085.5	472.7	620.6	720.0	801.0	100.0

Figure 3.3 shows that the cost of education at secondary/higher levels in MiDA Zones is generally high. While the expenses on secondary/higher education account for 62.6 percent of total cost of education, only 9.6 percent of total expenses are incurred by households on pre-school education. This implies that, on average, households spend more on their members in secondary/higher education than those at lower levels.

Figure 3.3: Education expenses at various levels



3.5 Adult Literacy

This section assesses the ability of adult household members (15 years and above) to do simple arithmetic and to read or write simple sentences in English and/or the local language he/she is proficient in. In order to avoid self-reported literacy, which research has shown to be a poor measure, flash cards were used to elicit information on the level of literacy of adults in the 23 MiDA districts.

Table 3.7 presents the ability of adults to either read a simple sentence in English or in the local language in which they are most proficient. It is observed that only 38.2 percent of the adult population can read. There are significant variations both in sex and locality. While 45.1 percent of adults in urban areas are literate, only 31.3 percent in rural areas are literate. Again, 71.3 percent of adult females are illiterate compared to 42.3 percent of adult males.

Table 3.7: Adults who can read in English or a Local Language, by sex and locality (%)

Sex	Northern Zone	Urban			Rural			All	All MiDA Zones (Total)
		Afram Basin	Southern Zone	All	Northern Zone	Afram Basin	Southern Zone		
Male	42.3	62.0	60.5	54.9	20.0	33.9	54.7	40.4	47.7
Female	25.0	37.2	40.7	35.2	7.1	19.6	29.1	22.1	28.7
Total	33.7	49.6	50.6	45.1	13.6	26.8	41.9	31.3	38.2

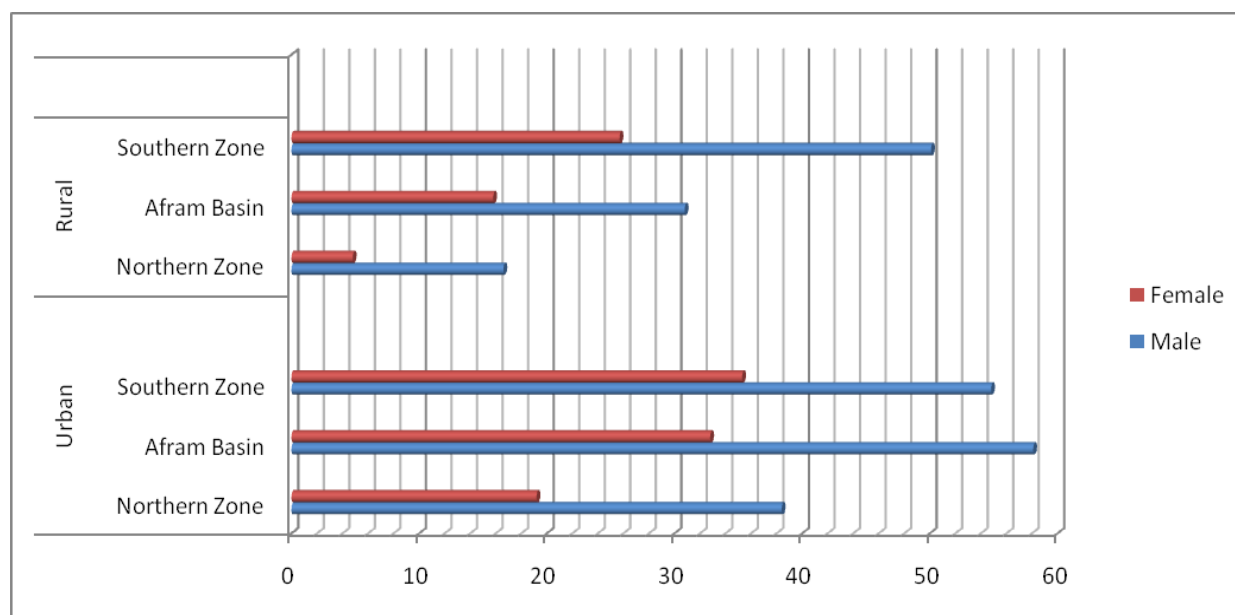
Table 3.8 shows similar information to that in Table 3.7. The only difference is that Table 3.8 specifically illustrates the ability of household members who can read and at the same time write in any language. Males generally outperformed females in this task. While 43.3 percent of the total male population in the 23 MiDA Districts can read and write a simple sentence in either English or a local language, only 24.4% of their female counterparts can perform a similar task.

Table 3.8: Adults who can read and at the same time write in English or a Local Language, by Sex and Locality (%)

Sex	Northern Zone	Urban			Rural			All	All MiDA Zones (Total)
		Afram Basin	Southern Zone	All	Northern Zone	Afram Basin	Southern Zone		
Male	38.4	58.1	54.8	50.1	16.6	30.8	50.1	36.5	43.3
Female	19.2	32.8	35.3	30.0	4.8	15.8	25.7	18.8	24.4
Total	28.8	45.5	45.1	40.1	10.7	23.3	37.9	27.7	33.9

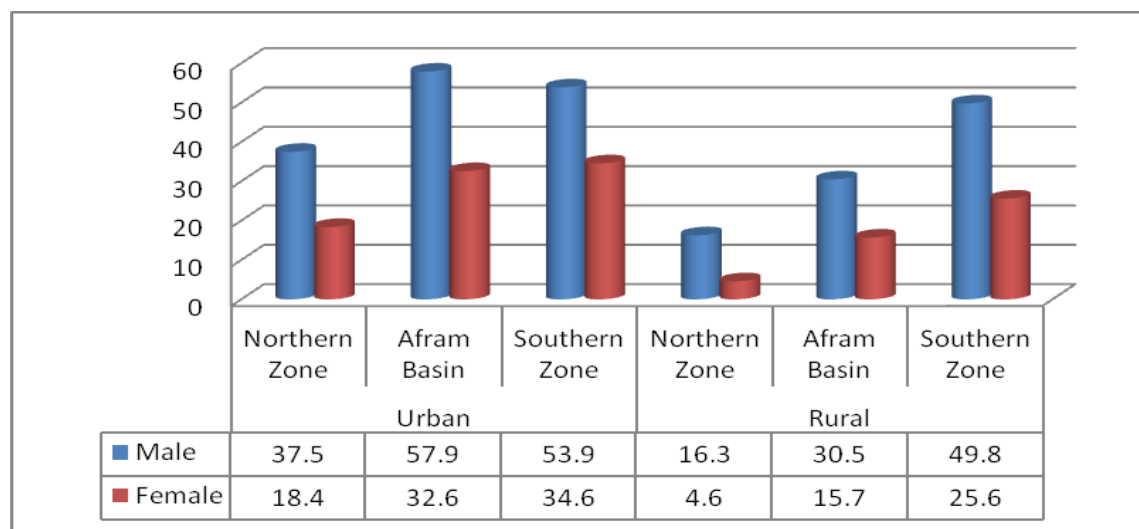
Table 3.8 shows variations in the performance of reading and writing at the same time among localities and between sexes. In the main, while rural households in the Southern Zone are ahead of their peers in the Afram Basin, the latter also perform better than their counterparts in the Northern Zone. Again, households in urban areas can read and write better than those in rural areas. While 19.2 percent of the male population in the urban north can read and write any language only 4.8 percent in the rural north can perform similar task. Figure 3.4 presents the variations in the ability of males and females to read and write at the same time in any language.

Figure 3.4: Adults who can read and write in any language at the same time, by locality and sex (%)



The results of a harder task – reading and writing in both English and a local language and at the same time undertaking arithmetic calculation – are shown in Figure 3.5.

Figure 3.5: Adult literacy and numeracy rates (adults who can read and write both English language and a local language as well as undertaking a written calculation), by sex and locality (%)



The results from Table 3.8 are comparable to those in Figure 3.5. While 33.9 percent of the total adult population in the 23 MiDA Districts can read and at the same time write in any language (Table 3.8), not only are 33.4 percent of the total adult population able to read and write at the same time but are also able to do arithmetic calculation (Figure 3.5). This implies that almost all the adults who are able to read and write in a language can also undertake meaningful arithmetic calculations.

With regard to adults who are able to do written calculations, survey results suggest above average performance, with 68 percent of adults in the 23 MiDA districts able to do written calculations (Table 3.9).

Table 3.9: Adult numeracy rates (adults who are able to do written calculations), by sex and locality (%)

Sex	Northern Zone	Urban			Rural			All	All MiDA Zones (Total)
		Afram Basin	Southern Zone	All	Northern Zone	Afram Basin	Southern Zone		
Male	70.7	87.9	85.7	81.3	41.9	76.6	81.0	70.4	75.9
Female	45.2	67.1	68.8	61.5	17.2	64.3	54.6	58.5	60.0
Total	58.0	77.5	77.3	71.4	29.5	70.5	67.8	64.5	68.0

Table 3.10 indicates the proportion of adults who can either read only English, or only a local language, or both. One interesting finding is that adult household members are better in English than they are in their local languages – while 34 percent of adults can read only English, only 29.7 percent can read only a local language.

Table 3.10: Adult literacy rates (literacy in English only/local language only/both English & local language), by sex and locality (%)

Sex					
Male	Locality	English Only	A Local Language Only	English & Local Language	Total
Urban	Northern Zone	62.3	42.3	41.0	48.5
	Afram Basin	73.5	66.8	61.6	67.3
	Southern Zone	78.2	62.3	60.2	66.9
	Total	71.9	56.7	54.2	60.9
Rural	Northern Zone	28.9	21.2	18.7	22.9
	Afram Basin	45.0	39.3	33.4	39.2
	Southern Zone	66.3	58.4	54.1	59.6
	Total	51.2	44.0	39.6	44.9
Female					
Urban	Northern Zone	38.3	24.1	23.0	28.5
	Afram Basin	45.1	43.3	36.0	41.5
	Southern Zone	55.0	43.6	40.1	46.2
	Total	47.7	37.8	34.1	39.9
Rural	Northern Zone	10.3	7.0	5.6	7.6
	Afram Basin	25.1	22.8	19.1	22.3
	Southern Zone	36.9	35.5	28.5	33.6
	Total	28.3	26.3	21.4	25.3
All					
Urban	Northern Zone	40.9	28.8	26.8	32.2
	Afram Basin	52.0	46.1	40.4	46.2
	Southern Zone	69.6	59.5	55.8	61.6
	Total	57.2	47.7	43.9	49.6
Rural	Northern Zone	21.0	13.6	12.3	15.6
	Afram Basin	30.3	28.2	23.5	27.3
	Southern Zone	41.9	37.7	31.7	37.1
	Total	34.0	29.7	25.1	29.6

3.6 Apprenticeship Training

Table 3.11 shows the distribution of apprentices (15 years and older) among various sectors of the Ghanaian economy. It is observed that 38.5 percent of the apprentices are engaged in the textiles/apparel/furnishing trade, making it the most popular trade among apprentices. The following also appear as important trades for apprentices: building, personal/grounds services, transportation and material moving and automotives.

Table 3.11: Apprentices 15 years and over, by main trades learnt, sex and locality (%)

Main Trade	Urban			Rural			All MiDA Zones		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Food Production/Processing and Beverages	0.4	6.9	3.7	0.6	7.8	4.2	0.5	7.4	3.9
Health Services and Related	0.0	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1
Hairdressers/Barbering/Personal /Grounds Services	1.9	28.2	15.0	1.7	26.2	13.9	1.8	27.2	14.5
Building	28.4	0.1	14.3	31.8	0.3	16.1	30.1	0.2	15.2
Automotives	15.4	0.4	7.9	13.4	0.5	6.9	14.4	0.5	7.4
Electricals	9.3	0.0	4.6	4.1	0.2	2.2	6.7	0.1	3.4
Mechanical	10.9	0.3	5.6	8.0	0.0	4.0	9.5	0.1	4.8
Fishing/Hunting/Forestry	0.6	0.1	0.4	1.5	0.3	0.9	1.0	0.2	0.6
Textiles/Apparel and Furnishing	15.7	62.5	39.1	14.5	61.5	38.0	15.1	62.0	38.5
Other Production-Related	0.6	0.6	0.6	0.5	2.6	1.6	0.6	1.6	1.1
Transportation and Material Moving	14.4	0.4	7.4	20.2	0.1	10.2	17.3	0.3	8.8
Visual and Performance Artists	1.2	0.1	0.7	1.5	0.3	0.9	1.4	0.2	0.8
Administrative/Support Services	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Others	1.2	0.0	0.6	1.8	0.1	1.0	1.5	0.1	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The data in Table 3.11 also indicate some trades that are popular with a particular sex group and locality. For example, major trades such as building, transportation and material moving, automotives, mechanical trade, electrical trade and fishing/hunting/forestry have higher proportions of males than females. While 28.4 percent of the male apprentice population in urban areas are engaged in building trade, only 0.1 percent of their female urban counterparts are engaged in building. The corresponding figures for rural areas are 31.8 percent for males and only 0.3 percent for females. In contrast, females seem to dominate in trades such as textiles/apparel and furnishing; hairdressing/barbering/personal/grounds service and food preparation/processing and beverage services.

Table 3.12 shows the average length of time it takes an apprentice to complete his/her training. It emerges that on average, apprentices need 26.3 months to complete their training. However,

trades such as mechanical, automotive and electrical take more than this average period of time to complete training.

Table 3.12: Average length of apprenticeship training of population 15 years and older, by main trade learnt, sex and locality (months)

Main Trade	Urban			Rural			All MiDA Zones		
	Male	Female	All	Male	Female	All	Male	Female	All
Food Production/Processing and Beverages	18.0	19.3	18.7	26.9	18.5	22.7	22.5	18.9	20.7
Health Services and Related Trades	-	7.5	3.8	24.0	-	12.0	12.0	3.8	7.9
Hairdressing/Barbering/Personal/Grounds Service Trades	17.6	24.1	20.9	22.1	23.8	23.0	19.9	24.0	21.9
Building Trades	29.4	24.0	26.7	29.8	18.0	23.9	29.6	21.0	25.3
Automotives	34.5	32.0	33.3	27.3	27.6	27.5	30.9	29.8	30.4
Electricals	32.1	-	16.1	27.3	60.0	43.7	29.7	30.0	29.9
Mechanical	32.6	48.0	40.3	34.5	-	17.3	33.6	24.0	28.8
Fishing/hunting/forestry	18.0	24.0	21.0	21.5	16.7	19.1	19.8	20.4	20.1
Textiles/Apparel and Furnishing	30.9	25.1	28.0	25.3	23.9	24.6	28.1	24.5	26.3
Other Production-Related Trades	16.8	5.0	10.9	26.1	10.4	18.3	21.5	7.7	14.6
Transportation and Material Moving	26.5	5.7	16.1	24.6	12.0	18.3	25.6	8.9	17.2
Visual and Performance Artists	34.5	36.0	35.3	18.5	18.7	18.6	26.5	27.4	26.9
Administrative/Support Services	-	-	-	1.0	-	0.5	0.5	-	0.3
Others	22.2	-	11.1	19.5	12.0	15.8	20.9	6.0	13.4
Total	30.2	24.3	27.3	27.4	23.1	25.3	28.8	23.7	26.3

The duration of training for males appears to be slightly longer than that of females. While on the average, it usually takes about two years and five months (29 months) for a male to finish his training; his female counterpart would need about two years (24 months) to complete her training.

In general, males spend more time in apprenticeship in food production/processing & beverages, health services & related trades, building, automotives, mechanics, textiles/apparel & furnishing and transportation & material moving than females. In the rural areas, females spend relatively longer time as apprentices in trades such as food production/processing and beverages, hairdressing/barbering/personal/grounds service, visual and performance artists, mechanicanics as well as fishing/hunting/forestry than their male counterparts. On the otherhand, the apprenticeship time for trades such as building, automotives, textiles/apparel & furnishing and transportation & material moving trades is longer for males than females in the urban areas (Table 3.12). The situation reversed in the food production/processing and beverages, automotives and fishing/hunting/forestry trades.

4. Health

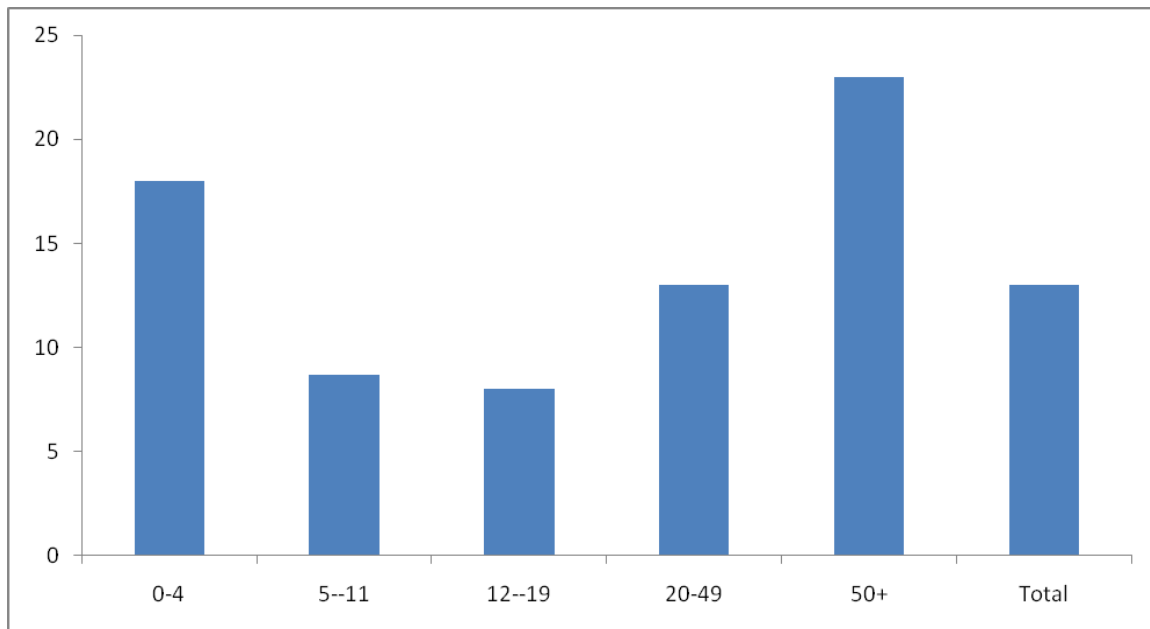
4.1 Introduction

This section presents information on health, the cost of medical care and the use made of different kinds of health services and facilities in the three MiDA zones. It also assesses the use of preventive services during the 12 months preceding the day of the interview. Data on relevant issues such as fertility, child mortality, child development, HIV awareness and participation in health insurance schemes are also discussed.

4.2 Health condition in the two weeks preceding the interview

The data indicate that 13 percent of the total population of the 23 districts in three MiDA zones either reported injury or sickness during the two weeks preceding the interview (Figure 4.1). It indicates that people aged 0-4 and those above 50 years old were more vulnerable to either injury or sickness. Indeed, as many as 18 percent of children in the 0-4 year group reported injury or sickness, as well as 23 percent of persons aged 50 and above.

Figure 4.1: Proportion of people suffering from illness or injury in the two weeks preceding interview, by age group (%)



Only 8 percent of people in the 12-19 age group reported injury or sickness in the two weeks preceding the interview, this was the lowest incidence. Close behind is the 5-11 age group in which only 8.7 percent reported injury or sickness.

This pattern is the same for all zones, with the exception of the Northern Zone where the proportion of children (aged 0-4) who suffered injury or sickness (21 percent) is higher than that of people aged 50 and above (18 percent) who reported injury or sickness.

The data indicates that females are more vulnerable to sickness or injury than males. Generally, 25 percent of the female population reported sickness or injury compared to 19 percent of males who also fell sick or were injured during the period.

Table 4.1: People suffering from an illness or injury during the previous two weeks, by mida zone, age group and sex (%)

Age Group	MiDA Zone and Sex									All		
	Northern Zone			Afram Basin			Southern Zone					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Femal e	Tot al
0-4	22	19	21	13	18	15	18	19	19	18	19	18
5-11	11	9.2	9.9	5.8	8.1	6.9	11	8.4	9.5	8.9	8.5	8.7
12-19	8	9.4	8.6	4.9	5.7	5.3	8.4	11	9.6	7.2	8.9	8
20-49	11	14	13	7.6	11	9.7	14	17	15	11	15	13
50+	18	18	18	16	22	19	22	29	26	19	25	23
Total	13	14	13	8.4	12	10	14	17	16	12	15	13

Table 4.2 shows that 65.2 percent of respondents who reported illness or injury had to stop their usual activity as a result of an injury or sickness they suffered in the two weeks before the interview. The variations between sexes and among age groups appear not to be significantly different. However, a greater proportion of males than females, both in the Northern Zone (65.9 percent) and Afram Basin (76.9 percent) reported having stopped their usual activities because of sickness or injury while a greater proportion of females (64.5 percent) than males in the Southern Zone could not perform their usual activity because of injury or sickness.

Table 4.2: Proportion of people suffering from an illness or injury who had to stop their usual activity two weeks preceding the interview, by mida zone, age group and sex (percent)

	MiDA Zone and Sex											
	Northern Zone			Afram Basin			Southern Horticultural Zone			All		
Age Group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	69.2	68.3	68.8	74.0	69.9	71.6	57.0	60.3	58.7	65.4	65.5	65.4
5-11	62.6	74.6	67.7	77.4	70.1	73.4	64.6	53.0	59.3	67.0	63.6	65.4
12-19	66.1	43.7	55.6	72.7	60.4	66.3	58.4	77.6	69.3	63.6	66.8	65.3
20-49	63.6	60.2	61.5	85.0	71.8	76.4	56.1	65.7	61.9	63.2	65.7	64.7
50+	67.2	71.1	69.1	72.1	68.4	69.8	62.6	63.6	63.3	65.7	65.5	65.6
Total	65.9	63.9	64.9	76.9	69.4	72.4	59.2	64.5	62.4	64.8	65.5	65.2

Information in Table 4.3 shows that there is a slight variation between urban and rural areas in terms of the proportion of people that could not perform their usual duties because of injury or sickness. A greater proportion of people in rural communities (66.6 percent) were unable to perform their usual activities than their urban counterparts (62 percent).

Table 4.3: Proportion of people suffering from an illness or injury who had to stop their usual activity two weeks preceding the interview, by locality, age group and sex (%)

Age Group	Locality and Sex								
	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	64.3	58.4	61.4	65.8	67.6	66.7	65.4	65.5	65.4
5- 11	53.9	62.4	58.3	71.7	64.2	68.3	67.0	63.6	65.4
12 – 19	62.9	61.4	62.1	64.1	70.1	67.3	63.6	66.8	65.3
20-49	59.1	61.3	60.5	64.8	68.0	66.7	63.2	65.7	64.7
50+	65.7	67.6	66.9	65.7	64.8	65.1	65.7	65.5	65.6
Total	61.3	62.4	62.0	66.2	66.8	66.6	64.8	65.5	65.2

Table 4.4: Proportion of people who reported ill and consulted health practitioner during the previous two weeks, by age group, mida zone and sex (%)

Age Group	MiDA Zone and Sex of Individual									All		
	Northern Zone			Afram Basin			Southern Zone					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	88	83	86	96	97	96	90	90	90	91	90	91
5--11	90	87	89	87	94	91	97	97	97	92	94	93
12-19	97	92	95	100	89	94	94	98	96	96	94	95
20-49	92	83	86	93	72	78	93	87	89	92	82	86
50+	93	90	92	92	84	86	84	93	90	88	90	89
Total	91	85	88	93	84	87	91	91	91	92	88	89

The proportion of people who consulted health practitioners anytime they suffered illness or injury is generally high. The data show that 89 percent of the people who reported illness or injury actually consulted a health practitioner. The variations among age groups, MiDA Zones and different sexes are not very pronounced. However, the proportion of males (92 percent) who consulted health practitioners when ill is higher than that of females (88 percent). The proportion of people in the Southern Zone who consult health practitioners (91 percent) is higher than the

proportion in the Northern Zone (88 percent), with the Afram Basin recording the smallest proportion.

The disparities in frequency of consultation of health practitioners among the 23 MiDA districts are quite significant (Appendix B3.2). Dangme West recorded the largest proportion (97 percent) while Tolon Kumbungu recorded the smallest (70 percent). It means that nearly everybody who suffers illness or injury in Dangme West consults health practitioners while only 7 out of every 10 people who reported illness in the Tolon Kumbungu also consulted health practitioners.

Table 4.5: People who reported ill and consulted a Health Practitioner in the two weeks preceding interview, by Health Practitioner consulted, MiDA Zone, and sex (%)

Health Practitioner	MiDA Zone and Sex of Individual									All		
	Northern Zone			Afram Basin			Southern Zone					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Doctor	34.2	34.2	37.5	54.0	58.6	56.7	46.9	53.1	50.6	45.0	51.9	49.0
Dentist	3.0	3.0	2.9	0.4	2.3	1.5	0.5	0.6	0.6	1.2	1.5	1.4
Nurse	34.8	34.9	32.7	27.4	25.6	26.4	28.2	25.7	26.7	29.9	26.7	28.0
Medical Asst.	11.2	11.2	11.1	4.7	4.8	4.8	3.8	5.0	4.5	6.1	6.2	6.2
Midwife	0.3	0.3	0.5	2.9	3.1	3.0	1.1	1.4	1.3	1.3	1.7	1.5
Pharmacist	0.3	0.3	0.3	1.8	1.0	1.4	2.0	1.7	1.8	1.5	1.2	1.3
Drug/ Chemical Seller	14.5	14.6	13.1	7.7	3.8	5.4	16.9	12.0	13.9	14.0	9.9	11.6
Traditional Healer	1.2	1.2	1.4	0.7	0.3	0.5	0.7	0.6	0.6	0.9	0.7	0.8
Trained TBA	0.0	0.0	0.2	0.4	0.5	0.5	0.0	0.0	0.0	0.1	0.2	0.2
Untrained TBA	0.3	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Among the various health practitioners, doctors emerged as the most consulted group. The data show that 49 percent of the people who reported sick consulted doctors and 28 percent consulted nurses. Apart from drug/chemical sellers and medical assistants who were consulted by 11.6 percent and 6.2 percent, respectively, of people who reported sick, consultations with other health practitioners were not particularly significant. However, the variations in consultation of a health practitioner by sex group and locality are quite striking (Table 4.6).

Table 4.6 shows that the locality of residence of an individual has some influence on the type of health practitioner he/she would consult when ill or injured. While 58.9 percent of people

reporting sick in urban areas consult doctors, only 43.8 percent of their rural counterparts do. On the other hand, while 22.2 percent of urban dwellers consult nurses, a greater proportion (31.1 percent) of their rural counterparts consults nurses. As might be expected, rural dwellers use the services of traditional healers (0.9 percent) more than their urban counterparts (0.3 percent).

Table 4.6: People who reported ill and consulted a health practitioner in the two weeks preceding interview, by health practitioner consulted, locality and sex (%)

Health Practitioner	Locality						All		
	Urban			Rural					
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Doctor	58.0	59.5	58.9	38.9	47.7	43.8	45.0	51.9	49.0
Dentist	1.9	1.6	1.7	0.9	1.4	1.2	1.2	1.5	1.4
Nurse	21.0	22.9	22.2	34.0	28.7	31.1	29.9	26.7	28.0
Medical Asst.	3.5	4.3	4.0	7.3	7.3	7.3	6.1	6.2	6.2
Midwife	1.1	0.7	0.9	1.4	2.2	1.8	1.3	1.7	1.5
Pharmacist	2.7	2.3	2.5	0.9	0.6	0.7	1.5	1.2	1.3
Drug/Chemical Seller	11.4	7.9	9.3	15.2	10.9	12.8	14.0	9.9	11.6
Traditional Healer	0.3	0.5	0.4	1.1	0.8	0.9	0.9	0.7	0.8
Trained TBA	0.0	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2
Untrained TBA	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4.7: People who reported ill and consulted a health practitioner in the two weeks preceding interview, by reason for medical consultation, MiDA zone and sex (%)

	MiDA Zone									
	Northern Zone			Afram Basin			Southern Zone			
Reason for Medical Consultation	Male	Female	Total	Male	Female	Total	Male	Female	Total	ALL
Illness	78.6	72.0	75.2	84.7	83.5	84.0	84.0	84.9	84.6	81.2
Injury	9.2	5.1	7.1	9.4	6.3	7.5	7.2	3.4	4.9	6.5
Follow-up	0.5	0.5	0.5	0.7	0.9	0.8	1.3	1.8	1.6	1.0
Check-up	3.5	7.6	5.6	3.1	4.2	3.8	4.3	5.2	4.8	4.7
Prenatal Care	0.0	4.6	2.4	0.4	3.0	2.0	0.0	1.6	1.0	1.8
Postnatal Care	3.8	5.3	4.6	0.0	0.7	0.4	1.0	0.5	0.7	1.9
Vaccination	0.5	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Other	3.8	4.6	4.2	1.7	1.4	1.5	2.3	2.4	2.4	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4.7 shows that about 81 percent of the people who consult health practitioners mainly do so because of illness, with about 6.5 percent citing injury as the reason. Apart from the other 4.7 percent who consult for check-ups, all the remaining reasons for medical consultations are not particularly significant. Reasons for consultations do not vary much between the sexes and urban and rural location (Table 4.8).

Table 4.8: People who reported ill and consulted a health practitioner in the two weeks preceding interview, by reason for medical consultation, locality and sex (%)

Reason for Medical Consultation	Locality					
	Urban			Rural		
	Male	Female	Total	Male	Female	Total
Illness	83.84	81.95	82.69	82.02	81.50	81.73
Injury	6.82	5.04	5.74	8.93	4.16	6.24
Follow-up	1.01	0.65	0.79	0.92	1.68	1.35
Check-up	4.55	5.69	5.24	3.44	5.40	4.54
Prenatal Care	0.25	1.63	1.09	0.00	3.19	1.80
Postnatal Care	0.76	1.30	1.09	1.95	1.86	1.90
Vaccination	0.00	0.00	0.00	0.23	0.18	0.20
Other	2.78	3.74	3.36	2.52	2.04	2.25
Total	100.00	100.00	100.00	100.00	100.00	100.00

From Table 4.9, publicly owned health facilities appear the most highly patronised (59.6 percent) followed by privately owned, non-religious health facilities (26.8 percent). However, the choice of the type of ownership of a health facility is not influenced by sex and locality. Hospitals, clinics and chemical stores appear to be the main health facilities patronised by the people. While 44.8 percent of the people go to hospital when suffering from illness or injury, 34.3 percent visit clinics, with 13.7 percent visiting chemical stores.

Table 4.9: People who reported ill and underwent medical consultation, by type of facility, miDA zone and sex (%)

Ownership of facility	MiDA Zone								
	Northern Zone			Afram Basin			Southern Horticultural Zone		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Public	74.6	78.5	76.5	69.8	77.1	74.3	59.4	59.7	59.6
Private religious	3.9	6.3	5.1	12.3	12.5	12.4	10.7	14.3	12.8
Private non-religious	21.1	15.0	18.1	14.7	9.1	11.3	29.8	24.7	26.8

Quasi public	0.4	0.3	0.3	3.3	1.2	2.0	0.2	1.3	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Type of facility									
Hospital	49.8	56.2	53.0	48.6	60.2	55.7	43.4	45.7	44.8
Clinic	28.8	27.9	28.4	37.8	29.9	33.0	33.9	34.6	34.3
MCH Clinic	2.1	1.1	1.6	0.5	1.1	0.9	1.8	2.2	2.0
Maternity Home	0.0	0.5	0.3	0.4	1.4	1.0	0.4	0.5	0.5
Pharmacy	0.5	0.6	0.6	1.6	0.7	1.0	2.6	1.6	2.0
Chemical Store	14.5	10.4	12.5	9.0	5.6	6.9	15.5	12.4	13.7
Consultant's Home	2.7	2.5	2.6	0.9	0.5	0.7	0.6	0.7	0.7
Patient's Home	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.4
Community EPC Centre	1.0	0.8	0.9	0.0	0.0	0.0	0.7	0.8	0.8
Other	0.6	0.0	0.3	1.3	0.7	0.9	0.4	1.4	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4.10: Average consultation fees and medicines paid (excluding those who paid nothing), by mida zone and sex (GH¢)

Medical Expenses	MiDA Zone											
	Northern Zone			Afram Basin			Southern Zone			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Consultation Fee	2.4	1.9	2.1	2.3	3	2.7	5.1	3.8	4.4	3.8	3.3	3.5
Amount for Medicines	5.8	5.7	5.8	10	6	7.7	10	7.9	8.8	9	7	7.9
Total Medical Expenses	10	8.1	9.1	10	8.1	9.1	14	13	13	13	10	12

The average medical expenses incurred by people who reported ill or injured in the two weeks preceding the day of the interview is GH¢12. This is made up of expenses on consultation and medicine recorded as GH¢3.5 and GH¢7.9 respectively. People in the Southern Zone seem to spend more on health (GH¢13) than people in the two other zones (GH¢9.1 each). Males appear to spend more on health (GH¢9) than their female counterparts (GH¢7). It is also clear from

Table 4.11 that urban dwellers spend more on health (GH¢12) than their rural counterparts (GH¢11).

Table 4.11: Average consultation fees and medicines paid (excluding those who paid nothing), by locality and sex (GH¢)

Medical Expenses	Locality								
	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Consultation fee	3.2	3	3.1	4	3.4	3.7	3.8	3.3	3.5
Amount for Medicines	9.8	7.2	8.2	8.7	7	7.8	9	7	7.9
Total Medical Expenses	14	11	12	13	10	11	13	10	12

Table 4.12 shows that medical expenses are mainly borne by household members (75 percent), with health insurance emerging as the next most important financier of medical bills. A significant proportion (3.7 percent) of people who reported ill also had their medical bills paid by relatives who are not household members. Payment of medical bills by a household member (84.5 percent) is more widespread in the Northern Zone than in the other MiDA zones. While health insurance seems well patronized by people in the Afram Basin (31.1 percent), it is relatively less popular among people in the Northern Zone. The choice of financier of the medical bill is not much influenced by the sex of the individual. Table 4.13 presents the distribution of results by locality.

Table 4.12: People who reported ill in the two weeks preceding interview, by financier of medical expenses, mida zone and sex (%)

Medical Expenses	MiDA Zone											
	Northern Zone			Afram Basin			Southern Horticultural Zone			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Household member	85.0	84.3	84.7	63.9	60.1	61.9	77.8	73.5	75.5	76.7	73.4	75.0
Other relative	2.1	2.1	2.1	2.2	2.7	2.5	4.7	6.2	5.5	3.2	4.1	3.7
Government	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.3	0.3	0.2	0.2	0.2
Employer	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.1
Household Member Employer	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2
Health Insurance	12.5	13.3	12.9	29.8	32.7	31.3	16.4	19.2	17.9	18.5	20.8	19.7
Other	0.3	0.2	0.2	4.0	4.3	4.1	0.3	0.4	0.3	1.2	1.3	1.2
Total	100	100	100	100	100	100	100	100	100	100	100	100

Table 4.13: People who reported ill in the two weeks preceding interview, by financier of medical expenses, locality and sex (%)

	Locality								
	Urban			Rural			All		
Medical Expenses	Male	Female	Total	Male	Female	Total	Male	Female	Total
Household member	64.3	61.3	62.8	81.5	78.4	79.9	76.7	73.4	75.0
Other Relative	3.2	4.2	3.7	3.2	4.1	3.7	3.2	4.1	3.7
Government	0.5	0.5	0.5	0.1	0.0	0.1	0.2	0.2	0.2
Employer	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Household Member Employer	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2
Health Insurance	29.6	31.7	30.7	14.2	16.3	15.3	18.5	20.8	19.7
Other	2.1	2.0	2.1	0.9	1.0	0.9	1.2	1.3	1.2
Total	100	100	100	100	100	100	100	100	100

4.3 Fertility, pre-natal care and contraceptive use

This section focuses on women of reproductive age (between the ages 15 and 49 years). In all, 7.8 percent of the women reported that they were pregnant during the period of the interview. Information in Table 4.14 shows that the highest proportion of women pregnant at the time of interview was 14.7 percent for women aged 20-24. Additionally, women in age groups 25-29, 30-34 and 35-39 years recorded significant proportions of pregnancies at the time of the interview.

Table 4.14: Pregnancy status of women aged 15-49 years, by locality and age group (%)

Age Group	Pregnant During								
	Ever Pregnant			Previous 12 months			Currently Pregnant		
	Urban	Rural	All	Urban	Rural	All	Urban	Rural	All
15-19	6.5	15.3	12.4	2.8	10.9	8.3	1.1	1.8	1.6
20-24	46.7	61.6	57.1	16.3	33.3	28.2	4.6	19.0	14.7
25-29	71.5	90.1	84.9	25.9	35.7	33.0	9.8	14.5	13.1
30-34	87.1	96.7	93.5	20.1	31.4	27.7	6.6	8.9	8.2
35-39	97.1	98.7	98.2	19.7	29.5	26.6	5.7	14.2	11.7
40-44	97.5	99.3	98.8	8.1	13.9	12.4	3.4	2.3	2.6
45-49	97.4	98.8	98.4	5.0	4.6	4.7	0.8	1.1	1.1
Total	63.4	75.3	71.8	14.0	23.3	20.5	4.6	9.2	7.8

Again, 20.5 percent of the women were reported to have been pregnant during the previous 12 months. In this category, women in the age group 25-29 recorded the highest proportion of pregnancy (33 percent) and again, women in the age groups; 20-24, 30-34 and 35-39 recorded a significant proportion of pregnancies. Moreover, significant proportions of women in the age groups 15-19, 40-44 and 45-49 also indicated being pregnant during the previous 12 months.

About 7 out of every 10 women declared ever being pregnant. The proportion of women who said they have ever been pregnant before appears to increase with age. Women aged 35-49 reported the highest proportion (over 98 percent) while those aged 15-19 recorded the smallest proportion (12.4 percent).

The data showed that the proportion of pregnancies recorded in rural areas is usually higher than the proportion recorded in urban areas – 9.2 percent of women in rural areas indicated being pregnant at the time of the interview, while only 4.6 percent of their urban counterparts gave similar indications.

Women in the three MiDA zones who became pregnant in the 12 months prior to the interview were asked about the outcome of their pregnancies. Only 1.6 percent of them said their pregnancy did not result in live births (Table 4.15). It is noteworthy that women below 35 years old in the Southern Horticultural Zone had proportionately more pregnancies not resulting in live births than their counterparts in the other zones and categories.

Table 4.15: Proportion of Pregnancies in the Last 12 Months Not Resulting In a Live Birth, by Age of Woman and Locality (%)

MiDA Zone	Women of Reproductive Age		
	15-34	35-49	Total
Northern Horticultural Zone	6.5	11.1	7.8
Afram Basin Zone	4.8	14.0	7.1
Southern Horticultural Zone	10.6	15.3	11.9
Total	7.3	13.5	9.0

Figure 4.2 shows some variations between urban and rural women and the two age groups. Again, it is clear that women aged under 35 in urban areas are more prone to pregnancies not resulting in live births than their older urban counterparts and all women in rural areas.

Table 4.16 shows that over 95 percent of women aged 15-49 years in the MiDA areas of Ghana who were pregnant during the interview period or pregnant in the 12 months preceding the day of the interview, had received pre-natal care. Women in the Afram Basin reported the highest proportion (97.8 percent), followed by those in the Northern Zone (95.3 percent).

Figure 4.2: Proportion of pregnancies in the last 12 months not resulting in a live birth, by age of woman and locality (%)

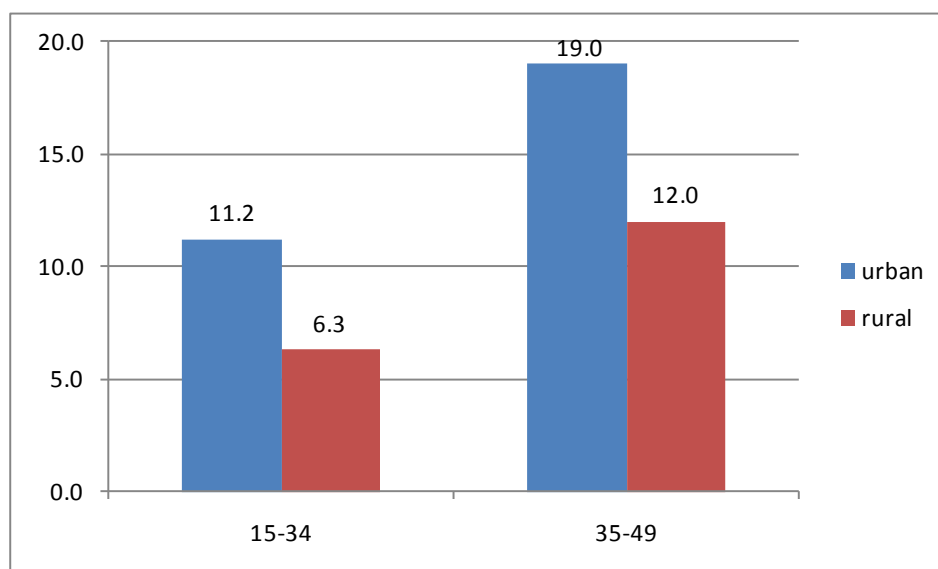


Table 4.16: Women aged 15-49 years currently pregnant or pregnant during the last 12 months who received pre-natal care, by age and mida zone (%)

Age Group	MiDA Zone			Total
	Northern Horticultural Zone	Afram Basin Zone	Southern Horticultural Zone	
15-19	100.0	100.0	80.4	95.9
20-24	92.5	96.3	95.7	95.1
25-29	93.4	95.9	99.4	96.0
30-34	91.9	98.7	97.3	95.8
35-39	95.2	95.2	95.9	95.5
40-44	95.6	100.0	87.3	95.9
45-49	94.2	100.0	94.9	95.6
Total	93.6	97.8	95.3	95.7

Table 4.17 shows that contraceptive use is very low among women aged 15-49 years and their sexual partners. Only a little more than 12.6 percent of women and/or their partners use a contraceptive method. Contraceptive use is relatively high among women and/or their partners in the 30-34 age group (21.9 percent) and least among those in the 15-19 age group (1.8 percent). With respect to the MiDA Zones, the level of contraceptive use among the women and/or their partners in the Southern Zone is the highest (12.0 percent) follow by those in the Afram Basin (12.0 percent) and Northern Zone (10.5 percent).

Table 4.17: Women aged 12-49 years (or their partners) who are using any contraceptive method to prevent or delay pregnancy, by age and mida zone (%)

Age Group	MiDA Zone			Total
	Northern Horticultural Zone	Afram Basin Zone	Southern Horticultural Zone	
15-19	2.5	1.8	1.5	1.8
20-24	11.2	11.1	13.1	12.1
25-29	13.0	17.9	22.6	18.7
30-34	14.6	20.4	27.3	21.9
35-39	14.9	22.6	19.8	19.3
40-44	10.0	13.6	12.5	12.3
45-49	11.0	8.0	8.9	9.1
Total	10.5	12.0	14.0	12.6

Generally, contraceptive use among women and/or their partners in urban areas is slightly higher proportionately than that of their rural counterparts. However, contraceptive use among women and/or their partners in the 30-34 age group in rural areas is proportionately higher than that of their urban counterparts (Table 3.18). There are also greater disparities in contraceptive use among MiDA districts. While Savelugu Nanton District recorded the highest rate 15.1 percent; see Appendix 3.5), Tamale Minucipality recorded the lowest (3.4 percent).

Table 3.18: Women aged 12-49 years (or their partners) using any contraceptive method to prevent or delay pregnancy, by age and mida zone (%)

Age Group	Locality		Total
	Urban	Rural	
15-19	2.7	1.4	1.8
20-24	13.3	11.5	12.1
25-29	21.0	17.7	18.7
30-34	20.3	22.6	21.9
35-39	20.8	18.6	19.3
40-44	14.8	11.4	12.3
45-49	12.7	7.8	9.1
Total	13.9	12.0	12.6

Table 4.19 shows that use of the male condom is the most popular (41 percent) among women of all age groups and/or their partners who use contraceptives. The next most popular contraceptive methods are contraceptive pill (22.2 percent); injection (17.6 percent), and rhythm (9.5 percent),

which is the most popular traditional contraceptive method. Interestingly, use of the contraceptive pill is very popular among all age groups except the 15-19 age group. In contrast, that is the age group in which use of the male condom is most popular (66.6 percent) followed by the age groups 20-24 (52.8 percent) and 25-29 (48.6 percent). Injection appears very popular among those who are 25 years and above.

Table 4.19: Women aged 12-49 years (or their partners), by age group and contraceptive method used (%)

Contraceptive Method	Age Group							All
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Modern Method								
Pill	8.7	18.0	22.5	22.5	27.7	18.4	28.3	22.2
Male Condom	66.6	52.8	48.6	42.1	26.7	31.1	25.4	41.0
Female Condom	1.5	0.9	0.8	2.0	0.8	0.7	0.3	1.1
IUD	0.0	0.8	0.8	1.6	2.2	0.3	3.9	1.4
Injection	6.9	12.3	17.2	17.8	21.5	22.1	19.0	17.6
Female Sterilization	0.0	0.0	0.0	0.7	0.0	2.7	1.6	0.6
Implants	0.0	0.6	0.5	0.6	0.2	2.5	4.7	1.0
Foam/Jelly	1.0	0.3	0.6	0.4	0.0	0.0	0.7	0.4
Lam	0.0	0.6	0.1	0.7	0.1	0.0	0.0	0.3
Traditional Method								
Abstinence	4.4	3.8	2.0	1.8	3.3	2.3	2.4	2.6
Rhythm	8.7	7.6	5.6	7.9	13.3	16.5	11.3	9.5
Withdrawal	0.3	0.9	0.5	0.7	1.6	1.9	1.0	1.0
Other	1.7	1.4	0.7	1.3	2.5	1.4	1.4	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Contraceptive users do not spend much on contraceptives. Almost one fifth (18.9 percent) of all contraceptive users does not pay anything at all for contraceptives. While 44.2 percent spend GH¢1.00 or below on contraceptives, 17.5 percent spend between GH¢1.00 and GH¢1.99 on contraceptives. Only 7 percent of all contraceptive users indicated they spend more than GH¢5 on contraceptives. There is not much variation among the MiDA Zones in terms of the amount paid, except the Southern Zone where more than half (51.5 percent) of contraceptive users spend less than GH¢1.00 on contraceptives.

Table 4.20: Women aged 12-49 years who used contraceptives, by amount paid and MiDA Zone (%)

	MiDA Zone			
Amount (GH¢)	Northern Zone	Afram Basin	Southern Horticultural Zone	All
No payment	38.62	17.58	12.4	18.92
Less than 1.00	33.64	36.71	51.53	44.23
1.00-1.99	13.81	16.72	19.1	17.45
2.00-2.99	3.52	10.78	7.56	7.57
3.00-3.99	0.45	6.49	2.04	2.85
4.00-4.99	2.94	2.55	1.33	1.96
5.00+	7.03	9.17	6.04	7.02
Total	100	100	100	100

4.4 Child Health

This section evaluates the health of children in all three MiDA Zones as well as variations in child health care between rural and urban areas and among the MiDA Zones.

4.4.1 Preventive health care

The purpose of this sub-section is to analyse information gathered on vaccination of children aged 0 to 5 years against the six childhood killer diseases and the effects of vaccination programmes and immunisation services offered through health centres, clinics and hospitals.

Table 4.21 indicates that 1.9 percent of all children who are 5 years or younger in all three zones have never received any vaccination. The highest proportion of children who have never been vaccinated (6.9 percent) is among children less than one year old. The importance of vaccination seems to be widely recognised among mothers in the Afram Basin as the area recorded the smallest proportion of children who have never been vaccinated (0.9 percent). This was significantly better than the Southern Zone (2.2 percent) and even more so the Northern Zone, which recorded 2.7 percent of children as never having been vaccinated. There is evidently a need for a strong advocacy programme that will ultimately bring these figures to zero.

It can be seen from Figure 4.3 that generally the proportion of children who are not vaccinated in rural areas is greater than it is in the urban areas except children aged 5 years old. This variation is especially pronounced when the children are below three years old.

The results from Table 4.22 indicate that 79 percent of parents pay GH¢1.00 or less for vaccination of their children, while about 15 percent pay between GH¢1.00 and GH¢1.99 for vaccination services. Only 1.3 percent of the parents pay more than GH¢5.00.

Table 4.21: Children aged 5 years and younger who have not been vaccinated, by age of child and MiDA Zone (%)

	MiDA Zone and Sex of Individual											
	Northern Zone			Afram Basin			Southern Zone			All		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Less than 1 year	8.7	7.5	8.2	5.2	6.1	5.6	8.0	5.3	6.5	2.7	8.4	6.9
1 year	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.4	2.2	0.0	1.1	0.9
2 years	1.3	1.0	1.1	0.0	0.4	0.2	1.0	2.3	1.7	0.3	1.2	1.0
3 years	2.2	0.6	1.4	0.4	0.0	0.1	0.3	2.1	1.2	0.8	0.9	0.9
4 years	2.3	3.8	3.1	1.0	1.2	1.1	0.5	1.7	1.1	1.3	1.8	1.7
5 years	2.8	0.9	1.9	0.2	1.4	0.7	1.6	1.2	1.4	2.5	1.0	1.3
Total	3.0	2.3	2.7	0.8	1.1	0.9	2.0	2.4	2.2	1.3	2.1	1.9

Figure 4.3: Children aged 5 years and younger who have not been vaccinated, by age of child and locality (%)

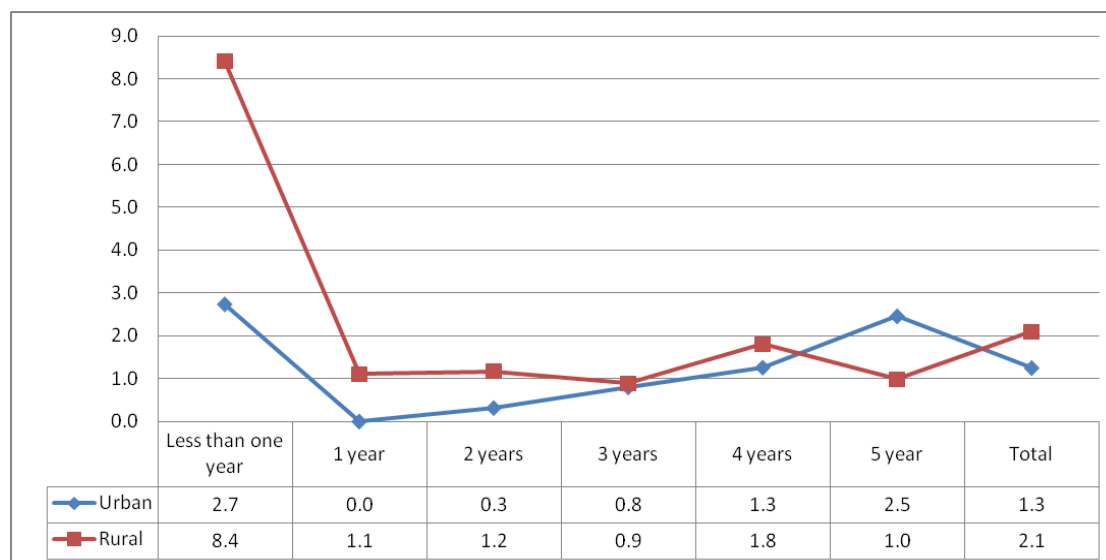


Table 4.23 shows that parents in urban communities pay more for vaccination services than their rural counterparts. While 26.8 percent of parents in urban areas spend more than GH¢1.00 on vaccination, only 19.6 percent of their counterparts in the rural areas spend more than GH¢ 1.00.

Table 4.22: Amount paid in GH¢ for vaccination and/or child welfare consultation, by MiDA Zone (%)

	MiDA Zone			
Amount GH¢	Northern Zone	Afram Basin Zone	Southern Horticultural Zone	All
Less than 1.00	74.3	85.6	77.1	79.0
1.00 - 1.99	20.3	8.7	14.9	14.5
2.00 - 2.99	4.2	4.1	3.6	3.9
3.00 - 3.99	0.0	0.1	1.6	0.7
4.00 - 4.99	0.0	0.0	1.6	0.6
5.00 and more	1.3	1.4	1.2	1.3
Total	100.0	100.0	100.0	100.0

Table 4.23: Amount paid in GH¢ for vaccination and/or child welfare consultation, by locality (%)

	Locality		
Amount (GH¢)	Urban	Rural	All
Less than 1.00	73.2	80.4	79.0
1.00 - 1.99	17.2	13.8	14.5
2.00 - 2.99	6.1	3.4	3.9
3.00 - 3.99	3.1	0.1	0.7
4.00 - 4.99	0.5	0.7	0.6
5.00 and more	0.0	1.6	1.3
Total	100.0	100.0	100.0

4.4.2 Breastfeeding and Complementary Feeding

In normal circumstances, an infant is exclusively fed on breast milk during the first six months, after which other supplementary solid and liquid foods are added. After two years (24 months), the child is expected to be exclusively fed on solid and liquid foods. This sub-section discusses children aged 2 years or below who are supposed to be undergoing breastfeeding.

Table 4.24 shows the incidence of breastfeeding in the MiDA areas in Ghana to be very high. About 81 percent and 88 percent of all children 5 years and younger in urban and rural areas respectively have been breastfed at one time or another. With respect to weaning, while 7.6 percent of children in urban areas are weaned before reaching 12 months, a little over 46 percent above 2 years are reported to have been weaned. The corresponding figures in rural communities are 8.7 per cent and 54.4 per cent.

Among the zones, the Northern Zone recorded the highest incidence of breastfeeding (90 percent), followed by the Southern Zone (87 percent) and Afram Basin (83 per cent; see Appendix 3.6).

Table 4.24: Children aged 2-5 years, by locality, age of child and age in months at weaning (%)

	Urban					
Age of Child	Not breastfed	<12	12-17	18-23	24+	Total
2 years	11.9	8.4	12.1	21.8	45.9	100.0
3 years	16.5	9.1	8.5	19.9	46.0	100.0
4 years	14.8	9.0	8.8	18.5	48.9	100.0
5 years	35.8	3.3	4.9	12.5	43.5	100.0
All years	19.1	7.6	8.7	18.4	46.2	100.0
	Rural					
Age of Child	Not breastfed	<12	12-17	18-23	24+	Total
2 years	8.0	9.5	12.0	18.7	51.8	100.0
3 years	11.4	9.8	12.5	10.5	55.7	100.0
4 years	9.5	10.2	10.8	14.0	55.5	100.0
5 years	18.5	5.3	7.8	13.9	54.6	100.0
All years	11.9	8.7	10.8	14.3	54.4	100.0

4.5 HIV/AIDS Awareness

This sub-section focuses on HIV/AIDS awareness. Table 4.25 indicates that over 6 percent of people in the MiDA areas in Ghana have not heard of HIV/AIDS. The variation among MiDA Zones in knowledge of HIV/AIDS is quite substantial. Awareness in the Northern Zone is relatively lower than it is in the other MiDA zones. While 8.8 percent of the residents in the Northern Zone have not yet heard about HIV/AIDS, only 6.2 percent and 5.5 percent in the Afram Basin and the Southern Zone respectively have never heard about HIV/AIDS. It is also clear that the level of knowledge of HIV/AIDS is higher in urban areas than in rural areas. While 7.3 percent of rural dwellers say they have never heard of HIV/AIDS, only 5.1 percent of their urban counterparts make a similar statement.

Table 4.25: Persons who know that a healthy-looking person may have HIV/AIDS, by locality and MiDA Zone (%)

	Yes			No			Don't Know			Not heard of HIV		
Locality	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban	38.6	43.0	81.6	2.1	2.7	4.8	3.2	5.3	8.6	2.0	3.0	5.1
Rural	36.3	37.5	73.7	2.9	3.4	6.3	5.4	7.3	12.6	3.4	4.0	7.3
Total	37.5	40.3	77.6	2.5	3.1	5.6	4.3	6.3	10.6	2.7	3.5	6.2
MiDA Zones												
Northern Zone	35.1	32.1	67.2	4.1	4.9	9.0	6.7	8.4	15.1	3.8	5.0	8.8
Afram Basin	39.1	40.9	80.0	1.8	1.9	3.7	4.3	5.8	10.1	3.0	3.2	6.2
Southern Horticultural Zone	37.0	42.7	79.7	2.2	2.8	5.0	3.8	6.0	9.8	2.5	3.1	5.5

4.6 Health Insurance

This section discusses the involvement of households in health insurance schemes. It looks at issues such as the number of households covered by health insurance, reasons for not registering, types of health schemes, expected benefits from the schemes and the proportion of the population that have benefited from the scheme.

Table 4.26 shows the percentage distribution of males and females who have either registered or are covered by the scheme at the time of the interview. In all, 38.7 percent of the people had registered or were covered by the scheme during the period of the interview. Evidently, 61.3 percent of the people had neither registered nor were covered by the scheme. There are considerable disparities among the MiDA Zones in respect of coverage by insurance schemes. The Afram Basin recorded the highest rate – 48.7 percent coverage (registered or covered), while the Southern Zone recorded 37.9 percent and the Northern Zone had 31.7 percent coverage. There are disparities in the level of coverage between rural and urban areas. While 53.4 percent of urban dwellers have registered with or are covered by the scheme, only 32.8 percent of their rural counterparts have registered or are covered by the scheme.

Table 4.26: Coverage rate of health insurance, by locality, MiDA Zone and sex (%)

	Yes, Registered			Yes, Covered			No		
Locality	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban	11.4	15.7	27.0	12.9	13.6	26.4	23.0	23.6	46.5
Rural	7.1	9.3	16.4	8.3	8.2	16.4	33.8	33.3	67.1
All	8.3	11.1	19.4	9.6	9.7	19.3	30.8	30.6	61.3
MiDA Zone									
Northern Zone	7.1	8.1	15.2	8.8	7.7	16.4	35.1	33.2	68.3
Afram Basin Zone	10.5	14.3	24.8	12.3	11.6	23.9	26.5	24.9	51.3
Southern Horticultural Zone	7.9	11.4	19.3	8.6	10.0	18.6	30.2	31.9	62.1

The 61.3 percent of people who were not registered or covered by the scheme at the time of the interview cited various reasons which are illustrated by Table 4.27. Among the reasons are: high premium (44.0 percent), lack of confidence in the whole programme (2.1 percent), covered by other schemes (0.3 percent), had no knowledge (3 percent), and others (50.5 percent). Some specific reasons mentioned under “others” include guardian not registered and therefore not covered, or yet to register.

Table 4.27 indicates that the high cost of the insurance premium is more of a problem for rural dwellers (48.9 percent) than for their urban counterparts (31.7 percent). Among MiDA Zones, the high cost of the premium is more a barrier to people in the Northern Zone (50.3 percent) than their counterparts in the Afram Basin (38.1 percent) and the Southern Zone (43.0 percent).

Table 4.27: People who are not covered by health insurance, by reason for not registering, locality, MiDA Zone and sex (%)

	Premium too high			Don't have confidence			Covered by other scheme			No knowledge			Other		
Locality/ MiDA Zone	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban	15.5	16.2	31.7	1.1	0.8	1.9	0.3	0.2	0.5	0.9	1.3	2.2	29.4	34.2	63.6
Rural	24.3	24.6	48.9	1.1	1.1	2.2	0.1	0.1	0.2	1.7	1.6	3.3	21.9	23.5	45.4
All	21.8	22.2	44.0	1.1	1.0	2.1	0.2	0.1	0.3	1.5	1.5	3.0	24.0	26.5	50.5
MiDA Zone															
Northern Zone	25.6	24.7	50.3	0.5	0.4	0.9	0.1	0.0	0.1	1.6	1.7	3.3	23.2	22.1	45.3
Afram Basin	19.4	18.8	38.1	0.9	0.6	1.4	0.1	0.1	0.1	2.2	2.0	4.2	26.7	29.4	56.1
Southern Horticultural Zone	20.6	22.4	43.0	1.7	1.6	3.3	0.3	0.2	0.6	1.0	1.0	2.1	23.0	28.0	51.0

The health insurance schemes extensively patronised by respondents is illustrated in Table 4.28. Over 89 percent of people registered with a health insurance are on a district mutual scheme, while the remaining registrants are either on a private mutual scheme or rely on private companies and other schemes.

Table 4.28: People with health insurance coverage, by type of scheme, locality, MiDA Zone and sex (%)

	District Mutual			Private Mutual			Private Company			Other		
Locality/ MiDA Zone	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban	41.3	50.0	91.3	0.1	0.1	0.3	0.0	0.1	0.1	3.8	4.5	8.3
Rural	41.1	47.1	88.2	0.2	0.2	0.4	0.1	0.1	0.2	5.4	5.9	11.2
All	41.2	48.2	89.4	0.2	0.2	0.4	0.1	0.1	0.2	4.8	5.3	10.1
MiDA Zone												
Northern Zone	46.7	46.3	93.0	0.2	0.2	0.3	0.1	0.1	0.2	3.3	3.2	6.5
Afram Basin	40.2	46.2	86.3	0.2	0.1	0.3	0.0	0.0	0.0	6.4	7.0	13.3
Southern Horticultural Zone	38.7	50.9	89.5	0.2	0.2	0.4	0.1	0.1	0.2	4.5	5.4	9.9

The district mutual scheme is more popular among urban dwellers (91.3 percent) than people in rural areas (89.4 percent). The Northern Zone recorded the highest proportion of health insurance registrants on a district mutual scheme (93.0 per cent), followed by the Southern Zone (89.5 per cent) and the Afram Basin (86.3 percent).

Table 4.29 indicates the main benefits registrants of a health insurance scheme expect to derive from it. While as little as 6.9 percent expects to benefit from only OPD services and 3.3 percent from only in-patient services, as much as 89.9 percent expects benefits from both OPD and in-patient services.

Table 4.29: Expected benefits of scheme, by locality, MiDA Zone and sex (%)

	OPD Services			In-patient Services			Both Services		
Locality/ MiDA Zone	Male	Female	Total	Male	Female	Total	Male	Female	Total
Urban	3.6	4.5	8.1	0.7	0.9	1.6	41.0	49.3	90.3
Rural	2.9	3.1	6.0	1.8	2.5	4.3	42.0	47.7	89.6
All	3.2	3.7	6.9	1.4	1.9	3.3	41.6	48.3	89.9
MiDA Zone									
Northern Zone	0.3	0.4	0.8	0.5	0.5	0.9	49.6	48.7	98.3
Afram Basin	5.9	6.1	12.0	0.6	0.8	1.4	40.1	46.5	86.7
Southern Horticultural Zone	3.0	3.9	6.9	2.5	3.5	6.0	37.8	49.3	87.1

5. Employment

5.1 Introduction

This chapter presents the results of the labor force module of the survey, which is in turn based on the standard labor force framework. This framework categorizes the population into economically active and non-economically active groups. The economically active population includes all persons:

- who worked for pay or profit or family gain during the seven days preceding the survey;
- who did not work, but had jobs to return to, such as those on leave (with or without pay), those temporarily ill, or temporarily laid off, and
- who did not work during the reference period, but were actively looking for work (i.e., the unemployed).

People are considered employed if they did some work for pay, profit or family gain during the reference period, which is the seven days prior to the interview. They are considered unemployed if they did not have work but were actively seeking work, or were, at least, available to take up work if they were offered some during the reference period. The non-economically active population consists of people who, for reasons, such as age or incapacitation, did not engage in the production of economic goods and services during the reference period. Information was also collected on people aged 7 to 14 years.

The chapter presents the activity rate of the economically active population, by type of work, main employer, main occupation and industrial classification as well as by locality (rural/urban), MiDA zone and sex. Although information was sought on up to two jobs that a person had done during the 12 months preceding the interview, this chapter presents summaries only of the main job of individuals. It also includes sub-sections on working children and time used for both economic and non-economic activities, including housekeeping.

5.2 Economic Activities

Out of the entire population in the 23 districts, about 1.33 million people were estimated to be engaged in some kind of economic activity for pay, profit, family or produced something for barter or home use (i.e. economic activity) in the preceding seven days (Table 5.1).

Generally, the economic activity rate of people aged between 25 and 44 is the highest (about 46 percent) of all age groups (Tables 5.1 and 5.2), followed by people aged between 45 and 64 (27 percent) and then those between 15 and 24 years of age (15 percent). Table 5.2 also shows that the activity rate is higher for young people living in rural communities than young people living in urban communities. The reverse is true for older people. As can be seen from the table, activity rates for the first two age groups are lower in urban areas than in rural areas. Higher rates are reported for older people in urban areas than those in rural areas until the oldest age group. This pattern cuts across both sexes. It also appears that there is very little difference between the activity rates reported for the different sexes in both localities.

Table 5.1: Currently economically active population and activity rates, by age group, locality and sex

Age groups	Estimated Number (in thousands)							Percent		
	Urban		Rural		All localities		Total	All Localities		Total
	Male	Female	Male	Female	Male	Female		Male	Female	
7-14	5.209	4.804	30.862	23.338	36.071	28.141	64.213	5.81	3.98	4.84
15-24	16.966	21.779	74.279	79.818	91.245	101.597	192.842	14.70	14.37	14.52
25-44	79.082	86.587	204.579	243.977	283.661	330.564	614.224	45.70	46.76	46.26
45-64	44.24	47.845	117.151	147.432	161.391	195.278	356.669	26.00	27.62	26.86
65+	10.561	10.517	37.816	40.852	48.377	51.369	99.746	7.79	7.27	7.51
Total	156.058	171.532	464.688	535.417	620.745	706.949	1327.694	100.00	100.00	100.00

Table 5.2: Current activity rate, by sex, age group and locality (%)

Age groups	Male			Female			All		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
7-14	3.34	6.64	5.81	2.8	4.36	3.98	3.06	5.42	4.84
15-24	10.87	15.98	14.7	12.7	14.91	14.37	11.83	15.41	14.52
25-44	50.67	44.02	45.7	50.48	45.57	46.76	50.57	44.85	46.26
45-64	28.35	25.21	26	27.89	27.54	27.62	28.11	26.46	26.86
65 and above	6.77	8.14	7.79	6.13	7.63	7.27	6.43	7.87	7.51
Total	100	100	100	100	100	100	100	100	100

Table 5.3 reports the activity of the various age groups in the three MiDA zones, by sex. A comparison between Tables 5.2 and 5.3 shows that activity rates among the various age groups are more evenly distributed across MiDA zones than across types of locality (rural areas or urban areas). However, people within the 25-44 age group still recorded the highest proportion – this is true for the two sexes in MiDA zones – followed by those between the ages of 7 to 14 and then those aged 15 to 24. The table confirms the fact that activity rates are higher among younger people than older people. For both males and females, the economic activity rate is higher for young people in Afram Basin than for their counterparts in the Southern Horticultural Zone, followed by the Northern Zone.

Table 5.4 and 5.5 present the employment status of both males and females across localities (rural/urban) and MiDA zones. Table 5.4 shows that the majority of the people (about 38 percent) are self employed in agriculture (but are without employees), followed by those who are self employed in non-agricultural activities also without employees (about 23 percent), and then those who are agricultural contributing family workers (about 20 percent). Among both rural and urban dwellers, the proportion of males who are self employed in agricultural activities without employees is higher than that of females. While this is also true for paid employees, it is not true for all the other categories of employment status. As reported in Table 5.4, for both rural and urban areas, the proportion of females who are agricultural contributing family workers is higher than that of males. A notable pattern in the table is that the proportion of females in the various contributing family worker categories is generally higher than that of males for both rural and

urban areas. The reverse, however, holds true for the other categories of employment status except apprenticeship.

Table 5.3: Current Activity Rate, by Sex, Age Group and MiDA Zone (%)

Age groups	MiDA Zones			
	Southern Horticultural Belt	Afram Basin	Northern Zone	Total
Male				
7-14	25.12	32.35	26.33	27.54
15-24	23.21	22.6	24.28	23.31
25-44	28.05	24.98	28.23	27.2
45-64	16.77	14.31	14.14	15.37
65 and above	6.85	5.75	7.01	6.58
All	100	100	100	100
Female				
7-14	21.22	26.43	22.44	22.96
15-24	20.89	22.97	19.99	21.27
25-44	28.51	29.41	34.92	30.19
45-64	18.9	13.98	17.43	17.19
65 and above	10.48	7.2	5.22	8.38
All	100	100	100	100
Both sexes				
7-14	22.96	29.26	24.42	25.11
15-24	21.92	22.8	22.18	22.23
25-44	28.3	27.29	31.51	28.79
45-64	17.95	14.14	15.75	16.33
65 and above	8.87	6.51	6.13	7.53
Total	100	100	100	100

The distribution by sex in Table 5.4 is not so different from that in Table 5.5, which shows that for most categories of employment status, people in the Afram Basin recorded the lowest proportions, followed by those in the Northern Zone.

Table 5.4: Employment status of the currently employed population aged 15 years and older, by sex and locality (%)

Status of Employment	Urban			Rural			all		
	male	female	Total	male	female	Total	male	female	Total
Paid employee	36.84	13.97	24.83	10.94	2.71	6.48	17.62	5.47	11.09
Non-agric self employed with employees	5.06	4.41	4.72	1.16	1.25	1.21	2.16	2.03	2.09
Non-agric self employed without employees	24.3	54.52	40.16	8.03	24.2	16.79	12.23	31.64	22.66
Non-agric contributing family worker	1.58	3.22	2.44	1	2.43	1.77	1.15	2.63	1.94
Agric self employed with employees	1.03	0.84	0.93	2.23	1.73	1.96	1.92	1.51	1.7
Agric self employed without employees	23.61	10.66	16.81	63.27	29.45	44.96	53.04	24.84	37.89
Agric contributing family worker	4.59	9.52	7.18	11.94	37.32	25.68	10.05	30.5	21.03
Domestic employee (househelp)	0.03	0.11	0.07	0.02	0.04	0.03	0.03	0.06	0.04
Apprentice	2.48	2.44	2.46	1.15	0.73	0.92	1.49	1.15	1.31
Other	0.48	0.31	0.39	0.26	0.13	0.19	0.31	0.17	0.24
Total	100	100	100	100	100	100	100	100	100

Table 5.5: Employment status of the currently employed population aged 15 years and older, by sex and MiDA Zone (%)

Status of Employment	Southern Horticulture Belt			Afram Basin			Northern Zone		
	male	female	Total	male	female	Total	male	female	Total
Paid employee	21.85	5.9	12.99	13.13	4.57	8.42	14.96	5.7	10.47
Non-agric self employed with employees	2.23	2.56	2.41	1.7	1.23	1.44	2.53	1.89	2.22
Non-agric self employed without employees	14.5	37.07	27.04	8.49	23.42	16.71	12.15	30.29	20.95
Non-agric contributing family worker	1.57	3.27	2.51	0.22	1.09	0.7	1.38	3.21	2.27
Agric self employed with employees	3.26	2.82	3.01	0.53	0.23	0.37	1.06	0.27	0.67
Agric self employed without employees	47.89	29.63	37.75	67.81	25.7	44.62	46.76	12.83	30.29
Agric contributing family worker	7.42	17.48	13.01	5.91	42.28	25.94	18.75	44.34	31.17
Domestic employee (househelp)	0.01	0.02	0.02	0.03	0.06	0.05	0.05	0.12	0.08
Apprentice	1.11	1.01	1.06	1.63	1.42	1.51	2.01	1.1	1.57
Other	0.16	0.23	0.2	0.54	0	0.24	0.34	0.25	0.3
Total	100	100	100	100	100	100	100	100	100

5.3 Employment and working conditions

Table 5.6 shows that people employed in the informal private sector constitute the majority (35 percent) of people in MiDA zones. Those employed in the formal private sector constitute about 16 percent. Generally, this distribution also runs through the urban and rural areas. Interestingly, while proportionately more males are employed in the civil service in urban areas than females, the reverse is true for rural areas. Furthermore, the proportion of males employed in other public service organizations is lower than that of females in both urban and rural areas.

Table 5.6: Type of employer for the currently employed population aged 15-64 years, by locality and sex (%)

Type of employer	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Public sector									
Civil service	26.82	19.63	24.51	21.14	23.64	21.77	24.16	21.17	23.29
Other public service	22.38	25.8	23.48	17.43	20.22	18.13	20.07	23.65	21.11
Parastatals	0.32	1.19	0.6	0.54	0.83	0.61	0.42	1.05	0.61
Private sector									
Formal	16.52	15.74	16.27	17.46	10.08	15.61	16.96	13.56	15.97
Informal	30.56	33.51	31.51	37.67	40.66	38.42	33.88	36.25	34.57
Others									
NGOs	1.31	1.61	1.41	0.2	0.33	0.23	0.79	1.12	0.89
Cooperatives	0.83	0.64	0.77	0	0	0	0.44	0.39	0.43
International organisations	0.51	0.89	0.63	0.68	0	0.51	0.59	0.55	0.58
Agric business	0.46	0.5	0.47	3.82	3.96	3.85	2.03	1.83	1.97
Other	0.29	0.49	0.35	1.06	0.29	0.86	0.65	0.42	0.58
Total	100	100	100	100	100	100	100	100	100

Table 5.7 indicates that generally majority of the people are employed in the informal private sector in each MiDA zone. In fact, this sector employs the highest proportion of the people (almost 38 percent) in the Southern Horticultural Belt, 38.3 percent in the Afram Basin and 21.3 percent in the Northern Zone. In the Northern Zone, however, other public service organizations employ the highest proportion (about 32 percent).

The table also shows that while the civil service employs more females than males in the Southern Horticultural Zone, it employs more males than females in both Afram Basin and the Northern Zone. While there is relatively little difference between the proportions of females and males employed by the formal private sector in the Afram Basin and Southern Horticultural Zone, the proportion of males employed by the formal private sector in the Northern Zone is about twice that of females.

Tables 5.8 and 5.9 present the main occupation for males and females, by locality and MiDA zone. Table 5.8 indicates that in both urban and rural areas, a majority of employed people (56 percent) are agriculture/fishery workers. Also, many more people in rural areas are into

agriculture and fishing than people in urban areas. Across the two localities, however, the proportion of males who are agriculture/ fishery workers is more than the proportion of females.

Table 5.7: Type of employer for the currently employed population aged 15-64 years, by MiDA Zone and sex (%)

Type of employer	Southern Zone			Afram Basin			Northern Zone		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Public sector									
Civil service	20.7	22.1	21.1	31.5	28.2	30.4	30.1	19.0	26.8
Other public service	17.8	21.7	18.9	16.8	14.1	15.9	31.4	34.0	32.2
Parastatals	0.6	2.1	1.0	0.0	0.7	0.2			
Private sector									
Formal	16.5	14.6	16.0	9.3	10.6	9.7	15.7	9.0	13.7
Informal	39.3	34.5	37.9	37.0	40.9	38.3	17.0	31.0	21.3
Others									
NGOs	0.3	0.7	0.4	1.0	0.0	0.7	2.6	5.0	3.3
Cooperatives	0.3	0.0	0.2	0.0	1.4	0.5	0.9	0.0	0.6
International Organisations	1.5	1.8	1.6	0.7	0.7	0.7	0.4	0.0	0.3
Agric business	2.2	2.5	2.3	2.7	2.1	2.5	0.4	1.0	0.6
Other	1.0	0.0	0.7	1.0	1.4	1.2	1.3	1.0	1.2
Total	100	100	100	100	100	100	100	100	100

Services/sales workers recorded the next highest proportion (14 percent) and the respective locality proportions are higher for urban (22 percent) than rural (about 12 percent) communities. Moreover, in the two localities, there is a higher proportion of females than males. Table 5.8 also shows that apart from services/sales workers, craft and related trade workers and elementary occupation, a higher proportion of males than of females was found in the various occupations, and this was true across rural and urban areas.

Table 5.8: Main occupation of the currently employed population aged 15-64 years, by locality and sex (%)

Main occupation	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Legislators/managers	1.21	0.15	0.65	0.26	0.05	0.15	0.51	0.08	0.28
Professionals	11.82	5.59	8.54	2.91	0.98	1.86	5.24	2.13	3.56
Technicians and associate professionals	6.26	2.49	4.27	1.39	0.58	0.95	2.66	1.06	1.8
Clerks	2.38	1.66	2	0.13	0.19	0.17	0.72	0.56	0.63
Services/ Sales workers	8.48	33.9	21.88	2.83	19.28	11.76	4.31	22.92	14.34
Agric/fishery workers	28.44	16.86	22.34	76.9	60.07	67.75	64.23	49.31	56.18
Craft and related trades	18.38	18.9	18.65	6.19	9.98	8.25	9.38	12.2	10.9
Plant and machine operators	8.56	0.36	4.24	3.58	0.09	1.68	4.89	0.16	2.34
Elementary occupation	12.26	19.65	16.15	4.99	8.72	7.01	6.89	11.44	9.34
Armed forces/security	2.21	0.42	1.27	0.82	0.07	0.41	1.18	0.16	0.63
Total	100	100	100	100	100	100	100	100	100

Table 5.9 confirms that the proportion of people who are agriculture/fishery workers is far higher than the proportions for the other categories of main occupation. In all zones, almost 60 percent of the people are engaged in agriculture and fishing and the proportions of males in each zone in agriculture and fishing are higher than those of females. This is also true for all other categories of main occupation, except services/sales workers and craft and related trade workers.

Table 5.9: Main occupation of the currently employed population aged 15-64 years, by MiDA Zone and sex (%)

Main occupation	Southern Horticultural Zone			Afram Basin			Northern Zone		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Legislators/managers	0.45	0.08	0.25	0.15	0.03	0.08	0.99	0.12	0.56
Professionals	5.14	2.15	3.49	4.6	1.87	3.08	6.06	2.41	4.24
Technicians and associate professionals	3.48	1.28	2.27	2.06	0.75	1.34	1.85	0.98	1.41
Clerks	0.6	0.4	0.49	0.66	0.41	0.52	0.98	1.08	1.03
Services/ Sales workers	4.33	21.51	13.78	6.33	37.76	23.78	2.22	7	4.6
Agric/fishery workers	58.55	47.08	52.24	71.36	48	58.39	66.72	55.7	61.22
Craft and related trades	11.78	15.22	13.67	5.45	5.54	5.5	9.26	14.31	11.78
Plant and machine operators	5.91	0.19	2.76	3.63	0.03	1.63	4.39	0.24	2.32
Elementary occupation	8.3	11.8	10.23	5.23	5.57	5.42	6.15	18.15	12.14
Armed forces/security	1.45	0.31	0.82	0.53	0.04	0.26	1.39	0	0.7
Total	100	100	100	100	100	100	100	100	100

Tables 5.10 and 5.11 present the occupation across sexes for urban and rural areas and MiDA zones respectively. Both tables show that the agriculture and trade sector employs the majority of people. Table 5.10 shows that the agricultural sector alone employs 53 percent of the people, with the proportion again higher for males than females in each locality. The proportion of people in agriculture (about 64 percent) in rural areas is more than thrice the proportion in urban areas (about 20 percent). It can be seen from the table that the trade industry employs the next highest proportion (18.62 percent) of people and relatively more people are employed in this sector in urban areas than in rural areas. The majority of people employed in the trade sector are females and this is true for the respective localities. Thus, while the agricultural sector absorbs most of the male population, the trade sector absorbs most of the female population.

The proportion of males engaged in fishing/aquaculture is higher than that of females in both localities. This pattern is also observed for the education sector and activities of private organizations. However the proportion of females employed in the manufacturing and hotel and restaurant sectors in both localities is higher than that of males, while the reverse is true for the construction sector, and the electricity and water sector. In fact, with the exception of a few sectors such as trade, manufacturing and hotel and restaurant, the proportion of males employed is generally higher than the proportion of females employed in both urban and rural localities.

Table 5.10: Distribution of the currently employed population aged 15-64 years, by industry group, locality and sex (%)

Industry of occupation	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture	25.79	16.01	20.64	68.98	60.3	64.26	57.68	49.27	53.15
Fishing/aquaculture	3.76	0.79	2.19	11.05	1.74	5.99	9.14	1.5	5.02
Mining	0.35	0.12	0.23	0.36	0.32	0.34	0.35	0.27	0.31
Manufacturing	11.15	19.63	15.62	4.12	10.36	7.51	5.96	12.67	9.58
Electricity and water	0.9	0	0.43	0.11	0.03	0.07	0.32	0.02	0.16
Construction	6.78	0.2	3.31	1.92	0.06	0.91	3.19	0.1	1.52
Trade	14.92	44.71	30.61	4	23.35	14.51	6.86	28.67	18.62
Hotel and restaurants	0.05	1.22	0.67	0.05	0.33	0.2	0.05	0.55	0.32
Transport and comm.	7.95	0.21	3.87	3.03	0.09	1.43	4.31	0.12	2.05
Financial Services	1.52	0.55	1	0.22	0.07	0.14	0.56	0.19	0.36
Public administration	3.53	1.2	2.31	1.16	0.11	0.59	1.78	0.39	1.03
Education	11.85	6.51	9.04	3.21	1.12	2.07	5.47	2.46	3.85
Health and social work	2.27	1.89	2.07	0.31	0.33	0.32	0.82	0.72	0.77
Activities of private org.	0.49	0.28	0.38	0.08	0.1	0.09	0.19	0.14	0.16
Extra territorial org.	0.03	0	0.01	0	0	0	0.01	0	0
Research and develop.	0	0	0	0.02	0	0.01	0.02	0	0.01
Other services	7.81	6.44	7.09	1.23	1.65	1.46	2.95	2.84	2.89
Activities of member org.	0.86	0.24	0.53	0.16	0.05	0.1	0.35	0.1	0.21
Total	100	100	100	100	100	100	100	100	100

Table 5.11: Distribution of the currently employed population aged 15-64 years, by industry group, MiDA Zone and sex (%)

Industry of occupation	Southern Zone			Afram Basin			Northern Zone		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture	56.71	48.26	52.06	50.16	45.9	47.79	67	55.71	61.36
Fishing/aquaculture	5.81	0.9	3.1	23.49	3.62	12.46	0.27	0.08	0.17
Mining	0.74	0.56	0.64	0.05	0	0.02	0	0	0
Manufacturing	7.42	13.9	10.99	4.13	9.64	7.19	5.32	13.92	9.61
Electricity and water	0.23	0.05	0.13	0.09	0	0.04	0.71	0	0.36
Construction	3.93	0.16	1.86	2.41	0.03	1.09	2.71	0.04	1.38
Trade	6.14	28.14	18.25	6.49	33.91	21.71	8.46	23.1	15.77
Hotel and restaurants	0.03	0.14	0.09	0.14	1.04	0.64	0	0.78	0.39
Transport and comm.	5.19	0.17	2.43	3.61	0.03	1.62	3.52	0.12	1.82
Financial Services	0.52	0.2	0.34	0.28	0.1	0.18	0.91	0.27	0.59
Public administration	2.12	0.44	1.2	0.83	0.07	0.41	2.16	0.66	1.41
Education	5.52	2.32	3.76	5.59	2.82	4.05	5.25	2.29	3.77
Health and social work	1.14	0.64	0.86	0.62	0.38	0.48	0.5	1.33	0.91
Activities of private org.	0.23	0.06	0.14	0	0	0	0.3	0.5	0.4
Extra territorial org.	0	0	0	0	0	0	0.03	0	0.01
Research and Develop.	0.04	0	0.02	0	0	0	0	0	0
Other services	3.67	3.88	3.79	1.81	2.42	2.15	2.87	1.19	2.03
Activities of members org.	0.58	0.18	0.36	0.3	0.04	0.15	0	0	0
Total	100	100	100	100	100	100	100	100	100

Table 5.11 shows that in terms of the sex distribution within occupations, there is not much difference between urban and rural areas and across MiDA zones. The respective proportions of people in agriculture and manufacturing are highest in the Northern Zone, followed by the Southern Horticultural Zone and lastly the Afram Basin. On the other hand, the proportion in trade is highest in the Afram Basin, followed by the Southern Horticultural Zone and then the Northern Zone.

The hours worked in the last seven days by people in the various categories of main occupation are reported in Tables 5.12 and 5.13. From both tables, it can be observed that the majority of people in the various types of occupation worked for 40 to 49 hours in the previous seven days, followed by those who worked for 30 to 39 hours. This is true for rural and urban areas and for MiDA zones. For the entire population and for those who worked for 40 to 49 hours, legislator/managers recorded the highest proportion among all types of main occupation, followed by clerks and then technicians and associate professionals. Across the localities, however, the proportion of clerks (55 percent) who worked for 40 to 49 hours is higher than all the other occupation types in rural communities while the proportion of legislator/managers (about 49 percent) who worked for 40-49 hours is higher than all the other occupation types in urban communities. Correspondingly, while none of the clerks worked for less than 10 hours in rural communities, about a tenth of legislator/managers worked for less than 10 hours. In MiDA zones, the proportions reported are not so different from those reported in rural/urban localities. A majority of people in the three zones also worked for 30 to 49 hours, irrespective of type of occupation.

Table 5.12: Hours worked per week, by main occupation of currently employed population aged 15 years and older (%)

Main Occupation	Hours worked in the last 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Urban									
Legislator/managers	0	3.03	1.66	4.66	49.44	19.03	7.11	15.1	100
Professionals	7.71	3.16	7.76	29.16	31.82	7.16	4.49	8.75	100
Technicians and associate professionals	5.95	2.43	6.1	27.25	37.67	7.32	3.3	9.98	100
Clerks	0	1.2	0	16.13	37.15	28.8	3.9	12.8	100
Services/ Sales workers	4.23	6.99	7.28	12.43	20.66	12.22	11.63	24.6	100
Agric/fishery workers	8.25	7.92	11.83	19.89	25.73	12.44	6.65	7.29	100
Craft and related trades	4.1	6.96	9.5	12.73	22.68	14.64	12.78	16.6	100
Plant and machine operators	5.27	5.69	2.43	5.6	15.56	11.68	12.14	41.6	100
Elementary occupation	4.04	6.42	11.39	16.09	21.18	12.96	9.88	18	100
Armed forces/security	0	1.67	0	0.64	14.93	42.97	7.63	32.2	100
Total	5.38	6.37	8.98	16.43	24.15	12.98	9.22	16.5	100
Rural									
Legislator/managers	9.99	0	0	10.29	40.92	4.67	6.58	27.6	100
Professionals	5.9	5.88	12.62	40.34	21.74	6.69	2.55	4.29	100
Technicians and associate professionals	6.29	0.64	6.23	29.55	31.8	11.23	7.99	6.26	100
Clerks	0	0	2.44	21.7	55.94	11.31	0	8.62	100
Services/ Sales workers	6.22	15.35	19.44	16.12	15.28	4.63	6.52	16.4	100
Agric/fishery workers	7.55	7.89	17.6	28.95	20.51	7.83	5.89	3.78	100
Craft and related trades	7.05	8.63	12.34	18.41	20.69	8.95	9.47	14.5	100
Plant and machine operators	7.4	5.32	4.8	6.35	17.23	7	17.35	34.5	100
Elementary occupation	6.89	16.73	15.44	16.52	15.54	7.29	8.31	13.3	100
Armed forces/security	3.22	0	0	23.31	23.31	7.27	4.63	38.3	100
Total	7.24	9.21	16.71	25.57	19.76	7.52	6.54	7.43	100
All									
Legislator/managers	4.09	1.79	0.98	6.96	45.95	13.16	6.89	20.2	100
Professionals	6.99	4.24	9.68	33.58	27.83	6.97	3.72	6.99	100
Technicians and associate professional	6.09	1.7	6.15	28.18	35.28	8.91	5.21	8.47	100
Clerks	0	0.96	0.49	17.24	40.91	25.3	3.12	12	100
Services/ Sales worker	5.44	12.09	14.7	14.69	17.37	7.59	8.51	19.6	100
Agric/fishery workers	7.62	7.89	16.98	27.99	21.07	8.32	5.97	4.16	100
Craft and related trades	5.78	7.91	11.12	15.97	21.55	11.39	10.89	15.4	100
Plant and machine operator	6.41	5.49	3.7	6.01	16.45	9.17	14.93	37.8	100
Elementary occupation	5.65	12.25	13.68	16.33	17.99	9.75	8.99	15.4	100
Armed forces/security	1.54	0.87	0	11.44	18.93	25.96	6.2	35.1	100
Total	6.77	8.49	14.77	23.28	20.87	8.89	7.22	9.71	100

Table 5.13: Hours worked per week, by main occupation of currently employed population aged 15 years and older (%)

Main Occupation new	Hours worked in the 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Southern Horticulture Belt									
Legislator/managers	4.01	0	2.26	10.65	38.06	4.41	11.77	28.8	100
Professionals	11.1	5.31	7.28	28.46	30.97	7.92	2.27	6.7	100
Technicians and associate professional	7.92	2.41	5.4	28.89	32.55	9.97	5.74	7.12	100
Clerks	0	0	1.31	31.32	50.22	8.63	1.5	7.02	100
Services/ Sales workers	5.51	7.73	10.12	12.81	19.95	9.86	10.59	23.4	100
Agric/fishery workers	8.65	10.07	19.87	32.89	18.09	4.47	3.49	2.46	100
Craft and related trades	5.72	8.3	9.9	17.36	22.87	10.48	10.81	14.6	100
Plant and machine operators	7.03	5.95	3.89	5.85	15.07	10.76	17.58	33.9	100
Elementary occupation	7.33	12.27	14.58	20.02	18.01	7.84	7.28	12.7	100
Armed forces/security	0	1.52	0	0.59	22.23	39.96	0.97	34.7	100
Total	7.61	9.19	15.27	25.58	19.86	7.03	6.16	9.29	100
Afram Basin									
Legislator/managers	0	0	0	0	100	0	0	0	100
Professionals	5.11	2.15	11.38	47.95	27.34	4.67	1.4	0	100
Technicians and associate professional	4.25	0	7.9	41.36	24.23	2.86	6.4	13	100
Clerks	0	4.28	0	16.91	38.82	39.98	0	0	100
Services/ Sales workers	5.29	17.83	20.39	16.7	14.48	5.71	5.78	13.8	100
Agric/fishery workers	2.96	6.46	15.86	25.06	24.45	14.21	7.18	3.81	100
Craft and related trades	6.33	6.75	11.17	16.39	27.68	11.23	11.97	8.48	100
Plant and machine operators	6.36	5.56	2.39	0	23.87	5.78	12.58	43.5	100
Elementary occupation	3.69	23.25	10.81	15.96	20.21	9.08	7.38	9.62	100
Armed forces/security	11.06	0	0	5.85	14.85	12.65	27.17	28.4	100
Total	3.84	9.65	15.8	22.6	22.32	11.44	7.06	7.28	100
Northern Zone									
Legislator/managers	4.86	3.7	0	4.86	43.65	23.29	3.7	15.9	100
Professionals	1.94	4.26	12.12	29.8	23.18	7.37	8.01	13.3	100
Technicians and associate professional	2.05	1.23	6.73	11.6	56.27	11.95	2.15	8.03	100
Clerks	0	0	0	4.43	33.46	32.56	6.34	23.2	100
Services/ Sales workers	5.97	3.89	8.13	13.87	19.3	5.28	12.39	31.2	100
Agric/fishery workers	11.18	5.81	13.35	22.98	22.28	8.17	8.8	7.44	100
Craft and related trades	5.63	7.68	13.84	12.65	15.35	13.51	10.49	20.9	100
Plant and machine operators	5.05	4.38	4.33	11.28	13.56	8.29	10.79	42.3	100
Elementary occupation	3.72	6.64	13.57	10.13	16.84	13.4	12.76	22.9	100
Armed forces/security	0	0	0	35.78	14.31	4.47	6.5	38.9	100
Total	8.54	5.77	12.56	19.51	21.15	9.61	9.48	13.4	100

Table 5.15 and 5.16 report the hour worked by persons in the various industries in the last 7 days. Whilst Table 5.15 presents the results for the localities, Table 5.16 presents the results on the MiDA zones. Both tables confirm the fact that most of the working population work for 30-39 hours and 40 to 49 hours. The proportion of the urban people who work for 40-49 hours in the various industries is higher than that of those who work for 30 to 39 hours. Conversely, in the rural areas, the proportion of the people who work for 30 to 39 hours is higher than that of those who for 40 to 49 hours. A careful examination of the tables seems to point to the fact that urban dwellers generally work for longer hours than the rural dwellers. In the MiDA zones, however, there is no marked difference in the proportion of workers who work for 30 to 39 hours and those who work for 40 to 49 hours in most of the industries.

Table 5.15: Hours worked per week on main job, by industry of currently employed population aged 15 years and older (%)

Industry of occupation	Hours worked on Main Occupation in 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Urban									
Agriculture	7.98	8.54	11.56	19.52	27.35	13.25	6.3	5.51	100
Fishing/aquaculture	6.28	5.69	16.66	21.64	13.61	3.04	9.11	23.96	100
Mining	31.07	0	0	27.13	25.44	0	7.59	8.77	100
Manufacturing	4.77	6.79	9.38	13.66	23.45	14.19	12.8	14.96	100
Electricity and water	0	0	0	0	36.96	60.2	2.85	0	100
Construction	10.67	5.21	11.52	10.95	21.83	14.48	16.13	9.2	100
Trade	2.94	7.62	9.66	13.43	20.5	12.02	11.37	22.45	100
Hotel and restaurants	10.15	0	4.66	19.39	18.5	13.23	0	34.07	100
Transport and communication	2.01	5.08	2.63	3.96	16.98	11.35	10.95	47.02	100
Financial Services	0	0	0	14.05	46.36	31.37	4.29	3.93	100
Public administration	2.86	2.72	1.99	9.52	28.36	34.42	4.59	15.53	100
Education	8.75	2.38	8.13	34.32	31.07	3.79	2.91	8.64	100
Health and social work	0	3.92	8.03	12.81	37.48	17.41	7.46	12.9	100
Activities of private household	0	12.06	22.07	7.57	16.9	17.24	0	24.15	100
Extra Territorial Organization	0	0	0	0	0	0	100	0	100
Other services	5.62	3.21	1.23	15.22	22.07	15.7	10.07	26.87	100
Activities of membership organization	14.3	0	16.28	19.35	33.98	3.88	0	12.21	100
Total	5.38	6.37	8.98	16.43	24.15	12.98	9.22	16.49	100
Rural									
Agriculture	7.75	7.49	16.38	29.63	21.05	8.16	6.1	3.45	100
Fishing/aquaculture	5.29	22.11	29.98	16.28	14.08	2.1	2.2	7.97	100
Mining	2.94	17.28	4.56	28.88	23.22	2.14	11.87	9.11	100
Manufacturing	7.86	8.36	14.3	18.22	18.31	7.43	9.49	16.03	100
Electricity and water	0	0	0	0	55.28	12.55	32.17	0	100
Construction	2.07	4.8	8.29	16.1	26.58	17.18	9.86	15.11	100
Trade	6.15	14.43	19.16	16.64	15.58	5.67	6.17	16.2	100
Hotel and restaurants	16.54	4.76	7.1	4.69	19.71	0	27.52	19.68	100
Transport and communication	6.89	5.64	0	5.5	16.96	9.7	20.1	35.2	100
Financial Services	0	0	6.38	0	32.54	34.41	26.66	0	100
Public administration	3.6	0	1.81	20.96	32.59	10.3	5.08	25.65	100
Education	5.27	4.04	12.15	45.96	22.66	5.58	0.92	3.42	100
Health and social work	6.08	6.66	10.68	8.14	24.39	22.4	6.44	15.21	100
Activities of private household	0	32.93	23.9	5.65	3.66	0	0	33.87	100
Research and Development	0	0	0	0	100	0	0	0	100
Other services	8.24	7.15	8.17	10.57	16.84	9.25	18.61	21.19	100
Activities of membership organization	6.03	4.71	5.89	11.35	12.75	0	27.26	32.01	100
Total	7.24	9.21	16.71	25.57	19.76	7.52	6.54	7.43	100

Industry of occupation	Hours worked on Main Occupation in 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
All									
Agriculture	7.77	7.6	15.88	28.58	21.71	8.68	6.12	3.66	100
Fishing/aquaculture	5.4	20.21	28.44	16.9	14.03	2.2	3	9.82	100
Mining	7.96	14.2	3.75	28.57	23.61	1.75	11.11	9.05	100
Manufacturing	6.59	7.71	12.27	16.34	20.43	10.22	10.86	15.59	100
Electricity and water	0	0	0	0	43.34	43.61	13.06	0	100
Construction	6.79	5.03	10.06	13.27	23.97	15.7	13.3	11.86	100
Trade	4.8	11.56	15.16	15.29	17.65	8.35	8.36	18.84	100
Hotel and restaurants	13.2	2.27	5.82	12.37	19.08	6.91	13.14	27.2	100
Transport and communication	4.54	5.37	1.27	4.76	16.97	10.49	15.7	40.89	100
Financial Services	0	0	1.8	10.07	42.45	32.23	10.62	2.82	100
Public administration	3.17	1.57	1.91	14.37	30.16	24.19	4.8	19.83	100
Education	7.34	3.06	9.76	39.03	27.66	4.52	2.1	6.53	100
Health and social work	2.07	4.85	8.93	11.22	33.03	19.1	7.11	13.68	100
Activities of private households	0	20.3	22.79	6.81	11.67	10.44	0	27.99	100
Extra Territorial Organization	0	0	0	0	0	0	100	0	100
Research and Development	0	0	0	0	100	0	0	0	100
Other services	6.6	4.69	3.83	13.47	20.11	13.28	13.27	24.74	100
Activities of membership organization	11.11	1.82	12.27	16.26	25.78	2.38	10.53	19.86	100
Total	6.77	8.49	14.77	23.28	20.87	8.89	7.22	9.71	100

Table 5.16: Hours worked per week on main job, by industry of currently employed population aged 15 years and older (%)

Industry of occupation	Hours worked on Main Occupation in 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Southern Horticultural Zone									
Agriculture	9.08	10.48	20.03	32.88	17.84	4.42	3.39	1.88	100
Fishing/aquaculture	3	4.63	14.49	22.55	28.79	4.14	6.31	16.09	100
Mining	8.11	14.47	3.82	29.12	22.14	1.79	11.32	9.23	100
Manufacturing	6.36	8.07	11.49	18.4	21.51	10.71	10.39	13.07	100
Electricity and water	0	0	0	0	57.25	10.72	32.03	0	100
Construction	10.05	6.07	9.67	12.18	23.3	12.07	11.79	14.87	100
Trade	4.54	9.7	11.75	15.01	18.29	9.9	9.91	20.89	100
Hotel and restaurants	18.13	0	3.33	0	38.37	0	0	40.16	100
Transport and communication	4.56	6.68	0.99	3.24	17.36	11.12	16.06	40	100
Financial Services	0	0	3.92	16.75	30.64	30.37	14.89	3.43	100
Public administration	4.55	2.81	1.15	7.89	34.36	25.48	4.06	19.71	100
Education	10.93	2.83	7.66	37.42	28.61	5.62	2.13	4.8	100
Health and social work	3	8.92	4.03	10.56	37.83	17.56	3.39	14.71	100
Activities of private households	0	17.63	32.27	11.07	7.82	0	0	31.21	100
Research and Development	0	0	0	0	100	0	0	0	100
Other services	8.64	6.68	3.15	13.67	24.64	10.98	9.85	22.4	100
Activities of membership organizations	11.93	2.25	13.47	20.08	21.83	2.94	13	14.5	100
Total	7.61	9.19	15.27	25.58	19.86	7.03	6.16	9.29	100
Afram Basin									
Agriculture	2.05	4.46	10.75	26.91	28.03	16.88	8.19	2.73	100
Fishing/aquaculture	6.55	27.05	35.05	13.89	7.43	1.36	1.55	7.13	100
Mining	0	0	0	0	100	0	0	0	100
Manufacturing	4.49	5.83	9.68	14.09	23.02	9.67	13.49	19.74	100
Electricity and water	0	0	0	0	100	0	0	0	100
Construction	3.62	0	12.69	20.07	29.93	15.77	10.68	7.24	100
Trade	5.75	17.68	23.45	18.96	15.85	4.08	3.7	10.53	100
Hotel and restaurants	14.17	4.08	4.37	14.14	24.1	12.4	12.95	13.78	100
Transport and communication	6.49	5.68	2.44	1.19	19.67	7.06	16.89	40.58	100
Financial Services	0	0	0	16.87	21.98	25.4	26.87	8.88	100
Public administration	0	0	0	5.45	30.36	45.89	12.84	5.45	100
Education	5.57	1.63	8.21	47.78	25.53	5.67	1.76	3.86	100
Health and social work	0	0	35.64	13.59	28.57	13.9	0	8.29	100
Other services	5.19	1.71	4.61	10.82	13.14	18.39	21.63	24.51	100
Activities of membership organizations	7.58	0	7.13	0	42.6	0	0	42.69	100
Total	3.84	9.65	15.8	22.6	22.32	11.44	7.06	7.28	100

Industry of occupation	Hours worked on Main Occupation in 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Northern zone									
Agriculture	11	5.66	13.69	22.85	22.28	8.15	8.79	7.58	100
Fishing/aquaculture	0	33.15	0	55.8	11.05	0	0	0	100
Manufacturing	8.79	8.48	16.09	13.68	15.95	9.6	9.73	17.67	100
Electricity and water	0	0	0	0	25	75	0	0	100
Construction	1.41	7.25	8.52	9.44	19.88	25.12	19.84	8.54	100
Trade	3.89	6.18	9.92	10.12	19.02	11.52	12.14	27.21	100
Hotel and restaurants	8.92	0	9.81	15.19	0	0	20.04	46.04	100
Transport and communication	2.51	1.74	0.78	12.28	13.24	12.4	13.58	43.46	100
Financial Services	0	0	0	0	63.23	36.77	0	0	100
Public administration	1.91	0	3.83	28.23	23.03	14.82	3.38	24.79	100
Education	2.57	5.26	15.8	31.28	28.48	0.93	2.48	13.21	100
Health and social work	1.55	0	1.72	11.01	26.5	25.35	18.81	15.07	100
Activities of private household	0	22.18	16.1	3.8	14.4	17.81	0	25.71	100
Extra territorial organization	0	0	0	0	0	0	100	0	100
Other services	1.42	1.38	5.24	15.77	12.86	15.24	15.32	32.75	100
Total	8.54	5.77	12.56	19.51	21.15	9.61	9.48	13.37	100

Table 5.17 presents the working conditions of employed people. It table shows that about half of all employees do not have signed contracts with their employers and about 60 percent are in organizations where trade unions do not exist. Only 40 percent are entitled to paid holidays and more than a third are not entitled to sick or maternity leave with pay. About 53 percent do not have pension schemes and about 70 percent do not have free or subsidized medical care. According to the various working conditions considered, there is no marked difference between the proportions of males and females who experience those conditions. Thus, there is no gender dimension to the type of working conditions people face in the various work places.

Table 5.17: Employees with contracts, unions, tax deductions and employee benefits, by sex (%)

	Male	Female	Both sexes
Written contract			
yes	49.51	50.95	49.92
no	50.49	49.05	50.08
Total	100	100	100
Trade Union available			
yes	41.41	39.4	40.83
no	58.59	60.6	59.17
Total	100	100	100
Entitled to paid holidays			
yes	49.55	51.42	50.09
no	50.45	48.58	49.91
Total	100	100	100
Entitled to paid sick leave or maternity			
yes, sick leave	46.33	24.5	40.06
yes, maternity leave	11.24	14.87	12.28
yes, both	7.33	25.39	12.51
no	35.11	35.23	35.15
Total	100	100	100
Receive pension			
yes	46.8	46.16	46.62
no	53.2	53.84	53.38
Total	100	100	100
Entitled to free or subsidized medical care			
yes	30.77	30.33	30.65
no	69.23	69.67	69.35
Total	100	100	100

5.4 Unemployment and Underemployment

Unemployment in the 23 MiDA districts is estimated at 2 percent (Tables 5.18 and 5.19). Table 5.18 shows that among all age groups, unemployment is highest for people aged between 15 and 24, followed by those between 25 and 44. There is a marked difference between unemployment rates in urban and rural areas. The rate in urban areas is higher than that of rural areas and this is true for both males and females. However, the unemployment rate for females is slightly higher than that for males.

In Table 5.11, distribution of the currently employed population aged 15-64 years by industry group mida zone and sex revealed that, majority of the household members employed are into agriculture. In the Souther Horticultural Zone, 52.06% of the currently employed are engaged in agriculture while in the Afram Basin, 47.79% of them are into agriculture. The per cent of population employed in the agricultural sector is even higher in the Northern Agricultural Zone, 61.36%. Since agriculture

is a relatively rural, phenomenon, this may explain why the unemployment rate is higher in the urban areas than in the rural areas in the study area.

Table 5.18: Unemployment rates, by sex, age and locality (%)

Sex	Age groups	Urban	Rural	Total
Male				
	15-24	9.7	2.2	3.7
	25-44	3.8	0.8	1.6
	45-64	2.7	0.3	1
	Total	4.2	0.9	1.8
female				
	15-24	12.4	2.5	4.8
	25-44	4.6	0.9	1.9
	45-64	3.5	0.4	1.1
	Total	5.4	1	2.2
Both sexes				
	15-24	11.2	2.4	4.3
	25-44	4.2	0.9	1.8
	45-64	3.1	0.3	1.1
	Total	4.9	1	2

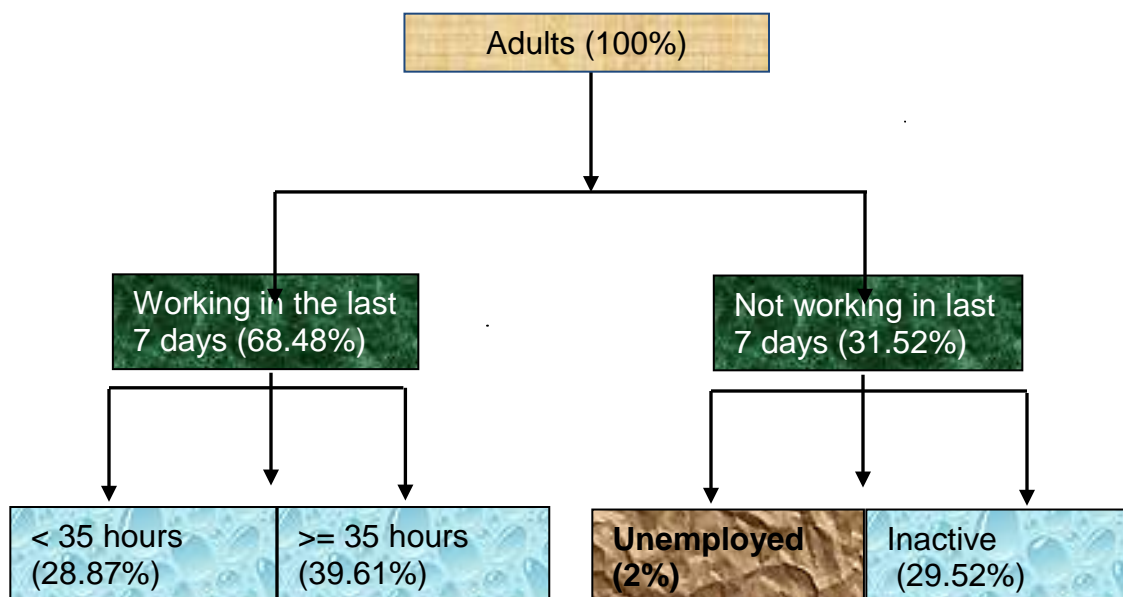
From Table 5.19, it can be seen that the unemployment rate is higher in the Northern Zone than in all other zones. While the Northern Zone recorded an unemployment rate of about 4 percent, the Southern Horticultural Zone recorded less than 2 percent and the Afram Basin less than 1 percent (Table 5.19).

Table 5.19: Unemployment Rates, by Sex, Age and MiDA Zone (%)

Sex	Age group	Southern Horticulture Belt	Afram Basin	Northern Zone	Total
Male					
	15-24	3.6	3.3	4.1	3.7
	25-44	1.9	0.7	2.2	1.6
	45-64	0.9	0	2.4	1
	Total	1.9	0.8	2.7	1.8
Female					
	15-24	4.7	2.1	8.4	4.8
	25-44	1.4	0.5	4.4	1.9
	45-64	0.3	0.1	4.6	1.1
	Total	1.5	0.7	5.2	2.2
Both sexes					
	15-24	4.2	2.5	6	4.3
	25-44	1.7	0.6	3.4	1.8
	45-64	0.6	0	3.5	1.1
	Total	1.7	0.8	3.9	2

Figure 5.1 shows the breakdown of the adult population in the different categories of activity. Out of every 100 adults, about 69 report working and 32 did not work. About 40 of those who engage in economic activity work more than 35 hours while 29 work for 35 hours or less in their main occupations. The figure also shows that 2 are unemployed while about 30 are inactive.

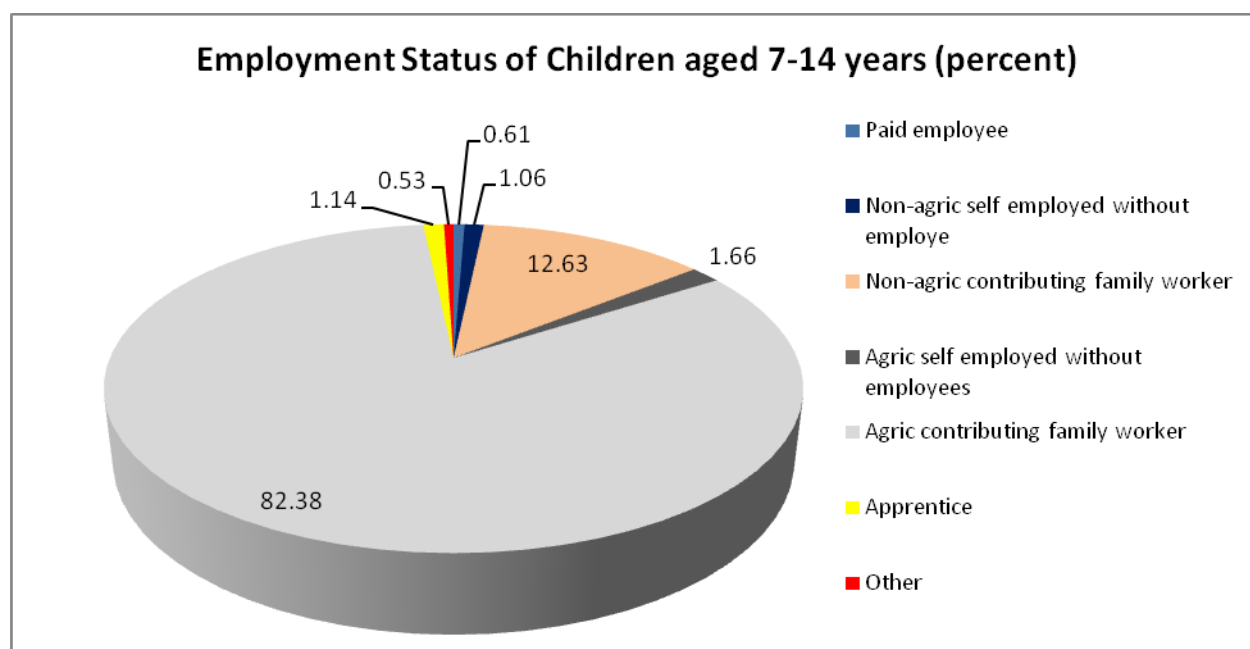
Figure 5.1: Estimated Unemployment Rate



5.5 Working children

This section discusses the economic activities as well as the conditions of work of people aged 7 to 14. Figure 5.2 provides information on the employment status of the working children identified in the survey. An overwhelming majority (82.38 percent) of children are agriculture-contributing family workers. Non-agriculture-contributing family workers account for about 13 percent. Agriculture workers and non-agriculture, self-employed workers who do not have employees accounted for 1.66 percent and 1.06 percent respectively while 1.14 percent into apprenticeship, with only 0.61 percent being paid employees.

Figure 5.2: Employment status of children aged 7-14 years (%)



Most employed children are engaged in the agriculture sector. As show in Table 5.20, as much as 82 percent work in the agriculture sector, followed by 9.6 percent employed in trade. Thus, the two sectors account for about 92 percent of children engaged in economic activities in survey areas. The proportion of male children in agricultural employment is higher than that of females but the reverse is true for children engaged in trade. This trend cuts across both urban and rural communities. However, the proportion of children in agriculture is higher in rural communities than in urban communities whereas the proportion in trade is higher in urban communities than in rural communities. For the manufacturing sector (which is the largest sector employing children), the proportions for the respective sexes are higher for females in both urban and rural areas.

The distribution within MiDA zones does not differ much from that of rural/urban localities. Table 5.21 shows that the agriculture, trade and manufacturing sectors employ, in that order, the largest proportions of children in all three zones. With the exception of the Afram Basin, the proportion of males employed in the agricultural sector is higher than that of females. The zone in which the largest proportion of the children is employed in agriculture is the Northern Zone, followed by the Southern Horticultural Zone and then the Afram Basin.

The Southern Horticultural Zone employs the largest proportion of children in the trade sector, followed by the Afram Basin. The proportion of female children employed in trade is higher than the proportion of males in all three zones.

Table 5.20: Currently employed children aged 7-14 years, by type of work, locality and sex (%)

Industry of occupation	Urban			Rural			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture	55.42	35.65	45.9	93.81	82.92	89.12	88.27	74.85	82.39
Mining	0	1.08	0.52	0	0	0	0	0.18	0.08
Fishing/aquaculture	0	0	0	2.75	1.48	2.21	2.36	1.23	1.86
Manufacturing	10.94	21.79	16.2	1.18	4.48	2.6	2.59	7.44	4.71
Construction	2.3	0	1.2	0	0	0	0.33	0	0.19
Trade	28.45	34.93	31.6	2.26	9.89	5.54	6.04	14.17	9.6
Hotel and restaurants	0	1.93	0.93	0	0.63	0.27	0	0.85	0.37
Health and social work	0	2.31	1.11	0	0.28	0.12	0	0.63	0.27
Activities of private organizations	0	1.31	0.63	0	0.18	0.08	0	0.37	0.16
Other services	2.89	1	1.98	0	0.13	0.06	0.42	0.28	0.36
Total	100	100	100	100	100	100	100	100	100

Table 5.21: Currently Employed Children Aged 7-14 Years, by Type of Work, Locality and Sex (%)

Industry of occupation	Southern Horticultural Zone			Afram Basin			Northern Zone		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture	80.85	64.38	73.27	68.44	80.67	73.91	97.4	85.82	92.59
Fishing/aquaculture	1.73	2.08	1.89	25.57	0	14.13	0.31	0.44	0.36
Mining	0	0.37	0.17	0	0	0	0	0	0
Manufacturing	5.69	5.89	5.78	0	0	0	0	10.13	4.2
Construction	0	0	0	5.99	0	3.31	0	0	0
Trade	11.73	25.58	18.1	0	10.22	4.57	1.44	1.91	1.64
Hotel and restaurants	0	0	0	0	9.11	4.07	0	0.74	0.31
Health and social work	0	1.26	0.58	0	0	0	0	0	0
Activities of private organizations	0	0.45	0.21	0	0	0	0	0.33	0.14
Other services	0	0	0	0	0	0	0.85	0.63	0.76
Total	100	100	100	100	100	100	100	100	100

Table 5.22 reports the hours worked per week by children in the various industries. Among the total number of children employed, 30 percent work for less than 10 hours per week. Although this is also true for children in rural areas, it is not true for children in urban areas, where about 29 percent of working children work for 10 to 19 hours. Thus, children in urban areas work more hours than children in rural areas. However, the proportions of children in the various categories decrease the longer the hours worked in all industries and in both rural and urban areas.

Table 5.22: Hours worked per week, by industry of currently employed children aged 7-14 years and older (%)

Industry of Main Occupation	Hours worked on Main Occupation in the last 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Urban									
Agriculture	16.05	27.65	21.75	9.02	23.78	0.8	0.95	0	100
Mining	100	0	0	0	0	0	0	0	100
Manufacturing	25.05	22.71	25.37	0	3.49	2.27	0	21.11	100
Construction	0	0	0	0	0	0	100	0	100
Trade	18.41	37.59	36.76	0	7.24	0	0	0	100
Hotel and restaurants	0	0	0	0	0	0	0	100	100
Health and social work	0	0	0	0	0	0	0	100	100
Activities of private org.	0	0	0	0	0	0	100	0	100
Other services	0	24.18	0	0	0	0	0	75.82	100
Total	17.74	28.71	25.69	4.14	13.77	0.73	2.26	6.95	100
Rural									
Agriculture	36.15	18.49	13.52	15.15	10.66	2.05	2.44	1.53	100
Fishing/aquaculture	4.13	9.14	7.54	20.87	44.49	13.83	0	0	100
Manufacturing	12.64	20.41	6.41	15.12	7.6	25.57	6.36	5.88	100
Trade	14.35	37.09	21.57	21.94	0	0	3.77	1.27	100
Hotel and restaurants	0	0	0	0	0	0	0	100	100
Health and social work	0	100	0	0	0	0	0	0	100
Activities of private org.	0	100	0	0	0	0	0	0	100
Other services	0	0	0	0	100	0	0	0	100
Total	33.43	19.47	13.58	15.58	10.74	2.8	2.55	1.86	100
All									
Agriculture	34.4	19.29	14.24	14.62	11.8	1.94	2.31	1.4	100
Fishing/aquaculture	4.13	9.14	7.54	20.87	44.49	13.83	0	0	100
Mining	100	0	0	0	0	0	0	0	100
Manufacturing	19.27	21.64	16.54	7.04	5.4	13.13	2.96	14.02	100
Construction	0	0	0	0	0	0	100	0	100
Trade	16.43	37.35	29.36	10.69	3.71	0	1.84	0.62	100
Hotel and restaurants	0	0	0	0	0	0	0	100	100
Health and social work	0	37.15	0	0	0	0	0	62.85	100
Activities of private org.	0	39.81	0	0	0	0	60.19	0	100
Other services	0	20.88	0	0	13.63	0	0	65.48	100
Total	30.98	20.91	15.47	13.79	11.21	2.48	2.5	2.65	100

In both urban and rural areas, children in the trade sector work for more hours than children in any other sector, followed by those in the agriculture sector and then the manufacturing sector. Table 5.23 shows marked differences in the hours of work spent by the children in the different industries. For instance, in the Southern Horticultural Zone, about 50 percent of children work

for less than 10 hours per week, while only 0.51 percent of children in the Afram Basin work for less 10 hours per week and 15.51 percent of children in the Northern Zone work less than 10 hours.

Table 5.23: Hours worked per week, by industry of currently employed children aged 7-14 years and older (%)

Industry of Main Occupation	Hours worked on main occupation in the last 7 days								
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
Southern Horticultural Zone									
Agriculture	60.97	24.27	8.5	4.45	1.6	0.2	0	0	100
Fishing/aquaculture	8.57	0	15.68	10.5	65.25	0	0	0	100
Mining	100	0	0	0	0	0	0	0	100
Manufacturing	28.12	34.51	19.07	1.72	0	0	0	16.58	100
Trade	18.4	36.24	30.87	10.33	4.16	0	0	0	100
Health and social work	0	37.15	0	0	0	0	0	62.85	100
Activities of private org.	0	0	0	0	0	0	100	0	100
Total	49.96	26.56	13.22	5.43	3.16	0.14	0.21	1.32	100
Afram Basin									
Agriculture	0.7	10.46	33.44	25.77	12.03	14.47	1.18	1.95	100
Fishing/aquaculture	0	0	0	37	30.63	32.37	0	0	100
Construction	0	0	0	0	0	0	100	0	100
Trade	0	0	0	31.55	0	0	68.45	0	100
Hotel and restaurants	0	0	0	0	0	0	0	100	100
Total	0.51	7.73	24.72	25.72	13.22	15.27	7.31	5.52	100
Northern Zone									
Agriculture	16.44	16.16	16.97	21.66	19.91	2.14	4.25	2.46	100
Fishing/aquaculture	0	100	0	0	0	0	0	0	100
Manufacturing	7	3.79	13.03	14.43	12.9	31.32	7.07	10.46	100
Trade	0	62.23	22.29	7.72	0	0	0	7.76	100
Hotel and restaurants	0	0	0	0	0	0	0	100	100
Activities of private org.	0	100	0	0	0	0	0	0	100
Other services	0	20.88	0	0	13.63	0	0	65.48	100
Total	15.51	16.8	16.63	20.79	19.08	3.3	4.24	3.65	100

5.6 Housekeeping activities

The survey also collected detailed time-use information on a number of housekeeping activities. The time people spent in the previous seven days on activities such as collecting firewood and fetching water are reported on all people aged seven and older in sub-section. People were asked whether they spent any time on each activity in the seven days preceding the interview, and if so, the number of hours spent. They were also asked to report the time spent separately for activities they performed while caring for children and while not taking care for children. The results are reported in Tables 5.24 to 5.29.

Table 5.24: Average time spent (minutes) on various housekeeping activities while caring for children, by population aged 7 years and older, by sex and locality

Activities	Sex	Proportion	urban	rural	Total
Collecting firewood	Male	32	147.3	85.9	87.9
	Female	48.8	277.2	189.2	195.2
	All	40.9	252.1	153.5	159
Fetching water	Male	48	106.9	60.5	66
	Female	72.1	128.8	115.2	117.9
	All	60.7	124.3	98	102.5
Shopping	Male	29.1	106.3	82	84.4
	Female	58	155.5	139.1	142.7
	All	44.4	147.3	119.9	124.9
Caring for clothes	Male	50.2	130.1	86.8	92.9
	Female	77	187	160.3	166
	All	64.4	174.3	136.5	143.7
Washing dishes and pots	Male	40.5	104.9	65.7	69.4
	Female	74.5	128.5	101.3	106.8
	All	58.5	125.1	90.9	96.7
Cleaning & upkeep of dwelling	Male	47.5	100.7	75.7	78.8
	Female	76.4	123.1	111.3	113.7
	All	62.8	118.5	100.2	103.5
Taking care of elderly	Male	3.2	310.9	242.1	259.3
	Female	5.4	274.3	258.2	262
	All	4.4	285.2	253.8	261.2
Taking care of the sick	Male	3.2	265.1	217.6	224.7
	Female	5.1	392.7	274.3	293.1
	All	4.2	351.7	255	270.1
Helping with homework	Male	24.1	116.2	62.8	70.7
	Female	21.7	106.6	85.2	89
	All	22.8	110.8	74	80
Teaching	Male	7.8	145.9	183.7	165.1
	Female	5.3	140.7	138.1	139.3
	All	6.5	143.5	161	152.7
Reading	Male	27.6	213.6	114.8	140.3
	Female	19.1	211.9	92.8	131
	All	23.1	212.8	105.6	136.2

With the exception of teaching and reading, the proportions of females engaged in the various house-keeping activities while caring for children are higher than those of males. In both urban and rural areas, females spend more time on the activities than males. The activity which engages the largest proportion (about 64 percent) of people is caring for clothes, which consists

of washing and ironing. This is true for both males and females. For all housekeeping activities, average time spent by people in urban areas is higher than average time spent by people in rural communities, and this is also true for both males and females.

Table 5.25: Average time spent (minutes) on various housekeeping activities while not taking care of children, by population aged 7 years and older, by sex and locality

Activities	Sex	Locality		
		Urban	Rural	Total
Collecting firewood	Male	120	96.3	98
	Female	174.6	151.7	153.6
	Total	155.8	130.7	132.7
Fetching water	Male	104.7	96.1	98.3
	Female	119	127.6	125.3
	Total	113.8	115.5	115.1
Shopping	Male	112.6	91.4	96.1
	Female	144.6	128	132.8
	Total	136.2	115.6	121.1
Caring for clothes	Male	104.9	88.1	92.6
	Female	135.7	125.8	128.6
	Total	124.4	111.5	115.1
Washing dishes and pots	Male	83.8	69	72.5
	Female	103.2	91.1	94.4
	Total	97.4	83.4	87.1
Cleaning & upkeep of Dwelling	Male	100.4	81.9	86.5
	Female	110.7	104.6	106.3
	Total	107.3	96.2	99.2
Taking care of elderly	Male	204.1	228.1	221.3
	Female	324.4	256.1	273.3
	Total	279.9	246.8	255.4
Taking care of the sick	Male	325.9	234.2	252.8
	Female	389.7	303.9	319.1
	Total	365.6	280.2	296.1
Helping with homework	Male	117.2	94.4	100
	Female	114	90.1	96.1
	Total	115.6	92.2	98.1
Teaching	Male	199.9	152.9	172.8
	Female	148.5	102.2	121.7
	Total	178.2	131.4	151.2
Reading	Male	240.5	151.5	186
	Female	216.5	120.5	158.7
	Total	229.9	138.1	174.1

Table 5.26: Average time spent (minutes) per last 7 days on various housekeeping activities of population aged 7 years and older, by sex and MiDA Zones while caring for children

Activities	Sex	MiDA Zones			
		Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Collecting firewood	Male	216.2	58	120.6	87.9
	Female	536.1	95.7	136.3	195.2
	Total	481.4	78.2	132.4	159
Fetching water	Male	158.9	30.2	101	66
	Female	198.6	63.5	124.2	117.9
	Total	192.8	50.6	118.1	102.5
Shopping	Male	139.2	68.3	110.5	84.4
	Female	188.5	109.4	151.8	142.7
	Total	184.2	91.5	142.1	124.9
Caring for clothes	Male	167.2	56.1	116.5	92.9
	Female	224.7	119.9	168.1	166
	Total	211.9	93.3	155.6	143.7
Washing dishes and pots	Male	126.7	42	99.7	69.4
	Female	146.8	69.9	112.7	106.8
	Total	144.5	59.1	109.7	96.7
Cleaning & upkeep of dwelling	Male	109.8	48.8	107.3	78.8
	Female	135.6	79.4	129.2	113.7
	Total	130.5	68	123.5	103.5
Taking care of elderly	Male	282.5	121.6	200.6	259.3
	Female	350.6	141.9	195.1	262
	Total	323.6	137.4	195.8	261.2
Taking care of the sick	Male	337.5	91.1	136.4	224.7
	female	516.6	195.2	189.9	293.1
	Total	440.1	159.1	175.4	270.1
Helping with homework	Male	117.7	47.4	124.3	70.7
	Female	126.4	57.9	121.3	89
	Total	123.1	52.1	122.6	80
Teaching	Male	115.6	60.5	141.3	100
	Female	96.8	55.2	148.3	96.1
	Total	106.2	57.9	144.9	98.1
Reading	Male	216.9	225.7	140.4	172.8
	Female	128.4	175.5	107	121.7
	Total	187.7	206.1	125.1	151.2

Although very few people are engaged in taking care of the elderly (4.4 percent) and of the sick (4.2 percent), people who perform these activities spend more time on them than those who perform the other activities. This is also true for activities which are performed without having to take care of children (Table 5.26). Moreover, in both rural and urban communities, the time spent on most of the activities except teaching and reading is again higher for females than for males, whether or not the activity is performed while taking care of children. Thus, females are more engaged in housekeeping activities than males irrespective of whether they live in urban or rural communities and whether the activity is done while caring for children or not.

Table 5.26 reports the time spent by people in MiDA zones while caring for children and Table 5.27 reports the time spent when they perform the activities without caring for children. For most of the activities they perform while caring for children, people in the Northern Zone spend more time on those activities than in the other two zones. The only activities on which people in the Southern Horticultural Zone spend more time than people in the other zones are helping with homework and teaching. Similarly, the only activities which people in the Afram Basin spend more time on than people in the other zones is reading.

With respect to activities performed while not taking care of children, the Northern Zone recorded more time spent than the other zones on almost all the activities, except helping with homework and teaching. While the Southern Horticultural Zone recorded the greatest amount of time for helping with homework and the Afram Basin recorded the highest time spent teaching. It is quite notable that in all the MiDA zones and on all the activities, except for teaching and reading activities, females spend much more time than their males whether the activity is performed while caring for children or otherwise.

Tables 5.28 and 5.29 report time spent by the various age groups on housekeeping activities while taking care of children and those performed when not taking care of children. For all the activities reported in Table 5.28, except washing dishes and teaching, people aged 25 to 44 spend more time than all the other age groups, followed by those aged 20 to 24. In fact, this age group recorded the greatest time spent on washing dishes and teaching, followed by those between 25 to 44 years of age. For most of the activities and for each sex, children (between 7 and 14 years old) tend to spend the least time. Similarly, for most of the activities and for most of the age groups, females spend more time than males. Table 5.29 presents the average time spent on the various activities while not taking care of children, and depicts a pattern similar to that of Table 5.28.

Table 5.27: Average time spent (minutes) per last 7 days on various housekeeping activities of population aged 7 years and older, by sex and MiDA Zone while not taking care of children

Activities	Sex	MiDA Zones			
		Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Collecting firewood	Male	220.8	72.1	101.5	98
	Female	397.1	87.7	106.2	153.6
	All	359.8	80.9	104.4	132.7
Fetching water	Male	182.5	75.9	97.7	98.3
	Female	216.1	81.8	110.2	125.3
	All	208.7	79.2	105.3	115.1
Shopping	Male	139.2	81.4	100.8	96.1
	Female	191.1	100.8	132.9	132.8
	All	180.8	93.3	123.2	121.1
Caring for clothes	Male	127.3	65.2	98.7	92.6
	Female	184.1	95.3	124.2	128.6
	All	164.7	83	114.8	115.1
Washing dishes and pots	Male	112.2	51.2	81.6	72.5
	Female	131.5	73.9	90.3	94.4
	All	128.5	64.9	87.2	87.1
Cleaning & upkeep of dwelling	Male	112.8	64.3	91.7	86.5
	Female	130.4	88.3	105.9	106.3
	All	124.8	78.7	100.8	99.2
Taking care of elderly	Male	260.2	244.7	155.1	221.3
	Female	380.9	349.4	203.9	273.3
	All	321.9	319.8	192.1	255.4
Taking care of the sick	Male	342.5	218.8	183.4	252.8
	Female	510.7	362	237.5	319.1
	All	432.7	307.6	222.4	296.1
Helping with homework	Male	115.6	60.5	141.3	100
	Female	96.8	55.2	148.3	96.1
	All	106.2	57.9	144.9	98.1
Teaching	Male	216.9	225.7	140.4	172.8
	Female	128.4	175.5	107	121.7
	All	187.7	206.1	125.1	151.2
Reading	Male	301.6	109.6	177.7	186
	Female	267.7	85.6	165.3	158.7
	All	288.2	98.7	172.2	174.1

Table 5.28: Average time spent (minutes) in the last 7 days on various housekeeping activities of population aged 7 years and older, by age and sex, while caring for children

Activities	Sex	Age groups						Total
		7-14	15-19	20-25	25-44	45-64	65+	
Collecting firewood	Male	77.1	77.2	107.3	96.6	91.7	86.4	87.9
	Female	190.1	151.6	197.5	214.1	178.9	156.4	195.2
	Total	123.5	119.1	168.4	187.3	153.7	145.8	159
Fetching water	Male	64.4	75	82.6	61.4	52.2	77.4	66
	Female	88.2	91.9	125.1	133.6	119.7	119.2	117.9
	Total	76.3	86.5	113.9	120.8	100.2	112.2	102.5
Shopping	Male	63.1	63.3	101.1	101.8	95.5	102.4	84.4
	Female	72.5	98.3	142.7	161.2	145.5	127.3	142.7
	Total	66.7	84.5	131.6	149.2	130.6	121.6	124.9
Caring for clothes	Male	85.3	103.1	100.6	95.6	81.1	113.5	92.9
	Female	120.3	142.5	182.4	183.1	144.1	135.8	166
	Total	100.5	125.1	157.8	166.5	125.7	132.9	143.7
Washing dishes and pots	Male	72.1	69.4	95.4	54.7	61.6	118.8	69.4
	Female	101.3	96.6	112.5	110.8	101.5	102.6	106.8
	Total	86.5	88	108.8	102.1	90.4	104.3	96.7
Cleaning & upkeep of dwelling	Male	73.6	74.7	96.3	77	80	113.2	78.8
	Female	86.9	91.2	119.2	124.2	116	116.9	113.7
	Total	80.4	85.8	113.8	114.4	104.5	116.1	103.5
Taking care of elderly	Male	124	316	153.9	299	251.9	269.4	259.3
	Female	96.2	112.3	266.7	267.9	290.7	476.1	262
	Total	107.3	181.1	246.3	275.8	279.1	393.5	261.2
Taking care of the sick	Male	132.6	111.8	135.6	312.3	233.1	302.7	224.7
	Female	89.6	133.1	330.1	377.9	213.6	292	293.1
	Total	122.3	123.7	273.1	357.3	217.5	295.5	270.1
Helping with homework	Male	60	65.7	73.7	71.9	92.8	105.5	70.7
	Female	92.5	81.6	76.8	94.8	80.4	126.1	89
	Total	70.2	73.5	75.6	86.5	87.7	117	80
Teaching	Male	174.7	124.8	249.4	164.2	154.9	90	165.1
	Female	144.7	107.7	157.2	135.2	204	89.4	139.3
	Total	159.7	116.3	201.3	148.6	166.8	89.7	152.7
Reading	Male	127.1	125.6	162	195.5	133.1	131.2	140.3
	Female	92.1	148.2	110.6	227.1	184.9	78	131
	Total	110	135.6	144.3	210.7	144.1	121.9	136.2

Table 5.29: Average time spent (minutes) in the last 7 days on various housekeeping activities of population aged 7 years and older, by age and sex, while not taking care of children

Activities	Sex	Age groups						Total
		7-14	15-19	20-25	25-44	45-64	65+	
Collecting firewood	Male	91	100.2	95.9	99.7	103.7	125.8	98
	Female	124.2	128	157.4	181.2	159.9	121	153.6
	All	108.2	114.8	134.6	154.8	144.3	122.3	132.7
Fetching water	Male	109.7	106.8	100.4	79.9	77.1	84.9	98.3
	Female	121.5	131.7	117.8	129.3	127.6	99.6	125.3
	All	116	120.4	111.1	114.3	114.3	96.3	115.1
Shopping	Male	65.2	83.8	91.2	109.6	114.6	119.8	96.1
	Female	79.1	101.9	125.1	148.3	151.5	142.1	132.8
	All	72.7	95.5	114.7	136.9	141.9	136.4	121.1
Caring for clothes	Male	84.4	94.6	99.8	97.7	87.6	92.3	92.6
	Female	96.7	117.5	139.5	149.1	128.5	116.8	128.6
	All	91	106.5	122.6	132.8	117.9	111.6	115.1
Washing dishes and pots	Male	80.9	74.2	69.8	60.9	61.2	76	72.5
	Female	99.9	92.3	92.7	96.4	88.5	81.3	94.4
	All	91.7	85.1	85.3	87.2	82.2	80.3	87.1
Cleaning & upkeep of dwelling	Male	85.1	93.1	86.2	81.4	85.9	105.3	86.5
	Female	94.9	104.2	106.3	111.2	113.7	104.4	106.3
	All	90.6	99.4	99	101.8	105.8	104.6	99.2
Taking care of elderly	Male	186.7	168.2	228.4	237	230.6	229.6	221.3
	Female	261	185.5	191.9	228	331.1	545.9	273.3
	All	233.9	178.2	203.5	231.3	302.3	452.3	255.4
Taking care of the sick	Male	129.8	168.9	224.5	252.5	347.3	393.7	252.8
	Female	164.4	441	246.5	330.1	275.9	510.7	319.1
	All	140.5	344.6	239.6	304.5	294.7	471.6	296.1
Helping with homework	Male	86.2	96.5	112.1	102.2	111.5	213.6	100
	Female	83.9	92.3	87.5	98.5	122.8	227.5	96.1
	All	85.1	94.3	99.1	100.3	116.5	220.1	98.1
Teaching	Male	125.4	123.1	219	196.3	194.3	142.1	172.8
	Female	91.4	136.2	115.7	121.2	170.8	96.1	121.7
	All	107.3	129	176.3	166.4	186.7	128.3	151.2
Reading	Male	133.9	167.5	247.2	258.8	200.4	192	186
	Female	124.7	164.7	206	206.1	227.6	197.8	158.7
	All	129.2	166.2	232	240.8	208	193.2	174.1

6. Migration

6.1 Migration patterns

Table 6.1 shows the extent of migration for the population aged 7 and above in the survey area. Slightly over a quarter of this population is made up of migrants. The proportion of migrants is higher in the Southern Zone (10.7 percent) than in the Northern Zone (9.0 percent) and Afram Basin (5.5 percent). On the whole, a higher proportion of migrants is female (14.2 percent) relative to males (11.1 percent). However, there is no gender disparity among migrants in the Afram Basin. Also, a higher proportion of migrants in the Northern Zone is female (5.6 percent) and in the Southern Zone (5.8 percent) compared to 3.4 percent and 4.9 percent for males in the respective zones. Table 6.1 shows that the proportion of migrants is higher in rural (17.7 percent) than in urban localities. It also confirms that a higher proportion of migrants in rural localities is made up of females (10.0 percent).

Tale 6.1: Extent of migration of population aged 7 years and older, by sex, locality and MiDA Zone (%)

Sex of the Individual	Lived away from this Village						
	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
male	3.4	2.8	4.9	11.1	3.4	7.7	11.1
female	5.6	2.8	5.8	14.2	4.2	10.0	14.2
Total	9.0	5.5	10.7	25.3	7.6	17.7	25.3

Appendix B6.1 shows the level of migration for the population aged 7 and above, by district of residence and sex. The proportion of migrants was relatively high in the Savelugu Nanton District (2.8 percent), Karaga (2.6 percent), Tolon Kumbungu (1.9 percent), Sekyere West (1.5), Manya Krobo (1.4 percent), North Dayi (1.4 percent), Keta (1.4), Kwahu South (1.3 percent), West Mamprusi (1.2 percent), Sekyere East (1.2 percent) and South Tongu (1.2 percent). Females account for a higher proportion of migrants in most districts in the survey area. However in six districts – Ketu, Yilo Krobo, Kwahu North (Afram Plains), Sekyere East, Ejura Sekyeredumase and Tamale – the proportion of males is higher than that of females.

6.2 Migration Status, by Locality, District and MiDA Zone

Migrants can be classified as in-migrants and returned migrants. In-migrants include people who were born somewhere else and moved to their current place of residence for a period of at least one year. Returned migrants are those who were born or ever lived in their current place of residence, but have lived away from there for a period of one year or more before returning. Table 6.2 shows the migration status of the population aged 7 years or older, by MiDA Zones and locality. Table 6.3 shows that, in all three zones surveyed, 15.4 percent of the population aged 7 years or older are in-migrants while 10.4 percent are returned migrants. About 74.3

percent of this age category is non-migrant as they were born and continue to live in their current place of residence.

Table 6.2: Migration status, by locality and MiDA Zone (%)

MiDA Zone				
	In-migrants	Returned Migrants	Non-Migrants	Total
Northern	20.8	8.2	71.0	100
Afram Basin	16.1	11.1	72.8	100
Southern	12.2	11.2	76.6	100
Locality				
Urban	17.0	10.1	72.9	100
Rural	14.7	10.5	74.8	100
Total	15.4	10.4	74.3	100

Table 6.3: Migration status, by district (%)

District	In-migrants	Returned Migrants	Non-Migrants	Total
Gomoa	12.9	8.4	78.7	100
Awutu Efutu Senya	20.0	7.3	72.7	100
Dangme West	16.5	12.0	71.5	100
South Tongu	15.6	18.5	65.9	100
Keta	13.3	26.6	60.1	100
Ketu	5.7	8.5	85.8	100
Akatsi	3.6	12.1	84.2	100
North Dayi	18.8	18.3	62.9	100
Hohoe	3.5	9.0	87.6	100
Fanteakwa	19.7	14.5	65.8	100
Akuapem South	16.0	5.4	78.7	100
Yilo Krobo	9.9	11.4	78.7	100
Manya Krobo	26.9	10.6	62.5	100
Afram Plains	1.2	0.7	98.1	100
Kwahu South	23.1	16.3	60.6	100
Sekyer East	18.1	11.9	70.0	100
Sekyer West	24.4	15.3	60.3	100
Ejura Sekyer	0.5	3.1	96.4	100
Karaga	34.8	6.4	58.8	100
Savelugu Nanton	38.3	11.9	49.8	100
Tamale	10.3	4.4	85.3	100
Tolon Kumbungu	25.6	11.2	63.3	100
West Mamprusi	8.0	11.4	80.5	100
Total	15.4	10.4	74.3	100

Table 6.2 also presents the migration status by locality. The proportion of both in-migrants and returned migrants put together is higher in urban areas (27.1 percent) than in rural localities (25.2 percent), indicating that more people normally migrate to urban areas than to rural areas. The proportion of in-migrants (17.0 percent and 14.7 percent) is generally higher in both urban and rural areas respectively than that of returned migrants (10.1 percent and 10.4 percent). However, while the proportion of in-migrants is higher in urban areas (17.0 percent) than in rural areas (14.7 percent), the proportion of returned migrants is higher in rural areas (10.5 percent) compared to urban areas (10.1 percent)

Table 6.3 shows the migration status of the population aged 7 years and older, by district of residence. In Table 6.3, it is evident that, the Savelugu Nanton District has the highest level of migration, 50.2 percent (of in-migrants plus returned migrants) of the population aged 7 years and older. Other districts with high levels of migration include Karaga, 41.2 percent; Keta 39.9 percent and Sekyere West, 39.7 percent. Meanwhile, the migration level is low in the Kwahu North District (1.9 percent), Ejura Sekyeredumase (3.6 percent), Hohoe (12.5 percent), Ketu (14.2 percent), and Tamale Metropolis (14.7 percent). Though migration appears to be higher in districts in the Northern Zone, high levels of migration are observable in many districts in the other zones.

6.3 Sex and Age Differentials in Migration

Table 6.4 shows migration status, by age group and sex. Migration can be said to be age dependent. The level of migration increases from 2.2 percent among the population aged between 5 and 9 years to 13.0 percent for the 25-29 age cohort, and then decreases with increasing age to 4.7 percent for the 60-64 age group. The 65+ age group also has a very high level of migrants (12.6 percent) most of whom are returned migrants (15.0 percent). This could be due to retirement from their places of work which could be outside their current places of residence. Thus, the age group 25-29 constitutes a high proportion of all migrants in the survey area while the age group 5-9 constitutes the smallest proportion (2.2 percent). Consequently, the 10-14 age group make up the largest share of non-migrants (19.4 percent), followed by the 15-19 group (15.8 percent).

Table 6.4 also indicates the gender dimension of migration in the survey. The proportion of male in-migrants is relatively higher for the ages 5 to 19 than that of female in-migrants. However, between the ages of 20 and 44, the proportion of female in-migrants exceeds that of males. For the age ranges 45-49 and 65+, the proportion of male in-migrants again surpasses that of females. Thus, among the ages ranging from 5 to 19, and from 45+, a higher proportion of males migrate than females. The reverse is true for the population aged between 20 and 44. Among the returned migrants, the situation is mixed, with a lower proportion of females in the lower age groups and a higher proportion in the higher age brackets.

Tables 6.5 and 6.6 present the migration status of the population aged 7 years and older, by age and sex in rural and urban localities. Table 6.5 shows the migration status of the population aged 7 years and older, by age and sex for urban areas. In urban localities, there are proportionately more male in-migrants in lower and upper age groups while females in-migrants are generally found in the adolescent and youthful age groups, probably due to reasons of marriage. Within the age bracket 1-14, 44-49 and 55+, the proportion of male in-migrants is higher than that of

females. On the other hand, there is a significant proportion of female in-migrants between ages 15 and 39 as well as in the 50-54 age group. The concentration of male in-migrants in the lower and upper age groups in urban localities is reflected in rural areas. In Appendix 5.3, between the ages of 5 and 19 and 45+, the proportion of male in-migrants exceeds that of females. Similar to the urban situation, female in-migrants in rural areas are concentrated in the ages from 20 to 44. A higher proportion of female returned migrants is found in the 65+ age category.

Table 6.4: Migration status, by age and sex (%)

Age Range	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	4.4	3.0	3.6	1.1	0.7	0.9	2.2	14.9	13.5	14.1
10-14	7.3	6.3	6.7	2.3	2.2	2.2	4.5	21.5	17.5	19.4
15-19	8.5	6.9	7.5	3.1	5.6	4.3	5.9	17.3	14.5	15.8
20-24	5.9	8.8	7.6	6.0	8.6	7.2	7.4	10.2	9.6	9.9
25-29	9.3	12.8	11.4	16.4	12.7	14.7	13.0	6.8	6.8	6.8
30-34	9.4	11.1	10.4	13.3	8.3	11.0	10.7	5.0	5.8	5.4
35-39	9.3	10.1	9.7	9.8	9.8	9.8	9.8	4.5	5.4	5.0
40-44	8.7	10.3	9.6	7.0	7.5	7.2	8.4	4.6	4.6	4.6
45-49	7.9	7.0	7.4	8.7	9.8	9.2	8.3	3.9	4.2	4.1
50-54	7.7	7.5	7.6	7.4	7.8	7.6	7.6	2.7	5.3	4.0
55-59	5.2	4.3	4.6	5.3	4.9	5.1	4.9	2.0	2.8	2.4
60-64	4.2	3.4	3.7	6.4	5.0	5.8	4.7	2.0	2.0	2.0
65-99	12.5	8.6	10.2	13.2	17.1	15.0	12.6	4.7	8.0	6.4
Total	100	100	100	100	100	100	100	100	100	100

Table 6.5: Migration status, by age and sex in urban areas (%)

Age Range	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	4.4	3.3	3.7	1.2	0.6	0.9	2.3	11.8	10.5	11.1
10-14	9.4	6.9	8.0	3.7	2.2	3.0	5.5	19.0	18.2	18.6
15-19	8.4	10.8	9.8	4.1	4.6	4.4	7.1	18.2	15.2	16.6
20-24	6.9	8.6	7.9	6.4	6.0	6.2	7.0	11.9	11.2	11.5
25-29	10.2	13.4	12.0	11.6	14.1	12.9	12.4	8.6	7.0	7.7
30-34	9.0	11.6	10.5	11.8	8.2	10.0	10.2	5.8	6.7	6.3
35-39	9.0	9.2	9.1	9.2	9.2	9.2	9.2	5.9	5.9	5.9
40-44	11.0	8.0	9.3	6.6	9.3	7.9	8.6	3.6	4.9	4.3
45-49	6.5	6.3	6.4	8.0	7.1	7.6	7.0	3.8	4.4	4.1
50-54	7.5	7.6	7.5	9.2	7.0	8.1	7.8	3.1	5.0	4.1
55-59	5.2	4.0	4.5	6.6	6.5	6.6	5.5	2.1	2.2	2.2
60-64	3.4	2.5	2.9	7.5	4.5	6.1	4.5	1.9	1.9	1.9
65-99	9.1	8.0	8.5	14.1	20.7	17.3	12.9	4.6	7.1	5.9
Total	100	100	100	100	100	100	100	100	100	100

In Table 6.6, the proportion of non-migrants is generally higher among females between the ages of 25 and 65+, except in the 40-44 year group. Tables 6.5 and 6.6 confirm that the total level of migration tends to rise with increasing age from the 5-9 year group to the 25-29 year group and then decreases with increasing age in both rural and urban areas.

Table 6.6: Migration status, by age and sex in rural areas (%)

Age Range										
	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	4.3	2.9	3.5	1.1	0.8	0.9	2.2	16.1	14.7	15.4
10-14	6.1	6.0	6.1	1.7	2.2	1.9	4.0	22.5	17.2	19.8
15-19	8.5	5.1	6.4	2.7	6.0	4.3	5.3	17.0	14.1	15.5
20-24	5.4	8.8	7.5	5.8	9.7	7.6	7.5	9.5	8.9	9.2
25-29	8.7	12.6	11.1	18.3	12.1	15.4	13.3	6.1	6.8	6.4
30-34	9.7	10.9	10.4	13.9	8.4	11.4	10.9	4.7	5.5	5.1
35-39	9.4	10.5	10.0	10.0	10.1	10.0	10.0	4.0	5.3	4.7
40-44	7.4	11.3	9.8	7.2	6.7	7.0	8.4	4.9	4.4	4.7
45-49	8.6	7.4	7.8	8.9	10.9	9.8	8.8	4.0	4.2	4.1
50-54	7.8	7.5	7.7	6.7	8.2	7.4	7.5	2.6	5.4	4.0
55-59	5.2	4.4	4.7	4.8	4.3	4.6	4.6	2.0	3.1	2.6
60-64	4.7	3.7	4.1	6.0	5.2	5.6	4.9	2.0	2.1	2.0
65-99	14.2	8.9	11.0	12.9	15.6	14.2	12.6	4.7	8.4	6.6
Total	100	100	100	100	100	100	100	100	100	100

Tables 6.7, 6.8 & 6.9 show the migration status of the population aged 7 years and older, by age and sex in all three MiDA Zones. These tables confirm that among in-migrants, males are usually concentrated in the early age groups e.g. between 5 and 19 years and in the upper age groups such as 60-64 and 65+. The picture is even clearer in the Southern MiDA Zone where male in-migrants dominate with higher proportions in the 5-14 and the 45-65+ groups while higher proportions of females are in the 20-39 groups. Among returned migrants, the situation seems to be mixed, with higher proportions of males still in the lower and upper age groups in the Northern MiDA Zone (Table 6.7).

In the Afram Basin (Table 6.8), though the male returned migrants are still concentrated in the lower age groups (5 to 19), a higher proportion of female returned migrants is found not only in the youthful to middle-aged groups, but also in the upper age groups such as 65+. In the Southern MiDA Zone (Table 6.9), the proportion of male returned migrants is rather higher among the youth aged 20 to 39 while females are concentrated in the lower and upper age groups. Appendices 5.5 and 5.6 also highlight the point that a higher proportion of young females aged 7 and above may travel compared to their male counterparts, as represented by the lower proportion of females in the non-migrant category.

Table 6.7: Migration status, by age and sex in the Northern MiDA Zone (%)

Age Range										
	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	5.7	3.8	4.4	1.8	0.7	1.3	2.9	13.4	13.9	13.6
10-14	6.8	5.4	5.9	1.2	1.3	1.3	3.6	19.1	20.2	19.6
15-19	8.0	5.1	6.1	2.6	7.9	5.0	5.5	17.1	14.0	15.8
20-24	5.7	8.3	7.5	5.6	12.8	8.9	8.2	11.2	9.9	10.6
25-29	9.6	15.4	13.4	12.8	24.7	18.3	15.8	8.4	7.9	8.2
30-34	8.8	12.3	11.1	16.5	11.7	14.3	12.7	6.2	6.5	6.3
35-39	8.8	11.4	10.5	13.3	11.0	12.3	11.4	4.5	5.6	5.0
40-44	10.6	8.9	9.5	9.3	7.0	8.3	8.9	4.4	4.0	4.2
45-49	6.3	7.4	7.0	6.2	6.6	6.4	6.7	3.7	4.1	3.9
50-54	6.4	7.7	7.3	6.8	4.9	5.9	6.6	2.5	5.5	3.8
55-59	4.1	4.3	4.2	6.0	2.4	4.3	4.3	1.9	2.6	2.2
60-64	5.4	2.8	3.7	5.4	2.5	4.0	3.8	2.5	1.7	2.1
65-99	13.9	7.3	9.5	12.4	6.6	9.8	9.6	5.1	4.1	4.7
Total	100	100	100	100	100	100	100	100	100	100

Table 6.8: Migration status, by age and sex in Afram Basin MiDA Zone (%)

Age Range										
	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	3.1	2.1	2.6	1.7	0.7	1.2	1.9	21.1	20.0	20.5
10-14	5.9	4.2	5.0	3.4	1.7	2.5	3.8	26.6	18.2	22.1
15-19	8.2	6.0	7.1	4.8	3.5	4.2	5.6	19.1	18.1	18.6
20-24	5.7	9.3	7.6	3.8	8.9	6.3	7.0	8.3	9.0	8.7
25-29	10.3	12.0	11.2	12.7	12.8	12.8	12.0	4.6	4.9	4.7
30-34	9.4	11.4	10.4	8.8	6.8	7.8	9.1	5.3	5.5	5.4
35-39	9.0	11.7	10.4	8.0	10.7	9.4	9.9	3.6	3.7	3.6
40-44	9.4	8.5	8.9	7.8	7.7	7.8	8.3	2.5	4.4	3.5
45-49	8.7	8.8	8.8	10.4	4.9	7.7	8.2	2.1	4.3	3.3
50-54	6.2	7.2	6.7	11.1	6.4	8.7	7.7	1.7	3.0	2.4
55-59	6.8	4.5	5.6	5.7	6.6	6.2	5.9	1.2	1.2	1.2
60-64	3.3	4.3	3.9	7.1	5.8	6.5	5.2	0.7	1.6	1.2
65-99	14.2	10.0	12.0	14.7	23.5	19.1	15.6	3.3	6.2	4.9
Total	100	100	100	100	100	100	100	100	100	100

Table 6.9: Migration status, by age and sex in Southern MiDA Zone (%)

Age Range										
	In-migrants			Returned Migrants			All Migrants	Non-Migrants		
	Male	Female	Total	Male	Female	Total		Male	Female	Total
5-9	4.4	2.7	3.4	0.6	0.7	0.7	2.0	12.7	10.5	11.5
10-14	8.6	8.3	8.5	2.2	2.7	2.4	5.4	20.5	16.2	18.1
15-19	9.0	9.2	9.1	2.6	5.8	4.0	6.6	16.6	13.0	14.6
20-24	6.2	8.9	7.8	7.0	6.8	6.9	7.3	10.4	9.7	10.0
25-29	8.3	10.7	9.7	19.5	8.1	14.3	12.0	6.8	7.3	7.1
30-34	9.9	9.8	9.9	14.2	7.9	11.3	10.6	4.2	5.7	5.1
35-39	9.8	7.8	8.6	9.2	8.9	9.0	8.8	5.0	6.1	5.7
40-44	6.7	12.7	10.2	5.8	7.5	6.6	8.4	5.7	4.9	5.2
45-49	8.4	5.7	6.8	8.9	13.5	11.0	8.9	5.0	4.3	4.6
50-54	9.8	7.6	8.5	5.9	9.8	7.7	8.1	3.3	6.2	4.9
55-59	4.8	4.1	4.4	4.8	5.0	4.9	4.7	2.5	3.6	3.1
60-64	4.1	3.4	3.7	6.5	5.5	6.1	4.9	2.3	2.3	2.3
65-99	10.1	9.1	9.5	12.9	17.8	15.1	12.3	5.0	10.2	7.9
Total	100	100	100	100	100	100	100	100	100	100

6.4: Reason for Migrating

The reasons for which people migrate are many and varied (Table 6.10). In the survey, the most important reason for migration is given as “other family reasons” (35.7 percent), with “marriage” (17.6 percent), and “accompanying parents” (14.6 percent) coming next in order of importance in the total for MiDA Zones and locality. Other important determinants of migration in MiDA Zones include seeking employment (9.8 percent), own business (5.5 percent), job transfer (4.7 percent) and education 3.8 percent. Seeking employment is the second most important reason for migration in the Afram Basin (16.0 percent) while in the Southern MiDA Zone, accompanying parents comes up as the second most important. The second most important reason why people migrate in the Northern MiDA Zone is marriage.

Table 6.10 also illustrates the reasons for migrating in the survey by locality. The five most important reasons in urban areas are other family reasons (31.2 percent), accompanying parents (19.2), marriage (10.4 percent), seeking employment (9.5 percent) and job transfer (7.9 percent). In rural areas, the five most important reasons are other family reasons (37.7 percent), marriage (20.9 percent), accompanying parents (12.5 percent), seeking employment (9.9 percent) and own business (5.1 percent)

Table 6.11 presents migrants by current district and reasons for most recent migration. It demonstrates that the dominant reason for migrating in 19 out of the 23 districts remains other family reasons, accounting for 92.0 percent of all migrants in Akatsi District to about 22.3 percent in Gomoa District. However, in the Northern Zone, marriage emerged as the most important determinant of migration in Karaga (43.8 percent) and Tolon Kumbungu (35.5

percent). In Tamale, accompanying parents came out as the most important reason for migration to current place of residence.

Table 6.10: Migrants, by Current MiDA Zone, Locality and Reasons for Most Recent Migration (%)

Main Reason for Moving to this Village / Town	MiDA Zone				Locality		
	Northern	Afram Basin	Southern	Total	Urban	Rural	Total
Job transfer	2.3	5.8	5.8	4.7	7.9	3.3	4.7
Seeking employment	5.6	16.0	9.1	9.8	9.5	9.9	9.8
Qwn business	4.1	6.6	5.8	5.5	6.1	5.1	5.5
Spouse's employment	1.9	3.6	3.2	2.9	4.5	2.1	2.9
Accompanying parents	15.3	15.3	13.6	14.6	19.2	12.5	14.6
Marriage	30.7	14.7	9.9	17.6	10.4	20.9	17.6
Other family reasons	32.5	30.6	41.0	35.7	31.2	37.7	35.7
Political /religious	0.3	0.4	0.6	0.4	0.5	0.4	0.4
Education	2.5	2.6	5.5	3.8	5.4	3.1	3.8
War	1.2	0.6	0.5	0.7	1.0	0.6	0.7
Fire	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Flood/famine/drought	0.4	0.6	0.2	0.3	0.3	0.4	0.3
Other specify	3.2	3.4	5.0	4.0	4.1	4.0	4.0
Total	100	100	100	100	100	100	100

Table 6.11: Migrants, by current district and reasons for most recent migration

District	Reasons for moving to this village/town													
	Job Transfer	Seeking Employment	Own Business	Spouse's Employment	Accompany Parent	Marriage	Other Family Reasons	Political/Religious Reasons	Education	War	Fire	Flood/Famine/Drought	Other	Total
gomoa	10.5	13.8	2.0	1.4	14.0	16.3	22.3	1.9	11.6	1.2	0.0	0.0	5.1	100
awutu efutu senya	1.3	5.2	11.5	3.8	20.2	11.7	36.8	1.8	3.3	1.4	0.0	0.0	3.0	100
dangme west	3.0	6.0	9.0	4.2	14.2	13.0	37.0	0.0	8.0	0.0	0.0	0.0	5.7	100
south tongu	3.3	11.3	12.7	2.1	17.3	6.5	40.2	0.3	3.0	0.0	0.0	0.4	3.1	100
keta	4.1	13.2	3.4	2.6	7.9	4.6	47.3	0.1	8.2	0.3	0.0	0.9	7.6	100
ketu	3.3	11.5	2.7	0.3	11.7	10.8	44.4	0.0	4.8	1.8	0.0	0.0	8.8	100
akatsi	0.4	3.1	0.3	1.0	0.2	2.0	92.0	0.0	0.5	0.0	0.0	0.0	0.5	100
north dayi	9.0	4.6	8.2	7.6	9.4	6.0	41.3	0.3	4.8	0.4	0.0	0.0	8.5	100
hohoe	10.3	10.7	4.3	12.7	17.9	8.9	25.9	3.7	2.4	0.0	0.0	0.0	3.3	100
fanteakwa	4.4	9.0	8.5	1.4	24.2	20.4	24.7	0.0	2.5	0.0	0.0	0.3	4.7	100
akuapem south	12.1	6.0	9.9	5.7	18.3	6.4	31.1	0.5	9.0	0.0	0.0	0.0	1.1	100
yilo krobo	6.2	17.9	10.4	2.6	17.8	10.4	26.9	0.0	4.2	0.0	0.0	0.0	3.7	100
manya krobo	8.1	10.9	3.5	2.7	21.1	16.9	24.7	0.4	4.7	0.2	0.0	0.6	6.4	100
afram plains	0.0	16.5	25.2	0.0	22.1	0.0	8.0	0.0	0.0	0.0	0.0	4.3	23.9	100
kwahu south	5.6	17.1	1.1	2.5	8.3	11.5	46.5	0.2	4.6	0.0	0.0	1.6	0.9	100
sekyere east	6.7	24.1	3.2	7.3	18.0	16.5	14.7	0.3	1.4	0.4	0.0	0.0	7.5	100
sekyere west	6.4	12.4	13.6	3.0	16.2	15.1	28.2	0.6	1.5	1.7	0.0	0.0	1.4	100
ejura sekyere	2.8	6.5	1.2	4.8	14.5	3.6	61.8	4.8	0.0	0.0	0.0	0.0	0.0	100
karaga	0.6	1.0	3.8	0.7	17.1	43.8	30.3	0.4	0.8	1.2	0.0	0.0	0.3	100
savelugu nanton	0.5	1.5	4.7	0.5	12.5	29.5	43.5	0.2	1.3	1.5	0.5	1.0	2.9	100
tamale	10.6	7.8	10.1	7.9	22.6	5.8	22.2	0.3	8.8	0.9	0.0	0.0	3.2	100
tolon kumbungu	1.0	13.6	0.6	1.7	12.9	35.5	25.8	0.0	2.0	0.4	0.0	0.3	6.3	100
west mamprusi	1.0	7.1	1.9	0.3	11.4	27.3	40.9	0.6	1.9	2.5	0.0	0.4	4.6	100
Total	4.7	9.8	5.5	2.9	14.6	17.6	35.7	0.4	3.8	0.7	0.0	0.3	4.0	100

7. Land

7.1 Introduction

Agricultural land is any land suitable for crops and livestock production. In Ghana, such lands are usually regulated in accordance with a set of statutes, conventions or customs. This set of relationships, whether legally or customarily defined among people or individuals, is referred to as land tenure. Land tenure may further be explained as terms and conditions in which land is held, used and transacted.

This section presents detailed information about all plots of land that are owned or used by household members during the period of the interview. Particular attention is focused on issues such as the average size of available land and how land is held, used or acquired in the various MiDA intervention zones.

7.2 Land Size

Figure 7.1 reports the popular units of measurement household members use to measure the size of their land. It is evident that the acre is the most popular unit of measurement (77 percent) followed by rope (13 percent) and pole (6 percent).

Figure 7.1: Popular Units of Land Measure (%)

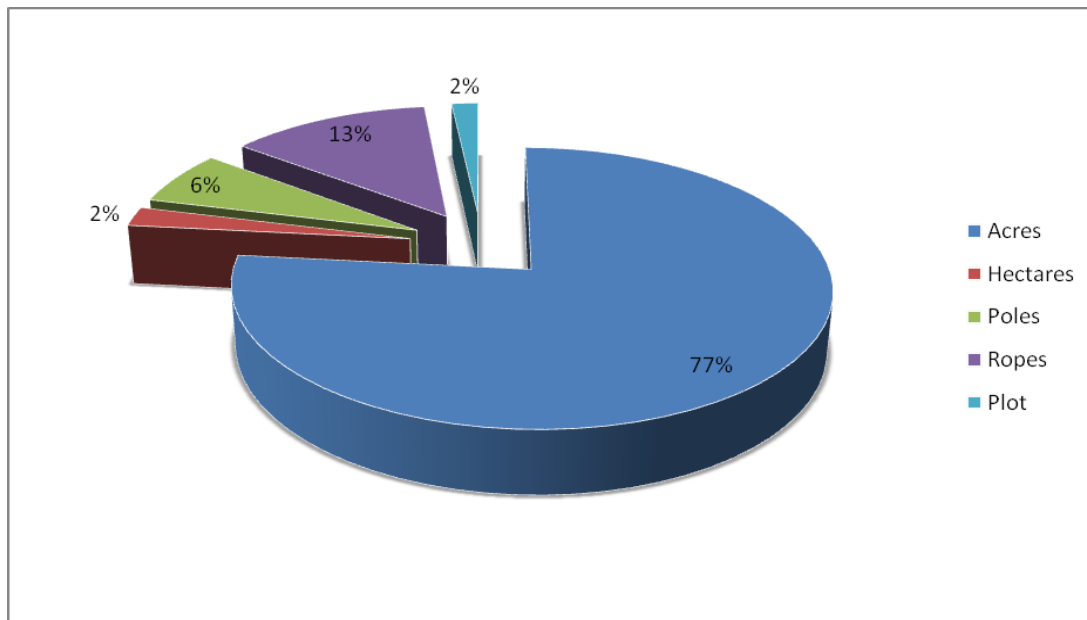


Table 7.1 presents the units of conversion from the other units of farm measurement into the main unit of measurement, acre. In Table 7.1 it is clear that, a hectare is almost two and a half times bigger than the acre while a pole is slightly over an acre. A pole is about half an acre and a plot is about a quarter of an acre.

Table 7.1: Units Conversions

Unit	Measure in Acre
Hectares	2.471
Pole	1.012
Rope	0.584
Plot	0.253

Table 7.2 shows that the use of acre as a unit of measurement is more widespread in the Northern Zone (94.7 percent) than in the Southern Zone (86.6 percent) and the Afram Basin (60 percent). Apart from acre, household members in Afram Basin make more use of other units such as pole (12.4 percent) and rope (23.5 percent). Household members in the Northern Zone barely use any other units of measurement other than acre and hectare.

For the purpose of uniform comparison, the study converted all the above units into acres. Figure 7.3 shows the average land size owned or being used by household members. It is clear that most of the land owned or being used by household members is between one and five acres in size. In fact, out of the total number of 13,770 individual household members reported to be owning or using land, 10,035 (or 72.9 percent) indicated that the size of their land falls within the range 1-5 acres. The other significant sizes are those less than one acre (11.1 percent) and those between five and 10 acres (10.2 percent).

Table 7.2: Popular units of land measurement in MiDA Zones (%)

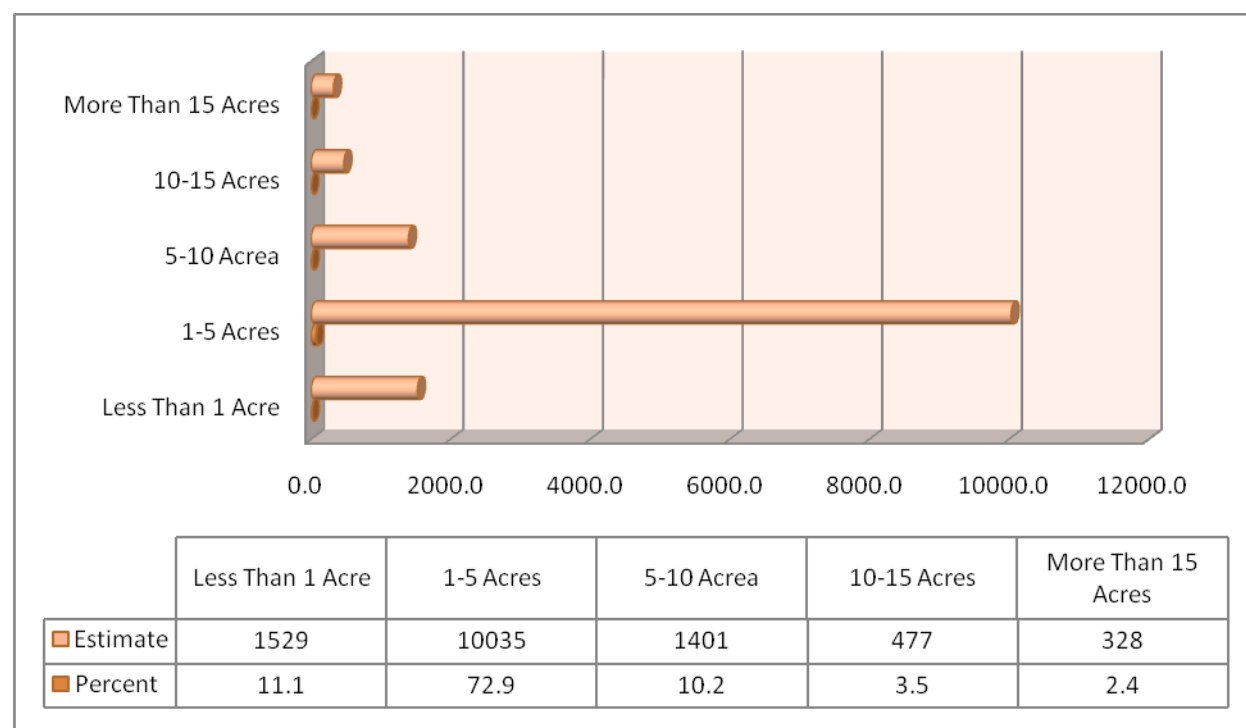
MiDA Zones	Acre	Hectare	Pole	Rope	Plot	Total
Northern Zone	94.7	4.8	0.1	0.0	0.4	100.0
Afram Basin	60.0	1.5	12.4	23.5	2.5	100.0
Southern Zone	86.6	1.0	3.0	7.9	1.5	100.0

Table 7.3 reports the average land sizes of land holders in the various MiDA intervention zones. Holders in the rural Northern Zone seem to own or use larger sizes of land than their counterparts in the urban Northern Zone. While 25.3 percent of individual holders of land in the rural Northern Zone possess or use land larger than 5 acres, only 21.3 percent of their urban counterparts possess or use that much land. Contrary to this pattern, holders in the urban Southern Zone have bigger portions of land than their rural counterparts. In the urban Southern Zone, 19.7 percent of land owners or users possess land larger than 5 acres compared to only 10.0 percent of their rural counterparts who also own or use land larger than 5 acres. However, there does not seem to be any clear pattern of variation of land size between rural and urban dwellers in Afram Basin.

Table 7.3: Size of land owned or used by household members in MiDA Zones

Size of land in Acres	MiDA Zones							
	Urban				Rural			
	Northern Zone	Afram Basin	Southern Zone	Total	Northern Zone	Afram Basin	Southern Zone	Total
Less Than 1 Acre	3.4	10.5	18	10.6	5.1	8.2	19.7	11
1-5 Acres	75.3	68.1	62.4	68.6	69.6	73.6	70.3	71.2
5-10 Acres	14.6	14.8	11.4	13.6	17.9	12.7	6.5	12.4
10-15 Acres	3.8	2.4	2.9	3	4.4	3.2	1.8	3.1
More Than 15 Acres	2.9	4.2	5.4	4.2	3	2.3	1.7	2.3

Figure 7.2: Average Size of Land Owned or Used by Household Members

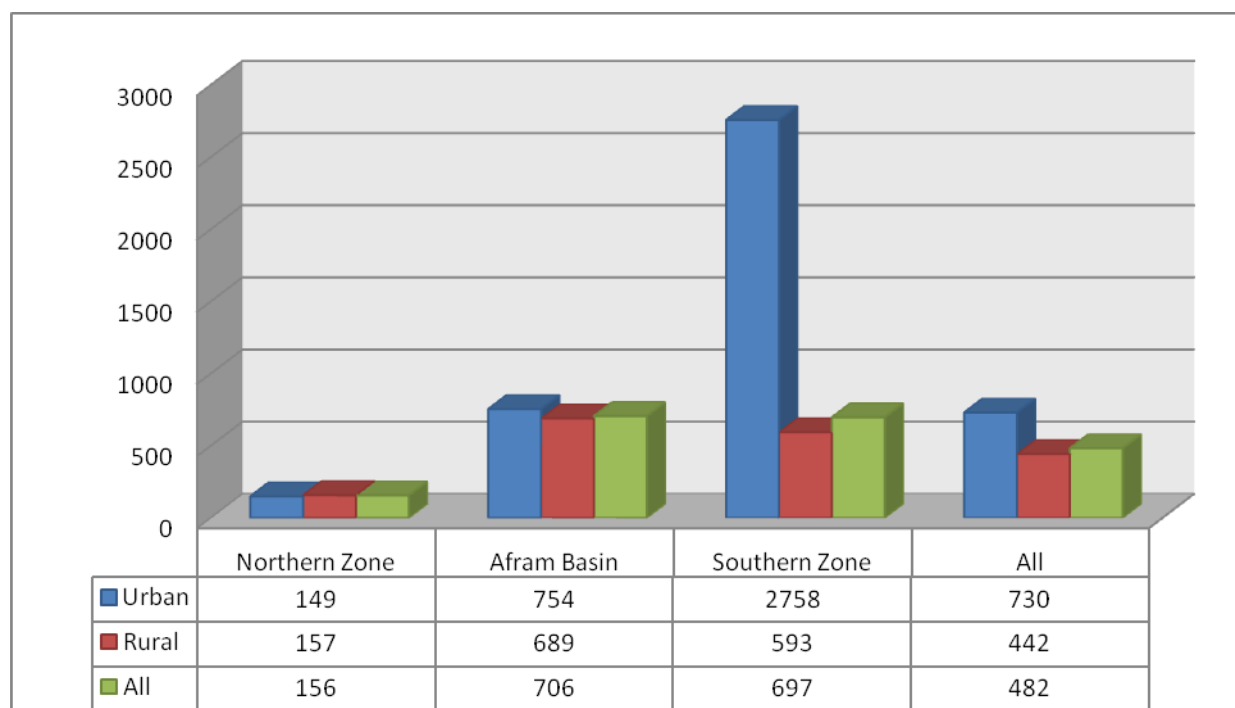


7.3 Land Value

With regard to the value of land owned or being used by a household member at the time of the interview, it is clear from Figure 7.3 that land is most expensive in the Afram Basin and least expensive in the Northern Zone. While on the average an acre of land costs GH¢706 in the Afram Basin, one acre will cost GH¢697 in the Southern Zone and GH¢156 in the Northern Zone.

The data show a higher degree of variation in the value of land across urban and rural communities in the MiDA intervention zones. Generally, land is much more expensive in MiDA urban communities than in rural communities. This is more pronounced in the Southern Zone where an acre of land is valued at GH¢2,758 in urban areas and GH¢593 in rural communities. However, this general pattern is not followed by the Northern Zone where the value of land is rather higher in rural areas (GH¢157) than it is in urban areas (GH¢149).

Figure 7.3: Average land value per acre (GH¢)



7.4 Sources of Land

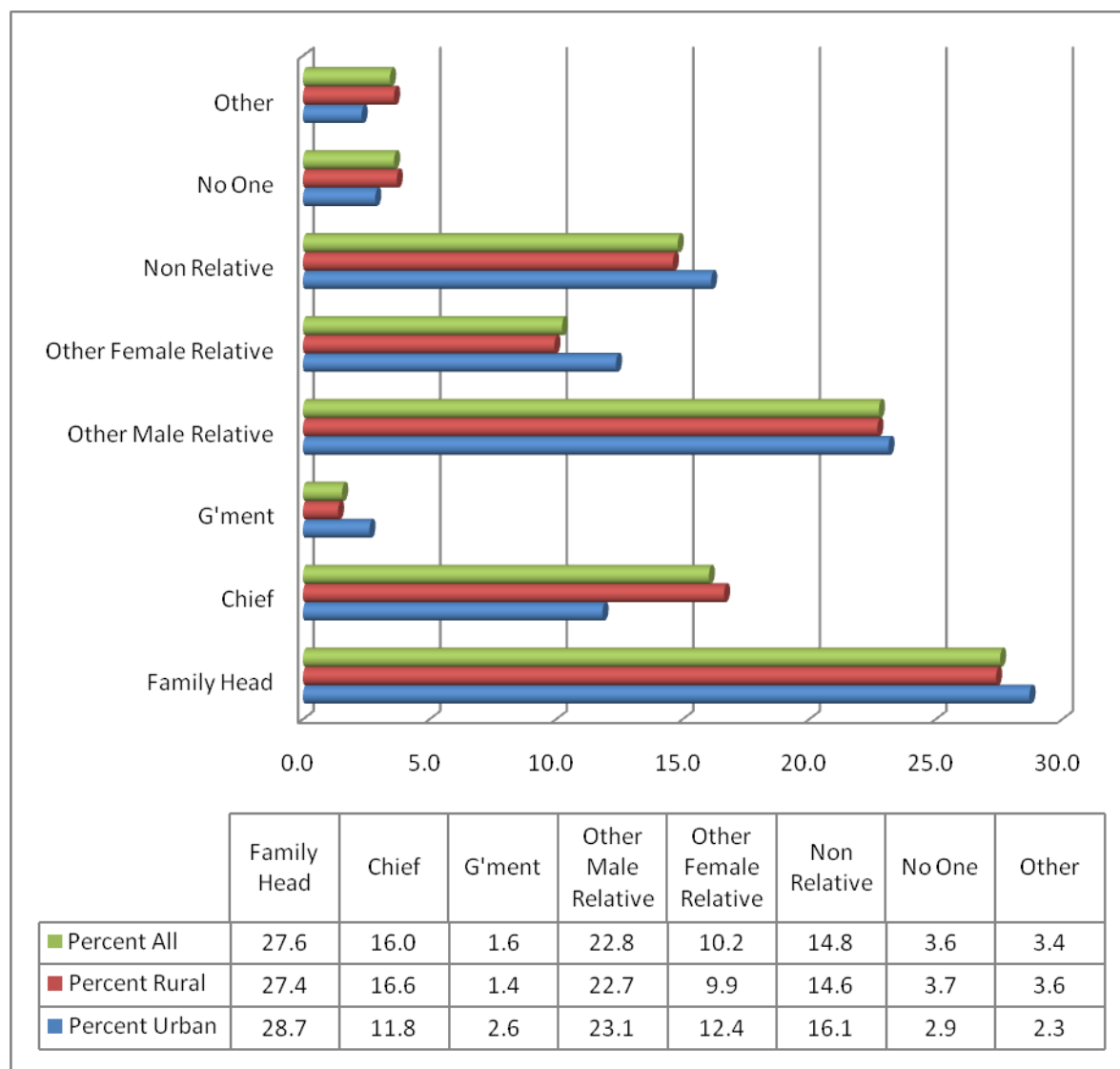
As already indicated, a land tenure system is largely considered as comprising the terms and conditions under which land is held, used and transacted. However, these terms and conditions may differ from one community to the other. Figure 7.4 lists the dominant sources (ownership) of land in urban and rural MiDA communities.

Among all the main sources of land, family heads (27.6 percent) appear as the most dominant source, followed by other male relatives (22.8 percent), Chief (16.0 percent), non-relatives (14.8 percent) and other female relatives (10.2 percent). By implication, the family as a whole (family head + male relative + female relative) is considered as the most important source of land, accounting for 60.6 percent of total land owned or being used by holders at the time of the interview. Government (G'ment) is seen as the least significant (1.6 percent) among the major sources of land considered by the study.

With reference to urban and rural localities, some sources of land seem significant for particular locations. For example, the Chief is a more important source of land to rural dwellers (16.6

percent) than their urban counterparts (11.8 percent), just as government is more important source of land to urban dwellers (2.6 percent) than to their rural counterparts (1.4 percent).

Figure 7.4: Major sources of land in urban and rural MiDA Zones (%)



From Table 7.4, it is clear that the family head (47.5 percent) and Chief (28.5 percent) are the two most important sources of land for household members in the Northern Zone. While other male relative (33.7 percent) is the single most important source of land in the Southern Zone, non-relative (21.1 percent) is the most significant source of land in the Afram Basin. The pattern in the Afram Basin clearly demonstrates that quite a substantial number of owners and users of land during the time of interview were indigenes.

Table 7.4: Major sources of land in MiDA Zones (%)

Source of Land	MiDA Zones			
	Northern Zone	Afram Basin	Southern Horticultural Zone	All
Family Head	47.5	13.3	24.6	27.6
Chief	28.5	19.3	5.6	16.0
Government	0.3	2.8	1.5	1.6
Other Male Relative	8.3	20.6	33.7	22.8
Other Female Relative	0.6	19.7	9.9	10.2
Non Relative	2.8	21.2	18.1	14.8
No One	7.7	2.4	1.8	3.6
Other	4.3	0.7	4.9	3.4
Total	100.0	100.0	100.0	100.0

7.5 Land Disputes

One problem associated with land use is the land dispute. About 3% of all lands owned or operated among the households surveyed were ever involved in one dispute or the other (Figure 7.5). Land owners are thus worried about allocating land to possible users for fear of losing it through land disputes. This has driven away many potential farmers from farming.

Figure 7.5: Land disputes

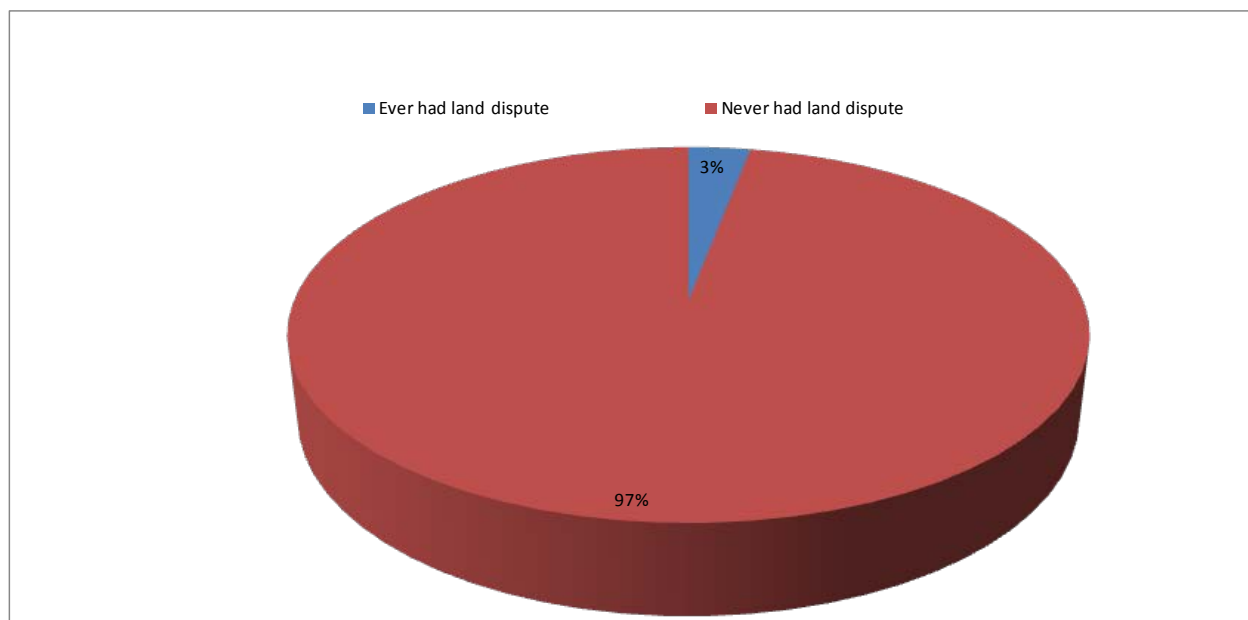
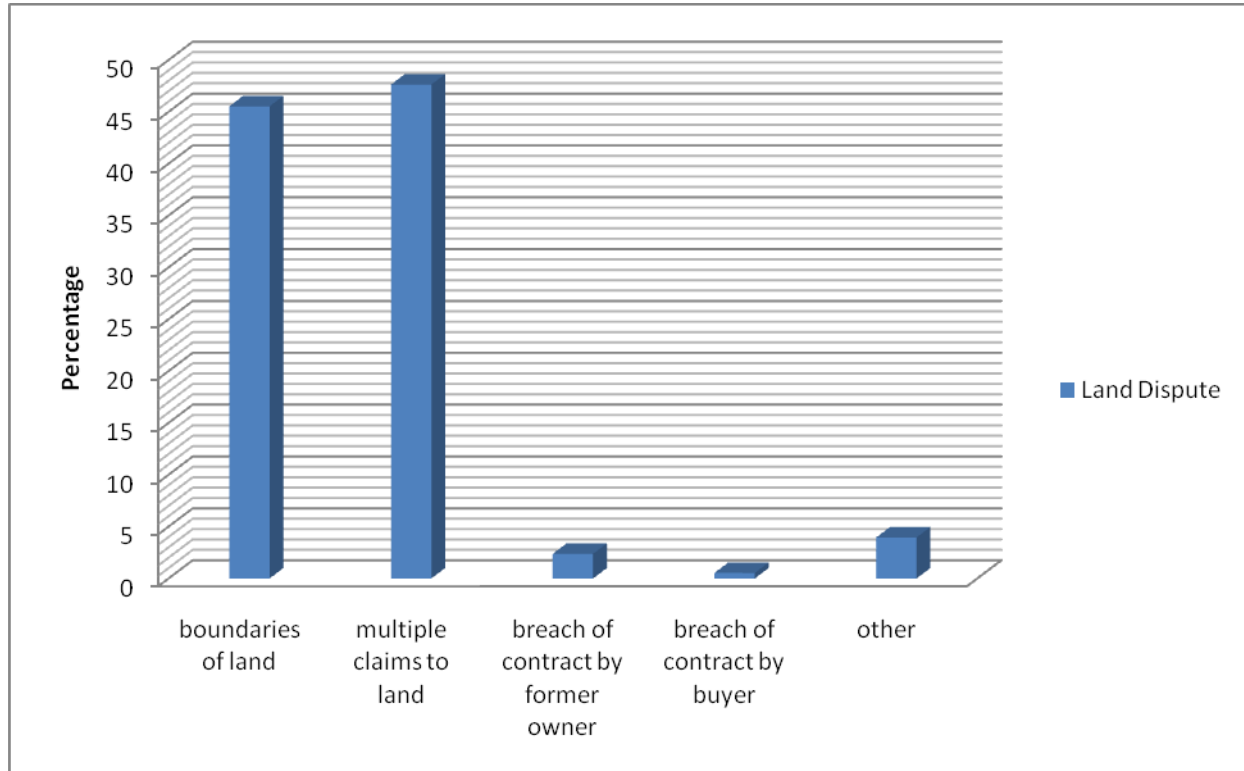


Figure 7.6 shows that, boundary disputes (48.06%) and multiple claims to land (44.72%) are the main types of disputes over land in the study area. These two types of disputes alone account for about 92.78% of all land disputes in the MiDA intervention zones.

Figure 7.6: Common causes of land disputes in MiDA Areas

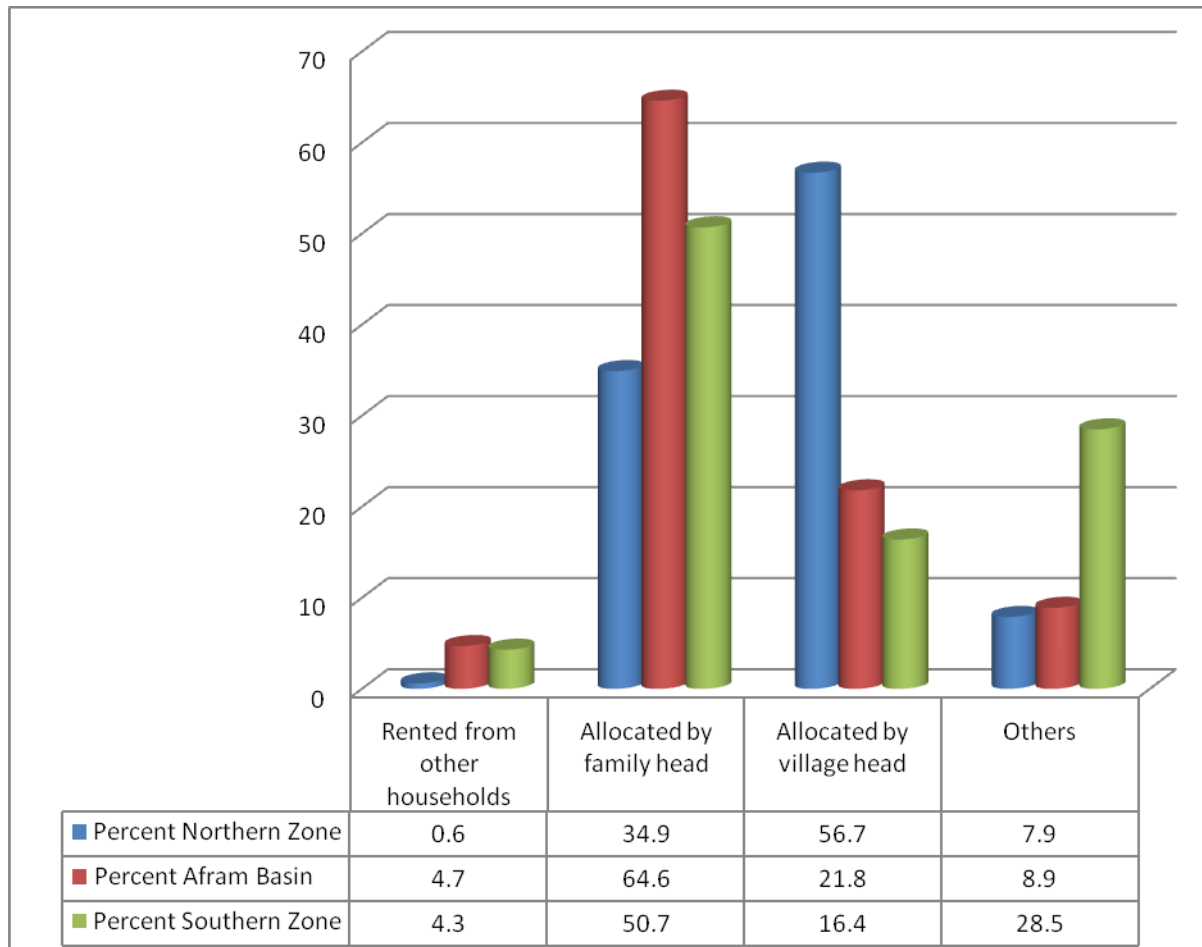


7.6 Land Acquisition

The processes through which and the conditions in which an individual acquires land for his/her livelihood activities are termed land acquisition and are very important aspects of land tenure system in most communities in Ghana. In fact, land acquisition determines the accessibility and security of tenure, which ultimately affects the overall use of the land.

This section limits the discussion to how people who do not own land acquired the land they were using at the time of the interview. Figure 7.7 illustrates different means through which individuals who do not own land can acquire land. It is apparent that land users in all three MiDA zones usually acquire land from their family and village heads. Only a few land users rent land from other households.

Figure 7.7: Main system of land acquisition in mida zones by people using land they do not own



7.7 Land Acquisition Arrangements by Owners and Users of Land

Table 7.5 shows the different types of land arrangements between owners and users of land in urban and rural communities of MiDA zones. It is clear from the table that substantial proportions of people who have acquired land are using them free of charge. While 79.5 percent of people in urban MiDA intervention areas are using the land they have acquired freely, 73.7 percent of their rural counterparts are also reported to be using the land they have acquired free of charge. Renting is the second most widespread acquisition arrangement in urban (9.2 percent) and rural (10.9 percent) areas. There are no pronounced variations between urban and rural communities as far as land acquisition arrangements are concerned.

Table 7.5: Land acquisition arrangements, by source and locality (%)

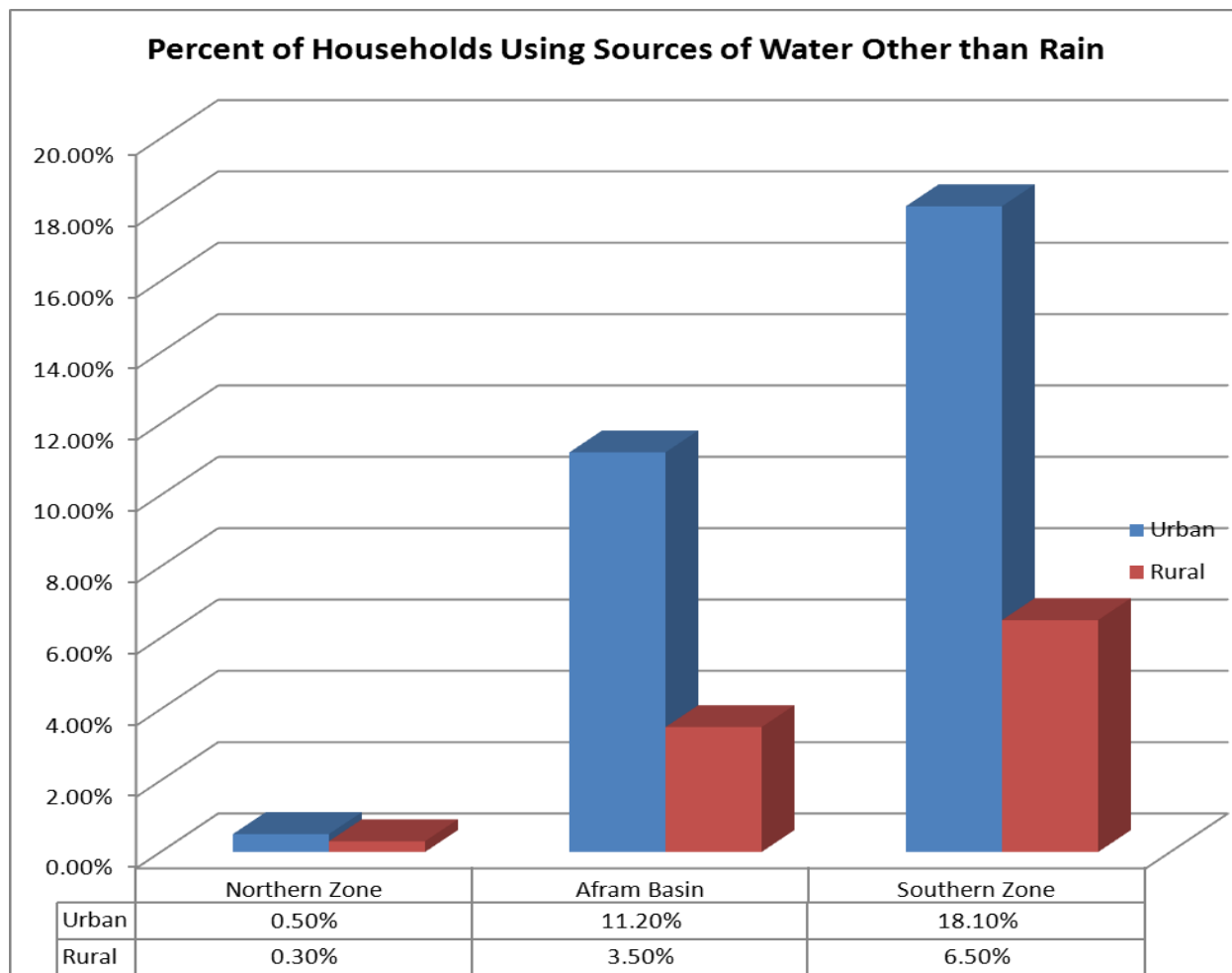
From whom land was obtained	Acquisition arrangement					
	Urban					
	Bought (cash/kind)	Use free of charge	Sharecropping	Renting/leasing	Other	Total
Family Head	1.5	93.2	2.8	2.2	0.3	100
Chief	9.3	74.9	8.6	7.2	0.0	100
Government	1.9	77.6	0.0	14.0	6.6	100
Other Male Relative	1.1	87.3	4.7	6.1	0.7	100
Other Female Relative	0.7	89.6	3.3	3.8	2.7	100
Non Relative	12.5	39.7	16.4	31.2	0.1	100
No one	0.0	0.0	0.0	100.0	0.0	100
Other	5.9	82.6	5.1	6.5	0.0	100
Total	4.2	79.5	6.3	9.2	0.8	100
From whom land was obtained	Rural					
	Bought (cash/kind)	Use free of charge	Sharecropping	Renting/Leasing	Other	Total
Family Head	4.3	88.7	2.4	3.7	0.9	100
Chief	8.5	77.7	2.5	10.9	0.4	100
Government	1.9	70.3	7.5	17.1	3.2	100
Other male Relative	1.6	82.7	8.6	6.3	0.8	100
Other Female Relative	1.2	83.9	11.0	3.6	0.3	100
Non relative	7.8	15.4	37.9	38.1	0.8	100
No one	2.9	90.4	6.8	0.0	0.0	100
Other	0.4	93.8	0.6	1.8	3.5	100
Total	4.4	73.7	10.2	10.9	0.8	100

7.8 Availability of Water for Land Users

One of the basic problems confronting farmers in Ghana is over-reliance on rainfall. As a matter of fact, a substantial amount of food crops is lost to drought every year. This section discusses the seriousness of the situation in urban and rural communities in MiDA Zones. It is clear from Figure 7.8 that land users in MiDA areas depend on rainwater for their farming activities. However, the seriousness of the problem is much more pronounced in the Northern Zone where

less than 1 percent (0.3 percent) of land users in rural and urban areas indicated they have other sources of water apart from rainwater. This leaves over 99 percent of farming activities in the Northern Zone to the vagaries of weather.

Figure 7.8: Source of water other than rainwater



The situation in the Southern Zone and Afram Basin appear relatively encouraging. While 18.10 percent in urban and 6.50 percent in rural communities of the Southern Zone said they have other sources of water for their land, 11.20 percent in the urban and 3.50 percent in the rural Afram Basin also have other sources of water for their farm activities.

Table 7.6 shows the different kinds of water sources other than rainwater available to land users. About 51 percent of land users who indicated they have sources of water other than rainwater mentioned river/stream as their other sources. Other sources include well (24.8%), pump (16.6%), weir (3.7%), and borehole (1.1%). While river/stream may dry totally with prolonged drought, the water table may fall drastically for wells and affect the volume of water available to the community. Even though 25 percent indicated they also depend on wells, the general picture

is not encouraging. Therefore, something urgently ought to be done in order to boost Ghana's economic growth through agriculture.

Table 7.6: Land Watered From Source Other Than Rain Water, by Locality (%)

Methods of Watering	Urban	Rural	All
Pump	8.2	19.2	16.6
Weir	1.5	4.4	3.7
Well	38.5	20.5	24.8
Borehole	1.1	1.1	1.1
River/stream	48.4	51.9	51.1
Other	2.4	3.0	2.9
Total	100.0	100.0	100.0

8. Household Agriculture

8.1 Agricultural activities and assets

Agriculture is the bedrock of Ghana's economy and this sector contributes significantly to the GDP of the economy. It provides employment largely for the rural dwellers.

This section provides information on household agriculture and assets, which include ownership and operation of farms as well as livestock rearing. It also covers agricultural inputs, output of various agricultural products, sales, purchases, processing and consumption of own produce by households. Households that reported agriculture as their main or secondary occupation comprise individuals aged 15 years and above, but excluding the aged.

Table 8.1.1 shows the percentage of the estimated number of households reporting agriculture as the main or secondary occupation, according to the Millennium Development Authority (MiDA) intervention zone categorization and locality, urban or rural. In all the three MiDA zones, farming and livestock keeping are predominantly rural, involving 88 percent of rural households in the Northern Zone, 87 percent in the Afram Basin and 76 percent in the southern horticultural zone. The Northern Zone has a total of 77,101 households engaged in agriculture as a main or secondary activity. The Afram Basin zone has a total of 141,448 households engaged in agriculture as a main or secondary activity and the southern horticultural zone has a total of 245,713 households engaged in agriculture as a main or secondary activity. This result is consistent with the Ghana Living Standards Survey 5 (GLSS 5), which indicated that 85 percent of rural households are engaged in agriculture as a main or secondary activity whereas in urban areas, only 28 percent of households are engaged in agriculture as a main or secondary activity (GLSS 5).

Table 8.1.1: Percentage and estimated number of households reporting agriculture as main or secondary occupation by MiDA Zone and locality

MiDA Zone	Locality of Residence					
	Urban (%)	Rural (%)	Total (%)	Urban	Rural	Total
Northern	35.6	88.7	68.0	19,672	77,101	96,773
Afram Basin	51.4	87.0	77.7	29,523	141,448	170,971
Southern Horticultural	24.9	76.4	61.9	31,214	245,713	276,926
Total	33.7	81.3	67.3	80,409	464,262	544,671

The number and proportion of people reporting agriculture as a main or secondary activity at district level also show that raising livestock and crop farming are predominantly rural activities (Table 8.1.2). In West Mamprusi District, 15,693 households are engaged in agriculture as a main or secondary occupation representing 96 percent households; Akatsi 68,767 households

representing 97.8 percent; Karaga 17,316 households representing 99.8 percent; Savelugu 10,412 households representing 96.2 percent; and Tolon Kumbungu 20,767 households representing 97.3 percent are all engaged in agriculture. These figures indicate that for all 23 MiDA districts, a total of 464,262 households representing 81.3 percent engaged in agriculture as a main or secondary occupation are predominantly rural.

Table 8.1.2: Proportion and estimated number of households reporting agriculture as main or secondary occupation, by district and locality

District	Locality of residence					
	Percent (%)			Estimated Number of households		
	Urban	Rural	Total	Urban	Rural	Total
Gomoa	30.3	74.9	65.0	4,025	34,572	38,597
Awutu Efutu Senya	22.5	61.9	37.1	5,055	8,220	13,275
Dangme West	26.7	61.0	55.2	1,139	12,750	13,889
South Tongu	9.8	70.0	64.9	99	7,788	7,888
Keta	41.3	62.6	50.7	4,643	5,545	10,188
Ketu	19.8	60.3	50.9	2,834	28,362	31,196
Akatsi	46.4	97.8	94.2	2,449	68,767	71,216
North Dayi	40.4	79.1	72.1	2,062	18,164	20,226
Hohoe	18.1	84.9	68.5	1,753	25,360	27,113
Fanteakwa	50.5	86.6	79.1	1,851	12,097	13,948
Akuapem South	13.9	73.2	44.4	2,355	13,067	15,422
Yilo Krobo	12.3	67.2	54.0	670	11,577	12,247
Manya Krobo	24.9	72.3	48.1	4,130	11,540	15,670
Afram Plains	76.2	90.7	90.2	1,450	57,651	59,100
Kwahu South	46.7	81.1	70.0	7,372	26,972	34,344
Sekyere East	46.5	84.2	70.0	5,592	16,755	22,347
Sekyere West	47.6	87.6	72.2	6,557	19,364	25,921
Ejura Sekyere	65.4	87.5	76.2	6,701	8,609	15,310
Karaga	94.4	99.8	98.7	4,534	17,316	21,849
Savelugu Nanton	80.6	96.2	90.7	4,755	10,412	15,166
Tamale	15.7	61.2	32.3	5,783	12,914	18,697
Tolon Kumbungu	59.8	97.3	91.3	2,400	20,767	23,167
West Mamprusi	58.8	96.0	89.1	2,200	15,693	17,894
Total	33.7	81.3	67.3	80,409	464,262	544,671

Table 8.1.3 shows the percentage of women engaged in agricultural activities in the MiDA districts and locality, urban or rural. The Afram Basin recorded the highest percentage (74.1 percent) of women engaged in agriculture, of which 83.2 percent are predominantly rural. This zone was followed by the Northern Zone (78.8 percent) with the southern horticultural zone recording the lowest percentage (69.8 percent) of women engaged in agriculture and predominantly rural. On the average, 75.5 percent of women engaged in agriculture in all the three MiDA intervention zones are in rural areas.

At district level, Akatsi recorded the highest percentage (96.8 percent) of women engaged in agriculture and located in rural areas; this was followed by Karaga (98 percent), then by West

Mamprusi (92.7 percent), followed by Sekyere West (89.1 percent). Afram Plains recorded 88 percent of the women in the district engaged in agriculture as being predominantly rural. The proportion of women engaged in agriculture in all the 23 districts was higher in the rural areas (75.5 percent) than the urban areas (39.2 percent).

Table 8.1.3: Percentage of women engaged in agricultural activities by district and locality

District	Locality of residence						
	Urban	Rural	Total	MiDA Zone	Urban	Rural	Total
Gomoa	7.1	73.3	60.9	Northern	24.5	78.8	61.8
Awutu Efutu Senya	10.6	63.9	31.9	Afram Basin	41.6	83.2	74.1
Dangme West	24.6	53.3	48.7	Southern Horticultural	13.1	69.8	56.2
South Tongu	0.0	62.2	57.5	Total	23.1	75.5	62.4
Keta	21.0	40.7	30.4				
Ketu	14.1	49.8	43.7				
Akatsi	42.6	96.8	93.0				
North Dayi	20.0	61.0	55.4				
Hohoe	11.2	78.3	65.3				
Fanteakwa	28.7	67.8	60.3				
Akuapem South	3.5	57.1	30.3				
Yilo Krobo	4.1	61.4	49.4				
Manya Krobo	14.1	62.0	40.6				
Afram Plains	50.8	88.0	87.1				
Kwahu South	38.1	75.5	64.9				
Sekyere East	42.0	77.7	65.8				
Sekyere West	47.8	89.1	74.7				
Ejura Sekyere	40.5	87.9	64.1				
Karaga	87.9	98.0	96.1				
Savelugu Nanton	39.2	71.6	60.9				
Tamale	4.3	37.0	16.8				
Tolon Kumbungu	25.4	79.3	72.9				
West Mamprusi	45.7	92.7	86.0				
Total	23.1	75.5	62.4				

The estimates for households engaged in raising livestock (Table 8.1.4) indicates that chicken is the most commonly reared livestock with 266,052 households involved. About 198,542 households raise goats, 102,381 households raise sheep and 40,116 households raise cattle. A small number of households raise snails (1,540), rabbits (3,298) and draught animals (8,206) such as donkeys, horses and bullocks. About 15,486 households keep other livestock while 14,157 households keep guinea fowl.

The combined value of all livestock in the MiDA intervention zone is GH¢1,087.61 million, of which GH¢48.23 million was sold in the past 12 months. A total of GH¢21.20 purchases of various livestock was done in the past 12 months.

Table 8.1.4: Estimated number of households raising different livestock, number of livestock and estimated value, sales and purchases of livestock

Type of livestock	Estimated Number of Households Raising Livestock	Number of Livestock	Total Value of Livestock (GH¢ million)	Sales in the Past 12 months (GH¢ million)	Purchases in the Past 12 months (GH¢ million)
Draught animals	8,206	22,728	6.66	8.16	7.50
Cattle	40,116	587,374	961.30	18.13	10.27
Sheep	102,381	728,479	37.99	5.04	1.41
Goats	198,542	1,447,208	42.49	5.94	0.90
Pigs	13,181	100,533	8.59	1.57	0.10
Rabbits	3,298	29,505	0.31	0.05	0.03
Chicken	266,052	4,889,535	28.44	8.83	0.95
Snail	1,540	27,137	0.01	0.00	0.00
Duck	8,730	72,988	0.57	0.06	0.01
Guinea fowl	14,157	230,144	1.24	0.26	0.00
Other livestock	15,486			0.19	0.02
Total	371,054	8,135,631	1,087.61	48.23	21.20

Table 8.1.5 shows the percentage of households raising livestock, by MiDA district and locality. Livestock owned by households are concentrated primarily in the rural areas. Tolon Kumbungu recorded the highest percentage of households in the rural areas (91.8 percent), Karaga (91.7 percent), Savelugu Nanton (87.7 percent), West Mamprusi (86.9 percent) and Fanteakwa (69.5 percent). A total of 53.9 percent of households in rural areas in the 23 MiDA districts raise livestock.

Table 8.1.5: Percentage of households raising livestock, by district and locality

District	Locality of residence		
	Urban (%)	Rural(%)	Total (%)
Gomoa	20.4	43.2	38.1
Awutu Efutu Senya	16.9	16.0	16.6
Dangme West	24.8	40.8	38.2
South Tongu	27.3	54.8	52.5
Keta	31.1	45.7	37.5
Ketu	10.4	30.6	25.9
Akatsi	10.4	39.0	37.0
North Dayi	42.4	57.0	54.3
Hohoe	21.2	56.9	48.1
Fanteakwa	29.8	69.5	61.2

Akuapem South	15.1	39.9	27.9
Yilo Krobo	14.0	30.1	26.2
Manya Krobo	23.8	47.9	35.6
Afram Plains	70.4	74.0	73.9
Kwahu South	24.6	66.1	52.8
Sekyere East	22.0	51.2	40.2
Sekyere West	17.0	49.5	37.0
Ejura Sekyere	35.5	40.7	38.0
Karaga	81.8	91.7	89.5
Savelugu Nanton	67.6	87.7	80.6
Tamale	27.3	58.3	38.6
Tolon Kumbungu	76.4	91.8	89.4
West Mamprusi	59.7	86.9	81.8
Total	26.5	53.9	45.8

The Northern Zone recorded the highest proportion (82.2 percent) of households engaged in agriculture that are in the rural areas. This is followed by the Afram Basin (63.9 percent) with the Southern Horticultural Zone having the smallest proportion of households (41.2 percent) engaged in agriculture in rural areas (Table 8.1.6).

Table 8.1.6: Proportion of households raising livestock, by MiDA zone and locality (%)

MiDA Zone	Locality of residence		
	Urban (%)	Rural (%)	Total (%)
Northern	42.1	82.2	66.6
Afram Basin	26.0	63.9	54.0
Southern Horticultural	19.8	41.2	35.2
Total	26.5	53.9	45.8

The rural areas have the highest estimated number of livestock owned by households (Table 8.1.7). These areas have 227,723 households engaged in chicken rearing, 167,553 households in goat rearing and 84,029 households in sheep rearing. A total of 307,970 households engaged in livestock rearing are based in rural areas as against 63,084 households rearing livestock in urban areas.

The southern horticultural zone accounts for the highest number of households (106,677) raising chicken, along with 78,249 households raising goats in the same zone. The Northern Zone has 60,078 households raising goats as well as 48,990 raising sheep as the dominant livestock, alongside chicken rearing which was present in the highest number of households – 77,573. A total of 94,794 households raise livestock in the Northern Zone, 118,800 households raise

livestock in the Afram Basin and 157,460 households raise livestock in the southern horticultural zone (Table 7.1.8).

Table 8.1.7: Estimated number of households raising livestock, by locality

Type of livestock	Locality of residence		
	Urban	Rural	Total
Draught animals	1,723	6,483	8,206
Cattle	6,341	33,774	40,116
Sheep	18,352	84,029	102,381
Goats	30,989	167,553	198,542
Pigs	2,035	11,146	13,181
Rabbits	903	2,394	3,298
Chicken	38,329	227,723	266,052
Snail	698	842	1,540
Duck	765	7,965	8,730
Guinea Fowl	1,174	12,984	14,157
Other livestock	2,979	12,507	15,486
Total	63,084	307,970	371,054

Table 8.1.8: Estimated number of households raising livestock, by MiDA zone

Type of livestock	MiDA Zone			
	Northern	Afram Basin	Southern Horticultural	Total
Draught animals	7,955	-	251	8,206
Cattle	27,561	8,205	4,349	40,116
Sheep	48,990	25,776	27,614	102,381
Goats	60,078	60,216	78,249	198,542
Pigs	3,140	4,825	5,216	13,181
Rabbits	1,272	1,033	993	3,298
Chicken	77,573	81,802	106,677	266,052
Snail	-	126	1,413	1,540
Duck	1,112	4,023	3,596	8,730
Guinea fowl	11,293	1,617	1,248	14,157
Other livestock	5,889	4,767	5,177	15,832
Total	94,794	118,800	157,460	371,054

Livestock distribution by percentage shows that draught animals dominated (96.9 percent) in the Northern Zone. This is followed by guinea fowl and cattle recording 80.2 percent and 68.5

percent respectively. Draught animals are not found in the Afram Basin. The highest livestock distribution in the Afram Basin is of ducks (46.1 percent), followed by pigs (37.1 percent) and chicken (30.9 percent). The southern horticultural zone has the highest livestock distribution percentage of snails (84.5 percent), followed by chicken 39.9 percent, pigs 39.1 percent.

Table 8.1.9: Distribution of livestock, by locality

Type of livestock	MiDA Zone			Total Number of Livestock
	Northern (%)	Afram Basin (%)	Southern Horticultural (%)	
Draught animals	96.9	0.0	3.1	22,728
Cattle	68.5	20.3	11.2	587,374
Sheep	47.8	25.2	27.1	728,479
Goats	30.3	30.4	39.4	1,447,208
Pigs	23.8	37.1	39.1	100,533
Rabbits	38.4	29.2	32.5	29,505
Chicken	29.2	30.9	39.9	4,889,535
Snail	0.0	15.6	84.5	27,137
Duck	12.7	46.1	41.2	72,988
Guinea fowl	80.2	11.8	8.0	230,144

8.2 Harvesting and disposal of crops

8.2.1 Staples and cash crops

Harvesting of food staples and cash crops in Ghana is done in two major seasons, namely the major and minor seasons. In the major season, an estimated 238,311 households harvest various crops in urban areas as against 571,113 households in rural areas (Table.8.2.1). Of the estimated number of households in rural areas that harvested staple and/or cash crops within the 12-month period preceding the survey, a majority (549,671 or 96.2 percent) harvested any crop (Appendix B8.1 and Table 8.2.1). This is followed by maize with an estimated 371,702 households (65.1 percent) harvesting maize. Other major crops in terms of number of households involved are cassava (228,026 households), groundnut/peanut (107,218 households), pepper (80,338 households), and yam (79,101 households). Similarly, in urban areas, a majority of households (192,745) harvested any crop. As in rural areas, this is followed by maize with an estimated 88,102 households. Other major crops in terms of number of households involved are cassava (25,441 households), yam (20,655 households), groundnut (15,693 households) and plantain (10,303 households).

By MiDA intervention zone categorization, the southern horticultural zone records the highest number of households (447,093) harvesting crops, followed by the Afram Basin (220,053 households) while the fewest households are in the Northern zone (Table 8.2.1). The anchor crops harvested in the southern horticultural zone are: 388,465 households harvesting any crops; 243,187 households harvesting maize and 168,413 households harvesting cassava.

Table 8.2.1: Estimated number of households harvesting crops, by locality (major season)

Type of crop	Locality of Residence			MiDA Zone		
	Urban	Rural	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Avocado Pear	2,212	2,418	311	1,329	2,990	4,630
Banana	878	4,867	-	3,650	2,095	5,745
Beans/Peas	7,669	42,826	29,323	12,518	8,654	50,495
Cashew nut	143	850	316	226	451	993
Cassava	25,411	228,026	10,100	74,924	168,413	253,437
Cocoa	3,912	15,274	-	13,796	5,390	19,186
Coconut	167	1,177	-	94	1,250	1,344
Cocoyam	8,041	30,394	36	31,118	7,281	38,435
Coffee	137	897	-	483	551	1,034
Cola nut	136	1,720	29	1,725	102	1,856
Cotton	37	1,334	1,37	-	-	1,37
Garden egg	755	8,954	478	2,255	6,97	9,70
Ginger	69	106	-	175	-	175
Groundnut	15,693	107,218	64,414	34,030	24,467	122,911
Guinea corn/Sorghum	2,669	24,493	26,960	121	81	27,162
Kenaf	-	146	112	34	-	146
Leafy vegetables	793	1,747	1,94	262	329	2,54
Lime/lemon	106	-	38	-	68	106
Maize	88,102	371,702	97,85	118,76	243,187	459,804
Mango	168	575	256	65	422	743
Millet	5,182	20,933	25,580	454	81	26,115
Oil palm	4,640	12,183	-	4,410	12,413	16,823
Okro	6,522	32,517	21,839	3,225	13,975	39,039
Onion	5,578	5,811	222	1,901	9,266	11,389
Oranges	2,487	2,843	60	2,092	3,178	5,330
Pawpaw	1,032	146	-	218	960	1,178
Pepper	7,714	80,338	14,753	39,285	34,014	88,052
Pineapple	309	4,320	-	1,058	3,571	4,629
Plantain	10,303	35,017	-	34,092	11,228	45,320
Potatoes	1,552	4,325	1,119	1,714	3,044	5,877
Rice	8,538	36,25	34,905	3,041	6,848	44,794
Shea nut	159	-	159	-	-	159
Sugar cane	1,852	2,793	83	208	4,35	4,64
Tiger nut	94	2,883	-	2,779	198	2,97
Tobacco	-	127	-	-	127	127
Tomatoes	6,379	29,325	2,577	3,984	29,14	35,70
Watermelon	367	1,785	1,096	426	630	2,15
Woodlot	1,266	-	-	-	1,26	1,26
Yam	20,655	79,101	36,01	37,765	25,97	99,75
Other crops	5,847	4,786	8,585	915	1,13	10,63
Other fruits	67	362	43	147	239	429
Other vegetables	1,332	3,469	713	561	3,527	4,801
Any crop	192,745	549,671	139,860	214,091	388,465	742,416
Estimated no. of households	238,311	571,113	142,278	220,053	447,093	809,424

There is variation in the Afram Basin zone – 214,091 households harvesting any crop, followed by maize in 118,762 households, cassava in 74,924 households and pepper in 39,285 households. The Northern Zone also records a majority 139,860 households harvesting any crop, 97,855 households harvesting maize, 64,414 households harvesting groundnut and 36,016 households harvesting yam (Table 8.2.1).

For the minor season, the same estimated 238,311 households harvest various crops in urban areas as against 571,113 households in rural areas. Here also, a greater number of rural

households harvest various crops. Of the estimated total number of households in rural areas that harvest staples and/or cash crops within the 12-month period preceding the survey, the majority (549,671, or 96.2 percent) harvested any crop (see appendix). This is followed by maize with an estimated 249,561 households (43.7 percent) harvesting it. Other major crops, in terms of number of households involved in harvesting are cassava (112,438 or 19.7 percent) households, groundnut/peanut (41,273 households), pepper (22,086 households), and tomatoes (17,935 households). Similarly, in urban areas, the majority (47.7 percent) of households harvested any crop. This is again followed by maize with an estimated 50,413 (or 21.1 percent) households harvesting maize. Other major crops in terms of number of households involved are cassava (12,882 households), onion (5,602 or 2.4 percent of households). In terms of locality by MiDA zone, the southern horticultural zone recorded the highest number of households (447,093), followed by the Afram Basin zone (220,053 households) while the fewest households (142,278) were in the Northern Zone.

The anchor crops harvested in the southern horticultural zone are: 334,545(74.8 percent) households harvesting any crops, maize recorded 223,868 households (50.1 percent) and cassava recorded 97,452 households (21.8 percent). There is a slight variation in the Afram Basin zone with 180,561 households (82.1 percent) harvesting any crop, followed by maize (68,383 households or 31.1 percent), cassava (27,804 households or 12.6 percent), groundnut (19,175 households or 8.7 percent) and cocoa (12,807 households or 8.7 percent). The Northern Zone recorded a majority of households (113,576 or 13.6 percent) harvesting any crop, while maize was harvested by 7,723 households (5.4 percent), groundnut (3,572 households or 2.5 percent) (Table 8.2.2; see also the table of percentages in Appendix B8.2).

From Table 8.2.2, it can be seen that for the major season, more households in rural areas (67.2 percent) do not process their produce before selling it, as compared to households in urban areas (62.1 percent). In the major season, in rural areas, all the growers of cola nut, tiger nut and tobacco do not process their produce before selling them. In urban areas on the other hand, all the growers of woodlots, watermelon, tiger nut, ginger, cotton, cashew nut and other fruits do not process their produce before selling. In the major season, a large proportion of growers of onion (94.5 percent), coconut (90.6 percent), and banana (90.3 percent) do not process their harvest before selling in rural areas. In urban areas also, a large proportion of growers of other vegetables (96.3 percent), sugar cane (96.1 percent), onion (95.1 percent), tomatoes (91.1 percent), garden egg (90.2 percent) and cocoa (91.1 percent) do not process their harvest before selling in the major season.

Nearly all the growers of other vegetables (98.3 percent) and cocoa (92.3 percent) in rural areas do not process their produce before selling in the minor season as compared with growers of groundnut (97.6 percent), onion (97.0 percent), sugar cane (91.1 percent) and pawpaw (90.5 percent) in urban areas.

Table 8.2.2: Estimated number of households harvesting crops, by locality (minor season)

Type of crop	Locality of Residence		MiDA Zone			Total
	Urban	Rural	Northern Zone	Afram Basin	Southern Horticultural Zone	
Avocado Pear	1,305	987	-	146	2,146	2,292
Banana	440	1,797	-	868	1,369	2,237
Beans/Peas	1,400	14,481	73	11,072	4,736	15,881
Cashew Nut	55	92	-	55	92	147
Cassava	12,882	112,438	64	27,804	97,452	125,320
Cocoa	2,883	14,037	-	12,807	4,113	16,920
Coconut	94	191	-	94	191	285
Cocoyam	3,178	7,347	-	7,249	3,276	10,525
Coffee	72	153	-	109	116	225
Cola nut	136	484	-	500	120	620
Cotton	-	-	-	-	-	-
Garden Egg	96	3,423	-	249	3,270	3,519
Ginger	-	-	-	-	-	-
Groundnut	3,687	41,273	3,572	19,175	22,213	44,960
Guinea corn/Sorghum	483	327	129	565	116	810
Kenaf	-	87	-	-	87	87
Leafy vegetables	160	570	93	98	539	730
Lime/Lemon	638	209	570	-	277	847
Maize	50,413	249,561	7,723	68,383	223,868	299,974
Mango	-	1,727	-	1,366	361	1,727
Millet	-	539	473	-	66	539
Oil palm	3,078	8,626	-	2,895	8,809	11,704
Okro	1,670	10,797	151	994	11,322	12,467
Onion	5,602	614	158	258	5,800	6,216
Oranges	1,491	869	-	607	1,753	2,360
Pawpaw	896	44	-	44	896	940
Pepper	3,629	22,086	428	6,976	18,311	25,715
Pineapple	256	3,617	-	551	3,322	3,873
Plantain	5,546	10,227	-	10,298	5,475	15,773
Potatoes	1,320	1,981	-	230	3,071	3,301
Rice	1,012	7,245	1,709	1,457	5,091	8,257
Shea nut	-	-	-	-	-	-
Sugar cane	1,528	542	-	83	1,987	2,070
Tiger Nut	-	156	-	-	156	156
Tobacco	-	63	-	-	63	63
Tomatoes	2,708	17,935	157	3,338	17,148	20,643
Watermelon	93	1,664	470	93	1,194	1,757
Woodlot	-	-	-	-	-	-
Yam	2,081	13,976	1,275	6,256	8,526	16,057
Other Crops	244	150	-	180	214	394
Other Fruits	67	147	-	147	67	214
Other Vegetables	4,611	8,724	2,358	1,441	9,536	13,335
Any Crop	113,576	420,933	19,403	180,561	334,545	534,509
Estimated no. of HHs	238,311	571,113	142,278	220,053	447,093	809,424

In the major season, in rural areas, the produce that is least sold unprocessed is guinea corn/sorghum (17.4 percent), kenaf (23.5 percent) and leafy vegetables (23.7 percent) as against

guinea corn/sorghum (22.7 percent) in urban areas. In the minor season however, in rural areas, the produce that is least sold unprocessed is kenaf, other fruits and coffee (17.5 percent) as against coconut, guinea corn/sorghum, other crops and potatoes (8.4 percent) in urban areas (Table 8.2.3).

From Table 8.2.4, it can be seen that in the major season, there are many households (75.4 percent) in the southern horticultural zone, followed by the Afram Basin (68.1 percent) and the Northern Zone (48.8 percent) that do not process their produce before selling as against 87.6 percent of households in the Northern Zone, followed by 61.9 percent in the southern horticultural zone, with the fewest being in the Afram Basin (50.8 percent) in the minor season.

In the major season, in the southern horticultural zone, all the growers of cashew nut, cocoa, cola nut, guinea corn/sorghum, oranges, pawpaw, tiger nut, tobacco, watermelon and other fruits, and woodlots sell their produce unprocessed. In the Afram Basin zone, all the growers of avocado pear, cola nut, guinea corn/sorghum, mango, kenaf, tiger nut, and watermelon sell their produce unprocessed. In the Northern Zone, all the growers of cola nut, lime/lemon, onion, shea nut and other fruits sell their produce unprocessed, while in the minor season, all growers of mango, cashew nut, coconut, millet, tiger nut, tobacco, watermelon and other fruits also sell their produce unprocessed in the southern horticultural zone. In the Afram Basin, all growers of cola nut, potatoes, sugar cane, and watermelon sell their produce unprocessed. In the Northern Zone, all growers of leafy vegetables, potatoes and watermelon sell their produce unprocessed.

In the major season, nearly all growers of potatoes (98.9 percent), other vegetables (97.0 percent), onion (96.9 percent), groundnut (96.8 percent), mango (95.7 percent), banana (94.1 percent), watermelon (93.1 percent), cocoa (92.2 percent) and coconut (91.1 percent) sell their produce unprocessed in the southern horticultural zone. In the Afram Basin, a large proportion of growers of potatoes (92.2 percent), other vegetables (91.5 percent) and beans (91.0 percent) sell their produce unprocessed. In the Northern Zone, a large proportion of growers of cotton (87.5 percent), sugar cane (84.9 percent), groundnut (84.7 percent), cashew nut (82.0 percent) and rice (81.9 percent) sell their produce unprocessed.

In the minor season, a large proportion of growers of other vegetables (98.9 percent), onion (94.5 percent) and pawpaw sell their produce unprocessed in the southern horticultural zone. In the Afram Basin, a large proportion of growers of other vegetables (96.7 percent), tomatoes (92.6 percent) and cocoa (92.4 percent) sell their produce unprocessed. In the Northern Zone, a large proportion of growers of groundnut (97.8 percent) and maize (91.2 percent) sell their produce unprocessed.

Table 8.2.3: Percentage of households selling unprocessed harvest produce, by locality

Type of crop	Major Season			Minor Season		
	Urban	Rural	Total	Urban	Rural	Total
Avocado Pear	82.0	55.2	68.5	86.4	20.9	42.3
Banana	73.9	90.3	87.8	41.5	70.0	64.1
Beans/Peas	87.0	69.6	72.1	79.3	39.1	42.8
Cashew Nut	100.0	87.7	89.4	100.0	65.8	75.5
Cassava	52.8	67.8	66.2	50.2	50.2	50.2
Cocoa	90.1	84.8	85.8	89.0	92.3	91.8
Coconut	43.8	90.6	84.8	0.0	100.0	67.1
Cocoyam	37.5	48.8	46.4	34.1	38.5	37.1
Coffee	50.0	70.4	67.8	100.0	17.5	38.1
Cola nut	59.6	100.0	95.3	100.0	88.3	90.8
Cotton	100.0	87.2	87.5			
Garden Egg	90.2	84.5	84.9	100.0	85.6	86.0
Ginger	100.0	41.9	64.6			
Groundnut	85.5	86.1	86.1	97.6	59.1	62.2
Guinea corn/Sorghum	22.7	17.4	17.9	0.0	42.6	20.9
Kenaf		23.5	23.5		0.0	0.0
Leafy Vegetables	35.2	23.7	27.3	58.1	82.5	77.2
Lime/Lemon	36.0		36.0	89.4	100.0	92.0
Maize	54.6	65.7	63.5	47.8	60.0	57.7
Mango	79.3	88.6	86.1		20.9	20.9
Millet	39.5	34.1	35.2		24.2	24.2
Oil Palm	75.9	58.1	62.7	86.1	76.9	79.3
Okro	38.7	47.6	46.1	88.7	89.4	89.3
Onion	95.1	94.5	94.8	97.0	65.9	93.0
Oranges	89.7	66.3	75.8	46.1	54.0	48.4
Pawpaw	86.8	43.7	81.5	90.5	40.7	85.7
Pepper	61.2	77.6	76.1	74.8	46.6	49.9
Pineapple	100.0	66.1	68.3	100.0	89.7	90.4
Plantain	45.9	66.6	62.0	64.3	49.6	54.5
Potatoes	87.9	82.3	83.8	8.4	75.1	49.0
Rice	89.3	79.4	81.3	100.0	68.9	72.6
Shea nut	100.0		100.0			
Sugar Cane	96.1	84.4	89.1	91.1	30.1	62.6
Tiger Nut	100.0	100.0	100.0		100.0	100.0
Tobacco		100.0	100.0		100.0	100.0
Tomatoes	91.1	81.8	83.4	89.1	88.0	88.1
Watermelon	100.0	82.9	85.5	100.0	100.0	100.0
Woodlot	100.0		100.0			
Yam	58.8	55.1	55.8	46.8	46.5	46.5
Other Crops	66.5	46.6	57.1	0.0	37.7	19.7
Other Fruits	100.0	59.4	65.7	100.0	0.0	31.3
Other Vegetables	96.3	82.3	86.2	100.0	98.3	98.9
Total	62.1	67.2	66.3	60.0	59.3	59.4

Table 8.2.4: Percentage of households selling unprocessed harvest produce, by MiDA zone

Type of crop	Major Season				Minor Season			
	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Avocado Pear	48.5	100.0	58.5	68.5		52.7	41.6	42.3
Banana		84.2	94.1	87.8		60.3	67	64.1
Beans/Peas	63.6	91.0	73.4	72.1	49.4	48.1	30.9	42.8
Cashew Nut	82.0	78.8	100.0	89.4		53.5	100	75.5
Cassava	24.0	53.0	74.7	66.2		26.8	57.1	50.2
Cocoa		83.6	92.0	85.8		92.4	89.8	91.8
Coconut		0.0	91.1	84.8		0	100	67.1
Cocoyam	0.0	45.4	51.0	46.4		35.7	40.3	37.1
Coffee		53.4	82.1	67.8		63.9	0	38.1
Cola nut	100.0	100.0	52.5	95.3		100	52.7	90.8
Cotton	87.5			87.5				
Garden Egg	77.9	71.4	89.7	84.9		100	85	86
Ginger		64.6		64.6				
Groundnut	84.7	80.9	96.8	86.1	97.8	39.8	75.9	62.2
Guinea corn/Sorghum	17.3	100.0	100.0	17.9	0	14.5	54.7	20.9
Kenaf	0.0	100.0		23.5			0	0
Leafy Vegetables	19.8	48.3	58.5	27.3	100	32.1	81.5	77.2
Lime/Lemon	100.0		0.0	36.0	100		75.6	92
Maize	30.6	73.7	71.9	63.5	91.2	60.9	55.6	57.7
Mango	69.6	100.0	95.7	86.1		0	100	20.9
Millet	34.8	66.6	0.0	35.2	13.6		100	24.2
Oil Palm		57.1	64.6	62.7		64.6	84.1	79.3
Okro	16.5	59.8	88.3	46.1	100	81.8	89.9	89.3
Onion	100.0	84.8	96.9	94.8	100	53.5	94.5	93
Oranges	0.0	62.9	88.4	75.8		14.9	85	48.4
Pawpaw		0.0	100.0	81.5		31.8	93.4	85.7
Pepper	29.8	82.5	88.6	76.1	78.3	24.2	66.6	49.9
Pineapple		51.8	73.2	68.3		46.5	97.5	90.4
Plantain		62.8	59.7	62.0		50.2	61.7	54.5
Potatoes	29.7	92.2	98.9	83.8		100	45.2	49
Rice	81.9	75.5	80.9	81.3	100	29.1	75.7	72.6
Shea nut	100.0			100.0				
Sugar Cane	84.9	39.9	91.4	89.1		100	61.5	62.6
Tiger Nut		100.0	100.0	100.0			100	100
Tobacco			100.0	100.0			100	100
Tomatoes	59.7	84.4	85.5	83.4	100	92.6	87.1	88.1
Watermelon	76.6	100.0	93.1	85.5	100	100	100	100
Woodlot			100.0	100.0				
Yam	53.9	60.1	52.4	55.8	46.5	43.3	48.6	46.5
Other Crops	62.2	41.6	39.0	57.1		24.7	16.9	19.7
Other Fruits	100.0	0.0	100.0	65.7		0	100	31.3
Other Vegetables	28.4	91.5	97.0	86.2	100	96.7	98.9	98.9
Total	48.8	68.1	75.4	66.3	87.6	50.8	61.9	59.4

The estimated total annual value of crops sold by Ghanaian households in the major season in rural areas is about GH¢193.4 million as against GH¢59.8 million in urban areas. In the minor season however, with regard to rural areas, Ghanaian households sold about GH¢105.4 million

as against GH¢24.2 million in the urban areas. Clearly, in both the major and minor seasons, rural areas contribute higher crop sales than urban areas.

For the major season, the rural areas recorded a higher sales value (GH¢65 million) than the urban areas (GH¢22.5 million) for the maize sold over the past 12 months. Again, for the minor season, rural areas recorded a higher (GH¢34.3 million) sales value than urban areas (GH¢9.8 million) for the maize sold over the past 12 months (Table 8.2.5).

By MiDA zone, the estimated total annual value of crop sales is highest (GH¢130.8) million in the southern horticultural zone, followed by the Afram Basin (GH¢68.9) million with the least being the Northern Zone (GH¢53.5) million for the major season. For the minor season estimated total annual value of crop sales is highest (GH¢89.9) million in southern horticultural zone, followed by the Afram Basin (GH¢37.1) million with the least being the Northern Zone (GH¢2.7) million.

In the major season, maize recorded higher sales (GH¢47.8 million) for the Southern Zone, GH¢22.5 million for the Afram Basin and GH¢17.2 million for the Northern Zone. The maize crop contributed significantly to crop sales in all the three MiDA zones.

In the minor season, other vegetables recorded a sale value of GH¢30.1 million, cassava recorded a sale value of GH¢12.7 million and onion GH¢3.4 million in the southern horticultural zone. Maize sales were an estimated GH¢20.4 million and other vegetables recorded a sale value of GH¢5.4 million in the Afram Basin, while maize sales were valued at GH¢1.4 million in the Northern Zone (Table 8.2.6).

Table 8.2.5: Estimated annual value of crop sales, by locality (GH¢ million)

Type of crop	Major Season			Minor Season		
	Urban	Rural	Total	Urban	Rural	Total
Avocado pear	0.25	0.23	0.48	0.02	0.06	0.08
Banana	0.05	0.59	0.64	0.00	0.08	0.08
Beans/Peas	1.53	4.32	5.85	0.54	1.60	2.15
Cashew Nut	0.08	0.10	0.18	0.02	0.00	0.02
Cassava	2.36	27.69	30.06	2.03	11.31	13.34
Cocoa	2.73	5.95	8.68	2.13	2.78	4.91
Coconut	0.02	0.08	0.11	0.00	0.01	0.01
Cocoyam	0.46	2.24	2.70	0.07	0.33	0.41
Coffee	0.00	0.10	0.11	0.21	0.01	0.23
Cola nut	0.02	0.90	0.92	0.01	0.03	0.04
Cotton	0.01	0.13	0.14			
Garden Egg	0.15	1.54	1.69	0.00	0.42	0.42
Ginger	0.01	0.00	0.01			
Groundnut	2.39	19.63	22.03	0.11	4.83	4.94
Guinea corn/Sorghum	0.04	0.36	0.39	0.00	0.02	0.02
Kenaf		0.01	0.01		0.00	0.00
Leafy Vegetables	0.08	0.08	0.16	0.00	0.09	0.09
Lime/Lemon	0.00		0.00	0.01	0.02	0.03
Maize	22.51	64.97	87.48	9.75	34.33	44.09
Mango	0.04	0.21	0.25		0.03	0.03
Millet	0.23	0.86	1.08		0.01	0.01
Oil palm	0.55	1.98	2.53	0.16	0.95	1.12
Okro	0.31	2.81	3.12	0.17	2.37	2.54
Onion	1.99	5.04	7.03	2.73	0.75	3.48
Oranges	0.86	0.47	1.34	0.12	0.04	0.16
Pawpaw	2.40	0.03	2.42	1.61	0.00	1.61
Pepper	0.77	9.74	10.51	0.14	1.13	1.26
Pineapple	0.85	5.39	6.24	0.03	1.66	1.69
Plantain	0.74	5.48	6.22	0.16	0.54	0.70
Potatoes	0.07	1.22	1.29	0.08	0.23	0.30
Rice	2.36	10.44	12.81	0.14	2.61	2.75
Shea nut	0.06		0.06			
Sugar cane	0.40	1.15	1.55	0.20	0.09	0.29
Tiger Nut	0.04	0.45	0.49		0.02	0.02
Tobacco		0.05	0.05		0.03	0.03
Tomatoes	1.38	5.21	6.59	1.65	3.13	4.78
Watermelon	0.21	1.43	1.64	0.07	0.48	0.56
Woodlot	0.06		0.06			
Yam	6.40	10.05	16.45	0.73	0.97	1.71
Other Crops	6.44	0.21	6.65	0.00	0.02	0.02
Other Fruits	0.02	0.00	0.02	0.00	0.00	0.00
Other Vegetables	0.98	2.22	3.20	1.26	34.39	35.64
Total	59.84	193.37	253.21	24.19	105.38	129.57

Table 8.2.6: Estimated annual value of crop sales, by locality (GH¢ million)

Type of crop	Major Season				Minor Season			
	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Avocado pear	0.05	0.17	0.27	0.49		0.02	0.06	0.08
Banana		0.56	0.08	0.64		0.06	0.02	0.08
Beans/Peas	2.32	2.09	1.43	5.84	0.00	1.98	0.16	2.14
Cashew Nut	0.02	0.09	0.07	0.18		0.02	0.00	0.02
Cassava	0.14	4.78	25.13	30.05	0.00	0.61	12.73	13.34
Cocoa		5.47	3.20	8.67		2.57	2.34	4.91
Coconut		0.00	0.11	0.11		0.00	0.01	0.01
Cocoyam	0.00	2.29	0.41	2.70		0.25	0.16	0.41
Coffee		0.03	0.08	0.11		0.23	0.00	0.23
Cola nut	0.00	0.91	0.00	0.91		0.04	0.00	0.04
Cotton	0.14			0.14				0.00
Garden Egg	0.04	0.48	1.17	1.69		0.02	0.40	0.42
Ginger		0.01		0.01				0.00
Groundnut	10.07	5.42	6.55	22.04	0.77	0.69	3.48	4.94
Guinea corn/Sorghum	0.39	0.01	0.00	0.40	0.00	0.01	0.01	0.02
Kenaf	0.00	0.01		0.01			0.00	0.00
Leafy Vegetables	0.01	0.07	0.07	0.15	0.00	0.02	0.08	0.10
Lime/Lemon	0.00		0.00	0.00	0.01		0.02	0.03
Maize	17.23	22.45	47.79	87.47	1.39	20.40	22.30	44.09
Mango	0.01	0.03	0.21	0.25		0.00	0.03	0.03
Millet	1.04	0.04	0.00	1.08	0.01		0.00	0.01
Oil palm		0.97	1.56	2.53		0.15	0.97	1.12
Okro	0.13	0.28	2.72	3.13	0.00	0.14	2.40	2.54
Onion	0.01	0.63	6.39	7.03	0.01	0.02	3.44	3.47
Oranges	0.00	0.42	0.92	1.34		0.03	0.13	0.16
Pawpaw		0.00	2.42	2.42		0.00	1.61	1.61
Pepper	0.33	4.91	5.26	10.50	0.04	0.61	0.61	1.26
Pineapple		0.04	6.19	6.23		0.03	1.66	1.69
Plantain		5.36	0.87	6.23		0.57	0.12	0.69
Potatoes	0.01	0.71	0.56	1.28		0.06	0.24	0.30
Rice	7.66	0.84	4.31	12.81	0.11	0.13	2.52	2.76
Shea nut	0.06			0.06				0.00
Sugar cane	0.00	0.01	1.54	1.55		0.01	0.28	0.29
Tiger Nut		0.47	0.02	0.49			0.02	0.02
Tobacco			0.05	0.05			0.03	0.03
Tomatoes	0.10	1.28	5.20	6.58	0.04	2.00	2.73	4.77
Watermelon	0.14	0.24	1.26	1.64	0.18	0.07	0.31	0.56
Woodlot			0.06	0.06				0.00
Yam	7.01	6.87	2.57	16.45	0.03	0.95	0.73	1.71
Other Crops	6.57	0.02	0.06	6.65		0.00	0.02	0.02
Other Fruits	0.00	0.00	0.02	0.02		0.00	0.00	0.00
Other Vegetables	0.01	0.94	2.25	3.20	0.12	5.38	30.15	35.65
Total	53.52	68.89	130.8	253.21	2.71	37.09	89.77	129.57

8.3 Other agricultural income

This section reports on the income in cash or kind derived by households from sales of agricultural produce other than grains, vegetables, roots and cash crops. Results from the survey indicate that there are more households in rural areas (77,742) engaged in other agricultural productive activities than in urban areas (11,914). A greater proportion of households are growing fruits and berries (31,425), followed by snail/crab collection (24,693), hunting game (20,962) and producing eggs (19,048). Estimates indicate that at national level, sales over the past 12 months were significantly higher in rural areas (GH¢4,509,200) than in urban areas (GH¢527,900; Table 8.3.1).

Table 8.3.1: Estimated households in other agricultural production and annual value of sales (GH¢ 000)

Type of other agricultural produce	Locality of residence			Locality of residence		
	Estimated households			Annual value of sales (GH¢ 000)		
	Urban	Rural	Total	Urban	Rural	Total
Hunting (game)	992	19,970	20,962	52.15	1,267.14	1,319.29
Honey	374	5,817	6,191	47.77	208.19	255.96
Fruit, berries, etc	6,638	24,787	31,425	132.95	897.19	1,030.14
Milk from cow	676	2,422	3,098	74.58	116.90	191.48
Other dairy products	237	736	973	16.85	42.60	59.45
Eggs	4,461	14,587	19,048	66.97	341.22	408.19
Mushroom	1,531	10,294	11,825	2.73	60.61	63.34
Snail/Crab collection	3,918	20,775	24,693	23.49	310.05	333.54
Other items unspecified	1,887	16,732	18,619	110.47	1,265.26	1,375.73
Total	11,914	77,742	89,656	527.95	4,509.16	5,037.11

Results from the survey in Table 8.3.2 show that the southern horticultural zone recorded the highest number of households (36,073), followed by the Northern Zone (31,569) and finally the Afram Basin (22,014). In the southern horticultural belt, a greater proportion of households are engaged in snail/crab collection (20,202), followed by fruits, berries, etc. (13,594) and eggs (6,876). In the Northern Zone, however, a greater proportion of households are engaged in other items unspecified (16,454), eggs (8,494) and fruits, berries, etc. (8,029). In the Afram Basin, a greater proportion of households are engaged in fruits, berries, etc. (9,803) and hunting/game (8,905).

The annual value of sales over the past 12 months was significantly higher in the Northern Zone (GH¢2,520,100), followed by the Afram Basin (GH¢1,347,200) and finally the southern horticultural zone (GH¢1,169,800). In the southern horticultural belt, hunting/game (GH¢391.0), fruits, berries, etc. (GH¢277,170) and snail/crab collection (GH¢237,120) contributed the greatest proportion of annual sales. In the Northern Zone, however, other items unspecified (GH¢1,310,160), fruits, berries, etc. (GH¢539,360) and eggs (GH¢296,190) contributed significantly to total sales. In the Afram Basin, hunting/game (GH¢779,370) and fruits, berries, etc. (GH¢213,610) contributed to a greater proportion of annual sales in the zone.

Table 8.3.2: Estimated households in other agricultural production and annual value of sales (GH¢ 000), by MiDA zone

Type of other agricultural produce	MiDA Zone				MiDA Zone			
	Estimated number of households				Annual value of sales (thousand GH¢)			
	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Hunting (game)	2,434	8,905	9,622	20,961	148.90	779.37	391.01	1,319.28
Honey	2,511	2,957	722	6,190	48.23	134.08	73.66	255.97
Fruit, berries, etc	8,029	9,803	13,594	31,426	539.36	213.61	277.17	1,030.14
Milk from cow	2,037	347	714	3,098	115.36	39.41	36.70	191.47
Other dairy products	593	-	379	972	51.92	-	7.52	59.44
Eggs	8,494	3,677	6,876	19,047	296.19	54.02	57.98	408.19
Mushroom	-	1,997	9,729	11,726	-	32.20	30.56	62.76
Snail/Crab collection	-	4,174	20,202	24,376	-	87.03	237.12	324.15
Other items unspecified	16,454	292	1,872	18,618	1,310.16	7.46	58.10	1,375.72
Total	31,569	22,014	36,073	89,656	2,520.11	1,347.18	1,169.82	5,037.11

8.4 Seasonal patterns

Agricultural households that grew any of five crops – maize, rice, millet, sorghum and yam – during the 12 months preceding the survey were asked to give information about the seasonal characteristics of each crop grown. Questions were posed to solicit information on the main months of the year when each crop was harvested, sold, or purchased for home consumption. For each crop, Figures 8.4.1 and 8.4.2 show the percentage of households harvesting, selling, or buying the crop during each month of the year. There are slight variations between MiDA zones in the timing of each crop activity, but this notwithstanding, the patterns are, in general, fairly similar across the zones.

In the Northern Zone, large proportions of maize-growing households harvest their crop during the third to the fourth quarter of the year, July-December. The harvest for maize reaches its peak in the month of October (63 percent of household harvests). The sale of maize also reaches its peak in the month of March. Purchases of maize for most households are done in June (22 percent of households).

In the Afram Basin zone, large proportions of maize-growing households also harvest their crop during the third to the fourth quarter of the year, July-December. However, in this zone the harvest for maize reaches its peak in the month of August (43 percent of household harvests). Sale of maize by households is spread evenly across the year, with a very low percentage of households recording sales in the month of May. The sale of maize reaches its peak in November (38 percent of household harvests). Purchases of maize for most households are made also in the same month of November (41 percent of households).

In the southern horticultural zone, large proportions of maize-growing households also harvest their crop during the third to the fourth quarter of the year, July-December. As in the Afram Basin, the maize harvest in this zone reaches its peak in August (68 percent of household harvests). Maize sales reach a peak in the month of January (33 percent of household harvests).

Maize purchases for most households, on the other hand, are done in March (28 percent of households) and November (29 percent of households).

In summary, in all the MiDA zones, harvesting is done by most households in August, sales in December and purchases in November.

Figure 8.4.1: Seasonal patterns of harvesting, selling and buying maize among households that cultivate maize, by MiDA zone

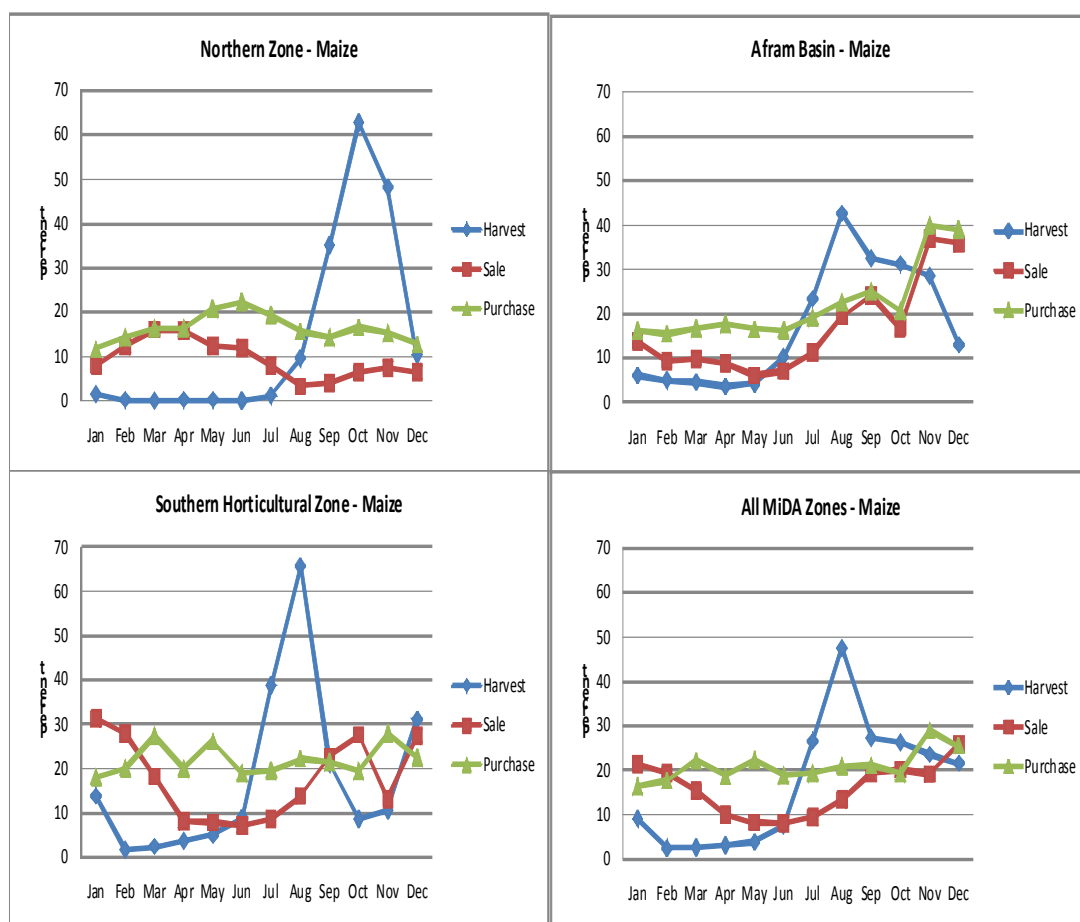


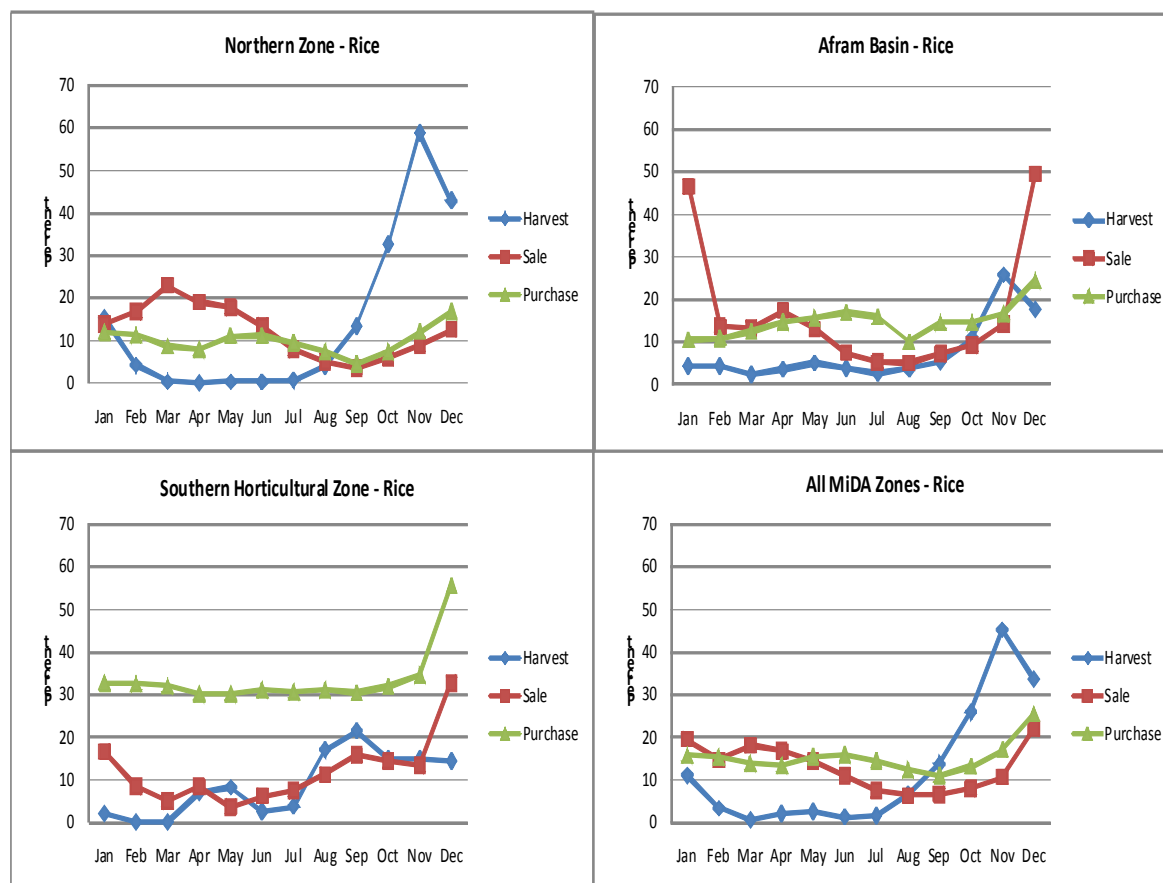
Figure 8.4.2 shows the seasonal pattern for rice. In the Northern Zone, large proportions of rice-growing households harvest their crop during the third to the fourth quarter of the year, July-December. The harvest for rice reaches its peak in the month of November (60 percent of household harvests). The sale of rice reaches its peak in the month of March (23 percent of household harvests). Purchases of rice for most households are done in December (18 percent of households).

In the Afram Basin zone, large proportions of rice-growing households (similar to the Northern Zone), harvest their crop during the third to the fourth quarter of the year, July-December. However, the harvesting of rice in this zone reaches its peak in the month of November (27 percent of household harvests). This Northern Zone and the Afram Basin have the same month of harvesting – November.

The sale of rice reaches its first peak in January (49 percent of households sold) and then in December (51 percent). Purchases on the other hand, of rice for most households are done in the month of December (24 percent of households). In the southern horticultural zone, rice harvesting reaches its peak in September (22 percent of household harvests). The sale of rice peaks in December (33 percent of household harvests). Purchases of rice for most households are done in December (57 percent of households). Sales and purchases are done by most households in the same month.

In summary, in all the MiDA zones, harvesting is done by most households (41 percent) in November, sales (22 percent of households) and purchases (25 percent of households) are all done in December (Figure 8.4.2). Harvesting, however, is low in March, April, May, June and July. Sales are low in July, August and September, with purchases also low in August and September for the three MiDA zones.

Figure 8.4.2: Seasonal patterns of harvesting, selling and buying rice among households that cultivate rice, by MiDA zone



The seasonal pattern for sorghum is shown in Figure 8.4.3. In the Northern Zone, large proportions of sorghum-growing households harvest their crop during the third to the fourth quarter of the year, July-December. Sorghum harvesting reaches its peak in November (58

percent of household harvests). The sale of sorghum reaches a peak in March (13 percent of households). Purchases of sorghum for most households are done in March (12 percent of households) and November (13 percent of households).

In the Afram Basin zone, most households (33 percent) recorded peak harvesting in August. The harvest for sorghum, however, reaches its peak in this zone in October (28 percent of household harvests). The sale of sorghum reaches its peak in July (26 percent of households) and October (28 percent of households). Purchases of sorghum for most households (32 percent) are made in July. In the southern horticultural zone, sorghum harvesting reaches its peak in August (23 percent of household harvests). The sale of sorghum is highest in December (40 percent of households). Sorghum purchases on the other hand for most households (57 percent) are made in December.

In summary, in all the MiDA zones, sorghum harvesting is done by most households (57 percent) in November, sales is done by 12 percent of households in March and purchases are made by 25 percent of households in November (Figure 7.3).

Figure 8.4.3: Seasonal patterns of harvesting, selling and buying sorghum among households that cultivate sorghum, by MiDA zone.

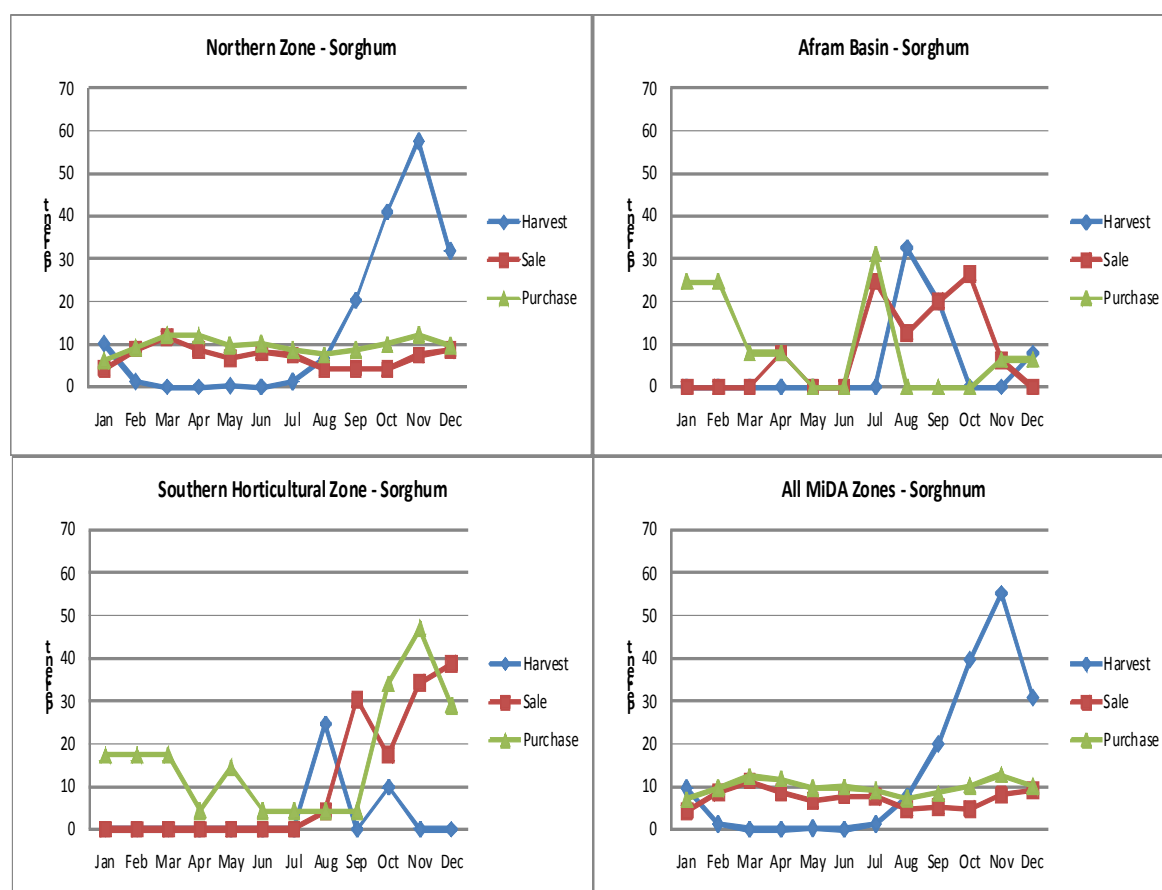


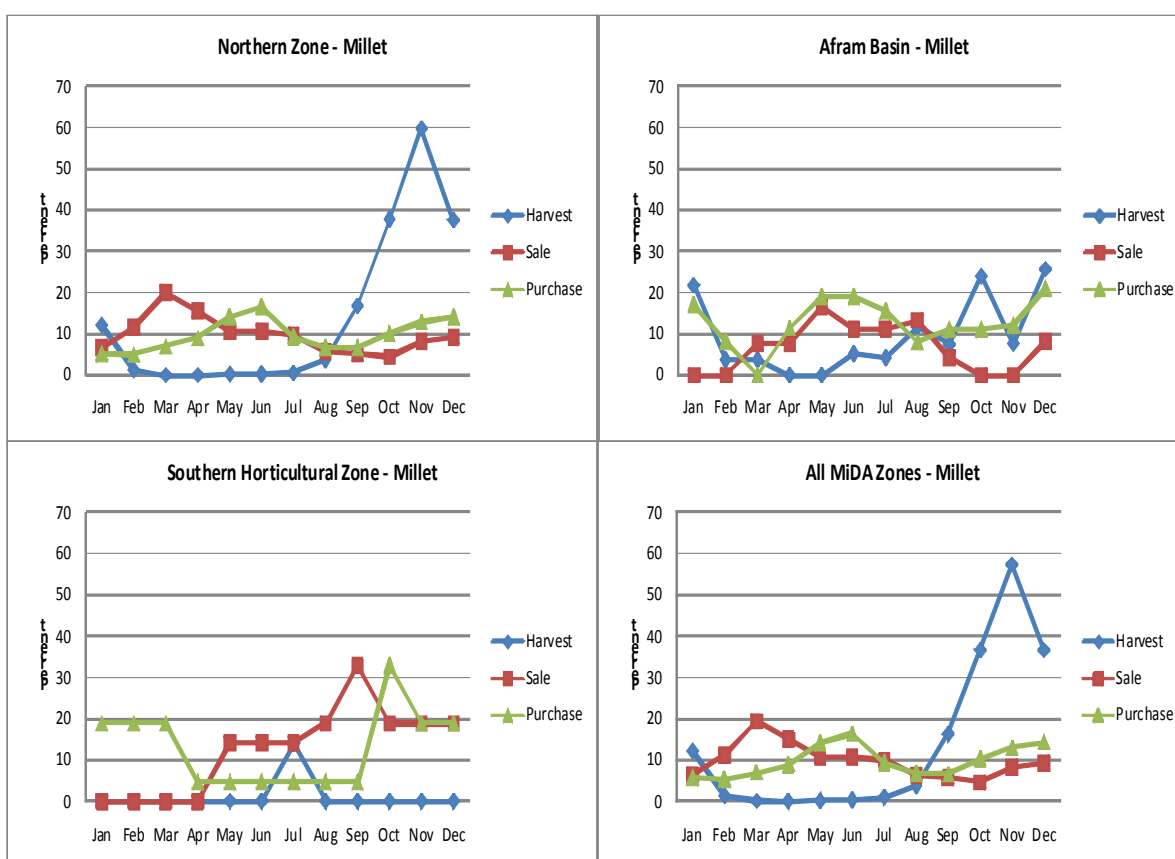
Figure 8.4.4 shows the seasonal pattern for millet. In the Northern Zone, large proportions of millet growing households harvest their crop during the third and fourth quarters of the year, July-December. The harvest for millet reaches its peak in November (60 percent of household harvests). The sale of millet reaches its peak in March (22 percent of households). Millet purchases for most households (17 percent) are made in June.

In the Afram Basin zone, most households (27 percent) record their peak harvest in December. The sale of millet reaches its peak in May (18 percent of households). Purchases of millet for most households (22 percent) are done in December.

In the southern horticultural zone, the harvest for millet reaches its peak in July (15 percent of household harvests). Millet sales reach a peak in September (33 percent of households). Purchases of millet for most households (33 percent) are made in October.

In summary, in all the MiDA zones, harvesting is done by 58 percent of households in November, sales by 20 percent of households in March and purchases by 16 percent of households are made in June (Figure 8.4.4).

Figure 8.4.4: Seasonal patterns of harvesting, selling and buying millet among households that cultivate millet, by MiDA zone



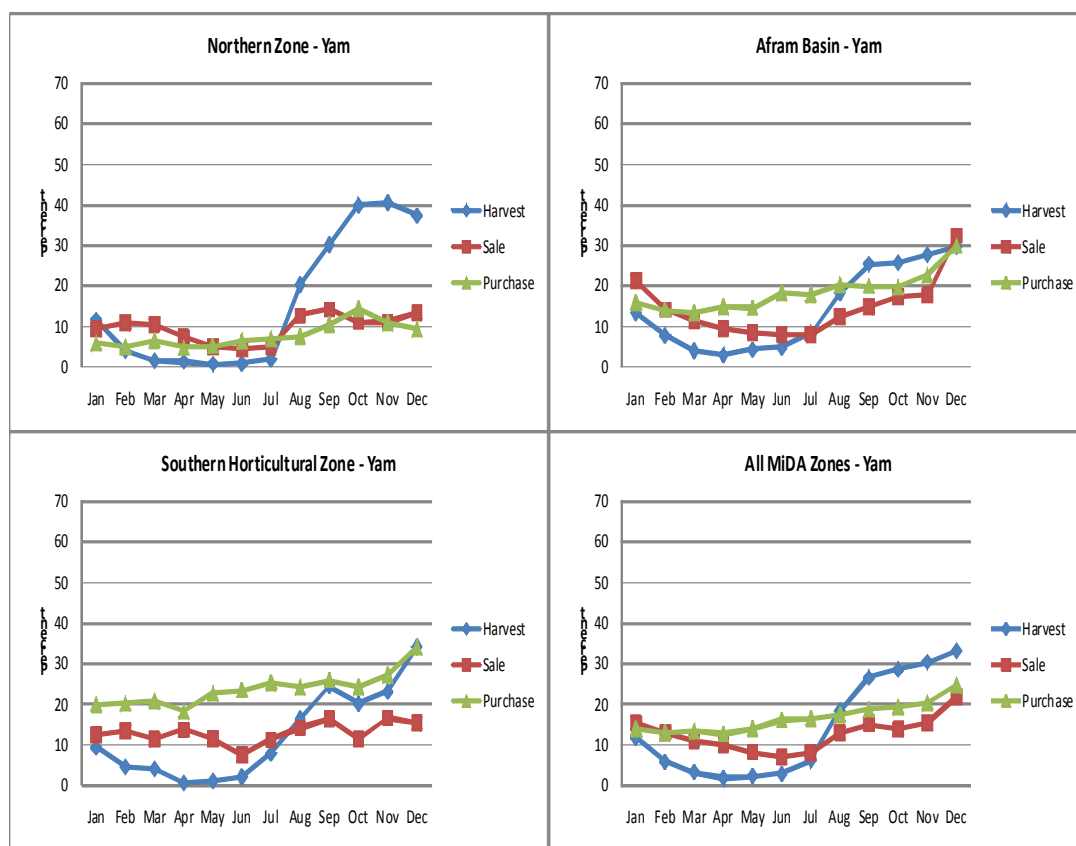
The seasonal pattern for yam is shown in Figure 8.4.5. In the Northern Zone, large proportions of yam-growing households harvest their crop during the third and fourth quarters of the year, July-December. Harvesting reaches its peak in October (40 percent of household harvests) and November (a little under 40 percent). The sale of yam reaches its peak in September (15 percent of households). Purchases of yam for most households are made in October (13 percent of households).

In the Afram Basin zone, most households (30 percent) record peak harvesting in December. Yam sales reach a peak in December for 32 percent of households. Yam purchases, on the other hand, are done for 30 percent of households in December.

In the southern horticultural zone, the harvest for yam reaches its peak in December (34 percent of household harvests). Yam sales reach a peak in September (18 percent of households) and November (18 percent of households sold). Purchases for yam for most households are made in the month of December (35 percent of households purchased).

In summary, in all the MiDA zones, harvesting is done by most households (33 percent) in December, sales are done by 21 percent of households in December and purchases made by 22 percent of households also in December (Figure 8.4.5).

Figure 8.4.5: Seasonal patterns of harvesting, selling and buying yam among households that cultivate yam



8.5 Agricultural inputs

Table 8.5.1 provides a summary of costs of producing crops and raising livestock, the corresponding number of households that incurred such costs and the estimated amount spent in the MiDA intervention zones.

In the Northern Zone, a total of 82,434 households purchased inputs for livestock. Out of the total number of households that purchased inputs for livestock in the 12 months preceding the survey, the majority (50,547 households) spent a total amount of GH¢3,081,900 in purchasing home-produced animal feed, representing 33.8 percent, followed by 41,252 households spending GH¢3,343,900 on animal feed, representing 28.4 percent.

In the Afram Basin, a total of 91,973 households purchased inputs for livestock. Out of the total number of households that purchased such inputs in the 12 months preceding the survey, again the greater number of households (59,762 households) spent a total amount of GH¢3,380,400 on purchasing home-produced animal feed representing 46.1 percent, followed by 34,950 households spending GH¢2,002,700 on purchased animal feed, representing 19.7 percent.

In the southern horticultural zone also, a total of 141,672 households purchased inputs for livestock. Among the three MiDA zones, this is the highest number of households. Out of the total number of households that purchased inputs for livestock in the 12 months preceding the survey, and just like in the Northern Zone and Afram Basin, the greater number of households (100,262 households) spent a total amount of GH¢3,081,900 in purchasing home-produced animal feed representing 37.2 percent, this is followed by 61,953 households spending GH¢4,375,500 on purchased animal feed representing 22.5 percent.

It is interesting to note that with regard to the expenditure incurred on crops, in the Northern Zone, a total of 107,419 households purchased inputs on crops. Out of the total number of households that purchased inputs on crops in the 12 months preceding the survey, the greater number of households (87,389 households) spent a total amount of GH¢22,578,300 on the cost of hired labor representing 43.1 percent, followed by 68,867 households spending GH¢4,228,400 on purchased seed, seedlings, etc., representing 15.9 percent.

In the Afram Basin, a total of 162,849 households purchased inputs on crops. Out of the total number of households that purchased inputs on crops in the 12 months preceding the survey, the greater number of households (148,649) spent a total amount of GH¢77,645,900 on the cost of hired labor, representing 59.7 percent, followed by 159,428 households spending GH¢10,472,300 on purchasing farm tools, representing 11.9 percent.

In the southern horticultural zone also, a total of 308,404 households purchased inputs for livestock. Among the three MiDA zones, the Southern Zone provides the highest household numbers. A greater number of households (226,335 households) spent a total amount of GH¢52,527,100 on hired labor, representing 43.2 percent, this is followed by

275,878 households spending GH¢4,064,400 on purchasing farm tools, representing 16.1 percent (Table 8.5.1).

Table 8.5.1 Expenditure on crops and livestock inputs in the last 12 months

Input	Estimated No. of Households purchasing				Estimated amount spent (thousand GH cedis)				% of amount spent on input		
	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	Northern Zone	Afram Basin	Southern Horticultural Zone
Livestock											
Purchased animal feed	41,252	34,950	61,953	138,155	3,343.85	2,002.65	4,375.47	9,721.98	28.4	19.7	22.5
Home produced animal feed	50,547	59,762	100,262	210,571	2,028.92	3,380.41	3,081.86	8,491.19	33.8	46.1	37.2
Veterinary	50,260	43,776	44,264	138,299	1,740.41	1,310.58	1,096.47	4,147.45	20.0	16.0	8.1
Enclosure, shelter, restraint & related	24,351	17,913	52,347	94,611	871.41	529.47	1,691.32	3,092.20	8.2	7.7	10.7
Hired labour	10,711	3,619	16,231	30,561	1,052.86	689.50	1,679.55	3,421.91	4.5	1.6	2.8
Water	7,113	3,458	50,233	60,804	899.70	61.12	496.71	1,457.52	1.7	0.7	4.3
Other	14,447	13,277	39,626	67,351	228.46	1,013.46	558.35	1,800.28	3.4	8.2	14.5
Total	82,434	91,973	141,672	316,079	10,165.61	8,987.19	12,979.74	32,132.53	100.0	100.0	100.0
Crops											
Organic fertilizer	22,237	6,314	18,358	46,908	2,503.88	658.28	1,813.99	4,976.15	6.8	0.7	1.2
In-organic fertilizer	26,330	12,716	21,099	60,145	3,006.70	1,382.68	1,879.89	6,269.26	7.4	1.6	1.2
Weedicides	11,654	32,177	41,467	85,299	404.10	2,104.35	1,922.29	4,430.74	1.3	3.3	2.5
Insecticides	1,155	9,563	12,095	22,813	18.29	451.97	241.47	711.73	0.1	0.7	0.2
Fungicides	61	3,820	2,452	6,332	2.93	165.09	121.03	289.04	0.0	0.3	0.1
Other chemicals	47	632	752	1,431	2.79	25.20	60.54	88.53	0.0	0.0	0.0
Purchased seed, seedlings, etc	68,867	105,217	229,440	403,525	4,228.35	5,782.96	6,085.22	16,096.54	15.9	11.8	14.5
Hired labour	87,389	148,649	226,335	462,373	22,578.26	77,645.94	52,527.09	152,751.29	43.1	59.7	43.2
Transport of crops	28,783	74,343	125,091	228,217	1,000.66	4,310.80	2,939.42	8,250.88	2.7	4.3	7.2
Renting of farm land	5,192	31,928	45,907	83,028	292.77	3,000.09	6,103.39	9,396.25	0.7	4.3	4.1
Tools	100,742	159,428	275,878	536,048	1,902.57	10,472.29	4,064.39	16,439.25	12.9	11.9	16.1
Other	35,916	13,566	76,007	125,489	4,258.50	1,396.17	7,199.86	12,854.54	9.2	1.5	9.8
Total	107,419	162,849	308,404	578,673	40,199.81	107,395.84	84,958.57	232,554.21	100.0	100.0	100.0

8.6 Home processing of agricultural produce

Table 8.6.1 presents information on processing of crops or smoking of fish/meat. It indicates that more households in rural areas (56.2 percent) are engaged in any agricultural food processing activity than urban areas (34.1 percent). In the MiDA intervention zones, the Northern Zone recorded the highest proportion (54.1 percent) of households engaged in any processing activity, followed by the southern horticultural zone (49.0 percent) with the lowest percentage of households engaged in any agricultural activity being in the Afram Basin (48.3 percent).

Table 8.6.1 further shows the percentage of households engaged in any processing activity for at least a specific number of months. The results from the survey indicate that more rural households are involved in any form of processing activity than urban households. The proportion of households engaged in any processing activity for at least one month was higher in rural areas (56.1 percent) than urban areas (33.8 percent) and for at least two months also, proportionately more rural households (54.6 percent) are engaged in processing activity than urban households (33.1 percent). In the MiDA zones, the Northern Zone recorded the highest proportion of households (53.9 percent) engaged in processing for at least one month, followed by the southern horticultural zone (48.8 percent) and the Afram Basin (48.1 percent). For households engaged in any processing for at least two months, the Northern Zone again recorded the highest proportion of households (52.9 percent) engaged in processing activity for at least

two months, and both the southern horticultural zone and the Afram Basin recorded the same 47.2 percent.

Table 8.6.1: Percentage of total households engaged in processing agricultural produce within the last 12 months

	Locality of residence		MiDA Zone			
	Urban	Rural	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
% engaged in any processing activity	34.1	56.2	54.1	48.3	49.0	49.7
% engaged for at least						
1 month	33.8	56.1	53.9	48.1	48.8	49.5
2 months	33.1	54.6	52.9	47.2	47.2	48.2
3 months	32.3	52.7	50.3	46.3	45.7	46.7
4 months	31.4	51.5	49.1	45.3	44.7	45.6
5 months	30.2	48.7	47.9	43.4	41.7	43.2
6 months	29.4	47.6	47.2	42.4	40.6	42.2
7 months	26.6	44.7	45.2	37.8	38.3	39.4
8 months	25.5	43.8	44.3	37.5	37.0	38.4
9 months	24.4	40.3	43.6	32.5	34.6	35.6
10 months	23.4	39.3	43.2	32.0	33.1	34.6
11 months	22.0	34.3	41.9	22.7	31.0	30.6
12 months	21.5	33.9	41.5	22.5	30.4	30.2

Table 8.6.2 shows that proportionately more households (56.2 percent) in rural areas are engaged in any agricultural food processing activity than in urban areas (34.1 percent). It is interesting to note that 27.1 percent of rural households are engaged in maize flour processing compared with 22.9 percent of urban households. In the MiDA zones, the Northern Zone recorded the highest proportion (45.5 percent) of households engaged in maize flour processing, followed by the southern horticultural zone (28.4 percent) with the smallest proportion of households engaged in any agricultural processing being the 8.1 percent in the Afram Basin. The Northern Zone has proportionately more households engaged in maize flour (45.5 percent) and groundnut paste (18.1 percent) processing. The Afram Basin has a greater percentage of households engaged in corn dough (22.0 percent) and processed fish (16.8 percent) while the southern horticultural zone has greater percentages of households engaged in maize flour (28.4 percent) and corn dough (18.3 percent) processing.

Table 8.6.3 shows the proportion of households engaged in processing agricultural produce, by type of activity and number of months engaged. A greater proportion of households are engaged in cassava processing for at least one month (99.7 percent) and two months (95.5 percent). The table also shows that for all types of agricultural produce – cooking oils, gari, groundnut paste, home-brewed drink, maize flour, processed fish, processed meat, shea butter, cassava dough, corn dough, etc. – all recorded the highest percentages of households engaged in their processing in at least the first one or two months.

Table 8.6.2: Percentage of total households engaged in processing agricultural produce, by type of activity

Type of activity	Locality of residence		MiDA Zone				Share of females (%)
	Urban	Rural	Northern Zone	Afram Basin	Southern Horticultural Zone	Total	
Cassava flour	3.8	7.3	17.1	6.9	2.5	6.3	80.6
Cooking oils	1.1	2.1	0.7	1.6	2.3	1.8	80.1
Flour from other	2.3	4.6	21.7	0.1	0.1	3.9	91.8
Gari	0.6	4.3	0.2	2.3	4.6	3.2	70.0
Groundnut paste	2.4	3.7	18.1	0.2	0.1	3.3	86.3
Home brewed drink	0.0	0.1	0.1	0.1	0.0	0.1	61.3
Husked/polished	0.4	0.9	4.1	0.1	0.0	0.8	76.0
Maize flour	22.9	27.1	45.5	8.1	28.4	25.9	73.3
Processed fish	2.7	8.4	2.7	16.8	3.0	6.7	44.1
Processed meat	0.1	0.1	0.4	0.1	0.0	0.1	32.5
Shea butter	0.9	3.4	15.2	-	-	2.7	89.1
Cassava dough	3.9	13.5	1.4	4.6	16.7	10.7	76.5
Corn dough	9.8	20.6	7.7	22.0	18.3	17.4	74.2
Other	2.0	2.4	11.2	0.6	0.3	2.3	94.4
Total	34.1	56.2	54.1	48.3	49.0	49.7	75.2

Table 8.6.3: Percentage of households engaged in processing of agricultural produce, by type of activity and months engaged

	Type of Activity													
	Cassava flour	Cooking oils	Flour from other ...	Gari	Groundnut paste	Home brewed drink	husked/polished	Maize flour	Processed fish	Processed meat	Shea butter	Cassava dough	Corn dough	other
% engaged for at least														
1 month	99.7	99.7	99.6	99.7	99.6	100.0	98.0	99.8	99.0	100.0	99.7	99.7	99.2	99.6
2 months	95.5	92.1	98.2	82.0	92.5	100.0	79.9	98.4	98.0	95.2	89.8	96.4	96.2	97.5
3 months	85.4	82.1	92.5	65.4	89.1	100.0	72.2	96.1	96.7	82.2	72.2	89.2	93.5	94.8
4 months	79.7	70.7	89.0	60.5	83.5	100.0	59.9	95.3	96.0	55.8	48.4	83.5	90.8	91.9
5 months	74.3	54.1	79.2	52.0	73.9	100.0	54.1	94.1	93.0	48.0	39.4	72.9	83.5	90.2
6 months	71.8	45.9	75.0	48.8	70.0	100.0	53.4	93.0	92.1	48.0	36.9	71.0	80.4	88.1
7 months	60.6	28.9	62.2	38.7	56.1	79.6	44.7	88.3	85.1	37.7	30.0	63.6	70.9	82.8
8 months	58.9	24.6	59.1	37.7	55.2	79.6	41.0	86.2	83.8	37.7	28.4	61.5	67.6	81.8
9 months	54.9	14.8	55.9	30.3	53.9	79.6	35.4	83.5	67.9	37.7	26.8	56.5	60.3	79.6
10 months	53.6	14.1	54.4	30.0	53.0	79.6	30.5	82.1	66.2	37.7	25.7	54.6	56.3	78.0
11 months	49.2	11.0	50.3	17.3	49.8	60.4	29.2	78.7	34.8	37.7	24.7	50.5	51.5	68.0
12 months	48.4	11.0	50.1	16.0	49.2	60.4	24.5	78.0	33.8	37.7	24.1	50.0	50.4	67.3

8.7 Home consumption of own produce

The quantities consumed of each item of home-produced food are stated in units chosen by the respondent, who was then asked to state, for each item, at what price they could now sell one

unit. These prices, which can be regarded as farm-gate prices, were then used to value (imputed value) the household's consumption of home-produced food. It was estimated that on average, a household in Ghana consumes GH¢221.6 worth of its own grains and flour produced, and about (GH¢170.2) of roots, tubers and plantain produced. The value of own grain and flour produced by an average household was only 41.3 percent, compared with 28.3 percent for the roots, tubers and plantain group and 13.0 percent for meat, poultry and fish. The estimated annual value of own consumption of grains and flour was GH¢76.0 million as against GH¢51.8 million for roots, tubers and plantain (Table 8.7.1).

Table 8.7.1: Average and total annual household consumption of own produce

Group	Average annual household own consumption -(GH million cedis)	Estimated annual value of own consumption - (GH cedis million)	Percentage Distribution of total own consumption
Grains & Flours	221.55	75.59	41.3
Roots, Tubers & Plantain	170.16	51.84	28.3
Pulses, Nuts & Seed/Oil	70.22	13.65	7.5
Fruits	43.29	4.46	2.4
Vegetables	53.73	12.29	6.7
Meat, Poultry & Fish	136.2	23.77	13.0
Other Livestock Products	62.98	0.29	0.2
Confectionery	54.26	0.36	0.2
Non-alcoholic Beverages	34.11	0.16	0.1
Alcoholic Beverages	39.17	0.09	0.0
Other	168.06	0.53	0.3
Total	347.37	183.03	100.0

The value of average and total annual household consumption of own produce by the MiDA Zone is given in Table 8.7.2. The Northern Zone recorded total average annual household own consumption worth GH¢579,200. It is estimated that on average, a household in Ghana consumes GH¢500.8 worth of its own grains and flours produced, and about GH¢232,700 of roots, tubers and plantain produced, while pulses, nuts & seed/oil are worth GH¢132,700, and meat, poultry and fish are about GH¢138,400. In percentage terms, the value of own grains and flour produced by an average household is only 57.5 percent, compared with 12.2 percent for the roots, tubers and plantain group; 13.2 percent for pulses, nuts & seed/oil and 10.0 percent for meat, poultry and fish. The estimated annual value of own consumption for grains and flour is GH¢22.1 million and GH¢4.7 million for roots, tubers and plantain, GH¢5.0 million for pulses, nuts & seed/oil, and GH¢3.9 million for meat, fish and poultry.

The Afram Basin recorded total average annual household own consumption worth GH¢373,800. It is estimated that on average, a household in Ghana consumes high amounts (GH¢190,200) of roots, tubers and plantain, representing 34.3 percent, followed by grains and flours (GH¢171,600) representing 28.9 percent, and about GH¢145,300 of meat, poultry and

fish, representing 18.9 percent. The estimated annual value of own consumption of roots, tubers and plantain is GH¢34.3 million, with grains and flour at GH¢28.9 million and GH¢18.9 million for meat, fish and poultry.

Table 8.7.2: Value of average and total annual household consumption of own produce, by MiDA Zone

Group	Average annual household own consumption - (GH cedis)	Estimated annual value of own consumption - (GH cedis million)	Percentage Distribution of total own consumption
Northern Zone			
Grains & Flours	500.82	22.08	57.5
Roots, Tubers & Plantain	232.67	4.7	12.2
Pulses, Nuts & Seed/Oil	132.66	5.03	13.1
Fruits	44.41	0.14	0.4
Vegetables	74.6	2.22	5.8
Meat, Poultry & Fish	138.64	3.85	10.0
Other Livestock Products	77.96	0.19	0.5
Confectionery	31.78	0.08	0.2
Non-alcoholic Beverages	24.33	0	0.0
Alcoholic Beverages	39.66	0.02	0.1
Other	80.6	0.11	0.3
Total	579.25	38.41	100.0
Afram Basin			
Grains & Flours	171.56	18.21	28.9
Roots, Tubers & Plantain	190.2	21.6	34.3
Pulses, Nuts & Seed/Oil	59.98	3.68	5.8
Fruits	48.87	1.68	2.7
Vegetables	52.05	5.2	8.3
Meat, Poultry & Fish	145.26	11.9	18.9
Other Livestock Products	49.82	0.04	0.1
Confectionery	100.43	0.23	0.4
Non-alcoholic Beverages	36.48	0.14	0.2
Alcoholic Beverages	19.95	0.01	0.0
Other	217.96	0.29	0.5
Total	373.78	62.98	100.0
Southern Horticultural Zone			
Grains & Flours	184.86	35.3	43.2
Roots, Tubers & Plantain	149.46	25.55	31.3
Pulses, Nuts & Seed/Oil	51.97	4.95	6.1
Fruits	40.3	2.63	3.2
Vegetables	49.18	4.88	6.0
Meat, Poultry & Fish	123.69	8.01	9.8
Other Livestock Products	43.85	0.06	0.1
Confectionery	25.58	0.04	0.0
Non-alcoholic Beverages	18.59	0.01	0.0
Alcoholic Beverages	46.88	0.07	0.1
Other	272.14	0.14	0.2
Total	279.49	81.64	100.0

In the southern horticultural zone on the other hand, there is an estimated total average annual household own consumption worth GH¢279.5. It is estimated that on average, a household in Ghana consumes high amounts (GH¢190.2) of grains and flour representing 43.2 percent, roots,

tubers and plantain representing worth GH¢149.5 representing 31.3 percent, followed by meat, fish and poultry worth GH¢123.7 representing 9.8 percent. The estimated annual value of own consumption for grains and flour is GH¢35.3, roots, GH¢25.6 million for tubers and plantain, and GH¢8.0 million for meat, fish and poultry (Table 8.7.2).

9. Non-Farm Enterprises

9.1 Characteristics of non-farm enterprises

The importance of informal sector contributions to socio-economic development cannot be over-emphasized. According to data from the Ghana Statistical Service, the sector provides about 80 percent of employment to the populace. As part of the GLSS5+ survey, detailed information was collected on the number of people engaged in non-farm enterprises as well as the number of businesses, expenditure and revenue generated by non-farm enterprises. Tables 9.1 and 9.2 present the characteristics of non-farm enterprises, by zonal and industrial contribution respectively.

Table: 9.1: Characteristics of Non-Farm Enterprises at Zonal Level (%)

Proportion of Households operating a business			
	Urban	Rural	ALL
Northern Zone	44.3	55.7	48.7
Afram Basin Belt	29.6	70.4	50.6
Southern Horticultural	36.7	63.3	43.5
Total	36.4	63.6	46.3
Estimated number of business			
	Urban	Rural	All
Northern Zone	49,931	67,274	117,206
Afram Basin Zone	42,281	100,513	142,793
Southern Horticultural b	97,714	166,834	264,594
Total	189,925	334,621	524,547

From Table 9.1, it can be inferred that 46.3 percent of total households surveyed in the three MiDA Zones operate approximately 525,000 non-farm enterprises. The highest proportion of households operating a business is found in the Afram Basin (50.6 percent) while 48.7 percent and 43.5 percent of households respectively operate businesses in the Northern and Southern Horticultural zones.

In terms of rural-urban distribution, 63.6 percent of households operating non-farms enterprises are in rural areas as compared with 36.4 percent in urban localities. At district level, Appendix 1 shows that out of the 23 districts surveyed, the Afram Plains has the most non-farm enterprises, estimated at 57,155. This is followed closely by Ketu District with 56,710 non-farm enterprises. Tamale and Gomoa districts have 40,015 and 36,426 non-farm enterprises respectively.

Table: 9.2: Characteristics of Non-Farm Enterprises, by industrial classification

Manufacturing					
	Urban		Rural		All
	Male	Female	Male	Female	
Northern Zone	7,149	7,459	9,100	24,635	48,343
Afram Basin Belt	4,340	7,723	7,218	13,586	32,866
Southern Horticultural Belt	9,828	13,292	24,897	35,280	83,297
Total	21,317	28,474	41,214	73,501	164,506
Trading					
	Urban		Rural		All
	Male	Female	Male	Female	
Northern Zone	11,786	18,005	9,736	17,881	57408
Afram Basin Belt	5,357	17,478	8,483	56,883	88200
Southern Horticultural Belt	9,927	46,302	9,680	68,415	134324
Total	27,070	81,785	27,898	143,180	279932
Others					
	Urban		Rural		All
	Male	Female	Male	Female	
Northern Zone	2,515	3,018	2,782	3,141	11,455
Afram Basin Belt	2,743	4,640	4,364	9,980	21,727
Southern Horticultural Belt	7,447	10,917	10,425	18,137	46,927
Total	12,705	18,575	17,571	31,258	80,109
	All Sectors Combined (Total)				
	Male		Female		
Northern Zone	43,066		74,140		
Afram Basin Belt	32,504		110,289		
Southern Horticultural Belt	72,203		192,344		
Total	147,774		376,773		
	Proportion Operated by females				
Northern Zone	61.5				
Afram Basin Belt	78.3				
Southern Horticultural Belt	75.0				
Total	73.3				

The main activities of these non-farm enterprises were grouped under manufacturing, trading and other sectors as shown in Table 9.2. Approximately 280,000 households (representing 53 percent) engaged in trading as compared to closely 165,000 households (representing 31 percent) engaged in manufacturing. In terms of MiDA zones, the Southern Horticultural Zone has the largest households engaged in both manufacturing and trading activities. For instance out of the total households engaged in manufacturing, 83,297 (representing 51 percent) are in the Southern Horticultural Zone as compared to 48,343 (representing 29 percent) and 32,866 (representing 20

percent) in the Northern and Afram Basin zones respectively. Similarly in the trading sector, there are 134,324 (constituting 48 percent) households in the Southern Horticultural Zone while in the Afram Basin and Northern zones close to 88,200 and 57,408 households (representing 32 percent and 21 percent) respectively are engaged in this sector.

In terms of gender distribution, a greater proportion of household businesses are operated by females (73.3 percent). Out of this proportion, females in the Afram Basin Zone constitute the highest (78.3 percent) while the Southern Horticultural Zone and Northern Zones constitute 75 percent and 61.5 percent respectively. In the rural localities, 45 percent and 51 percent of females are engaged in manufacturing and trading respectively.

Tables 9.3 and 9.4 present the main sources of capital for starting non-farm enterprises by urban/rural location, industrial classification and MiDA zone respectively. From both tables, it is clear that the main sources of capital for non-farm enterprises are household savings, assistance from relatives or friends and proceeds from family farm.

Table: 9.3: Main source of capital for the start of non-farm enterprises, by industrial classification and urban- rural location (%)

	Main sectors			Urban			Rural			Total
Main Source of Capital	Manufacturing	Trading	Others	Male	Female	All	Male	Female	All	
Household Savings	66.3	67.6	64.7	64.8	71.5	69.4	65.3	65.3	65.3	66.8
Bank	0.8	1.7	2.9	4.3	2.2	2.9	0.7	1.0	0.9	1.6
Remittances from Abroad	0.6	0.4	0.4	0.0	0.6	0.4	0.5	0.5	0.5	0.5
Proceeds from Family Farm	9.0	8.9	8.0	3.6	3.0	3.1	14.8	11.1	12.0	8.8
Proceeds from Family NFE	2.2	2.4	2.7	4.3	3.6	3.8	2.3	1.4	1.6	2.4
Income from Family Propert(ies)	3.1	2.7	1.7	3.1	1.9	2.2	0.7	3.6	3.0	2.7
Ngo Support	0.3	0.3	0.5	0.7	0.2	0.3	0.3	0.3	0.3	0.3
District Assembly/Town Dev. Ass	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2
Church Assistance	0.1	0.2	0.1	0.2	0.2	0.2	0.0	0.1	0.1	0.1
Money Lenders	1.1	1.6	1.5	1.5	1.3	1.4	1.0	1.6	1.5	1.4
Relatives/friends	12.6	11.3	12.0	13.5	12.9	13.1	9.0	11.7	11.0	11.8
Other partners	1.1	1.0	2.1	1.1	0.9	1.0	2.4	1.0	1.3	1.2
Other	2.6	1.9	3.2	3.0	1.7	2.1	2.8	2.3	2.4	2.3
Total	100	100	100	100	100	100	100	100	100	100

In terms of MiDA zone and urban/rural, household savings account for almost 67 percent of total capital while assistance from relatives or friends and proceeds from family farm account for almost 12 percent and 9 percent respectively.

Table: 9.4: Main Source of Capital for the start of Non-Farm Enterprises, by Industrial Classification and MiDA Zone (%)

	Northern Zone												
	Manufacturing			Trading			Others			Total			
Main source of capital	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Household Savings	52.0	58.4	56.1	52.4	55.7	54.4	65.0	42.6	52.9	53.9	55.6	54.9	
Bank	3.2	1.2	2.0	3.5	2.8	3.1	6.3	4.2	5.1	3.8	2.3	2.9	
Remittances from Abroad	0.0	0.2	0.2	0.7	1.3	1.1	0.0	0.0	0.0	0.4	0.8	0.6	
Proceeds from Family Farm	15.7	21.3	19.3	8.8	10.6	9.9	6.0	10.8	8.6	10.9	14.9	13.4	
Proceeds from Family NFE	5.8	3.1	4.1	6.5	5.2	5.7	5.5	2.1	3.7	6.1	4.1	4.9	
Income from Family	4.4	1.0	2.2	2.8	4.2	3.6	4.0	8.1	6.2	3.5	3.3	3.4	
Ngo Support	0.8	1.2	1.1	1.2	1.0	1.1	1.0	2.0	1.5	1.0	1.2	1.1	
District Assembly/Town Dev.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Church Assistance	0.0	0.3	0.2	0.0	1.1	0.7	0.0	0.0	0.0	0.0	0.7	0.4	
Money Lenders	0.5	0.2	0.3	0.0	1.0	0.6	1.3	0.9	1.1	0.4	0.7	0.5	
Relatives/friends	11.1	8.6	9.5	14.5	11.5	12.7	6.7	26.8	17.6	12.3	11.8	12.0	
Other partners	3.6	0.2	1.4	1.6	2.1	1.9	1.8	0.0	0.8	2.3	1.1	1.6	
Other	2.9	4.2	3.8	7.9	3.4	5.2	2.4	2.6	2.5	5.4	3.7	4.3	
Total	100	100	100	100	100	100	100	100	100	100	100	100	
	Afram Basin												
	Manufacturing			Trading			Others			Total			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Household Savings	80.3	69.0	72.8	53.6	73.7	70.7	73.8	58.7	63.5	67.3	70.9	70.1	
Bank	0.7	0.7	0.7	1.5	1.8	1.8	4.0	1.4	2.3	1.8	1.6	1.6	
Remittances from Abroad	0.0	0.3	0.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	
Proceeds from Family Farm	4.4	2.7	3.3	29.1	11.0	13.8	3.2	23.6	17.1	0.0	11.0	11.8	
Proceeds from Family NFE	1.4	1.3	1.4	0.6	1.2	1.1	1.6	1.0	1.2	14.9	1.2	1.2	
Income from Family	0.0	16.3	10.9	2.5	5.2	4.8	0.0	0.0	0.0	1.1	6.7	5.5	
Ngo Support	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.5	1.1	0.1	0.1	
District Assembly/Town Dev.	0.4	0.8	0.7	0.0	0.0	0.0	1.6	0.0	0.0	0.5	0.2	0.2	
Church Assistance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Money Lenders	1.1	0.8	0.9	0.0	0.8	0.7	1.7	0.0	0.5	0.8	0.7	0.7	
Relatives/friends	9.1	5.7	6.8	10.8	5.2	6.1	9.2	11.6	10.9	9.8	6.1	6.9	
Other partners	0.8	0.7	0.8	0.4	0.3	0.3	1.7	1.4	1.5	0.8	0.5	0.6	
Other	1.7	1.7	1.7	1.5	0.4	0.5	3.3	2.2	2.5	2.0	0.9	1.1	
Total	100	100	100	100	100	100	100	100	100	100	100	100	
	Southern Zone												All Zones
	Manufacturing			Trading			Others			Total			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
Household Savings	74.3	65.0	68.5	69.7	70.4	70.3	64.6	69.8	68.1	70.7	68.9	69.4	66.8
Bank	0.7	0.2	0.4	2.0	1.0	1.1	2.6	2.8	2.8	1.5	1.1	1.2	1.6
Remittances from Abroad	0.0	1.7	1.1	0.0	0.4	0.3	1.5	0.2	0.6	0.4	0.7	0.6	0.5
Proceeds from Family Farm	7.8	6.0	6.6	8.5	4.7	5.2	4.7	2.8	3.4	7.3	4.7	5.3	8.8
Proceeds from Family NFE	1.3	2.0	1.8	3.3	1.9	2.1	3.6	3.2	3.3	2.4	2.1	2.2	2.4
Income from Family	0.2	0.3	0.2	2.1	0.8	1.0	0.7	1.5	1.2	0.9	0.8	0.8	2.7
Ngo Support	0.0	0.0	0.0	0.0	0.1	0.1	1.4	0.0	0.5	0.3	0.1	0.1	0.3
District Assembly/Town Dev.	0.0	0.2	0.1	0.0	0.2	0.2	0.3	0.0	0.1	0.1	0.2	0.2	0.2
Church Assistance	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.0	0.2	0.1	0.1	0.1	0.1
Money Lenders	1.8	1.4	1.5	3.4	2.4	2.6	0.6	2.8	2.1	2.0	2.2	2.2	1.4
Relatives/friends	11.2	19.7	16.5	9.2	15.2	14.3	10.6	11.8	11.4	10.5	15.8	14.5	11.8
Other partners	1.4	0.7	1.0	1.2	1.2	1.2	4.6	1.8	2.8	2.1	1.2	1.4	1.2
Other	1.3	3.0	2.3	0.7	1.8	1.6	4.3	3.4	3.7	1.8	2.3	2.2	2.3
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Of these three major sources of capital, urban households depend more on household savings (69.4 percent) and assistance from relatives or friends (13.1 percent) than proceeds from family farm (3.1 percent). However, for rural households, capital from household savings is 65.3 percent while that from relatives or friends and proceeds from family farm account for 11 percent and 12 percent respectively. Although both urban and rural households depend on

household savings and assistance from friend or relatives, it appears rural households use more proceeds from family farms as compared to urban households.

In terms of industrial classification, Table 9.3 shows that households engaging in trading activities use more household savings (67.6 percent) than those in manufacturing (66.3 percent). In urban areas, females depend more on household savings than their male counterparts. However, in rural areas, the proportion of females and males who depend on household savings is the same (65.3 percent). In both urban and rural areas, the proportion of males who depend on assistance from relative or friends and proceeds from family farm is greater than that of females. Other sources of funding include income from family properties, proceeds from non-farm enterprises, banks and money lenders. These account for about 2.7 percent, 2.4 percent, 1.6 percent and 1.4 percent respectively of total capital. NGO support, district assemblies, church assistance, remittances from abroad and other sources of capital account for about 3.4 percent of total capital to non-farm enterprises.

The main sources of assistance are shown in Tables 9.5 and 9.6 by MiDA zone, industrial classification and urban/rural location. In both tables, it is shown that close to 89 percent of household non-farm enterprises in the three MiDA zones do not use any credit for their business. About 5.3 percent, 2.5 percent and 1.1 percent of the enterprises obtain credit from family or friends, banks and money lenders respectively. Very few enterprises (1.8 percent) use credit from other sources such as NGOs, proceeds from other enterprises, cooperatives and other financial institutions. One striking finding is that none of the enterprises obtains credit from a community epicenter.

Table 9.5: Sources of Assistance for Non-Farm Enterprises, by Industrial Classification and MiDA Zone (%)

	Northern Zone												
	Manufacturing			Trading			Others			Total			
Main Source of Credit	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
No Credit Used	89.8	88.8	89.1	80.8	77.9	79.0	88.9	90.8	89.9	85.1	83.5	84.1	
Bank	2.5	3.8	3.3	3.2	4.7	4.1	5.4	2.7	3.9	3.2	4.1	3.8	
Other Financial Agencies	0.0	1.7	1.1	0.3	1.5	1.0	1.3	0.0	0.6	0.3	1.4	1.0	
Cooperatives	0.0	0.7	0.5	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.4	0.3	
Money Lender	0.0	1.1	0.7	0.0	2.1	1.3	1.0	0.0	0.5	0.1	1.5	1.0	
Family/Friend	3.6	2.1	2.7	13.9	10.7	11.9	2.4	4.7	3.7	8.7	6.7	7.5	
Proceeds from Other Enterpr	3.2	0.6	1.5	0.7	0.3	0.4	0.0	1.8	1.0	1.5	0.5	0.9	
Govt agency	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	
Ngo	0.4	0.5	0.5	1.2	1.9	1.6	1.0	0.0	0.4	0.9	1.2	1.1	
Community epicenter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	0.5	0.8	0.7	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.5	0.4	
Total	100	100	100	100	100	100	100	100	100	100	100	100	
	Afram Basin Zone												
	Manufacturing			Trading			Others			Total			
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
No Credit Used	93.5	95.5	94.8	90.8	89.7	89.9	93.9	91.9	92.6	92.4	91.1	91.4	
Bank	0.5	0.9	0.8	1.3	1.7	1.6	2.5	2.8	2.7	1.3	1.7	1.6	
Other Financial Agencies	0.5	0.3	0.4	0.0	0.9	0.8	1.1	0.0	0.4	0.4	0.7	0.6	
Cooperatives	0.8	0.4	0.6	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.2	0.2	
Money Lender	0.0	0.4	0.3	0.0	1.1	1.0	0.0	0.0	0.0	0.0	0.9	0.7	
Family/Friend	2.9	1.1	1.7	6.1	5.9	5.9	0.8	3.9	2.9	3.9	4.7	4.5	
Proceeds from Other Enterpr	0.4	0.7	0.6	1.8	0.2	0.4	1.6	0.0	0.5	1.3	0.3	0.5	
Govt agency	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Ngo	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	
Community epicenter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other	1.3	0.6	0.9	0.0	0.2	0.2	0.0	1.4	0.9	0.5	0.4	0.5	
Total	100	100	100	100	100	100	100	100	100	100	100	100	
	Southern Zone												
	Manufacturing			Trading			Others			Total			All Zones
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	
No Credit Used	94.4	88.3	90.6	86.4	86.4	86.4	97.4	88.6	91.5	92.7	87.2	88.6	88.5
Bank	2.1	3.2	2.8	4.1	2.5	2.7	1.2	1.9	1.7	2.5	2.6	2.6	2.5
Other Financial Agencies	0.0	0.3	0.2	0.0	1.4	1.2	0.0	0.3	0.2	0.0	0.9	0.7	0.7
Cooperatives	0.0	0.3	0.2	0.8	0.2	0.3	0.0	0.0	0.0	0.2	0.2	0.2	0.2
Money Lender	1.2	1.1	1.2	1.7	1.5	1.5	0.0	1.8	1.2	1.1	1.5	1.4	1.1
Family/Friend	1.7	4.4	3.4	5.7	6.3	6.2	1.3	5.3	4.0	2.8	5.6	5.0	5.3
Proceeds from Other Enterpr	0.0	0.4	0.3	1.0	0.7	0.7	0.0	0.5	0.3	0.3	0.6	0.5	0.6
Govt agency	0.3	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Ngo	0.0	0.4	0.2	0.0	0.2	0.2	0.0	0.4	0.3	0.0	0.3	0.2	0.3
Community epicenter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.3	1.5	1.1	0.3	0.8	0.8	0.0	1.3	0.9	0.2	1.1	0.9	0.7
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Table 9.6: Sources of Assistance for Non-Farm Enterprises, by Industrial Classification and Urban/Rural Location (%)

Main Source of Credit	Main Sectors			Urban			Rural			Total
	Manufacturing	Trading	Other	Male	Female	All	Male	Female	All	
No credit used	91.2	86.2	91.6	87.8	87.2	87.4	92.3	88.2	89.2	88.5
Bank	2.5	2.6	2.3	3.8	3.2	3.4	1.4	2.2	2.0	2.5
Other financial agencies	0.5	1.0	0.3	0.2	1.5	1.1	0.2	0.6	0.5	0.7
Cooperatives	0.3	0.2	0.0	0.0	0.3	0.2	0.3	0.2	0.2	0.2
Money lender	0.9	1.3	0.8	0.7	1.1	1.0	0.4	1.4	1.1	1.1
Family/friends	2.8	7.1	3.6	6.3	5.3	5.6	3.7	5.7	5.2	5.3
Proceeds from other enterprise	0.7	0.6	0.5	0.5	0.6	0.5	1.2	0.4	0.6	0.6
Government agencies	0.1	0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
Ngo	0.2	0.4	0.2	0.5	0.3	0.4	0.1	0.4	0.3	0.3
Community epicenter	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.9	0.5	0.8	0.0	0.6	0.4	0.5	0.9	0.8	0.7
Total	100	100	100	100	100	100	100	100	100	100

Table 9.5 shows that 91.4 percent of household non-farm enterprises in the Afram Basin do not use any credit as compared to nearly 89 percent and 84 percent in the Southern Horticultural and Northern zones respectively. However, almost 8 percent of household businesses in the Northern Zone accessed credit from family or friends as compared to 5 percent and 4.5 percent in the Southern Horticultural Zone and the Afram Basin respectively. Similarly, credit from banks was provided to almost 4 percent of household businesses in the Northern Zone as compared to nearly 3 percent and 2 percent in the Southern Horticultural Zone and Afram Basin respectively.

It is worth noting that the proportion of males who do not use credit for their businesses is not very different from that of their female counterparts. For instance, in the Northern Zone 85.1 percent of males do not use credit as compared to almost 84 percent of females. In the Afram Basin, 92.4 percent and 91.1 percent of males and females respectively do not use credit. In the Southern Horticultural Zone, nearly 93 percent and 87.2 percent of males and females respectively do not use credit for their non-farm businesses.

In terms of urban/rural classification, more enterprises in rural areas do not use credit as compared to enterprises in urban areas. Table 9.6 shows that while 89.2 percent of household non-farm enterprises in rural areas do not use credit, those in urban areas account for about 87.4 percent. However, credit from family or friends and the banks form nearly 5 percent and 3.4 percent respectively of assistance to non-farm enterprises in urban areas as compared to 5.3 percent and 2.3 percent respectively in rural areas.

In rural areas, the proportion of females who use credit from family and friends (5.7 percent) and the banks (2.2 percent) is more than the proportion of males (3.7 percent and 1.4 percent respectively).

In terms of industrial classification, Table 9.6 shows that about 91 percent of manufacturing businesses do not use any credit as compared to 86 percent in the trading sector. The proportion of credit from family or friends, banks and money lenders used by the trading sector is more than that used by the manufacturing sector – while 7.1 percent and 2.6 percent of businesses in the trading sector obtain credit from family or friends and the banks respectively the proportion of those in the manufacturing sector obtaining credit from these sources is 2.8 percent and 2.5 percent respectively.

9.2 People Engaged in Non-Farm Enterprises

Tables 9.7 and 9.8 show the distribution of workers engaged in non-farm activities, by MiDA zone and urban/rural location respectively. Table 9.7 suggests that more than 1.3 million persons in the three MiDA zones operate non-farm businesses. Out of this number, 64 percent are in the Southern Horticultural Zone while 21 percent and 16 percent are found in the Afram Basin and Northern Zones respectively.

It is worth noting that out of the total number of people engaged in non-farm enterprises, females constitute about 70 percent. In the Southern Horticultural Zone, about 75 percent of people in non-farm business are females while in the Afram Basin and Northern Zone, the proportion of females is about 69 percent and 51 percent respectively.

Table 9.7: People Engaged in Non-Farm Enterprises, by MiDA Zone

All Persons Engaged																		
MiDA_Zones	Male	Female	All	Casual Workers			Skilled			Unskilled			Apprentice			Working Proprietor		
				Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Northern Zone	106,366	111,161	217,527	28,916	24,156	53,072	3,117	1,992	5,109	3,660	7,592	11,252	35,588	11,919	47,507	35,085	65,502	100,587
Afram Basin	86,204	189,344	275,548	13,748.00	5,119	18,867	2,559	5,802	8,361	3,605	17,219	20,824	4,442	7,287	11,729	61,850	153,917	215,767
Southern Horticultural Bel	210,398	631,417	841,815	25,451	37,133	62,584	10,347	8,437	18,784	3,282	11,987	15,269	15,688	19,274	34,962	155,630	554,585	710,215
Total	402,968	931,921	1,334,889	68,115	66,408	134,523	16,022	16,231	32,253	10,548	36,798	47,346	55,717	38,481	94,198	252,565	774,004	1,026,569

There are more working proprietors than other category. For instance whilst working proprietors constitute almost 77 percent, casual workers and apprentice represent 10 percent and 7 percent respectively. Unskilled and skilled workers form only 4 percent and 2 percent of all people engaged in non-farm activities.

Table 9.8: People Engaged in Non-Farm Enterprises, by Urban/ Rural Location

MiDA_Zones	Urban			Rural			Total
	Male	Female	All	Male	Female	All	
Northern Zone	65,239	31,684	96,923	41,127	79,477	120,605	217,527
Afram Basin	28,353	83,388	111,740	57,852	105,956	163,807	275,548
Southern Horticultural Belt	77,298	219,908	297,206	133,100	411,509	544,609	841,814
Total	170,889	334,979	505,869	232,079	596,942	829,020	1,334,889

In terms of location, Table 9.8 shows that there are more people in rural areas (62 percent) who engage in non-farm enterprises than in urban areas (38 percent). With regard to districts, Appendix B9.2 shows that Ketu District has close to 120,000 people engaged in non-farm enterprises, followed by Gomoa District with about 113,330 people engaged in non-farm enterprises. Other notable districts are Akuapem South and Kwahu South which have about 108,073 and 106,548 people respectively engaged in non-farm enterprises.

Table 9.9: Number of Workers Who Are Household Members

MiDA_Zones	Male	Female	All
Northern Zone	44,228	86,621	130,849
Afram Basin	63,859	176,579	240,438
Southern Horticultural Belt	174,349	586,989	761,338
Total	282,436	850,189	1,132,625

It is important to note that most of the people engaged in non-farm business are household members (Table 9.9). Out of the total number of people engaged in non-farm enterprises, nearly 1.2 million (or 85 percent) are household members. The proportion for the Southern Horticultural Zone is 67 percent of household members who engage in non-farm businesses while the proportions for the Afram Basin and Northern Zone are 21 percent and 12 percent respectively.

9.3 Expenditure on Inputs of Non-Farm Enterprises

Table 9.10 and 9.11 present information on average annual expenditure on inputs, by MiDA Zone, industrial classification, and urban/rural location. For all non-farm enterprises, Table 9.10 shows that on average, non-farm household businesses spend GH¢7,440.56 on inputs. The highest expenditure item for all non-farm enterprises is articles purchased for resale (GH¢2,839.36). It is also important to note that raw materials (GH¢1,014.94) and lease of machinery/transport equipment (GH¢995.71) also contributed greatly to expenditure. Household trading enterprises spend GH¢7,408.23 annually compared to average expenditure of GH¢4,109.86 on manufacturing enterprises.

Table 9.10: Average Annual Expenditure on Input per Enterprise, by Principal Activities and Urban/Rural Location

Average annual expenditure on input per enterprise (GH¢)						
Expenditure Item	Type of business activity				Urban/Rural	
	Manufacturing	Trading	Others	All	Urban	Rural
Taxes on product	30.81	106.55	67.81	82.77	85.16	79.31
Articles for resale	1,313.45	3,013.90	2,717.83	2,839.36	2,991.59	2,726.90
Rent on assets/land/buildings	80.17	148.47	222.38	150.22	88.12	341.68
Raw materials	897.68	1,110.71	1,294.70	1,014.94	1,137.69	949.84
Travelling and Transport	133.88	238.35	191.50	204.59	202.52	206.08
Fuel and lubricants	313.13	246.28	1,294.24	583.30	507.93	645.00
Electricity	194.77	105.69	103.77	125.39	135.22	106.78
Water	50.14	76.42	150.07	94.29	83.07	106.02
Telephones	124.17	130.59	75.61	121.97	133.99	100.74
Printing/stationery/postage	55.35	33.20	157.15	68.96	74.34	65.95
Spare parts	99.65	698.30	399.21	333.98	473.33	246.24
Repairs/Maintenance of fixed assets	44.14	74.22	265.89	120.04	172.33	84.56
Lease of machinery/transport equipment	609.65	800.00	1,341.93	995.71	715.52	1,308.76
Advertising/computer service	0.00	36.64	44.60	40.62	51.27	15.00
Bank charges (excluding interest)	12.00	191.06	250.29	192.85	197.42	185.62
Training	12.00	12.62	31.32	21.02	24.44	13.44
Treatment/Disposal of waste products	0.00	278.74	5.00	260.44	251.87	25.00
Uniform/Clothing	32.38	16.42	37.37	28.71	28.21	28.60
Accident claims	24.00	0.00	81.74	66.92	54.40	76.28
Other	82.49	90.07	132.96	94.48	176.59	66.73
Total	4,109.86	7,408.23	8,865.37	7,440.56	7,585.01	7,378.53

In terms of MiDA zones, Table 9.11 shows that household businesses in the Northern Zone spend on average about GH¢7,157.78 annually compared to those in the Afram Basin and Southern Horticultural Zone that spend GH¢7,058.57 and GH¢ 6,970.12 respectively. It is also important to note that urban household enterprises spend an average of GH¢7,585.01 annually compared to the GH¢ 7,378.53 spent by rural household businesses.

Table 9.11: Average annual expenditure on input per enterprise by principal activities & MiDA_Zone

Average annual expenditure on input per enterprise (GH¢)				
Expenditure Item	Northern Zone			
	Manufacturing	Trading	Other	All
Taxes on product	23.30	69.79	61.38	57.44
Articles for resale	3,211.59	3,399.83	1,891.74	3,321.43
Rent on assets/land/buildings	57.14	94.10	90.53	85.30
Raw materials	972.04	2,050.17	1,031.63	1,173.27
Travelling and Transport	156.05	321.44	414.81	283.12
Fuel and lubricants	185.97	403.79	787.67	360.89
Electricity	106.79	110.07	63.50	104.49
Water	80.55	91.28	97.25	88.47
Telephones	122.09	229.61	88.39	184.89
Printing/stationery/postage	178.86	34.34	0.00	81.59
Spare parts	157.17	1,334.91	620.07	597.07
Repairs/Maintenance of fixed assets	70.07	132.41	549.36	206.41
Lease of machinery/transport equipment	0.00	0.00	0.00	0.00
Advertising/computer service	0.00	46.04	24.00	41.49
Bank charges (excluding interest)	0.00	30.00	0.00	30.00
Training	0.00	8.68	18.00	11.68
Treatment/Disposal of waste products	0.00	496.94	5.00	440.06
Uniform/Clothing	15.38	10.00	12.58	12.65
Accident claims	0.00	0.00	0.00	0.00
Other	69.00	120.19	11.54	77.53
Total	5,406.00	8,983.59	5,767.45	7,157.78
	Afram Basin Zone			
	Manufacturing	Trading	Other	All
Taxes on product	28.09	109.21	60.97	82.61
Articles for resale	1,125.22	3,715.52	2,577.29	3,395.50
Rent on assets/land/buildings	37.49	215.82	118.42	139.16
Raw materials	745.58	437.10	687.47	621.28
Travelling and Transport	114.87	194.97	301.00	193.62
Fuel and lubricants	137.49	167.42	427.77	233.56
Electricity	193.02	88.50	104.39	109.92
Water	61.95	34.51	65.31	57.62
Telephones	111.53	182.04	60.00	158.58
Printing/stationery/postage	43.61	35.86	49.77	43.11
Spare parts	230.07	248.91	247.62	243.74
Repairs/Maintenance of fixed assets	11.99	33.82	80.98	26.96
Lease of machinery/transport equipment	12.00	0.00	1,957.77	1,514.11
Advertising/computer service	0.00	0.00	0.00	0.00
Bank charges (excluding interest)	12.00	0.00	0.00	12.00
Training	12.00	0.00	39.12	31.41
Treatment/Disposal of waste products	0.00	0.00	0.00	0.00
Uniform/Clothing	14.15	12.43	18.75	14.30
Accident claims	0.00	0.00	100.00	100.00
Other	106.10	53.44	0.00	81.09
Total	2,997.16	5,529.55	6,896.63	7,058.57

	Southern Horticultural Belt			
	Manufacturing	Trading	Other	All
Taxes on product	37.94	128.81	72.12	96.69
Articles for resale	826.49	2,753.60	2,895.55	2,587.14
Rent on assets/land/buildings	105.93	166.96	244.96	179.75
Raw materials	906.08	1,215.28	1,509.85	1,089.64
Travelling and Transport	135.52	236.78	107.55	191.49
Fuel and lubricants	441.43	196.94	1,788.67	810.39
Electricity	248.68	110.41	109.47	140.08
Water	33.75	76.33	173.85	102.75
Telephones	125.45	97.51	72.24	103.25
Printing/stationery/postage	19.13	32.45	209.98	78.95
Spare parts	50.44	165.85	396.89	252.40
Repairs/Maintenance of fixed assets	64.93	33.69	232.34	132.47
Lease of machinery/transport equipment	840.94	800.00	243.18	659.30
Advertising/computer service	0.00	15.00	49.16	39.94
Bank charges (excluding interest)	0.00	248.77	250.29	249.28
Training	0.00	18.29	21.00	18.90
Treatment/Disposal of waste products	0.00	14.51	0.00	14.51
Uniform/Clothing	47.27	31.56	116.06	51.50
Accident claims	24.00	0.00	76.28	60.09
Other	85.64	60.20	170.62	111.60
Total	3,993.62	6,402.94	8,740.06	6,970.12

Tables 9.12 and 9.13 provide information on the estimated total value of all inputs, by urban/rural location, industrial classification and MiDA zone. The estimated total value of all inputs for household enterprises is GH¢431,767.79. Articles purchased for resale and raw materials constitute about 78 percent of this value.

In terms of MiDA zones, the total value of all inputs used by household enterprises in the Southern Horticultural Zone amounts to GH¢270,764.05 compared to GH¢85,094.01 and GH¢75,385.71 in the Northern Zone and Afram Basin respectively.

Table 9.12: Estimated annual value of inputs by urban/rural location

	Estimated annual value of inputs (thousand GH¢)		
	All Non-farm enterprises	Urban	Rural
Taxes on product	5,120.52	2,792.89	2,327.64
Articles for resale	240,000.00	104,000.00	135,000.00
Rent on assets/land/buildings	2,932.27	1,205.51	1,726.76
Raw materials	97,300.00	32,700.00	64,500.00
Travelling and Transport	41,700.00	14,000.00	27,600.00
Fuel and lubricants	25,400.00	6,420.13	19,000.00
Electricity	5,229.42	3,793.96	1,435.47
Water	4,181.83	1,993.33	2,188.50
Telephones	1,747.56	1,171.77	575.79
Printing/stationery/postage	555.32	219.59	335.73
Spare parts	3,259.03	1,784.60	1,474.43
Repairs/Maintenance of fixed assets	2,239.96	1,300.01	939.95
Lease of machinery/transport equipment	836.29	317.12	519.18
Advertising/computer service	23.08	20.57	2.50
Bank charges (excluding interest)	98.47	61.79	36.68
Training	14.14	11.33	2.81
Treatment/Disposal of waste products	200.73	198.58	2.15
Uniform/Clothing	103.81	52.14	51.67
Accident claims	28.65	9.96	18.68
Other	796.71	371.06	425.65
Total	431,767.79	172,424.33	258,163.59

It is important to note that the estimated total value of inputs in rural household enterprises is GH¢258,163.59 compared to GH¢172,424.33 for urban household enterprises.

Table 9.13: Estimated Annual Value of Inputs, by Principal Activities and MiDA_Zone

Estimated annual value of inputs (thousand GH¢)/ Northern Zone				
Expenditure Item	Manufacturing	Trading	Other	All
Taxes on product	88.92	711.63	67.74	868.29
Articles for resale	4,605.68	40,100.00	1,015.37	45,700.00
Rent on assets/land/buildings	65.84	327.35	32.01	425.20
Raw materials	13,300.00	6,923.53	1,512.01	21,700.00
Travelling and Transport	1,213.95	5,723.02	964.53	7,901.50
Fuel and lubricants	982.51	848.34	1,539.19	3,370.04
Electricity	325.51	653.79	62.15	1,041.45
Water	265.34	299.71	186.31	751.36
Telephones	63.66	372.76	36.51	472.94
Printing/stationery/postage	43.79	17.30	0.00	61.09
Spare parts	178.80	882.80	337.45	1,399.05
Repairs/Maintenance of fixed assets	151.49	168.78	623.27	943.55
Lease of machinery/transport equipment	0.00	0.00	0.00	0.00
Advertising/computer service	0.00	9.11	1.24	10.35
Bank charges (excluding interest)	0.00	2.73	0.00	2.73
Training	0.00	1.50	1.48	2.98
Treatment/Disposal of waste products	0.00	195.76	0.26	196.02
Uniform/Clothing	1.90	1.21	2.64	5.75
Accident claims	0.00	0.00	0.00	0.00
Other	119.35	117.65	4.72	241.72
Total	21,406.76	57,356.98	6,386.86	85,094.01
Estimated annual value of inputs (thousand GH¢)/Afram Basin Zone				
	Manufacturing	Trading	Other	All
Taxes on product	123.52	1,259.13	188.47	1,571.12
Rent on assets/land/buildings	33.69	280.84	47.93	362.46
Raw materials	6,385.45	3,017.46	2,149.77	11,600.00
Travelling and Transport	1,373.35	6,132.85	2,520.60	10,000.00
Fuel and lubricants	728.56	243.00	1,332.88	2,304.44
Electricity	264.83	413.88	261.98	940.69
Water	149.82	39.38	135.00	324.20
Telephones	28.22	138.50	3.62	170.34
Printing/stationery/postage	41.90	24.25	33.05	99.20
Spare parts	72.50	68.70	183.63	324.82
Repairs/Maintenance of fixed assets	47.68	12.57	85.35	145.59
Lease of machinery/transport equipment	0.90	0.00	499.58	500.48
Advertising/computer service	0.00	0.00	0.00	0.00
Bank charges (excluding interest)	0.45	0.00	0.00	0.45
Training	0.89	0.00	7.32	8.21
Treatment/Disposal of waste products	0.00	0.00	0.00	0.00
Uniform/Clothing	10.48	8.53	5.87	24.88
Accident claims	0.00	0.00	7.33	7.33
Other	69.73	31.76	0.00	101.49
Total	10,552.75	53,670.85	11,111.12	75,385.71

Estimated annual value of inputs (thousand GH¢) / Southern Horticultural Belt				
	Manufacturing	Trading	Other	All
Taxes on product	216.54	1991.39	473.18	2681.11
Articles for resale	4273.47	132000.00	10500.00	147000.00
Rent on assets/land/buildings	266.77	916.02	961.82	2144.61
Raw materials	30800.00	17200.00	16000.00	64000.00
Travelling and Transport	4549.65	17300.00	1840.04	23700.00
Fuel and lubricants	5513.92	864.23	13300.00	19700.00
Electricity	1248.35	1271.55	727.39	3247.28
Water	265.12	820.97	2020.18	3106.27
Telephones	421.98	589.23	93.07	1104.28
Printing/stationery/postage	10.01	101.55	283.46	395.02
Spare parts	109.20	92.50	1333.46	1535.16
Repairs/Maintenance of fixed assets	224.05	49.19	877.58	1150.82
Lease of machinery/transport equipment	163.77	137.26	34.78	335.81
Advertising/computer service	0.00	1.29	11.44	12.73
Bank charges (excluding interest)	0.00	63.19	32.11	95.30
Training	0.00	2.20	0.75	2.95
Treatment/Disposal of waste products	0.00	4.72	0.00	4.72
Uniform/Clothing	49.56	7.33	16.29	73.17
Accident claims	2.64	0.00	18.68	21.32
Other	212.92	15.55	225.03	453.50
Total	48327.93	173428.16	48749.26	270764.05

9.4 Revenue of Non-Farm Enterprises

Tables 9.14 and 9.15, shows the estimated annual and average revenue per enterprise for each MiDA_zone and across districts (Appendix 3). All non-farm enterprises receive GH¢740,000,000 annually. Of this amount, trading enterprises receive GH¢ 446,000,000 as compared to manufacturing and other enterprises that annually receive GH¢148,000,000 and GH¢145,000,000 respectively.

Table 9.14: Estimated annual revenue per enterprise, by principal activities, MiDA Zone and urban-rural location

Estimated annual revenue per enterprise (Thousand GH¢)								
MiDA_Zone	MiDA_Zone/Urban-Rural	Manufacturing		Trading		Other		All Non-Farm Enterprise
		Male	Female	Male	Female	Male	Female	
Northern Zone	Northern Zone	10,800.00	13,700.00	101,000.00	40,000.00	11,800.00	7,055.38	184,000.00
	Urban	8,321.61	7,720.47	80,100.00	29,400.00	9,601.95	4,130.71	139,000.00
	Rural	2,493.84	5,951.96	21,000.00	10,600.00	2,188.43	2,924.67	45,100.00
Afram Basin	Afram Basin	17,300.00	19,000.00	23,900.00	61,000.00	17,600.00	10,200.00	149,000.00
	Urban	6,018.57	4,381.49	11,900.00	17,500.00	3,112.30	3,348.85	46,300.00
	Rural	11,300.00	14,600.00	12,000.00	43,500.00	14,400.00	6,818.75	103,000.00
Southern Horticulture Belt	Southern Horticulture Belt	42,800.00	44,900.00	66,600.00	154,000.00	52,300.00	46,600.00	407,000.00
	Urban	18,900.00	15,700.00	22,700.00	54,300.00	9,762.36	28,700.00	150,000.00
	Rural	24,000.00	29,200.00	43,800.00	99,200.00	42,500.00	17,900.00	257,000.00
	Total	70,900.00	77,600.00	192,000.00	255,000.00	81,600.00	63,800.00	740,000.00

Table 9.15: Average annual revenue per enterprise by principal activities/MiDA Zone & urban-rural

Average annual revenue per enterprise (GH¢) By MiDA_Zone/Urban-Rural								
MiDA_Zone/Urban-Rural	Manufacturing		Trading		Other		All Enterprises	
	Male	Female	Male	Female	Male	Female	Male	Female
Northern Zone	1,003.01	712.17	6,699.44	1,680.92	3,039.97	1,673.64	4,158.00	1,286.40
Urban	1,564.60	1,599.52	9,549.84	2,448.39	5,109.36	1,937.62	6,289.84	1,812.18
Rural	456.39	414.15	3,131.51	898.71	1,094.67	1,403.57	2,175.06	689.40
Afram Basin	1,943.33	1,063.40	2,180.18	986.63	3,280.55	874.01	2,330.04	987.28
Urban	1,795.08	718.42	3,049.58	1,279.86	1,681.07	993.90	2,309.74	2,341.50
Rural	2,032.97	1,242.51	1,700.47	903.28	4,126.55	825.13	1,090.40	952.26
Southern Horticulture Belt	1,850.39	1,170.91	4,401.72	1,686.30	4,340.89	2,011.60	3,213.54	1,602.59
Urban	2,863.59	1,522.01	2,961.19	1,491.92	1,946.69	3,152.78	2,663.92	3,554.92
Rural	1,447.46	1,042.13	5,887.01	1,815.80	6,048.56	1,268.14	1,768.41	1,507.30

In terms of classification by MiDA zone, Table 9.14 shows that enterprises in the Southern Horticultural Zone receive more revenue (GH¢407,000,000) annually than enterprises in the Northern Zone and Afram Basin, which annually receive GH¢149,000,000 and GH¢184,000,000 respectively. It is interesting to note that apart from the Northern Zone, enterprises in rural areas receive more revenue than those in urban areas.

From Table 9.15, it can be inferred that on average, males receive more revenue than females. In the Southern Horticultural Zone, while males receive an average revenue of GH¢3,213.54, females receive GH¢1,507.30. Similarly, in the Northern Zone, males receive an average of GH¢4,158 while females receive GH¢1,286.40. In the Afram Basin, males receive GH¢2,330.04 while their female counterparts receive GH¢987.28 annually.

At district level, Appendix B9.3a and B9.3b shows that out of the 23 MiDA districts, non-farm enterprises in Tamale receive more revenue than in any other district. While enterprises in the Tamale metropolis receive GH¢129,000,000 annually, those in Akuapem South and Gomoa annually receive GH¢82,300,000 and GH¢79,500,000 thousand respectively.

10. Housing

10.1 Introduction

This section presents statistics on selected housing characteristics of households. It provides information which can be used in assessing the general socio-economic conditions of the sample population. Some of the information collected from the survey included type of dwelling; occupancy status; number of rooms occupied; source of water supply; main materials used in the construction of walls, floor and roof; basic utilities and type of toilets used.

Table 10.1: Households, by type of dwelling and MiDA Zone (%)

Dwelling type	MiDA Zone			ALL ZONES
	Southern Horticultural Belt	Afram Basin	Northern Belt	
Separate House (Bungalow)	3.28	2.26	2.17	2.7
Semi-Detached House	4.9	1.62	0.53	2.86
Flat/Apartment	4.62	1.92	1.94	3.17
Rooms (Compound House)	47.14	37.14	34.5	41.07
Rooms (Other Type)	34.62	23.77	12.57	25.97
Several Huts/Buildings (Same Compound)	4.02	19.47	42.28	18.05
Several Huts/Buildings (Different Compounds)	1.14	3.28	5.87	2.94
Tents/Improvised Home	0.03	0.12	0.12	0.08
Other	0.25	10.42	0.03	3.17
All	100	100	100	100

10.2 Type of Dwelling

Table 10.1 presents the distribution of households by type of dwelling and MiDA zone. Across these zones, the greater proportion of households lives in rooms in compound houses, followed by other types of rooms. In total, 67 percent of households in all the zones live either in compound houses or in other types of rooms. In the Northern Zone, 42 percent of households live in several huts/buildings in the same compound. Only 9 percent of all households live in bungalows, semi-detached houses and flats or apartments. Less than 1 percent of households in the Northern Zone live in semi-detached houses. Very few households live in tents or improvised homes. Table 10.2 shows the type of dwelling of households at the district level. These trends are similar at the district level with households in compound houses being the majority. In the Yilo Krobo district, 81 percent of the households lived in compound houses. Districts in the Northern Zone recorded most households living in several huts/buildings in the same compound (51 percent in Karaga, 75 percent in Savelugu Nanton, and 74 percent in Tolon Kumbungu). Tamale District, however, had most of its households living in compound houses (43 percent).

Table 10.2: Households by type of dwelling and district (%)

District	Type of Dwelling									
	Separate House (bungalow)	Semi-Detached House	Flat/ Apartment	Rooms (compound house)	Rooms (other type)	Several Huts/Buildings (Same Compound)	Several Huts/Buildings (Different Compounds)	Tents/ Improved Home	Other	All
Gomoa	0.49	4.02	1.3	36.78	44.99	8.88	3.22	0	0.32	100
Awutu Efutu Senya	3.47	5.11	5.19	30.44	47.71	5.1	2.91	0.08	0	100
Dangme West	0.64	2.89	0	72.82	15.27	7.7	0.69	0	0	100
South Tongu	0.44	0.81	7.4	32.68	57.08	1.34	0.25	0	0	100
Keta	5.85	6.51	7.84	56.41	16.62	1.29	5.48	0	0	100
Ketu	1.42	0.58	0	59.82	33.61	2.56	0.66	0	1.35	100
Akatsi	0.16	0.64	0	37.55	59.41	1.9	0.34	0	0	100
North Dayi	11.51	9.85	8.13	39.31	28.22	2.57	0.18	0	0.23	100
Hohoe	2.01	6.37	25.09	27.58	35.31	3.21	0.44	0	0	100
Fanteakwa	2.18	6.09	8.84	43.93	27.99	2	8.47	0.49	0	100
Akuapem South	3.99	23.45	2.23	40.47	21.11	8.5	0.06	0.19	0	100
Yilo Krobo	3.9	0.98	7.33	80.77	7.02	0	0	0	0	100
Manya Krobo	10.66	0.68	0.34	68.1	18.78	1.33	0	0.1	0	100
Afram Plains	0.43	1.85	0.34	16.94	3.42	43.62	5.11	0	28.29	100
Kwahu South	4.36	0.89	0.92	44.44	49.39	0	0	0	0	100
Sekyere East	1.38	0.63	2.11	54.76	30.27	10.24	0.54	0	0.06	100
Sekyere West	5.8	1.46	4.41	48.53	26.76	8.05	4.51	0.48	0	100
Ejura Sekyere	0.69	0	0.13	54.8	35.83	8.3	0.11	0.14	0	100
Karaga	0	0.17	0	45.61	3.25	50.63	0.34	0	0	100
Savelugu Nanton	0.04	2.48	0	16.63	0.65	74.5	5.69	0	0	100
Tamale	5.34	0.31	5.13	42.7	29.17	15.45	1.9	0	0	100
Tolon Kumbungu	1.54	0.48	0.68	5.08	2.59	73.54	15.48	0.61	0	100
West Mamprusi	0.36	0	0.42	52.6	9.04	28.37	9.06	0	0.15	100
Total	2.7	2.86	3.17	41.07	25.97	18.05	2.94	0.08	3.17	100

Table 10.3: Households, by present occupancy status and MiDA Zone (%)

Occupancy Status	MiDA Zone			Total
	Southern Hort. Belt	Afram Basin	Northern	
Owning	48.2	60.86	62.42	55.44
Renting	15.71	11.06	7.39	12.28
Rent Free	35.8	27.98	30.04	32.08
Perching*	0.29	0.1	0.15	0.2
All	100	100	100	100

*Unofficial co-occupancy

Table 10.3 shows the occupancy status of households in the various zones. In total, more than half (55 percent) of households own the houses they live in. Across MiDA zones 12 percent of households live in rented houses while 32 percent live in rent-free houses. Only a small percentage (0.2 percent) of households is perching. This picture is also true at the zone level. In the Northern zone, 62 percent of households owned the houses they were living in and this zone also had the lowest number of households renting. The Southern Zone had the highest proportion of households living in rent-free accommodation. Living in rent-free houses is found to be quite common across all three zones. Table 10.4 presents the occupancy status of households at district level. Four districts (Afram Plains, Akatsi, Tolon Kumbungu and West Mamprusi) have over 80 percent of their households owning the houses they live in. A general observation across districts is that a sizeable percentage of households in every district live in rent-free houses, in each case exceeding the percentage of households renting. Perching (or unofficial co-occupancy) was found to be uncommon in all districts – with the exception of Karaga, no household in the northern districts was perching.

Table 10.4: Households, by Present Occupancy Status and District (%)

District	Occupancy Status				All
	Owning	Renting	Rent Free	Perching	
Gomoa	28.02	21.32	50.38	0.28	100
Awutu Efutu Senya	35.41	23.51	40.46	0.63	100
Dangme West	46.19	11.72	41.98	0.1	100
South Tongu	62.53	8.99	28.36	0.11	100
Keta	37.13	8.21	53.88	0.77	100
Ketu	56.86	8.7	34.21	0.23	100
Akatsi	88.23	4.16	7.61	0	100
North Dayi	45.52	13.28	41.2	0	100
Hohoe	55.82	14.99	27.8	1.39	100
Fanteakwa	39.63	15.16	45.22	0	100
Akuapem South	38.79	29.92	31.29	0	100
Yilo Krobo	30.5	20.16	49.34	0	100
Manya Krobo	27.72	27.25	45.04	0	100
Afram Plains	93.83	3.14	2.94	0.09	100
Kwahu South	37.02	17.76	45.14	0.08	100
Sekyere East	37.15	8.05	54.55	0.26	100
Sekyere West	46.9	19.15	33.86	0.1	100
Ejura Sekyere	51.14	16.96	31.9	0	100
Karaga	63.24	0.67	35.25	0.84	100
Savelugu Nanton	65.77	2.11	32.12	0	100
Tamale	34.75	18.48	46.77	0	100
Tolon Kumbungu	82.4	2.35	15.25	0	100
West Mamprusi	92.42	1.77	5.81	0	100
Total	55.44	12.28	32.08	0.2	100

Table 10.5: Ownership of rented or rent-free dwelling, by MiDA Zone (%)

Ownership of Rented or Rent-Free Dwelling	MiDA Zone			Total
	Southern Horticultural Belt	Afram Basin	Northern Belt	
Relative not Household Member	68.27	66.87	74.23	69.16
Other Private Individual	26.16	29.86	12.1	24.17
Private Employer	0.88	0.67	1.93	1.05
Other Private Agency	1.07	0.16	0.24	0.66
Public/Government Ownership	2.51	1.52	9.78	3.78
Other	1.09	0.93	1.72	1.18
All	100	100	100	100

Table 10.5 presents the ownership of rented or rent-free dwelling of households in the three zones. In total, 69 percent of households are living in houses owned by their relatives who are not household members. Some 24 percent of households rent from private individuals who are not members of their household. The public and government provide about 4 percent of households with rented or rent-free accommodation while private employers and other private agencies provide less than 2 percent. Table 10.6 presents the ownership of rented or rent-free dwelling at district level. With the exception of Akuapem South district, all districts had over 50 percent of households renting or living in a rent-free house owned by a relative who is not a household member. This is followed by other private individuals and then by public or government.

Table 10.6: Ownership of rented or rent-free dwelling, by district (%)

District	Relative not Household Member	Ownership of Rented or Rent-Free Dwelling					All
		Other Private Individual	Private Employer	Other Private Agency	Public/Government	Other	
Gomoa	70.8	25.1	0.15	3.26	0.51	0.17	100
Awutu Efutu Senya	61.33	35.45	1.42	0	1.8	0	100
Dangme West	78.03	20.35	0	0	0.72	0.9	100
South Tongu	74.26	16.25	8.11	0.61	0.06	0.71	100
Keta	86.54	12.28	0.38	0	0.12	0.68	100
Ketu	80.21	13.13	0.4	1.81	4.46	0	100
Akatsi	52.27	30.27	0	0	0.88	16.58	100
North Dayi	72.48	21.41	1.89	0.93	1.72	1.58	100
Hohoe	62.26	33.04	0	1.94	1.27	1.49	100
Fanteakwa	71.19	25.17	0	0	1.81	1.82	100
Akuapem South	44.31	46.89	0.41	0.37	6.65	1.35	100
Yilo Krobo	75.35	20.79	1.18	0.09	2.24	0.35	100
Manya Krobo	62.54	29.56	1.67	0	5.8	0.43	100

Afram Plains	43.52	51.23	1.03	1.46	1.73	1.03	100
Kwahu South	64.49	33.64	0.59	0	0.46	0.81	100
Sekyere East	84.64	13.46	1.01	0	0.25	0.64	100
Sekyere West	60.3	33.83	1.04	0.35	4.49	0	100
Ejura Sekyere	59.65	36.89	0.1	0	0.85	2.52	100
Karaga	89.44	3.27	0	0.36	0.45	6.49	100
Savelugu Nanton	92.47	1.02	0.68	0	3.91	1.92	100
Tamale	64.19	18.05	3.14	0.31	13.91	0.41	100
Tolon Kumbungu	86.48	1.53	0	0	11.99	0	100
West Mamprusi	77.06	19.23	0	0	0	3.71	100
Total	69.16	24.17	1.05	0.66	3.78	1.18	100

10.3 Room Occupancy and Housing Density

Rooms occupied by households in this survey excluded bathrooms, toilets, and kitchens. The rooms considered are bedrooms, living rooms, and dining rooms. Table 10.7 shows households in the different zones by number of rooms occupied. Almost 40 percent of households occupy one room, with 28 percent of them occupying two rooms. A majority of households (60 percent) in the Afram Basin zone occupies one room. In the Northern Zone, only 15 percent of households occupied one room. However, this zone had the highest proportion of households (25% percent) occupying five or more rooms. This may be attributed to the type of dwelling that is typical in these areas (several huts/buildings on the same compound). Table 10.8 presents this room occupancy at district level. Districts in the Southern Zone and Afram Basin have most of their households in one-room houses. In districts in the Northern Zone, households living in one room constitute the least percentage. For instance, in Afram Plains District, 74 percent of households occupy one room while in West Mamprusi District, 42 percent of households occupy five or more rooms.

Table 10.7: Households in different zones, by number of rooms occupied (%)

Number of Rooms	MiDA Zone			Total
	Southern Horticultural Belt	Afram Basin	Northern Belt	
1	39.53	59.31	14.79	39.17
2	33.73	22.92	23.5	28.02
3	13.38	10.11	22.91	14.79
4	5.89	3.83	13.82	7.26
5+	7.47	3.83	24.98	10.76
All	100	100	100	100

Table 10.8: Households in different districts, by number of rooms occupied (%)

District	Number of Rooms					
	1	2	3	4	5+	All
Gomoa	68.15	20.88	6.81	2.52	1.64	100
Awutu Efutu Senya	53.03	26.01	9.31	3.82	7.85	100
Dangme West	42.45	35.34	12.2	4.39	5.62	100
South Tongu	22.33	39.27	21.31	8.84	8.25	100
Keta	24.53	41.21	13.76	9.51	10.99	100
Ketu	31.38	45.06	13.27	4.9	5.39	100
Akatsi	24.54	57.18	16.36	1.75	0.16	100
North Dayi	23.43	21.72	20.57	7.37	26.91	100
Hohoe	23.76	27.31	14.39	14.69	19.85	100
Fanteakwa	42.39	33.25	13.98	4.19	6.19	100
Akuapem South	50	25.75	9.9	8.87	5.48	100
Yilo Krobo	56.61	27.22	8.26	2.95	4.96	100
Manya Krobo	43.49	25.75	19.97	8.04	2.74	100
Afram Plains	73.81	15.89	5.1	2.7	2.5	100
Kwahu South	36.58	33.65	19.71	5.87	4.19	100
Sekyere East	58.06	23.73	9.9	4.92	3.39	100
Sekyere West	64.39	23.48	7.26	2.13	2.74	100
Ejura Sekyere	55.03	18.23	12.4	5.17	9.17	100
Karaga	8.88	24.56	21.69	16.74	28.13	100
Savelugu Nanton	10.46	25.24	27.4	16.96	19.94	100
Tamale	27.28	24.11	25.05	6.23	17.33	100
Tolon Kumbungu	7.18	27.92	19.81	20.83	24.26	100
West Mamprusi	7.65	14.81	20.06	15.82	41.65	100
Total	39.17	28.02	14.79	7.26	10.76	100

Table 10.9 shows the number of rooms occupied by various household sizes across the three main zones. It is seen that across all three zones, the higher the household size the higher the number of rooms. Almost 90 percent of households with only one person in the household lives in a one-room house in the Northern Zone while 64 percent of households with more than 10 people live in houses with five or more rooms in the same zone. It is also observed from the Table 10. that the proportion of households that lives in houses with five or more rooms is 7.80 percent, 4.19 percent and 25.27 percent in the Southern, Afram Plains and Northern Zones respectively.

Table 10.10 shows the average household size and average number of rooms occupied by households in the various districts. For districts in the Southern Zone, the average household size was found to be five and the average number of rooms occupied by households was two. Districts in the Afram Plains have an average household size of six and the average number of rooms occupied by households was two. Districts in the Northern Zone had the highest average household size and average number of rooms – seven and four respectively.

Table 10.9: Household Size, by Number of Rooms and Zone (%)

Southern Horticultural Belt	Number of Rooms					
	1	2	3	4	5+	Total
Household Size						
1	67.64	23.65	2.95	1.64	4.12	100
2	43.01	45.62	5.79	1.87	3.71	100
3	46.33	29.28	16.79	2.01	5.59	100
4	43.96	36.18	10.56	4.1	5.2	100
5	41.94	35.72	10.19	5.39	6.77	100
6	31.21	40.25	14.48	7.82	6.24	100
7	30.27	29.92	21.57	9.68	8.56	100
8	16.35	30.85	29.07	10.57	13.15	100
9	9.66	26.14	26.95	18.27	18.98	100
10+	9.5	11.25	19.59	20	39.67	100
Total	39.37	33.6	13.35	5.88	7.8	100
Afram Basin	Number of Rooms					
	1	2	3	4	5+	Total
Household Size						
1	86.50	9.54	3.11	0.11	0.74	100
2	76.61	17.42	3.84	1.25	0.88	100
3	72.57	17.04	7.02	2.05	1.31	100
4	60.05	25.27	9.57	2.85	2.25	100
5	59.32	28.67	8.35	2.44	1.21	100
6	48.85	30.78	14.66	3.27	2.44	100
7	52.20	31.52	9.60	4.44	2.23	100
8	55.96	22.77	12.54	3.92	4.81	100
9	72.54	10.84	7.79	3.98	4.84	100
10+	36.49	16.41	17.19	11.08	18.83	100
Total	59.09	22.85	10.06	3.82	4.19	100
Northern Belt	Number of Rooms					
	1	2	3	4	5+	Total
Household Size						
1	89.6	4.78	3.35	1.22	1.05	100
2	52.79	35.87	9.28	1.64	0.42	100
3	52.62	36.41	9.27	0.63	1.07	100
4	39.55	35.46	16.09	4.74	4.17	100
5	13.49	44.33	28.85	9.46	3.87	100
6	5.86	45.11	30.76	11.13	7.14	100
8	3.92	10.12	38.49	24.84	22.62	100
9	0.96	10.52	31.53	21.27	35.71	100
10+	3.61	2.99	10.82	19.06	63.53	100
Total	14.73	23.4	22.82	13.76	25.27	100

Table 10.10: Average household size and number of rooms, by district

Southern Horticultural Belt		
District	Average Household Size	Average Number of Rooms
Gomoa	5	2
Awutu Efutu Senya	5	2
Dangme West	5	2
South Tongu	5	2
Keta	5	3
Ketu	5	2
Akatsi	4	2
North Dayi	5	4
Hohoe	5	3
Yilo Krobo	5	2
Manya Krobo	5	2
Total	5	2
Afram Plains		
District	Average Household Size	Average Number of Rooms
Fanteakwa	5	2
Afram Plains	6	2
Kwahu South	5	2
Sekyere East	6	2
Sekyere West	6	2
Ejura Sekyere	6	2
Total	6	2
Northern		
District	Average Household Size	Average Number of Rooms
Karaga	7	4
Savelugu Nanton	7	3
Tamale	6	3
Tolon Kumbungu	7	4
West Mamprusi	7	4
Total	7	4

Table 10.11 presents indicators of room and housing density, by zone. These include average household size, average number of rooms per household, average number of persons per room and proportion of households sharing dwelling. The average household size in the country is 5.8, while the average number of rooms per household is 2.4. The resulting average room density is 2.3 persons per room. The proportion of households sharing dwelling is 24.3 percent. The Northern Zone has the highest average household size (7.8), the highest average number of rooms per household (3.53) and the highest percentage of households sharing dwelling (28.68 percent). Table 10.12 presents these same results at district level. It is seen that household sizes in

districts in the Northern Zone are high. However, the number of persons per room in these districts is comparable to that in other areas because the mean numbers of rooms are also high. Karaga District has 61 percent of its households sharing their dwellings with others.

Table 10.11: Housing density indicators, by MiDA Zone

MiDA Zone	Mean Household Size	Mean Number of Rooms per Household	Mean Number of Persons per Room	Proportion of Households Sharing Dwelling
Southern Hort. Belt	4.72	2.22	2.18	24.64
Afram Plains	5.97	1.73	2.92	20.11
Northern Belt	7.78	3.53	2.21	28.68
Total	5.84	2.40	2.33	24.32

Table 10.12: Housing density indicators, by district

District	Mean Household Size	Mean No. of Rooms per Household	Mean No. of Persons per Room	Proportion of Households Sharing Dwelling (%)
Gomoa	4.52	1.49	3.04	29.93
Awutu Efutu Senya	4.54	2.05	2.21	18.56
Dangme West	5.55	1.98	2.8	7.71
South Tongu	5.62	2.49	2.22	41.09
Keta	5.18	2.51	2.06	13.13
Ketu	4.52	2.18	2.04	49.38
Akatsi	3.62	1.97	2.24	18.37
North Dayi	5.7	3.64	1.61	51.66
Hohoe	4.68	3.21	1.6	8.15
Fanteakwa	4.94	2.08	2.3	28.58
Akuapem South	4.99	1.73	2.85	7.36
Yilo Krobo	4.86	2.03	2.44	13.75
Manya Krobo	5.33	2.04	2.57	29.65
Afram Plains	6.46	1.46	2.71	4.07
Kwahu South	5.05	2.08	2.44	41.53
Sekyere East	6.12	1.76	3.4	4.64
Sekyere West	5.92	1.55	3.67	51.87
Ejura Sekyere	6.37	2.12	3.03	2.11
Karaga	8.52	3.86	2.28	61.12
Savelugu Nanton	8.22	3.28	2.47	12.64
Tamale	6.72	2.85	2.36	12.11
Tolon Kumbungu	7.59	3.68	2.07	41.43
West Mamprusi	9.01	4.54	2	26.38
Total	5.84	2.40	2.33	26.07

10.4 Housing Conditions

Table 10.13 shows the main construction materials that are used by households in the various zones. It is observed that the major material used by households for constructing outer walls was found to be cement/sandcrete blocks (48 percent) followed by mud/mud bricks (47.01 percent). In the Northern Zone, the material used by most households (62 percent) was mud/mud bricks. For floor materials, 73 percent of households used cement or concrete, followed by mud/mud bricks with 22 percent. About 56 percent of households across all zones used corrugated iron sheets to roof their houses, while 31 percent of them used palm leaves/raffia/thatch. About 41 percent and 42 percent of households in the Afram Basin and Northern Zone respectively used palm leaves/raffia/thatch to roof their houses. In the Southern Zone, a sizeable number of households (14 percent) used asbestos to roof their houses.

Table 10.13: Main construction materials used by households, by MiDA Zone (%)

Materials	MiDA Zone			Total
	Southern Horticultural Zone	Afram Basin	Northern Zone	
Outer Wall Materials				
Mud/Mud Bricks	33.81	55.71	61.76	47.01
Wood/Bamboo	4.08	0.25	0.13	2
Metal Sheet/Slate/Asbestos	0.42	0.1	0.11	0.25
Stone	0.41	0.26	0.55	0.4
Burnt Bricks	0.56	0.42	0.32	0.46
Cement/Sandcrete Blocks	59.78	42.34	33.2	48.22
Landcrete	0.08	0.21	0.22	0.15
Thatch	0.64	0.47	0.06	0.45
Cardboard	0	0.03	0.09	0.03
Other	0.22	0.22	3.54	1.03
Total	100	100	100	100
Floor Materials				
Earth/Mud/Mud Bricks	13.49	40.45	17.1	22.28
Wood	4.59	0.39	0.79	2.44
Stone	0.35	0.59	0.19	0.38
Cement/Concrete	80.74	58.05	77.88	73.38
Burnt Bricks	0.06	0.21	0.06	0.11
Vinyl Tiles	0.26	0.18	0.07	0.19
Ceramic/Marble/Tiles	0.07	0.04	0.4	0.14
Terrazzo	0.19	0	0.08	0.11
Other	0.25	0.09	3.42	0.97
Total	100	100	100	100
Roof Materials				
Palm Leaves/Raffia/Thatch	17.97	41.49	41.9	30.68
Wood	1.37	1.02	1.21	1.23
Corrugated Iron Sheet	63.17	53.41	45.69	56.07

Cement/Concrete	2.12	2.94	3.57	2.71
Asbestos/Slate	14.19	0.74	0.49	6.92
Roofing Tiles	0.56	0	0.79	0.45
Mud Bricks /Earth	0.02	0.02	0.01	0.02
Bamboo	0.13	0.25	0	0.13
Other	0.48	0.13	6.34	1.8
Total	100	100	100	100

Table 10.14 presents the main materials households in the various districts use for their outer walls. On the whole, most households in most districts use cement or sandcrete blocks for their outer walls, followed by mud or mud bricks. However, in the Northern Zone, with the exception of Tamale, all districts have a very high proportion (over 70 percent) of households using mud or mud bricks for their outer walls. Table 10.15 shows the floor materials used by households in the districts under survey. With the exception of Afram Plains where 82 percent of households used mud or mud bricks for their floor, all the districts had a very high percentage of households using cement or concrete. Table 10.16 also shows the roofing materials used by households in the districts. It is seen that corrugated iron sheet is very popular across districts, followed by asbestos or slate. A few districts such as Afram Plains, Karaga and Tolon Kumbungu have over 70 percent of their households using palm leaves, raffia or thatch for their roof.

Table 10.14: Main construction materials for outer wall used by households, by district (%)

	Materials										
District	Mud/Mud Bricks	Wood/Bamboo	Metal Sheet/Slate/Asbestos	Stone	Burnt Bricks	Cement/Sandcrete Blocks	Landcrete	Thatch	Cardboard	Other	Total
Gomoa	19.82	0.67	0	0.24	0.92	77.93	0	0.42	0	0	100
Awutu Efutu Senya	13.54	0.36	1.05	0	0.21	83.79	0	1.05	0	0	100
Dangme West	45.26	0.72	0.04	0.29	1.57	52.11	0	0	0	0	100
South Tongu	47.58	0	0.28	0.25	0.15	50.88	0	0.86	0	0	100
Keta	15.2	0.04	1.37	0	0	80.98	0	1.59	0	0.81	100
Ketu	32.85	1.55	0.88	0.24	0.42	61.13	0	2.93	0	0	100
Akatsi	51.13	26.93	0	0	0.46	20.42	0	0	0	1.07	100
North Dayi	39.78	0.36	0	1.21	1.09	57.57	0	0	0	0	100
Hohoe	38.46	0	0.05	0.61	0.51	59.89	0	0	0	0.48	100
Fanteakwa	47.8	0.49	0	0.41	0.34	43.87	1.16	5.93	0	0	100
Akuapem South	15.06	0.26	0.26	0	0.4	83.94	0.09	0	0	0	100
Yilo Krobo	51.97	0	0	3.11	0.68	43.87	0.38	0	0	0	100
Manya Krobo	39.75	0.1	1.59	0	0	57.9	0.66	0	0	0	100
Afram Plains	94.92	0.19	0	0	0.2	4.56	0	0	0	0.13	100
Kwahu South	36.7	0.13	0.25	1.21	0.31	61.4	0	0	0	0	100
Sekyere East	17.31	0.05	0.3	0	0.3	80.87	0.93	0.06	0	0.19	100
Sekyere West	31.98	0.43	0.06	0	1.25	65.65	0	0	0	0.63	100
Ejura Sekyere	38.67	0.56	0	0	0.34	59.5	0	0	0.35	0.59	100
Karaga	91.74	0.5	0.59	0.51	0.71	5.2	0.24	0	0.5	0	100
Savelugu Nanton	90.83	0.32	0	0.36	0	7.49	0.11	0.46	0	0.43	100
Tamale	21.79	0	0	0.68	0.17	77.11	0.25	0	0	0	100
Tolon Kumbungu	81.66	0	0	1.05	0.81	14.14	0	0	0	2.34	100
West Mamprusi	69.84	0	0	0	0	11.77	0.43	0	0	17.96	100
Total	47.01	2	0.25	0.4	0.46	48.22	0.15	0.45	0.03	1.03	100

Table 10.15: Main construction materials for floor used by households, by district (%)

District	Earth/Mud/ Mud Bricks	Wood	Stone	Cement/ Concrete	Burnt Bricks	Vinyl Tiles	Ceramic/ Marble/Tiles	Terrazzo	Other	Total
Gomoa	7.32	0	0.56	90.38	0	0.7	0.48	0.56	0	100
Awutu Efutu Senya	2.12	0.23	0.56	95.33	0.11	1.62	0.04	0	0	100
Dangme West	39.32	0	0	60.44	0	0.1	0.14	0	0	100
South Tongu	31.67	1.54	0.29	66.4	0.1	0	0	0	0	100
Keta	12.95	0.03	0.15	85.14	0	0	0	0	1.74	100
Ketu	14.1	3.23	0.21	82.46	0	0	0	0	0	100
Akatsi	11.67	28.08	0	59.01	0	0	0	0	1.23	100
North Dayi	8.6	0	0	90.77	0.22	0.42	0	0	0	100
Hohoe	15.82	0.41	0.08	83.33	0.37	0	0	0	0	100
Fanteakwa	23.92	0.68	0.5	74.79	0	0	0.12	0	0	100
Akuapem South	2.28	0	0	96.26	0	0.07	0	1.39	0	100
Yilo Krobo	13.28	1.97	3.22	81.53	0	0	0	0	0	100
Manya Krobo	22.45	1.67	0	75.76	0	0	0	0.12	0	100
Afram Plains	82.38	0.56	0.24	16.22	0.49	0.11	0	0	0	100
Kwahu South	8.28	0.39	1.6	89.74	0	0	0	0	0	100
Sekyere East	9.57	0.05	1.23	88.51	0	0.63	0	0	0	100
Sekyere West	21.36	0.06	0	77.95	0	0	0	0	0.63	100
Ejura Sekyere	29.13	0.49	0	68.98	0.4	0.65	0.35	0	0	100
Karaga	14.29	3.15	0.26	82.12	0	0	0	0	0.18	100
Savelugu Nanton	42.84	0.79	0	56.03	0	0	0	0	0.34	100
Tamale	0	0	0	98.5	0.17	0.21	0.88	0.24	0	100
Tolon Kumbungu	40.55	0	0.45	56.66	0	0	0	0	2.34	100
West Mamprusi	13.48	0.58	0.37	67.88	0	0	0.54	0	17.15	100
Total	22.28	2.44	0.38	73.38	0.11	0.19	0.14	0.11	0.97	100

10.5 Main Source of Water Supply

Table 10.17 shows the main sources of drinking water for households in the three zones. In all, 35 percent of households have access to pipe-borne water. About 34 percent also use water from a well, and 27 percent depend on natural sources for drinking water. The remaining 4 percent of households have access to other sources like water tanker service, water vendor and sachet/bottled water and others. In the Southern Zone, 46 percent of households have access to pipe-borne water but in most cases, the source is from outside the house. The Afram Basin had the lowest percentage of households with access to pipe-borne water (18 percent). About 43 percent of households in the Northern Zone get their drinking water from wells while 44 percent of households in the Afram Basin get their drinking water from natural sources such as rain water, rivers or streams, ponds, lakes and dams. Tables 18 and 19 show the main sources of water for drinking and general use

across districts. It is evident across all districts that pipe-borne, well and natural sources are the three main source of water for both drinking and general use.

Table 10.16: Main construction materials for roof used by households, by district (%)

District	Palm Leaves/Raffia/Thatch	Wood	Corrugated Iron Sheet	Cement/Concrete	Asbestos/Slate	Roofing Tiles	Mud Bricks/Earth	Bamboo	Other	Total
Gomoa	2.25	2.2	57.79	2.33	32.09	2.03	0	0.97	0.35	100
Awutu Efutu Senya	4.33	0	56.09	2.86	36.51	0.04	0	0	0.18	100
Dangme West	18.27	1.18	40.46	1.29	38.68	0.13	0	0	0	100
South Tongu	33.42	0.57	54.62	1.75	9.64	0	0	0	0	100
Keta	12.97	0.15	39.25	2.35	44.97	0.24	0	0	0.08	100
Ketu	18.39	4.79	62.4	1.99	10.68	0.82	0	0	0.92	100
Akatsi	72.06	0.18	24.79	1.19	0.38	0.42	0	0	0.98	100
North Dayi	10.88	0.17	86.71	1.79	0.45	0	0	0	0	100
Hohoe	6.73	0	87.08	4.43	0	0	0.12	0	1.64	100
Fanteakwa	7.51	2.14	85.69	1.03	3.64	0	0	0	0	100
Akuapem South	0.78	1.26	89.63	1.88	5.69	0.76	0	0	0	100
Yilo Krobo	1.02	3.27	93.29	1.18	0.55	0.69	0	0	0	100
Manya Krobo	8.26	0	85.61	2.17	3.67	0	0.12	0	0.17	100
Afram Plains	85.16	0.48	13.16	0.64	0.55	0	0	0	0	100
Kwahu South	11.99	1.1	82.92	2.99	0.52	0	0.1	0.37	0	100
Sekyere East	11.71	1.94	82.2	3.59	0.56	0	0	0	0	100
Sekyere West	21.49	0.98	66.31	9.34	0	0	0	1.18	0.7	100
Ejura Sekyere	32.45	0.75	63.38	2.14	0.95	0	0	0	0.33	100
Karaga	67.38	1.36	28.41	1.32	0	0	0	0	1.54	100
Savelugu Nanton	67.35	1.19	27.4	2.96	0	0	0	0	1.1	100
Tamale	10.43	1.5	84.12	2.13	1.41	0	0	0	0.42	100
Tolon Kumbungu	74.12	0.59	11.02	6.58	0	4.86	0	0	2.84	100
West Mamprusi	28.75	1.05	32.83	6.57	0	0	0.04	0	30.75	100
Total	30.68	1.23	56.07	2.71	6.92	0.45	0.02	0.13	1.8	100

Table 10.17: Households, by main source of drinking water and MiDA Zone (%)

Main Source of Drinking Water	MiDA Zone			Total
	Southern Hort. Belt	Afram Basin	Northern Belt	
Pipe-Borne	46.26	18.46	33.28	34.91
Indoor Plumbing	1.73	1	0.89	1.31
Inside Standpipe	4.8	2.96	13.21	6.36
Pipe in Neighboring Household	12.15	1.85	8.53	8.24
Private Outside Standpipe/Tap	8.03	2.33	4.36	5.45
Public Standpipe	19.55	10.32	6.29	13.55
Well	29.42	34.89	43.30	34.47
Borehole	16.49	31.41	30.92	24.44
Protected Well	6.93	2.49	4.97	5.14
Unprotected Well	6	0.99	7.41	4.89
Natural Sources	19.22	44.26	19.39	26.58
River/Stream	13.34	40.21	6.45	19.48
Rain Water/Spring	4.57	0.71	0.03	2.31
Dugout/Pond/Lake/Dam	1.31	3.34	12.91	4.79
Other	5.09	2.39	4.05	4.05
Water Truck/Tanker Service	0.42	0.23	2.67	0.93
Water Vendor	1.52	1.18	0.8	1.24
Sachet/Bottled water	3.07	0.7	0.02	1.62
Other	0.08	0.28	0.56	0.26
Total	100	100	100	100

Table 10.18: Households, by main source of water supply for drinking and district (%)

District	Indoor Plumbing	Inside Standpipe	Water Truck/ Tanker Service	Water Vendor	Pipe in Neighbouring Household	Private Outside Standpipe	Public Standpipe	Sachet/ Bottled Water	Borehole	Protected Well	Unprotected Well	River Stream	Rain Water/Spring	Dugout/ pond/ Lake/Dam	Other	Total
Gomoa	0.67	5.32	0.5	4.51	10.9	6.73	50.77	4.8	0.35	6.34	2.96	4.51	1.64	0	0	100
Awutu Efutu Senya	4.44	7.34	0.07	1.73	32.61	12.99	6.35	1.6	7.64	2.91	12.75	7.53	1.13	0.83	0.08	100
Dangme West	0.4	5.98	3.64	8.93	23.07	17.59	15.28	0.03	2.5	0.34	0.05	21.12	1.07	0	0	100
South Tongu	0.37	1.9	0.13	0.17	0.59	2.84	45.87	0.41	0.61	0.81	0.99	38.6	0.29	6.41	0	100
Keta	1.5	4.95	1.16	1.17	20.72	3.81	45.5	0.63	0.2	9.58	8.57	1.24	0.97	0	0	100
Ketu	0.33	0.59	0	0	6.49	1.66	9.19	6.54	16.38	29.89	24.77	0	0.91	2.85	0.4	100
Akatsi	0	0	0	0	6.86	0.1	2.83	1.11	18.24	3.17	1.61	33.61	28.3	4.09	0.08	100
North Dayi	1.72	12.26	0	0.49	10.78	7.97	25.16	0.76	26.18	0.71	0.46	12.36	1.15	0	0	100
Hohoe	2.62	3.51	0	0	0.98	16.12	32.64	0.94	30.78	0	1.35	10.73	0.31	0.02	0	100
Fanteakwa	0	2.37	0	0.49	2.84	4.39	11.58	1.8	39.43	5.26	1.31	26.76	1.1	2.67	0	100
Akuapem South	3.94	6.53	0	1.08	13.47	3.72	4.64	12.75	40.71	2.36	3.54	5.97	1.01	0.25	0.06	100
Yilo Krobo	0	12.33	0.68	0.54	12.78	9.29	1.32	0.91	22.34	9.12	1.92	28.77	0	0	0	100
Manya Krobo	6.2	4.31	0.33	0.26	16.21	22	13.16	0.13	22.41	1.03	0.14	12.83	0.16	0.82	0	100
Afram Plains	0.22	0.34	0	0.13	0	0.51	5.01	0.07	14.83	0.07	0	74.65	0.11	4.06	0	100
Kwahu South	4.19	4.29	0	0	5.38	2.86	7.8	1.92	31.66	6.06	2.93	21.24	2.72	7.49	1.46	100
Sekyere East	0.08	0.13	0.62	8.04	0.78	5.9	7.14	0.51	58.12	3.87	0.67	13.63	0.5	0	0	100
Sekyere West	0.58	11.58	1	0.32	0.17	3.27	13.58	0.7	34.74	1.11	0.19	31.22	0	1.54	0	100
Ejura Sekyere	0.42	0.96	0	0	5.7	0.16	36.27	0	48.54	2.98	2.51	2.4	0.06	0	0	100
Karaga	0.68	0	0	0	0	0	1	0	53.7	1.1	11.12	8.87	0	23.54	0	100
Savelugu Nanton	0.12	0.28	0.11	0.46	0.2	4.35	14.88	0	36.41	11.97	1.37	6.23	0.21	23.29	0.13	100
Tamale	1.83	37.25	6.65	2.08	24.45	8.35	2.26	0	3.05	1.69	0.13	2.1	0	8.54	1.62	100
Tolon Kumbungu	0.72	2.54	2.08	0.2	0.57	3.44	16.07	0	35.1	0	7.52	16.52	0	15.25	0	100
West Mamprusi	0	0.47	0	0	0.73	2	2.5	0.1	54.12	16.25	22.55	1.28	0	0	0	100
Total	1.31	6.36	0.93	1.24	8.24	5.45	13.55	1.62	24.44	5.14	4.89	19.48	2.31	4.79	0.26	100

Table 10.19 presents the main sources of water for general use by households in the various zones. In all, wells (36.60 percent) and natural sources (31.65 percent) account for the main sources of water for general use by household. About 29 percent of households rely on pipe-borne water for general use. In the Afram Basin, 47 percent of households get water from natural sources for general use, with 43 percent of these coming from rivers and streams. In the same zone, 31 percent of households rely on boreholes for water for general use. The Northern Zone has the highest proportion of households using wells (40 percent) as their source of water for general use. In the Southern Zone, about 48 percent of households use pipe-borne water for general use, followed by 35 percent of them using well.

Table 10.19: Households, by main source of water for general use and MiDA Zone (%)

Main Source of Water for General use	MiDA Zone			Total
	Southern Horticultural Belt	Afram Basin	Northern Zone	
Pipe-Borne	37.65	14.88	30.86	29.30
Indoor Plumbing	1.36	0.83	0.65	1.03
Inside Standpipe	5.08	3	13.18	6.49
Pipe in Neighboring Housing	9.02	1.22	8.03	6.49
Private Outside Standpipe/Tap	7.03	1.91	4.14	4.81
Public Standpipe	15.16	7.92	4.86	10.48
Well	34.70	36.40	40.36	36.60
Borehole	14.58	30.69	25.32	21.96
Protected Well	10.39	4.16	5.96	7.46
Unprotected Well	9.73	1.55	9.08	7.18
Natural Sources	25.69	47.18	24.39	31.65
River/Stream	18.8	42.93	6.7	22.84
Rain Water/Spring	4.79	0.77	0.01	2.43
Dugout/Pond/Lake/Dam	2.1	3.48	17.68	6.38
Other	1.95	1.55	4.39	2.44
Water Truck/Tanker Service	0.55	0.19	2.72	0.98
Water Vendor	1.32	1.03	0.85	1.12
Other	0.08	0.33	0.82	0.34
Total	100	100	100	100

Table 10.20: Households, by main source of water for general use and district (%)

District	Indoor Plumbing	Inside Standpipe	Water Truck/Tanker Service	Water Vendor	Pipe in Neighboring Household	Private Outside Standpipe	Public Standpipe	Borehole	Protected Well	Unprotected Well	River Stream	Rainwater / Spring	Dugout /Pond/ Lake/dam	Other	Total
Gomoa	0.95	5.32	3.76	5.5	10.44	6.17	43.4	1.22	10.65	6.33	6.09	0.17	0	0	100
Awutu Efutu Senya	4.02	7.34	0.07	0.63	30.39	12.57	6.63	7.64	4.67	15.87	7.67	1.6	0.83	0.08	100
Dangme West	0.4	5.98	0.03	8.1	11.52	15.43	3.6	2.66	10.75	2.96	37.5	1.07	0	0	100
South Tongu	0.09	1.72	0.13	0.17	0.42	1.97	35.69	0.61	1.05	1.08	49.77	0.29	7.02	0	100
Keta	1.5	2.69	0	0.42	8.02	1.64	28.75	1.11	20.01	34.35	1.43	0.07	0	0	100
Ketu	0.5	0.94	0	0	4.28	1.48	5.41	16.39	34.22	32.17	0.73	0.67	2.85	0.38	100
Akatsi	0	0	0	0	1.58	0.3	2.31	13.14	4.63	3.3	35.27	31.08	8.38	0	100
North Dayi	0.43	8.87	0	0.05	9.32	5.35	18.48	13.97	1.9	2.36	36.61	2.2	0.21	0.25	100
Hohoe	0.54	3.91	0.14	0	0.98	13.3	28.18	29.37	0.86	1.7	20.68	0.31	0.02	0	100
Fanteakwa	0	2.12	0	0	2.35	3.35	2.81	31.52	8.51	2.49	41.69	2	3.16	0	100
Akuapem South	2.54	14.12	0	0.17	12.8	3.59	4.06	32.98	6.56	5.63	14.09	1.09	2.32	0.06	100
Yilo Krobo	0	11.66	0.68	0	7.52	7.19	0.26	28.62	12.8	3.54	27.73	0	0	0	100
Manya Krobo	6.27	4.19	0	0	15.01	21.25	13.11	21.69	2.49	0.14	14.86	0	0.99	0	100
Afram Plains	0.2	0.5	0	0.13	0	0.43	4.75	14.76	0.04	0	74.88	0.11	4.2	0	100
Kwahu South	3.26	4.29	0.29	0	2.27	2.02	6	32.64	7.37	4.76	25.23	2.48	7.63	1.76	100
Sekyer East	0.08	0.13	0.62	7.57	0.78	5.9	6.4	52.6	8.68	1.52	15.23	0.5	0	0	100
Sekyer West	0.58	11.58	0.35	0	0.76	2.35	10.38	37.55	1.22	0.19	33.24	0.26	1.54	0	100
Ejura Sekyer	0.56	0.96	0	0	4.53	0	27.98	48.66	9.15	2.74	5.08	0.06	0.28	0	100
Karaga	0	0	0	0.28	0	0.5	0.06	44.68	3.32	12.04	11.53	0.06	26.88	0.65	100
Savelugu Nanton	0.12	0.28	0	0.64	0	2.94	7.31	33.17	12.72	6.09	5.22	0	31.39	0.13	100
Tamale	1.83	37.35	6.56	2.08	22.94	8.35	2.26	3.05	2.09	0.13	2.23	0	9.2	1.93	100
Tolon Kumbungu	0.09	2.21	2.61	0.09	0.74	3.18	15.27	22.59	0.17	6.58	15.73	0	30.58	0.17	100
West Mamprusi	0	0.47	0	0	0.73	1.48	1.49	47.06	18.32	29.17	1.28	0	0	0	100
Total	1.03	6.49	0.98	1.12	6.49	4.81	10.48	21.96	7.46	7.18	22.84	2.43	6.38	0.34	100

10.6 Water Operation and Management

Table 10.21 shows how water is operated and managed across the three zones in the survey. In total, 35 percent of water supply systems used by households are operated and managed by the community in which the water supply system is located. Ghana Water Company Limited (GWCL) operates and manages 24 percent of the water systems for households. In the Southern Zone, 31 percent of households use water managed by the GWCL. About 13 percent of households in the Southern Zone manage their own water while only 2 percent of households in the Afram Basin manage their own water. Some 47 percent of households in the Northern Zone use water that is operated and managed by their community, while across all three zones, 2 percent of households use water that is managed by NGOs. Even though NGOs provide many of these districts with boreholes, they do not manage the facilities once they hand them over to the communities. Table 10.22 shows the water supply system operation and management at district level. It is seen that water used in households in districts is operated and managed mainly by the community and GWCL. Some districts in the Southern Zone have a substantial proportion of their households managing their own water – for example, 25 percent of households in the Akuapem South District have their water operated and managed by the Community Water Sanitation Agency.

Table 10.21: Water supply system operation and management, by MiDA Zone (%)

	MiDA Zone			
Type of Management	Southern Horticulture Zone	Afram Basin	Northern Zone	Total
Self	13.24	1.86	7.48	8.48
Community Operated and Managed	29.04	35.35	46.82	35.3
Community Water Sanitation Agency	7.05	9.14	1.01	6.16
Ghana Water Company Limited	31.01	9.82	30.46	24.67
NGO	1.17	2	4.18	2.16
Other	2.41	0.72	1.56	1.71
Not Applicable	16.07	41.11	8.48	21.52
Total	100	100	100	100

Table 10.22: Water supply system operation and management, by district (%)

District	Self	Community Operated and Managed	Community Water Sanitation Agency	Ghana Water Company Limited	NG O	Othe r	Not Applicable	Tot al
Gomoa	5.14	20.09	6.32	52.36	0	5.88	10.2	100
Awutu Efutu Senya	4.45	19.76	4.53	54.71	0.08	0.8	15.67	100
Dangme West	0.43	16.81	1.23	59.03	0	0.11	22.38	100
South Tongu	0.76	36.64	1.34	11.58	0.91	6.21	42.55	100
Keta	25.0 7	26.47	4.66	30.2	0	7.26	6.34	100
Ketu	30.0 8	37.52	7.52	7.95	0	5.65	11.28	100
Akatsi	34.5 4	20.59	0.15	3.67	3.25	0.9	36.88	100
North Dayi	4.21	59.84	6.68	18.47	0.23	0.11	10.46	100
Hohoe	6.86	23.7	18.31	34.07	4.66	0.49	11.92	100
Fanteakwa	3.63	46.9	5.74	11.3	4.54	1.83	26.06	100
Akuapem South	3.02	28.76	25.74	38.44	0	0.12	3.92	100
Yilo Krobo	4.71	42.93	3.65	32.02	0.15	0.07	16.47	100
Manya Krobo	10.4	27.08	1.07	46.68	3.46	1.08	10.23	100
Afram Plains	0.22	18.06	0.71	0.93	0.88	0.07	79.13	100
Kwahu South	2.2	29.07	19.71	17.15	0	0	31.87	100
Sekyer East	1.8	46.95	8.09	12.02	9.07	0.43	21.66	100
Sekyer West	3.04	63.22	13.18	10.01	0.82	3.22	6.51	100
Ejura Sekyer	4.55	46.58	19.51	26.78	0.39	0.16	2.03	100
Karaga	6.98	79.2	0.36	0.33	3.48	0.77	8.87	100
Savelugu Nanton	5.15	58.67	0.85	0.51	18.0 1	7.21	9.61	100
Tamale	1.49	9.7	0	81.93	0.11	0	6.76	100
Tolon Kumbungu	7.76	59.65	0.92	14.17	4.5	2.12	10.88	100
West Mamprusi	21.3 8	62.93	3.95	0.64	2.46	0.72	7.92	100
Total	8.48	35.3	6.16	24.67	2.16	1.71	21.52	100

10.7 Provision of Basic Utilities

Table 10.23 shows the availability of basic utilities to households in the various zones. The main sources of lighting across all three zones are kerosene (53 percent) and electricity (39 percent). Kerosene in the Afram Basin is very popular with most households. No household in the Northern Zone uses a generator as source of lighting, compared with 0.01 and 0.06 percent of households in the Southern Zone and Afram Basin. A very small percentage (0.3 percent) of households in the Northern Zone use solar energy as their source of lighting, with even fewer in the Southern Zone (0 percent) and the Afram Basin (0.04 percent). At district level, the trends are similar: electricity and kerosene are the main source of lighting for households (Table 10.24).

Across all three zones, wood is the main source of fuel for cooking for 69 percent of households. The second common source of fuel used for cooking by households is charcoal (26 percent). Only an average of 3 percent of households uses gas to cook, although the figure is 4 percent for households in the Southern Zone. It is interesting to note that almost 2 percent of households reported that they did not cook at all. Less than 0.1 percent of households use electricity as their source of fuel for cooking. Table 10.25 shows the main source of fuel for cooking in households across the districts. A very high proportion of households in districts in the Northern Zone use wood for cooking. Charcoal use is also very common in all the districts surveyed.

Table 10.23: Households, by MiDA Zone and use of basic utilities (%)

	MiDA Zone			
Main Source of Lighting	Southern Horticultural Zone	Afram Basin	Northern Zone	Total
Electricity (mains)	42.62	32.96	39.7	39.07
Kerosene	54.85	56.73	44.52	52.83
Gas Lamp	0.23	0.07	0.55	0.26
Candles/Torches	1.58	8.37	14.19	6.71
Solar Energy	0	0.04	0.26	0.07
Generator	0.01	0.06	0	0.02
Other	0.71	1.78	0.80	1.04
Total	100	100	100	100
Source of Fuel for Cooking				
Wood	60.99	77.49	73.71	68.98
Charcoal	32.51	19.25	21.42	25.87
Gas	4.38	1.42	2.88	3.14
Electricity	0.08	0	0.06	0.05
Kerosene	0.45	0.02	0.06	0.23
Crop Residue/Sawdust	0	0	0.22	0.06
Other	0.02	0.02	0	0.01
None, No Cooking	1.56	1.81	1.66	1.66
Total	100	100	100	100
Method of Rubbish Disposal				
Collected	1.91	0.24	2.77	1.64
Public Dump	43.49	47.43	31.24	41.59
Dumped Elsewhere	36.67	23.45	48.98	35.87
Burned by Household	14.62	27.46	13.45	18.08
Buried by Household	2.73	1.4	3.2	2.46
Other	0.57	0.03	0.37	0.36
Total	100	100	100	100

Table 10.24: Households, by district and main source of lighting (%)

District	Electricity (mains)	Kerosene	Gas Lamp	Candles/Torches	Solar Energy	Generator	Other	Total
Gomoa	57.63	40.61	0.91	0.79	0	0	0.05	100
Awutu Efutu Senya	50.83	46.32	0.31	1.8	0	0	0.73	100
Dangme West	36.56	48.53	0.06	6.54	0	0	8.29	100
South Tongu	31.36	66.89	0	0.39	0	0.29	1.07	100
Keta	40.52	58.06	0.17	0.79	0	0	0.46	100
Ketu	29.16	70.48	0	0.37	0	0	0	100
Akatsi	10.31	89.55	0.03	0.08	0	0	0.04	100
North Dayi	58.37	40.09	0.45	1.08	0	0	0	100
Hohoe	58.74	39.6	0.38	1.28	0	0	0	100
Fanteakwa	40.58	53.71	0	4.39	0	0	1.32	100
Akuapem South	57.33	41.85	0	0.82	0	0	0	100
Yilo Krobo	44.48	53.63	0.13	1.44	0	0	0.32	100
Manya Krobo	50.25	43.14	0	6.2	0	0	0.41	100
Afram Plains	8.43	82.44	0	8.55	0	0.14	0.44	100
Kwahu South	52.22	38.04	0	2.52	0.07	0	7.16	100
Sekyerere East	44.5	40.28	0.05	14.85	0	0.03	0.29	100
Sekyerere West	47.46	45.16	0.16	6.85	0.14	0	0.23	100
Ejura Sekyerere	46.09	35.59	0.44	16.77	0	0	1.10	100
Karaga	7.09	55.39	0.73	35.26	1.09	0	0.42	100
Savelugu Nanton	30.06	65	0.91	3.45	0.31	0	0.27	100
Tamale	76.48	20.75	0.53	0.99	0	0	1.25	100
Tolon Kumbungu	18.66	62.62	0.64	16.65	0.13	0	1.29	100
West Mamprusi	31.39	45.02	0	23.54	0	0	0.05	100
Total	39.07	52.83	0.26	6.71	0.07	0.02	1.04	100

Table 10.23 also shows how rubbish is disposed off in households in the three zones. About 42 percent of households dispose off their refuse at a public dump while 36 percent of them dump rubbish elsewhere. Some 18 percent of households burn their refuse and 2 percent bury their refuse. Only 1.6 percent of households arrange for waste management companies to collect their refuse. In the Northern Zone, 49 percent of households dump their refuse anywhere. This is quite alarming considering the health implications of this practice. Table 10.26 shows methods of rubbish disposal by households in the districts. A majority of households disposes of its rubbish at a public dump or elsewhere. Collection of rubbish from people's homes by designated companies is not common among households.

Table 10.25: Households by district and fuel for cooking (%)

District	Wood	Charcoal	Gas	Electricity	Kerosene	Crop Residue/ Sawdust	Other	None, No Cooking	Total
Gomoa	61.22	33.73	3.46	0.06	0.25	0	0	1.28	100
Awutu Efutu Senya	43.7	44.38	8.61	0.14	0.81	0	0	2.36	100
Dangme West	42.48	47.96	2.97	0	0.74	0	0	5.86	100
South Tongu	77.21	19.82	2.22	0	0	0	0	0.75	100
Keta	44.02	47.58	6.85	0.14	0.21	0	0.19	1.02	100
Ketu	61.42	32.65	3.72	0.15	1.13	0	0.07	0.86	100
Akatsi	93.2	5.66	1.06	0	0	0	0	0.08	100
North Dayi	61.24	32.53	3.67	0	1.1	0	0	1.45	100
Hohoe	70.06	28.15	1.25	0	0	0	0	0.54	100
Fanteakwa	81	16.39	1.83	0	0	0	0	0.78	100
Akuapem South	45.47	39.59	10.05	0	0.38	0	0	4.51	100
Yilo Krobo	58.2	35.56	4.93	0.68	0	0	0	0.63	100
Manya Krobo	46.74	44.54	7.35	0	0.3	0	0	1.08	100
Afram Plains	94.07	5.19	0.15	0	0	0	0	0.59	100
Kwahu South	63.4	32.13	2.84	0	0.12	0	0	1.51	100
Sekyer East	75.46	20.66	1.77	0	0	0	0	2.12	100
Sekyer West	66.39	27.31	2.89	0	0	0	0.1	3.31	100
Ejura Sekyer	56.91	37.37	0.24	0	0	0	0	5.47	100
Karaga	96.5	2.49	0.29	0	0	0	0	0.72	100
Savelugu Nanton	94.55	4.57	0	0.52	0	0	0	0.35	100
Tamale	33.03	55.54	7.91	0	0.11	0.4	0	3.01	100
Tolon Kumbungu	95.27	1.71	0.74	0	0	0.45	0	1.84	100
West Mamprusi	91.52	7.68	0.04	0	0.1	0	0	0.66	100
Total	68.98	25.87	3.14	0.05	0.23	0.06	0.01	1.66	100

Table 10.26: Households by district and method of rubbish disposal (%)

District	Collected	Public Dump	Dumped Elsewhere	Burned by Household	Buried by Household	Other	Total
Gomoa	0	57.85	19.9	19.77	2.29	0.19	100
Awutu Efutu Senya	4.27	37.79	38.26	12.06	3.43	4.19	100
Dangme West	1.43	21.4	57.83	17.57	0.15	1.6	100
South Tongu	0.35	19.83	31.57	46.3	1.57	0.37	100
Keta	0	24.53	56.96	12.05	4.14	2.32	100
Ketu	2	23.46	63.48	5.49	5.57	0	100
Akatsi	0	46.73	22.24	29.78	1.24	0.01	100
North Dayi	5.26	55.51	27.04	11.38	0.8	0	100
Hohoe	0.42	43.1	51.36	3.81	1.31	0	100
Fanteakwa	0	54.63	43.71	1.36	0.29	0	100
Akuapem South	3.84	73.22	10.52	9.26	3.17	0	100
Yilo Krobo	0	40.28	44.66	5.64	9.43	0	100
Manya Krobo	5.94	55.19	27.14	11.51	0.23	0	100
Afram Plains	0.36	7.31	19.96	71.38	0.99	0	100
Kwahu South	0.55	71.91	24.24	1.97	1.33	0	100
Sekyere East	0	75.2	21.7	1.87	1.23	0	100
Sekyere West	0	74.91	20.99	1.03	3.07	0	100
Ejura Sekyere	0	68.98	25.68	3.47	1.58	0.29	100
Karaga	0.92	18.17	78.72	1.52	0.5	0.18	100
Savelugu Nanton	0	27.38	30.96	35.27	6.38	0	100
Tamale	7.67	49.51	26.28	10.6	5.14	0.79	100
Tolon Kumbungu	0	5.66	85.06	6.18	2.77	0.34	100
West Mamprusi	0.06	40.48	34.98	24.16	0.32	0	100
Total	1.64	41.59	35.87	18.08	2.46	0.36	100

Table 10.27: Households by MiDA Zone and type of toilet used (%)

Type of Toilet	MiDA Zone			
	Southern Hort. Belt	Afram Basin	Northern Belt	Ghana
Flush Toilet	3.66	2.8	5.18	3.79
Pit Latrine	36.86	28.15	5.5	26.49
KVIP	15.67	9.46	9.12	12.22
Pan/Bucket	1.23	0.42	1.58	1.08
Public Toilet (Flush/Bucket/KVIP)	23.1	17.95	23.84	21.78
Toilet in Another House	0.89	0.67	0.34	0.69
No Toilet Facility (Bush/Beach)	18.29	39.3	54.13	33.36
Other	0.3	1.25	0.31	0.58
Total	3.66	2.8	5.18	3.79

10.8 Toilet Facilities

Table 10.28 shows the type of toilet facility used by households. It is striking to note that 33 percent of households do not have any toilet facility so they ease themselves in the bush, on the beach or anywhere they can. The Northern Zone has a particularly high percentage (54 percent) of households in this category. Almost 22 percent of households have access to public toilets. 26 percent of households have pit latrines in their houses while 12 percent have KVIP. About 4 percent of households have access to flush toilets in their houses.

Table 10.28: Households by district and type of toilet used (%)

District	Flush Toilet	Pit Latrine	KVIP	Pan/ Bucket	Public Toilet(Flush/ Bucket/KVIP)	Toilet in Another House	No Toilet Facility (Bush/Beach)	Other	Total
Gomoa	3.44	30.82	18.55	1.85	20.2	0.43	24.2	0.53	100
Awutu Efutu Senya	7.44	31.85	19.52	3.84	19.2	1.14	16.4	0.69	100
Dangme West	2.89	26.61	14.4	1.2	10.9	0	44	0.08	100
South Tongu	1.09	36.69	11.85	0.33	16.6	0.82	32.6	0	100
Keta	6.43	7.78	23.82	3.42	26	0.46	32.1	0	100
Ketu	2.13	35.8	5.33	0.42	19.3	2.49	34.6	0	100
Akatsi	0	61.67	22.29	0	8.08	0.62	7.33	0	100
North Dayi	2.97	24.92	15.88	1.42	35.4	1.25	18.1	0	100
Hohoe	0.52	47.98	17.82	0	21.8	0.62	9.32	1.96	100
Fanteakwa	2.36	59.9	11.22	0	21	3.45	2.12	0	100
Akuapem South	9.69	30.05	8.88	1.58	47	0.7	2.12	0	100
Yilo Krobo	2.6	43.47	18.56	0.66	32.1	0.28	2.33	0	100
Manya Krobo	8.29	37.58	14.09	1.48	34.5	0.66	3.37	0	100
Afram Plains	0.09	7.9	3.88	0.09	2	0	86	0	100
Kwahu South	5.79	45.79	7.04	1.08	26.7	0.76	12.9	0	100
Sekyer East	1.65	43.98	5.98	1	23.8	1.26	15.7	6.66	100
Sekyer West	7.18	34.96	20.64	0.22	27	0.62	9.34	0	100
Ejura Sekyere	2.43	13.12	22.71	0.28	39.9	0.08	17.1	4.43	100
Karaga	0.59	0.85	3.2	0.66	11.2	0.33	82.2	0.98	100
Savelugu Nanton	0.75	6.97	10.52	0	15.3	0	66.5	0	100
Tamale	13.92	3.9	7.95	4.11	52.8	0.58	16.4	0.41	100
Tolon Kumbungu	1.25	4.37	14.43	0.27	5.53	0.19	74	0	100
West Mamprusi	0.19	13.92	10.68	0.12	6.15	0.32	68.6	0	100
Total	3.79	26.49	12.22	1.08	21.8	0.69	33.4	0.58	100

At district level (Table 10.28), it is seen that in general, with the exception of districts in the Northern Zone, each district has at least 50 percent of their households having access to a form of private or public toilet. In the northern districts however (with the exception of Tamale), a very high proportion of households does not have toilet facilities – Karaga has 82 percent of households in this category.

11 Baseline Poverty Profile

11.1 Introduction

The survey collected information on household expenditure and income and their sources. The survey methodology enables the derivation for each household's estimate of total expenditure and total income (i.e. all incomes of members of the household other than that from paid employment) captured in the survey as well as the estimates of different sources. Household income including income transfers, expenditure and current accounts of the household could be examined in detail using the survey data. The survey also deals with household expenditures on food and non-food items as well as services that the households spend their income on. Information on the household's own production, gifts and philanthropic consumption is also collected.

Regarding expenditure on food items, the respondents were asked about their purchases of each item in the 30 days preceding the survey, and their answers were used as the basis for estimating annual expenditure or consumption. In the case of expenses on items such as fuel, allowance was made for the number of months in which the item was normally consumed (ref: questionnaires).

For expenditure on less frequently purchased consumption items (e.g. clothing and footwear) a longer recall period, generally three or 12 months, was used in collecting consumption information. Purchases of durable goods and some other expenditure items deemed not to be associated with increases in welfare were not included in the estimation. However, consumption flows (use values) for durable goods were estimated based on assumed depreciation rates. Imputed rents, based on a hedonic equation, which related rents of rented housing to household characteristics, were estimated in the case of owner-occupied dwellings.

Other items in the estimation of household consumption relate to the value of wage payments received in kind, and consumption of the output of non-farm enterprises owned and operated by the household. The sum of all the items gives the estimate of total household consumption expenditure, which is expressed in nominal values.

The expenditure data were ranked into quintiles with respect to annualized adult equivalent expenditures using conventional methods applied by GSS to analyze patterns and trends of poverty in Ghana (Coulombe *et. al.*, 2008). The data is used to estimate the aggregate poverty gap and related indicators in the MiDA intervention zones. The aggregate poverty gap is one of the key indicators monitored as part of the evaluation of the program.

The analysis of poverty in this report is concerned with consumption poverty, highlighting households whose standard of living falls below an adequate minimum defined by a poverty line. Two important issues on poverty (a consumption-based standard of living measure and the selection of a poverty line) are briefly discussed before presenting the summary of the estimates for the indicators.

11.2 Standard of living measure

The construction of the standard of living measure takes account of variations in the cost of living across households, as well as differences in their size and composition. The latter reflects the fact that larger households have greater consumption needs. The former standardizes the variations in prices over the survey period, in particular variations in food prices. Thus, the overall cost of living index allows for variation in food prices *over time* based on the Consumer Price Index. The use of area-specific CPIs (Urban and Rural) also allows the analysis to take into account adjustment in relative spatial prices. The resultant consumption expenditure for each household is expressed in the constant prices in urban areas in April 2008.

Following the GLSS approach, household size is measured as the number of equivalent adults, using a calorie-based scale from the 10th Edition of the National Research Council's *Recommended Dietary Allowances* (Washington D.C.: National Academy Press, 1989). This scale has commonly been applied in nutritional studies in Ghana. Measuring household size in equivalent adults recognizes, for example, that the consumption requirements of babies or young children are less than those of adults. The scale is based on age - and gender-specific calorie requirements (GSS, 2007).

Each individual is represented as having the standard of living of the household to which they belong. It is not possible to allow for intra-household variations in living standards using the consumption measure, though some other indicators considered later do take some account of such variations.

11.3 Poverty line

The poverty line is based on the GLSS national poverty line used for the last three rounds of standard of living surveys in Ghana. The line was anchored on calorie requirements of individuals. For the fifth round of GLSS, the approach suggests food poverty line of 2,884,700 cedis, while allowing for non-food requirements suggests an overall poverty line of approximately 3,708,900 cedis per equivalent adult per year in Accra, January 2006 prices. The latter estimate represents roughly \$1.25 a day.

The same two nutrition-based poverty lines are used for this report although they are inflated to April 2008 prices, yielding poverty lines of GH¢372.21 and GH¢478.55 respectively. The first is used as an extreme poverty line, meaning that people whose standard of living measure lies below this would not be able to meet their calorie requirements even if they spent their entire budget on food. The latter line is used as the overall poverty line for MiDA intervention zones, as was done for Ghana in 2005/2006:

- ✚ A lower poverty line of GH¢372.21 per adult per year: this focuses on what is needed to meet the nutritional requirements of household members. Individuals whose total expenditure falls below this line are considered to be in extreme poverty, since even if they allocated their entire budgets to food, they would not be able to meet their minimum nutrition requirements (if they consume the average consumption basket). This line is 53.6 percent of mean consumption levels (per equivalent adult) in 2008 for the zones.

- ✚ An upper poverty line of GH¢478.55 per adult per year: this incorporates both essential food and non-food consumption. Individuals consuming at levels above this can be considered able to purchase enough food to meet their nutritional requirements, and to be able to meet their basic non-food needs. This line is 68.9 percent of mean consumption (per equivalent adult) in 2008 for the zones.

11.4 Poverty levels in MiDA intervention zones – baseline

Two aspects of poverty, which are to be tracked as part of the evaluation process, are analyzed for all the zones. They are:

- ❖ the *incidence* of poverty, or the proportion of a given population identified as poor; and
- ❖ the *depth* of poverty, or the extent to which those defined as poor fall below the poverty line.

These aspects are examined for all the zones as a whole, and for appropriately defined groups of the population. Various poverty indices are available, which are combinations of one or both of these dimensions. These include the widely used P_α class of poverty indices estimates (Foster, *et. al.*, 1984) for which are presented in Tables 1.2 and 1.3 for the MiDA intervention zones.

The estimates in Table 11.1 show that for the Northern Zone, total household consumption expenditure per equivalent adult, in April 2008 constant prices, is 607.88 Ghana cedis. That for all the zones is higher, and is estimated at GH¢694.96 because of the relatively higher value for the Southern Horticulture Zone. Considering the upper poverty line, the proportion of the population of the zones defined as poor ranges from 35.3 percent in the Southern Horticulture Zone to 52.0 percent in the Northern Zone. The average for all the zones is higher than the value estimated for the whole country in 2005/2006, i.e. 28.5 percent.

The estimate of extreme poverty for the baseline shows that more than a quarter of the population (28.6 percent) in the zones cannot meet basic nutrition requirements even if they devote their entire budgets to food. Again, the proportion is higher for the Northern Zone (over a third, 38.0 percent) and the Afram Basin Zone, which is also over a quarter of the population (28.4 percent). The estimate of the population in the extreme poverty group for all the zones is about 10 percentage points higher the national average in 2005/2006, which was estimated as 18.2 percent.

Of all the people in the zones who fall below the selected poverty lines (c_0 in Table 11.1), over 37 percent live in the Southern Horticulture Zone, indicating that a higher than average share of resources needs to be devoted to this zone to reduce overall poverty. However, the contribution of the poor population in the other zones relative to their population shares shows that the incidence of poverty is higher for those zones. This is particularly the case for the Northern Zone, where the share of the total poor population is much higher than the share of total population for all the zones.

Table 11.1: Baseline poverty profile of MiDA Intervention Zones, by locality

Lower poverty line (372.21 GH cedis)							
	Population share	Average welfare	Poverty indices				Contribution to poverty
			P ₀	P ₁	P ₂	P ₁ /P ₀	C ₀
Northern Zone	24.9	607.88	38.0	12.6	5.6	33.1	30.0
Afram Basin Zone	29.2	660.80	28.4	9.5	4.1	33.4	32.5
Southern Horticulture Zone	45.9	763.99	23.6	7.6	3.4	32.0	37.5
Urban	27.1	876.98	17.9	5.1	2.1	28.5	17.0
Rural	72.9	627.27	32.6	11.0	4.9	33.7	83.0
All	100.0	694.96	28.6	9.4	4.1	32.8	100.0
Upper poverty line (478.55 GH cedis)							
	Population share	Average welfare	Poverty indices				Contribution to poverty
			P ₀	P ₁	P ₂	P ₁ /P ₀	C ₀
Northern Zone	24.9	607.88	52.0	20.0	9.9	38.4	33.1
Afram Basin Zone	29.2	660.80	47.9	15.5	7.4	32.4	29.0
Southern Horticulture Zone	45.9	763.99	35.3	12.4	6.0	35.2	37.9
Urban	27.1	876.98	29.9	9.3	4.1	31.1	18.8
Rural	72.9	627.27	48.0	17.4	8.6	36.2	81.2
All	100.0	694.96	43.1	15.2	7.4	35.3	100.0

Note: Ghana cedis are in April 2008 prices

The survey also reports information on the poverty gap index (P_1). This measure takes account of both the incidence and the depth of poverty. It gives an indication of the minimum level of resources which would be required to eliminate poverty, assuming that resources could be perfectly targeted to raise every poor person exactly to the poverty line. On average, the amount of money required is equivalent to 15.2 percent of the upper poverty line or 9.4 percent of the lower poverty line for every person in the zones (Table 11.1).

These figures translate to aggregate poverty gap of about GH¢230 million or GH¢110 million below the upper or lower poverty lines in the intervention zones (Table 11.2). They represent the amount needed to address extreme poverty or overall poverty if resources can be perfectly allocated to individuals below the upper or lower poverty lines. In addition to operational costs, about 41 million Ghana cedis would have to be targeted for the Southern Zone, about 33 million for the Afram Basin Zone and about 37 million will also have to be directed to the Northern Zone to remove extreme poverty. Other figures are similarly presented for the reduction of poverty using the overall poverty line.

This amount of resources would have to be allocated, with perfect targeting, among those in the zones who are below the poverty line in order to raise them exactly to the poverty line. There are substantial differences, especially between the amount estimated for people in rural and urban areas, reflecting the depth of poverty and the number of people considered as poor in these localities. For example, the amount of resources needed for people in rural areas is about six times the amount needed for people in urban areas to eliminate extreme poverty.

Table 11.2: Aggregate poverty gap by poverty line and locality (GH cedis, million)

MiDA Zone	urban	rural	Total
Lower poverty line (372.21 GH cedis)			
Northern Zone	7.21	29.65	36.86
Afram Basin Zone	4.41	28.28	32.69
Southern Horticulture Zone	4.66	36.14	40.80
Total	16.29	94.07	110.36
Upper poverty line (478.55 GH cedis)			
Northern Zone	16.47	58.73	75.20
Afram Basin Zone	10.31	58.23	68.54
Southern Horticulture Zone	11.41	74.78	86.19
Total	38.19	191.74	229.92

Note: Ghana cedis are in April 2008 prices

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Appendix A: Sampling and Computation of Weights

Sampling Frame and Sample Size Allocation

The GLSS5+ was designed to provide district level indicators, so a district-representative sample of households was selected from the 23 target MiDA intervention districts to achieve the survey objectives.

The survey design was based on the 2000 Population and Housing Census (PHC) list of enumeration areas (EAs) maintained by the Ghana Statistical Service (GSS). The list also contains population information for the EAs, the number of households per EA, and topographical maps with well defined boundaries to help field workers trace the EAs. The EAs were used as the primary sampling units (PSUs), while the households within each EA constituted the secondary sampling units (SSUs).

The universe defined for the survey is the population living within private households in the target area. The institutional population (such as schools, hospitals etc), which represents a very small percentage in the 2000 PHC, is excluded from the sampling frame.

Stratification

In order to take advantage of possible gains in precision and reliability of the survey estimates from stratification, the EAs were first stratified into the 23 administrative districts. Within each district, the EAs were further sub-divided according to their rural and urban areas of location.

Sample size and allocation

To ensure that a reasonable statistical power could be obtained in detecting changes by the program for each district, and also to accommodate the required precision for the number of estimates to be obtained from the survey it was decided to select a total sample of about 9000 households from the program target area. To get adequate number interviews that will allow for reliable estimates at the various domains of interest, the sample was designed to ensure that at least 400 households were selected from each district. A fixed number of EAs, i.e. 27 were randomly selected from the list of census EAs for each intervention district followed by a fixed take of 15 households per EA to achieve this purpose.

Computation of Weights

The GLSS5+ is not a self-weighting sample design because disproportionately larger samples from districts with smaller populations were drawn. Therefore each sample household did not have the same chance of selection into the sample. Hence, weights were computed to reflect the different probabilities of selection in order to obtain the true contribution of each selected EA in the sample based on the first and second stage probabilities of selection.

Let N_{hi} = Number of 2000 Population Census households in the i^{th} selected EA (PSU) in the h^{th} stratum or district
 N_{hi}^* = Number of households listed in the i^{th} selected EA in the h^{th} stratum (district)
 $\sum N_{hi}$ = Total number of households in the i^{th} stratum (district)
 α_h = Number of sample EAs allocated to the h^{th} stratum (district)
 β = 15 (number of selected households per EA in each district)

Then the first and second stage probabilities of selection are:

$$P_{1hi} = \frac{\alpha_h N_{hi}}{\sum N_{hi}} \quad \text{and} \quad P_{2hi} = \frac{\beta}{N_{hi}^*}$$

where P_{1hi} is the probability of selecting the i^{th} EA in the h^{th} stratum (district), and P_{2hi} is the probability of selecting a household in the i^{th} EA of the h^{th} stratum. The overall probability of selection of a household in the i^{th} selected EA of the h^{th} stratum is given by:

$$F_{hi} = P_{1hi} * P_{2hi} = \frac{\alpha_h \beta}{\sum N_{hi}} * \frac{N_{hi}}{N_{hi}^*}$$

The weighting factor (or expansion factor), W_{hi} , for a household in the i^{th} selected EA in the h^{th} stratum is the reciprocal (inverse) of the overall probability of selecting that household. The number of households successfully interviewed in each EA was used in the computation.

That is,

$$W_{hi} = \frac{1}{F_{hi}} = \frac{\sum N_{hi}}{\alpha_h \beta} * \frac{N_{hi}^*}{N_{hi}}$$

The final weight for the sample households in the j^{th} segment within the i^{th} sample PSU in stratum h is given by:

$$W'_{hi} = W_{hi} * \frac{\beta'}{\beta''},$$

Where:

β' = The number of interviews plus the number of no interviews in the sample segment

β'' = Total number of interviewed sample households selected in the j^{th} sample segment within the i^{th} sample PSU in stratum h

Appendix B: Supplementary Tables

Table B2.1: Mean Household Size, Estimated Number of Households and Estimated Population in Households, by District

District	Mean Household Size	Estimated Number of Households	Population in Households
Gomoa	4.5	59,420	189,289
Awutu Efutu Senya	4.5	35,787	112,856
Dangme West	5.5	25,156	93,147
South Tongu	5.6	12,147	48,411
Keta	5.2	20,101	65,982
Ketu	4.5	61,301	200,876
Akatsi	3.6	75,587	195,402
North Dayi	5.7	28,061	111,344
Hohoe	4.7	39,555	127,937
Fanteakwa	5.3	17,626	70,405
Akuapem South	4.9	34,755	116,447
Yilo Krobo	5.0	22,660	80,883
Manya Krobo	4.9	32,563	110,182
Afram Plains	6.5	65,494	341,135
Kwahu South	5.0	49,042	173,923
Sekyere East	6.1	31,915	120,596
Sekyere West	5.9	35,881	139,536
Ejura Sekyere	6.4	20,096	80,513
Karaga	8.5	22,145	140,919
Savelugu Nanton	8.2	16,724	97,345
Tamale	6.7	57,959	266,197
Tolon Kumbugu	7.6	25,363	151,491
West Mamprusi	9.0	20,087	131,410
Total	5.8	809,424	3,166,227

Table B2.2: Average Age of Household Heads, by District and Sex

District	Male	Female	Total
Gomoa	47.3	50.8	49.1
Awutu Efutu Senya	43.8	49.7	46.2
Dangme West	42.4	50.7	45.4
South Tongu	47.5	56.5	51.7
Keta	48.7	54.9	51.6
Ketu	44.5	48.7	46.4
Akatsi	37.1	55.9	45.9
North Dayi	49.1	53.1	50.7
Hohoe	48.6	53.7	50.2
Fanteakwa	45.5	49.3	46.7
Akuapem South	44.6	49.1	46.3
Yilo Krobo	42.3	48.7	44.3
Manya Krobo	45.0	46.2	45.4
Afram Plains	39.8	37.9	39.4
Kwahu South	46.1	55.2	49.8
Sekyere East	44.9	48.9	46.5
Sekyere West	45.6	50.3	47.2
Ejura Sekyidumasi	46.2	50.1	47.6
Karaga	45.4	53.6	45.7
Savelugu Nanton	48.5	53.8	48.8
Tamale	44.1	51.8	45.0
Tolon Kumbugu	45.5	61.6	46.3
West Mamprusi	45.6	48.3	45.7
Total	44.4	50.9	46.6

Table B2.3: Distribution of Households, By Adult Composition, MiDA Zone and Presence of Children (Estimated Number of Households)

Adults in Households	MiDA Zone							
	With Children				Without Children			
	Northern	Afram Basin	Southern	Total	Northern	Afram Basin	Southern	Total
At least, one adult of each sex	104,449	117,277	153,949	375,676	14,489	16,996	62,370	93,856
One adult male	62,528	84,454	113,892	260,874	21,572	40,703	129,264	191,538
At least, two adult males	43,181	36,380	47,127	126,689	7,608	5,921	15,842	29,372
One adult female	56,078	98,768	151,306	306,152	10,466	26,674	86,977	124,117
At least, two adult females	53,039	52,412	80,909	186,360	6,745	9,014	38,095	53,854

Table B2.4: Distribution of Households, By Adult Composition, Locality and Presence of Children (Estimated Number of Households)

Adults in Households	Rural/Urban					
	With Children			Without Children		
	urban	rural	Total	urban	rural	Total
At least, one adult of each sex	98,917	276,758	375,676	28,522	65,334	93,856
One adult male	67,189	193,685	260,874	62,460	129,079	191,538
At least, two adult males	34,626	92,063	126,689	11,535	17,837	29,372
One adult female	78,782	227,370	306,152	41,611	82,506	124,117
At least, two adult females	52,093	134,266	186,360	17,454	36,399	53,854

Table B2.5: Estimated Number of Households, by District, Adult Composition and Presence of Children

District	Adults in Households									
	Estimated Households With Children					Estimated Households Without Children				
	At least one adult of each sex	One adult male	At least two adult males	One adult female	At least two adult females	At least one adult of each sex	One adult male	At least two adult males	One adult female	At least two adult females
Gomoa	18,854	13,897	5,704	22,112	10,744	6,364	16,358	809	11,213	3,801
Awutu Efutu Senya	12,998	10,529	3,026	11,736	7,125	2,992	9,379	1,241	6,537	2,203
Dangme West	10,988	7,378	4,017	9,486	5,485	2,240	6,181	1,087	3,483	1,269
South Tongu	5,355	3,814	1,740	4,746	3,075	1,412	2,275	507	1,741	1,015
Keta	7,137	5,157	2,285	6,404	4,101	2,372	5,184	826	4,547	1,107
Ketu	21,339	16,682	5,741	23,901	10,816	7,877	15,142	3,431	9,290	5,514
Akatsi	12,045	10,252	2,486	17,011	7,288	20,287	33,089	711	22,025	15,057
North Dayi	13,350	8,179	5,734	9,838	7,947	3,397	6,292	1,119	4,665	1,033
Hohoe	15,473	11,448	4,544	13,810	6,320	6,104	12,077	2,254	8,507	2,173
Fanteakwa	9,854	7,667	2,494	8,171	3,655	2,190	3,603	825	2,301	953
Akuapem South	12,801	9,400	4,143	11,010	6,955	4,148	9,785	1,461	6,434	2,516
Yilo Krobo	10,482	8,439	2,654	9,127	4,313	2,231	5,172	1,063	2,839	1,766
Manya Krobo	13,126	8,716	5,054	12,125	6,739	2,947	8,331	1,333	5,695	642
Afram Plains	46,934	32,291	15,390	37,214	21,064	1,733	4,253	1,105	2,260	584
Kwahu South	21,150	16,438	5,814	17,743	10,349	5,352	12,036	1,804	7,904	3,456
Sekyer East	13,199	9,809	3,918	13,248	5,783	2,340	8,089	592	4,512	1,502
Sekyer West	16,596	11,297	5,854	14,284	7,175	3,595	8,377	927	6,593	1,566
Ejura Sekyer	9,545	6,953	2,910	8,108	4,388	1,787	4,344	669	3,104	952
Karaga	19,027	11,689	7,513	9,434	9,905	1,934	1,886	746	1,591	343
Savelugu Nanton	12,822	7,836	5,466	6,371	6,957	1,178	2,120	597	936	442
Tamale	34,628	20,927	13,834	21,635	15,782	8,317	13,880	4,508	5,835	4,504
Tolon Kumbugu	21,517	12,909	8,880	10,077	12,194	1,267	1,741	925	721	699
West Mamprusi	16,455	9,166	7,488	8,562	8,201	1,793	1,945	833	1,383	757
Total	375,676	260,874	126,689	306,152	186,360	93,856	191,538	29,372	124,117	53,854

Table B2.6: Proportion of Children under 18 years, by Presence of Parent and District (%)

District	Presence of Parents in Household				
	Only Father	Only Mother	Both Parents	No Parent	Total
Gomoa	3.6	36.7	37.1	22.6	100
Awutu Efutu Senya	6.2	33.3	48.5	12.0	100
Dangme West	5.6	26.6	45.5	22.3	100
South Tongu	4.3	29.9	44.9	20.9	100
Keta	5.7	31.1	39.4	23.9	100
Ketu	5.2	37.0	45.4	12.5	100
Akatsi	2.4	51.8	35.8	10.0	100
North Dayi	6.4	30.8	39.6	23.3	100
Hohoe	5.0	19.2	60.1	15.7	100
Fanteakwa	4.7	18.9	53.9	22.5	100
Akuapem South	4.4	27.3	52.0	16.3	100
Yilo Krobo	6.8	20.1	56.4	16.8	100
Manya Krobo	5.5	24.5	55.4	14.6	100
Afram Plains	1.7	13.3	82.2	2.8	100
Kwahu South	3.4	31.4	48.1	17.0	100
Sekyere East	2.4	33.3	51.4	12.8	100
Sekyere West	2.5	19.4	63.5	14.7	100
Ejura Sekyere	2.0	23.3	65.0	9.7	100
Karaga	5.3	3.8	81.7	9.2	100
Savelugu Nanton	4.0	4.9	74.7	16.4	100
Tamale	2.8	4.4	80.1	12.8	100
Tolon Kumbugu	4.3	3.8	81.2	10.9	100
West Mamprusi	3.0	3.3	85.7	8.1	100
Total	3.8	21.6	61.3	13.3	100

Table B2.7: Age Distribution of Population, by District (%)

Age Group	Gomoa		Awutu-Efutu-Senya		Dangme west		South Tongu		Keta		Ketu		Akatsi		North Dayi		Hohoe		Fanteakwa		Akuapem South		Yilo Krobo		Manya Krobo		Afram Plains		Kwahu South		Sekyere East		Sekyere West		Ejura Sekyere		Karaga		Savelugu Nanton		Tamale		Tolon Kumbungu		West Mamprusi		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female				
0-4	6.0	6.9	6.8	6.6	7.9	6.7	5.6	6.0	6.3	5.0	6.5	6.8	5.9	5.5	5.2	6.6	6.7	6.8	7.4	6.5	5.8	5.6	6.2	6.4	6.3	6.5	7.6	8.5	7.3	6.6	8.3	7.6	6.7	6.3	7.3	7.2	10.6	9.1	9.7	8.4	6.3	5.9	8.5	8.3	8.1	8.2	7.3	7.1
5-9	6.1	7.4	6.3	5.4	6.8	6.5	6.7	7.7	5.8	7.3	5.2	6.8	7.4	6.6	6.3	7.3	6.4	5.7	7.4	7.7	7.1	5.2	6.8	6.3	6.7	7.0	8.7	9.0	7.0	6.6	8.4	8.2	8.1	6.5	7.3	7.9	9.0	6.4	8.4	7.2	4.6	4.9	8.2	8.0	9.2	7.9	7.3	7.0
10-14	6.9	7.0	6.6	5.9	5.3	6.3	7.1	7.0	7.2	5.8	5.9	5.4	6.2	6.0	6.8	6.4	6.6	5.3	8.7	5.2	6.0	6.3	7.0	5.7	5.3	6.2	7.2	5.7	7.2	5.6	6.2	7.2	7.7	6.3	7.3	6.5	6.3	5.8	6.7	5.4	5.8	5.6	6.6	4.0	7.1	5.1	6.7	5.8
15-19	5.1	5.6	4.3	6.4	7.3	5.2	6.1	6.5	5.9	6.0	5.2	6.0	5.4	5.6	5.3	4.9	5.1	4.3	5.7	4.8	5.1	5.6	4.2	5.4	6.3	5.1	6.1	4.5	6.0	4.9	5.8	4.3	5.2	5.6	4.7	4.7	4.5	3.5	5.0	2.6	6.4	5.4	5.6	3.5	6.2	4.6	5.5	4.8
20-24	2.4	3.6	3.6	5.2	4.6	4.3	3.4	3.7	3.3	2.8	3.8	4.3	2.8	3.8	3.2	3.4	3.2	3.3	3.3	3.1	3.8	5.2	3.4	4.2	3.2	4.3	2.8	3.5	2.7	4.2	2.4	3.6	3.7	3.8	3.1	4.5	3.5	3.4	2.9	2.7	5.3	4.9	3.5	3.3	3.0	4.0	3.4	3.8
25-29	2.4	3.4	3.7	3.7	3.3	3.2	2.4	2.9	2.4	3.4	3.8	3.8	2.7	3.7	2.2	3.3	2.9	2.6	2.3	3.2	3.4	4.4	3.2	4.4	2.3	3.4	2.5	3.1	3.3	3.2	2.7	4.4	2.6	3.6	2.7	3.4	2.6	4.8	2.4	3.1	5.1	4.8	2.7	5.0	3.3	3.8	2.9	3.7
30-34	2.0	2.7	3.0	4.0	2.7	3.8	2.2	2.4	1.8	1.9	2.4	3.6	1.7	3.5	1.8	2.9	1.7	3.0	2.9	4.3	2.3	3.3	3.7	4.7	3.2	3.7	2.5	3.0	2.4	2.3	2.1	2.7	2.4	2.9	2.3	2.9	3.0	3.9	2.5	4.1	3.3	3.9	3.5	3.0	2.4	2.6	2.6	3.3
35-39	1.8	3.7	2.7	2.7	1.9	2.5	2.2	2.7	2.4	2.9	2.3	3.0	2.3	3.0	3.3	3.3	3.0	2.9	2.4	2.2	2.8	2.8	3.3	3.1	2.5	3.1	3.1	3.1	2.2	3.0	2.1	2.3	2.0	3.1	3.1	3.2	2.4	2.5	2.4	3.0	2.6	3.6	2.0	3.2	2.2	2.6	2.5	2.9
40-44	2.2	2.4	2.1	3.0	1.2	1.8	1.4	2.9	1.7	2.6	1.7	2.3	2.1	3.0	1.8	2.4	2.9	2.5	2.6	2.6	1.6	2.3	2.2	2.5	2.2	3.2	2.6	2.8	1.5	2.8	1.7	3.0	2.1	2.5	1.6	2.5	1.7	2.4	1.9	2.7	2.8	1.9	2.1	2.2	1.7	2.3	2.0	2.5
45-49	1.7	2.5	2.1	2.3	1.7	1.5	2.0	1.8	1.8	2.0	1.7	2.6	2.0	2.3	2.1	2.5	2.9	2.1	1.8	1.7	2.2	2.8	2.3	1.7	2.5	2.3	2.1	1.9	1.6	2.1	2.1	2.1	2.0	1.9	2.6	1.6	1.4	1.8	1.5	1.9	2.2	2.1	2.1	1.7	1.7	1.6	2.0	2.0
50-54	1.6	2.5	1.9	2.0	1.4	2.1	1.3	3.0	1.0	3.2	2.3	3.6	1.6	2.7	1.8	2.3	1.9	3.7	1.3	1.5	1.9	2.4	1.6	2.3	2.2	2.5	1.8	1.7	1.7	2.2	1.7	1.7	1.8	2.2	1.0	2.0	1.4	2.1	1.5	2.6	1.8	2.3	1.0	2.2	1.3	2.6	1.6	2.4
55-59	1.0	1.8	0.8	1.4	0.9	1.4	1.0	1.4	1.6	1.9	1.4	1.6	1.3	2.2	1.5	1.6	1.5	2.0	1.2	1.7	1.0	1.6	0.8	1.1	1.2	0.9	0.9	0.7	1.4	1.4	1.0	0.7	1.2	1.2	0.8	1.3	0.8	1.2	1.1	1.3	0.9	1.0	1.1	1.1	1.1	1.1	1.3	
60-64	1.2	1.9	0.5	0.9	1.6	1.0	0.6	1.1	1.8	1.5	1.2	1.2	0.6	1.5	1.6	1.7	1.8	1.0	1.1	1.4	1.2	1.6	1.2	1.0	1.2	1.1	0.9	0.9	0.8	1.6	0.7	1.1	0.6	0.9	1.0	1.2	1.2	0.7	1.2	1.4	1.2	0.9	1.1	1.0	1.4	1.0	1.1	1.2
65-99	3.0	5.4	2.2	3.6	1.6	5.3	2.7	6.3	3.8	7.0	1.7	4.1	3.4	5.2	3.6	5.4	4.0	4.4	2.8	3.4	2.7	4.0	2.3	2.9	3.0	2.5	1.5	1.3	3.4	5.2	2.5	3.5	3.5	3.7	2.9	3.1	2.4	1.6	3.9	3.0	2.5	1.3	3.0	3.0	2.3	1.8	2.8	3.6
Total	43.3	56.7	46.8	53.2	48.3	51.7	44.5	55.5	46.8	53.2	45.0	55.0	45.4	54.6	46.1	53.9	50.5	49.5	50.8	49.2	47.0	53.0	48.2	51.8	48.2	51.8	50.4	49.6	48.4	51.6	47.7	52.3	49.4	50.6	47.7	52.3	50.7	49.3	50.8	49.2	51.0	49.0	50.6	49.4	50.9	49.1	48.6	51.4

Table B2.8: Population, by Marital Status and District (%)

District	Married	Consensual Union	Separated	Divorced	Widowed	Never Married	Total
Gomoa	47.7	2.0	5.5	10.4	15.8	18.7	100
Awutu Efutu Senya	51.0	2.2	2.7	6.1	10.5	27.6	100
Dangme West	29.9	20.7	5.0	3.8	12.1	28.4	100
South Tongu	49.0	1.1	1.1	9.0	12.4	27.4	100
Keta	47.8	3.5	2.9	9.8	14.6	21.5	100
Ketu	58.2	0.0	4.1	3.9	12.1	21.7	100
Akatsi	51.8	0.6	0.7	13.8	14.8	18.3	100
North Dayi	41.5	11.0	4.2	7.7	13.4	22.4	100
Hohoe	61.0	1.4	1.4	7.8	8.8	19.6	100
Fanteakwa	60.1	3.1	3.0	9.4	7.2	17.2	100
Akuapem South	47.4	4.3	2.2	10.0	9.2	27.0	100
Yilo Krobo	33.7	22.2	1.8	3.2	10.8	28.4	100
Manya Krobo	44.1	8.8	6.5	5.8	8.3	26.5	100
Afram Plains	71.4	4.6	1.0	4.3	3.9	14.9	100
Kwahu South	41.0	11.0	1.8	10.4	11.3	24.6	100
Sekyere East	53.6	6.4	1.9	10.4	7.7	20.0	100
Sekyere West	56.1	2.5	0.8	7.4	9.2	24.1	100
Ejura Sekyidumasi	55.5	2.9	0.5	7.4	9.2	24.4	100
Karaga	78.5	0.2	0.2	0.7	4.5	15.9	100
Savelugu Nanton	74.8	1.6	0.3	1.8	7.2	14.3	100
Tamale	57.8	0.9	0.8	1.1	4.4	35.1	100
Tolon Kumbugu	72.5	1.6	0.2	0.8	7.0	17.8	100
West Mamprusi	72.7	1.1	0.2	1.2	4.9	19.9	100
Total	55.9	4.2	2.0	6.2	9.2	22.5	100

Table B2.9: Mean age of population at first marriage, by sex and district (years)

District	Male	Female	Total
Gomoa	26.1	21.2	23.0
Awutu Efutu Senya	27.1	21.7	23.9
Dangme West	25.1	21.6	23.0
South Tongu	25.5	22.5	23.5
Keta	25.5	21.8	23.1
Ketu	26.8	22.1	23.8
Akatsi	24.4	21.3	22.3
North Dayi	25.7	21.2	23.0
Hohoe	26.2	21.3	23.5
Fanteakwa	25.2	20.6	22.5
Akuapem South	24.8	20.6	22.3
Yilo Krobo	26.3	22.3	24.1
Manya Krobo	26.7	21.7	23.8
Kwahu North	23.0	18.9	20.7
Kwahu South	25.0	20.6	22.3
Sekyere East	25.1	20.5	22.3
Sekyere West	26.2	20.3	22.7
Ejura Sekyidumasi	24.6	19.7	21.7
Karaga	26.0	20.4	22.7
Savelugu Nanton	25.7	20.6	22.7
Tamale	28.2	21.1	24.2
Tolon Kumbugu	25.1	20.3	22.3
West Mamprusi	24.6	19.4	21.6
Total	25.6	20.8	22.7

Table B3.1: Population aged 15 years and older, by educational attainment and district level of educational attainment (%)

MiDA District	Level of Educational Attainment				
	Never Been to School	Lower than MSLC/JSS/VOC	MSLC/JSS/VOC	Secondary or Higher	Total
Gomoa	26.5	31.5	32.8	9.2	100
Awutu Efutu Senya	26.8	26.0	34.9	12.4	100
Dangme West	28.4	33.6	31.8	6.3	100
South Tongu	31.0	36.0	25.7	7.3	100
Keta	22.3	35.8	31.5	10.3	100
Ketu	33.0	32.8	27.7	6.4	100
Akatsi	37.7	34.6	18.3	9.4	100
North Dayi	15.8	30.6	40.5	13.2	100
Hohoe	11.5	28.1	47.3	13.2	100
Fanteakwa	20.1	36.9	35.3	7.7	100
Akuapem South	17.5	28.3	37.9	16.3	100
Yilo Krobo	21.5	27.4	36.1	15.0	100
Manya Krobo	24.2	30.3	34.1	11.4	100
Afram Plains	22.5	62.8	13.0	1.7	100
Kwahu South	18.5	34.7	37.0	9.8	100
Sekyere East	23.6	29.5	39.1	7.8	100
Sekyere West	25.3	24.8	37.8	12.1	100
Ejura Sekyidumasi	42.3	29.8	20.5	7.4	100
Karaga	79.1	14.1	3.0	3.8	100
Savelugu Nanton	74.4	17.1	4.6	4.0	100
Tamale	41.0	21.0	18.0	20.0	100
Tolon Kumbugu	75.6	12.8	6.9	4.6	100
West Mamprusi	66.3	20.6	6.1	7.0	100
District Average	34.0	30.8	25.7	9.6	100

Table B3.2: Gross Enrolment, by Sex and District

MiDA District	Male						Female					
	Pre-school	Primary	JSS	SSS	Tertiary	Total	Pre-school	Primary	JSS	SSS	Tertiary	Total
Gomoa	68.2	90.7	98.4	90.0	51.1	82.8	77.8	93.9	98.2	84.3	26.1	77.1
Awutu Efutu Senya	70.9	93.6	96.4	85.7	28.6	74.5	57.9	91.3	92.9	77.4	21.0	63.4
Dangme West	63.1	81.6	94.2	83.6	49.1	72.1	68.8	90.4	92.7	84.9	23.9	70.2
South Tongu	73.3	91.3	86.4	92.5	58.3	80.0	73.0	88.4	95.3	86.7	40.6	75.8
Keta	50.0	91.6	96.8	88.1	55.4	76.9	58.8	91.8	89.1	88.7	34.8	74.2
Ketu	47.4	86.5	95.5	88.0	58.7	74.5	53.4	84.8	91.4	84.6	28.9	65.7
Akatsi	58.8	91.1	95.9	85.4	45.6	77.6	60.9	88.8	98.1	83.3	23.1	71.2
North Dayi	71.4	93.8	90.5	90.4	48.2	80.0	80.5	99.1	96.0	91.7	38.8	81.1
Hohoe	66.7	96.2	96.3	91.7	51.3	80.1	59.3	93.7	92.9	89.5	21.5	70.7
Fanteakwa	61.9	94.4	95.1	90.3	38.6	79.1	68.5	96.5	97.7	80.0	27.4	75.8
Akuapem South	67.5	96.5	98.2	78.0	36.8	77.2	71.8	97.9	94.7	86.8	16.2	69.3
Yilo Krobo	61.5	94.4	96.6	55.6	32.0	72.3	67.3	94.5	93.5	81.6	22.2	69.7
Manya Krobo	73.7	90.0	91.7	82.5	43.7	76.8	72.5	94.7	98.2	76.1	32.2	74.4
Afram Plains	59.4	76.4	80.0	87.7	47.2	70.3	61.7	85.7	91.9	68.2	21.8	66.6
Kwahu South	71.8	88.1	96.8	69.6	34.3	74.0	51.9	89.8	87.5	80.4	23.5	67.0
Sekyere East	64.3	96.4	98.4	89.7	33.8	78.7	71.3	95.1	88.6	73.8	20.3	72.9
Sekyere West	79.4	96.3	97.4	81.3	32.6	78.5	81.0	94.8	94.8	81.4	25.0	74.9
Ejura Sekyidumasi	71.0	92.8	94.7	76.6	36.1	76.8	77.9	93.3	88.7	64.2	15.0	68.8
Karaga	39.3	67.6	52.5	42.1	28.3	48.8	35.5	44.9	44.0	41.7	10.5	35.2
Savelugu Nanton	56.0	82.5	80.8	68.4	43.3	68.2	56.7	71.4	61.1	63.4	16.0	56.7
Tamale	71.4	87.9	87.9	79.1	42.9	69.5	69.1	90.0	85.1	75.9	27.5	65.1
Tolon Kumbugu	48.0	67.4	72.4	50.0	34.1	55.6	38.3	61.5	57.6	56.4	18.3	46.5
West Mamprusi	55.9	78.1	68.9	69.4	42.1	64.6	61.3	75.0	79.5	54.9	11.9	57.1

Table B3.3: Average Amount Paid per Person Attending Pre-School in the Last 12 Months, by Locality (GH¢)

	Urban			Rural			All MiDA Zones	
	Northern Zone	Afram Basin	Southern Zone	Northern Zone	Afram Basin	Southern Zone	Amount	Percent
School/Registration Fees	24.3	18.8	34.2	2.9	5.9	10.4	16.1	21.2
Contributions to PTA	2.1	3.0	2.8	1.2	1.1	1.1	1.9	2.5
Uniform & Sports Clothes	6.9	7.9	8.7	4.0	5.3	5.6	6.4	8.5
Transportation to & from School	12.3	1.8	5.2	1.2	1.7	2.8	4.2	5.5
Books and School Supplies	2.2	4.6	4.1	1.4	2.3	2.8	2.9	3.8
Food, Board & Lodging at School	31.3	61.4	68.7	11.7	31.1	36.4	40.1	53.0
Expenses on Extra Classes	1.2	1.6	4.4	0.0	0.9	1.6	1.6	2.1
In-kind Expenses	4.1	3.5	1.2	4.1	0.7	1.8	2.6	3.4
Total	84.4	102.6	129.3	26.5	49.0	62.5	75.7	100

Table B3.4: Average Amount Paid per Person Attending Primary in the Last 12 Months, by Locality (GH¢)

	Urban			Rural			All MiDA Area	
	Northern Zone	Afram Basin	Southern Zone	Northern Zone	Afram Basin	Southern Zone	Amount	Percent
School/Registration Fees	21.6	9.9	36.1	1.3	4.4	6.9	13.4	16.4
Contributions to PTA	2.5	3.3	3.7	1.3	1.3	1.4	2.3	2.8
Uniform & Sports Clothes	9.0	8.2	9.1	5.3	7.1	6.8	7.6	9.3
Transportation to & from School	17.2	1.0	4.7	0.7	1.3	2.1	4.5	5.5
Books and School Supplies	5.3	7.7	8.4	2.1	5.6	5.7	5.8	7.1
Food, Board & Lodging at School	33.6	46.5	69.0	15.2	31.3	42.9	39.8	48.7
Expenses on Extra Classes	5.7	8.6	10.8	0.9	2.7	5.3	5.7	6.9
In-kind Expenses	4.5	2.3	1.5	5.7	1.1	1.3	2.7	3.3
Total	99.4	87.5	143.3	32.5	54.8	72.4	81.7	100

Table B3.5: Average Amount Paid per Person Attending JSS/Vocational in the Last 12 Months, by Locality (GH¢)

Item	Locality						All MiDA Zones	
	Urban			Rural			Amount	Percent
	Northern Zone	Afram Basin	Southern Zone	Northern Zone	Afram Basin	Southern Zone		
School/Registration Fees	21.9	24.7	41.8	4.8	11.8	21.4	21.1	14.0
Contributions to PTA	4.5	4.6	4.4	3.7	11.6	11.1	13.3	8.8
Uniform & Sports Clothes	10.8	9.5	10.0	9.1	8.2	8.6	18.7	12.4
Transportation to & from School	17.1	3.2	10.7	7.7	1.4	9.3	8.2	5.5
Books and School Supplies	10.3	17.0	15.2	6.7	12.9	15.2	12.9	8.6
Food, Board & Lodging at School	49.1	48.9	93.6	44.8	58.7	66.3	60.2	40.0
Expenses on Extra Classes	16.7	13.7	14.7	7.5	11.3	12.6	12.8	8.5
In-kind Expenses	2.4	1.7	2.7	9.1	1.2	3.4	3.4	2.3
Total	132.8	123.3	193.1	93.4	117.1	147.9	150.6	100

Table B3.6: Average Amount Paid per Person Attending Secondary/Higher in the Last 12 Months, by Locality (GH¢)

	Urban			Rural			All MiDA Area	
	Northern Zone	Afram Basin	Southern Zone	Northern Zone	Afram Basin	Southern Zone	Amount	Percent
School/Registration Fees	356.4	195.7	255.0	133.7	201.4	178.1	220.1	44.6
Contributions to PTA	3.7	11.6	11.1	3.4	14.2	10.9	9.2	1.9
Uniform & Sports Clothes	11.5	16.1	17.3	13.8	15.3	8.5	13.8	2.8
Transportation to & from School	94.7	13.8	43.5	29.1	13.3	23.2	36.3	7.4
Books and School Supplies	57.8	42.7	55.8	29.8	42.8	51.7	46.8	9.5
Food, Board & Lodging at School	250.8	85.0	199.0	84.6	91.8	127.0	139.4	28.3
Expenses on Extra Classes	13.4	21.2	28.0	15.6	19.8	25.0	20.5	4.2
In-kind Expenses	2.9	5.6	10.1	10.3	1.1	12.8	7.1	1.4
Total	791.2	391.7	619.8	320.3	399.7	437.2	493.0	100

Table B4.1: Persons Suffering from an Illness or Injury during the Last Two Weeks, by District, Age Group and Sex (%)

District	Age Group and Sex															All		
	0 - 4			5-11			12-19			20 - 49			50+					
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Gomoa	24.0	26.0	25.0	11.0	7.2	8.6	10.0	7.7	9.0	20.0	21.0	20.0	31.0	34.0	33.0	18.0	19.0	19.0
Awutu Efutu Senya	30.0	21.0	25.0	11.0	5.0	7.8	8.6	14.0	12.0	14.0	19.0	17.0	27.0	28.0	27.0	16.0	17.0	17.0
Dangme West	33.0	19.0	27.0	12.0	12.0	12.0	9.9	12.0	11.0	16.0	21.0	19.0	21.0	25.0	24.0	18.0	19.0	18.0
South Tongu	23.0	26.0	25.0	18.0	16.0	17.0	11.0	18.0	14.0	23.0	22.0	23.0	32.0	39.0	37.0	21.0	24.0	22.0
Keta	13.0	13.0	13.0	18.0	11.0	14.0	14.0	15.0	14.0	9.6	18.0	14.0	23.0	25.0	25.0	15.0	17.0	16.0
Ketu	11.0	17.0	14.0	14.0	6.8	9.9	8.4	4.9	6.6	10.0	18.0	15.0	15.0	25.0	21.0	11.0	15.0	14.0
Akatsi	6.4	16.0	9.8	2.9	2.8	2.8	7.4	20.0	15.0	12.0	10.0	11.0	8.5	30.0	26.0	8.3	15.0	12.0
North Dayi	20.0	26.0	23.0	15.0	16.0	16.0	10.0	11.0	11.0	14.0	27.0	21.0	24.0	36.0	31.0	16.0	24.0	20.0
Hohoe	13.0	18.0	15.0	14.0	13.0	13.0	8.3	11.0	9.4	16.0	22.0	19.0	30.0	28.0	29.0	17.0	19.0	18.0
Fanteakwa	30.0	24.0	27.0	6.6	11.0	8.8	6.8	6.8	6.8	12.0	18.0	15.0	25.0	34.0	30.0	14.0	18.0	16.0
Akuapem South	17.0	16.0	17.0	5.8	4.1	5.0	1.2	5.4	3.4	7.3	10.0	8.8	8.3	20.0	15.0	7.2	11.0	9.0
Yilo Krobo	12.0	12.0	12.0	10.0	3.1	6.7	5.4	4.1	4.7	8.4	11.0	9.9	11.0	22.0	17.0	9.0	10.0	9.7
Manya Krobo	21.0	16.0	19.0	7.1	13.0	10.0	7.1	9.0	8.0	20.0	16.0	17.0	26.0	37.0	32.0	16.0	17.0	17.0
Afram Plains	6.3	14.0	10.0	1.9	3.1	2.5	1.9	1.3	1.6	3.3	3.4	3.3	7.0	10.0	8.1	3.4	5.0	4.2
Kwahu South	12.0	21.0	16.0	15.0	17.0	16.0	8.8	12.0	10.0	12.0	17.0	15.0	19.0	19.0	19.0	13.0	17.0	15.0
Sekyer East	19.0	22.0	21.0	11.0	9.6	10.0	5.4	11.0	8.3	13.0	18.0	16.0	15.0	24.0	20.0	12.0	17.0	14.0
Sekyer West	21.0	16.0	19.0	4.4	9.3	6.6	4.7	4.5	4.6	8.8	15.0	12.0	16.0	29.0	23.0	9.6	14.0	12.0
Ejura Sekyidumasi	12.0	19.0	16.0	3.5	8.8	6.2	5.8	7.1	6.4	3.9	12.0	8.2	16.0	12.0	14.0	6.9	11.0	9.3
Karaga	28.0	32.0	30.0	16.0	17.0	17.0	15.0	16.0	15.0	25.0	29.0	27.0	41.0	38.0	40.0	24.0	27.0	25.0
Savelugu Nanton	20.0	20.0	20.0	9.5	13.0	11.0	9.9	6.2	8.4	11.0	18.0	15.0	24.0	18.0	21.0	14.0	16.0	15.0
Tamale	24.0	17.0	21.0	12.0	7.2	9.8	8.2	11.0	9.4	6.5	11.0	8.5	11.0	13.0	12.0	10.0	11.0	11.0
Tolon Kumbugu	18.0	17.0	17.0	6.9	6.1	6.6	4.7	9.3	6.5	8.0	8.0	8.0	6.5	14.0	11.0	8.7	10.0	9.4
West Mamprusi	19.0	10.0	15.0	7.0	4.9	6.0	3.8	2.6	3.3	11.0	11.0	11.0	19.0	13.0	16.0	11.0	8.7	9.8
Total	18.0	19.0	18.0	8.9	8.5	8.7	7.2	8.9	8.0	11.0	15.0	13.0	19.0	25.0	23.0	12.0	15.0	13.0

Table B4.2: Proportion of People Who Reported Ill and Consulted a Health Practitioner during the Last Two Weeks, by District and Sex (%)

District	Sex		Total
	Male	Female	
Gomoa	91	85	87
Awutu Efutu			
Senya	93	93	93
Dangme West	98	96	97
South Tongu	86	83	84
Keta	90	95	93
Ketu	94	92	93
Akatsi	96	94	95
North Dayi	89	90	89
Hohoe	82	88	86
Fanteakwa	93	90	91
Akuapem South	89	92	91
Yilo Krobo	87	96	93
Manya Krobo	98	91	94
Afram Plains	91	66	73
Kwahu South	96	91	93
Sekyere East	91	92	92
Sekyere West	93	79	84
Ejura			
Sekyidumasi	92	95	94
Karaga	92	80	86
Savelugu Nanton	95	92	93
Tamale	99	96	97
Tolon Kumbugu	72	68	70
West Mamprusi	86	77	82
Total	92	88	89

Table B4.3: Proportion of Women Currently Pregnant, by Age Group and Locality (%)

District	Reproductive Age Group (15-49)							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Gomoa	1.7	13.2	9.7	7.4	7.7	0.0	0.0	5.8
Awutu Efutu Senya	0.7	9.1	8.4	4.1	5.0	3.4	0.0	4.4
Dangme West	0.7	11.1	17.3	4.4	1.9	6.3	0.0	6.2
South Tongu	4.3	11.3	12.1	8.9	10.9	4.3	0.0	7.4
Keta	0.9	13.2	26.1	1.9	8.6	7.6	0.0	8.3
Ketu	1.4	1.4	9.3	4.6	11.7	0.0	0.9	4.2
Akatsi	0.8	1.1	36.5	4.8	58.7	0.0	0.0	13.2
North Dayi	2.5	5.6	17.9	7.4	9.1	2.7	1.7	6.6
Hohoe	2.6	6.6	10.0	5.5	0.0	5.2	0.0	4.3
Fanteakwa	1.2	9.3	14.2	9.5	10.5	7.1	0.0	7.6
Akuapem South	0.0	0.9	13.3	11.8	0.0	0.0	0.0	3.7
Yilo Krobo	1.6	8.2	4.1	4.8	10.2	2.7	0.0	4.7
Manya Krobo	1.2	4.4	8.9	5.6	1.7	2.3	0.0	3.6
Afram Plains	1.8	58.9	6.5	6.9	2.8	0.3	0.7	12.2
Kwahu South	2.0	8.8	9.5	10.5	15.7	2.6	0.0	6.8
Sekyere East	1.4	14.4	18.7	8.7	3.0	2.2	0.0	7.6
Sekyere West	0.0	22.7	4.8	12.2	19.7	0.0	0.0	8.8
Ejura Sekyidumasi	2.1	7.9	9.8	6.4	15.6	2.8	3.4	7.1
Karaga	7.0	17.4	19.0	16.0	15.8	8.0	0.0	13.1
Savelugu Nanton	2.8	32.9	18.6	18.8	12.3	6.8	10.7	15.1
Tamale	1.4	1.4	6.1	5.8	1.9	8.5	0.0	3.4
Tolon Kumbugu	0.0	17.9	11.9	7.1	14.7	2.6	12.9	10.0
West Mamprusi	2.0	17.8	16.7	17.8	16.6	3.2	1.1	11.4
Total	1.6	14.7	13.1	8.2	11.7	2.6	1.1	7.8

Table B4.5: Women Aged 15-49 Years (or Their Partners) Who Are Using Any Contraceptive Method to Prevent or Delay Pregnancy, by Age and District (%)

District	Age Group							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Gomoa	0.0	9.1	15.9	17.1	31.1	21.2	11.6	13.3
Awutu Efutu Senya	1.9	17.0	22.0	20.1	16.4	20.3	6.6	14.2
Dangme West	0.0	13.7	11.3	22.7	10.0	14.7	7.6	10.2
South Tongu	1.1	13.4	25.6	23.5	18.7	21.2	23.3	14.6
Keta	8.9	22.8	29.9	18.9	26.9	10.1	5.4	17.2
Ketu	1.0	5.8	12.6	14.4	11.4	5.9	1.7	7.2
Akatsi	1.4	23.3	41.0	66.4	5.6	1.0	3.3	19.5
North Dayi	0.2	3.0	7.6	19.9	19.9	18.4	10.4	9.7
Hohoe	0.8	6.2	23.7	25.8	29.0	16.7	13.6	15.2
Fanteakwa	5.1	21.7	40.8	33.7	26.6	28.6	24.3	23.7
Akuapem South	1.6	18.7	17.7	24.4	18.1	13.2	14.3	14.6
Yilo Krobo	3.0	10.3	27.4	31.0	24.7	19.0	16.4	18.6
Manya Krobo	1.9	9.9	25.1	21.6	28.4	12.5	14.3	14.8
Afram Plains	1.2	5.1	5.8	10.2	17.8	8.5	2.9	6.1
Kwahu South	2.4	17.8	21.5	38.2	39.9	23.3	13.3	19.4
Sekyere East	1.6	17.5	24.3	18.9	18.2	16.0	6.9	13.5
Sekyere West	1.0	8.4	20.4	23.9	11.8	10.2	11.3	11.0
Ejura Sekyidumasi	2.3	11.0	26.2	14.7	22.4	8.9	10.2	12.9
Karaga	3.0	12.2	14.0	12.3	10.4	12.5	7.1	10.2
Savelugu Nanton	0.0	2.0	6.4	5.5	8.3	5.4	7.3	4.6
Tamale	4.2	13.2	17.9	21.3	23.4	13.3	17.9	14.7
Tolon Kumbungu	0.5	7.8	6.2	5.4	9.7	8.2	6.3	5.9
West Mamprusi	1.1	13.4	10.6	20.7	11.5	5.4	3.6	8.9
Total	1.8	12.1	18.7	21.9	19.3	12.3	9.1	12.6

Table B4.6: Children Aged 2-5 years, by MiDA Zone, Age of Child and Age in Months at Weaning (%)

Age of Child	Age in Months at Weaning					
	Northern Zone					Total
	Not breastfed	<12	12-17	18-23	24+	
2 years	5.6	2.4	1.9	11.1	78.9	100
3 years	7.3	3.7	1.0	10.9	77.1	100
4 years	8.7	2.5	1.2	8.4	79.2	100
5 years	17.6	1.9	1.6	7.6	71.3	100
All years	9.6	2.6	1.4	9.5	76.8	100

Age of Child	Afram Basin Zone					Total
	Not breastfed	<12	12-17	18-23	24+	
2 years	7.1	12.1	14.9	21.6	44.4	100
3 years	7.7	12.4	21.2	12.1	46.6	100
4 years	11.7	10.5	21.1	19.1	37.6	100
5 years	23.7	2.2	11.4	9.6	53.2	100
All years	12.5	9.2	16.9	15.4	46.0	100

Age of Child	Southern Horticultural Zone					Total
	Not breastfed	<12	12-17	18-23	24+	
2 years	12.8	11.2	16.2	22.9	36.9	100
3 years	20.2	11.2	10.1	13.6	44.9	100
4 years	11.6	14.6	9.8	17.0	47.1	100
5 years	22.6	9.4	7.0	21.0	40.1	100
All years	16.7	11.6	10.7	18.6	42.4	100

Table B6.1: Extent of Migration of Population Aged 7 Years and older, by District and Sex (%)

District	Sex		Total
	Male	Female	
Gomoa	0.3	0.4	0.7
Awutu Efutu Senya	0.3	0.4	0.8
Dangme West	0.4	0.5	0.9
South Tongu	0.5	0.7	1.2
Keta	0.5	0.8	1.4
Ketu	0.3	0.2	0.5
Akatsi	0.2	0.2	0.4
North Dayi	0.6	0.8	1.4
Hohoe	0.2	0.2	0.5
Fanteakwa	0.7	0.7	1.3
Akwapem South	0.4	0.5	0.8
Yilo Krobo	0.4	0.3	0.8
Manya Krobo	0.6	0.8	1.4
Afram Plains	0.1	0.0	0.1
Kwahu South	0.6	0.7	1.3
Sekyere East	0.6	0.5	1.2
Sekyere West	0.7	0.7	1.5
Ejura Sekyidumasi	0.1	0.0	0.1
Karaga	0.8	1.8	2.6
Savelugu Nanton	1.0	1.8	2.8
Tamale	0.3	0.2	0.5
Tolon Kumbugu	0.7	1.2	1.9
West Mamprusi	0.6	0.6	1.2
Total	11.1	14.2	25.3

Table B7.1: Sources of Land for Respondents, by District (%)

District	From Whom Land Was Obtained								
	Family Head	Chief	Government	Other Male Relative	Other Female Relative	Non Relative	No One	Other	Total
Gomoa	25.9	14.0	1.3	16.6	9.8	25.0	7.3	0.0	100.0
Awutu Efutu Senya	11.4	16.9	0.0	14.5	3.1	50.3	1.4	2.4	100.0
Dangme West	23.7	9.5	11.0	29.1	7.3	14.5	0.8	4.1	100.0
South Tongu	40.0	2.4	0.2	30.9	16.0	8.6	0.1	1.9	100.0
Keta	15.2	0.0	0.0	58.6	13.3	11.4	0.0	1.6	100.0
Ketu	28.8	2.1	3.8	34.4	7.4	23.1	0.0	0.4	100.0
Akatsi	5.5	1.1	0.0	60.6	16.0	2.0	0.8	14.1	100.0
North Dayi	46.0	11.2	2.4	18.3	6.4	10.6	4.3	0.9	100.0
Hohoe	57.1	2.6	0.0	10.9	4.3	23.8	0.0	1.3	100.0
Fanteakwa	4.1	2.5	9.7	25.9	14.2	42.9	0.0	0.8	100.0
Akuapem South	30.1	3.2	0.3	12.3	10.4	41.5	0.0	2.2	100.0
Yilo Krobo	17.7	0.7	3.1	34.1	5.7	36.9	0.1	1.7	100.0
Manya Krobo	20.6	3.9	1.0	46.2	4.2	19.2	0.0	4.9	100.0
Afram Plains	28.6	40.7	0.2	10.5	11.6	5.0	3.1	0.4	100.0
Kwahu South	7.0	2.2	4.5	29.8	16.7	38.8	0.0	0.9	100.0
Sekyere East	4.3	16.2	0.7	25.6	37.1	15.1	0.7	0.4	100.0
Sekyere West	6.4	8.6	3.1	20.7	29.8	23.1	7.4	0.9	100.0
Ejura Sekyidumasi	9.9	23.7	2.7	21.4	16.4	22.0	3.2	0.9	100.0
Karaga	38.5	30.3	0.3	5.6	0.5	1.8	14.4	8.6	100.0
Savelugu Nanton	53.9	26.8	0.0	11.2	0.8	3.3	3.6	0.5	100.0
Tamale	34.7	40.9	1.7	10.9	1.1	8.0	2.3	0.4	100.0
Tolon Kumbugu	57.2	33.1	0.2	3.7	0.7	1.4	1.8	2.0	100.0
West Mamprusi	63.3	7.6	0.0	20.4	0.0	4.1	3.7	1.0	100.0
Total	27.6	16.0	1.6	22.8	10.2	14.8	3.6	3.4	100.0

Table B8.1: Percentage of households harvesting crops by locality

Type of crop	Locality of Residence			MiDA Zone		
	Urban	Rural	Northern Zone	Afram Basin	Southern Horticultural Zone	Total
Avocado Pear	0.9	0.4	0.2	0.6	0.7	0.6
Banana	0.4	0.9	-	1.7	0.5	0.7
Beans/Peas	3.2	7.5	20.6	5.7	1.9	6.2
Cashew Nut	0.1	0.1	0.2	0.1	0.1	0.1
Cassava	10.7	39.9	7.1	34.0	37.7	31.3
Cocoa	1.6	2.7	-	6.3	1.2	2.4
Coconut	0.1	0.2	-	0.0	0.3	0.2
Cocoyam	3.4	5.3	0.0	14.1	1.6	4.7
Coffee	0.1	0.2	-	0.2	0.1	0.1
Colanut	0.1	0.3	0.0	0.8	0.0	0.2
Cotton	0.0	0.2	1.0	-	-	0.2
Garden Egg	0.3	1.6	0.3	1.0	1.6	1.2
Ginger	0.0	0.0	-	0.1	-	0.0
Groundnut	6.6	18.8	45.3	15.5	5.5	15.2
Guinea corn/Sorghum	1.1	4.3	18.9	0.1	0.0	3.4
Kenef	-	0.0	0.1	0.0	-	0.0
Leafy vegetables	0.3	0.3	1.4	0.1	0.1	0.3
Lime/Lemon	0.0	-	0.0	-	0.0	0.0
Maize	37.0	65.1	68.8	54.0	54.4	56.8
Mango	0.1	0.1	0.2	0.0	0.1	0.1
Millet	2.2	3.7	18.0	0.2	0.0	3.2
Oil palm	1.9	2.1	-	2.0	2.8	2.1
Okro	2.7	5.7	15.3	1.5	3.1	4.8
Onion	2.3	1.0	0.2	0.9	2.1	1.4
Oranges	1.0	0.5	0.0	1.0	0.7	0.7
Pawpaw	0.4	0.0	-	0.1	0.2	0.1
Pepper	3.2	14.1	10.4	17.9	7.6	10.9
Pineapple	0.1	0.8	-	0.5	0.8	0.6
Plantain	4.3	6.1	-	15.5	2.5	5.6
Potatoes	0.7	0.8	0.8	0.8	0.7	0.7
Rice	3.6	6.3	24.5	1.4	1.5	5.5
Sheanut	0.1	-	0.1	-	-	0.0
Sugar cane	0.8	0.5	0.1	0.1	1.0	0.6
Tiger Nut	0.0	0.5	-	1.3	0.0	0.4
Tobacco	-	0.0	-	-	0.0	0.0
Tomatoes	2.7	5.1	1.8	1.8	6.5	4.4
Water Melon	0.2	0.3	0.8	0.2	0.1	0.3
Wood lot	0.5	-	-	-	0.3	0.2
Yam	8.7	13.9	25.3	17.2	5.8	12.3
Other Crops	2.5	0.8	6.0	0.4	0.3	1.3
Other Fruits	0.0	0.1	0.0	0.1	0.1	0.1
Other Vegetables	0.6	0.6	0.5	0.3	0.8	0.6
Any Crop	80.9	96.2	98.3	97.3	86.9	91.7

Table B9.1: Estimated Number of Enterprises, by District

District	Estimated Number of Enterprises	District	Estimated Number of Enterprises
Gomoa	36,426	Manya Krobo	22,826
Awutu Efutu Senya	17,099	Afram Plains	57,155
Dangme west	20,953	Kwahu South	27,044
South Tongu	8,822	Sekyere East	15,262
Keta	11,638	Sekyere West	20,711
Ketu	56,710	Ejura Sekyere	10,590
Akatsi	7,903	Karaga	28,194
North Dayi	29,425	Savelugu Nanton	24,645
Hohoe	13,941	Tamale	40,051
Fanteakwa	12,032	Tolon Kumbungu	15,949
Akuapem South	22,221	West Mamprusi	8,368
Yilo Krobo	16,583	Total	524,547

Table B9.2: Persons Engaged in Non-farm Enterprises, by District

District	Number of persons Engaged in Non-farm enterprises	District	Number of persons Engaged in Non-farm enterprises
Gomoa	113,330	Manya Krobo	11,879
Awutu Efutu seny	61,297	Afram Plains	35,167
Dangme West	83,243	Kwahu South	106,548
South Tongu	33,234	Sekyere East	13,581
Keta	39,847	Sekyere West	34,251
Ketu	196,601	Ejura Sekyere	43,003
Akatsi	2,842	Karaga	80,438
North Dayi	94,562	Savelugu Nanton	7,916
Hohoe	32,357	Tamale	67,957
Fanteakwa	42,998	Tolon Kumbungu	23,955
Akuapem South	108,073	West Mamprusi	37,261
Yilo Krobo	64,548	Total	1,334,889

Table B9.3a: Estimated Annual Revenue per Enterprise (Thousand GH¢)

Appendix 3a Estimated annual revenue per enterprise (Thousand GH¢)				
District	Manufacturing	Trading	Other	All Non-Farm Enterprise
Gomoa	21,200.00	47,500.00	10,700.00	79,500.00
Awutu Efutu Senya	12,500.00	11,500.00	2,909.70	26,900.00
Dangme West	1,431.77	6,620.94	4,729.89	12,800.00
South Tongu	5,144.20	6,437.65	1,072.83	12,700.00
Keta	2,830.40	4,707.56	1,415.25	8,953.21
Ketu	16,800.00	34,600.00	10,300.00	61,800.00
Akatsi	4,308.94	9,780.91	2,138.40	16,200.00
North Dayi	3,585.48	22,700.00	5,683.86	32,000.00
Hohoe	2,047.40	2,763.63	1,144.08	5,955.11
Fanteakwa	2,818.57	7,016.05	2,061.96	11,900.00
Akuapem South	10,800.00	18,100.00	53,400.00	82,300.00
Yilo Krobo	4,113.90	30,200.00	3,241.41	37,500.00
Manya Krobo	2,877.10	25,200.00	2,124.47	30,200.00
Afram Plains	2,436.56	29,400.00	3,864.02	35,700.00
Kwahu South	10,200.00	17,500.00	10,300.00	38,000.00
Sekyere East	11,400.00	9,300.54	5,910.50	26,700.00
Sekyere West	7,158.97	14,400.00	4,168.40	25,800.00
Ejura Sekyere	2,166.35	7,378.13	1,433.29	11,000.00
Karaga	3,900.45	19,500.00	4,133.86	27,600.00
Savelugu Nanton	4,439.46	9,454.05	6,039.25	19,900.00
Tamale	13,600.00	108,000.00	6,849.01	129,000.00
Tolon Kumbungu	1,664.97	1,614.06	928.15	4,207.19
West Mamprusi	876.21	2,362.98	895.48	4,134.67

Table B9.3b: Average Annual Revenue per Enterprise, District (GH¢)

District	Appendix 3b Average annual revenue per enterprise (GH¢) By District							
	Manufacturing		Trading		Other		All Enterprises	
	Male	Female	Male	Female	Male	Female	Male	Female
Gomoa	2,859.13	2,601.29	5,060.76	2,466.27	5,388.84	1,642.30	4,322.94	2,414.16
Awutu Efutu Senya	5,945.39	1,573.61	4,787.80	605.59	3,526.15	1,070.87	5,094.21	866.12
Dangme West	651.08	397.33	1,162.42	695.64	1,219.00	763.00	1,033.75	683.11
South Tongu	2,079.89	882.61	3,411.61	2,425.30	1,636.98	1,453.45	2,296.46	1,532.84
Keta	1,029.84	722.24	2,165.22	838.36	2,865.39	1,115.46	1,585.74	819.55
Ketu	1,212.27	770.95	14,260.26	849.14	1,288.48	1,355.72	3,014.32	902.14
Akatsi	1,696.36	1,270.29	1,609.54	4,425.05	3,304.81	1,656.17	1,910.57	2,734.91
North Dayi	869.91	915.00	6,209.15	1,402.86	2,077.49	818.38	2,816.19	1,235.14
Hohoe	1,034.09	403.07	811.53	374.70	624.51	306.31	868.16	361.50
Fanteakwa	817.05	850.44	552.59	1,751.87	4,024.71	840.86	1,141.03	1,350.37
Akuapem South	4,374.62	1,300.65	2,692.82	1,718.09	43,085.20	6,340.41	10,672.53	2,803.82
Yilo Krobo	1,052.33	1,046.77	2,561.89	4,375.58	1,432.47	2,735.87	1,714.78	3,421.92
Manya Krobo	1,523.73	510.95	2,747.61	2,159.36	370.88	1,118.18	1,985.19	1,681.81
Afram Plains	629.23	612.08	641.59	729.05	5,344.47	448.55	1,006.11	694.32
Kwahu South	2,858.69	664.92	4,774.22	1,215.49	4,663.63	928.54	3,964.92	969.52
Sekyere East	2,595.94	2,850.03	1,816.17	1,686.12	3,131.77	1,468.56	2,489.57	2,068.47
Sekyere West	1,575.56	942.10	4,057.48	1,149.58	1,143.77	1,546.57	2,329.46	1,155.16
Ejura Sekyere	2,369.90	1,322.02	1,899.11	1,273.40	2,557.18	627.83	2,153.41	1,211.35
Karaga	683.19	394.60	4,325.37	729.25	2,960.52	806.91	3,092.58	525.43
Savelugu Nanton	1,102.00	608.33	3,688.41	759.09	9,325.73	836.55	3,613.10	699.13
Tamale	1,541.62	1,718.79	10,710.94	2,960.64	1,488.49	2,643.19	6,598.10	2,634.79
Tolon Kumbungu	283.18	334.70	551.72	457.38	1,188.56	440.15	522.83	386.27
West Mamprusi	415.63	660.96	867.76	478.92	1,534.99	1,206.20	761.21	617.50