



**Final Report On**

**Charcoal Price Tracking**

*in*

**Major Urban Centres of Ghana**

**June 2012 – December 2012**

**Strategic Planning and Policy Division**

**March, 2013**

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## **CHAPTER ONE: GENERAL INTRODUCTION**

### **1.0 Introduction**

This report presents the key findings/results of a survey on charcoal pricing in selected markets across the ten regions in the country for the period June - December, 2012.

This chapter outlines the background to the survey, its objectives and organization of the report.

### **1.1 Background**

The Strategic National Energy Plan (SNEP, 2006 - 2020) released by the Energy Commission in 2006 indicated that woodfuel accounts for about 60% of the country's total final energy by 2000. Furthermore, the Ghana Statistical Services reported in 2005 through the Ghana Living Standard Survey (GLSS5, 2008, Fifth Round), that about 80% of rural households and 53% of urban households use woodfuel for cooking in 2005.

The Strategic National Energy Plan is being updated in 2013. This will involve the evaluation of future energy demand for all forms of energy and analysis of all supply possibilities to ensure that all reasonable demand for energy up to 2040 are met sustainably.

As part of the woodfuel planning process, this project seeks to collect the prices of charcoal in major woodfuel consuming towns and regions of the country.

### **1.2 Objective of Study**

The objective of the study is to collect data on charcoal market prices in selected markets/centres in each region of the country to build a database for the SNEP update.

### **1.3 Organization of the Report**

The report is organized as follows: Chapter 1 covers introduction, background and objective of study. Chapter 2 presents the methodology for the survey, and the analysis of the data. Presentation of the results/findings of the analysis is found in Chapter 3. Chapter 4 gives conclusion. Summary Statistics and their normal distribution curves are added as Appendix.

## **CHAPTER TWO: SURVEY METHODOLOGY AND ANALYSIS OF DATA**

### **2.0 Introduction**

This chapter presents the methodology adopted in undertaking the survey. This comprises survey instrument design, sample selection, training of field enumerators, pre-testing of questionnaires, survey implementation, quality control procedures, design of data entry system, data entry, data cleaning, data accuracy, data analysis and report writing.

### **2.1 Survey Instrument Design**

The survey instrument was designed for charcoal price tracking study. This initial survey instrument was peer-reviewed and revised after a series of interactive working sessions. The survey instrument sought to collect information on the charcoal supply and charcoal sales (pricing) throughout the country.

The questionnaires were then assigned unique identification numbers to facilitate back-tracking the data entered on the questionnaires to actual respondents in the case of data entry errors.

### **2.2 Sample Design and Selection**

In all, 39 major charcoal consuming towns in the ten regions of the country were selected purposefully for the exercise. Then, in each market Centre, two charcoal dealers were randomly selected and the required information/responses elicited from them.

### **2.3 Sourcing and Training of Field Enumerators**

A total of 39 enumerators were sourced from the National Youth Employment Programme (NYEP). These field enumerators were then trained on techniques of questionnaire administration and other relevant topics in the energy field. The training was held in all the ten regional capitals of the country. The training comprised theoretical instruction, mock questionnaire administration and pre-testing of the questionnaires.

After the training exercise, the enumerators were given the questionnaires so that they could begin collecting the data from their respective markets centres.

The field enumerators are to visit their respective market centres every two weeks and elicit responses on the prices of charcoal from two customers in the same market but who are unknown to each other. The responses are then transmitted through the postal system or over the internet to the Energy Commission for compilation and analysis.

## 2.3 Design of Data Entry Template

The Data Entry Template was designed using Census and Survey Processing System (CSPro). CSPro is a public domain statistical software package developed by the United States of America Census Bureau, Macro. CSPro is used for entering, editing, tabulating, and disseminating census and survey data. The appearance of the template closely resembles the questionnaires used for the data collection. Figure 2.1 below shows part of the template used to capture the data.

The screenshot shows a data entry form for the Charcoal Price Tracking Study. At the top, it displays the title "ENERGY COMMISSION" and "CHARCOAL PRICE TRACKING STUDY". The form includes fields for Unique ID (1322130112), Month of interview (1), Week of interview (1), Name of Enumerator (misheal ninson), Contact No., Date of interview (DD MM YYYY, 4 12 013), and Time interview begin (1630).

Below this, a section titled "1.0 Basic Information" contains fields for Name of market (essikado), Town (essikado), Suburb (essikado), District (shema), Region (13), Sex of trader (2), and Age of trader (53).

At the bottom, there is a toolbar with various icons and status information: "No Partial", "MODIFY", "Field = UNIQUE\_ID", "Occurrence 1 of 1", "NUM", battery level, signal strength, 9:51 PM, and 2/25/2013.

**Figure 2.1: Sample of charcoal price tracking template**

Controls or codes were built in the design of the data entry template to minimize data entry errors. These controls ensured logical sequencing of questions and range checks. All data entry records were subjected to double entry by allowing two entry clerks to enter the same record.

## **2.5 Data capture and Analysis**

The field data captured using CSPro template was subjected to cleaning using STATA (a data analysis and statistical software) to identify data omissions; eliminate data entry errors and outliers. This was done to obtain quality data for the analysis. Copies of the field questionnaires and the un-cleaned data captured using the CSPro templates were preserved to allow for data verification during the subsequent data analysis stage(s).

SPSS, STATA and Excel are all employed to analyse and generate descriptive statistics, frequency distribution tables and their normal distributions.

The variables considered for the analysis include:

- price of charcoal (quantitative and continuous data);
- charcoal supply points/ production areas (qualitative and discrete data);
- cause of increase in demand for charcoal (qualitative and discrete data).

## **2.6 Presentation of Results**

The results/findings of the analysis of the data are presented in the following tables in chapter 3.

## CHAPTER THREE: RESULTS

### 3.1 Results

**Table 3.1: Mean Weight of Charcoal in kilogram (kg)**

Charcoal Source	Region	Average Weight (kg)				Moisture Content
		Maxi Bag	Mean	Mini Bag	Mean	
1. Saw mill residue	Ashanti, Eastern, Western	44 - 45	44.50	21 - 22	21.50	Up to 40%
2. Savanna	Brong Ahafo, Northern, Upper East, Upper West	55 - 60	57.50	30 - 32	31.00	Up to 20%
3. Acacia plantation	Greater Accra, Central	57 - 63	60.00	31 - 32	31.50	Up to 20%
4. All other wood	Volta, Western, Eastern, Ashanti	50 - 55	52.50	25 - 27	26.00	Up to 25%

Table 3.1 is used in the calculations of the tables involving the average prices of charcoal in Ghana Cedis per kg.

**Table 3.2: June 2012 Statistics- Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis in the Selected Major Towns: June 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	18.25	18.00	18.00	12.25	12.00	12.00
	Akim Oda	18.25	18.00	18.00	14.75	15.00	15.00
	Donkorkrom	10.63	10.50	10.00	6.75	7.00	7.00
Volta	Nkwanta	21.25	21.00	21.00	11.00	11.00	11.00
	Denu	25.00	25.00	25.00	11.00	11.00	11.00
	Ho	23.50	23.50	23.00	12.38	12.25	12.00
Central	Winneba	19.00	19.00	19.00	14.25	14.00	14.00
	Cape-Coast	28.75	29.00	30.00	13.00	13.00	14.00
	Swedru	18.88	19.00	19.00	12.88	13.00	13.00
Western	Axim	26.25	26.00	26.00	12.75	13.00	13.00
	Sekondi	28.25	29.00	30.00	15.75	14.50	14.00
	Takoradi	24.00	23.50	22.00	16.00	15.00	15.00
	Tarkwa	14.63	14.75	15.00	11.38	11.25	11.00
	Juaboso	18.25	18.00	18.00	7.75	8.00	8.00
Ashanti	Konongo	16.63	16.50	16.00	10.38	10.50	11.00
	Kumasi	14.25	14.00	13.00	7.75	7.50	7.00
	Offinso	16.13	16.00	16.00	8.38	8.25	8.00
Brong Ahafo	Nkoranza South	10.00	10.00	10.00	5.00	5.00	5.00
	Atebubu	8.75	9.00	9.00	4.75	5.00	5.00
	Sunyani Municipal	13.13	13.00	13.00	7.00	7.00	7.00
	Techiman	12.00	12.00	12.00	7.13	7.00	7.00
	Jaman North	12.50	12.50	13.00	7.38	7.50	8.00
	Kintampo	9.50	9.50	10.00	6.63	6.75	7.00
Northern	Tamale	12.00	12.00	12.00	7.00	7.00	6.00
	Salaga	10.25	10.00	10.00	5.25	5.00	5.00
	Yendi	12.00	12.00	12.00	6.00	6.00	6.00
Upper East	Navrongo	21.75	21.00	20.00	14.75	15.00	15.00
	Bawku	15.00	15.00	15.00	8.75	8.50	8.00
	Bolgatanga	15.00	15.00	15.00	10.75	10.50	10.00
Upper West	Jirapa	13.00	13.00	13.00	8.00	8.00	8.00
	Sissala East	10.00	10.00	10.00	5.25	5.00	5.00
	Wa	14.38	14.50	15.00	10.50	10.50	10.00
Greater Accra	Tema	23.25	23.50	20.00	13.75	12.50	12.00
	Ashaiman	18.25	18.00	18.00	15.38	15.25	15.00
	Accra	20.00	20.00	19.00	13.50	13.00	13.00
Ghana		<b>17.24</b>	<b>17.00</b>	<b>17.00</b>	<b>10.35</b>	<b>11.00</b>	<b>12.00</b>

**Table 3.3: June 2012 Statistics - Charcoal Prices in the Regions**

Region	Charcoal Prices in Ghana Cedis by Region: June 2012					
	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	15.71	18.00	18.00	11.25	12.00	7.00
Volta	19.83	23.50	25.00	11.46	11.00	11.00
Central	22.21	19.00	19.00	13.38	13.75	14.00
Western	22.28	23.50	26.00	12.73	13.00	13.00
Ashanti	15.31	16.00	16.00	8.56	8.25	8.00
Brong Ahafo	10.98	11.00	12.00	6.31	7.00	7.00
Northern	11.42	12.00	12.00	6.08	6.00	6.00
Upper East	17.25	15.50	15.00	11.42	10.50	10.00
Upper West	12.46	13.00	13.00	7.92	8.00	8.00
Greater Accra	20.79	20.00	19.00	13.90	13.00	12.00
<b>Ghana</b>	<b>17.24</b>	<b>17.00</b>	<b>17.00</b>	<b>10.35</b>	<b>11.00</b>	<b>12.00</b>

**Table 3.4: Average Price of charcoal in Ghana Cedis per kg in the Regions: June 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: August 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.30	0.34	0.34	0.43	0.46	0.27
Volta	0.38	0.45	0.48	0.44	0.42	0.42
Central	0.37	0.32	0.32	0.42	0.44	0.44
Western	0.42	0.45	0.50	0.49	0.50	0.50
Ashanti	0.29	0.30	0.30	0.33	0.32	0.31
Brong Ahafo	0.19	0.19	0.21	0.20	0.23	0.23
Northern	0.20	0.21	0.21	0.20	0.19	0.19
Upper East	0.30	0.27	0.26	0.37	0.34	0.32
Upper West	0.22	0.23	0.23	0.26	0.26	0.26
Greater Accra	0.35	0.33	0.32	0.44	0.41	0.38

**Table 3.5: July 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis in the Selected Major Towns: July 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	19.00	19.00	18.00	12.00	12.00	12.00
	Akim Oda	19.00	19.00	19.00	14.25	14.50	15.00
	Donkorkrom	10.25	10.00	10.00	7.13	7.00	7.00
Volta	Nkwanta	20.00	20.00	20.00	10.00	10.00	10.00
	Denu	23.00	22.50	22.00	11.38	11.25	11.00
	Ho	23.50	23.50	23.00	12.38	12.25	12.00
Central	Winneba	19.00	19.00	19.00	9.81	13.00	13.00
	Cape-Coast	29.50	29.50	32.00	13.00	13.00	13.00
	Swedru	18.25	18.00	18.00	12.63	12.75	13.00
Western	Axim	25.75	25.50	25.00	12.63	12.75	13.00
	Sekondi	30.25	30.00	30.00	15.38	15.25	15.00
	Takoradi	25.50	25.00	25.00	15.00	15.00	15.00
	Tarkwa	14.75	15.00	15.00	12.63	12.75	13.00
	Juaboso	17.25	17.00	17.00	8.25	8.00	8.00
Ashanti	Konongo	16.63	16.50	16.00	9.50	9.50	9.50
	Kumasi	13.63	14.00	14.00	8.13	7.50	7.00
	Offinso	16.25	16.00	16.00	8.00	8.00	8.00
Brong Ahafo	Nkoranza South	9.50	9.50	9.00	5.00	5.00	5.00
	Atebubu	8.75	9.00	9.00	4.75	5.00	5.00
	Sunyani Municipal	12.38	12.25	12.00	7.00	7.00	7.00
	Techiman	12.50	12.50	12.00	7.13	7.00	7.00
	Jaman North	12.00	12.00	12.00	7.50	7.50	8.00
	Kintampo	9.00	9.00	9.00	4.00	4.00	4.00
Northern	Tamale	15.50	16.00	16.00	7.63	7.75	8.00
	Salaga	10.50	10.00	10.00	5.50	5.00	5.00
	Yendi	17.00	17.00	17.00	6.50	6.50	6.50
Upper East	Navrongo	21.75	21.00	20.00	14.75	15.00	15.00
	Bawku	17.00	17.00	17.00	9.25	9.00	9.00
	Bolgatanga	14.75	14.50	14.00	10.75	10.50	10.00
Upper West	Jirapa	13.00	13.00	13.00	8.00	8.00	8.00
	Sissala East	10.00	10.00	10.00	5.25	5.00	5.00
	Wa	13.75	13.50	13.00	10.50	10.50	10.00
Greater Accra	Tema	24.50	24.50	26.00	15.50	15.50	18.00
	Ashaiman	18.75	18.50	18.00	15.00	15.00	15.00
	Accra	19.67	19.00	25.00	12.88	13.00	13.00
Ghana		<b>17.42</b>	<b>17.00</b>	<b>18.00</b>	<b>10.29</b>	<b>10.00</b>	<b>13.00</b>

**Table 3.6: July 2012 Statistics - Charcoal Prices in the Regions**

Charcoal Prices in Ghana Cedis by Region: July 2012						
Region	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	16.08	18.00	17.00	11.13	12.00	7.00
Volta	18.83	22.50	20.00	11.25	11.25	10.00
Central	22.25	19.00	19.00	12.88	13.00	13.00
Western	22.70	25.00	25.00	12.78	13.00	13.00
Ashanti	15.03	15.50	16.00	8.44	8.00	8.00
Brong Ahafo	10.69	11.00	9.00	5.90	6.00	7.00
Northern	14.33	16.00	16.00	6.54	6.75	5.00
Upper East	17.83	17.00	17.00	11.58	10.50	9.00
Upper West	12.25	13.00	13.00	7.92	8.00	8.00
Greater Accra	21.13	21.00	18.00	14.10	13.00	13.00
<b>Ghana</b>	<b>17.42</b>	<b>17.00</b>	<b>18.00</b>	<b>10.29</b>	<b>10.00</b>	<b>13.00</b>

**Table 3.7: Average Price of charcoal in Ghana Cedis per kg in the Regions: July 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: July 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.30	0.34	0.34	0.43	0.46	0.27
Volta	0.36	0.43	0.38	0.43	0.43	0.38
Central	0.37	0.32	0.32	0.41	0.41	0.41
Western	0.43	0.48	0.48	0.49	0.50	0.50
Ashanti	0.29	0.30	0.30	0.32	0.31	0.31
Brong Ahafo	0.19	0.19	0.16	0.19	0.19	0.23
Northern	0.25	0.28	0.28	0.21	0.22	0.16
Upper East	0.31	0.30	0.30	0.37	0.34	0.29
Upper West	0.21	0.23	0.23	0.26	0.26	0.26
Greater Accra	0.35	0.35	0.30	0.45	0.41	0.41

**Table 3.8: August 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis by the Selected Major Towns: August 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	19.25	19.00	19.00	12.00	12.00	12.00
	Akim Oda	18.25	18.00	18.00	15.00	15.00	15.00
	Donkorkrom	11.13	11.00	11.00	7.13	7.00	7.00
Volta	Nkwanta	21.88	22.00	22.00	11.50	11.50	11.50
	Denu	26.75	27.00	27.00	16.63	16.75	17.00
	Ho	23.50	23.50	23.00	12.38	12.25	12.00
Central	Winneba	18.00	18.00	18.00	8.06	9.25	9.00
	Cape-Coast	28.75	29.00	30.00	15.75	16.00	17.00
	Swedru	18.25	18.50	19.00	14.13	14.00	14.00
Western	Axim	27.00	27.00	27.00	13.00	13.00	13.00
	Sekondi	31.25	30.00	30.00	15.75	15.00	15.00
	Takoradi	26.75	27.00	28.00	17.75	17.50	17.00
	Tarkwa	16.25	16.00	16.00	12.25	12.00	12.00
	Juaboso	17.00	17.00	17.00	8.00	8.00	8.00
Ashanti	Konongo	17.00	17.00	17.00	9.00	9.00	9.00
	Kumasi	14.75	15.00	17.00	8.75	8.50	8.00
	Offinso	18.50	18.50	16.00	8.00	8.00	8.00
Brong Ahafo	Nkoranza South	10.50	10.50	10.00	5.50	5.50	5.00
	Atebubu	8.75	9.00	9.00	4.75	5.00	5.00
	Sunyani Municipal	13.75	14.00	14.00	7.38	7.25	7.00
	Techiman	13.25	13.00	13.00	7.00	7.00	7.00
	Jaman North	12.00	12.00	12.00	8.00	8.00	8.00
	Kintampo	9.00	9.00	9.00	4.63	4.50	4.00
Northern	Tamale	14.25	14.00	14.00	7.00	7.00	7.00
	Salaga	12.50	12.50	12.50	6.50	6.50	6.50
	Yendi	18.00	18.00	18.00	6.75	7.00	7.00
Upper East	Navrongo	24.75	24.00	24.00	12.25	12.00	12.00
	Bawku	19.25	19.00	19.00	9.38	9.25	9.00
	Bolgatanga	15.25	15.50	16.00	11.00	11.00	11.00
Upper West	Jirapa	13.00	13.00	13.00	8.00	8.00	8.00
	Sissala East	8.00	8.00	8.00	5.00	5.00	5.00
	Wa	16.00	16.00	16.00	9.13	9.00	9.00
Greater Accra	Tema	24.50	24.50	26.00	15.50	15.50	18.00
	Ashaiman	18.00	18.00	18.00	15.25	15.00	15.00
	Accra	18.42	18.00	18.00	12.96	13.00	13.00
<b>Ghana</b>		<b>17.94</b>	<b>17.00</b>	<b>18.00</b>	<b>10.58</b>	<b>10.00</b>	<b>8.00</b>

**Table 3.9: August 2012 Statistics - Charcoal Prices in the Regions**

Region	Charcoal Price in Ghana Cedis by Region : August 2012					
	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	16.21	18.00	19.00	11.38	12.00	7.00
Volta	20.58	23.50	27.00	13.50	12.25	12.00
Central	21.67	18.50	18.00	13.08	14.00	14.00
Western	23.65	26.00	17.00	13.35	13.00	13.00
Ashanti	16.25	17.00	17.00	8.63	8.50	8.00
Brong Ahafo	11.21	11.50	9.00	6.21	6.50	5.00
Northern	14.92	14.00	18.00	6.75	7.00	7.00
Upper East	19.75	19.00	19.00	10.88	11.00	12.00
Upper West	12.33	13.00	13.00	7.38	8.00	8.00
Greater Accra	20.38	20.50	18.00	14.19	13.25	13.00
<b>Ghana</b>	<b>17.94</b>	<b>17.00</b>	<b>18.00</b>	<b>10.58</b>	<b>10.00</b>	<b>8.00</b>

**Table 3.10: Average Price of charcoal in Ghana Cedis per kg in the Regions: August 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: August 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.31	0.34	0.36	0.44	0.46	0.27
Volta	0.39	0.45	0.51	0.52	0.47	0.46
Central	0.36	0.31	0.30	0.42	0.44	0.44
Western	0.45	0.50	0.32	0.51	0.50	0.50
Ashanti	0.31	0.32	0.32	0.33	0.33	0.31
Brong Ahafo	0.19	0.20	0.16	0.20	0.21	0.16
Northern	0.26	0.24	0.31	0.22	0.23	0.23
Upper East	0.34	0.33	0.33	0.35	0.35	0.39
Upper West	0.21	0.23	0.23	0.24	0.26	0.26
Greater Accra	0.34	0.34	0.30	0.45	0.42	0.41

**Table 3.11: September 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Prices in Ghana Cedis in the Selected Major Towns: September 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	20.38	20.50	21.00	13.25	13.00	13.00
	Akim Oda	17.25	17.00	17.00	14.50	15.00	15.00
	Donkorkrom	11.50	11.50	12.00	6.75	6.50	6.00
Volta	Nkwanta	21.25	21.50	22.00	10.88	11.00	11.00
	Denu	29.00	29.00	29.00	18.00	18.00	18.00
	Ho	24.00	24.00	24.00	12.63	12.75	13.00
Central	Winneba	18.00	18.00	18.00	10.00	10.00	10.00
	Cape-Coast	27.75	28.00	28.00	15.00	15.00	15.00
	Swedru	19.38	19.25	19.00	13.00	13.25	13.50
Western	Axim	27.25	27.00	27.00	14.00	14.00	14.00
	Sekondi	30.50	30.00	30.00	15.75	15.00	15.00
	Takoradi	27.50	27.00	26.00	17.75	17.50	17.00
	Tarkwa	16.25	16.00	16.00	12.50	12.50	13.00
	Juaboso	20.00	20.00	20.00	10.00	10.00	10.00
Ashanti	Konongo	16.25	16.00	16.00	9.38	9.25	8.50
	Kumasi	13.63	13.00	11.00	8.50	8.50	9.00
	Offinso	15.63	15.75	16.00	8.63	8.75	9.00
Brong Ahafo	Nkoranza South	10.00	10.00	10.00	5.00	5.00	5.00
	Atebubu	8.75	9.00	9.00	4.75	5.00	5.00
	Sunyani Municipal	14.00	14.00	14.00	8.00	8.00	8.00
	Techiman	13.00	13.00	13.00	7.00	7.00	7.00
	Jaman North	10.75	10.50	10.00	6.75	6.50	6.00
	Kintampo	9.00	9.00	9.00	5.00	5.00	5.00
Northern	Tamale	13.75	13.50	12.00	6.75	6.75	7.50
	Salaga	12.50	12.50	13.00	6.75	6.50	6.50
	Yendi	18.50	18.50	18.00	8.38	8.25	8.00
Upper East	Navrongo	25.63	25.75	26.00	15.50	15.50	16.00
	Bawku	19.75	20.00	20.00	10.25	10.50	10.50
	Bolgatanga	14.75	14.50	14.00	10.75	10.50	10.00
Upper West	Jirapa	14.00	14.00	14.00	9.00	9.00	9.00
	Sissala East	10.00	10.00	10.00	5.25	5.00	5.00
	Wa	17.75	18.00	18.00	11.00	11.00	11.00
Greater Accra	Tema	24.50	24.50	23.00	15.50	15.50	13.00
	Ashaiman	20.25	20.25	20.50	16.63	16.50	16.00
	Accra	20.00	19.00	19.00	15.92	16.00	15.00
<b>Ghana</b>		<b>18.22</b>	<b>18.00</b>	<b>18.00</b>	<b>11.14</b>	<b>10.50</b>	<b>15.00</b>

**Table 3.12: September 2012 Statistics - Charcoal Prices in the Regions**

Charcoal Prices in Ghana Cedis by Region: September 2012						
Region	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	16.38	17.00	17.00	11.50	13.00	13.00
Volta	21.29	24.00	29.00	13.83	12.75	18.00
Central	21.71	19.25	18.00	12.67	13.25	15.00
Western	24.30	26.50	20.00	14.00	14.00	14.00
Ashanti	14.78	16.00	16.00	8.75	8.75	9.00
Brong Ahafo	10.92	10.00	9.00	6.08	5.50	5.00
Northern	14.92	14.00	12.00	7.29	7.50	6.00
Upper East	20.04	20.00	20.00	12.17	10.75	10.50
Upper West	13.92	14.00	14.00	8.42	9.00	9.00
Greater Accra	21.54	21.50	19.00	15.90	16.00	17.00
<b>Ghana</b>	<b>18.22</b>	<b>18.00</b>	<b>18.00</b>	<b>11.14</b>	<b>10.50</b>	<b>15.00</b>

**Table 3.13: Average Price of charcoal in Ghana Cedis per kg in the Regions: September 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: September 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.31	0.32	0.32	0.44	0.50	0.50
Volta	0.41	0.46	0.55	0.53	0.49	0.69
Central	0.36	0.32	0.30	0.40	0.42	0.48
Western	0.46	0.50	0.38	0.54	0.54	0.54
Ashanti	0.28	0.30	0.30	0.34	0.34	0.35
Brong Ahafo	0.19	0.17	0.16	0.20	0.18	0.16
Northern	0.26	0.24	0.21	0.24	0.24	0.19
Upper East	0.35	0.35	0.35	0.39	0.35	0.34
Upper West	0.24	0.24	0.24	0.27	0.29	0.29
Greater Accra	0.36	0.36	0.32	0.50	0.51	0.54

**Table 3.14: October 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Prices in Ghana Cedis in the Selected Major Towns: October 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	21.75	22.00	22.00	13.00	13.00	13.00
	Akim Oda	17.75	18.00	18.00	14.38	14.25	14.00
	Donkorkrom	11.75	12.00	12.00	6.75	6.50	6.00
Volta	Nkwanta	23.25	23.50	24.00	10.88	11.00	11.00
	Denu	30.00	30.50	31.00	18.88	19.00	19.00
	Ho	23.50	23.50	23.00	12.38	12.25	12.00
Central	Winneba	18.38	18.25	18.00	9.93	9.75	10.00
	Cape-Coast	24.00	24.00	24.00	19.00	19.00	19.00
	Swedru	19.38	19.25	19.00	12.88	13.00	13.00
Western	Axim	27.75	27.50	27.00	14.00	14.00	14.00
	Sekondi	31.00	31.00	32.00	15.50	15.50	16.00
	Takoradi	28.00	27.50	27.00	17.75	17.50	17.00
	Tarkwa	16.25	16.00	16.00	12.63	12.75	13.00
	Juaboso	20.00	20.00	20.00	10.00	10.00	10.00
Ashanti	Konongo	16.75	17.00	17.00	10.00	10.00	10.00
	Kumasi	12.88	13.00	13.00	7.63	7.50	7.00
	Offinso	16.00	16.00	16.00	8.00	8.00	8.00
Brong Ahafo	Nkoranza South	11.00	11.00	10.00	5.50	5.50	5.00
	Atebubu	9.25	9.00	9.00	4.75	4.75	4.50
	Sunyani Municipal	14.00	14.00	14.00	7.25	7.25	7.00
	Techiman	13.00	13.00	13.00	8.38	8.25	8.00
	Jaman North	10.25	10.00	10.00	6.25	6.00	6.00
	Kintampo	9.50	9.50	9.00	5.00	5.00	5.00
Northern	Tamale	18.88	19.00	19.00	9.38	9.50	9.50
	Salaga	14.50	15.00	15.00	7.38	7.50	7.50
	Yendi	18.00	18.00	18.00	9.00	9.00	9.00
Upper East	Navrongo	25.63	25.75	26.00	15.50	15.50	16.00
	Bawku	19.38	19.25	19.00	10.00	10.00	10.50
	Bolgatanga	16.75	17.00	17.00	11.75	12.00	12.00
Upper West	Jirapa	14.00	14.00	14.00	9.00	9.00	9.00
	Sissala East	10.00	10.00	10.00	5.00	5.00	5.00
	Wa	17.75	18.00	18.00	11.00	11.00	11.00
Greater Accra	Tema	24.50	24.50	26.00	15.50	15.50	18.00
	Ashaiman	20.25	20.25	20.50	16.63	16.50	16.00
	Accra	19.17	18.50	18.00	15.42	16.00	16.00
<b>Ghana</b>		<b>18.46</b>	<b>18.00</b>	<b>18.00</b>	<b>11.28</b>	<b>10.50</b>	<b>13.00</b>

**Table 3.15: October 2012 Statistics - Charcoal Prices in the Regions**

Charcoal Prices in Ghana Cedis by Region: October 2012						
Region	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	17.08	18.00	12.00	11.38	13.00	14.00
Volta	21.46	24.00	24.00	14.04	12.25	19.00
Central	20.58	19.25	24.00	13.83	13.00	19.00
Western	24.60	27.00	27.00	13.98	14.00	14.00
Ashanti	14.63	15.50	16.00	8.31	8.00	8.00
Brong Ahafo	11.17	10.00	10.00	6.19	6.00	5.00
Northern	17.13	18.00	18.00	8.58	9.00	9.00
Upper East	20.58	19.25	19.00	12.42	12.00	10.50
Upper West	13.92	14.00	14.00	8.33	9.00	9.00
Greater Accra	21.13	20.50	18.00	15.65	16.00	13.00
<b>Ghana</b>	<b>18.46</b>	<b>18.00</b>	<b>18.00</b>	<b>11.28</b>	<b>10.50</b>	<b>13.00</b>

**Table 3.16: Average Price of charcoal in Ghana Cedis per kg in the Regions: October 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: October 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.33	0.34	0.23	0.44	0.50	0.54
Volta	0.41	0.46	0.46	0.54	0.47	0.73
Central	0.34	0.32	0.40	0.44	0.41	0.60
Western	0.47	0.51	0.51	0.54	0.54	0.54
Ashanti	0.28	0.30	0.30	0.32	0.31	0.31
Brong Ahafo	0.19	0.17	0.17	0.20	0.19	0.16
Northern	0.30	0.31	0.31	0.28	0.29	0.29
Upper East	0.36	0.33	0.33	0.40	0.39	0.34
Upper West	0.24	0.24	0.24	0.27	0.29	0.29
Greater Accra	0.35	0.34	0.30	0.50	0.51	0.41

**Table 3.17: November 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis in the Selected Major Towns: November 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	23.38	23.25	23.00	13.75	13.50	13.00
	Akim Oda	17.75	18.00	18.00	14.38	14.25	14.00
	Donkorkrom	12.00	12.00	12.00	9.00	9.00	9.00
Volta	Nkwanta	28.25	28.50	29.00	12.25	12.00	12.00
	Denu	30.00	30.50	31.00	20.00	20.00	20.00
	Ho	31.75	32.00	32.00	15.38	15.25	15.00
Central	Winneba	18.75	18.75	18.50	9.84	10.00	10.00
	Cape-Coast	30.75	30.50	30.00	23.00	23.00	23.00
	Swedru	19.38	19.25	19.00	14.00	14.00	14.00
Western	Axim	27.50	27.50	27.00	14.00	14.00	14.00
	Sekondi	30.00	30.00	30.00	15.50	15.50	16.00
	Takoradi	26.25	26.00	25.00	17.25	17.00	17.00
	Tarkwa	19.25	19.50	20.00	13.63	13.50	13.00
	Juaboso	20.00	20.00	20.00	10.00	10.00	10.00
Ashanti	Konongo	17.00	17.00	17.00	10.63	10.75	11.00
	Kumasi	13.88	13.50	13.00	8.38	8.00	8.00
	Offinso	16.00	16.00	16.00	8.00	8.00	8.00
Brong Ahafo	Nkoranza South	11.00	11.00	11.00	6.00	6.00	6.00
	Atebubu	9.25	9.00	9.00	4.75	4.75	4.50
	Sunyani Municipal	14.00	14.00	14.00	7.25	7.25	7.00
	Techiman	13.00	13.00	13.00	8.00	8.00	8.00
	Jaman North	10.25	10.00	10.00	6.25	6.00	6.00
	Kintampo	10.00	10.00	10.00	6.00	6.00	6.00
Northern	Tamale	18.75	16.50	16.00	9.88	7.50	7.50
	Salaga	13.00	13.00	13.00	6.25	6.25	6.50
	Yendi	18.00	18.00	18.00	9.00	9.00	9.00
Upper East	Navrongo	24.00	24.00	24.00	15.50	15.50	16.00
	Bawku	20.00	20.00	20.00	10.38	10.25	10.00
	Bolgatanga	15.25	15.50	16.00	11.00	11.00	11.00
Upper West	Jirapa	15.00	15.00	15.00	10.00	10.00	10.00
	Sissala East	11.00	11.00	11.00	6.25	6.00	6.00
	Wa	17.38	17.50	18.00	11.00	11.00	11.00
Greater Accra	Tema	24.50	24.50	23.00	15.50	15.50	13.00
	Ashaiman	20.25	20.25	20.50	16.63	16.50	16.00
	Accra	19.79	19.00	19.00	14.50	14.00	14.00
Ghana		<b>19.08</b>	<b>18.75</b>	<b>19.00</b>	<b>11.68</b>	<b>11.00</b>	<b>10.00</b>

**Table 3.18: November 2012 Statistics - Charcoal Prices in the Regions**

Charcoal Prices in Ghana Cedis by Region: November 2012						
Region	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	17.71	18.00	12.00	12.38	13.50	9.00
Volta	24.67	30.00	28.00	15.88	15.25	12.00
Central	22.96	19.25	19.00	15.63	14.00	10.00
Western	24.60	26.00	20.00	14.08	14.00	14.00
Ashanti	15.19	16.00	16.00	8.84	8.00	8.00
Brong Ahafo	11.25	11.00	10.00	6.38	6.00	6.00
Northern	16.58	16.50	13.00	8.38	7.50	9.00
Upper East	19.75	20.00	20.00	12.29	11.00	10.00
Upper West	14.46	15.00	15.00	9.08	10.00	10.00
Greater Accra	21.44	20.50	19.00	15.19	15.00	13.00
<b>Ghana</b>	<b>19.08</b>	<b>18.75</b>	<b>19.00</b>	<b>11.69</b>	<b>11.00</b>	<b>10.00</b>

**Table 3.19: Average Price of charcoal in Ghana Cedis per kg in the Regions: November 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: November 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.34	0.34	0.23	0.48	0.52	0.35
Volta	0.47	0.57	0.53	0.61	0.59	0.46
Central	0.38	0.32	0.32	0.50	0.44	0.32
Western	0.47	0.50	0.38	0.54	0.54	0.54
Ashanti	0.29	0.30	0.30	0.34	0.31	0.31
Brong Ahafo	0.20	0.19	0.17	0.21	0.19	0.19
Northern	0.29	0.29	0.23	0.27	0.24	0.29
Upper East	0.34	0.35	0.35	0.40	0.35	0.32
Upper West	0.25	0.26	0.26	0.29	0.32	0.32
Greater Accra	0.36	0.34	0.32	0.48	0.48	0.41

**Table 3.20: December 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis in the Selected Major Towns: Dec 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	23.38	23.25	23.00	13.75	13.50	13.00
	Akim Oda	19.00	19.00	19.00	15.75	16.00	16.00
	Donkorkrom	12.00	12.00	12.00	9.00	9.00	9.00
Volta	Nkwanta	30.00	30.00	30.00	12.00	12.00	12.00
	Denu	32.25	32.00	32.00	21.13	21.00	21.00
	Ho	32.25	32.50	33.00	15.50	15.50	16.00
Central	Winneba	18.75	18.75	19.00	9.91	9.50	9.50
	Cape-Coast	30.75	31.00	32.00	21.38	21.25	21.00
	Swedru	20.00	20.00	20.00	17.63	17.50	17.00
Western	Axim	28.25	28.50	29.00	14.00	14.00	14.00
	Sekondi	31.25	30.00	30.00	15.50	15.00	15.00
	Takoradi	26.75	27.00	28.00	17.75	17.50	17.00
	Tarkwa	18.88	19.00	19.00	13.63	13.75	14.00
	Juaboso	20.00	20.00	20.00	10.00	10.00	10.00
Ashanti	Konongo	17.38	17.25	17.00	11.63	11.75	12.00
	Kumasi	11.75	12.00	13.00	8.63	9.00	9.00
	Offinso	16.00	16.00	16.00	8.00	8.00	8.00
Brong Ahafo	Nkoranza South	9.50	9.50	10.00	4.75	4.75	5.00
	Atebubu	9.25	9.00	9.00	4.75	4.75	4.50
	Sunyani Municipal	15.00	15.00	15.00	8.00	8.00	8.00
	Techiman	12.75	13.00	13.00	8.25	8.00	8.00
	Jaman North	11.00	11.00	11.00	6.88	7.00	7.00
	Kintampo	10.25	10.00	10.00	6.00	6.00	6.00
Northern	Tamale	17.00	17.00	15.00	7.50	7.50	7.00
	Salaga	14.00	14.00	14.00	7.00	7.00	7.00
	Yendi	18.00	18.00	18.00	9.75	10.00	10.00
Upper East	Navrongo	25.63	25.75	26.00	15.50	15.50	16.00
	Bawku	20.50	20.50	20.00	10.50	10.50	10.00
	Bolgatanga	18.00	18.00	18.00	13.00	13.00	13.00
Upper West	Jirapa	15.00	15.00	15.00	10.00	10.00	10.00
	Sissala East	10.00	10.00	10.00	5.00	5.00	5.00
	Wa	19.63	19.75	20.00	11.88	12.00	12.00
Greater Accra	Tema	25.25	26.00	26.00	16.75	18.00	18.00
	Ashaiman	20.00	20.00	20.00	15.25	15.00	15.00
	Accra	19.83	19.00	19.00	16.08	17.00	17.00
Ghana		<b>19.38</b>	<b>19.00</b>	<b>19.00</b>	<b>12.03</b>	<b>12.00</b>	<b>8.00</b>

**Table 3.21: December 2012 Statistics - Charcoal Prices in the Regions**

Charcoal Price in Ghana Cedis by Region: Dec 2012						
Region	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	18.13	19.00	12.00	12.83	13.50	9.00
Volta	25.50	32.00	32.00	16.21	15.50	12.00
Central	23.17	20.00	19.00	16.17	17.50	17.00
Western	25.03	26.50	20.00	14.18	14.00	14.00
Ashanti	14.22	14.50	13.00	9.22	9.00	8.00
Brong Ahafo	11.29	10.50	10.00	6.44	6.00	8.00
Northern	16.33	16.50	14.00	8.08	7.50	7.00
Upper East	21.38	20.50	20.00	13.00	13.00	10.00
Upper West	14.88	15.00	15.00	8.96	10.00	10.00
Greater Accra	21.67	20.00	19.00	16.17	17.00	18.00
<b>Ghana</b>	<b>19.38</b>	<b>19.00</b>	<b>19.00</b>	<b>12.03</b>	<b>12.00</b>	<b>8.00</b>

**Table 3.22: Average Price of charcoal in Ghana Cedis per kg in the Regions: December 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: December 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.35	0.36	0.23	0.49	0.52	0.35
Volta	0.49	0.61	0.61	0.62	0.60	0.46
Central	0.39	0.33	0.32	0.51	0.56	0.54
Western	0.48	0.50	0.38	0.55	0.54	0.54
Ashanti	0.27	0.28	0.25	0.35	0.35	0.31
Brong Ahafo	0.20	0.18	0.17	0.21	0.19	0.26
Northern	0.28	0.29	0.24	0.26	0.24	0.23
Upper East	0.37	0.36	0.35	0.42	0.42	0.32
Upper West	0.26	0.26	0.26	0.29	0.32	0.32
Greater Accra	0.36	0.33	0.32	0.51	0.54	0.57

**Table 3.23: June - December 2012 Statistics - Charcoal Prices by Major consuming Towns**

Charcoal Price in Ghana Cedis in the Selected Major Towns: June – Dec 2012							
Region	Town	MAXI BAG			MINI BAG		
		MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	Koforidua	20.77	20.50	20.00	12.86	13.00	13.00
	Akim Oda	18.18	18.00	18.00	14.42	15.00	15.00
	Donkorkrom	11.32	11.50	12.00	7.50	7.00	7.00
Volta	Nkwanta	23.70	22.00	20.00	11.20	11.00	12.00
	Denu	28.00	28.00	25.00	16.71	17.50	11.00
	Ho	26.00	24.00	24.00	13.29	12.75	12.00
Central	Winneba	18.55	18.50	19.00	10.80	10.00	10.00
	Cape-Coast	28.61	28.50	30.00	17.16	16.00	15.00
	Swedru	19.07	19.00	19.00	13.88	13.50	13.00
Western	Axim	27.11	27.00	27.00	13.48	14.00	14.00
	Sekondi	30.36	30.00	30.00	15.59	15.00	15.00
	Takoradi	26.25	26.00	25.00	17.04	17.00	17.00
	Tarkwa	16.61	16.00	16.00	12.88	13.00	13.00
	Juaboso	18.93	20.00	20.00	9.25	10.00	10.00
Ashanti	Konongo	16.80	17.00	17.00	10.07	10.00	10.00
	Kumasi	13.54	13.00	13.00	8.25	8.00	8.00
	Offinso	16.36	16.00	16.00	8.14	8.00	8.00
Brong Ahafo	Nkoranza South	10.21	10.00	10.00	5.25	5.00	5.00
	Atebubu	8.96	9.00	9.00	4.75	5.00	5.00
	Sunyani Municipal	13.75	14.00	14.00	7.41	7.25	7.00
	Techiman	12.79	13.00	13.00	7.55	7.25	7.00
	Jaman North	11.25	11.50	12.00	7.00	7.00	7.00
	Kintampo	9.46	9.00	9.00	5.32	5.00	6.00
Northern	Tamale	15.38	15.50	16.00	7.52	7.50	8.00
	Salaga	12.46	13.00	13.00	6.38	6.50	6.50
	Yendi	17.07	18.00	18.00	7.91	8.25	9.00
Upper East	Navrongo	24.16	25.00	25.00	14.82	15.00	15.00
	Bawku	18.57	19.00	20.00	9.77	10.00	10.00
	Bolgatanga	15.68	15.50	15.00	11.29	11.00	10.00
Upper West	Jirapa	13.86	14.00	13.00	8.86	9.00	8.00
	Sissala East	9.86	10.00	10.00	5.34	5.00	5.00
	Wa	16.68	17.00	18.00	10.64	11.00	11.00
Greater Accra	Tema	24.43	25.00	26.00	15.43	15.50	18.00
	Ashaiman	19.39	20.00	20.00	15.82	16.00	15.00
	Accra	19.55	19.00	19.00	14.46	14.00	13.00
Ghana		<b>18.24</b>	<b>18.00</b>	<b>18.00</b>	<b>11.04</b>	<b>11.00</b>	<b>8.00</b>

For the major consuming towns, the analysis shows that charcoal is more expensive in Sekondi/Takoradi Metropolis, Cape Coast Metropolis, Denu, Axim, Ho, Tema, Nkwanta, Koforidua, Accra Metropolis and Ashaiman. The least expensive areas include Donkorkrom, Kintampo, Atebubu, Jaman North, Nkoranza, Sissala East and Techiman.

**Table 3.24: June - December 2012 Statistics - Charcoal Prices in the Regions**

Region	Charcoal Prices in Ghana Cedis by Region: June – December 2012					
	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	16.76	18.00	18.00	11.69	13.00	15.00
Volta	26.19	24.50	23.00	13.73	12.00	12.00
Central	22.08	19.00	19.00	13.95	13.50	13.00
Western	23.85	25.00	30.00	13.60	14.00	14.00
Ashanti	15.07	16.00	16.00	8.68	8.00	8.00
Brong Ahafo	11.04	10.00	9.00	6.20	6.00	5.00
Northern	14.97	15.00	18.00	7.52	7.00	7.00
Upper East	19.51	19.00	20.00	11.96	11.00	10.00
Upper West	13.46	13.50	13.00	8.28	9.00	5.00
Greater Accra	21.15	20.50	19.00	15.01	15.00	13.00
<b>Ghana</b>	<b>18.24</b>	<b>18.00</b>	<b>18.00</b>	<b>11.04</b>	<b>11.00</b>	<b>8.00</b>

The analysis shows that for the period under review, charcoal is more expensive in Volta, Central, Western, Greater Accra and Upper East Regions. The least expensive Region is Brong Ahafo.

**Table 3.25: Average Price of charcoal in Ghana Cedis per kg in the Regions June – Dec. 2012**

Region	Average Price of charcoal in Ghana Cedis per kg: June – Dec 2012					
	Maxi Bag			Mini Bag		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Eastern	0.32	0.34	0.34	0.45	0.50	0.58
Volta	0.50	0.44	0.44	0.53	0.46	0.46
Central	0.37	0.32	0.32	0.44	0.43	0.41
Western	0.45	0.48	0.57	0.52	0.54	0.54
Ashanti	0.29	0.30	0.30	0.33	0.31	0.31
Brong Ahafo	0.19	0.17	0.16	0.20	0.19	0.16
Northern	0.26	0.26	0.31	0.24	0.23	0.23
Upper East	0.34	0.33	0.35	0.39	0.35	0.32
Upper West	0.23	0.23	0.23	0.27	0.29	0.16
Greater Accra	0.35	0.34	0.32	0.48	0.48	0.41

**Table 3.26: June - December 2012 Statistics - Charcoal Prices in the Regional Capitals**

Region	Charcoal Price in Ghana Cedis by Regional Capital: June-Dec 2012					
	MAXI BAG			MINI BAG		
MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE	
Koforidua	20.77	20.50	20.00	12.86	13.00	13.00
Ho	26.00	24.00	24.00	13.29	12.75	12.00
Cape Coast	28.61	28.50	30.00	17.16	16.00	15.00
Takoradi	26.25	26.00	25.00	17.04	17.00	17.00
Kumasi	13.54	13.00	13.00	8.25	8.00	8.00
Sunyani	13.75	14.00	14.00	7.41	7.25	7.00
Tamale	15.38	15.50	16.00	7.52	7.50	8.00
Bolgatanga	15.68	15.50	15.00	11.29	11.00	10.00
Wa	16.68	17.00	18.00	10.64	11.00	11.00
Accra	19.55	19.00	19.00	14.46	14.00	13.00
<b>Ghana</b>	<b>18.24</b>	<b>18.00</b>	<b>18.00</b>	<b>11.04</b>	<b>11.00</b>	<b>8.00</b>

For the Regional capitals, the analysis shows that the **high cost areas** were Accra, Koforidua, Ho, Cape Coast, Takoradi/Sekondi, Tamale, Bolgatanga and Wa.

**Table 3.27: Average Price of charcoal in Ghana Cedis per kg by Regional Capitals: June – December 2012**

Region	Average Price of charcoal in Ghana Cedis per kg by Regional Capitals: June-Dec 2012					
	MAXI BAG			MINI BAG		
MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE	
Koforidua	0.40	0.39	0.38	0.49	0.50	0.50
Ho	0.50	0.46	0.46	0.51	0.49	0.46
Cape Coast	0.48	0.48	0.50	0.54	0.51	0.48
Takoradi	0.50	0.50	0.48	0.66	0.65	0.65
Kumasi	0.26	0.25	0.25	0.32	0.31	0.31
Sunyani	0.24	0.24	0.24	0.24	0.23	0.23
Tamale	0.27	0.27	0.28	0.24	0.24	0.26
Bolgatanga	0.27	0.27	0.26	0.36	0.35	0.32
Wa	0.29	0.30	0.31	0.34	0.35	0.35
Accra	0.33	0.32	0.32	0.46	0.44	0.41

**Table 3.28: June - December 2012 Statistics - Charcoal Prices in all the Ecological Zones**

Charcoal Price in Ghana Cedis by Ecological Zone: June – December 2012						
Ecological Zone	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Coastal	24.22	25.00	19.00	15.00	15.00	13.00
Forest	18.44	17.25	16.00	10.87	11.00	8.00
Transition	11.08	11.00	9.00	6.39	7.00	7.00
Savanna	15.98	15.00	18.00	9.16	9.00	10.00
<b>Ghana</b>	<b>18.24</b>	<b>18.00</b>	<b>18.00</b>	<b>11.04</b>	<b>11.00</b>	<b>8.00</b>

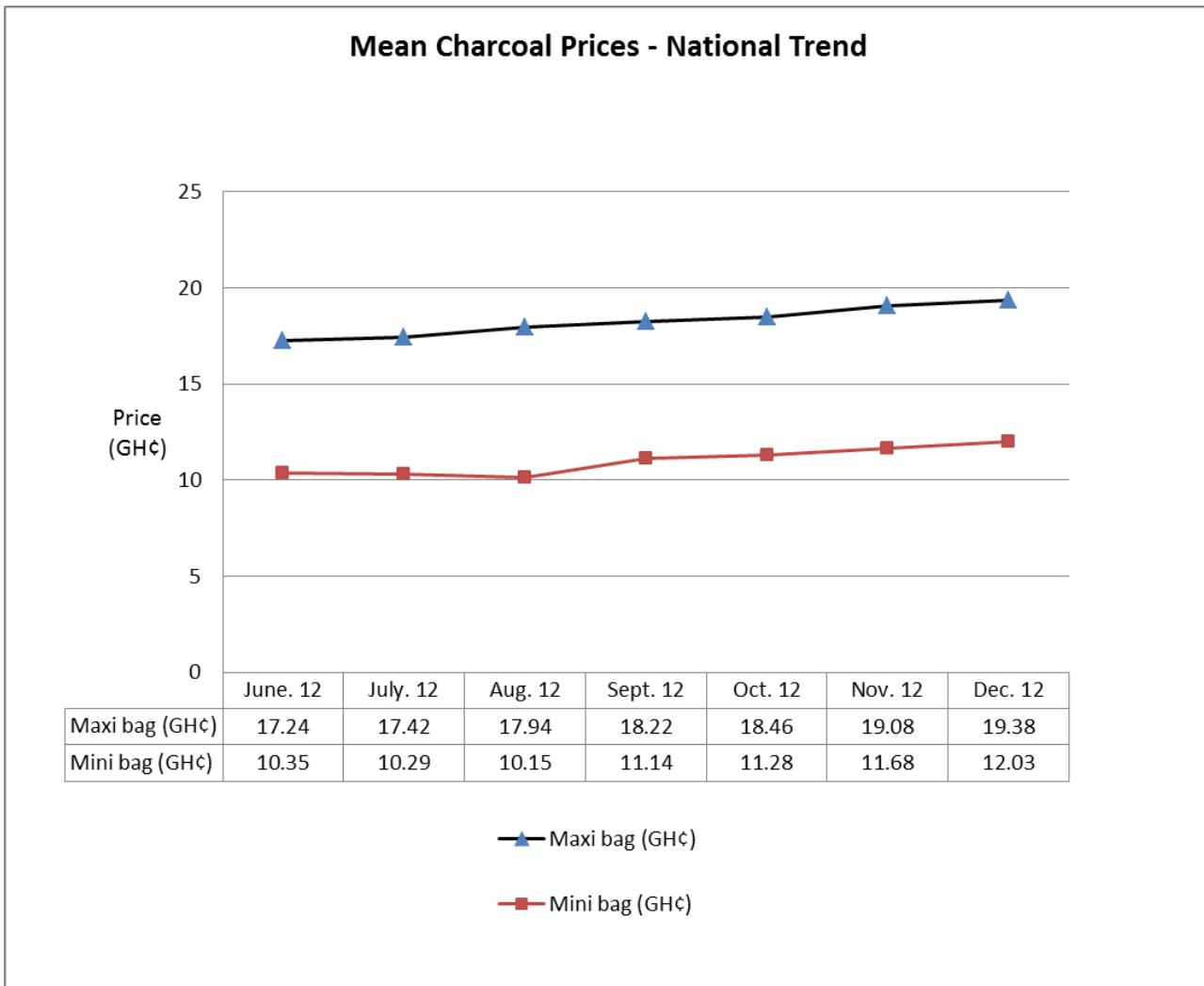
**Table 3.29: Average Price of charcoal in Ghana Cedis per kg by Ecological Zones**

Average Price of charcoal in Ghana Cedis per kg by Ecological Zone: June - December 2012						
Ecological Zone	MAXI BAG			MINI BAG		
	MEAN	MEDIAN	MODE	MEAN	MEDIAN	MODE
Coastal	0.40	0.42	0.32	0.48	0.48	0.41
Forest	0.35	0.33	0.30	0.42	0.42	0.31
Transition	0.19	0.19	0.16	0.21	0.23	0.23
Savanna	0.28	0.26	0.31	0.30	0.29	0.32

**Table 3.30: High and Low Price Districts - 2012**

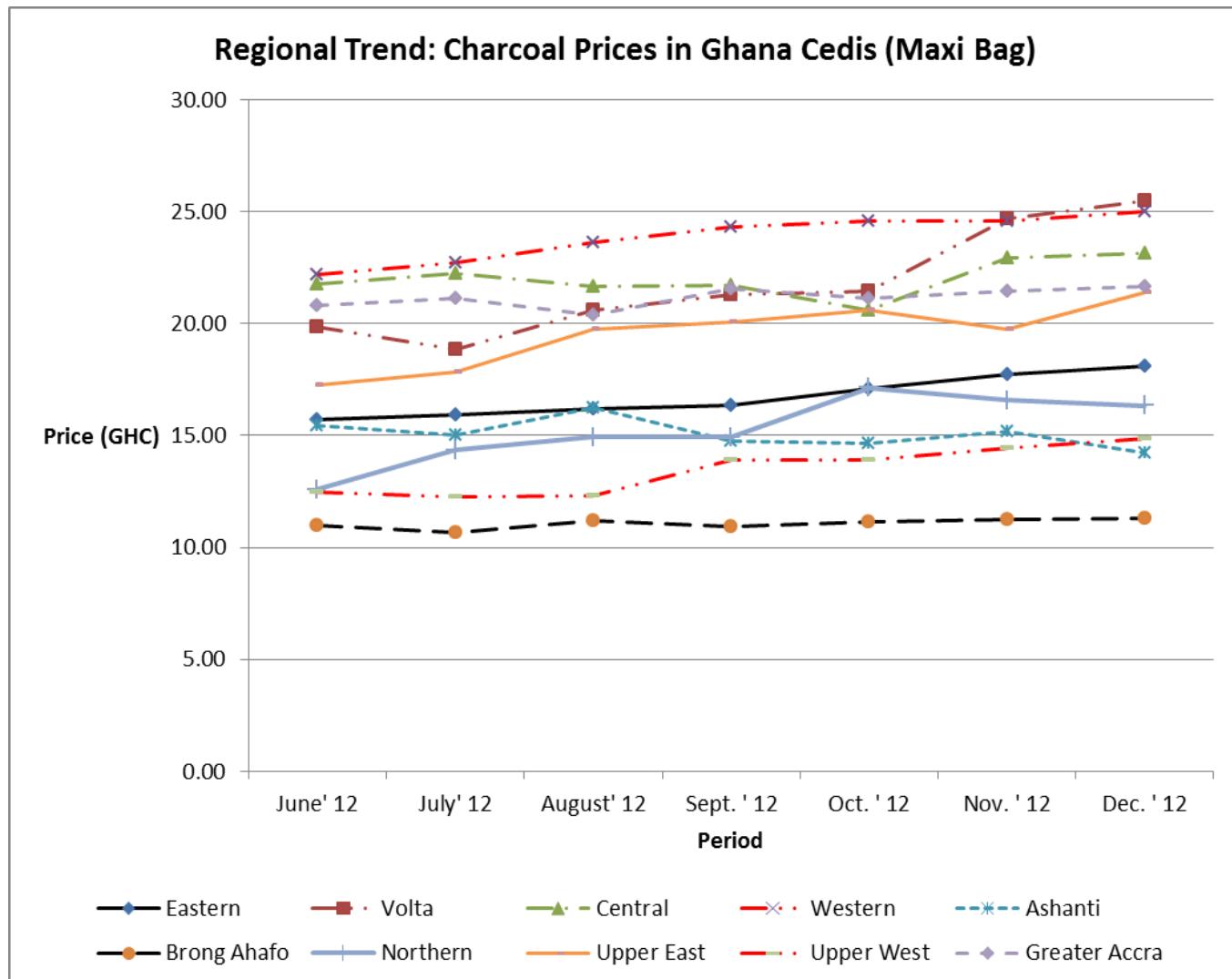
Region	High Price Districts	Low Price Districts
Eastern	New Juabeng, Birim South	Afram Plains
Volta	Nkwanta, Ketu South, Ho	Nkonya, South Dayi
Central	Awutu Effutu Senya, Cape Coast, Agona Swedru	Upper Denkyira East
Western	Nzema East, Sekondi/Takoradi, Juabeso, Tarkwa	Amenfi East
Ashanti	Asante Akim North, Offinso	Kumasi
Brong Ahafo	Sunyani, Techiman	Nkoranza South, Atebubu Amantin, Jaman North, Kintampo North
Northern	Tamale, Yendi	East Gonja
Upper East	Kassena Nankana, Bolgatanga, Bawku	
Upper West	Wa	Sissala East, Jirapa Lambussie
Greater Accra	Tema, Ashaiman, Accra	Ga East

**Figure 3.1: Trends in Mean charcoal Prices across the country (Mean Values): June–Dec 2012**



The analysis shows that the prices of both the maxi and mini bags of charcoal have been increasing over the period as depicted by the graph. The national mean values for both the maxi and mini bags are GH¢18.24 and GH¢11.04 respectively.

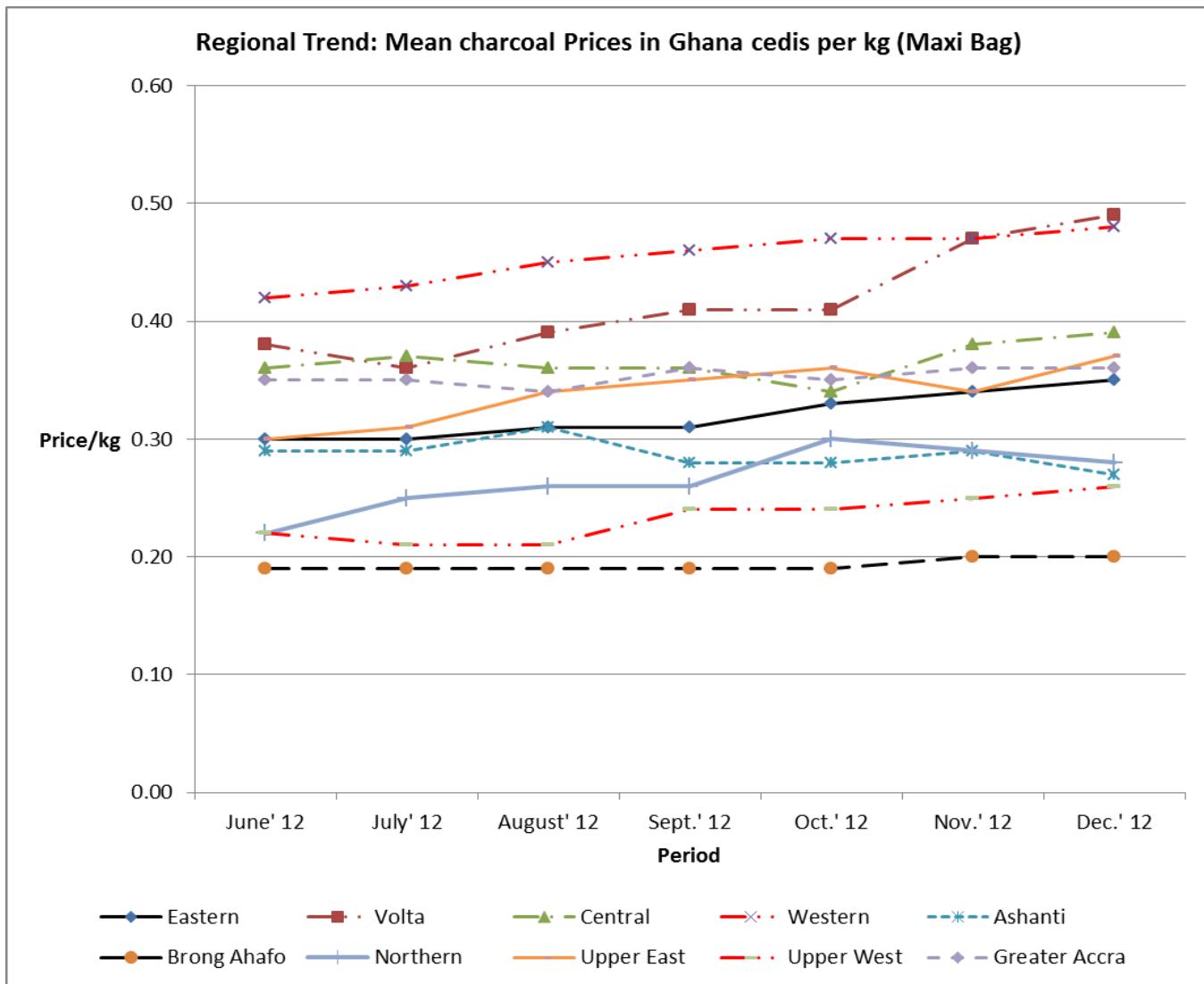
**Figure 3.2: Trends in Regional Mean charcoal Prices for Maxi Bag: June – December 2012**



**Table 3.31: Mean Price of charcoal in Ghana Cedis in the Regions: June –Dec 2012 (Maxi Bag)**

Region	June' 12	July' 12	August' 12	Sept. '12	Oct. '12	Nov. '12	Dec. '12
Eastern	15.71	15.92	16.21	16.38	17.08	17.71	18.13
Volta	19.83	18.83	20.58	21.29	21.46	24.67	25.50
Central	21.79	22.25	21.67	21.71	20.58	22.96	23.17
Western	22.18	22.70	23.65	24.30	24.60	24.60	25.03
Ashanti	15.47	15.03	16.25	14.78	14.63	15.19	14.22
Brong Ahafo	10.98	10.69	11.21	10.92	11.17	11.25	11.29
Northern	12.58	14.33	14.92	14.92	17.13	16.58	16.33
Upper East	17.25	17.83	19.75	20.04	20.58	19.75	21.38
Upper West	12.46	12.25	12.33	13.92	13.92	14.46	14.88
Greater Accra	20.79	21.13	20.38	21.54	21.13	21.44	21.67

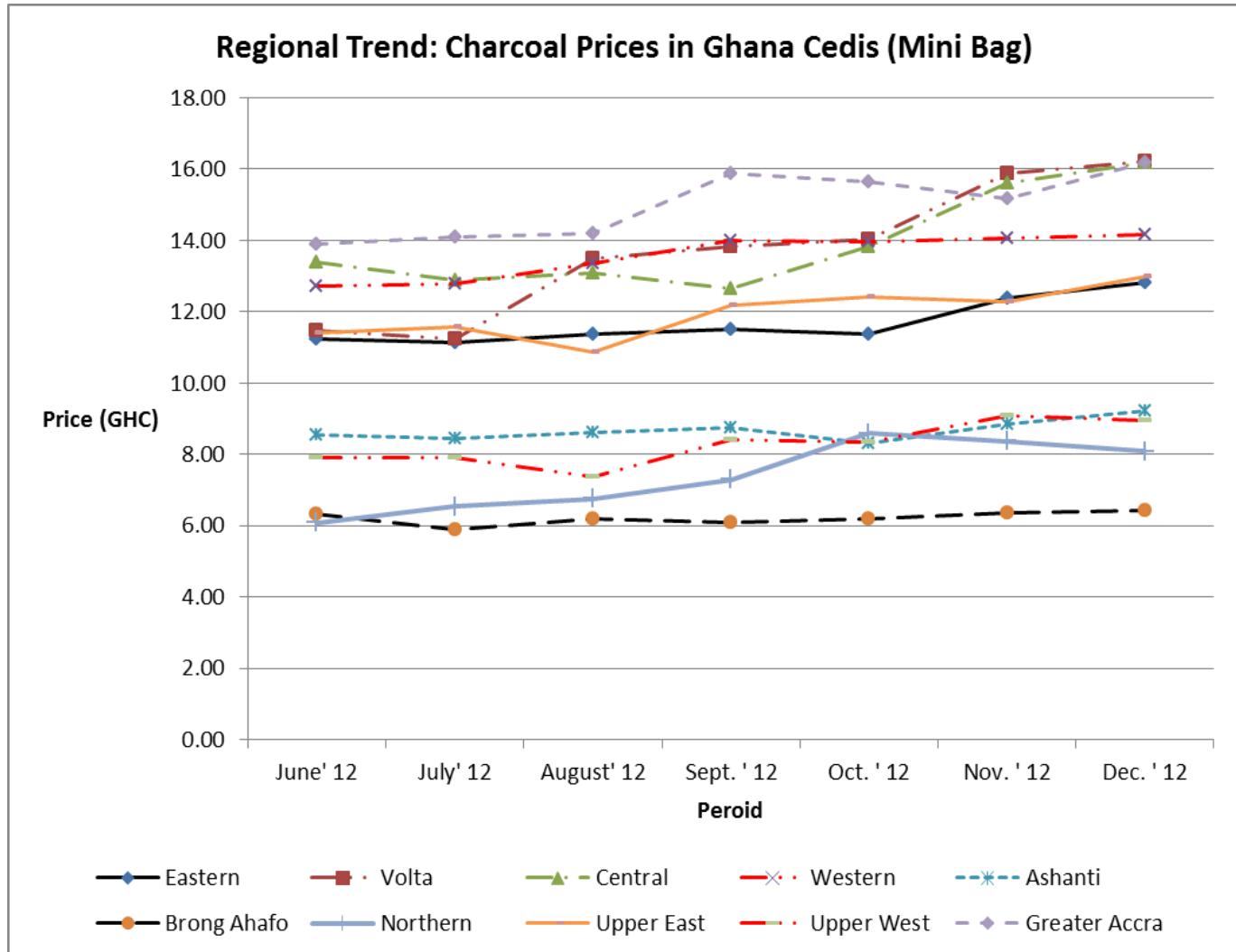
**Figure 3.3: Trends in Regional Average charcoal in Ghana Prices per kg: June – December 2012**



**Table 3.32: Mean Price of charcoal in Ghana Cedis per kg: June – Dec 2012 (Maxi Bag)**

Region	June' 12	July' 12	August' 12	Sept.' 12	Oct.' 12	Nov.' 12	Dec.' 12
Eastern	0.30	0.30	0.31	0.31	0.33	0.34	0.35
Volta	0.38	0.36	0.39	0.41	0.41	0.47	0.49
Central	0.36	0.37	0.36	0.36	0.34	0.38	0.39
Western	0.42	0.43	0.45	0.46	0.47	0.47	0.48
Ashanti	0.29	0.29	0.31	0.28	0.28	0.29	0.27
Brong Ahafo	0.19	0.19	0.19	0.19	0.19	0.20	0.20
Northern	0.22	0.25	0.26	0.26	0.30	0.29	0.28
Upper East	0.30	0.31	0.34	0.35	0.36	0.34	0.37
Upper West	0.22	0.21	0.21	0.24	0.24	0.25	0.26
Greater Accra	0.35	0.35	0.34	0.36	0.35	0.36	0.36

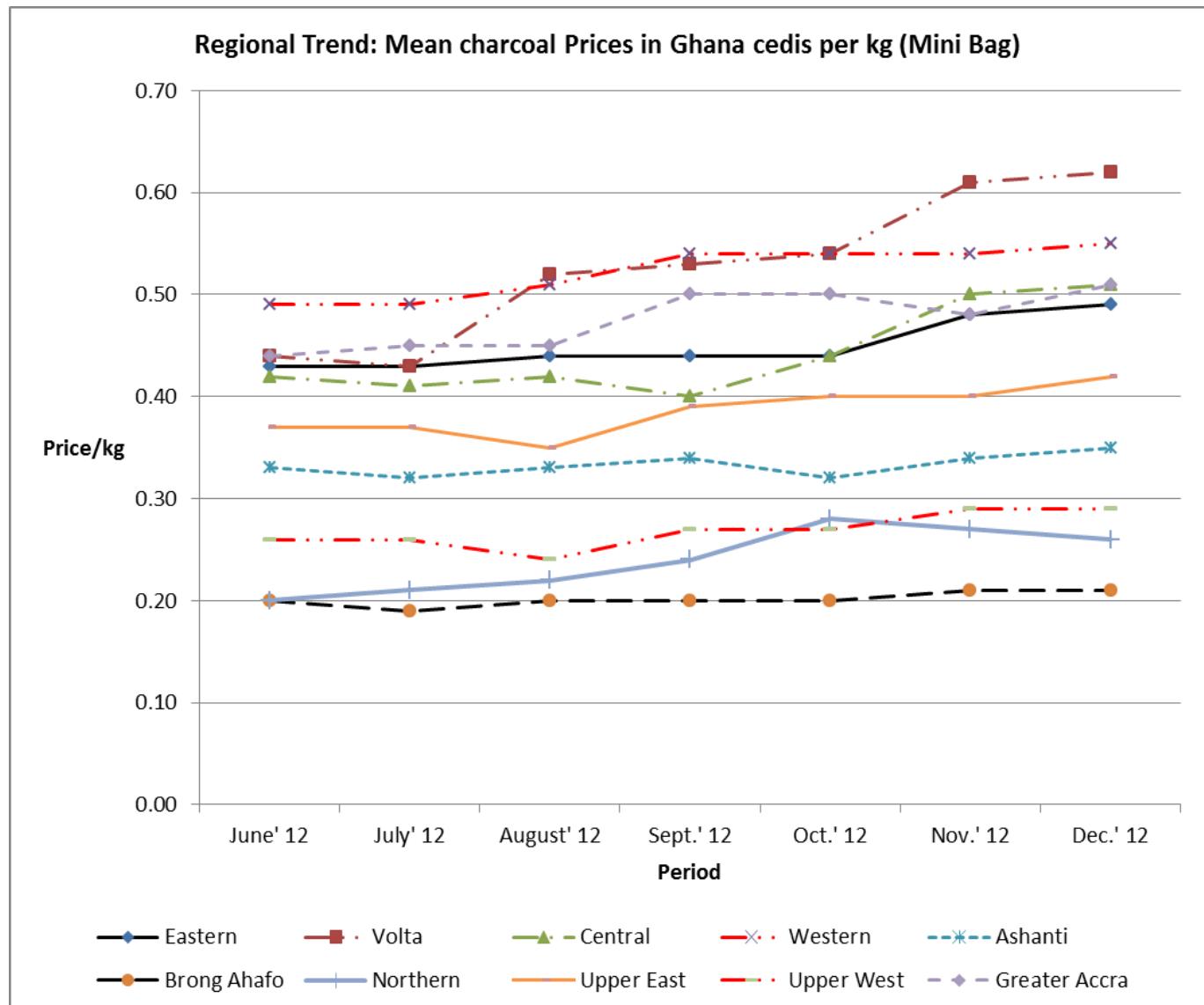
**Figure 3.4: Trends in Regional Mean charcoal Prices for Mini Bag: June – December 2012**



**Table 3.33: Mean Price of charcoal in Ghana Cedis in the Regions: June–Dec 2012 (Mini Bag)**

Region	June' 12	July' 12	August' 12	Sept.' 12	Oct.' 12	Nov.' 12	Dec.' 12
Eastern	11.25	11.13	11.38	11.50	11.38	12.38	12.83
Volta	11.46	11.25	13.50	13.83	14.04	15.88	16.21
Central	13.38	12.88	13.08	12.67	13.83	15.63	16.17
Western	12.73	12.78	13.35	14.00	13.98	14.08	14.18
Ashanti	8.56	8.44	8.63	8.75	8.31	8.84	9.22
Brong Ahafo	6.31	5.90	6.21	6.08	6.19	6.38	6.44
Northern	6.08	6.54	6.75	7.29	8.58	8.38	8.08
Upper East	11.42	11.58	10.88	12.17	12.42	12.29	13.00
Upper West	7.92	7.92	7.38	8.42	8.33	9.08	8.96
Greater Accra	13.90	14.10	14.19	15.90	15.65	15.19	16.17

**Figure 3.5: Trends in Regional Mean charcoal Prices for Mini Bag: June – December 2012**

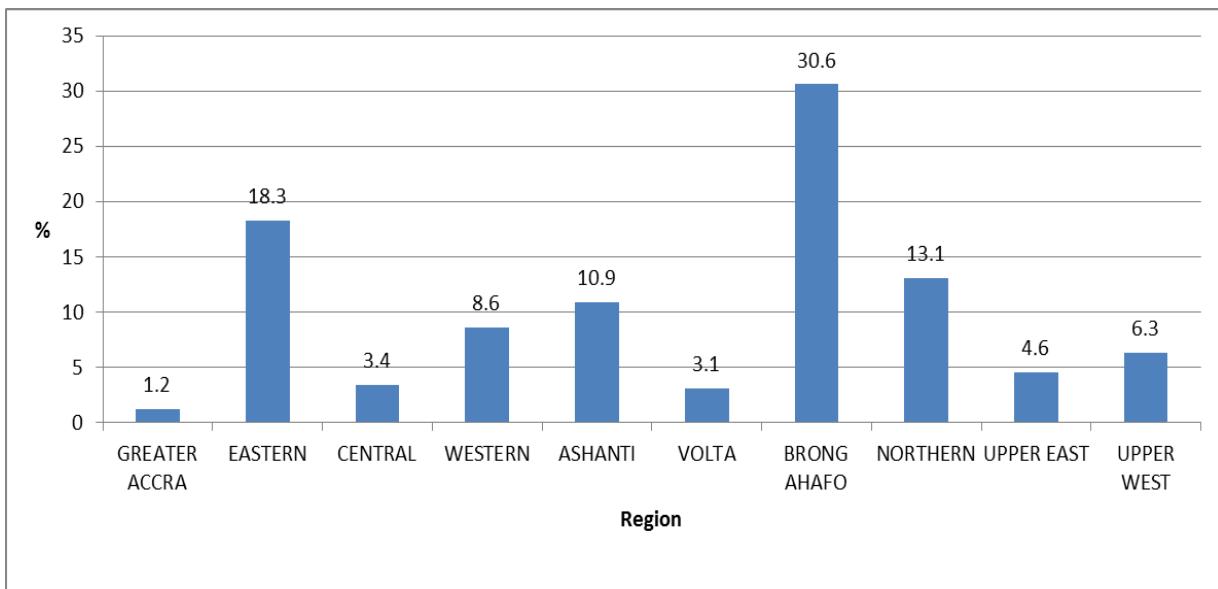


**Table 3.34: Mean Price of charcoal in Ghana Cedis per kg: June – December 2012 (Mini Bag)**

Region	June' 12	July' 12	August' 12	Sept.' 12	Oct.' 12	Nov.' 12	Dec.' 12
Eastern	0.43	0.43	0.44	0.44	0.44	0.48	0.49
Volta	0.44	0.43	0.52	0.53	0.54	0.61	0.62
Central	0.42	0.41	0.42	0.40	0.44	0.50	0.51
Western	0.49	0.49	0.51	0.54	0.54	0.54	0.55
Ashanti	0.33	0.32	0.33	0.34	0.32	0.34	0.35
Brong Ahafo	0.20	0.19	0.20	0.20	0.20	0.21	0.21
Northern	0.20	0.21	0.22	0.24	0.28	0.27	0.26
Upper East	0.37	0.37	0.35	0.39	0.40	0.40	0.42
Upper West	0.26	0.26	0.24	0.27	0.27	0.29	0.29
Greater Accra	0.44	0.45	0.45	0.50	0.50	0.48	0.51

### 3.2 Sources of charcoal supply

**Figure 3.6: Sources of Charcoal Supply (Production Areas)**



The analysis shows that the transition and savanna zones of Ghana, mainly Kintampo, Nkoranza, Wenchi and Jaman (all in the Brong Ahafo Region), Afram Plains - Donkorkrom (in Eastern Region), Damongo, Yendi and Bamboi (Northern Region) are the major charcoal production areas.

## CHAPTER FOUR: CONCLUSION

### 4.1 Key Findings

For the period under review, the analysis shows that the prices of both the maxi and mini bags of charcoal have been increasing.

Further, the trends in the pricing of charcoal indicated that the product is more expensive in the coastal areas and across the major consuming towns especially in Sekondi/Takoradi, Cape Coast, Denu, Axim, Ho, Tema, Nkwanta, Koforidua, Accra and Ashaiman. Other expensive areas include Wa, Bolgatanga and Tamale.

The least expensive areas is the transition zone - Donkorkrom, Kintampo, Atebubu, Jaman North, Nkoranza, Sissala East and Techiman.

The national maximum and minimum prices for the **maxi bag** are GH¢35.00 and GH¢8.00 respectively.

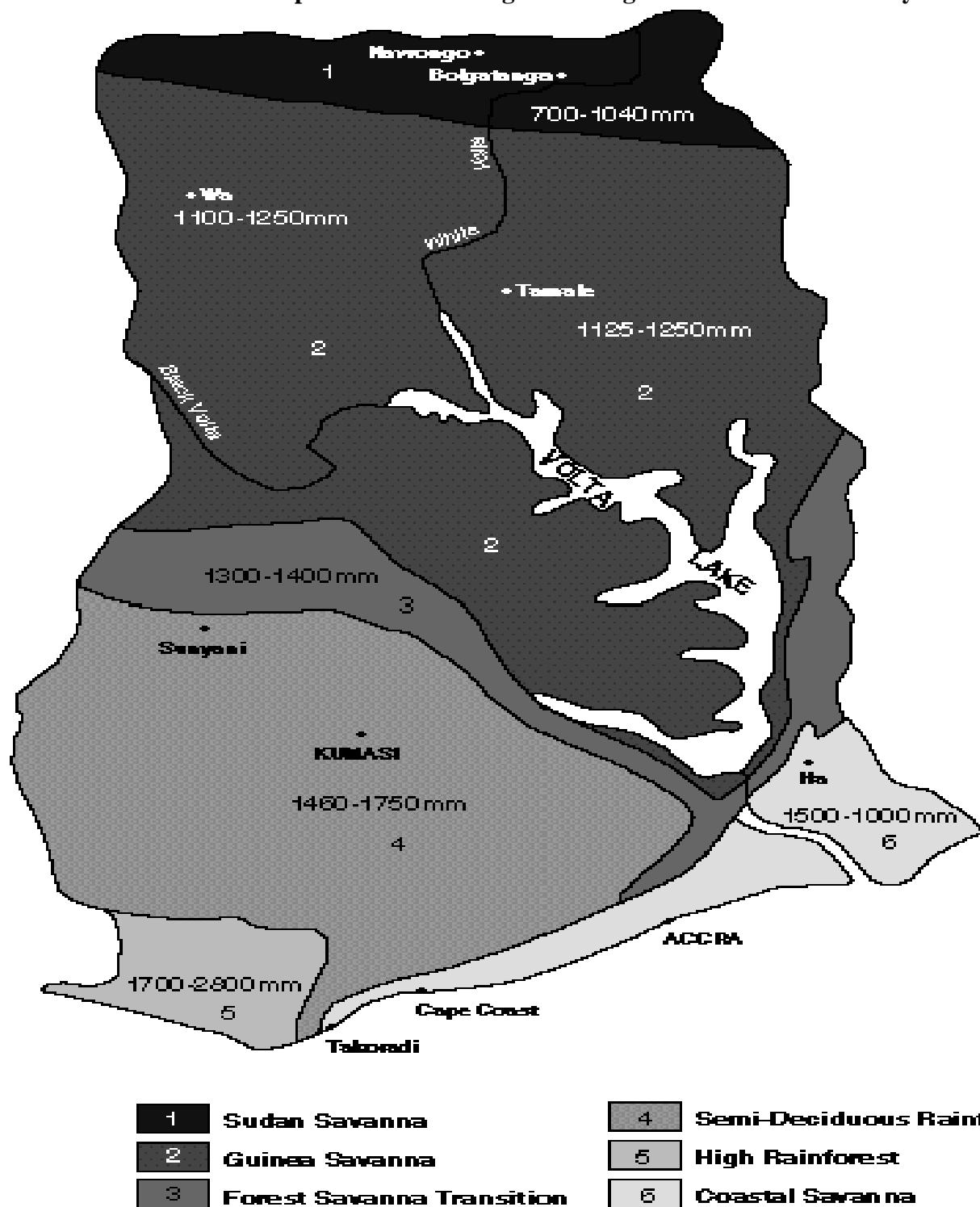
The national maximum and minimum prices for the **mini bag** are GH¢24.00 and GH¢4.00 respectively.

The transition and savanna zones of Ghana, mainly Kintampo, Nkoranza, Wenchi and Jaman (all in the Brong Ahafo Region), Afram Plains - Donkorkrom (in Eastern Region), Damongo, Yendi and Bamboi (Northern Region) are the major charcoal production areas.

The project will continue to capture data for the next six (6) months on the price trends of the charcoal and the final report available for the SNEP update.

## APPENDIX

### A.1 Map of Ghana showing the Ecological Zones of the Country



**NOTE:** In the Report, Savanna Zone is equivalent to Sudan Savanna and Guinea Savanna, Transitional Zone is equivalent to Forest Savanna Transition, Forest is equivalent to Semi-Deciduous Rainforest and High Rainforest and Coastal Zone is equivalent to Coastal Savanna.

#### A.2 Map of Ghana showing Regional Capitals and Some Districts Towns

