EFFECTS OF RISING FOOD AND OIL PRICES ON RURAL HOUSEHOLDS IN GHANA: A CASE STUDY OF SELECTED COMMUNITIES IN THE DANGME WEST DISTRICT USING THE CBMS APPROACH

By

Felix A. Asante[1]
Cynthia A. Tagoe[2]
Alfred A. Boakye[3]

December 2009

[1] Senior Research Fellow, Institute of Statistical, Social & Economic Research (ISSER), University of Ghana, Legon (corresponding author)
[2] A Phd student in geography and resource development, University of Ghana, Legon.
[3] A Graduate Assistant.

Table of Contents

1.0 Introduction
1.1 Background

Developments on the global agricultural front in 2007 such as the rising food prices pose significant threats to Ghana's macroeconomic stability and overall development achievements. Global food prices increased over 50 percent as a result of the use of crops for bio-fuel, rising cost of production, climate change and increase in demand as a result of population increase. Petroleum and other fuel price increases were also driving up food prices, particularly because of the high transport costs of low-value high-volume commodities such as staples. The increase in crude oil prices fueled large increases in cost of production (tractor services, fertilizer) and importantly, distribution.

These developments on the global scene always have repercussions for individual country and this translates and trickles down eventually to the household. Over the past five years, there have been steady increases in the price of fuel on the global market and because of the importance of fuel in the production, marketing and transportation /haulage of food products and the desire of every producer/farmer to cover their costs, there is inflation and rising prices generally. The increase in the cost of food for a country like Ghana which relies on food imports to supplement domestic production and consumption, the effects cannot be underestimated since these are felt at all levels of the economy and society. These effects, however, have mostly been analysed from the macro level where the figures at the national or country level have been the focus of discussion. But since the individual and by extension, the household is at the receiving end of all these costs triggered by global happenings, there is the need to also look into the situation at the individual/household level especially because the expenditure on food forms a large proportion of the budget of many poor households particularly in rural communities in developing countries such as Ghana. With the increase in food expenditure, households will have less money to spend on other things or consumer goods, investment in education, health and their general livelihood.

The Community-Based Monitoring System (CBMS) is a tool designed for assessing impact of programmes and projects in the context of local governance and decentralization. It has indicators that enable an assessment of one's living condition, health, education, and poverty level at the household level. It provides information at the household level for the use of local government units and other organizations working at that level for the purposes of planning programme implementation and monitoring. It also utilizes local government unit and community personnel in the process making it cost effective and also a tool for capacity building of local personnel. It is very flexible and allows varied issues to be assessed and monitored. Issues specific to the districts like access to community services and facilities, political/community participation, migration, agriculture and waste management can be monitored through the CBMS approach. With its core indicators and questionnaire, the CBMS approach enables the collection and analysis of data at the district level because it is easily adaptable to the district-specific situation and uses local resources in terms of community enumerators in the assessment.

This study using the CBMS approach assesses the effects of rising food and oil prices on households in Ghana using the rural district of Dangme West as a case study.

The Dangme West District is the largest district by land area in the Greater Accra Region of Ghana. Geographically, the district is located in the southeastern part of Ghana (see Figures 1.1 and 1.2) and shares boundaries with Yilo and Manya Krobo districts in the northwest, Akwapim North district in the west, North Tongu on the North-east and Tema and Adenta municipalities in the southwest and Dangme East district in the east. The Volta River and the Atlantic Ocean wash the northeastern and southern portions of the district, respectively. The district has a total land area of about 1,442 square kilometers accounting for about 42 percent of the region's land area and accommodates 98,809 inhabitants, accounting for 3.4% and 3.3% of the regional and country's population in 2000 respectively (Population and Housing Census, 2000). About 48 percent of the population is males and 51.8 percent, female. The dependency ratio (proportion of the population aged 0-14 and 65+ years old to the economically active population, aged 15-64 years old) is 0.79.

The Dangme West district is more rural than urban with 76 percent of the population living in rural areas. This is further supported by the dominance of agriculture as the main occupation accounting for 58.6% of labour force in the district. Trading and fishing account for 22.1% and 6.4% of the labour forces respectively with the latter mostly made up of older people. Though the district capital is located just about 25 kilometres from Accra, the capital of Ghana, poverty in the district is endemic and can be compared with poor districts in other parts of the country. Due to the proximity to the capital, Accra and the lack of industry and work for the youth who are not too keen on agriculture and fishing, there is a lot of commuting from towns in the district like Dodowa, Prampram, Dawhenya and Afienya to Accra for various reasons including employment.

1.2 Objectives of the Paper

The paper seeks to ascertain the effects of rising food and oil prices on rural households in Ghana using the Dangme West District as a case study and specifically to:

- highlight any changes over the past year in households' satisfaction of basic needs of food;
- give an insight into any changes in the cost involved as households seek to access health and education;
- assess changes in their work situation and financial management practices over the past year; and
- discuss the implications for the socio-economic development of household members in the Dangme West District.

1.3 Structure of the Report

Chapter one covers the background and objectives of the study while Chapter Two highlights the methodology employed in the collection, study area as well as the method of analysis. The global overview of the rising food and oil prices in addition to focus on the situation as experienced in Ghana is discussed in Chapter Three. Some background characteristics of respondents in the study area are explored from the data in Chapter Four. The effects of the rising food and oil prices on the household are analysed specifically in terms of their food consumption and health seeking behaviors, changes over the past year in their education and employment situation, communication and transportation, their financial management and recreational practices are presented in Chapter Five. Chapter Six presents the summary and conclusions from the study.

Figure 1.1

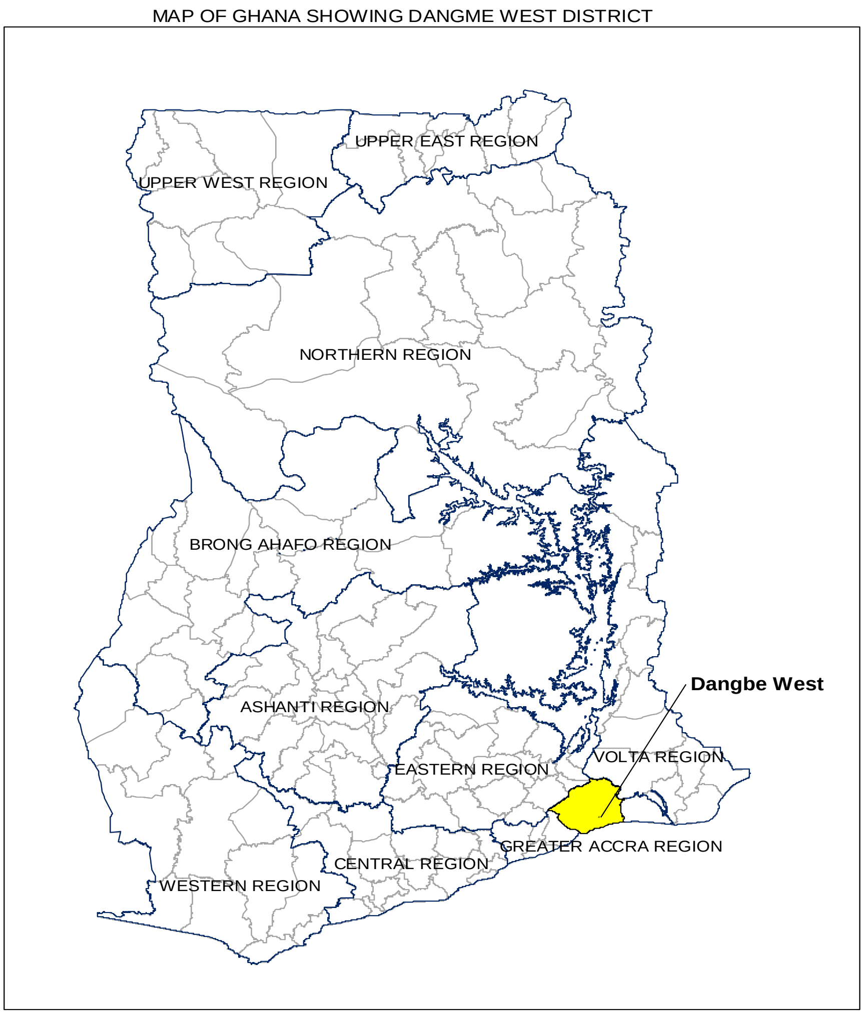
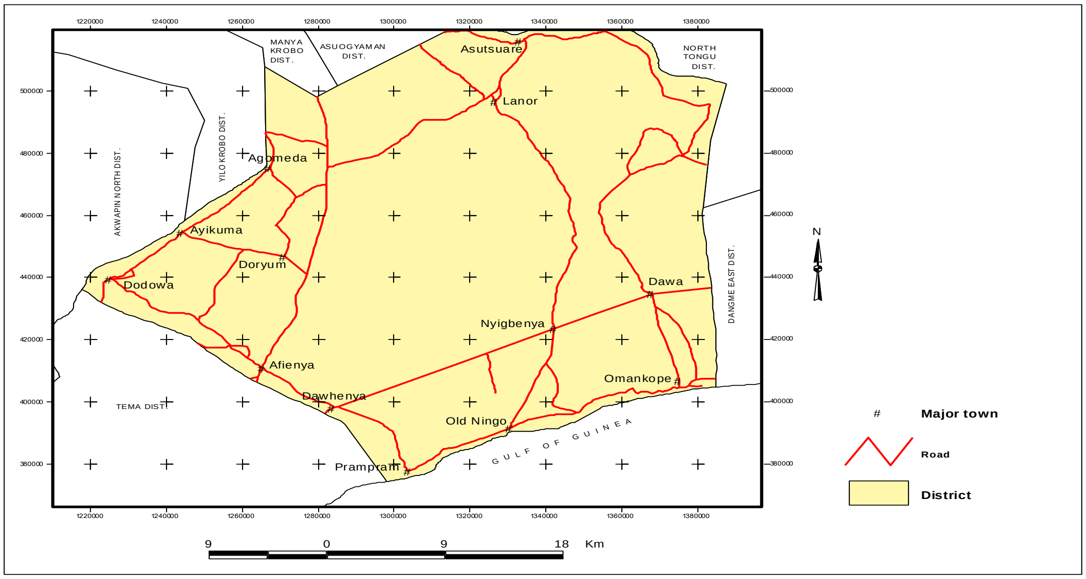


Figure 1.2

DANGME WEST DISTRICT OF GHANA



2.0 Study Design and Methodology

2.1 Study Area and Communities

Having piloted the CBMS in the Dangme West District in 2004/2005, it became the obvious choice in the selection of a study area where the effect of the rising food and oil prices on rural households in Ghana could be studied. The existing structures and cordial relationship with the assembly and particularly the staff also informed this selection.

The Dangme West district is located in the southeastern part of Ghana in the Greater Accra Region. The district has a total land area of about 1,442 square kilometers. It shares boundaries with Yilo and Manya Krobo districts on the north west, Akwapim North district on the west, Tema Municipality on the south west and Dangme East district on the east. The Volta River and the Atlantic Ocean wash the northeastern and the south portions of the district respectively.

Dangme West district is one of the hottest and driest parts of the country. Temperatures are appreciably high for most parts of the year with the highest during the main dry season (November – March) and the lowest during the short wet season (June – August). The absolute maximum temperature is 40 degrees Celsius. Mean annual rainfall increases from 762.5 millimeters on the coast to 1,220 millimeters to the north and northeast close to the foothills of Akwapim Range.

The unreliability and dependence of farmers on the rainy season makes farming a vulnerable occupation. Periodic main crop failures are common phenomena even in the better-watered northern parts. The predominant vegetation type found in the district is of the short grass savannah interspersed with shrubs and short trees, a characteristic of the sub-sahelian type. The soils are highly elastic when wet but become hard and compact when dry and then crack vertically from the surface. This renders the soil unsuitable for hand cultivation. The main occupational activity of the economically active population is agriculture (crop farming, livestock and fishing).

The total population of Dangme West district is 98,809 (2000 Population and Housing Census). Generally, the district has a lower population density than the average for the country, 55.3 persons per square kilometer against the national average of 63 persons per kilometer. Of the total population in 2000, 48.2 percent are males and 51.8 percent females. The dependency ratio (proportion of the population of ages 0-14 and 65+ years and the economically active population, 15-64 years) is 79 percent.

2.2 Study Design – The Questionnaire

The Ghana CBMS Price Increases Impact questionnaire was adopted from the Philippines CBMS approach and was revised to suit the Ghanaian conditions. The questionnaire included issues relevant in assessing the effects of the rising food and oil prices on rural households in Ghana such as changes in food consumption and health seeking behaviors, changes over the past year in education and employment situation, communication and transportation, financial management and recreational practices. It kept the core CBMS questions which included questions into household characteristics, education, political participation, employment and health, child mortality, housing and shelter, lighting, water and sanitation, income and livelihood, peace and order and access to social and community services which formed part of the original CBMS questionnaire used in the pilot study. See Appendix 1 for the questionnaire used in the survey.

2.3 Selection of Enumerators and Fieldwork

With the assistance of the District Planning Officer, efforts were made to track some of the enumerators used in the 2004/2005 survey because of their familiarity with the survey but this did not yield much fruit. So a new team was constituted and this was made up of teachers coming from the communities surveyed. A one-day training was organized by the Ghana team for the enumerators. The District Planning Officer was involved in the identification and selection of the local enumerators for the survey.

The three communities of Dodowa, Prampram and Ningo in the Dangme West district which were surveyed in 2004 were revisited. A hundred households from each of the communities totaling 300 were randomly sampled and surveyed in October 2008.

2.4 Method of Analysis

All the 300 questionnaires collected from the field were checked, coded, and analysed using SPSS. Local capacity to analyze the data collected from the field was however lacking, which necessitated the task to be carried out by a data entry manager outside the district. Quintiles using household income were constructed. The 1st quintile represents the poorest and the 5th quintile the richest groups. Thus as one moves from the 1st quintile to the 5th quintile one is moving from the poor to the rich.

3.0 Overview of the Rising Food and Oil Prices

3.1 Rising Food and Oil Prices – Global Context

One emerging factor behind rising food prices was the high price of energy. Energy and agricultural prices have become increasingly linked. With oil prices at an all-time high in July 2007and the US government subsidizing farmers to grow crops for energy, US farmers have massively shifted their cultivation towards biofuel feedstocks, especially maize, often at the expense of soybean and wheat cultivation. About 30 percent of US maize production was to go into ethanol in 2008 rather than into world food and feed markets. High energy prices have also made agricultural production more expensive by raising the cost of mechanical cultivation, and of inputs such as fertilizers and pesticides, as well as of transportation of inputs and outputs (von Braun, 2008).

Another source of the current price increases is the growing world population's demand for more and different kinds of food. Rapid economic growth in many developing countries has pushed up consumer purchasing power, generated rising demand for food, and shifted food demand away from traditional staples and towards high-value foods such as meat and milk. This dietary shift is leading to increased demand for grains used to feed livestock. Lastly, poor weather has also played a role in the rise of food prices. For example, severe drought in 2007/2008in Australia, one of the world's largest wheat producers, has cut into global wheat production.

High food prices have radically different effects across countries and population groups. At country level, countries that are not food exporters will benefit from improved terms of trade, although some of them are missing out on this opportunity by banning exports to protect consumers. Net food importers, however, will struggle to meet domestic food demand. Given that almost all countries in Africa are net importers of cereals, they will be hard hit by rising prices. At household level, surging and volatile food prices hit the poor and food insecure. The few poor households that are net sellers of food will benefit from higher prices.

Adequate nutrition for the population, especially poor people, is also at risk when they are not shielded from the price increases. Higher food prices lead poor people to limit their food consumption and shift to even less-balanced diets, with harmful effects on health in the short and long run.

3.2 Rising Food and Oil Prices – Country Context

3.2.1 Balance of Trade

Total export receipts (f.o.b) increased by about 11% in 2007 to US$4,194.7 million, from US$3,726.7 million in 2006 (Table 3.1). This growth was fuelled by increases in the volume and /or prices of commodities, especially gold and cocoa. Total import receipts (f.o.b) increased at an even faster rate of 16% in 2007 to US$8,073.6 million, from US$6,753.7 million in 2006. The growth in imports was due to increases in both the oil and non-oil bill. Trade deficit worsened in 2007, reaching a high of US$3,878.9 million, an increase of 21% over the 2006 value of US$3,027.0 million.

Total merchandised exports for the first half of 2008 amounted to US$2,885.4 million, compared with US$2,142.8 million (a growth of 34.7 percent) for the same period in 2007. Total merchandise imports for the period January to June 2008 amounted to US$4,945.6 million, compared with US$3,473.6 million for the same period in 2007 (an annual growth of 42.4 percent).

For the half year of 2008, the merchandise trade deficit is provisionally estimated at US$2,060.2 million, compared with a deficit of US$1,330.7 million for the same period in 2007. The current account is provisionally estimated to have recorded a deficit of US$1,171.3 million (in part due to an increase of US$411.0 million in the oil import bill), compared with a deficit of US$639.8 million for the same period in 2007.

Table 3.1 Balance of Trade, 2003-2007 (US$ millions)

	2003	2004	2005	2006	2007*
Merchandise Trade Balance	**-670.43**	**-1,592.81**	**-2,545.11**	**-3,027.00**	**-3,878.86**
Exports (f.o.b)	**2,562.39**	**2,704.47**	**2,802.21**	**3,726.68**	**4,194.71**
Cocoa Beans & Products	817.73	1,025.67	908.36	1,187.44	1,103.24
Gold	830.13	840.21	945.82	1,277.25	1,733.78
Timber & Timber Products	174.74	211.71	226.54	206.71	250.13
Other Exports	739.79	626.87	721.49	1,055.28	1,107.56
Imports (f.o.b)	**-3,232.82**	**-4,297.27**	**-5,347.32**	**-6,753.68**	**-8,073.57**
Non-oil	-2,669.88	-3,522.31	-4,217.88	-5,107.52	-5,968.31
Oil	-562.94	-774.97	-1,129.44	-1,646.16	-2,105.26

* Provisional *Source*: ISSER, 2008

3.2.2 Domestic Food Prices

Globally, towards the latter part of 2007, food prices have been an important social, economic and humanitarian issue. Food prices have economic growth implications and consequently threaten the poverty reduction efforts of developing economies such as Ghana. It is estimated that over 50 percent of the consumer price index is attributable to food. Thus food prices have important implications for inflationary pressures.

Despite the unfavorable developments globally, Ghana is still self-sufficient in most of her basic food items, including maize, cassava, yam and plantain. Ghana still records a deficit in the production of rice, meat and fish and some quantities of these are usually imported to meet local production.

Average national wholesale prices of grains in 2007 show that while maize, rice and cowpea prices were above their 2006 levels, those of millet and sorghum were down in price (Figure 3.1). The reduction in the price of millet and sorghum by 13.6 percent and 2.6 percent respectively was in spite of the floods in the Northern and Upper East regions. Indeed, over the past three years, millet and sorghum prices have been following a downward trend. Maize prices increased by more than 12 percent, from 2006 to 2007, while local rice and cowpea prices rose by more than 5 percent and nearly 6 percent respectively.

With the exception of cassava and gari, all prices in the starchy foods category (Table 3.2) rose in 2007 relative to 2006. The price of plantain went up by over 132 percent in 2007. Prices of yam and cocoyam also appreciated by 19.3 percent and 18.6 percent, respectively.

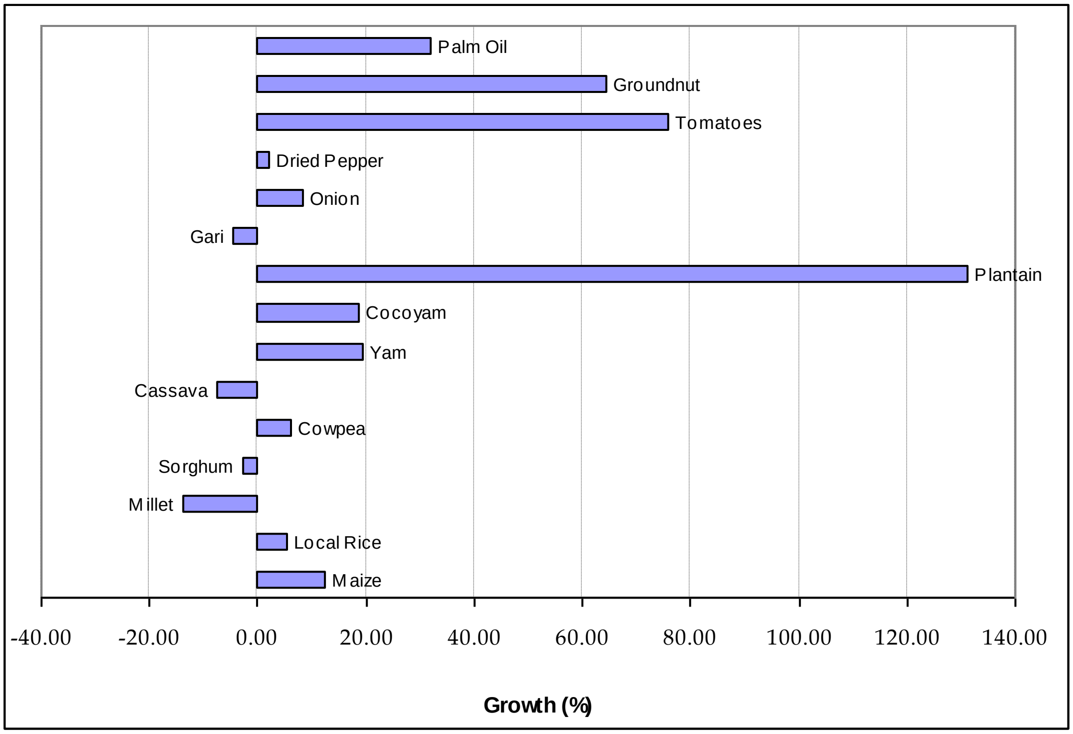
Among all food categories, vegetables had the most significant rise in price in 2007. The lowest of these price appreciations was dried pepper, gaining only about 2.2 percent in 2007 relative to 2006. Onion prices went up by about 8.2 percent over the period. Tomato and groundnut prices, however, increased by as much as 75.7 percent and 64.5 percent respectively.

Table 3.2 Changes in Nominal Prices of Major Food Items, 2002-2007 (%)

Food Items	*2002/2003*	*2003/2004*	*2004/2005*	*2005/2006*	*2006/2007*
Grains					
Maize	11.58	41.54	56.92	-29.72	12.43
Local Rice	16.07	32.04	23.46	4.99	5.34
Millet	1.78	17.76	66.63	-2.31	-13.64
Sorghum	-2.63	26.98	61.70	-12.73	-2.57
Cowpea	29.77	10.11	44.07	-1.58	5.93
Starchy					
Cassava	-11.06	27.26	43.02	3.14	-7.60
Yam	10.37	16.70	23.08	3.68	19.33
Cocoyam	-0.28	31.06	23.21	13.21	18.68
Plantain	12.47	27.74	4.45	14.30	131.07
Gari	-9.98	11.10	75.55	7.89	-4.46
Vegetables/ Others					
Onion	41.08	-2.42	39.50	-9.52	8.20
Dried Pepper	40.31	8.89	19.52	7.75	2.19
Tomatoes	39.92	14.41	41.76	-2.09	75.78
Groundnut	32.83	10.90	45.73	14.41	64.53
Palm Oil	27.37	2.93	6.50	-0.22	32.02

Source: ISSER, 2008

Figure 3.1 Changes in Nominal Wholesale Prices of Selected Commodities, 2006/07



3.3 Government's Mitigating Policies

The Government of Ghana has in the face of challenges, especially the rising fuel and food prices as well as the increases in cost of agricultural inputs, sought to mitigate the negative impacts of global food price increases without jeopardizing the potential benefits. The government also engaged the nation on the measures to mitigate the effects of rising costs of petroleum products and food in the country. In this light, a task force was constituted by government to study the situation on a continuous basis so as to recommend such actions as would be necessary from time to time, until stabilization and normalcy was achieved.

Apart from measures taken to cushion the Ghanaian consumer against the rising food costs such as the removal of import tariffs on rice, wheat, yellow corn and vegetable oil, the government intervened to ensure that Ghana's farmers are best positioned to take advantage of emerging opportunities. To ensure that producers in the agricultural sector are well positioned to respond to the challenges and take advantage of emerging opportunities, the government further instituted the following measures:

- Subsidizing fertilizer to reduce farm production costs and ensure the effective distribution to farmers for a good harvest;
- Substitution of cassava flour for wheat flour in bread and pastry products;

- Supporting large-scale cultivation of rice in northern Ghana; and
- Rehabilitation of dams damaged in northern Ghana by the 2007 floods;

In addition, the following proposed interventions did not preclude on-going investments for agricultural development, particularly those that sought to contribute to achievement of food security and emergency preparedness.

- Investment in mechanization (procurement and distribution of tractors, implements, shellers, rice mills, power tillers, etc.);
- Expanding irrigation facilities, i.e. dams and dugouts, pumping water from rivers and streams, sinking of boreholes, etc;
- Procurement of sheep and goats under the Livestock Development Project;
- Strengthening and revolutionizing the agricultural extension service;
- Providing post-harvest infrastructure including storage and processing infrastructure;
- Increasing the provision of mechanization services throughout the value chain (land preparation through to harvesting and processing); and
- Supporting farmers with soft loans to increase staple food production.

Other interventions that were put in place by government include the following:

- Removal of the excise duty and debt recovery levy on premix oil to assist fishing communities;
- Reduction in the excise duty and debt recovery levy on gas oil, kerosene and Marine Gas Oil;
- Increase in Government's support for the production cost of electricity to bring relief to domestic consumers;
- Government in consultation with its development partners also decided to import and stock-pile supplies of wheat and rice to enhance food security;
- The Ministry Of Food And Agriculture (MoFA) also stepped up the supply of tractors at subsidized rates to farmers and also ensured accelerated provision of small irrigation dams, and through its extension services, supervised the supply of improved seeds and ensured adherence to best practices among farmers;
- Finally, the Millennium Development Authority was also directed to accelerate the pace of implementation of the Millennium Challenge Account Programme in all selected districts.

4.0 Characteristics of Respondents in Study Area

The study took place in the Dangme West district of the Greater Accra region within three towns – Dodowa, Ningo and Prampram. In all 300, respondents were interviewed. The respondents were household heads or a household member nominated to represent the head of household. Sex distribution reveals that there were more males interviewed than there were females with Ningo showing the highest percentage of male representation (Table 4.1).

Table 4.1 Sex of respondents (heads of households)

Town	Sex	Frequency	Percent
Dodowa	Male	71	72.4
	Female	27	27.6
	Total	98	100.0
Ningo	Male	86	85.1
	Female	15	14.9
	Total	101	100.0
Prampram	Male	82	81.2
	Female	19	18.8
	Total	101	100.0

Source: survey data, 2008

A look at Table 4.2 reveals that most of the respondents in the study area were married. For instance, at Ningo as much as 75% were married while Dodowa and Prampram recorded about 65% of respondents in each districtas married. Other respondents were in informal/loose unions, or widowed while others were divorced or had never married.

The highest age among respondents was 82 years which was recorded at Dodowa while the minimum was 20 years at Ningo. The minimum mean age recorded was 40 years and was noticed at Prampram and the highest mean age of 44years was recorded at Ningo.

Table 4.2 Marital status of respondents (heads of households)

Town		Frequency	Percent
Dodowa	Married	64	65.3
	Informal/loose union	11	11.2
	Divorced/separated	13	13.3
	Never married	7	7.1

	widowed	3	3.1
	Total	98	100.0
Ningo	Married	76	75.2
	Divorced/separated	4	4.0
	Never married	12	11.9
	Widowed	9	8.9
	Total	101	100.0
Prampram	Married	66	65.3
	Informal/loose union	9	8.9
	Divorced/separated	8	7.9
	Never married	11	10.9
	Widowed	7	6.9
	Total	101	100.0

Source: survey data, 2008

Table 4.3: Age of respondents

Town		N	Minimum	Maximum	Mean	Std. Deviation
Dodowa	**How old was Name on last birthday**	**98**	**20**	**82**	**42.2**	**13.0**
Ningo	**How old was Name on last birthday**	**101**	**23**	**79**	**44.3**	**14.6**
Prampram	**How old was Name on last birthday**	**101**	**20**	**79**	**39.7**	**13.8**

Source: survey data, 2008

5.0 Effects of the Rising Food and Oil Prices on Households

5.1 Food and Energy Consumption Behaviour of Households

5.1.1 Food Consumption Behaviour

The major food staple of the respondents in the Dangme West district of the Greater Accra region of Ghana is corn or maize. Results from table 5.1 indicate that all three towns namely; Dodowa, Ningo and Prampram have a high percentage of respondents who use maize/corn as their main staple both currently and in the past year. Last year, 26% of respondents in Dodowa used maize/corn as their main staple but currently that percentage stands at 40.2%. No change was observed among respondents at Ningo while there was a slight change in Prampram where currently 58% use maize/corn as main staple as against 58.2% last year. Maize/corn dominates as main staple because the main dish of people in this area is kenkey which is prepared with maize. Other staples are tubers (yam, cassava, cocoyam) and rice. Again more than 14% of respondents at Dodowa had switched from one-staple to mixed staples. This was not the case in Ningo and Prampram.

Table 5.1: Major staples of households (%)

	Dodowa		**Ningo**		**Prampram**	
	Currently	Last year	Currently	Last year	Currently	Last year
Corn/maize	40.2	26.0	62.0	62.0	58.0	58.2
Tubers(Yam, cocoyam, cassava	13.4	13.0	3.0	3.0	5.0	4.1
Rice	31.7	33.0	1.0	1.0	7.0	7.1
Mixed	14.6	0.08	34.0	34.0	30.0	30.6

Source: survey data, 2008

Associating income levels of households with their major food staples indicated that all households regardless of their income status patronized all food staples both currently and a year ago (Table 5.2). This same scenario is replicated at Prampram but in Ningo it was observed that households in the highest 20% in terms of income use rice currently and used it a year ago as a major food staple. Prampram recorded no household in the highest 20% (income level) as using rice as a major staple while Dodowa recorded between 11% and 12% currently and a year ago, respectively.

Table 5.2: Major staples of households by income levels (%)

		Dodowa		Ningo		Prampram	
Corn/maize		Currently	Last year	Currently	Last year	Currently	Last year
	1st quintile	18.2	11.5	19.4	19.4	20.7	22.8
	2nd quintile	30.3	30.8	24.2	24.2	15.5	14.0
	3rd quintile	27.3	30.8	16.1	16.1	19.0	19.3
	4th quintile	15.2	19.2	21.0	21.0	19.0	17.5
	5th quintile	9.1	7.7	19.4	19.4	25.9	26.3
Tubers(Yam, cocoyam,	1st quintile	36.4	30.8	33.3	33.3	20.0	0.0

cassava)	2nd quintile	18.2	30.8	0.0	0.0	20.0	25.0
	3rd quintile	27.3	15.4	66.7	66.7	0.0	0.0
	4th quintile	9.1	15.4	0.0	0.0	40.0	50.0
	5th quintile	9.1	7.7	0.0	0.0	20.0	25.0
Rice	1st quintile	7.7	18.2	0.0	0.0	14.3	14.3
	2nd quintile	23.1	24.2	0.0	0.0	14.3	14.3
	3rd quintile	19.2	18.2	0.0	0.0	42.9	42.9
	4th quintile	38.5	27.3	0.0	0.0	28.6	28.6
	5th quintile	11.5	12.1	100.0	100.0	0.0	0.0
Mixed	1st quintile	16.7	12.5	26.5	26.5	16.7	16.7
	2nd quintile	41.7	37.5	5.9	5.9	23.3	23.3
	3rd quintile	33.3	37.5	5.9	5.9	16.7	16.7
	4th quintile	8.3	12.5	14.7	14.7	26.7	26.7
	5th quintile	0.0	0.0	47.1	47.1	16.7	16.7

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

It was also noted that some respondents had switched from some staples to other staples and the main reason was with affordability (Table 5.3). About 53% of male-headed households cited inability to afford certain staples as the main reason for switching to other stapes while 20% of female-headed households indicated the same. It was interesting to observe that 60% of female-headed households had to save money and therefore had switched from some expensive staples like rice and yam to less expensive ones like cassava and maize.

Table 5.3: Reasons for change in major staples by gender of household head (%)

		Town			Total
Sex of HH head	**Reasons**	**Dodowa**	**Ningo**	**Prampram**	
Male	Can't afford to buy anymore	33.3	6.7	13.3	53.3
	To save money	6.7	-	-	6.7
	Can now afford to buy	6.7	-	-	6.7
	Other	26.7	-	6.7	33.3
	Total	73.3	6.7	20.0	100.0
Female	Can't afford to buy anymore	20.0	20.0	-	40.0
	To save money	40.0	-	20.0	60.0
	Total	60.0	20.0	20.0	100.0

Source: survey data, 2008

Results based on income levels of households also indicated that the major reason for households switching from some staples to others was the increasing cost of staples necessitating this move (Table 5.4). At Dodowa this reason was cited by households in all income levels but at Ningo, only households in the lowest 20% gave this reason while

50% of households (in the lowest 20%) at Prampram named the same reason. Households in the last 20% and 40% income groups at Dodowa also indicated that they could now afford the purchase of certain food staples.

Table 5.4: Reasons for change in major staples by household income level (%)

		Dodowa	Ningo	Prampram
Can't afford to buy anymore	1st quintile	40.0	100.0	50.0
	2nd quintile	20.0	0.0	0.0
	3rd quintile	20.0	0.0	0.0
	4th quintile	0.0	0.0	50.0
	5th quintile	20.0	0.0	0.0
To save money	1st quintile	66.7	0.0	100.0
	3rd quintile	33.3	0.0	0.0
Can now afford to buy	1st quintile	50.0	0.0	0.0
	2nd quintile	50.0	0.0	0.0
Other	2nd quintile	75.0	0.0	0.0
	3rd quintile	0.0	0.0	100.0
	4th quintile	25.0	0.0	0.0

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

There were some slight changes in the places where households had usually been buying food within the last year (Table 5.5). For instance, at Dodowa, 23.1% of male-headed households were buying their food from local markets a year ago but this had slightly increased to 23.4% currently while there were no changes among female-headed households. No changes were observed among households that purchased and still purchase food from supermarkets. There had been some shift among female-headed households concerning purchases of food from kiosks. While there were no female-headed households that purchased food from kiosks in the past year, 3.5% purchase food from kiosks currently. Ningo and Prampram present quite similar results with a few exceptions. For example, while no female-headed households purchase food from supermarkets in these towns, 0.5% of male-headed households purchased food from supermarkets last year at Ningo and 0.5% currently purchase from supermarkets at Prampram.

Table 5.5: Household place of usual purchase of food by gender of household head (%)

		Dodowa		**Ningo**		**Prampram**	
		Currently	Last year	Currently	Last year	Currently	Last year
Local market	**Male**	23.4	23.1	30.6	30.8	32.0	32.1
	Female	35.1	35.1	21.1	21.1	22.8	24.6
Supermarket	**Male**	1.4	1.4	0.0	0.5	0.5	0.0
	Female	1.8	1.8	1.8	1.8	0.0	0.0
Kiosk	**male**	0.5	1.4	0.0	0.5	0.5	0.0
	Female	3.5	0.0	0.0	0.0	0.0	0.0
Other	**Male**	0.9	0.5	5.9	5.4	4.5	4.5
	female	0.0	0.0	10.5	10.5	3.5	1.8

Source: survey data, 2008

Results indicated that income strata did not define clear cut differences between households as far as buying of staples from local markets is concerned in that all households across income levels purchased food staples from their local markets in their vicinities both currently and a year ago(Table 5.6). However, only households in the 5th quintile at Ningo purchased food staples from the supermarket currently and a year ago as against households in the 3rd quintile at Prampram. Households in the 3rd and 4th quintiles at Dodowa also purchased food staples from the supermarket both currently and a year ago. There were no major changes in the place of purchase of food staples across all communities.

Table 5.6: Household place of usual purchase of food by income level (%)

		Dodowa		Ningo		Prampram	
Local market		Currently	Last year	Currently	Last year	Currently	Last year
	1st quintile	18.1	18.3	22.5	21.3	17.9	17.6
	2nd quintile	29.2	26.8	17.5	17.5	17.9	18.8
	3rd quintile	25.0	26.8	16.3	16.3	16.7	16.5
	4th quintile	19.4	19.7	17.5	18.8	23.8	23.5
	5th quintile	8.3	8.5	26.3	26.3	23.8	23.5
Supermarket	3rd quintile	25.0	25.0	0.0	0.0	100.0	100.0
	4th quintile	75.0	75.0	0.0	0.0	0.0	0.0
	5th quintile	0.0	0.0	100.0	100.0	0.0	0.0
Kiosk	2nd quintile	66.7	80.0	0.0	0.0	0.0	0.0
	3rd quintile	0.0	0.0	0.0	0.0	100.0	100.0
	5th quintile	33.3	20.0	0.0	0.0	0.0	0.0
Other	1st quintile	50.0	100.0	21.1	22.2	25.0	27.3
	2nd quintile	0.0	0.0	15.8	16.7	16.7	9.1
	3rd quintile	50.0	0.0	5.3	5.6	25.0	27.3
	4th quintile	0.0	0.0	21.1	16.7	25.0	27.3
	5th quintile	0.0	0.0	36.8	38.9	8.3	9.1

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

Female-headed households gave no reasons for changing the place of food purchase but reasons given by male-headed households include inability to afford buying food from such venues and , the need to save money, among other reasons (Table 5.7). Among male-headed households, only those from Ningo (25%) indicated that they could not afford the food prices at their previous places and therefore had switched to other places where prices were cheaper. About 25 % of the respondents from Dodowa insisted that they had changed place of food purchases because they want to save money.

Table 5.7: Reasons for change in place of usual purchase of food (%)

Sex		Town			Total
		Dodowa	Ningo	Prampram	
Male	Can't afford to buy anymore		25.0		25.0
	To save money	25.0			25.0
	Other	25.0		25.0	50.0
	Total	50.0	25.0	25.0	100.0

Source: survey data, 2008

As indicated in Table 5.8, the reason for inability to afford the buying of staples from certain sources necessitating changes was cited by households in the 5th quintile at Ningo while those in the 4th quintile at Dodowa indicated the need to save money as the major reason for changing their usual place of staple food purchases.

Table 5.8: Reasons for change in place of usual purchase of food (%)

		Dodowa	Ningo	Prampram
Can't afford to buy anymore	5th quintile	0.0	100.0	0.0
To save money	2nd quintile	100.0	0.0	0.0
Other	2nd quintile	100.0	0.0	100.0
	4th quintile	0.0	0.0	100.0

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

Households had made adjustments in their patterns of food preparation as is reflected in Table 5.9. The most changes have come from male-headed households. In general 38.2% of male-headed households had made changes while 30% of female-headed households had done the same. At Dodowa for example, 10.6% of male-headed households had made changes as compared to 8% of female-headed households. At Ningo, 16.6% of male-headed households had made changes in food preparation patterns while 16% of their female - headed households had done the same.

Table 5.9: Changes in household food preparation by gender of household head (%)

Sex		Town			Total
		Dodowa	Ningo	Prampram	
Male	Yes	10.6	16.6	11.1	38.2
	No	18.1	14.6	29.1	61.8
	Total	28.6	31.2	40.2	100.0

	Yes	8.0	16.0	6.0	30.0
Female	No	38.0	8.0	24.0	70.0
	Total	46.0	24.0	30.0	100.0

Source: survey data, 2008

Households have adopted quite a number of strategies in coping with changing economic trends and this is also reflected in their food preparation patterns. At Dodowa, the most significant change has been the household eating less of what it normally used to eat. About 30% of households are in this category. Other strategies adopted by households at Dodowa include skipping of meals, combining meals, parents eating less as a result of cut in quantities so children could have more food, mixing varieties, shifting from perfumed rice to local rice, among others. Most of these strategies were practiced in Dodowa.. The most popular coping strategy at Ningo is the household skipping meals and at Prampram the households eating less of what it normally used to and skipping meals (Table 5.10).

Table 5.10: Coping strategies adopted by households in food preparation patterns (%)

	Dodowa	Ningo	Prampram
The household ate less of what it normally used to eat	29.7	14.7	37.5
The household skipped meals	8.1	32.4	37.5
Combining meals	5.4	17.6	12.5
Parents ate less	2.7	8.8	0.0
Eating same food for days	21.6	2.9	0.0
Eating more carbohydrates	13.5	17.6	0.0
Eating more ready to cook food	2.7	0.0	0.0
Mixing varieties	13.5	2.9	0.0
Shifting from perfumed rice to local	2.7	2.9	12.5

Source: survey data, 2008

Households across all income levels have adopted one or more of the coping strategies. (Table 5.11). Dodowa exhibited the most significant strategies in that households in the 1st and 2nd quintiles adopted various approaches in food preparation. In Dodowa, it was observed that only households in the 1st quintile ate ready to cook food and also shifted from buying perfumed rice to local rice due to the high cost associated with the perfumed rice. At Ningo the major strategy adopted by households in the 1st quintile was that of eating the same food for a number of days while households in the 2nd quintle adopted a strategy of combining meals.

Table 5.11: Coping strategies adopted by households in food preparation patterns by income levels (%)

		Dodowa	Ningo	Prampram
The household ate less of what it normally did (in the past 3 meals, now once or twice)	1st quintile	36.4	0.0	16.7
	2nd quintile	45.5	20.0	33.3
	3rd quintile	0.0	0.0	16.7
	4th quintile	0.0	60.0	16.7
	5th quintile	18.2	20.0	16.7
The household skipped meals	1st quintile	33.3	36.4	0.0
	2nd quintile	66.7	18.2	16.7
	3rd quintile	0.0	0.0	16.7
	4th quintile	0.0	9.1	66.7
	5th quintile	0.0	36.4	0.0
Combining meals	1st quintile	0.0	66.7	0.0
	2nd quintile	0.0	16.7	0.0
	3rd quintile	50.0	0.0	0.0
	4th quintile	50.0	0.0	100.0
	5th quintile	0.0	16.7	0.0
Parents ate less	1st quintile	0.0	33.3	0.0
	2nd quintile	100.0	0.0	0.0
	5th quintile	0.0	66.7	0.0
Eating same food for days	1st quintile	25.0	100.0	0.0
	2nd quintile	37.5	0.0	0.0
	3rd quintile	12.5	0.0	0.0
	4th quintile	25.0	0.0	0.0
Eating more carbohydrates	1st quintile	40.0	33.3	0.0
	2nd quintile	20.0	33.3	0.0
	3rd quintile	40.0	16.7	0.0
	4th quintile	0.0	16.7	0.0
Eating more ready to cook food	1st quintile	100.0	0.0	0.0
Mixing varieties	1st quintile	20.0	0.0	50.0
	2nd quintile	20.0	0.0	0.0
	3rd quintile	20.0	100.0	0.0
	4th quintile	40.0	0.0	0.0
	5th quintile	0.0	0.0	50.0
Shifting from perfumed rice to local	1st quintile	100.0	0.0	0.0
	3rd quintile	0.0	100.0	0.0

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

The most common reason for changes in the pattern of food preparation by households was the general increase in the cost of living (Table 5.12). Male-headed households were hardest hit by the increasing trend in the cost of living. At Dodowa as much as 76% of male-headed households were in this category as compared to 12% of female-headed households.. At Ningo, male-headed households were affected by increasing cost of living and had led to changes in their household food preparation patterns (75% of respondents) while at Prampram male-headed households formed 37.5% of respondents.

Table 5.12: Reasons for changes in food preparation pattern by head of household (%)

Town		Sex of HH heads: Male	Female	All
Dodowa	Loss of main source of income	4.0	4.0	8.0
	General increase in cost of living	76.0	12.0	88.0
	Other	4.0		4.0
	Total	84.0	16.0	100.0
Ningo	General increase in cost of living	75.0	6.3	81.3
	Other	12.5	6.3	18.8
	Total	87.5	12.5	100.0
Prampram	Loss of main source of income	4.2	0.0	4.2
	General increase in cost of living	37.5	4.2	41.7
	Other	45.8	8.3	54.2
	Total	87.5	12.5	100.0

Source: survey data, 2008

The pinch of the economic hardships was felt by all households especially those in the 1st and 2nd quintiles at Dodowa while those mainly affected at Ningo were those households in the 1st and 5th quintiles. At Prampram however, households citing general increases in the cost of living as a major reason for changing food preparation pattern were those in the 2nd quintile.. (Table 5.13)

Table 5.13: Reasons for changes in food preparation pattern by income level of household (%)

		Dodowa	Ningo	Prampram
Loss of main source of income	2nd quintile	50.0	0.0	0.0
	4th quintile	0.0	0.0	100.0
	5th quintile	50.0	0.0	0.0
General increase in cost of living	1st quintile	40.9	30.8	10.0
	2nd quintile	22.7	11.5	20.0
	3rd quintile	13.6	7.7	10.0
	4th quintile	18.2	19.2	50.0
	5th quintile	4.5	30.8	10.0

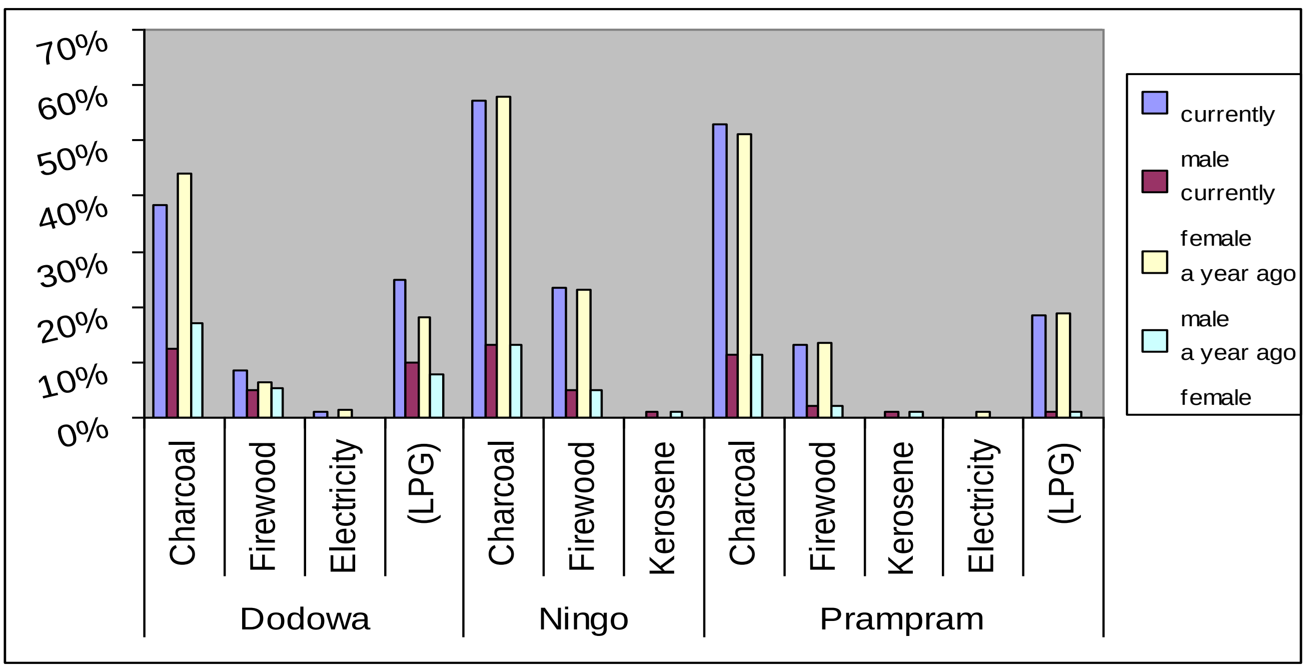
Other	1st quintile	0.0	50.0	30.8
	2nd quintile	100.0	0.0	7.7
	3rd quintile	0.0	0.0	15.4
	4th quintile	0.0	33.3	23.1
	5th quintile	0.0	16.7	23.1

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

5.1.2 Energy Consumption Behaviour

Generally, charcoal was the most common fuel for cooking by all households in the study areas. This is so because it is the most easily accessible. LPG is cheaper but not easily accessible in that households would have to travel some distance to get their cylinders filled while charcoal is usually brought to the doorstep of households. There were notable changes in the use of the different types of fuel for cooking by households. For instance, at Dodowa, 44.2% of households used charcoal last year as against 38.3% currently. At Ningo, 58% of households (male-headed) used this fuel last year as compared to 57.1% that use this fuel currently. However, LPG was more widely used by male-headed households than female-headed ones. At Dodowa, while 24.7% of households that were male-headed used LPG for cooking, only about 10% of female-headed households used LPG.. Use of LPG as fuel for cooking was not common at Ningo.

Figure 5.1 Main fuel for cooking by gender of household head



A higher percentage of households had not seen any changes in their electricity consumption but among those that had changes in the electricity consumption patterns, the male-headed households dominated. At Dodowa, 29.7% male-headed households changed their electricity consumption while 6.3% of female-headed households had also changed their electricity consumption. At Ningo and Prampram, the male-headed households that had changed their electricity consumption were 36.5% and 26% respectively while female headed households were 15.4% and 5.2%, respectively (Table 5.14).

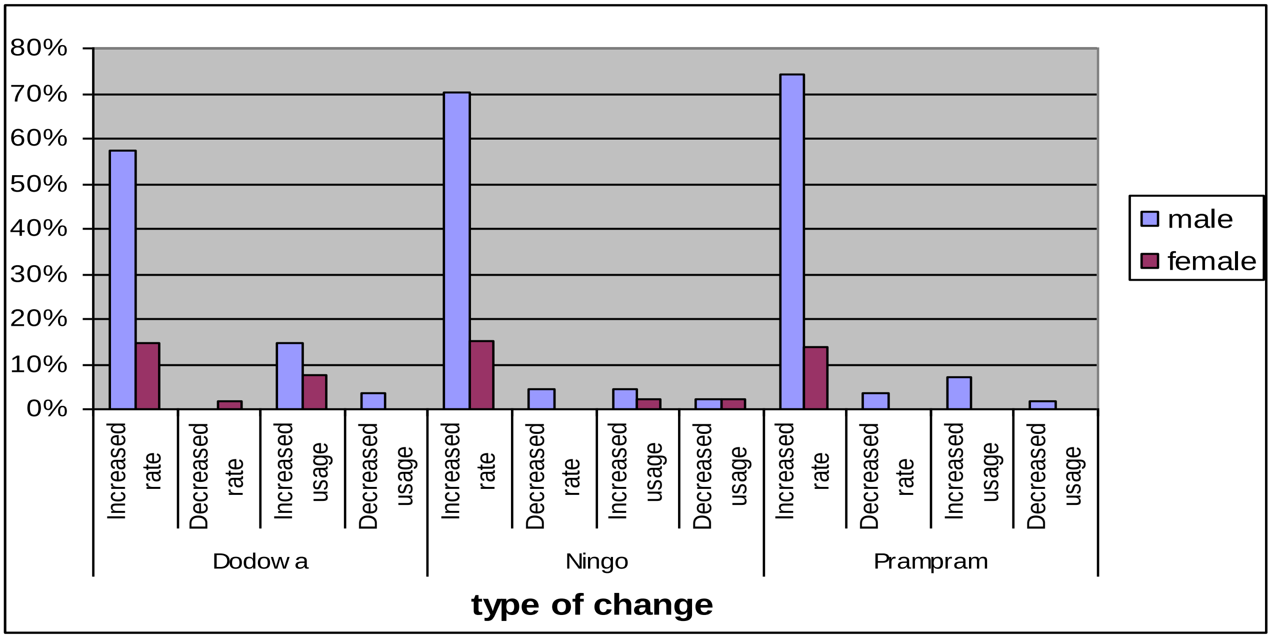
Table 5.14: Change in household electricity consumption by gender of household head (%)

Town		Sex: male	Sex: female	All
Dodowa	**Yes**	29.7	6.3	35.9
	No	42.2	21.9	64.1
Ningo	**Yes**	36.5	15.4	51.9
	No	38.5	9.6	48.1
Prampram	**Yes**	26.0	5.2	31.2
	No	55.8	13.0	68.8

Source: survey data, 2008

The main reasons cited for changes in electricity consumption by households were increases/decreases in electricity tariffs, and increases/decreases in usage. On the whole more male-headed households indicated increases in electricity tariffs compared to female-headed households (Figure 5.2). At Dodowa, while 57% of households (male-headed) cited increases in electricity tariffs, 14.8% of female-headed households are in this category. At Ningo, 70.2% of male headed households revealed changes in electricity consumption as a result of increase in tariffs even though that of female-headed ones were about 15%. About 2% each of male-headed and female-headed households had decreased usage of electricity. The same trend was noticed at Prampram where about 74% of households that were male-headed pointed out that increases in tariffs had led to changes in household electricity consumption compared to about 14% of female headed households.

Figure 5.2 Reasons for change in electricity consumption by gender of household head



As depicted in table 5.15 the reasons cited for changes in electricity consumption are confirmed by households across income strata and this was mainly noted at Dodowa. Households which cited decreases in electricity rates were all in the 4th quintile at Dodowa while households in the 1st quintile at Ningo cited increased usage as a reason for changes in electricity consumption. Only households in the 4th quintile at Prampram cited decreased usage as a reason for change in electricity consumption.

Table 5.15: Reasons for change in electricity consumption by income level of household

		Dodowa	Ningo	Prampram
Increase in electricity rates	1st quintile	15.4	22.5	21.6
	2nd quintile	28.2	10.0	17.6
	3rd quintile	20.5	12.5	21.6
	4th quintile	25.6	20.0	19.6
	5th quintile	10.3	35.0	19.6
Decrease in electricity rates	2nd quintile	100.0	50.0	0.0
	3rd quintile	0.0	50.0	0.0
	4th quintile	0.0	0.0	100.0
Increased usage	1st quintile	16.7	100.0	25.0
	2nd quintile	16.7	0.0	25.0
	3rd quintile	16.7	0.0	50.0
	4th quintile	33.3	0.0	0.0
	5th quintile	16.7	0.0	0.0
Decreased usage	1st quintile	50.0	50.0	0.0

4th quintile	50.0	0.0	0.0
5th quintile	0.0	50.0	100.0

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

Households in the study area adopted strategies which changes in their electricity consumption patterns. Generally, the most common strategies across towns were replacement of incandescent bulbs with fluorescent ones, and reducing the use of household appliances to cut down on electricity consumption (Table 5.16). As many as 64% of households at Dodowa had replaced their incandescent bulbs which consume higher wattage of electricity with compact fluorescent bulbs which consume less electricity while 16% disconnect their electrical appliances when not in use. Apart from replacement of incandescent bulbs with compact fluorescent bulbs, about 24% of households at Ningo disconnected their household electrical appliances when not in use. The most common strategy adopted by households at Prampram was the disconnection of household electrical appliances when not in use – 60% of households. About 20% of households also replaced incandescent bulbs with compact fluorescent bulbs as a strategy to cut down on electricity consumption.

Table 5.16: Coping strategies adopted by households in changing electricity consumption patterns

Strategies	**Dodowa**	**Ningo**	**Prampram**
Disconnecting household appliances when not in use	16.0	24.2	60.0
Cutting down TV viewing hrs	4.0	15.2	0.0
Ironing many things at a time	12.0	9.1	13.3
Lessening the use of household appliance	4.0	12.1	3.3
Replacing incandescent bulbs with fluorescent ones	64.0	27.3	20.0
Disconnection of electricity	0.0	12.1	3.3

Source: survey data, 2008

In terms of income levels of households it was noted that those in the 2nd and 3rd quintiles at Dodowa disconnected household appliances when not in use while their colleagues in the 1st, 4th and 5th quintiles at Ningo did same (Table 5.17). At Prampram this measure cut across all income levels. Only households in the 1st quintile at Dodowa cut down TV watching hours as a strategy to reducing electricity bills. It was also noted that only households in 4th quintile adopted the strategy of lreducing the use of household appliances except TV.

Table 5.17: Coping strategies adopted by households in changing electricity consumption patterns

		Dodowa	Ningo	Prampram
Disconnecting household appliances when not in use	1st quintile	0.0	37.5	5.6
	2nd quintile	0.0	0.0	27.8
	3rd quintile	50.0	0.0	22.2
	4th quintile	50.0	25.0	27.8
	5th quintile	0.0	37.5	16.7
Cutting down TV viewing hrs	1st quintile	100.0	20.0	0.0
	2nd quintile	0.0	20.0	0.0
	3rd quintile	0.0	20.0	0.0
	5th quintile	0.0	40.0	0.0
Ironing many things at a time	1st quintile	0.0	33.3	0.0
	2nd quintile	33.3	0.0	25.0
	3rd quintile	0.0	0.0	25.0
	4th quintile	66.7	0.0	25.0
	5th quintile	0.0	66.7	25.0
Lessening the use of household appliances (other than TV)	1st quintile	0.0	25.0	0.0
	2nd quintile	0.0	25.0	0.0
	3rd quintile	0.0	25.0	100.0
	4th quintile	100.0	25.0	0.0
Replacing incandescent bulbs with fluorescent bulbs (low wattage)	1st quintile	18.8	22.2	0.0
	2nd quintile	37.5	0.0	66.7
	3rd quintile	18.8	0.0	16.7
	4th quintile	18.8	22.2	0.0
	5th quintile	6.3	55.6	16.7
Disconnection of electricity	3rd quintile	0.0	50.0	0.0
	4th quintile	0.0	25.0	100.0
	5th quintile	0.0	25.0	0.0

NOTE: quintiles are based on estimated household income
Source: survey data, 2008

Figure 5.3: Coping strategies adopted by households in changing electricity consumption patterns

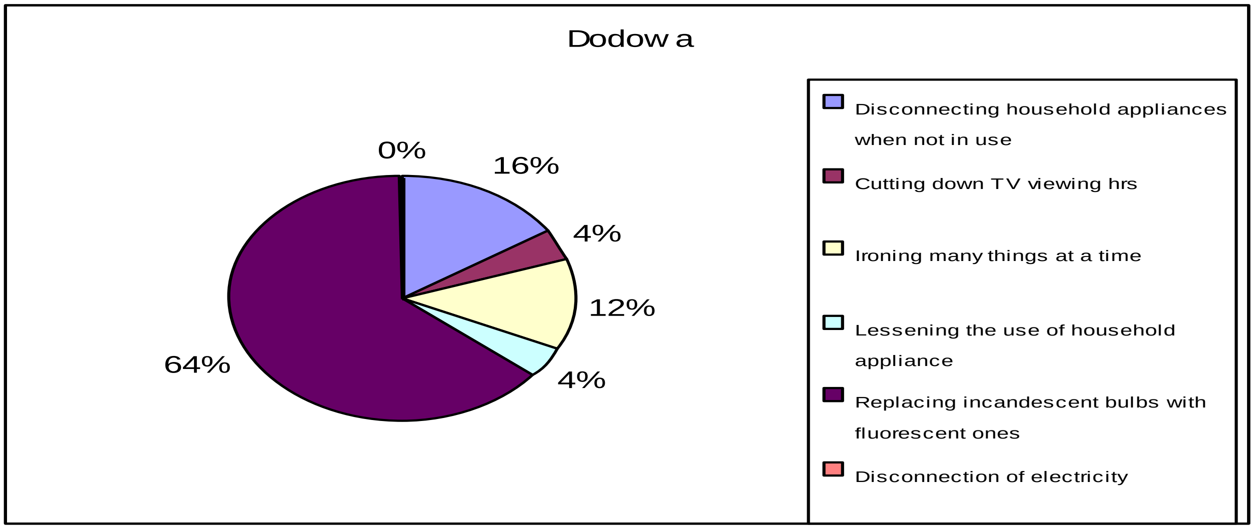


Figure 5.4: Coping strategies adopted by households in changing electricity consumption patterns

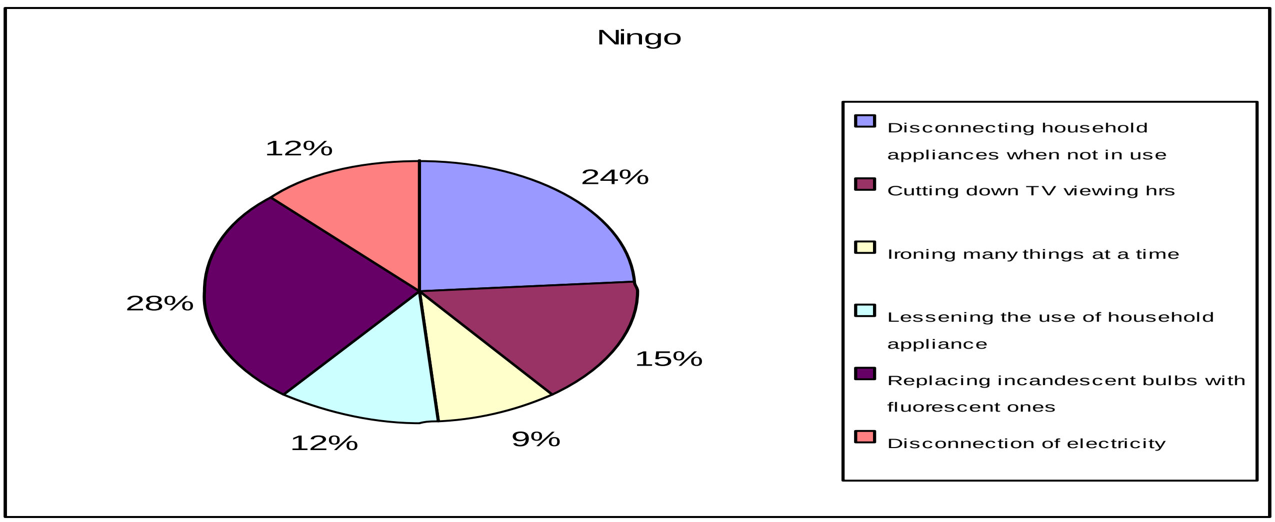
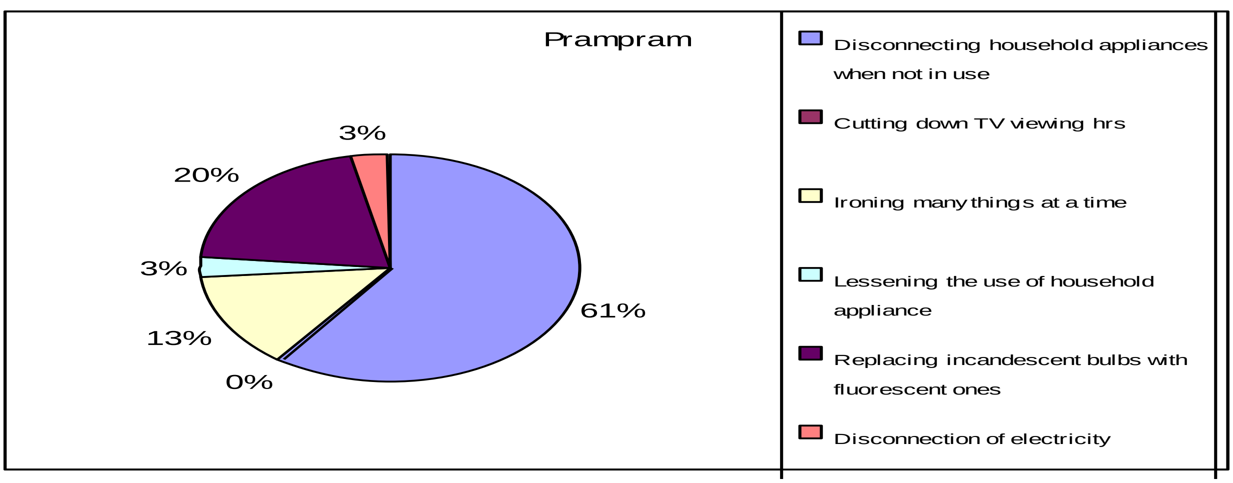


Figure 5.5: Coping strategies adopted by households in changing electricity consumption patterns



5.2 Health Seeking Behaviour

Generally, not many households have changed their health care needs except for households at Ningo where 61.3% of households who were male-headed had changed their health care needs compared to 35.5% of female-headed households (Table 5.18). Only 3.2% of households at Ningo had not changed their health care needs in contrast to over 77% at Prampram and 67% at Dodowa. Over 26% and 6% of households that were male-headed and female-headed had changed their health care needs respectively at Dodowa.

Table 5.18 Changes in meeting medical health care needs of gender of household head (%)

Town		Sex		All
		male	female	
Dodowa	Yes	26.8	6.1	32.9
	No	45.1	22.0	67.1
	Total	72.0	28.0	100.0
Ningo	Yes	61.3	35.5	96.8
	No	3.2	0.0	3.2
	Total	64.5	35.5	100.0
Prampram	Yes	18.1	4.2	22.2
	No	63.9	13.9	77.8
	Total	81.9	18.1	100.0

Source: survey data, 2008

The general impression in the study area in relation to healthcare needs is that many households have resorted to visiting government hospitals for consultation and hospitalization. This is plausibly attributed to the introduction of the National Health Insurance Scheme (NHIS) which is mostly operational in Government hospitals and health centres. This assertion is supported by the fact that the NHIS has been established in all districts in Ghana since 2005 and that the proportion of people registered with the NHIS increased from 15% of the Ghanaian population in 2005 to 38% in June 2007, meaning approximately 3.2 million and 8.2 million people respectively (2007 mid- year operational status report, NHIS, 2007). Furthermore, the current policy with regards to accessing the NHIS is that only Government hospitals are mandated to provide services related to the NHIS. Therefore it makes sense that most households would attend government hospitals to seek medical care. At Dodowa, 52% of households changed their patterns of healthcare and adopted visiting of government hospital for health care needs compared to 20% at Prampram. Over 22% of households at Ningo resorted to self-medication and 20% at Prampram did the same. Again, almost 26% of households at Ningo used medicinal plants or herbal medicines as alternatives to pharmaceuticals (Table 5.19).

Table 5.19 Changes in patterns adopted by households to meet health care needs(%)

	Dodowa	Ningo	Prampram
Household goes to government health centre for consultation and hospitalization	52.0	33.3	20.0
Household members Consult a pharmacist instead of a doctor	4.0	0.0	10.0
Resorting to self medication	12.0	22.2	20.0
Taking medicines for relief of symptoms but not for curing the disease	12.0	3.7	10.0
Taking medicines in lower dosages	0.0	0.0	10.0
Sick member need not be brought to the hospital unless person is in very critical condition	16.0	11.1	10.0
Using medicinal plants or herbal medicines as alternatives to pharmaceuticals	4.0	25.9	10.0
Shifted from buying branded drugs to generic drugs	0.0	3.7	10.0

Source: survey data, 2008

5.3 Education and Work/Employment

Generally, children within households had been transferred from private to public schools. Furthermore, more children from male-headed households were transferred from private schools to public schools than female-headed households (Table 5.20). The most prominent transfers were those in Ningo where 53.3% of children from male-headed households were transferred from private schools to public schools while 20% of children from female-headed households did the same. Minimum transfers were noticed at Prampram where only 7% of children were transferred- these were male-headed households.

Table 5.20: Children in private but now in public by gender of household head (%)

		Sex of household heads		All
Town		**male**	**female**	
Dodowa	**Yes**	11.0	1.2	12.2
	No	61.0	26.8	87.8
	Total	72.0	28.0	100.0
Ningo	**Yes**	53.3	20.0	73.3
	No	20.0	6.7	26.7
	Total	73.3	26.7	100.0
Prampram	**Yes**	7.0	0.0	7.0
	No	74.6	18.3	93.0
	Total	81.7	18.3	100.0

Source: survey data, 2008

The main reason for transferring children from private schools to public schools was the inability to pay tuition fees charged by private schools (Table 5.21). The plausible explanation could be the fact that the introduction of the capitation grant implemented by government made public schools 'more' cheaper. Almost 50% of households in Dodowa (male-headed) could not afford tuition fees anymore and 10% of households that were female-headed gave the same reason. At Ningo, 63.6% of households – male-headed indicated their inability to afford tuition fees resulting in the transfer of children while 9.1% (female-headed) of households transferred their children for the same reason. The other reason for transfer as cited by 9.1% male headed households was that of transfer of residence.

Table 5.21: Reasons for changing children's school by gender of household head(%)

		Sex of household head		All
Town		**Male**	**Female**	
Dodowa	Cannot afford tuition anymore	50.0	10.0	60.0
	Changes in budget priorities	10.0	0.0	10.0
	Other	30.0	0.0	30.0
	Total	90.0	10.0	100.0
Ningo	Cannot afford tuition anymore	63.6	9.1	72.7
	Transfer of residence	9.1	0.0	9.1
	Other	0.0	18.2	18.2
	Total	72.7	27.3	100.0
Prampram	Changes in budget priorities	33.3	0.0	33.3
	Transfer of residence	16.7	0.0	16.7
	Other	50.0	0.0	50.0
	Total	100.0	0.0	100.0

Source: survey data, 2008

Drop out of school among children in the study area was not common except for a few cases at Dodowa (about 3% for female-headed households) and 10% at Ningo (for male-headed households). Prampram had no reported case of children dropping out of school (Table 5.22).

Table 5.22: Children previously enrolled but dropped out by gender of household head (%)

		Sex of household head		All
Town		**male**	**female**	
Dodowa	**Yes**	0.0	2.5	2.5
	No	71.3	26.3	97.5
	Total	71.3	28.8	100.0
Ningo	**Yes**	10.0	0.0	10.0

	No	70.0	20.0	90.0
	Total	80.0	20.0	100.0
Prampram	**Yes**	0.0	0.0	0.0
	No	80.6	19.4	100.0
	Total	80.6	19.4	100.0

Source: survey data, 2008

There were two major reasons why those children who dropped out of school had to do so. Among the households whose children dropped out of school at Dodowa, 50% indicated the children had stopped schooling so they could assist on family farms and businesses while the rest indicated that the children themselves were not interested in schooling (Table 5.23). All the school dropouts were from female-headed households. All male headed households at Ningo revealed that the children dropped out of school for lack of interest.

Table 5.23: Reasons for dropping out from school by gender of household head (%)

		Sex of household head		All
Town		**Male**	**Female**	
Dodowa	To help in family farm/business	0.0	50.0	50.0
	Not interested in going to school	0.0	50.0	50.0
	Total	0.0	100.0	100.0
Ningo	To help in family farm/business	0.0	0.0	0.0
	Not interested in going to school	100.0	0.0	100.0
	Total	100.0	0.0	100.0

Source: survey data, 2008

Only a few household heads had lost their jobs in the past year. The most significant job loss was found in Dodowa where about 9% of households (male-headed) had lost their jobs (Table 5.24). There were no job losses among female-headed households at Prampram.

Table 5.24: Household members who lost their jobs

		Sex of HH head		All
Town		**Male**	**Female**	
Dodowa	**Yes**	8.5	1.2	9.8
	No	63.4	26.8	90.2
	Total	72.0	28.0	100.0
Ningo	**Yes**	5.1	1.3	6.4

	No	78.2	15.4	93.6
	Total	83.3	16.7	100.0
Prampram	**Yes**	7.4	0.0	7.4
	No	77.7	14.90	92.6
	Total	85.1	14.9	100.0

Source: survey data, 2008

The main reasons among households that experienced job losses include company going bankrupt and closing down, getting fired due to work-related problems, end of contract, illness/disability, among others. Dodowa had the most reasons for household job loss as being fired from work places due to problems. Other reasons for job loss are pregnancy and to a lesser extent the issue of seasonality of agriculture which render some agricultural workers (especially labourers) jobless at certain times of the year. On the whole male-headed households lost more jobs than female-headed households.

Table 5.25: Major reasons for job loss by gender of household head (%)

Town	**Reason**	**Sex**		**Total**
		Male	**Female**	
Dodowa	The company went bankrupt and closed down	11.1	0.0	11.1
	Fired because of work-related problems	33.3	0.0	33.3
	End of contract	22.2	11.1	33.3
	Illness/Disability	11.1	0.0	11.1
	Other	0.0	11.1	11.1
	Total	77.8	22.2	100.0
Ningo	End of contract	20.0	0.0	20.0
	Other	60.0	20.0	80.0
	Total	80.0	20.0	100.0
Prampram	The company went bankrupt and closed	14.3	0.0	14.3
	Fired because of work-related problems	14.3	0.0	14.3
	End of contract	14.3	0.0	14.3
	Other	57.1	0.0	57.1
	Total	100.0	0.0	100.0

Source: survey data, 2008

Households in the study area did not depend on only one job but diversified in terms of jobs so they could meet their daily household expenses and also save for future needs – future financial security. (Table 5.26)

Table 5.26: Reasons for seeking additional employment

Town		Frequency	Percent
Dodowa	To meet daily household expenses	21	42.9
	To save money for future needs	27	55.1
	Other	1	2.0
	Total	49	100.0
Ningo	To meet daily household expenses	10	100.0
Prampram	To meet daily household expenses	10	55.6
	To save money for future needs	8	44.4
	Total	18	100.0

Source: survey data, 2008

5.4 Communication and Transportation

Generally there were increases in the number of households that used cell phones from last year to now (Table 5.27). Dodowa shows a 17% increase in male-headed households that used cell phones currently compared to last year and female-headed households show an almost 4% increase in cell phone usage.

Table 5.27: Using a cell phone by gender of household head

Town		Using a cell phone currently			Using a cell phone a year ago		
		Male	Female	All	Male	Female	All
Dodowa	**Yes**	67.1	19.5	86.6	50.0	15.9	65.9
	No	4.9	8.5	13.4	22.0	12.2	34.1
	Total	72.0	28.0	100.0	72.0	28.0	100.0
Ningo	**Yes**	72.6	23.3	95.9	68.5	19.2	87.7
	No	4.1	0.0	4.1	8.2	4.1	12.3
	Total	76.7	23.3	100.0	76.7	23.3	100.0
Prampram	**Yes**	72.0	16.1	88.2	68.8	14.0	82.8
	No	11.8	0.0	11.8	15.1	2.2	17.2
	Total	83.9	16.1	100.0	83.9	16.1	100.0

Source: survey data, 2008

The major reason for general changes (mostly increases) in the use of cell phones was the issue of affordability. Most respondents across the study area affirmed that they could currently afford cell phones as compared to last year. About 68% of male-headed households at Dodowa agreed that they could afford the use of cell phones while female-headed households counterparts were 21%. Interestingly a few female-headed households (5.3%) noted the termination of cell phone use as a result of their inability to afford the use of the cell phone. About 13% of female-headedrespondents at Ningo indicated their ability to afford the use of cell phones compared to 50% of male headed households. The same magnitude (40%) of both male and female-headed households at Prampram affirmed their abilities to use cell phones (Table 5.28).

Table 5.28: Reason for use of cell phone by gender of household head (%)

Town		Sex		
		Male	Female	All
Dodowa	Can now afford to have a cell phone	68.4	21.1	89.5
	Cannot afford to have a cell phone anymore	0.0	5.3	5.3
	Other	5.3	0.0	5.3
	Total	73.7	26.3	100.0
Ningo	Can now afford to have a cell phone	50.0	12.5	62.5
	Other	37.5	0.0	37.5
	Total	87.5	12.5	100.0
Prampram	Can now afford to have a cell phone	40.0	40.0	80.0
	The unit was stolen	20.0	0.0	20.0
	Total	60.0	40.0	100.0

Source: survey data, 2008

On the average, cell phone users paid GH¢ 14.43 per month to service a cell phone at Dodowa a year ago and this had increased to GH¢ 16.8 currently. At Ningo, the monthly average cost for using a cell phone was GH¢ 13.85 but this figure currently stands at GH¢ 17.39. At Prampram households were making a mean monthly cell phone usage expenditure of GH¢ 19.56 last year and this figure has increased to GH¢ 23.86 currently (Table 5.29).

Table 5.29: Monthly cell phone usage cost

Town		Minimum	Maximum	Mean	Std. Deviation
Dodowa	Amount paid for calling/texting per month currently	1.50	70.00	16.80	13.60
	Amount paid for calling/texting per month a year ago	2.00	60.00	14.43	11.55
Ningo	Amount paid for calling/texting per month currently	4.00	130.00	17.39	21.84
	Amount paid for calling/texting per month a year ago	0.12	100.00	13.85	17.09
Prampram	Amount paid for calling/texting per month currently	5.00	115.00	23.86	20.83
	Amount paid for calling/texting per month a year ago	2.00	115.00	19.56	20.47

Source: survey data, 2008

The reasons for differences in cell phone use expenditure by households are varied and sparsely distributed in terms of percentages with the most dominant reason being increases in cell phone usage leading to higher monthly expenditure (Table 5.30). At Dodowa for instance, 30.5% of households that were male-headed indicated increased usage of cell phone as the main reason for increased monthly average cell phone expenditure and 8.5% of households that are female-headed gave the same reason. About 20% of households that were male-headed again revealed that monthly average cell phone expenditure had gone up mainly as a result of increases in network rate charges. About 55% of male-headed households revealed that increased usage of their cell phones had mainly led to higher monthly average expenditure compared to their female headed household of 24%. Other reasons advanced for increased monthly cell phone expenditure include higher taxes (after the introduction of the **Talk Time Tax**), the use of more than one cell phone and increases in the number of new business contacts and contracts leading to increases in calls and texts made per month (Table 5.30)**.**

Table 5.30: Reason for cell phone useage by gender of household head (%)

		Sex of HH head		
Town		**Male**	**Female**	**All**
Dodowa	Cannot afford to reload anymore	3.4	0.0	3.4
	Can now afford to reload	3.4	3.4	6.8
	Increased usage	30.5	8.5	39.0
	Decrease in rates	8.5	5.1	13.6
	Increase in rates	20.3	8.5	28.8
	Other	8.5	0.0	8.5
	Total	74.6	25.4	100.0
Ningo	Can now afford to reload	0.0	3.0	3.0
	Increased usage	54.5	24.2	78.8
	Decrease in rates	0.0	3.0	3.0
	Increase in rates	6.1	3.0	9.1
	Other	6.1	0.0	6.1
	Total	66.7	33.3	100.0
Prampram	Cannot afford to reload anymore	1.7	0.0	1.7
	To save money	0.0	1.7	1.7
	Can now afford to reload	1.7	0.0	1.7
	Spend reload money on food or other expenses	1.7	0.0	1.7
	Decreased usage	1.7	0.0	1.7
	Increased usage	45.0	11.7	56.7

Increase in rates	25.0	5.0	30.0
Other	3.3	1.7	5.0
Total	80.0	20.0	100.0

Source: survey data, 2008

The usual mode of transport in the study area was walking (Table 5.31). The percentage of household heads that walked as a means of transport ranged between 20.7% at Dodowa and 43.6% at Prampram among male-headed households a year ago as against a range of 21.3% at Dodowa and 49.4% at Ningo currently.. The next common means of transport is public utility vehicles (PUVs). At Dodowa, over 26% of households that are male-headed travel by means of PUVs currently as compared to about 14% a year ago. There were some slight increases at Ningo and Prampram.

At Dodowa there was a sharp decrease in the number of male-headed households who use their own private vehicle from 31% a year ago to 12% currently while that of female-headed households dropped from 3.4% to 1.3%. Other forms of transportation were mass transit, school/office vehicles and bicycle.

Table 5.31: Usual mode of transport by gender of household head (%)

Sex of HH head	Type of vehicle	Dodowa		Ningo		Prampram	
		Currently	A year ago	Currently	A year ago	Currently	A year ago
Male	**Private vehicle**	12.0	31.0	4.7	5.7	12.8	10.5
Female		1.3	3.4	0.0	0.0	3.2	0.0
Male	**Public Utility Vehicle**	26.7	13.8	14.1	13.2	13.8	15.1
Female		8.0	3.4	9.4	7.5	0.0	3.5
Male	**Mass Transit**	6.7	10.3	0.0	0.0	1.1	0.0
Female		0.0	3.4	0.0	0.0	0.0	1.2
Male	**School/Office service**	1.3	0.0	0.0	0.0	2.1	2.3
Female		0.0	0.0	0.0	0.0	0.0	0.0
Male	**Walking**	21.3	20.7	49.4	49.1	43.6	44.2
Female		9.3	6.9	4.7	1.9	6.4	5.8
Male	**Bicycle**	6.7	3.4	4.7	3.8	2.1	0.0
Female		5.3	0.0	2.4	1.9	0.0	0.0
Male	**Other**	0.0	0.0	8.2	13.2	9.6	0.0
Female		1.3	3.4	2.4	3.8	5.3	0.0

Source: survey data, 2008

On the whole, the major reason why respondents and their household members in the study area walked to their work places or school (by school children) was the fact that the work places or schools were nearer to their places of abode. At Dodowa almost 80% of respondents cited this reason while about 67% of respondents at Ningo gave the same reason. Another important reason given by respondents include the need to save money as a result of walking to work. Other reasons were the fact that some respondents could not afford the cost of PUVs, prioritising scarce income by using available money on food, paths to work not being passable by vehicles and finally the fact that some workers want to exercise their bodies when going to work.

Table 5.32: Reasons for walking to work/school (%)

Town		Frequency	Percent
Dodowa	The workplace is near	15	78.9
	To save money	2	10.5
	The path is not passable for vehicles	2	10.5
	Total	**19**	**100.0**
Ningo	The workplace is near	28	66.7
	Cannot afford PUV fare	6	14.3
	The path is not passable for vehicles	7	16.7
	Other	1	2.4
	Total	**42**	**100.0**
Prampram	The workplace is near	30	76.9
	Spend transportation fare on food and other expenses	1	2.6
	The path is not passable for vehicles	4	10.3
	Other	4	10.3
	Total	**39**	**100.0**

Source: survey data, 2008

5.5 Financial management practices of households

Results from Table 5.33 shows that male-headed households were able to save more than female-headed households. Dodowa had the highest percentage (over 58%) of male headed households who were able to save and the lowest among male-headed households was 17% at Ningo. Among female-headed households the highest number representing about 20% of households that were able to save were at Dodowa and the least of 7.9% were found at Ningo and Prampram. Ability of households to use cash-in-hand to purchase commodities was again dominated by male-headed households at Dodowa with almost 48% while the least number of households representing 15% were found in Ningo. Although more male-headed households at Dodowa were able to save, , they dominated in borrowing of money from other sources. About 29% 23% of male headed households were into borrowing at Dodowa and Ningo respectively..

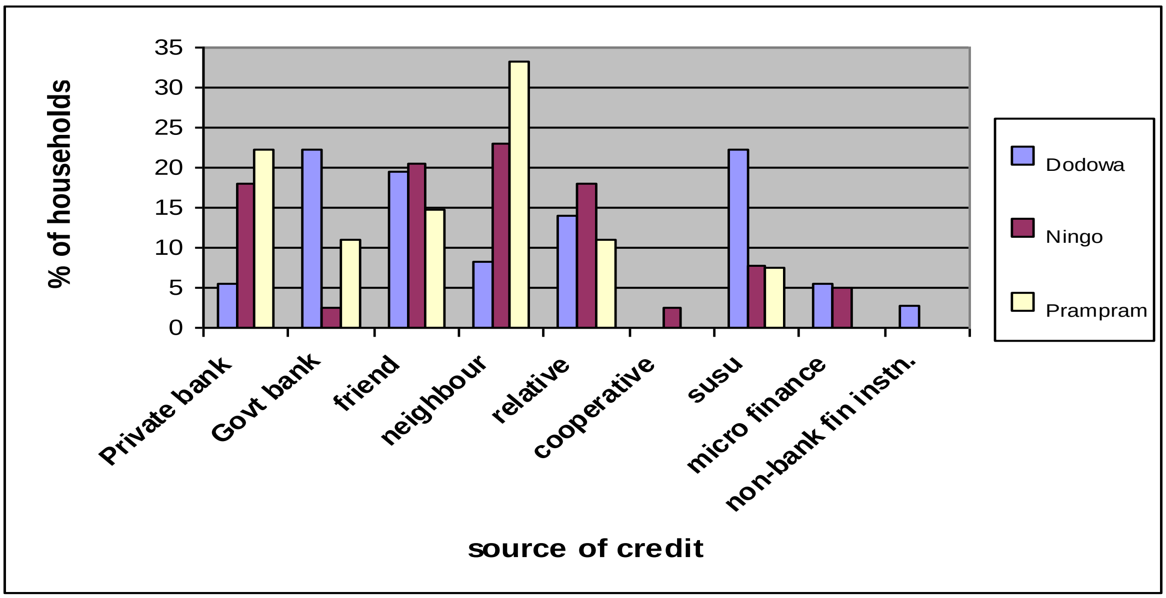
Table 5.33: Saving and borrowing behaviour by gender of household head (%)

	Dodowa		Ningo		Prampram	
	Male	Female	Male	Female	Male	Female
Ability of Households to save	58.5	19.5	16.8	7.9	34.7	7.9
use of savings to buy commodities using cash-in-hand	47.6	12.2	15.3	6.1	25.7	6.9
money borrowing by household member	29.3	13.4	22.9	7.3	15.8	7.9

Source: survey data, 2008

Among those who borrowed did so from many sources which included private banks, government banks, friends, neighbours, relatives, savings and loans companies (susu), micro finance institutions, NGOs and others (Figure 5.6). The most common sources of borrowing at Dodowa were government banks (22%) and savings and loans companies 22%. No money was sourced from cooperatives or NGOs. At Ningo, the most common source of borrowing was neighbours (23%) followed by about 21% borrowing from friends. No household borrowed from non-bank financial institutions. In Prampram neighbours (33.3%) were the most common sources of credit for households. No credit was sourced from cooperatives, micro finance institutions, non-bank financial institutions and NGOs.

Figure 5.6: Source of borrowing (credit) for households



Sale of properties or assets was not very popular among respondents as shown in Table 5.34. The highest number representing 22% of respondents at Dodowa sold their assets or properties compared to just about 5% of respondents at Ningo.

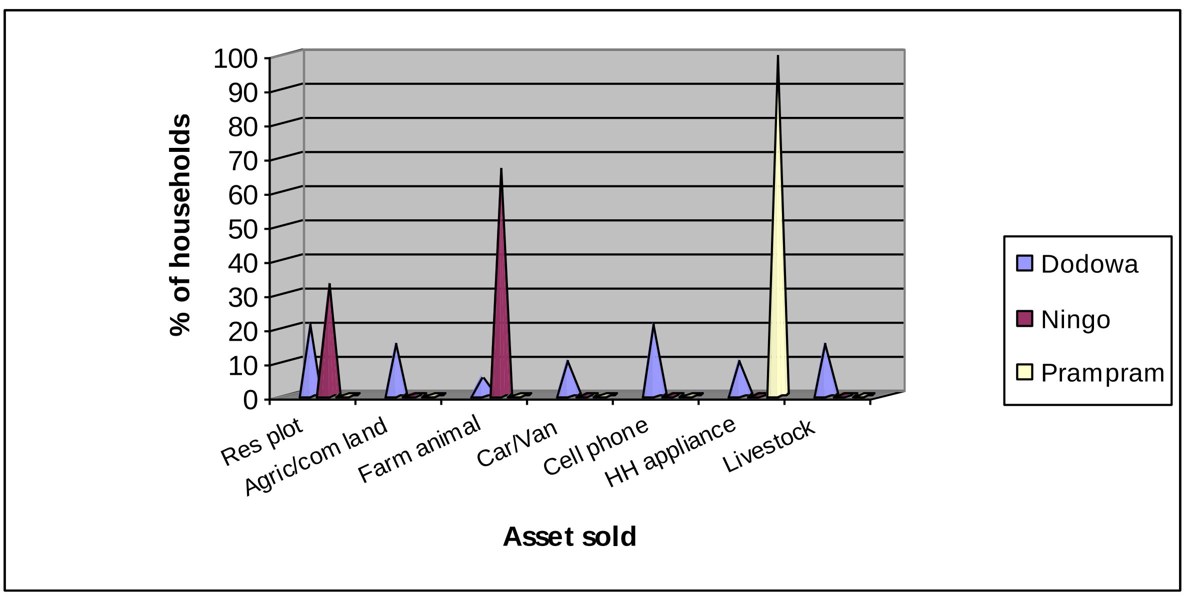
Table 5.34: Sale of properties or assets by household members

Town		Frequency	Percent
Dodowa	Yes	18	22.0
	No	64	78.0
	Total	82	100.0
Ningo	Yes	4	4.9
	No	78	95.1
	Total	82	100.0
Prampram	Yes	5	5.1
	No	94	94.9
	Total	99	100.0

Source: survey data, 2008

The sales of personal assets by households largely took place at Dodowa where a wide range of properties including residential plots, agricultural or commercial land, farm animals, cars/vans, cell phones, household appliances, and livestock were disposed off by households (Figure 5.7). Residential plots as well as cell phones topped the list of items that were sold while the common assets sold at Ningo were residential plots and farm animals. The only asset that was sold by households at Prampram was household appliance.

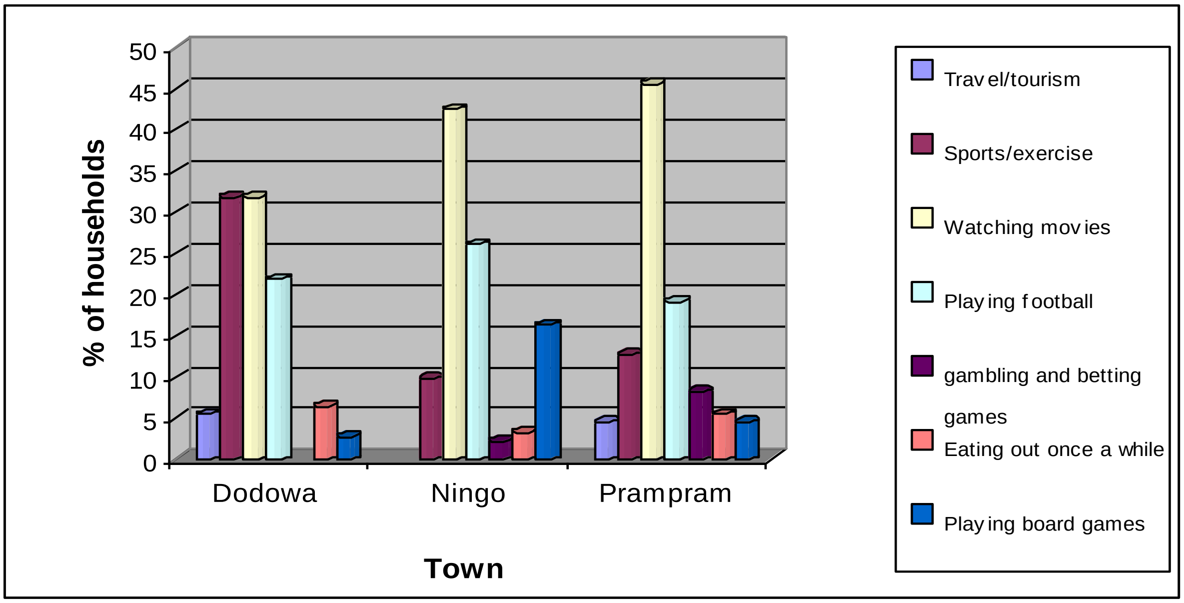
Figure 5.7: Type of assets or properties sold by households



5.6 Recreational Practices/Leisure

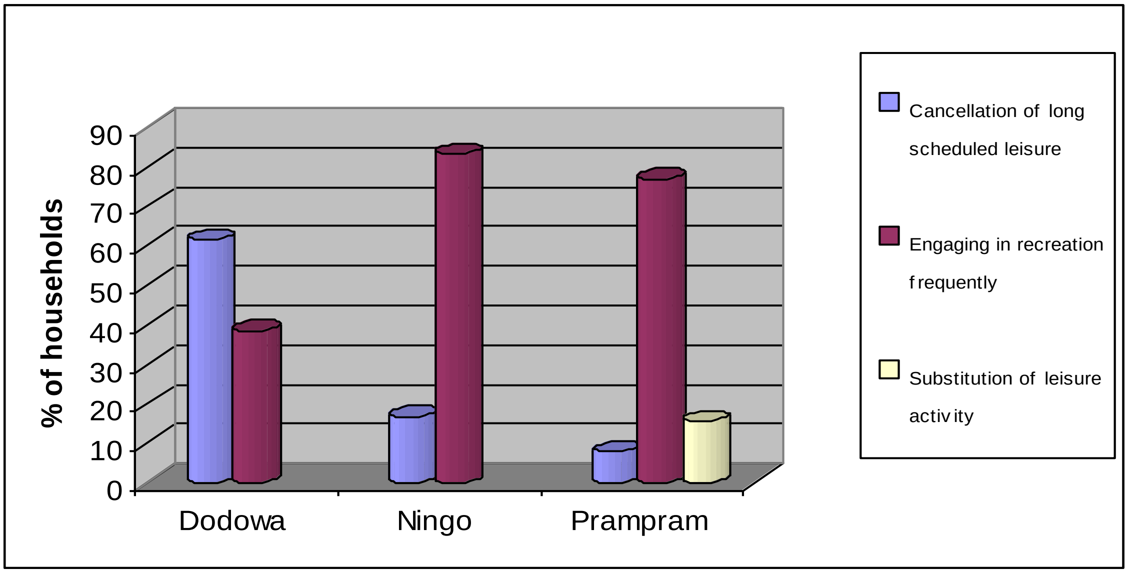
Households in the study area engage in a wide range of recreational activities ranging from travel/tourism to playing board games (Figure 5.8). The recreational activities include sports and exercise, watching movies, playing football, gambling and betting, and eating out once in a while. The commonest recreational activity was watching of movies with Prampram having the highest of about 46% of households while the least was from Dodowa 32%). Gambling and betting was not a common recreational activity at Dodowa likewise travel/tourism was not a common recreational activity at Ningo. Other recreational activities cited by households were listening to radio or music, swimming at the beach, among others.

Figure 5.8: Types of recreational activities engaged in by households



There were a few changes to the recreation patterns of households in the study area as seen in figure 5.9. Changes that occurred to recreational patterns of households include cancellation of long scheduled leisure, engaging in recreation frequently (for those households that do not engage in recreation) and substitution of recreational activities.

Figure 5.9: Changes in recreation patterns of household members



5.7 Standard of living

The standard of living of households is defined in terms of whether they are better off, worse off or they have remained the same. In general, households that indicated they were worse off currently than they were last year slightly outnumber those who had seen improvements in their lives. For instance, at Dodowa, about 34% of male-headed households indicated that they were better off currently than they were a year ago while about 12% of female headed households pointed out the same. However, 52% of households at Ningo (46.5% male-headed and 5% female-headed) opined that their living standards are worse off currently than they were a year ago. Those households that had seen no changes ranged from 5% for female-headed households to 19% for male-headed households. Table 5.35 also shows that there were more conspicuous changes in male-headed households than in female-headed ones.

Table 5.35: Standard of living by gender of household head (%)

Town		Sex of HH head: male	female	All
Dodowa	Better off	33.8	12.5	46.3
	The same	18.8	5.0	23.8
	Worse off	18.8	11.3	30.0
	Total	71.3	28.8	100.0
Ningo	Better off	21.8	8.9	30.7

	The same	12.9	5.0	17.8
	Worse off	46.5	5.0	51.5
	Total	81.2	18.8	100.0
Prampram	Better off	33.7	5.9	39.6
	The same	17.8	5.0	22.8
	Worse off	33.7	4.0	37.6
	Total	85.1	14.9	100.0

Source: survey data, 2008

A comparison is made between the poorest (1st quintile) and richest (5th quintile) households in relation to their expenditure on electricity bill per month currently and a year ago, and monthly expenditure on mobile phone call/text both currently and a year ago (Table 5.36). There were no statistically significant differences between most expenses under review among the poorest and richest households except the amount spent monthly on calling/texting a year ago. For example, at -0.211, the correlation between electricity bill paid a year ago by the poorest and richest households were not statistically significant. On the other hand, the Pearson correlation between the expenditure made by these households on texting/calling a year ago was -0.951, which was statistically significant and near perfect correlation but negatively.

Table 5.36:Differences in Expenditure Between the poorest and richest Households

		Mean	Std. Deviation	Std. Error Mean	Correlation	Sig.
Pair 1	Electricity bill last month for 1st quintile	4.95	1.52405	.45952	0.008	0.982
	Electricity bill last month for 5th quintile	13.27	9.57174	2.88599		
Pair 2	Electricity bill about a year ago for 1st quintile	3.00	0.84984	.26874	-0.211	0.558
	Electricity bill about a year ago 5th quintile	8.65	6.03715	1.90912		
Pair 3	Amount paid for calling/texting per month currently for 1st quintile	5.95	2.37123	.71495	-0.072	0.833
	Amount paid for calling/texting per month currently for 5th quintile	37.27	15.38890	4.63993		
Pair 4	Amount paid for calling/texting per month a year ago for 1st quintile	4.25	0.95743	.47871	-0.951	*0.049
	Amount paid for calling/texting per month a year ago for 5th quintile	35.00	23.80476	11.90238		

Source: survey data
* Statistical significance at 5% level

Table 5.36 shows a further comparison between the lowest 40% of households i.e. the 1st and 2nd quintiles (poor) and the highest 40% of households i.e. 4th and 5th quintiles (non-poor). The difference in mean expenditure made by the non-poor and poor households ranges between GH¢ 0.65 and GH¢ 31.3 and at a Pearson's correlation of 0.000, the differences in expenditure made by households with respect to monthly electricity bills a year ago is perfectly not related. On the other hand, at Pearson's correlation of 1.000, the expenditure made by both households (poor and non-poor) with respect to amount paid for complete trips using public vehicle was perfectly related to each other and statistically significant. Differences between most current expenditure among poor and non-poor households were not statistically significant.

Table 5.37: Differences in Expenditure Between Poor And Non-Poor Households

		Mean	Std. Deviation	Std. Error Mean	Correlation	Sig.
Pair 1	Electricity bill last month for poor households	5.46	2.65844	0.38777	-0.081	0.588
	Electricity bill last month for non-poor households	19.04	24.16190	3.52438		
Pair 2	Electricity bill about a year ago for poor households	3.67	1.95734	0.29178	0.000	0.999
	Electricity bill about a year ago for non-poor households	12.17	12.08827	1.80201		
Pair 3	Amount paid for calling/texting per month currently for poor households	7.69	3.34254	0.45486	-0.113	0.417
	Amount paid for calling/texting per month currently for non-poor households	38.99	28.59715	3.89158		
Pair 4	Amount paid for calling/texting per month a year ago for poor households	6.09	2.30970	0.36071	0.099	0.537
	Amount paid for calling/texting per month a year ago for non-poor households	29.76	26.01925	4.06352		
Pair 5	Amount for complete trip for public vehicle currently for poor households	1.60	0.37417	0.16733	0.784	0.117
	Amount for complete trip for public vehicle currently for non-poor households	4.96	4.16029	1.86054		
Pair 6	Amount paid for complete trip for public vehicle a year ago poor households	0.80	0.14142	0.10000	1.000	***0.000
	Amount paid for complete trip for public vehicle a year ago non-poor households	1.45	0.49497	0.35000		

Source: survey data, *** Statistical significance at 1% level

5.8 Estimating Government Policy Impact on Rice Production and Consumption in Ghana

Finding the ratio of domestic price of rice to its border price in Ghana involves the estimation of the Nominal Protection Coefficient of rice which is given by:

$$NPC_r = P_{d\,r} \,/\, P_{br}$$

Where,
NPC_r = Nominal Protection Coefficient for rice in Ghana,
P_{dr} = Domestic price of rice at the wholesale level,
P_{br} = Border price of rice at the wholesale level (international trade or world price times the rate of exchange.

The coefficient relates the price received by the producer to the price which he would have received under the assumption of free trade. If the NPC is less than unity it means that domestic price is less than world price and is indicative of taxation of rice. A value of NPC greater than unity means that domestic (support) price is higher than world price which reveals that there is discrimination in favour of domestic price of rice. A value of NPC that is equal to 1 indicates that there is no distortion of output prices.

It also important to estimate the nominal protection rate (NPR) which is defined in percentage form as:

$$NPR = 100(NPC_r - 1)$$

The impact of government policies on the price of rice is measured by the Nominal Protection Rate (NPR), defined as the percentage by which domestic price of rice (P_{dr}) exceeds border price (P_{br}), converted at the official exchange rate.

In this analysis, the border equivalent price or world price of imported milled rice (25% broken) adjusted for international freight and insurance costs (in domestic price) have been estimated to serve as yardstick and to indicate the extent to which domestic prices have been distorted by government intervention. The domestic price has been estimated by adjusting for handling, transport and market margins from the farm gate to the domestic market. Imported rice (25% broken) is used in this estimation because it is equivalent to the local rice. The bulk of rice consumed in Ghana is imported and government intervention of tariff removal on rice and other food commodities like wheat, yellow corn and vegetable oil (for cooking) was towards imported rather than locally produced food items. Government directly taxed imported rice while the tax on local rice was indirect in that it is done mainly through taxes on farm inputs rather than directly taxing milled local rice.

The Nominal Protection Coefficients (NPC) of rice imported into Ghana from 1990 to 2008 show a rather erratic trend starting from 2.96 in 1996 and dropping to a low of 0.87 in 1998 and rising to 2.64 in 2006 and dropping again to 2.22 in 2007. (Table 5.38, Figure 5.10). NPC for all years under review are greater than one (except in 1998) which indicate that government policy in Ghana especially towards rice production is intended to positively affect local production of rice in that domestic price of rice is higher than the world price of rice. This highlights the fact that government policy causes injuries to consumers' ability to purchase local rice. Rice has an almost inelastic demand in Ghana and therefore even if domestic prices increase, demand is not expected to fall significantly. Government policy is therefore discriminatory against world prices and this is intended to encourage local production of rice. The Ghana government in May 2008 announced removal of import duties as well as debt recovery levy and excise duty on premix fuel and staples including rice, wheat, yellow corn and vegetable oil. This was mainly done to bring relief to Ghanaians in the midst of the global challenges, resulting from crude oil and food price hikes. However, the NPC for 2008 stood at 2.19 indicating that domestic price of imported rice was still much higher than its world prices. This phenomenon was confirmed by reports that despite the tariff removal on imported rice and other food items, prices on the domestic market were still high. Therefore the conclusion is that government intervention did not make any impact or was very minimal if any at all.

The trends in the Nominal Protection Rate (NPR) show the magnitude of the impact of government interventions on domestic prices. Ghana has very high protection levels over the period 1996 to 2008 except for 1998. Protection levels peaked at over 196% (1996) and dipped to -12.94% (1998), steadily rising to over 157% in 2003 and to almost 122% in 2007. This is expected because according to David and Huang (1996), exporting countries have negative protection, while importing countries have zero or positive Nominal Protection Rate. Exporting countries have negative protection rates because they are interested in preventing the collapse of the world rice market while importing countries like Ghana are interested in protecting and possibly encouraging their local production of rice. The logic behind these high protection rates is to encourage local production of rice which incorporates cost cutting technologies making local production cheaper than imported rice but the effect of these high nominal protection rates has rather made the consumer worse off since local production has not been able to match demand forcing the consumer to purchase imported rice which is still high (in price). In 2008 the nominal protection rate was 119.27%. In effect government policies were rather protecting the exporting countries.

Figure 5.10: Trend of Nominal Protection Coefficient Rice in Ghana (1996-2007)

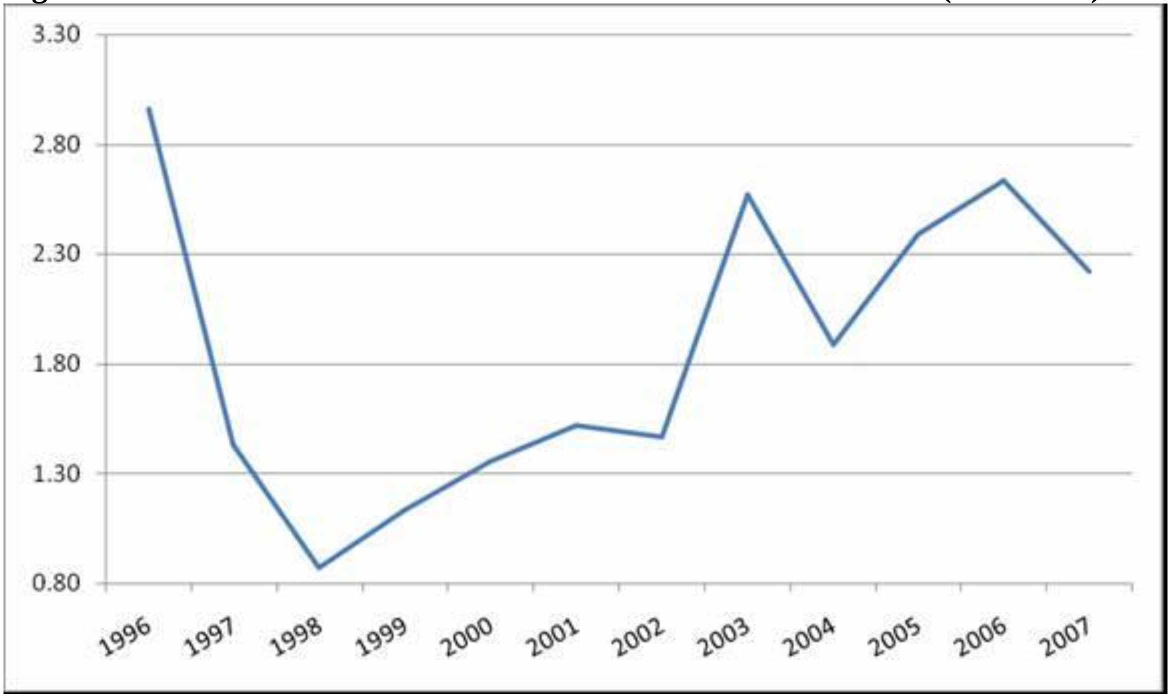


Table 3.38: Nominal Protection Coefficients and Rates for Rice in Ghana (1996-2008)

Year	NPC	NPR (%)
1996	2.96	196.48
1997	1.43	43.04
1998	0.87	-12.94
1999	1.13	13.45
2000	1.36	35.67
2001	1.52	51.94
2002	1.46	46.41
2003	2.57	157.18
2004	1.89	88.80
2005	2.39	138.81
2006	2.64	163.69
2007	2.22	121.72
2008	2.19	119.27

Source: MoFA Ghana, FAO, Author's estimation

The Nominal Protection Coefficient for fertilizer in 2007 is estimated to be 1.37. The border price of fertilizer imported into Ghana is not available for 2008 which year government subsidised by the prices of the input. Although this may be premature, inferences drawn from experts in the field indicate that the subsidies on fertilizer in 2008 did not make any major impact because the prices of fertilizer in 2008 where not very different from that in 2007. The figure of 1.37 indicates that policies did not actually subsidise fertilizer and therefore the rice industry was not protected from price hikes on the international market. The mitigation measures to contain the rising crude and food prices in 2008 cost the country GH¢ 92.47 million in direct revenue loss as result of the removal of the tariffs. This translated into a simple per capita revenue loss of GH¢ 4.2.

6.0 Summary and Conclusions

6.1 Summary

This study sought to examine the effects of rising food and oil prices on rural households in Ghana in relation to their food, access to healthcare and education, changes in their work situations, their financial management practices and their recreational and leisure practices using three selected communities in the Dangme West district of the Greater Accra region – Dodowa, Ningo and Prampram. A total of 300 households were interviewed. The ages of respondents ranged between 20 years and 82 years. The major food staple in the study area was corn or maize. Results also indicate that some households had made adjustments in their food preparation patterns as well as changed the places they shopped for food items. Some of the changes made to food preparation patterns included the household eating less of what it usually used to eat, the household skipping meals, parents eating less amounts of food so their children could have more, shifting from imported perfume rice which was very expensive to local rice which is relatively cheaper. The changes in food preparation patterns had generally been informed by increases in the cost of living. These changes had been made by households across income groups but have mainly been conspicuous among those in the 1st and 2nd quintiles

Changes in electricity consumption of households were noticed and the main reason cited by households was the increase in electricity tariffs as well as increase in amount of electricity consumed by the households. In response to these, households adopted strategies to respond to changes in electricity consumption. The major strategy was the replacement of incandescent bulbs which consume higher wattages with compact fluorescent bulbs which consumed less electricity leading to reduced electricity tariffs and this was mainly practiced by households in the 2nd quintile across all communities.

Health seeking behaviour of households had changed mainly as a result of the implementation of the National Health Insurance Scheme (NHIS). This had given the households the opportunity to visit government hospitals or health centres where they are likely to benefit from the insurance scheme.

Children within some households had been moved from private schools which are expensive to public schools which are relatively cheaper and more so with the government’s introduction of the Capitation Grant. This means that many parents pay nothing or very little to maintain their children in public schools as compared to paying much higher if their children were in private schools. Some children of households had dropped out of school mainly because they were needed to help in the family’s farming business but some children willingly dropped out of school because they were simply not interested in schooling.

Job losses was not very common in the study area but among households that lost jobs, the major reasons cited included the fact that the companies they were working for went bankrupt and closed down while others got fired due to work-related problems. Furthermore, households did not depend on only one job but diversified in terms of jobs so they could meet their daily household expenses which were rising.

Changes in the use of cell phones were noted in the study area and this was mainly due to the ability of household members to afford cell phones although the service charge was rising. The major reasons for these changes were increase in the usage of cell phones while others have decreased their use of cell phones due to increasing service charges per month. Results also indicate that there was no statistically significant difference between current expenditure among poor and non-poor households (based on classification of households according to income quintiles) although some expenditure on cell phone usage and public vehicle usage showed statistically significant differences a year ago.

Most people in the study area usually walked to places they were going but the most popular vehicles used as a means of transport was the public utility vehicles (Trotro). The increases in the cost of fuel and consequently the cost of transportation by both private vehicles and public utility vehicles had resulted in some household members walking to school or work in order to save money.

Financial management practices of households were manifest in their abilities to save although male-headed households did better in this regard than female-headed households. Borrowing of money was common among households and the major sources were government banks, private banks, friends and neighbours.

Households also engaged in recreational activities when they found the time and the popular activities included sports and exercise, watching movies, playing football, gambling and betting, eating out once in a while, among others.

Finally, households were divided concerning the issue of whether their standard of living was better off, worse off or they had remained the same. In general, households that indicated they were worse off currently than they were last year slightly outnumbered those who had seen improvements in their lives. There were others who had seen no changes at all in their standards of living.

6.2 Conclusions

There was an impact of the rising food & oil prices on rural households in Ghana. Some households took advantage of the government's programmes eg. Joining the National health Insurance Scheme, thus moving from the private to the public health care system and also taking advantage of the capitation grants to public schools by withdrawing their children from private schools to public schools.

Food consumption behaviours changed. Households ate less of what it usually used to eat and also skipping meals and shifting from expensive staples to relatively cheaper ones. Government intervention over the years towards the local rice industry did not make any impact or was very minimal if any at all. The good intention of government in protecting the local rice industry has not paid off since local production has not been able to meet demand causing injuries to consumers in terms of their ability to patronise local rice. This ultimately protect producers in Ghana's trading partners in rice since imported rice becomes cheaper on the Ghanaian domestic market further distorting domestic prices and hurting local producers.

References

Chaudhry, A. R., Javed, M. S., Qureshi, K. A., & Salimi V. B. (1993): *An Economic Analysis Of Rice Pricing In Pakistan*. Pakistani Journal of Agrcultural science Vol. 30, No.4. Faculty of Agricultural Economics and Rural Sociology.

Cristina C. David & Jikun Huang (1996): Political Economy of Rice Price Protection in Asia. The University of Chicago Press

ISSER (2008): State of the Ghanaian Economy in 2007. Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon.

NHIS (2007) Mid-Year Operational Status Report, National Health Insurance Authority (NHIA)..

Von Braun, J. (2008). Rising Food Prices. What should be done? IFPRI Policy Brief, April.

Waqar Akhtar, Muhammad Sharif and Nadeem Akmal (unpublished): Analysis of Economic Efficiency and Competitiveness of the Rice Production Systems of Pakistan's Punjab.

COMMUNITY-BASED MONITORING SYSTEM

HOUSEHOLD QUESTIONNAIRE

A - GENERAL INFORMATION

ENUMERATOR'S NAME:---

RESPONDENT'S NAME AND ADDRESS:---

REGION: --

DISTRICT: --

ENUMERATION AREA (EA): --

TOWN/VILLAGE: ---

HOW LONG HAS THE HOUSEHOLD BEEN IN THE TOWN/VILLAGE OR EA SINCE (YEAR)

DID YOUR HOUSEHOLD TAKE PART IN THE CBMS SURVEY IN 2004/2005? 1. YES 2. NO

DATE OF INTERVIEW:

TIME OF INTERVIEW: FR

ANY COMMENTS:---

………

………

………

B - COMPOSITION AND CHARACTERISTICS OF HOUSEHOLD

1	2	3	4	5	6	7
Member ID	Write down the names of all persons who normally live and eat together in this household, Starting with the head	What is [NAME] relationship to Head of Household. Head--------------------1 Wife/husband--------- 2 Son/daughter---------- 3 Grandchild-------------4 Father/Mother---------5 Relative to head or spouse---------------6 Other relative----------7 Not related-------------8	SEX Male--------- 1 Female------ 2	How old was [NAME] at last birthday	What is [NAME] marital status. Married---------------------1 Informal/loose union----2 Divorced/Separated---- 3 Never married------------4 Widowed-------------------5	How long has [NAME] been away in the last 12 months (MONTHS)

C – EDUCATION

Member ID	8	9a	9b	10a	10b	11
	Can [NAME} read and or write any language?	Has [NAME] ever attended school? Yes ------ 1 No ------- 2	If No to [9a] why? Parents deliberately refuse to send child to school -------------------1 Cannot afford ---------2 No importance of education ---------------3 Not interested ----------4 School too far ---------5 Other (specify) ------- 6	Is [NAME] currently in school? Yes----1 (Move to 11) No-----2	If No to [10a] why? Working on farm ------1 Go to sea (fishing) ----2 Cannot afford -----------3 Completed---------------4 Sick/disabled -----------5 Poor in studies ---------6 Cannot Afford School Fees------------7 Other (specify) --------8	What is the current grade or highest grade [NAME] completed? None----------------00 Pre-School---------01 P1-------------------11 P2-------------------12 P3-------------------13 P4-------------------14 P5-------------------15 P6-------------------16 JSS1----------------17 JSS2----------------18 JSS3----------------19 M1---------------20 M2---------------21 M3---------------22 M4---------------23 SS1--------------24 SS2--------------25 SS3--------------26 S1----------------27 S2----------------28 S3----------------29 S4----------------30 S5----------------31 L6----------------32 U6---------------33 Voc/Tec./Com. ---- 34 Teacher Training – 35 Nursing ------------- 36 Tertiary ------------- 37 Apprenticeship ---- 38 Non-formal -------- 39

D – POLITICAL PARTICIPATION

Member ID	12	13	14	15	16	17
	How was [NAME] involved in the electoral process?			Did [NAME] take part in the recent electoral process?	If [NAME] was an eligible voter, why did [NAME] not take part in electoral process?	How many community organisation(s) is [NAME] involved in
	Eligible Voter Yes--------------1 No---------------2	Registered Voter Yes------------1 No-------------2	Actual voter Yes------------1 No-------------2	Yes-------1 (Move to 17) No--------2	No reason---------------------1 Not interested----------------2 Sick on admission----------3 Identification in doubt-----4 Seasonal migrant ----------5 Other (specify)---------------6	(STATE NUMBER)

E – EMPLOYMENT			F - HEALTH			
Mem.	18	19	20	21	22	23

ID	What was [NAME] employment status in the main job in the last 7 days? Self-employment---------1 Unpaid family worker---2 Casual worker-------------3 Regular employee--------4 Domestic employee------5 Student/Apprentice-------6 Other (specify)------------7	What is the main activity (industry) of the place of [NAME'S] main job? Agric/Forestry/Fishing------------1 Mining and Quarrying-------------2 Manufacturing---------------------3 Construction---------------------- 4 Transport/Storage/Comm---------5 Wholesale/Retail trade------------6 Finance/Insurance/Services-------7 Electricity, Gas and Water--------8 Community/Social Services----- 9 Fish processor ------------------ 10	Was [NAME] sick or injured in the last 4 weeks Yes-----1 No------2	What sort of sickness/injury did [NAME] suffer? Fever/malaria----------1 Gastro intestinal/ Diarrhea ---------------2 Injury/Accident------- 3 Dental------------------ 4 Skin condition---------5 Eye---------------------6 Ear, Nose or throat----7 Coughing---------------8 HIV/AIDS -------------9 Other (specify)--------10	What kind of health provider did [NAME] see? Private hospital/clinic----------1 Public hospital/clinic---------- 2 Community health center----- 3 Private Doctor/Dentist---------4 Missionary hospital/clinic-----5 Pharmacist/drugstore---------- 6 Traditional healer --------------7 Spiritual healer------------------8 Other (specify)------------------9	Has (NAME) ever been pregnant (for females only) Yes ----- 1 No ----- 2

	F. HEALTH (Cont'd)				
Member ID	24	25	26	27	28

	Has [NAME] been pregnant the last 12 months? Yes ------- 1 No -------- 2 (move to section G)	Did [NAME] have a live birth in the last 12 months. Yes------1 No-------2	Where did delivery take place? TBA -----------------1 Maternity home ----2 Health center -------3 At home -------------4 Hospital---------------5 Other (specify) -----6	Did [NAME] receive pre-natal care during the pregnancy? Yes-------1 No--------2	Did [NAME] receive post-natal care after delivery? Yes-------1 No--------2

G - CHILD MORTALITY

1. How many children do you have of your own?

2. Did you lose any child before the age of 5 years?

Yes---------------------1
No----------------------2

3. If Yes, how many and at what age (list them)

No. of children	Age (in months) at which child was lost. (0 = before birth)
1	
2	
3	
4	
5	
6	
7	
8	

4. Did the household lose any mother as a result of childbirth?

Yes-----------------------1
No------------------------2

H - HOUSING AND SHELTER

1. In what type of dwelling does the household live?
Separate house------------------------------- 1
Semi-detached house----------------------- 2
Flat/Apartment---------------------------------3
Compound house (rooms) ------------------4
Huts/buildings (same compound)----------5
Huts/buildings (different compounds)---- 6
Other (specify)---------------------------------7

2.How many rooms does this household occupy?
(Do not include bathrooms, toilets, kitchen)

3.What is your present occupancy status?
Own---------------------------------------1
Renting-----------------------------------2
Provided rent free----------------------3
Perching---------------------------------4
Other (specify)--------------------------5

4.What is the material of the roof of the house?
Mud---1
Thatch---------------------------------------2
Wood---3
Iron Sheets--------------------------------4
Cement/Concrete------------------------5
Roofing tiles------------------------------6
Asbestos-----------------------------------7
Other (specify)----------------------------8

5.What is the material of the walls of the house?

Mud/Mud bricks-----------------------------1
Stone--2
Burnt bricks----------------------------------3
Cement/sandcrete-------------------------4
Wood/Bamboo------------------------------5
Iron sheets----------------- -----------------6
Cardboard-----------------------------------7
Other (specify)-------------------------------8

I - LIGHTING, WATER AND SANITATION

1. What is the main source of lighting for your dwelling?
Electricity---------------------------------- -1
Generator------------------------------------2
Kerosene/ Gas lantern --------------------3
Candles/torches ----------------------------4
Biogas ---------------------------------------5
Osono ---------------------------------------6
Other (specify) -----------------------------7

2. What is the main fuel used by the household for cooking?
Wood---------------------------------------1
Charcoal------------------------------------2
Gas--3
Electricity----------------------------------4
Kerosene------------------------------------5
Other (specify)----------------------------- 6

3. What is the main source of drinking water?
Piped into dwelling or compound--------------------1
Public outdoor tap-------------------------------------2
Borehole---3
Protected well--4
Unprotected well, rain water--------------------------5
River, lake, pond--6
Vendor or truck---7
Other (specify)--8

4. How far is this main source of drinking water?

Distance [ ] Distance Code [ ]

<u>DISTANCE CODE</u>

Yard……………….1
Metre………………2
Kilometre…………3
Mile………………..4

5. How does your household get rid of rubbish/refuse?
Collected--------------------1
Dumped by household-----2
Burned by household-------3
Buried by household-------4
Other (specify)--------------5

6. What type of toilet is used by household?
Flush toilet (WC)----------1
Covered pit latrine---------2
Uncovered pit latrine------3
Pan/bucket-----------------4
KVIP--------------------------5

No toilet (bush)------------ 6
No toilet (beach) ---------- 7
Other (specify)-------------8

J. INCOME AND LIVELIHOOD

1. During the past 12 months, did you or any member of your household engage in work/activities to earn income?

   Yes---------------------1
   No----------------------2

2. Allocate household source(s) of income (last 12 months)

i) Employment/Wage	
ii) Household farming	
iii) Household fishing	
iv) Non-farm self employment	
v) Rental	
vi) Remittance	
vii) Other income(s)	
Total	

3. Allocate household Expenditure sources (last month)

i) Food expenditure (Actual)	
ii) Food expenditure (imputed) (consumption from own farm or as wage income)	
iii) Expenditure on Housing (actual and Imputed)	
iv) Non-Food expenditure (actual)	
1. Education	
2. Health	
3. Water	
4. Lighting	
5. Garbage/refuse disposal	
6. Toilet facility	
7. Transport	
8. Other (specify)	
v) Other non-food expenditure	
1.	
2.	
3.	
vi) Expenditure on Remittance(s)	
TOTAL	

K. PEACE AND ORDER

1. In the past 12 months, have you or anyone else in your household been a victim of a violent crime [such as physical/sexual assault (rape or defilement) pickpocketing (robbed or spouse abuse]?

   Yes----------------------1
   No-----------------------2

2. If yes to Question 1, specify type of violent crime?

----

3. What is the major cause of conflict in your community?

No conflict------------------------------------1
Indebtedness----------------------------------2
Ethnic conflict--------------------------------3
Political differences---------------------------4
Marriage---------------------------------------5
Land dispute-----------------------------------6
Chieftaincy------------------------------------7
Religion--8
Fishing dispute --------------------------------9
Stealing ---------------------------------------10
Destruction of farms by cattle --------------11
Other (specify)--------------------------------12

1[S]
2[N]
3[R]

4. In general, when these problems occur (in question 1 and 3), who do you go to for help first?

Community/Village Authorities ------------ 1
District Authorities----------------------------2
Police Station----------------------------------3
Relative(s)--------------------------------------4
Elderly Person in Community----------------5
Chief fisherman --------------------------------6
Other (specify) ---------------------------------7

L. ACCESS TO SOCIAL AND COMMUNITY SERVICES

1. Does any member of the household have access to the following social and community services?

Social & Community Service	Yes-------1 No--------2	How far is this from your home (km)?
1. Bank Account		
2. Post Office Address		
3. Telephone		
(i) Mobile		
(ii) Land Line (home)		
(iii) land line (public)		
4. Susu		

M. ACCESS TO SOCIAL PROGRAMME

1. Did you benefit from any social programme organised directly by the District/local community?

Yes--------------------------1
No---------------------------2

2. Did you benefit from any social programme organized directly by an NGO?.

Yes--------------------------1
No---------------------------2

3. Is the household/individual a registered Health Insurance member?
Yes--------------------1
No---------------------2

4. If No why ?

………………………………………………………………..
………………………………………………………………..

5. Is the household/individuals a valid card holder?
Yes ……………………..1
No ………………………2

6. Have you ever benefited from the Health Insurance Scheme?

Yes--------------------1
No---------------------2

7. If No, Why?

…………………………………………………………………….
…………………………………………………………………….
…………………………………………………………………….

N. IMPACT OF RECENT INCREASES IN FOOD AND FUEL PRICES

A. FOOD, FUEL AND ELECTRICITY CONSUMPTION

1. What is your staple food **currently**?
   1. Corn/maize
   2. Tubers (Yam, cocoyam, cassava)
   3. Rice
   4. Mixed (specify)
   5. Other (specify) ___________________________

2. What was your staple food **a year ago**?
   1. Corn/maize
   2. Tubers (Yam, cocoyam, cassava)
   3. Rice
   4. Mixed (specify)____________________________
   5. Other (specify)______________________________

3. If Q1 and Q2 are different, what is the reason for the change?
   1. Can’t afford to buy anymore
   2. To save money
   3. Can now afford to buy

4. Other (specify) ______________________________

4. From where does your household usually buy staple food **currently**?
   1. Local market
   2. Supermarket
   3. Kiosk/retail store
   4. Other (specify) _________________________________

5. From where did your household usually buy staple food **a year ago**?
   1. Local market
   2. Supermarket
   3. Kiosk/local retail store
   4. Other (specify) _________________________________

6. If answers to Q4 and Q5 are different, what is the reason for the change?
   1. Can't afford the price of food anymore
   2. To save money
   3. Can now afford the price of food
   4. Other (specify) ______________________________________

7. Have there been changes in how the household eats, prepares or purchases food in the past **one year**?
   1. Yes
   2. No (Go to Q10)

8. What are these changes? (**Circle all relevant answers**)

   1. The household has been forced to eat less of what it normally eats (e.g. in the past 3 meals a day, now 2 meals or less a day)
   2. The household skipped meals (irregular meal pattern)
   3. Combining meals (having "brunch")
   4. Parent(s) ate less
   5. Eating the same food for several days in a row
   6. Eating more carbohydrates and less protein
   7. Eating more ready-to-cook food (i.e. noodles) and less of food requiring more preparation
   8. Mixing varieties (e.g. imported rice with local rice)
   9. Shifting from perfumed rice to local rice
   10. Other, (specify)_______________________________________

9. What do you think accounts for these changes in the eating pattern of your household?
   1. Loss of main source of income
   2. General increase in cost of living
   3. Currently unemployed
   4. Increase in transportation cost
   5. Other (specify) ____

10. What do you use as your main fuel for cooking **currently**?
    1. Charcoal
    2. Firewood
    3. Kerosene

4. Electricity
5. Liquefied Petroleum Gas (LPG)
6. Other (specify) ________________________________

11. What did you use as your main fuel for cooking **a year ago**?
1. Charcoal
2. Firewood
3. Kerosene
4. Electricity
5. Liquefied Petroleum Gas (LPG)
6. Other (specify)_________________________________

12. If answers to Q10 and Q11 are different, what is the reason for the change in preference? (else skip to Q13)
1. Can't afford to buy anymore
2. To save money
3. Can now afford to buy
4. Other (specify) ____________________________________

13. How much was your electricity bill last month?

GH cedis _____________

14. How much was your electricity bill about a year ago?

GH cedis _____________

15. If answers to Q13 and Q14 are different, what is the reason for the change? (else skip to Section B: Q1)
1. Increase in electricity rates
2. Decrease in electricity rates
3. Increased usage
4. Decreased usage
5. Other (specify) ______________________________________

16. Have there been changes in the way the household consumes electricity in the past year?
1. Yes
2. No (Go to Section O Q1)

17. What are the changes in your household's electricity consumption? (**Circle all relevant answers**)
1. Disconnecting household appliances when not in use
2. Cutting down TV viewing hours
3. Ironing many things at a time
4. Lessening the use of household appliances (other than TV)
5. Resorting to electricity pilferage (using jumper)
6. Replacing incandescent bulbs with fluorescent bulbs (low wattage)
7. Disconnection of electricity
8. Other (specify)____________________________

B. EDUCATION AND HEALTH

1. Are there children (in Primary and JSS) enrolled in private school last academic year who are now attending public school?
   1. Yes
   2. No (Go to Q3)

2. What is the reason for transferring?
   1. Cannot afford tuition anymore
   2. Changes in budget priorities
   3. Transfer of residence
   4. The Public school is nearer
   5. Other (specify) ______________________________________

3. Are there children (in Primary and JSS) who were previously enrolled last school year but stopped attending school this year?
   1. Yes
   2. No (Go to Q5)

4. What is the reason for dropping out from school?
   1. To engage in gainful employment
   2. To help in family farm/business
   3. No money for education-related expenses
   4. To give other siblings the chance to attend school
   5. To save money for more urgent needs
   6. Not interested in going to school
   7. Illness/disability
   8. Others, specify ______________________________________

5. Have there been changes in the way your household meet medical/health care needs in the past year?
   1. Yes
   2. No (Go to Q7)

6. What are these changes in health and medical care seeking behavior? (**Circle all relevant answers**)

   1. For consultation, hospitalization, and related activities, the household goes to government health centers and hospitals instead of private clinics or hospitals
   2. Household members consult an pharmacist instead of a doctor for illness diagnosis, cure, and other health concerns
   3. Resorting to self-medication instead of getting proper prescription from a doctor
   4. Taking medicines for relief of symptoms but not medicines for curing the disease
   5. Taking medicines in lower dosage (for example, cutting a tablet into half)
   6. As much as possible, a sick household member need not be brought to the hospital unless he/she is in a very critical

condition
7. Using medicinal plants or herbal medicines as alternatives for pharmaceuticals
8. Shifted from buying branded drugs to generic drugs
9. Other (specify)

C. COMMUNICATION AND TRANSPORTATION

7. Are you using a cellphone currently?
   1. Yes
   2. No (Go to Q8)

8. Were you using a cellphone a year ago?
   1. Yes
   2. No (Go to Q11??)

9. If answers to Q7 and Q8 are different, what is the reason?
   1. Can now afford to have a cellphone
   2. The unit was stolen
   3. The unit was sold
   4. The unit was pawned
   5. Cannot afford to have a cellphone anymore
   6. Other, (specify)

10. At present, how much do you spend/pay for texting, calling and other related services in a month?

    GH cedis _______________

11. A year ago, how much did you spend/pay for texting, calling and other related services in a month?

    GH cedis _________________

12. If the answers in Q10 and Q11 are different, what is the reason for the change in the spending pattern?
    1. Cannot afford to reload anymore
    2. To save money
    3. Can now afford to reload
    4. Spend reload money on food or other expenses
    5. Subscription to unlimited texting services
    6. Decreased usage
    7. Increased usage
    8. Decrease in rates
    9. Increase in rates
    10. Other, (specify) _____________________________________

D. GOING TO WORK: For the Household's oldest member who is working

1. At present, what is your usual mode of transportation when going to work?
   1. Private vehicle
   2. Public Utility Vehicle (PUV) (Skip to Q9)
   3. Mass Transit (Skip to Section Q11)
   4. School/Office Service (Skip to Section Q)
   5. Walking (Skip to Q13)
   6. Bicycle (Skip to Section E)
   7. Other (specify) ___________________________________

2. What type of fuel do you use?
   1. Petrol
   2. Diesel
   3. LPG
   4. Other (specify) ____________________________________

3. A year ago, what was your usual mode of transportation when going to work?
   1. Private vehicle
   2. Public Utility Vehicle (PUV)
   3. Mass Transit
   4. School/Office Service
   5. Walking
   6. Bicycle
   7. Other (specify) ____________________________________

4. What type of fuel did you use?
   1. Petrol
   2. Diesel
   3. LPG
   4. Other (specify) _____________________________________

5. If answer is Private vehicle in D1, how much do you pay for a litre/gallon of the fuel at present?

   GH cedis _______________

6. If answer is Private vehicle in D3, how much did you pay for a litre/gallon of the fuel a year ago?

   GH cedis _______________

7. If Private vehicle, how much is your fuel consumption per week at present?

   GH cedis _______________

8. If Private vehicle, how much is your fuel consumption per week a year ago?

GH cedis _______________

9. What kind of Public Utility Vehicle (PUV) are you riding at present?
   1. Bus
   2. Trotro
   3. Taxi
   4. Motorcycle
   5. Other (specify)

10. What kind of Public Utility Vehicle (PUV) were you riding a year ago?
    1. Bus
    2. Trotro
    3. Taxi
    4. Motorcycle
    5. Other (specify) ___________________________________

11. If PUV or Mass Transit, how much do you usually pay for a complete trip (back and forth) at present?

    GH cedis _______________

12. If PUV and Mass Transit, how much do you usually pay for a complete trip (back and forth) a year ago?

    GH cedis _______________

13. Why do you go to work by walking at present?
    1. The workplace is near
    2. Cannot afford PUV fare
    3. Spend transportation money on food and other expenses
    4. To save money
    5. The path is non-passable for vehicles
    6. Other (specify) ____

E. ANSWER IF THERE IS AT LEAST 1 HH MEMBER ATTENDING SCHOOL
(For the household's oldest member who is attending school)

1. At present, what is your usual mode of transportation when going to school?
   1. Private vehicle
   2. Public Utility Vehicle (PUV)
   3. Mass Transit

4. School/Office Service
5. Walking
6. Bicycle
7. Other (specify) ____

2. If Private vehicle, what type of fuel do you use?
1. Petrol
2. Diesel
3. LPG
4. Other (specify) ____

3. A year ago, what was your usual mode of transportation when going to school?
1. Private vehicle
2. Public Utility Vehicle (PUV)
3. Mass Transit
4. School/Office Service
5. Walking
6. Bicycle
7. Other (specify) ____

4. If Private vehicle, what type of fuel did you use?
1. Petrol
2. Diesel
3. LPG
4. Other (specify) ____

5. Is the vehicle being used for both going to work and school? (**Check D1 and E1 if both answers are private vehicle**)

1. Yes
2. No

6. Was the car being used for both going to work and school a year ago? (**Check D2 and E2 if both answers are private vehicle**)
1. Yes
2. No

7. How much do you pay for a litre/gallon of the fuel at present?

GH cedis _______________

8. How much did you pay for a litre/gallon of the fuel a year ago?

GH cedis _______________

9. How much is your fuel consumption per week at present?

GH cedis _______________

10. How much was your fuel consumption per week a year ago?

GH cedis ______________

11. What kind of Public Utility Vehicle (PUV) are you riding at present?
1. Bus
2. Trotro
3. Taxi
4. Motorcycle
5. Other (specify) ________________________________

12. What kind of Public Utility Vehicle (PUV) were you riding a year ago?
1. Bus
2. Trotro
3. Taxi
4. Motorcycle
5. Other (specify) ________________________________

13. If PUV and Mass Transit, how much do you usually pay for a complete trip (back and forth) currently?

GH cedis ____________________________

14. How much did you usually pay for a complete trip (back and forth) a year ago?

GH cedis ____________________________

15. Why do you go to school by walking at present?
1. The school is near
2. Cannot afford PUV fare
3. Spend transportation money on food and other expenses
4. To save money
5. The path is non-passable for vehicles
6. Other (specify) _____________________________________

F. SAVINGS, LOANS AND ASSETS MANAGEMENT/EXCHANGE

1. For the year, were you or any member of the household able to save money?
1. Yes
2. No

2. During the past year, have you made use of your savings to purchase commodities that you normally purchase using your cash-in hand?
1. Yes
2. No

3. For the past year, did you or any member of the household borrow money?
1. Yes

2. No (Go to Q5)

4. Where did the household borrow from? (**Circle all relevant answers**)
1. Private bank
2. Government bank
3. Friend
4. Neighbour
5. Relative
6. Cooperative
7. Susu
8. Micro-Finance Institution
9. Non-government organization (NGO)
10. Non-ban financial Institution e.g. UT
11. Other, specify ________________________________

5. For the past year, did you or any member of the household sell properties or assets?
1. Yes
2. No (Go to Q7)

6. What kinds of assets were sold? (**Circle all relevant answers**)
1. House
2. Residential plot
3. Agricultural/Commercial land
4. Farm animal
5. Tractor
6. Fishing Boat
7. Car/ van
8. Trotro
9. Motorcycle
10. Jewelry
11. Cell phone
12. Household appliance
13. Livestock
14. Other (specify) ________________________________

7. For the past year, did you or any member of the household pawn properties or assets?
1. Yes
2. No

8. What kinds of assets were pawned? (**Circle all relevant answes)**
1. House
2. Residential plot
3. Agricultural/Commercial land
4. Farm animal
5. Tractor
6. Fishing Boat
7. Car/ van
8. Trotro
9. Motorcycle
10. Jewelry
11. Cell phone
12. Household appliance
13. Livestock
14. Other (specify) ___________________________________

G. EMPLOYMENT AND RECREATION

1. During the past year, are there household members who lost their jobs?
   1. Yes
   2. No (Go to Q3)

2. What was the major reason for the job loss?
   1. The company went bankrupt and closed
   2. Fired because of work-related problems
   3. Streamlining of company (mass lay-off)
   4. End of contract
   5. Illness/disability
   6. Other, (specify) ____

3. During the past year, are there employed household members who had sought or currently seeking additional work besides their primary occupation?
   1. Yes
   2. No (Go to Q5)

4. What is the major reason for seeking additional employment?
   1. To meet daily household expenses
   2. To save money for future needs
   3. Other, (specify) ____

5. During the past year, did you or any other household member perform any other work besides main occupation?
   1. Yes
   2. No

4. During the past year, are there household members who had sought or currently seeking employment in another area or country?
   1. Yes
   2. No

5. Do you or any member of the household engage in any recreation or leisure activity?
   1. Yes
   2. No (Go to Q11)

6. What are the usual recreational activities that you or any member of the household engage in? **Check all relevant answers.**
   1. Travel and tourism
   2. Sports and Exercise
   3. Watching movies, concerts, and live performances
   4. Playing football
   5. Gambling and betting games (cockfighting, card games, etc.)
   6. Eating out once in a while
   7. Playing board games
   8. Other (specify) ______________________________________

7. Have there been changes in the way your household carry out recreational activities in the past year?
   1. Yes
   2. No (Go to Q11)

8. What are the changes in recreation and leisure pattern? (**Circle all relevant answers**)

1. Cancellation of a long scheduled leisure activity due to lack of money
2. Engaging in the recreation or leisure activity has become less frequent
3. Substitution of leisure activity with an inexpensive one (ex: buying pirated CDs instead of watching movies)
4. Consuming cheaper brands instead of preferred brands of leisure products (buying cheaper brand of beer or cigarettes, etc.)
5. Other (specify) ______________________________________

9. Currently, compared to a year ago, are you

1. Better off
2. The same
3. Worse off

THANK YOU