

Comprehensive Food Security & Vulnerability Analysis

GHANA 2012 | Focus on Northern Ghana

Executive Brief

Data collected in April - May 2012



World Food Programme



**Ministry of Food and Agriculture
Ghana Statistical Service**

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The north south divide

The 2009 Ghana CFSVA identified significant disparity in development indicators between the three northern regions of Ghana and the rest of the country. Despite an overall increase in Ghana's wealth and development in recent years, the three northern regions continue to record high incidences of poverty, food insecurity and malnutrition. The 2012 CFSVA therefore focuses in greater detail on these regions, highlighting the areas and population groups experiencing food insecurity as well as identifying some of its causes.

The population of the northern regions is largely rural, ranging from 70% to 84% in the Upper West compared with the national average of 49%. The dominance of the agricultural sector in northern Ghana (some 88% of households in northern Ghana rely on crop cultivation as their chief livelihood activity), underscores the difference in growth between this area and the rest of the country, where the services and industrial sectors are significantly larger.

Although poverty has decreased in northern Ghana, there remain large disparities between the north (63%) and the south (20%).¹

Rates of literacy are much lower than the national average. According to the 2010 Population and Housing Census, the literacy rates for those aged 15 and above for the Northern, Upper East and Upper West Regions

are just 33%, 41% and 40% respectively compared with a corresponding national literacy rate of 72%. Literacy rates appear to be improving however as rates for over 10 year olds are slightly higher, both nationally and for all three northern regions.

Rates of basic education completion are also lower (for people aged 15 and above). For example, only 22% of northern Ghanaians complete junior secondary school, and only 9% senior high school compared with 31% and 22% nationally.

Unlike southern Ghana, which has two rainy seasons, northern Ghana has one rainy season, (May to October) and one dry season, (November to April) with parts of the extreme northern part experiencing a shorter rainy season. Just 0.2% of cultivated land is irrigated² so farmers are highly rainfall-reliant.

Substantial clearing throughout the 20th century has significantly reduced the extent of forest cover, causing severe land degradation, erosion and siltation, and reducing the fertility of already degraded soils, which are typically leached of organic matter and nutrients.

According to the 2010 Population Census data, household sizes are larger in the three northern regions than their southern counterparts with 5.8–7.7 people per household, compared with the national average of 4.4.

¹World Bank (2011). Tackling Poverty in Northern Ghana. Report No. 53991-GH.

²FAO. 2005. Fertilizer use by food crop in Ghana



Access to electricity is significantly lower across all three northern regions compared with other parts of the nation with only 24% of households in the Upper East Region having electricity, 35% in the Northern Region, and 31% in the Upper West Region. By comparison, the national average of households using electricity as their main source of lighting is 64%. The CFSVA data shows large discrepancies between districts in northern Ghana: only three districts have electricity coverage of approximately 75%, while in 10 of the 38 northern districts, fewer than 10% of households have access to electricity³.

Lack of access to improved sanitation is another key disadvantage in northern Ghana.⁴ While the national average for no access to a toilet facility is 19%, the corresponding rates for the three northern regions range from 72% to 82%.

The 2012 CFSVA highlights the areas and population groups experiencing food insecurity as well as the causes. It is the first of its kind to be representative at the district level and covers the 38 districts of the Northern, Upper East and Upper West Regions (8,399 households were interviewed). The report describes the food security situation in April/May 2012, which is the lean season.

³Ghana Statistical Service (2012). Ghana's Economic Performance 2011. Ghana Statistical Service, Accra.

⁴Ghana Statistical Service (2012). Ghana's Economic Performance 2011. Ghana Statistical Service, Accra.

The food security situation

The food security challenges in these regions are confirmed by the results from the CFSVA which indicate that 16% of all households, or more than 680,000 people, were considered either severely or moderately food insecure at the time of the survey.

Around 140,000 people or 3.3% of households were severely food insecure, subsisting on a very poor diet of staple foods (chiefly maize and millet), some vegetables and oil, with food from other groups consumed on average less than once a week. This is an extremely poor diet, which can have a major impact on the nutritional status of individuals.

Households with borderline food consumption have a slightly higher intake of vegetables and oil, consumed three to four times a week. But consumption of other types of food is still low and meat and fish are consumed on average less than once a week.

Whether households with borderline food consumption are in a long-term food insecurity situation or not depends on what resources they have to improve their situation. If these households are wealthier they are considered to be mildly food insecure and less likely to be chronically food insecure.

Classifying food insecurity

Household food security is classified according to a combination of two indicators - the food consumption score (FCS), which combines diet diversity, frequency of consumption and the relative nutritional importance of different food groups and a wealth index, which is based on asset ownership and housing conditions, and divides households into quintiles with the lowest two generally referred to as poor.

By combining the two indicators above households are subsequently divided into four food security groups:

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

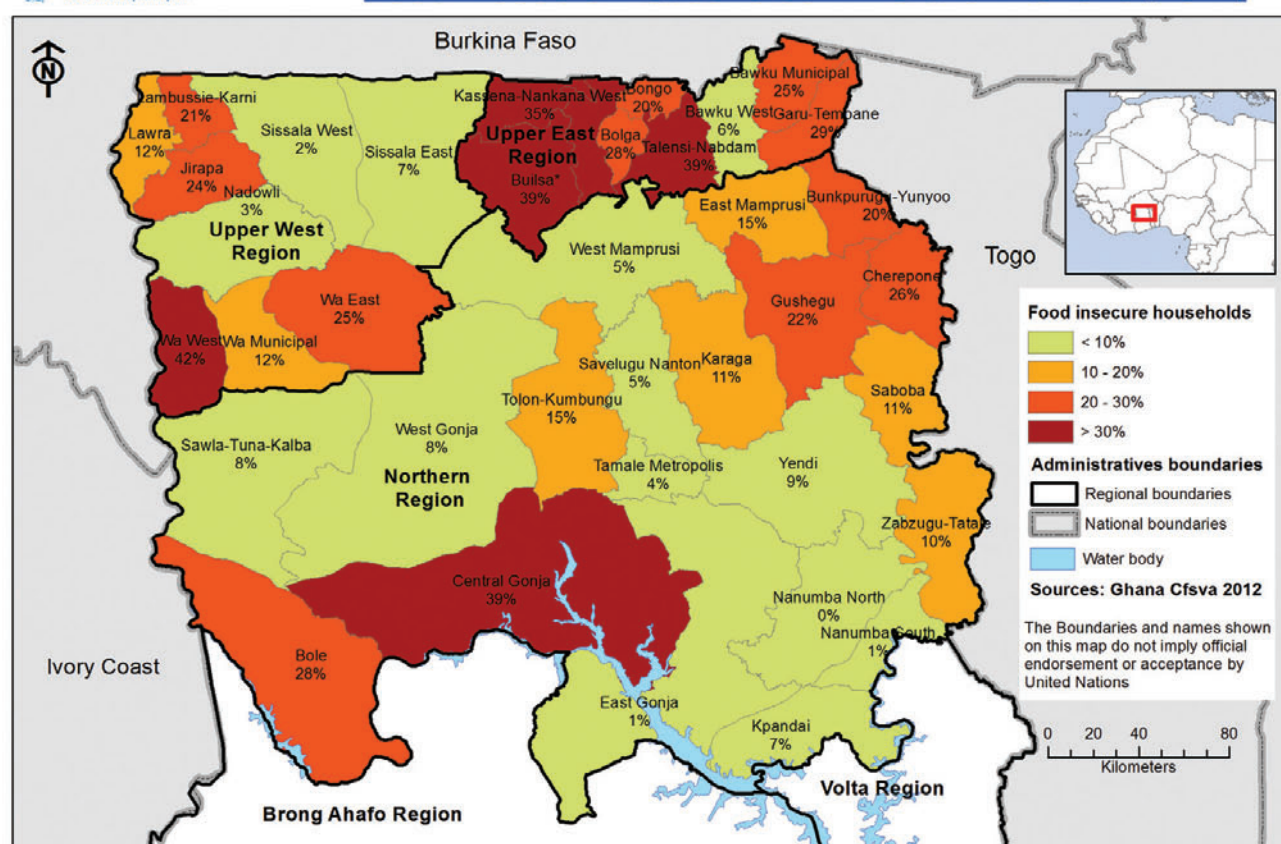
In this report food insecurity refers to the severely and moderately food insecure. Although the mildly food insecure households were not consuming an adequate diet at the time of the survey, which was carried out during the lean season, their food insecurity is likely to be temporary because they are wealthier and more able to use their resources to access food.

Households with acceptable food consumption consume fish and meat regularly as well as milk and other dairy products occasionally and are generally considered food secure.

While food insecure households are highly reliant on maize and millet (in fact 98% of households reportedly ate these staples in the week preceding the survey), the food secure consume a wider variety of staples including rice,

wheat, cassava, tubers and plantains. Although food insecurity appears to be more prevalent in rural (19%) than in urban areas (4%), it is worth noting that 15% of urban households are considered 'mildly food insecure', which refers to households that are not currently consuming an adequate diet, but are not considered asset poor. These households are likely to have resources to improve their diet as seasonal food access improves.

Food Insecure Households in Northern Ghana (2012)



Where are the food insecure?

The highest proportion of food insecure households is in the Upper East Region where 28% of households are either severely or moderately food insecure. This compares with 10% of households in the Northern Region and 16% in the Upper West. The five districts with the highest proportion of severely and moderately food insecure households are Wa West (42%), Central Gonja (39%), Talensi-Nabdam (39%), Kassena-Nankana West (35%) and Kassena-

Nankana East (33%). Three out of these five districts are in the Upper East Region.

The district with the highest absolute number of either severely or moderately food insecure households is Bawku Municipal because of its large population combined with the relatively high proportion of food insecure households.

THE CASE OF THE UPPER EAST REGION

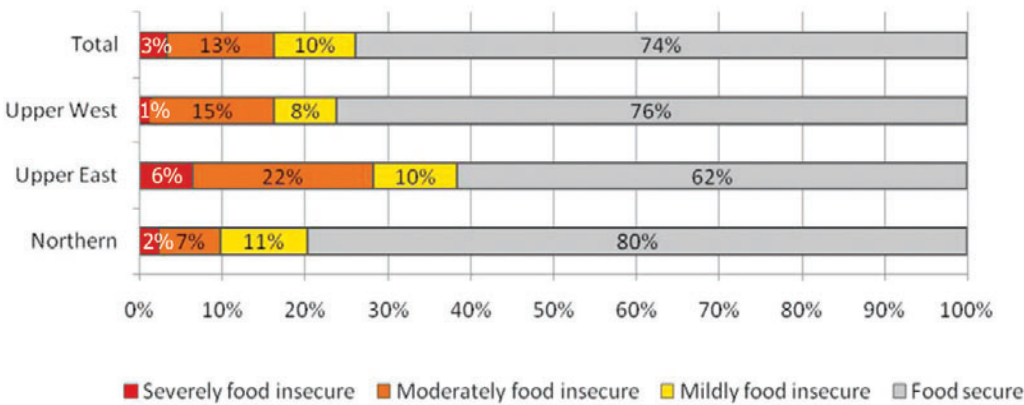
A striking feature of the 2012 CFSVA results is the high proportion of food insecure households and higher proportions of households in the two poorest wealth quintiles in the Upper East Region. This is of particular concern. The combination of the following factors constitute a series of interdependent pressures that hinder household access to food, make it difficult for households to improve both their food security situation and their incomes, and leave them continually vulnerable to external shocks:

- The relatively early start of the lean season (from late March). A large proportion of households reported difficulty in accessing food from April, at least one month earlier than the Northern and Upper West Regions.
- High population density, which, at 118 persons per km², is much higher than the relatively low 35 persons per km² of the

Northern Region and 38 persons per km² of the Upper West.

- Scarcity of land constrains agricultural production, resulting in lower volumes of food production and lower incomes from agricultural production. On average, households cultivated just 4.4 acres of land in the 2011 season, compared with 9.8 in the Northern Region and 7.7 in Upper West.
- Harvests are significantly lower than the other two regions for all widely grown staple and cash crops. The average household maize harvest was 40% lower than the northern Ghana average in 2011, and the sorghum/ millet harvest was approximately 30% lower.
- Poor quality soils are generally only suitable for the cultivation of limited crop varieties (maize, millet).
- Relatively high poverty prevalence (56% of people are classed in the two poorest wealth quintiles), which severely limits household access to fertilizers and agricultural inputs.

Figure 1: Food insecurity by region



The most food insecure districts

<p>Wa West</p> <p>1.8% severe 40.3% moderate</p>	<p>Its entire population is rural and it is the poorest district by wealth index (82% of households are in the two poorest quintiles). Highest proportion of either severely or moderately food insecure households (42%). Households typically have reasonable harvests and remaining stocks of staple grains, but consumption of food items outside this category is limited, probably because they are less able to buy the range of foods required to increase dietary diversity.</p>
<p>Central Gonja</p> <p>4.5% severe 34.7% moderate</p>	<p>High proportion of food insecure households (39%) and poverty rates are high, (59% of households in the two poorest wealth quintiles). Only 14% of household heads have primary education and only 30% of girls between 15 and 18 years attend school regularly - the lowest rate of all northern districts. Households consume a wide range of staples, (rice, cassava, maize, millet), but protein consumption is low (average 2.8 days/week).</p>
<p>Talensi-Nabdam</p> <p>10.5% severe 28.6% moderate</p>	<p>High proportion of severely food insecure households (10.5%), indicating very low dietary diversity and inadequate energy intake. High levels of poverty (based on wealth index scores), and very high reliance on cash purchases for food. Households cite lack of access to fertilizer and pesticides as the main cause for not producing more during the 2011 growing season, alongside poor soil fertility and inadequate rainfall, which affected 30% of households. Households typically have low stocks of maize, millet/sorghum.</p>
<p>Kassena Nankana West</p> <p>5.5% severe 29.4% moderate</p>	<p>35% of households are either severely or moderately food insecure and 67% in poorest two quintiles of the wealth index. Very high rate of female headed households (20% vs the average of 8% across all three regions). Household harvests of maize, millet and sorghum for 2011 were well below half that of the northern Ghana average, resulting in low household stocks for staple crops. Households spend on average 60% of their total expenditure on food (average for northern Ghana is 41%) and source 82% of their food from cash purchase. Agricultural output is hampered by inadequate rainfall (65%) and crop failure (20%).</p>
<p>Kassena Nankana East</p> <p>17.7% severe 15.5% moderate</p>	<p>Highest proportion of households with severe food insecurity (almost 18%), whose diet mainly consists of staples and little else. More than half of the households are in the two poorest wealth quintiles. Almost all are smallholder farmers with 94% cultivating less than five acres. Even though almost 60% of households are agriculturalists or agro-pastoralists, on average 81% of food is bought and only 17% from own production. Unsurprisingly, the most commonly mentioned difficulty experienced by households in the past year was high food prices (18% of households).</p>
<p>Garu-Tempene</p> <p>4.5% severe 24.7% moderate</p>	<p>Food insecurity (29% of households) is likely a chronic issue since more than 70% fall into the poorest wealth quintile. Only 16% of household heads have at least primary education and an alarming 97% of households have no sanitation facilities. On average, households spend 63% of their total expenditures on food compared to the 41% average for the northern regions. Market dependency is high (63% of food bought), so the most common difficulty faced is high food prices, reported by 18%. Some 90% of households are either agro-pastoralists or agriculturalists. Farm sizes are small with 76% cultivating five acres or less. Lack of fertilizer is the main constraint to increasing crop production.</p>

Poverty is the main cause of food insecurity

In the CFSVA it was found that poor households (those with no or few assets and poor housing conditions) not only have limited means of purchasing food, but have smaller harvests, greater vulnerability to shocks, such as climatic events, food price rises and illness or death of a household member, and lower levels of education.

All together these factors increase their food insecurity and vulnerability. Poverty also limits household ability to invest in the agricultural inputs required to increase output. Poor and food insecure households spend a larger share of their limited means on purchasing food and often purchase their staple foods in the local market, when the market prices are the highest.

Close to half of the households in the poorest wealth groups (the two lowest wealth quintiles) were not able to secure a healthy daily food intake versus only 15% of the wealthiest (highest quintile) families at the time of the survey. Not only do poorer households eat less, they also have a less diverse diet, consuming meat, fish, sugar and dairy products less regularly than their wealthier counterparts.

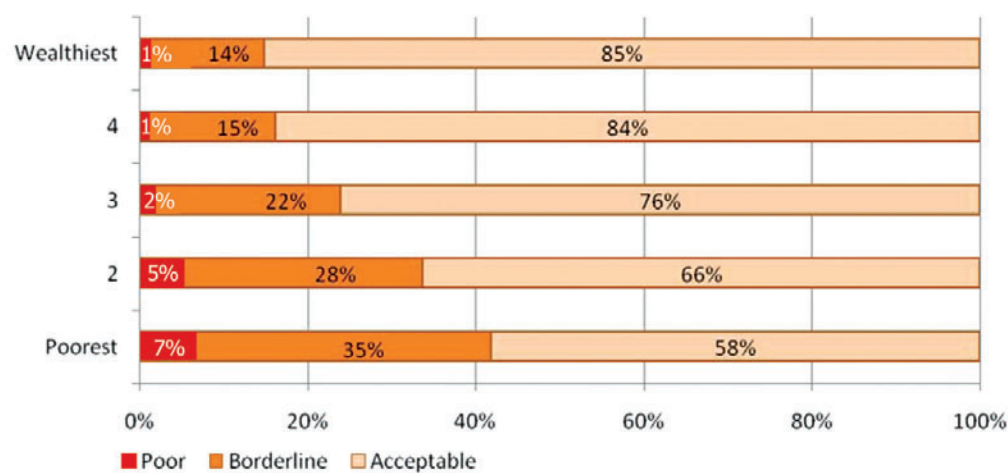
As mentioned above poverty has decreased in northern Ghana, but there remain large disparities between the north and the south. While the poverty rates fell from 48% in 1992 to 20% of the

population in 2006 in southern Ghana, they declined marginally from 69% to 63% in northern Ghana⁵. Poverty is particularly rife in the Upper East Region where more than half (56%) of households fall into the poorest segments of the population (compared with around a third in the Upper West and in the Northern Region).

When households in the poorest wealth quintile do not have enough food to eat, they resort to severe, and often corrosive, coping strategies more often than wealthier households. For example, some 13% of households in the poorest quintile had gone an entire day without eating on at least one day during the week preceding the survey compared with 4% in the two wealthiest quintiles.

The fact that 30% of households headed by a woman are either severely or moderately food insecure compared with 15% of male-headed households is also largely attributable to poverty. For women heads of household their lack of access to larger farms restricts their ability to feed their households from their own production. Their lack of skills and education often prevent them from finding good income-earning opportunities. In addition, the majority (64%) are widows (rising to 80% in the Upper East Region), which means they are likely to have fewer income earners and agricultural workers.

Figure 2: Food consumption by wealth quintiles



⁵World Bank (2011). Tackling Poverty in Northern Ghana. Report No. 53991-GH.



Why smallholder farmers are exposed

Smallholder farmers, defined as cultivating five acres or less, represent 62% of farming households in northern Ghana. They primarily or partly depend on farming for their livelihood by producing food both for their own consumption and as a source of income. Nearly half (49%) of smallholder farmers are poor (belonging to the two poorest wealth quintiles) and they disproportionately face various constraints such as the cost of agricultural inputs, limiting their ability to invest in agricultural production and resulting in a lower output, and placing them in a food insecure state.

Of the 62% of smallholder households that cultivate five acres or less, 21% of them were food insecure at the time of the survey, compared with 11% of medium sized farming households (cultivating 6-10 acres) and 7% of households with large farms (cultivating 11 or more acres).

Farmers face a series of structural issues from lack of irrigation, fertilizer and pesticides (due to a lack of financial resources), to inadequate rains and low soil fertility. Households also have to deal with seasonal challenges affecting their ability to access food, as these regions have an erratic rainfall pattern (rainy/wet period followed by long dry spell).

Meanwhile, households that sustain their livelihoods through regular employment or fishing (thanks to their regular consumption of fish, a source of protein) are most likely to have acceptable food consumption. However, a large proportion of fishermen are poor and therefore vulnerable to becoming food insecure if the availability of fish or opportunities to carry out fishing diminish.

Seasonal shortages and agricultural constraints

Seasonality is a particular challenge for households in the northern regions, as they only have one rainy season which is followed by a long dry season. This limits the window of suitable weather for crop growth, unlike the southern agricultural areas of the country, which have two agricultural seasons. Crop cultivation is subject to high intra-seasonal variability in rainfall levels and is often hampered by extensive dry spells or flooding of riverine areas. The food security situation is particularly serious for three to five months, with the gravest difficulties occurring during the peak of the lean season in June/July.

Across northern Ghana almost 90% of households found it difficult to access enough food for their households in July⁶.

The three most important constraints that stop farmers from producing a larger output are inadequate rains, low soil fertility and lack of fertilizer/pesticide. In addition to these constraints, lack of money and lack of household labour were often mentioned across all regions.

Irrigation systems are largely absent from this part of the country: results from the CFSVA show that less than 1% of farmers are able to make use of irrigation systems, making farming extremely dependent on favourable rainfall to ensure a good harvest. Attempts have been made to develop irrigation facilities in the Upper West Region, but the facilities have been under-utilized often because of poor construction, insufficient technical knowledge and weak management.⁷

Of all households surveyed, 38% had experienced one or more difficulties during the last year with the most common difficulty being crop failure. This was mentioned as a difficulty by 40% of households that had experienced one or more shocks. Among all farming households, regardless of whether or not they faced difficulties, 15% reported a crop failure. In the Upper West Region almost a quarter of all households had experienced crop failure and 10% high food prices. In total, 32% of households had experienced a difficulty that decreased their food access for a time.

Crop production decline and rising food prices

Food prices are rising dramatically, in part due to food production decline in the 2011 growing season as well as relatively high inflationary trends. Crop production data from the three northern regions of Ghana⁸ shows that the production of major staple crops (maize, millet and sorghum) declined substantially during the 2011/12 growing season compared with the previous year, mainly because of poor rainfall during the critical growing stages.

At the time of the survey in May 2012, the nominal price of maize ranged from 61% to 84% higher than the five-year average in the three regional markets. Food prices in northern Ghana have been much higher than average

over the past 12 months, with the average price of maize in the three northern regional markets above that of May 2008, which was a period characterized by high food prices. These high food prices will affect households differently depending on whether they are net buyers or net sellers. For households that are more likely to rely on the market for food, high prices are an added barrier to their ability to access food. High prices for staple foods have been pervasive since 2008 and pose a major constraint to household food access.

Poorer households spend a larger share of their expenditures on food and are therefore more influenced by rising food prices.

⁶Households were asked during which months they usually have difficulties getting enough food to eat.

⁷Inkoom (2011). Utilisation of irrigation facilities towards poverty reduction in the Upper West Region of Ghana. Journal of Sustainable Development in Africa (Volume 13, No.2)

⁸Statistics, Research and Information Directorate of the Ministry of Food and Agriculture

Conclusion

In addition to certain geographical areas with higher rates of food insecure households there are also sub-groups in the population that are at higher risk. Poorer households, smallholder farmers, female headed households and households where the head has no education have poorer food consumption than other groups.

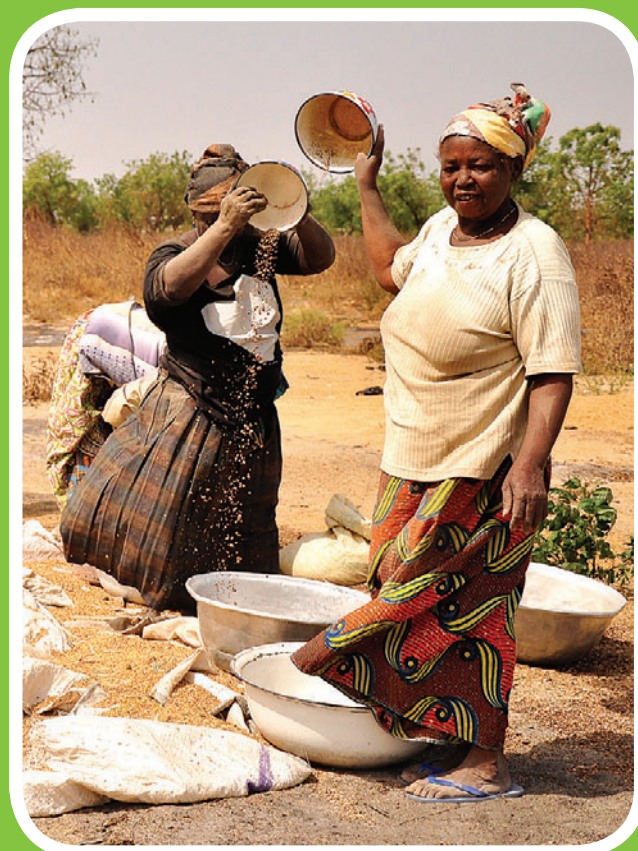
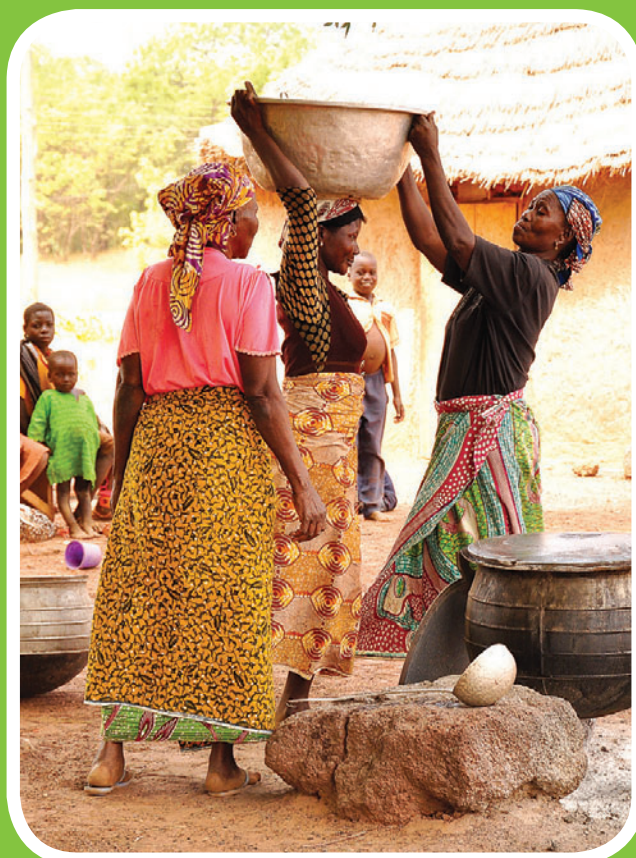
The causes of food insecurity are complex, but there are four broad areas that stand out as more important: poverty, agricultural limitations, seasonal challenges and high food prices.

Food prices would stabilize if the effect of weather related shocks on food production were controlled. To do this, vulnerable people in general and smallholder farmers in particular, require increased investment in adaptation measures that sustain their agricultural production and household resilience during climatic disturbances such as droughts and flooding. They often face challenges specifically related to the cost of inputs such as fertilizer, leading to limited investment in agricultural production and a lower agricultural output.

A potential way of improving their resilience and increasing yields would be the seasonal implementation of cash transfers. It is also important to examine how food assistance modalities such as these could support urban livelihoods, such as artisans and unskilled labourers too, as they often face economic hardship during lean periods. These schemes

should complement the Government of Ghana's poverty reduction programmes, especially LEAP (Livelihood Empowerment against Poverty).

It is recommended that food security and nutrition be actively promoted by the Government of Ghana, with the support of the UN system in Ghana, development partners and civil society organisations. Activities such as the SUN (Scaling Up Nutrition) movement and the UN Reach (Renewed Effort Against Child Hunger and Undernutrition) initiative should be fully supported. It is vital that a Food and Nutrition Security Commission be established at the national and regional levels to coordinate activities within this sector. It is further recommended that the relevant Ministries, particularly the Ministry of Food and Agriculture, work closely with WFP to enable them to effectively analyse and monitor the food security situation throughout the country.



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