



Findings: Liberia

Household Food Security and Nutrition Surveillance Conducted in November- December 2009



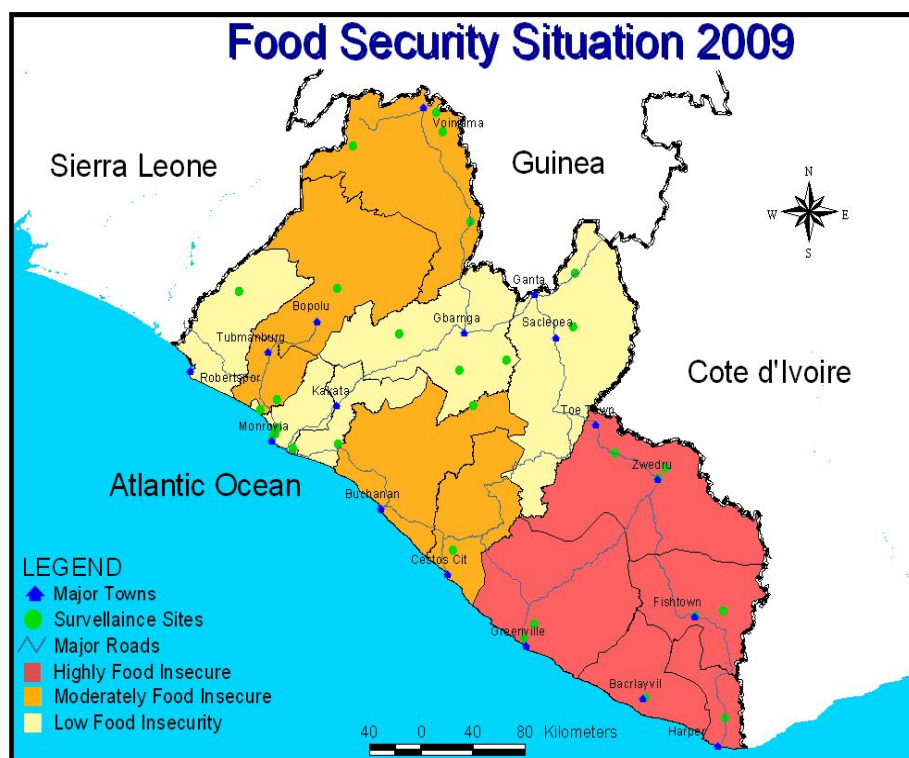
Background

Notwithstanding efforts by government and its partners to reduce food insecurity through the implementation of varied programmes including promotion of agricultural production and other income generating activities since the country returned to normalcy after 14 years of civil strife, Liberia still relies heavily on imports for supply of its key food requirements especially rice, the main staple. About 70 percent of the population depends on agriculture for their livelihood and the sector is a significant net contributor to the economy in terms of employment and foreign exchange earnings and a primary determinant of food and nutrition security and rural development. However, the sector's challenges still remain huge and include low productivity, limited access to markets and weak institutions. Domestic food production has improved in recent years but remains far below national consumption requirements. In 2007/08, domestic rice production satisfied only about 40 percent of total demand and the balance requirements had to be imported at increasingly higher prices. Moreover, there are segments of the population that have experienced higher risks of vulnerability to food insecurity and malnutrition and are thus unlikely to meaningfully contribute to the PRS's goal of inclusive, equitable and sustainable growth and development. The relatively low purchasing power of many Liberians due to high poverty rates, relatively high food prices, and poor access to food are factors hampering sustainable food security at the household level.

In the last three years, the Government of Liberia with support from the UN (FAO, UNICEF, WFP), several donors and NGOs established a food security and nutrition database comprised of nine food security and nutrition related assessments conducted between 2006 and 2008 to provide a platform for continued monitoring. These surveys/assessments were designed to provide updated information on key food security and nutrition indicators and causes of food insecurity and malnutrition to inform project and/or programme formulation processes.

The database also served as a basis for the formulation of a Food Security and Nutrition Monitoring System (FSNMS) by the Government of Liberia with support from FAO, UNICEF, WFP and several NGOs in late 2008. The FSNMS is managed by the national Food Security and Nutrition (FSN)-Secretariat whose activities began in July 2009. The Food Security and Nutrition Monitoring System has three objectives: monitoring key food security and nutrition indicators; monitoring impact of food security and nutrition related interventions; and providing early warning information in case of a potential food security crises. To achieve its objectives, the monitoring system has four main components: i) a Bi-Annual Household Surveillance System ii) a Monthly Market Price Information System that has been in operation since August 2008 iii) a Two-yearly Comprehensive Food Security and Nutrition Survey, first one planned for Aug-Dec 2010 and iv) an Annual Crop Assessment, the first one conducted in December 2009 through February 2010.

This report presents the results of the Household Food Security and Nutrition Surveillance System assessment conducted in November/December 2009. This assessment was the first round of the bi-annual Household Food Security Assessment. The second round is planned for April 2010 while a comprehensive food security and nutrition study to update the overall baseline for monitoring is planned for August-October 2010. The third round of household



food security and nutrition surveillance assessments will only be conducted six months after the planned comprehensive survey

Methodology and stakeholders

The main focus of the Household Food Security and Nutrition Surveillance System is to track a few selected food security and nutrition indicators among selected communities over time which could in turn provide an indication of trends and signal the need of a detailed and more geographically focused study in cases of atypical findings. The basis for this trend monitoring was the 2008 Liberia Food Security and Nutrition Survey (LFSNS). As much as possible, the findings have been compared to the 2008 survey findings, while taking into account limitations of representativeness at the national level. The surveillance sites are representative of the communities sampled during the 2008 Food Security and Nutrition Survey. Given that the communities sampled in 2008 were representative at national level, the findings drawn from the sentinel surveillance may provide indications of the trends in food security indicators nationally, though not in pure statistical representativeness. However, the findings are neither representative at sub-national levels nor among livelihoods groups.

Data collection took place in November 2009 which would be fairly comparable to the 2008 LFSNS findings whose data collection was undertaken in December 2008. The data complements the Liberia Market Information Data collected on a monthly basis as well as other information collected by government departments, NGOs and other stakeholders on a regular basis.

The communities sampled during the 2008 LFSNS form the sampling frame for the surveillance assessments. In total, 220 sites (175 sites from six regions in rural Liberia and 45 sites from Greater Monrovia) were sampled for 2008 LFSNS. For the 2009 assessment, a total of 32 communities was selected from the list of 220 communities studied during the 2008 LFSNS based on the similar proportionality that was utilized for the 2008 (Probability proportional to sizes of the regions/counties as was the case). At household level, a systematic random sampling procedure was used to draw a minimum of 30 households from each of the selected communities. A total of 903 households were surveyed in the first round of data collection. The nutritional status was assessed for 758 under-five year old children and 1,057 women using Mid Upper Arm Circumference (MUAC) measurements.

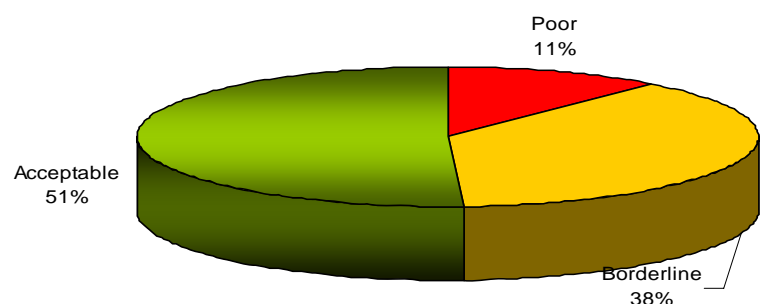
The surveillance assessment was a joint effort led by the Government of Liberia, in particular the Ministries of Agriculture, Health and Social Welfare, the Liberia Institute for Statistics and Geo-Information Services in collaboration with FAO, UNICEF, WFP, ACF and Save the Children-UK. The survey was funded by EC through WFP. In-kind contributions were made by ACF, Save the Children-UK, FAO, UNICEF and UNMIL.

The survey design and data collection was led by the Liberia Institute for Statistics and Geo-Information Services in close cooperation with all stakeholders. WFP took the lead for analyzing the food security indicators in close collaboration with the Ministry of Agriculture (MOA), while UNICEF took the lead in analyzing the nutrition indicators in collaboration with ACF, and the Ministry of Health and Social Welfare. Findings from the nutrition component of this assessment are presented in a separate write up by UNICEF.

How many households are food insecure?

Using the standard WFP VAM food consumption analysis, **11.3 percent** (a slight decrease from the 2008 LFSNS of 14.3 percent) of all Liberians have poor food consumption and dietary diversity, meaning that this population can be considered to be **food insecure**. In addition, **38.0 percent** have borderline food consumption, meaning that they are **highly vulnerable to food insecurity**. Finally **50.7 percent** are considered to have adequate consumption and can be considered to be **food secure**. In overall, the proportion of the food insecure households or those vulnerable to food insecurity remained the same between 2008 and 2009 as the decrease in the

Figure1: Current food security situation (December 2009)



poor food consumption group was balanced off by households with borderline food consumption.

Food insecurity remains of high concern in Liberia. The 2009 surveillance findings reveal that food security in rural Liberia has remained at the same level with about every second household having poor or borderline food consumption. Rural Liberia continued to reveal higher levels of food insecurity than urban areas of the country.

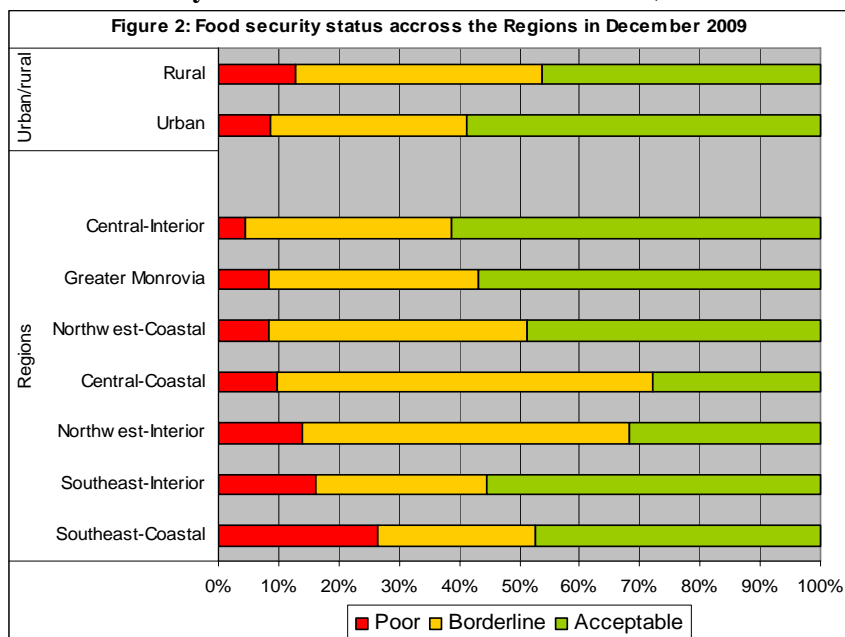
Where are the food insecure households?

As in 2008, there are indications that *food insecurity remain more severe in rural Liberia*, 12.7 percent of households are considered to have poor food consumption compared to 8.8 percent in urban Liberia (see Figure 2). However, the prevalence of poor food consumption decreased in rural Liberia (from 19.7 percent in 2008 to 12.7 percent in 2009) compared to a marginal increase in urban Liberia (from 7.5 percent in 2008 to 8.5 percent in 2009).

Below is a summary of findings based on an analysis that categorizes severity and time dimension of food insecurity into three different groups:

- **“Communities with relatively low levels of food insecurity”**: Communities in Greater Monrovia, central-interior

(Bong and Nimba) and counties in northwest-coastal Liberia (Margibi, Montserrado and Grand Cape Mount) reported the lowest proportions (less than 10 percent) of households with poor food consumption. During the 2008 LFSNS, only 42 percent were categorized as having low food insecurity incidence, meaning an improvement. Communities in Bong and Nimba are particularly characterized by increased government and partners’ investment on food production activities – including the combined effort of FAO, UNDP and WFP in promotion of agricultural production through rehabilitation of farmlands and enhancing access to markets through the Purchase for Progress (P4P) initiative. The rest of the communities in this category have good market access and direct access to the sea. It is significant that the proportion of households with borderline food consumption remains relatively high in these regions, meaning there is a high level of vulnerability and therefore close monitoring is still recommended.



- **“Moderate food insecure communities”**: Communities in central-coastal Liberia (Grand Bassa and Rivercess) as well those in the northwest-interior, namely Lofa, Gbarpolu and Bomi reported 10-15 percent of households with poor food consumption. As was reported in the 2008 LFSNS, both central-coastal and northwest-interior regions reported transitory food insecurity. Although communities in central-coastal reported moderate proportions of households with poor food consumption, overall it reported the highest level of those vulnerable to food insecurity. This confirms the 2008 LFSNS that reported the region as highly transitory food insecure. There was no major improvement during the period under review. However, there are indications of some improvements in the central-coastal counties, although the data could not provide conclusive findings. In Lofa County, rehabilitation of the agricultural sector that was totally disrupted during the civil crisis is possibly contributing positively, although the survey design could not allow this conclusion.

- **“Highly food insecure communities”**: Communities in the southeastern counties of Grand Gedeh, Grand Kru, Maryland, River Gee and Sinoe reported the highest proportions of households characterized with poor food consumption score. Southeastern Liberia has over time been characterized with chronic food insecurity mainly explained by poor infrastructure and poor access to basic social services (roads, health systems, education, etc). These counties, although gradually attracting increased investment, have largely lagged behind other regions in terms of development programmes. In the 2008 LFSNS, the counties were classified as either moderately or chronically food insecure. The population of this region is roughly about 14 percent of the Liberian population. The communities in these counties are geographically cut-off on a regular basis during the rainy season. The region requires long-term intervention solutions especially in relation to infrastructural improvements.

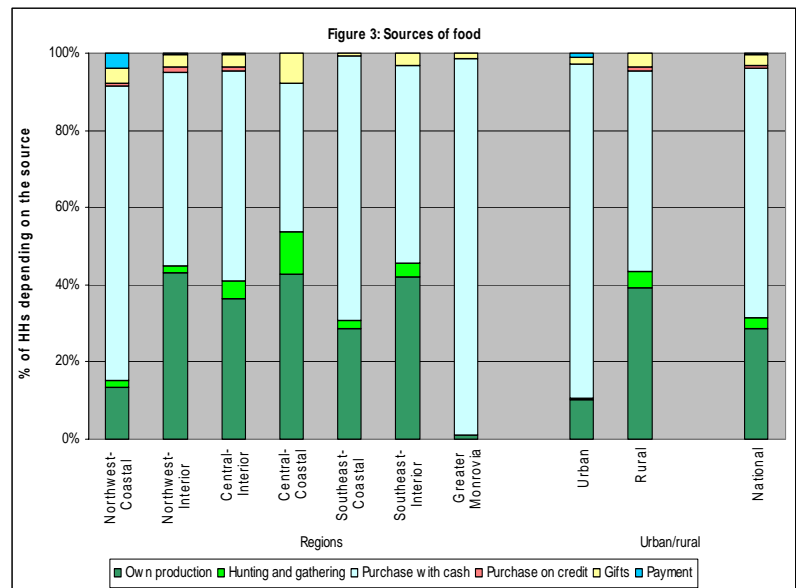
What are the causes of food insecurity?

Liberia is subject to both chronic and transitory food insecurity. *Transitory food insecurity*, related to the fact that households are rebuilding their livelihoods after many years of displacement, prevails in counties in northwest and central Liberia. These groups have the potential to recover fully over the next two to three years. *Chronic food insecurity* which is particularly prevalent in southeast Liberia is related to geographic isolation, limited market access, poor infrastructure and chronic poverty. A long-term strategy will be required to tackle the underlying causes. Urban food insecurity, mainly related to Liberia's high dependency on food imports and fluctuating global food market prices is also persisting. Recovery depends on many factors including global price trends (Liberia being an economy that largely depends on imports), the ability of the country to increase agricultural productivity and employment opportunities in the productive sectors of the economy.

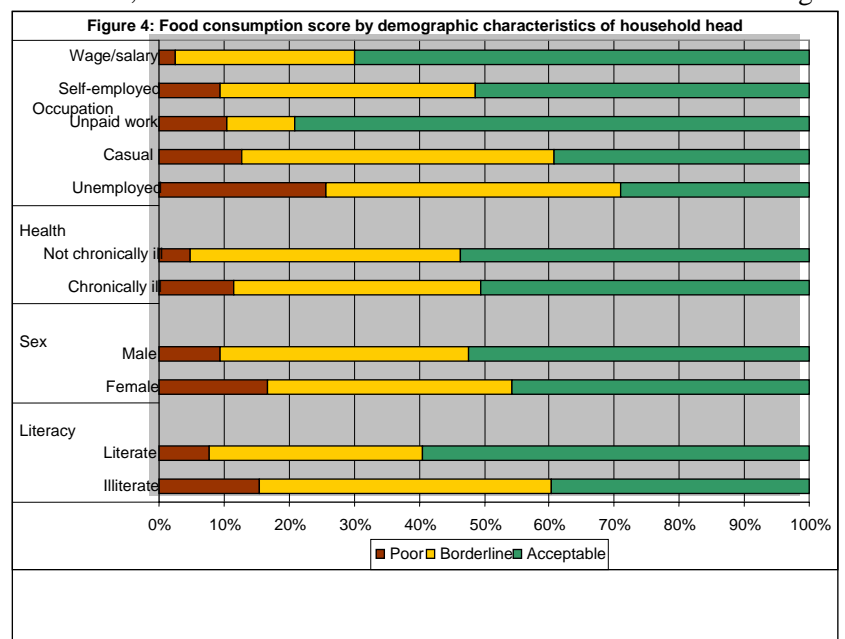
Trends in demographic and socio-economic indicators

There are several key factors which can explain current trends and future outlooks for the food security and nutrition situation:

- Food Sources:** As reflected in Figure 3, nearly two-thirds of the households in Liberia still depend on purchases of their foods from the market, with only 29 percent relying on own production as the source of food. Hunting and gathering as well as gifts were also reported by some households as sources of their food. Overall, Liberia still remains largely market dependent, which predisposes majority of poor to food insecurity especially in times of price volatility. Reliance on market in itself is hampered by the high prevalence of income poverty as was reported in the 2007 poverty assessment, making food access difficult. As expected, communities in Greater Monrovia, an urban set up, predominantly purchase their foods while rural counties tend to source their foods through own production or through hunting and gathering. As with the 2008 LFSNS, gifts are also more common in rural Liberia than in urban areas.



- Household Demographic characteristics:** Overall, illiterate and female-headed households showed higher proportions of poor food consumption scores as compared to their counterparts that were headed by literate or males (see Figure 4). Households whose heads are unemployed also showed the highest proportion of poor food consumption scores followed by casual workers. On the other hand, households whose heads are on salaried employment showed the lowest level of poor food consumption scores. Households whose heads are chronically ill appeared more prone to food insecurity than where the household head is well. These demographic variables had linkages to the levels of food insecurity in the assessed communities. Gender factors in asset ownership and use especially with regard to productive assets at household levels have been documented as major hindrances to food security at household level.



• **Education:** As shown in Figure 5, education figures were generally similar to the 2008 LFSNS findings, implying that the education gap caused by the prolonged civil crisis has somehow normalized in the recent past. More children are now enrolled in schools at both primary and secondary as compared to 2006 as was revealed in the 2008 and the 2009 assessment findings. However, net enrolment still remains poor as it appears children are still enrolled in levels lower than their ages, a major contributor to school dropout. In late 2008, 86 percent of boys and 83 percent of girls of primarily school age (6-11 years) were enrolled in school (either pre-primary or primary) in rural Liberia. However, the corresponding figures did not show marked difference (at 88 percent and 82 percent) for boys and girls, respectively, by late 2009. On the other hand, the percentage of primary school aged children actually enrolled in primary school (proxy for net enrolment rate) was only 53 percent and 51 percent, respectively, for boys and girls in 2009, though higher than the 45 percent and 42 percent reported respectively for boys and girls in 2008. A similar trend was observed for secondary school aged children. Enrolment in any school by the secondary school aged children (12-18 years) was about 80 percent while proportion of secondary school aged children actually enrolled in secondary schools (proxy for net enrolment rate in secondary school) was a paltry 37 percent and 34 percent for boys and girls, respectively. The large difference between net and gross enrolment indicates that Liberian children are still catching up as many of them are enrolled at levels below their age group. There is also a caution on the high enrolment figures given that children hardly attend school on regular basis. Attendance rate is even much lower for girls than boys.

Educational status of the household head is linked to the enrolment indicators for the child, with children from literate headed households likely to have enrolled in schools at all levels when compared to their counterparts in illiterate headed households.

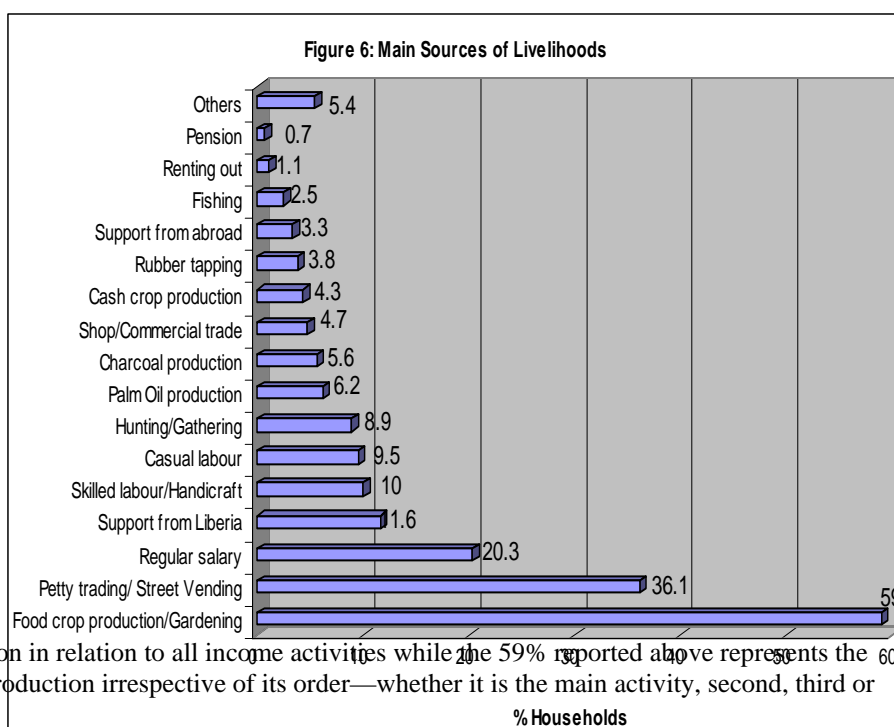
Figure 5: School enrollment indicators

		% Boys 6-11 years in primary school		% Girls 6-11 years in primary school		% Boys 12-18 years in secondary school		% Girls 12-18 years in secondary school	
		% Boys (6-11) enrolled	% Girls (6-11) enrolled	% Boys 6-11 years in primary school	% Girls 6-11 years in primary school	% Boys (12-18) enrolled	% Girls (12-18) enrolled	% Boys 12-18 years in secondary school	% Girls 12-18 years in secondary school
Urban/Rural	Urban	94.4	88.3	68.6	60.3	91.1	91.6	50.7	39.1
	Rural	87.8	82.3	52.5	51.1	79.4	80.1	36.7	34.0
Literacy of HH head	Illiterate	87.9	81.2	49.4	45.7	73.4	80.9	36.9	32.0
	Literate	91.4	87.0	64.1	61.2	91.2	88.3	45.9	39.5
FCS	Poor	93.3	84.0	50.3	51.7	71.6	67.9	24.4	13.7
	Borderline	86.1	83.4	52.7	52.0	77.4	84.1	41.8	25.1
	Acceptable	92.2	85.1	63.2	57.7	89.3	87.9	46.5	45.3

Similar households with acceptable food consumption scores had better school enrolment indicators than those with poor food consumption scores. This underlies the fact that food security is a pre-requisite in improving education of children at household level. The food insecure

households are less likely to send their children to school and would prefer engaging them in some level of income generating activity when faced with food insecurity. This also confirms earlier findings that related school enrolment to WFP food distribution which showed better indicators in schools implementing school feeding than those that were not.

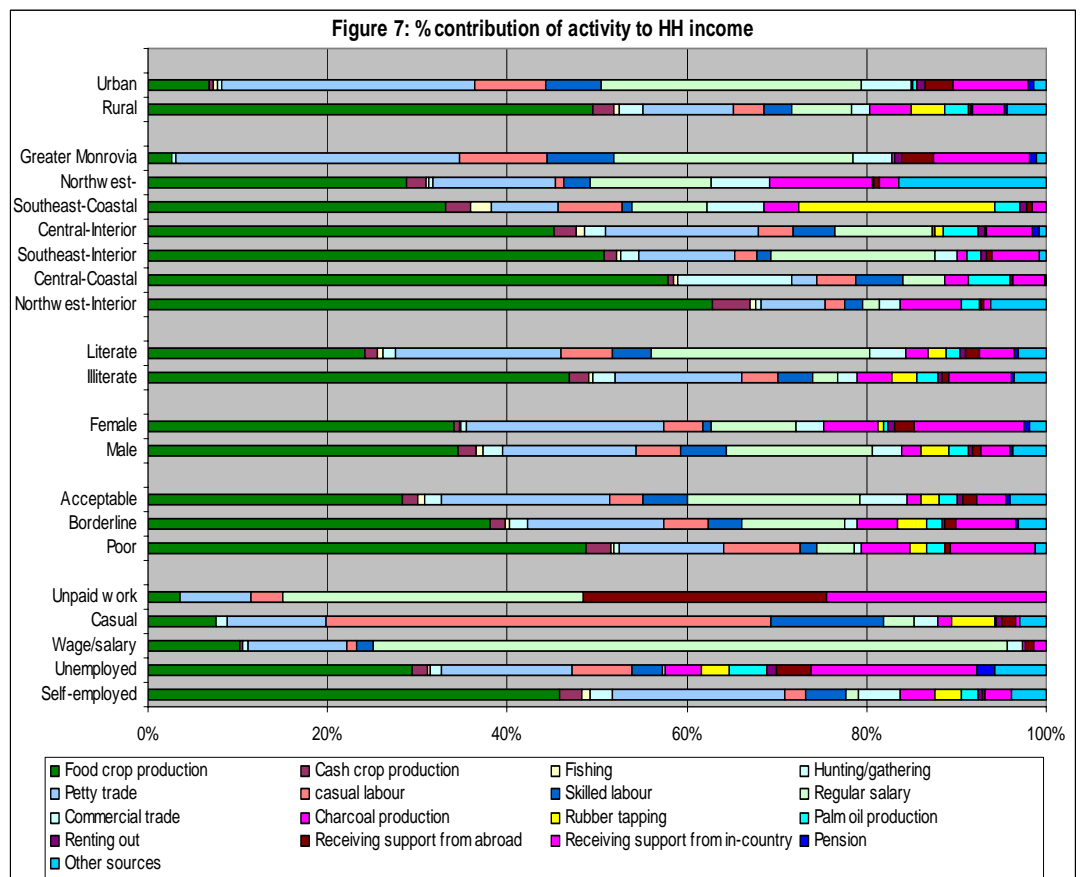
• **Livelihoods:** As shown on Figure 6, 59 percent of the households engage in food production, 36 percent in petty trade/street vending and 20 percent in regular salaried employment. Cash cropping and fishing, although of huge potential in the country account for only 4 percent and 2.5 percent of the household livelihoods respectively. When comparing the different livelihood groups in Liberia, food cropping still dominates, accounting for 31 percent¹ (an increase by 6 percent when compared to the 2008 LFSNS findings) of the livelihood activities followed by petty trading/street vending at 19 percent



¹ 31% represent the share of food production in relation to all income activities while the 59% reported above represents the proportion of households reporting food production irrespective of its order—whether it is the main activity, second, third or fourth.

and regular employment at 11 percent. The findings also show that in rural Liberia, more households have taken up food production as compared to the same period in 2008. Surprisingly, households involved in regular employment seem to have declined from 15 percent in 2008 to the current 11 percent. The order of importance in livelihood activities was generally similar to the findings in 2008.

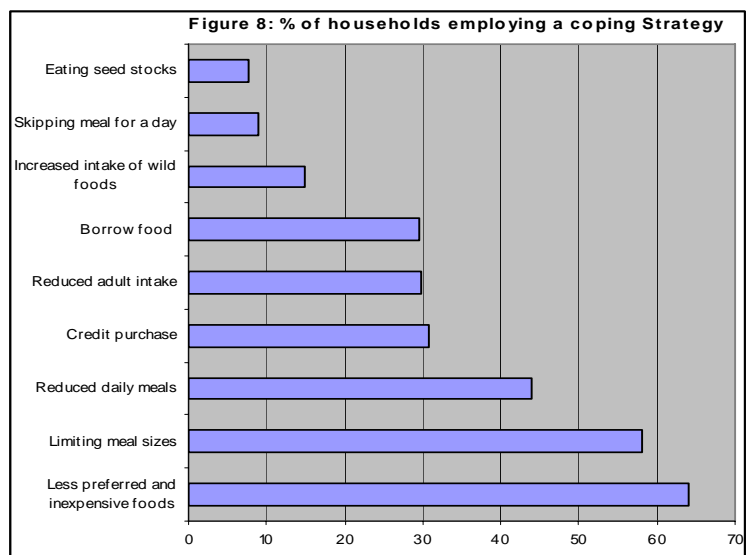
In urban Liberia, regular salaried employment and petty trading are the predominant sources of livelihood while household incomes in rural areas are dominated by food crop production (see Figure 7). Notably, communities in northeast-interior (Lofa, Gbarpolu and Bomi), central-coastal (Grand Bassa and Rivercess), southeast-interior (Grand Gedeh and River Gee) as well as central-interior (Bong and Nimba) report that food and cash crop production account for at least a half of their household income. This could be explained by the level of investment in the agricultural sector in these regions. Understandly, illiterate headed households who dominate rural Liberia report food crop production as the single greatest contributor to their household incomes.



Likewise, literate headed households report regular employment as a major contributor of their incomes. While male headed households report that regular employment accounts for 16 percent of their income, the female counterparts only report 9 percent.

The poor food consumption group predominantly report food crop production as the major source of their income while the acceptable food consumption group report combined salaried employment and petty trading as the main contributors to household income. This could imply that what households are currently producing is not enough for their requirements, making them still more vulnerable to food insecurity. This also explains the observation that most food requirements are still being purchased (mainly imported commodities) in the country.

• **Communities' coping strategies:** The commonly used coping strategies in case of shortage of food in a household in order of priority were: intake of less preferred and inexpensive foods, reducing meal sizes, and reducing the number of meals in a day (see Figure 8). The least used way of coping whenever there is a shortage of food in a household is intake of seed stocks or skipping a day's meal. These latter ones are extreme coping strategies and would only be used as last resorts. The mean Coping Strategy Index (CSI) for the poor food consumption group was 9.7 as compared to only 4.8 for households with acceptable food consumption score. This confirms food secure households do not need to cope when compared to food insecure households. Rural communities had a higher mean coping strategy indicator (6.3 against 5.7 for urban communities) implying higher vulnerability in rural areas when compared to urban. The higher the coping strategy index, the higher the vulnerability to food insecurity and vice versa. Female headed households also showed higher CSIs than their male



Female headed households also showed higher CSIs than their male counterparts.

counterparts, a similar observation for illiterate headed households when compared to literate headed households. Households whose main source of income is fishing, charcoal burning or depending on support also had higher CSIs than those relying on other livelihood sources.

Who are the food insecure households?

Household characteristics associated with rural food insecurity include:

- Households headed by persons who are unemployed or are casual labourers were more likely to have had poor food consumption scores;
- Households relying on casual labour, support and charcoal burning are more likely to have poor food consumption, while the better-off are those that rely on regular salaried employment, trading and skilled labourers;
- Households headed by females had higher proportions of those with poor food consumption scores when compared to male headed households;
- Households with illiterate heads were more food insecure than those with literate heads;
- Households with disabled or ill household head were more food insecure than those headed by well people.

Household characteristics associated with urban food insecurity include:

- Households with unemployed head or person relying income from casual labour;
- Households with illiterate head;
- Households with disabled members and disabled household head;
- Households relying on support or casual labour as their main livelihood.

Response recommendations

Recommended interventions to address food insecurity:

- Strengthen the food security programmes across the country—agricultural promotion through rehabilitation, construction of infrastructure, marketing systems and a whole range of activities within the food production chain. Impacts of such programmes could only be measured through a comprehensive assessment planned in August-October 2010;
- Expand skills-enhancing and literacy programmes targeting female and unemployed household heads
- Continue with school feeding programme in a development perspective approach as currently undertaken in southeastern parts of the country considering the relationship between food security status of households and the school enrolment indicators;
- Increasing employment opportunities through income generating activities both in urban and rural Liberia. Households whose heads are in regular employment showed better food security status than their counterparts that relied in casual and unstable work opportunities;
- Strengthen food safety net programmes as food insecurity still remains a major concern in Liberia.

Recommended interventions to monitor food security and nutrition:

- Strengthen the surveillance system to track the food security trends of the Liberian population including possibility of increasing the sample size to provide more representative statistics;
- Increase capacity of LISGIS, MOA and MOHSW to take on responsibility for analysing and reporting food security and nutrition indicators;
- Conduct Comprehensive Food Security and Nutrition Survey in August/December 2010 to update food security and nutrition knowledge base.

For more information, contact:

Bernard Owadi, WFP Liberia, VAM Officer, bernard.owadi@wfp.org
Kinday Samba, UNICEF Liberia Nutrition Officer, ksamba@wfp.org