

# Nimba Refugee Assessment

## LIBERIA Ivorian Refugee Influx and Food Security



March 2011

Data collected from 8 to 13 March 2011



This report was produced by:

Sayba Y. Tamba, Food Security Analyst, MOA. [sayb.tambyawa@gmail.com](mailto:sayb.tambyawa@gmail.com)

Emmanuel Anderson, VAM Assistant, WFP Liberia. [emmanuel.anderson@wfp.org](mailto:emmanuel.anderson@wfp.org)

## Acknowledgements

The authors wish to acknowledge Boima H.M. Sonii (LISGIS), Thomas S. Feighery (LISGIS), Benjamin Flomo (WFP), Sayba Y. Tamba (MOA), and Emmanuel Anderson (WFP), who participated in primary data collection. Thanks also go to Bernard owadi (VAM Officer, WFP CO) for data analysis and technical review of the report. Any remaining errors are the authors own.

## Acronyms

ACF	Action Contre la Faim
CIV	Cote d'Ivoire
CFSNS	Comprehensive Food Security and Nutrition Survey
CFSVA	Comprehensive Food Security and Vulnerability Assessment
CSI	Coping Strategy Index
EAs	Enumeration Areas
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organization
LD	Liberian Dollars
LISGIS	Liberia Institute of Statistics and Geo-Information Services
LRRRC	Liberia Refugee Repatriation Resettlement Commission
MOA	Ministry of Agriculture
NRC	Norwegian Refugee Council
TOT	Terms of Trade
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
WFP	World Food Programme

## Table of Contents

Executive Summary  
Overview Map

1. Introduction
  - 1.1 Background and Objectives
  - 1.2 Methodology and Limitations
2. Findings: Demographics
  - 2.1 Gender of Household Heads
  - 2.2 Arrivals and Accommodation of Refugees
3. Findings: Impact of refugee influx on household food security and markets in Nimba County
  - 3.1 household food consumption
  - 3.2 Household Food Sources
  - 3.3 Income Sources / Livelihood activities
4. Findings: Humanitarian Assistance
5. Findings: Agriculture Production
6. Findings: Coping Strategies
  - 6.1 Impact on Markets
7. Conclusions
  - 7.1 Recommendations

## **Executive Summary**

A rapid household food security assessment was conducted in March 2011 to inform interventions targeting refugees and host communities in Nimba County. The objectives of the study were to: measure levels of food insecurity and socio-economic constraints of the host population and refugees in Nimba County; determine the ability of the markets to support food supply in the communities hosting refugees; and recommend relevant response options.

### **Key findings:**

Overall, 80 percent of both refugee and host households are assessed to have 'poor' food consumption patterns (95 percent and 65 percent of the refugees and host communities respectively). Refugees mainly get their food through food aid and/or gifts from relatives and host villages. Only 42 percent of refugees had received a type of relief assistance (whether food or non-food) since they arrived in Liberia. Health services are the most available form of assistance to refugees reported by 55 percent of them while only 31 percent refugee families have received relief food.

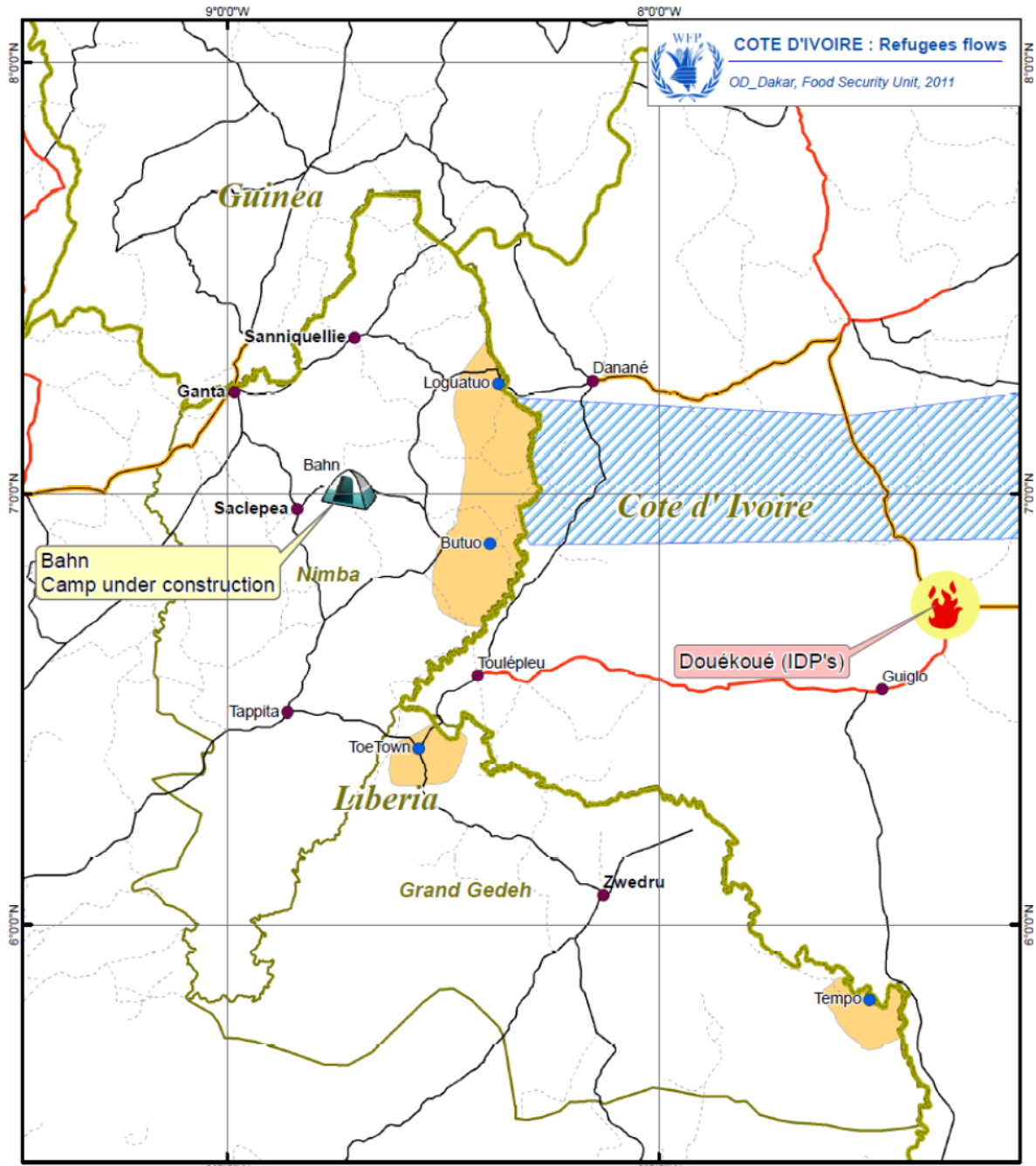
On the other hand, some 22 percent of the host communities have received at least some form of relief assistance since the arrival of refugees. The host communities still largely depend on own production (55 percent) as their source of food intake. The commodities currently sourced from own productions by host families are cassava, rice and vegetables.

The host community members reported that current rice available for consumption at household level can only last for the next 2-3 months (around June) which coincides with the usual onset of lean season. The households will then increasingly rely on seed rice and cassava which will also only last until late July. Thus the household food security situation of the host families will be lowest during the period between July and October unless urgent mitigation efforts are put in place. This is likely to be manifested in increased malnutrition rates, depletion of household assets and poor health outcomes.

Forty-eight percent of refugees participate in farm labour as an important source of livelihood as compared to 49 percent of host families who depend on food crop production. Sixty two percent of refugees utilize one coping strategy or another compared to 50 percent of the host families involved in similar practices. The refugees were also more likely to have employed adverse coping strategies like skipping meals as compared to host households.

Low market availability of local rice coupled with huge demand from neighboring Guinea has led to higher prices for imported rice. Prices of other food commodities and fuel have also increased sharply. The poorest host community households will be affected by higher food prices in addition to competition with refugees for casual labour opportunities.

# Overview map

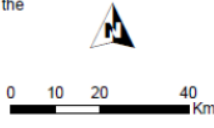



**COTE D'IVOIRE : Refugees flows**  
 OD\_Dakar, Food Security Unit, 2011



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations

Sources : WFP, UNHCR Dec. 2010  
 Spatial data come from DIVA & NGA



- |   |  |
|---|--|
| <p><b>Places &amp; Camps</b></p> <ul style="list-style-type: none"> <li>● Places</li> <li>● Refugees Camp</li> </ul> <p><b>Zoning</b></p> <ul style="list-style-type: none"> <li>■ Refugee arrival zone</li> <li>▨ Confidence Zone</li> </ul> | <p><b>Road networks</b></p> <ul style="list-style-type: none"> <li>— Primary road</li> <li>— Secondary road</li> <li>— Tertiary road</li> <li>--- Tracks</li> </ul> <p><b>Administratives borders</b></p> <ul style="list-style-type: none"> <li>▬ Country border</li> <li>▬ Admin1 (Liberia)</li> </ul> |
|---|--|

# 1. Introduction

## 1.1 Background and Objectives

The current political situation in Cote d'Ivoire is seriously deteriorating. Recent clashes between the parties and other stakeholders are expanding. Protests and demonstrations by the supporters of both parties to the conflict are more and more frequent. The situation is further exacerbated by recent freeze and closure of financial institution in the country by ECOWAS. Thus, the lack of access to cash and the increase of the prices for local and imported basic commodities including food, fuel and gasoline are expected to generate further unrest and economic hardship. It is believed that the above situation will lead to a general frustration and increased violence which in turn will result in additional displacements and influx of more refugees into Liberia.

According to UNHCR, as of 27 February 2011, renewed fighting in Ivory Coast had resulted in sudden influx of about 22,000 refugees into Liberia in just one week (largely in Nimba County with small minimal numbers in Grand Gedeh and Maryland Counties) taking the total number of refugees to about 71,000 and more people are expected to continue crossing over. It is also reported that there are some 38,000 IDPs in Cote d'Ivoire who are in the vicinity of the Liberian border on the Ivorian side. This is an indication that people have already left their homes towards Liberia but are monitoring the evolution of the situation in Cote d'Ivoire. It is therefore highly likely that with the additional violence in Cote d'Ivoire these people would decide to move across the border into Liberia. It is observed that the local community in Liberia is no longer capable of absorbing new arrivals and this makes refugees very vulnerable. The additional increase in the refugee caseload, and its possible impacts on the host population, requires a change in the scale and strategy of the food response. A rapid assessment was organized in order to support the design of the next stage of the food sector response.

The rapid assessment was conducted to inform interventions targeting refugees and host communities. The specific objectives of the study were to:

- Assess the levels of household food insecurity in communities hosting refugees;
- Assess the socio-economic constraints of local populations and refugees;
- Assess markets ability to support food supply in communities hosting refugees; and
- Recommend relevant response options.

## 1.2 Methodology and Limitations

The main focus of the Rapid Household Food Security Assessment was to measure few food security indicators among selected refugees and host population in communities hosting refugees. A multi-staged sampling methodology was used as follows: 1) Purposive sampling of 10 affected villages densely populated with refugees in Nimba County. The 72 villages where refugees are currently dispersed formed the sampling frame for the rapid assessment. A total of 10 communities densely populated with refugees were selected from the list of 72 villages. 2) At household level, a random sampling procedure was used to draw a minimum of 24 households (12 refugees and 12 host families) from each of the selected communities. A total of 214 households were interviewed during the Rapid Household Food Security Assessment. Additionally, two key informant interviews were conducting in host communities with representatives from both host and refugee households. Market interviews with traders were also conducted in Buutuo and Karnplay (located close to the border) and in the larger trading towns of Saclepea, Bahn and Ganta in Nimba County. Data collection took place from 8 March, 2011 to 23 March, 2011. The assessment team visited the communities of Kissiplay, Zorgowee, Dulay, Kentorkporglay, Gbailay, Beo-Yoolah, Dinplay, Glarlay, Buutuo and Bluehlay) densely populated with refugees in Nimba County.

Preliminary findings were shared on 29 March, 2011 at the weekly food sector meeting attended by LRRRC, MOA, LISGIS, NRC, ACF, USAID, UNHCR, FAO, and WFP.

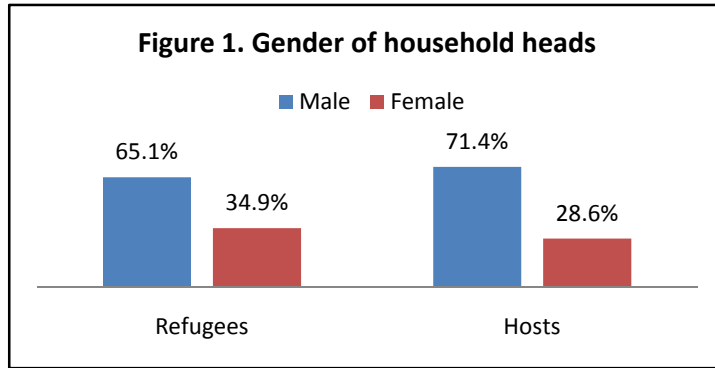
The rapid assessment was a joint effort led by the Government of Liberia, in particular the Ministry of Agriculture (Food Security and Nutrition Unit), the Liberia Institute of Statistics and Geo Information Services (LISGIS) and WFP.

# FINDINGS

## 2. Demographics

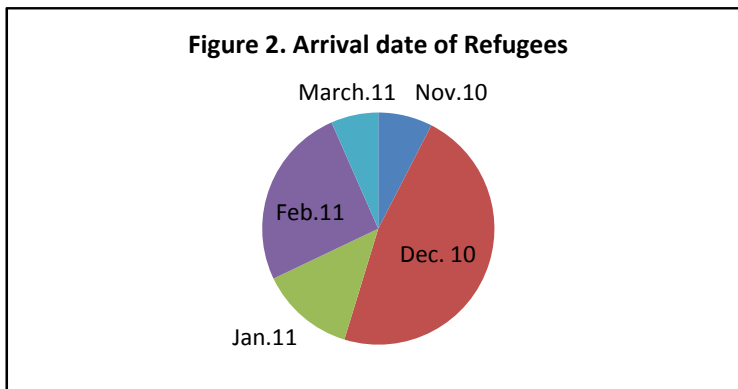
### 2.1 Gender of Household Heads

A third of the households in communities hosting refugees are headed by females, with slightly more refugee households (35%) than host households (29%) headed by females. During emergency displacements, women and children usually tend to move out first for safety reasons before eventual follow



up by men. In the Ivorian case, it had been reported that some men remained behind either to join the war (defending their “sides” and/or defending their family properties), while releasing their women and children to seek sanctuary in safer places across the border.

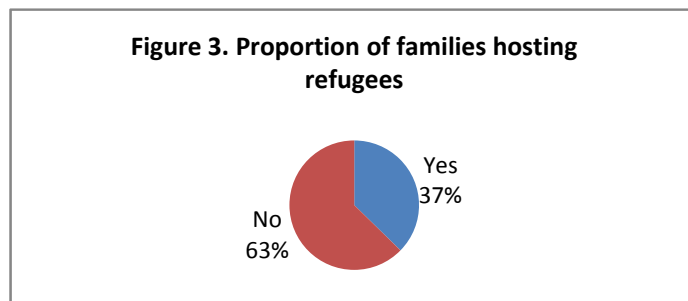
### 2.2 Arrivals and Accommodation of Refugees



The number of refugees arriving in host communities depends on the intensity of the hostilities in Cote d’Ivoire. At the beginning of the upheaval in November 2010, only a small number of refugees (8 percent of the current refugee population) arrived in the host communities, but by

December, the number had increased dramatically (47 percent) following the intensification of rivalry among the combatants. However in January 2011, there was a decline in the number of arrivals (a paltry 13 percent of the influx) compared to the previous month as the tension temporarily eased off. With more disruption in February, there was a renewed influx (25 percent).

Over one-third of the host communities report accommodating at least a refugee.



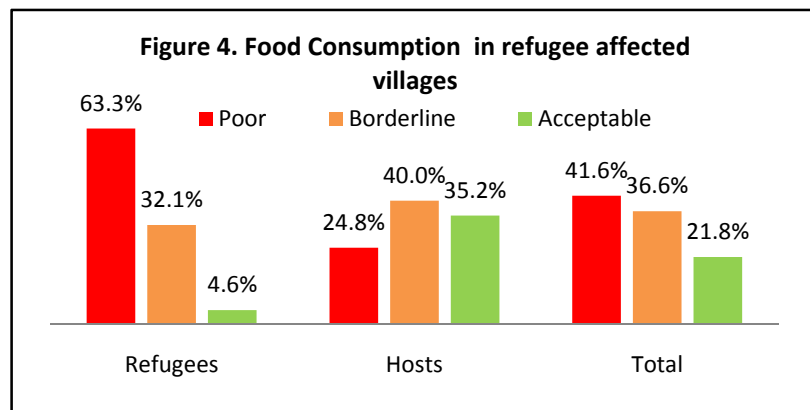


### 3. 0 IMPACT OF REFUGEE INFLUX ON HOUSEHOLD FOOD SECURITY AND MARKETS IN NIMBA COUNTY

#### 3.1 Household Food Consumption

Overall, about 80 percent of households in the communities hosting refugees have inadequate food consumption, a proxy indication of food insecurity. They consume limited or insufficient nutritious foods to maintain an active and healthy life (usually dominated by cereals with minimal or no protein rich foods like fish, pulses and meats).

Food insecurity amongst the refugee families is more alarming with over 95 percent showing poor or borderline food consumption patterns. Host communities also reported high levels of families with poor or borderline food consumption patterns.



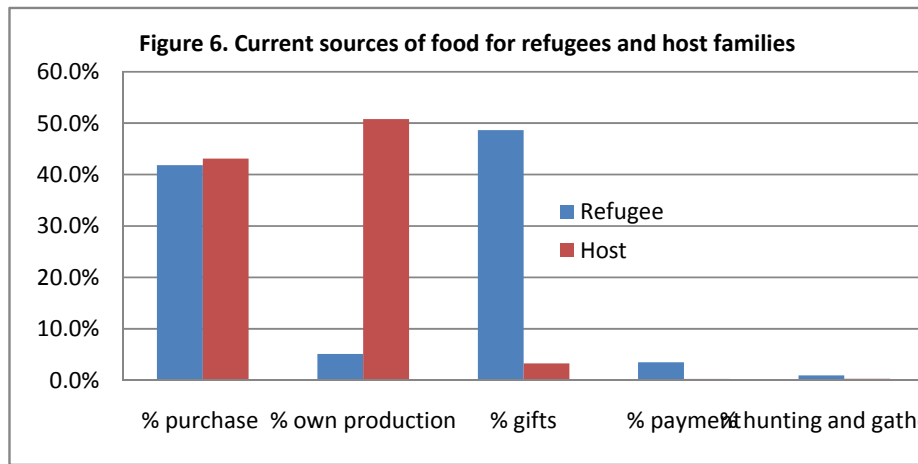
In the most recent food security survey (CFSNS October 2010), only 41 percent of the Nimba population were reportedly food insecure, which may indicate a dramatic decline in food security situation within the host communities. These unacceptable food consumption levels signals increasing vulnerability, risks and exposure to potential food shortages in the refugee affected communities.

Figure 5 demonstrates the shift in food consumption patterns since 2009 in rural Cote D'Ivoire and 2010 in Nimba County, a reflection of the impact of the refugee influx on access to food. Although the data sets also not directly comparable, it nevertheless points to the possible decline in food security situation for both the refugees and the host families. By 2009, the prevalence of

food insecurity was reported at only 13 percent within the communities that the refugees<sup>1</sup> originate from in Cote d'Ivoire compared to the current 95 percent poor food consumption among the refugees. Among the host communities, whereas the proportion of households with inadequate food consumption (poor and borderline) was estimated at only 32 percent in 2010<sup>2</sup>, it currently stands at 65 percent. These levels show dramatic deterioration in food security status for both refugees and the host communities.

### 3.2 Household Food Sources

Gifts and purchase are the refugees' most important food sources. Gifts account for nearly half of their food sources while 40 percent is obtained through purchase, and the rest is through own food production since some of the refugees were able to cross over with little food. Other sources of food for refugees include purchase through payment received for labor, hunting and gathering of food.

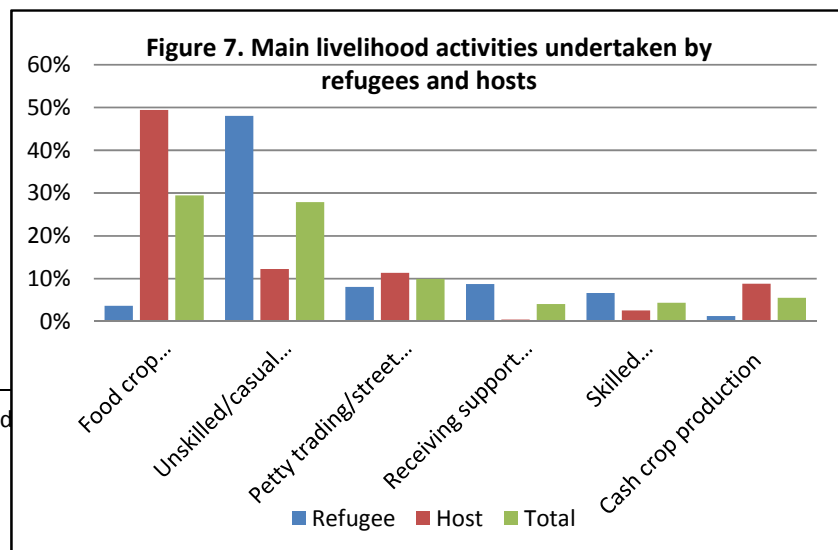


For the host population, the most important food sources are own production (more than 50 percent) and purchase (>40 percent). Other food sources for the

hosts include payment, gifts, hunting as well as gathering.

### 3.3 Income Sources / Livelihood activities

The main livelihood activities are centered on farming. Whereas 48 percent of the refugees are unskilled /casual laborers on farms, 49 percent of host families rely on food crop production.

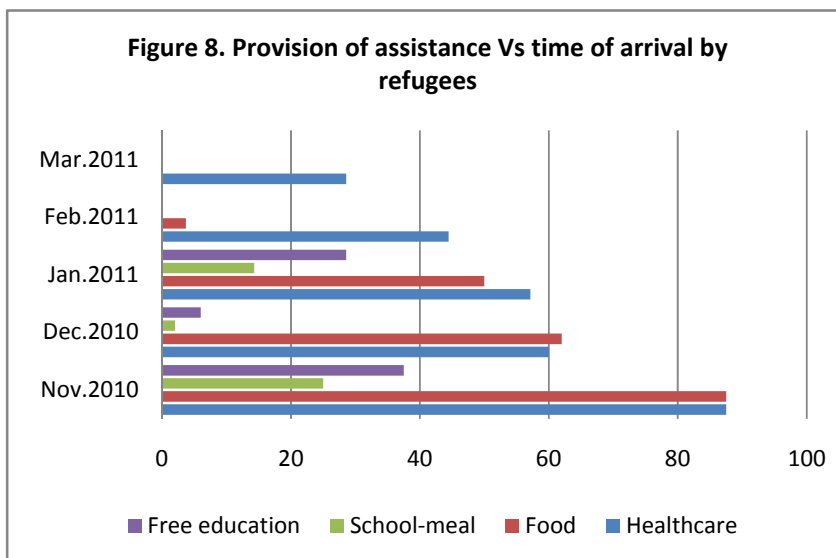


<sup>1</sup> The 2010 Food Security and  
<sup>2</sup> The 2010 Liberia CFSVA

Casual labour is however limited and when available, the daily wage rate averages only 100 LD for the refugee labourers. The livelihood profile has however not varied much for host communities with exception of a decline on the proportions of families relying on petty trade. The hosts are also receiving income from cash crops, petty trade and casual labor. Unlike many of the host families, refugees are involved in receiving assistance and skilled labor such as carpentry and masonry.

As of March 2011, refugees' main sources of support were from community families, income earning activities, and relief distributions. Host families allow refugees to access to their cassava farms and vegetable gardens as a way of extending a helping hand to them. Refugees report engaging in unskilled/agriculture. Brushing is currently the main agricultural activity that refugees involve in with a daily wage rate varying from LD 60 to LD 100. Most casual farm labourers receive cooked meal in addition to daily earnings. Firewood sales (predominantly done by women) were also reported as an income earning activity by refugees.

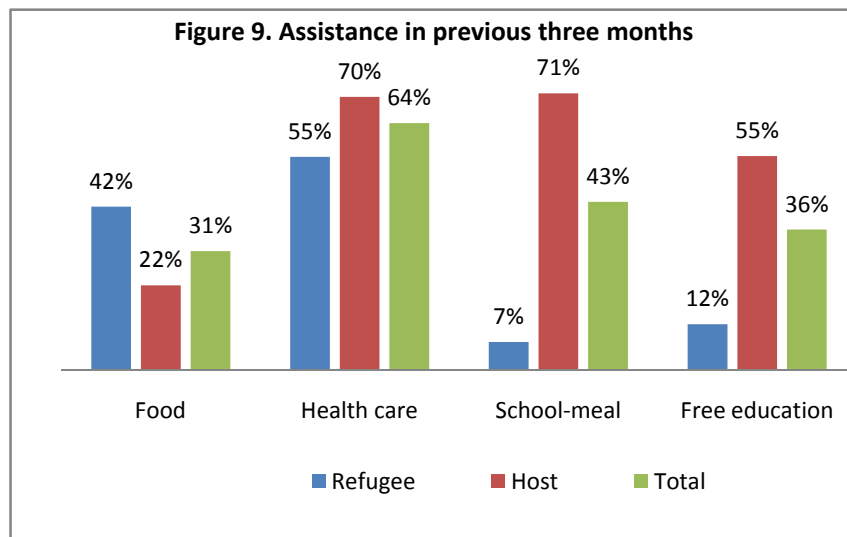
#### 4.0 HUMANITARIAN ASSISTANCE



The first refugee arrivals had better access to humanitarian assistance as compared to subsequent arrivals—possibly due to their relatively fewer numbers then. Whereas 90 percent of refugees who arrived in November 2010 received food and health care by the time of their

arrival, only about 60 percent of the arrivals in December received humanitarian assistance.

By January 2011, less than a half of the refugees were able to receive any form of humanitarian assistance and for those who arrived in February 2011, only four percent had received food assistance. None of



the refugees arriving in March 2011 had received any food assistance, although some 25 percent had secured health care assistance.

Between January and March 2011, the following proportions of refugee families had received humanitarian assistance: healthcare (42 percent); food assistance (55 percent), free education (12 percent) and meals at school (7 percent). The proportion of host families that had received assistance in the same period is as follows: food (22 percent), health care (70 percent), meals at school (70 percent), and free education (55 percent). Overall, it is estimated that about two-thirds (62 percent) of households in the communities hosting refugees had received healthcare and about a third had received food assistance.

## 5.0 AGRICULTURAL PRODUCTION AND UTILIZATION

The host communities reported to have harvested an average of 475 kgs of paddy rice from the previous harvest after cultivating about 19 local tins on average during the previous season. They also reported a further harvest of 46 bags of fresh cassava. The rice harvest is mainly consumed (82 percent) while only 18 percent of the rice harvest is sold either fresh or processed. Cassava is also mainly consumed at household level (78 percent). Overall, host families consume about 80 percent of their farm produce with the remaining 20 percent sold (as fresh or processed) or provided to refugees as relief.

	No. of months stocks will last	Harvest	% to consume	% to sell(fresh)	% to sell (processed)
<b>Cassava</b>	3.5	46.2 bags	78	17.1	2.6
<b>Rice (swamp)</b>	2.7	14.2 tins	82	6.9	11.4
<b>Rice (Rain fed)</b>		24.3 tins			

The rice harvest is expected to last for a period not exceeding three months—indicating depletion of the stocks by June 2011, a time coinciding with the onset of hunger season. Once rice is depleted, households will largely rely on cassava; but this can also only last until July 2011. Thus the period between July and October 2011 will be critical unless urgent assistance is extended to the host families. November usually marks the beginning of harvest season. However, since some host families had reported consuming part of their seed rice, harvest prospects may not be good. This calls for closer monitoring of the evolution of food security situation in these communities with possibilities of extending humanitarian assistance beyond October 2011.

## 6.0 COPING STRATEGIES

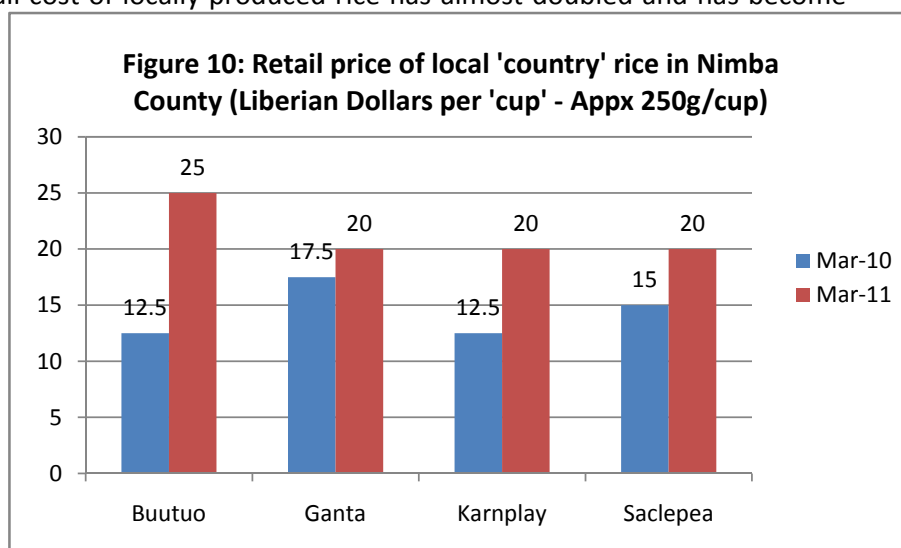
	Total	Refugees	Hosts
Limit portion size of meals	86%	93%	81%
Reduce number of meals in a day	80%	94%	69%
Rely on less preferred and/or inexpensive foods	80%	88%	73%
Borrow or rely on help from others	64%	84%	49%
Restrict consumption by adults	63%	71%	57%
Buy food on credit	42%	39%	45%
Skip entire day	33%	52%	18%
Consume wild foods	32%	40%	25%
Eat seed stocks	18%	1%	31%

Table 2 above illustrates that nearly 50 percent of surveyed households are involved in at least one coping strategy or another. They more often limit the portion size of meals (86 percent), reduce number of meals (80 percent) and rely on less preferred or inexpensive foods (80 percent). Other coping strategies employed by households include buying food on credit (45 percent) and consuming wild foods (25 percent).

Compared to host families, refugees use more severe coping strategies like skipping meals (52 percent), depend on borrowing and relief assistance (84 percent) and restricting food consumption by adults (71 percent). Host families on the other hand were already consuming seed stocks (31 percent). The use of seed stocks was only mentioned amongst host families by virtue that refugees on the other hand lacked any seed stock.

### 6.1 Impact on Markets

The upsurge in refugee influx has led to increasing prices for main staple rice as demand also increases. The retail cost of locally produced rice has almost doubled and has become difficult to find in some of the key markets and villages. Whereas a commonly used measurement for rice, salmon cup of rice sold for LD 12.50 in March last year is now selling at LD 20 (see Figure 10). Further increases are expected as the lean season approaches.



As the locally produced rice continues to diminish in local markets, the demand for imported rice is increasing fast. Wholesale prices for imported rice have increased by more than 15 percent between January and March 2011. For instance, a 50 kg bag of imported ‘butter’ rice sold for 2000 LD in January 2011 but is now currently selling at 2350 LD. This observation can also be explained by huge demand from neighboring Guinea due to current rice shortages. Traders in outlying markets on the Guinean side of the border have begun importing rice in huge volumes from Ganta market in Nimba County, a situation which could further exacerbate the food security condition of refugees and the local population. Limited access to credit and increasing costs of imported rice as importers respond to increased demand are considered major risk factors by retail traders interviewed in the main market towns in Nimba County.

The prices of other basic food commodities (shown on Table 3) are also witnessing an increase. The retail price of palm oil, an important ingredient in most Liberians’ diet, is up by 50 percent. It is notable that the upsurge in palm oil prices is also partly explained by increased regional demand (mainly Guinean traders) in addition to the increased demand occasioned by refugee influx. Cassava piles that traded in the local markets for LD 10 prior to the influx are now sold at LD 25.

	Unit	Pre-crisis	Current prices	% change
Local Rice	1kg	40	80	100
Bonny fish	500 grams	25	70	180
Sachet of salt	2lb	35	60	71
Palm oil	400 grams	20	30	50
Gasoline	1gallon	300	500	67
Kerosene	1snap	15	30	100
Exchange Rate	\$LD to \$US	70 LD to \$1USD	70 LD to \$1USD	No change

Overall, prices of essential commodities such as food and fuel in the refugee affected communities have increased sharply (**Table 3**). The price of a 500g of fish has almost tripled from LD 25 prior to the crisis to current levels of LD 70. The price of a gallon of gasoline has also increased by nearly 70 percent from LD 300 to current levels of LD 500 while the cost for a snap of kerosene has increased two-fold. Salt and palm oil prices have also risen by 71 and 50 percent respectively.

## Seasonality in food availability in Nimba County

Figure 11: Generic seasonal calendar

LIBERIA SEASONAL CALENDAR - 2010												
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>Season</b>	Peak of dry Season		Dry season ends	Rains begin		Peak of rainy Season		Rains end	Dry season begins			
<b>Rice Farming</b>				Planting (South Eastern)	Planting (rest of Liberia)		Harvesting (South Eastern)			Harvesting (rest of Liberia)		
<b>Hunger period</b>	Generally food secure		Increased food insecurity (Food stocks decline)	Hunger period begins		Peak of the hunger period		Hunger period ends		Generally food secure		

Source: Liberia Comprehensive Food Security and Nutrition Survey, 2010

As shown on Table 4 (seasons in Liberia), the renewed refugee influx (that began in March 2011) is happening at a time when local populations are approaching the lean season—characterized by depletion of household food stocks and increased reliance on the markets. Most host families are about to exhaust food stocks from their previous harvest due to ongoing sharing with refugees. Farming households also indicated that they had eaten their seeds which were expected to be used for this year's planting season. Local food availability has declined earlier than expected, which means the food security situation is likely to worsen among refugees and host communities in the coming months.

Following renewed clashes in late February, local cross-border trade was disrupted on both sides, except for some marketers that are characterized by unofficial trade mainly on 'bonnie fish' with some of the New Forces at check points across the Ivorian border. The trade routes with Ivory Coast are completely cut-off. Consequently, villages of Liberia that rely on trade with Ivorian markets would continue to bear the brunt of increasing prices thereby limiting their food access.

## **7.0 CONCLUSIONS**

Household food security in Nimba, especially in the communities currently hosting refugees is being undermined by the refugee influx and rising commodity prices. The food consumption of host families is already compromised because of sharing their limited household assets (including food) with refugees. This situation is likely to worsen as the lean season sets in.

The period between July and October will be the most critical as households will have exhausted on their current food stocks at a time when prices will also be increasing. It is notable that host families had begun in adverse coping mechanisms that may have far reaching negative effects on their future food security. Such adverse ways of coping include consumption of seed stocks—with implication on the next season's harvest.

Limited income opportunities as a result of disruptions in cross border trades with Cote d'Ivoire will also seriously impact on food access as the mutual trade between the two countries initially contributed to the balance in food security situation.

## **7.1 RECOMMENDATIONS**

- Make every effort to distribute food to all refugees on timely and regular basis i.e urgently distribute food to all refugees;
- Extend food assistance to host families for the period between July and October 2011 subject to review in October. This can be achieved through expanding the food for work programmes;
- Urgently speed up the ongoing road improvements in the locality to ensure access roads are in better condition before onset of rains;
- Speed up relocation of refugees to camps before the expected rains when roads will be inaccessible;
- Increase agricultural inputs especially seeds and tools targeting the highly food insecure within the host population;
- Strengthen monitoring scope food security and nutrition situation in both refugee households and host populations as the lean season approaches (Prepare for JAM possibly in May/June 2011). Food security monitoring has essentially to include strengthened market monitoring component.



