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INDEPENDENT FOOD SECURITY ASSESSMENT IN LIBERIA

Food security and nutrition survey in Lofa, Nimba, and Montserrado Counties

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Independent Food Security Assessment in Liberia

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Forewords

There has been a growing demand for more accurate and evidence-based emergency needs assessments in recent years. World Food Programme (WFP), as one of the main channels for humanitarian assistance, responded to these calls by organizing several consultations with experts, partner agencies and donors to identify the areas for improvement and develop a strategy for strengthening its capacities in emergency needs assessments. WFP's Executive Board endorsed this strategy which involves the preparation of a Emergency Food Security Assessment (EFSA) handbook, research work on assessment methodologies, investment in improved food security information in selected disaster-prone countries and a stand-by capacity for "independent assessments".

Establishing a capacity for "independent assessments" seeks to address existing shortcomings in three areas: (a) meeting assessment needs in countries without a WFP Country Office; (b) augmentation of assessment capacities in countries with limited WFP Country Office capacities; and (c) provision of an external perspective in countries where earlier assessments have been contested. The report presented here falls into the second category.

After years of civil strife that caused much damage to the economic and social infrastructure and led to massive population displacements, Liberia has now embarked on a programme of recovery. Adequate information on emergency food security and recovery needs is critical for well targeted social protection and rehabilitation interventions. Food security studies and assessment data exist for different parts of the country but they are not always comparable and up-to-date. Therefore, an assessment mission was fielded to three counties that have been attracting the particular attention of the humanitarian community and will remain the WFP’s priority due to their unique characteristics. Lofa has been most seriously affected by the war, being the county with the largest population displacement; Nimba has been challenged by a complex mixture of IDPs and Ivorian refugees; and Montserrado has been the county with the greatest inflow of IDPs nationwide. We hope that this independent study will provide the WFP Country Office with the information need for well targeted and evidence-based interventions.

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Frans de Koning,

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Abbreviations and Acronyms

ACF	Action Contre la Faim
CI	Confidence Interval
CMR	Crude Mortality Rate
CO	Country Office of WFP
DfID	United Kingdom Department for International Development
EFSA handbook	Emergency Food Security handbook
ESF	Emergency School Feeding
FAO	Food and Agriculture Organization of the United Nations
FFW	Food-for-Work
FSLI	Food Support to Local Initiative
GAM	Global Acute Malnutrition
GPS	Global Positionning System
HAZ	Height-for-age z-score
HICs	United Nations Humanitarian Information Center
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
ICRC	International Committee of Red Cross
IDP	Internally Displaced Person
LRRRC	Liberia Refugees Repatriation and Resettlement Commission
MSF	Médecins Sans Frontières
NGO	Non-Governmental Organization
NSHS	United States National Center for Health Statistics
OCHA	United Nations Office for the Coordination for Humanitarian Affairs
ODAN	Emergency Needs Assessment Branch of WFP
PC	Principal Component
PCA	Principal Component Analysis
PPS	Probability Proportionate to Size
SFC	Supplementary Feeding Centers
SFP	Supplementary Feeding Programme
TFP	Therapeutic feeding Programme
U5MR	Under 5 Mortality Rate
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNMIL	United Nations Mission in Liberia
VAM	Vulnerability Analysis and Mapping Branch
WAZ	Weight-for-age z-score
WFP	World Food Programme
WHZ	Weight-for-height z-score

Chapter 1

Executive Summary

Background and objectives

From 12-30 April 2005, an independent food security assessment was conducted in Lofa, Nimba and Montserrado counties, Liberia, under the leadership of four independent consultants with technical support from Emergency Needs Assessment Branch (ODAN), World Food Programme (WFP) headquarters. The specific objectives of the independent assessment were to:

- Assess the household food security in relation to nutritional status and estimate the magnitude of external food aid needs;
- Update the strategy for food and related assistance – to determine what new measures are necessary and what continuing assistance is required;
- Identify and assess the resources and capacities of potential implementing partners to undertake food distribution, self-reliance and monitoring activities; and
- Determine whether the ongoing activities remain appropriate in the light of the current situation and prospects for a durable solution, and propose modification if needed.

Methods

Household and community interviews were undertaken to collect data on the various components of food security such as food availability, access to food, utilisation, and health and nutrition from 11 to 30 April 2005. In addition, the nutritional status in children of 6-59 months of age was determined. Probability two- or three stage cluster sampling was used to select 20 clusters in each of the three counties. Within each cluster, 20 households were selected randomly for the household interviews. The city of Monrovia was not included in the sampling frame of Montserrado County

To estimate food access shortfall, the household food security profile approach recently developed by the Vulnerability Analysis and Mapping (VAM) branch, WFP, was applied. This implied that a household's food security situation was assessed by comparing its food consumption profile (made up by the frequency of consumption of major food items and meal frequency) with a benchmark profile.

Key findings

Lofa county is the county most affected by the war, with much of the infrastructure damaged or destroyed, and most of the population having fled their homes. Most of its present population therefore consists of returnees who came back mainly in 2004 and 2005. Lack of shelter and seeds and tools are a few of the major problems the population is facing now. Information on the availability of sufficient agricultural inputs to guarantee an adequate harvest in October is ambiguous, and there is a risk of too small a harvest. Based on the food consumption profiles, seventy percent of the households are estimated to be severely food-

insecure and in need of assistance. Another 25% are estimated to be moderately food-insecure and may need assistance. However, only 1.8% of the under-five children were classified as having global acute malnutrition.

Montserrado county hosts the capital Monrovia. A great part of its population depends for its income on off-farm employment, but job opportunities are scarce and unemployment is high. Food is available, but access is limited for many people due to high prices and low income. Forty-eight percent of the households are estimated to be severely food-insecure and in need of assistance. Another 24% are estimated to be moderately food-insecure and may need assistance. Almost 8% of the under-five population was malnourished (weight-for-height z-score <-2, GAM). Together with the high crude mortality and morbidity rates, these data indicate that the food security situation is a matter of concern

Nimba county seems to have suffered less from the war than Lofa, and less people fled their homes. The major part of the population is farming. Major problems of the farmers are lack of seeds and tools, and infertility of the soil is also mentioned. Sixty-two percent of the households are classified as severely food-insecure and in need of assistance. Another 21% are classified as moderately food-insecure and may need assistance. Three percent of the children under five years of age are malnourished.

Conclusion and recommendations

Primarily on the basis of the nutritional status of the under-five children in the three counties where the assessments were conducted, it is concluded that there is no emergency situation with regard to food security at the moment. However, the situation is fragile in Lofa due to insufficient agricultural inputs, and in Montserrado due to high unemployment. Therefore, the following response options are recommended:

- There is no need for population-wide interventions;
- Establish a safety net by supporting supplementary and therapeutic feeding programmes, to be implemented by the regular social service institutions or, if not available/functional, by Non Governmental Organizations (NGOs);
- Food-for-work (FFW) is appropriate in all three counties (rehabilitation/reconstruction of damaged infrastructure, and creation of employment);
- Extension of the school feeding programme;
- Provision of agricultural inputs, particularly in Lofa
- Continued monitoring of the nutritional status of children 6-59 months and of other food security related indicators.

Chapter 2

Objectives and Methods

2.1 Objectives

A series of conflicts in Liberia nationwide since December 1989, have led to the massive displacement of approximately 261 thousand people.[1] The conflicts and displacement have a severe impact on the food security situation of the local populations. However, since the United Nations Mission in Liberia (UNMIL) was deployed in 2003, security in the country has significantly improved. This may also have had a positive impact on households' access to food.

Therefore, this independent food security assessment was conducted in Lofa, Nimba, and Montserrado counties, where WFP operations have been or will be playing an important role. It is aimed at providing WFP Liberia Country Office (CO) and the other partners with updated information on food insecurity and nutrition that help programming of their appropriate intervention. The specific objectives of the assessment are to:

- Assess the household food security in relation to nutritional status to estimate the magnitude of external food aid needs;
- Update the strategy for food and non-food responses to determine what new measures are necessary and what continuing assistance is required to ensure the populations' access to food;
- Identify and assess the resources and capacities of potential implementing partners to undertake food distribution, self-reliance and monitoring activities; and
- Determine, from an objective point of view, whether the on-going activities remain appropriate in the light of the current situation and prospects for a durable solution, and propose modification if needed.

2.2 Methods

The assessment was conducted from 11 to 30 April 2005. The field data collection started in Lofa county because access to the villages in this county was known to be difficult in the rainy season, which was imminent, due to notoriously poor road conditions.[2] Then, the assessment proceeded with Nimba and Montserrado counties, respectively.

To allow a comprehensive assessment of the household food security situation and the nutritional status of children 6-59 months of age in the three counties, both primary and secondary data were collected and analyzed.

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1 Humanitarian Information Centre for Liberia (HIC) (October 2004). *IDPs, returnees, ex-combatants preferred county of return*. Monrovia, HIC: 1

2 Road conditions are particularly worse in Foya and Kolahun districts of Lofa county.

2.2.1 Primary data collection

For primary data collection, the three methods were used: (i) household food security survey using structured questionnaire; (ii) nutrition survey on mortality and childhood malnutrition; and (iii) community semi-structured interview (Table 2.1).

Household interview and anthropometric measurement

To assess household food security in the three counties, structured household interviews were conducted using questionnaires. The questionnaire included the questions concerning demography, displacement status, asset ownership, agricultural production, water and sanitation, fuel sources, income source, food consumption and source, coping mechanisms and current food assistance (Annex 1)[3]. The household questionnaire was designed such that the total time to be spent per household was 30-45 minutes.

Body weight and height of children 6-59 months of age were measured to determine their nutritional status when there were children at the household. Body weight was measured with a suspended weighing scale (Salter, 25 kg). Body height was measured using the United Nations Children's Fund (UNICEF) height/length scale. Children of 6-23 months of age were measured lying down, whereas children of 24-59 months of age were measured standing. For lack of time. it was not possible to train the enumerators in diagnosing oedema. Therefore, nutritional status was determined on the basis and height only.

Community interview

A community interview was conducted in each survey site to collect additional information on issues related to the food security and the general living conditions. After having arrived in the community and explained the purpose of the assessment to the community leaders, they were asked to nominate 10-12 persons, representing both males and females and other groups within the community, to participate in the community interview[4]. A questionnaire (Annex 2) was used for the semi-structured interviews. This questionnaire included questions concerning population numbers, migration, major problems in community, coping strategies, assistance mechanisms[5]. The community questionnaire was designed so that a community interview could be completed in approximately 1-2 hours.

Additional information was obtained by informal interviews with formal leaders such as mayors, commissioners, superintendents, and village and quarter chiefs. Also local health professionals or teachers were consulted. National and international NGOs, including the United Nations (UN) organizations, were visited in Monrovia and in the counties to gather information about their activities and their views on food security issues.

Table 2.1 - Type of primary data collection

Assessment component	Type of data collection	Type of data collection	
		Quantitative	Qualitative
Food security	• Structured interview with household head	X	
	• Semi-structured interview with community leaders		X
Nutrition	• Anthropometric measurement among children 6-59 months of age	X	
	• Structured interview with mothers	X	
	• Mortality data	X	

[3] The household questionnaire was first used in Lofa and Nimba, and than adapted to urban setting for its application in Montserrado.

[4] However, it happened quite often that many more people appeared on the scene. This made the interviews livelier, but also it more difficult to moderate.

[5] Similar to the household questionnaire for household interview, the community questionnaire was first used in Lofa and Nimba, and than adapted to semi-urban setting for its application in Montserrado.

Twenty-two local experienced enumerators were recruited and further trained to conduct the household interviews and the anthropometric measurements. Four of them were specially trained for the community interviews. The interviews were conducted in a combination of Liberian English and local tribal languages specific to the county and district. Pre-testing was undertaken in Mount Barclay, approximately 25 km away from the center of Monrovia, on 6 and 7 April 2005. The assessment survey team was split up into four sub-teams, each consisting of one supervisor, 4-5 enumerators and one community interviewer. In this way it was possible to cover four sites simultaneously. In each cluster 20 households were interviewed. Generally, due to the time required to travel to and from a site, not more than one site could be covered per day per sub-team

2.2.2 Secondary data collection

Various organizations in Monrovia were visited to collect information relevant for the assessments. The subjects of interest included food security, nutrition, health, agriculture, population and migration. The organizations visited included Food and Agriculture Organization (FAO), UNICEF, Liberia Refugees Repatriation and Resettlement Commission (LRRRC), the government body responsible for registration and repatriation of IDPs), Ministry of Planning, Save the Children UK, Action Contre la Faim (ACF), International Committee of Red Cross (ICRC) and United Nations Humanitarian Information Centre (HIC).

Reports on vulnerability assessments conducted in various counties were available from the Liberia WFP CO. Particularly relevant were the reports on the assessment conducted in Lofa in January 2005 and in Nimba in March/April 2004. From ACF a report was obtained of a food security assessment in three districts in Lofa in December 2004 and one on the food security situation of IDPs. UNICEF provided an unpublished report on the nutritional situation of the population living in Nimba in the border area with Ivory Coast, and ICRC provided data on their seeds and tools distribution activities in Lofa in January-April 2005.

2.2.3 Sample size

The sample sizes for the household food security and the nutrition surveys were calculated using the following equation:

$$n = \frac{D \times Z^2 \times p(1-p)}{d^2}$$

where n = sample size
Z = z value corresponding to 95% confidence level = 1.96
p = expected prevalence
d = precision
DEFF = design effect

Given that a predominantly two-stage sampling method was used (with the exception of bigger sites, where three-stage sampling was used), D was set at two. Values for p were obtained from reports on previous surveys. As there are no internationally agreed upon indicators for household food security, this assessment employed, as a trial, the proportion of households where the number of meals taken by children in last 24 hours was less than two. This proportion ranged from 0.55 in Montserrado to 0.77 in Lofa (table 2.2). The sample size for the nutrition survey was calculated on the basis of the expected prevalence of Global Acute Malnutrition (GAM), which ranged from 2.6% in Lofa to 5.6% in Montserrado (table 2.2). To be on the safe side, p was set at 0.50 for the food security surveys, and at 0.03 for the nutrition surveys in all three counties. The precision (d) was set at 0.10 and 0.03 for the food security and the nutrition surveys, respectively. Thus, the sample size calculations resulted in a minimum sample size, for each county, of 192 households for the food security survey, and 405 children aged 6-59 months for the nutrition survey. To estimate the required number of households for the nutrition surveys, the number of children was divided by 1.28, which was found

to be the mean of number of children 6-59 months of age per household in a previous survey[6]. This resulted in a minimum sample size of 316 households per county for the nutrition surveys.

To account for contingency losses of data (e.g. due to unavailability of eligible children, missing or erroneous data, etc.), the required sample size for the nutrition surveys was increased by 25%, i.e. to 400 households per county. Furthermore, it was decided to use these samples for the household's food security surveys as well.

Given the time available for data collection, the available manpower, and other logistical constraints, it was calculated that the 400 households per county could best be covered by selecting 20 clusters of 20 households each.

Table 2.2 - Sample size for surveys

Assessment component	Basis indicator employed	County	Expected prevalence		Required sample size	
			(%)	Date	Households	Children 6-59 months of age
Food security	Proportion of households where the number of meals taken by children is less than two in the last 24 hours	Lofa	77	Dec 2004[1]	192[6]	(n.a)
		Nimba	60	Feb 2005[2]		
		Montserrado	55	Jan 2005[3]		
		Total				
Nutrition	Prevalence (%) GAM	Lofa	2.6	Feb 2005[4]	316[7,8]	405
		Nimba	3.7	Feb 2005[2]		
		Montserrado	5.6	Jan 2004[5]		
		Total				

[*Source*] [1] ACF. (2004) *Food security report –Lofa county*. Monrovia, ACF Liberia: 13-14.
[2] WFP. (2005) *Nimba food security and nutrition assessment*. Monrovia, WFP Liberia: 13-16;19-20.
[3] ACF. (2004) *Food security report –IDPs Montserrado/Margibi/Bong*. Monrovia, ACF Liberia: 7-8.
[4] WFP. (2005) *Lofa county food security and nutrition assessment*. Monrovia, WFP Liberia: 22-23
[5] OCHA. (2004) *Situation report no.81*. Monrovia, OCHA Liberia: 2-3.
[*Note*] [6] Design effect = 2; z = 1.96; precision = 0.10; expected prevalence = 0.50
[7] Design effect = 2; z = 1.96; precision = 0.03; expected prevalence = 0.05
[8] Assuming 1.28 children aged 6-59 months per household

2.2.4 Sampling methods

Sampling frame

A two- or three-stage random sampling design based on Probability Proportionate to Size (PPS) was employed to select 20 clusters in each county. The first stage consisted of a random selection of 20 clusters in each county. The second stage consisted of the selection of 20 households in each cluster. In big sites, which usually comprised more than one cluster, an intermediate sampling stage was introduced: The random selection of quarters from a list comprising all quarters, and constituted with assistance of the local authorities.

This procedure requires the availability of a complete and up-to-date list of villages/towns and their population numbers. These lists were not readily available. Therefore, for the assessment in Lofa, the list that ICRC compiled in December 2004 in preparation of their seeds and tools distribution was used as a sample frame. This list contained the names of the distribution sites and the corresponding numbers of beneficiary families who had presented themselves for registration. The limitation of using this list was that it did not contain the names of all villages and towns, but only the distribution sites and the number of registered beneficiaries may not have been an accurate reflection of the population numbers. However, it was felt that, even if the numbers were exaggerated by possible double registrations, this list would still allow proportionate sampling if it were assumed that the degree of overestimation was the same for all sites.

[6] WFP. (2005) *Lofa county food security and nutrition assessment*. Monrovia, WFP Liberia: 6-21.

For the assessments in Nimba and Montserrado, the P-codes lists[7] compiled by HIC were used as a sampling frame. These lists contain the names of even the smallest sites and their unique P-codes (kind of postal codes), and provide information on their location (Global Positioning system (GPS) co-ordinates), the number of houses, accessibility and basic facilities. The lists are compiled on the basis of information obtained from meetings with community leaders, and updated versions can be downloaded from the HIC website. The P-codes list of Montserrado provides data on Greater Monrovia District, but excludes the city of Monrovia due to the difficulty of collecting that information. For the same reason, the city of Monrovia – but not the peri-urban zone - was excluded from the sampling frame.

The P-code lists of HIC contained the names of many very small communities, sometimes consisting of not more than 10 houses. Selecting such a site would require an additional site to be assessed in order to attain the minimum number of 20 households. It was anticipated that this procedure would take significantly more time and prevent the assessment from covering the targeted number of clusters (= 20). Therefore, it was decided to exclude communities comprising less then 50 houses from the sampling frame for Nimba and Montserrado. Furthermore, it was decided to exclude Vahun district in Lofa county from the sampling frame due to its extremely difficult accessibility[8].

Sampling methods

The clusters were selected from the ICRC's distribution lists (for Lofa) and the HIC's P-codes lists (for Nimba and Montserrado) as the sampling frames by systematic sampling. The sampling interval was obtained by dividing the total number of registration units (families on the ICRC list for Lofa; houses for the HIC lists used for Nimba and Montserrado) per county by 20, i.e. the required number of clusters.

The outcome of the selection of the sample sites for the three counties is presented in Table 2.3. Three of the selected sample sites, one in Lofa county and two in Nimba county, could not be reached due to impassable bridges. Then, the sites located in the neighbourhood were sampled as the replacement sites. One of the selected sites in Nimba county (Zeekapa) was cancelled due to time constraints.

An assessment sub-team visiting a survey site consisted of two pairs of enumerators and a supervisor. In smaller sites, after having explained to the community leaders the purpose and procedures of the assessment, the supervisor assigned to each pair of enumerators a starting point for the selection of households. These could be located at different sites at the edge of the community, or in the geographic center.

The next households to be interviewed were selected by walking to the center of the village (when the first house was at the edge of the community) or to the edge of the community (when the starting point was in the centre), each time skipping a number of houses. The number of houses to be skipped was proportionate to the estimated number of houses in the community. When the starting point was in the center of the community, the direction in which the teams would walk was determined randomly by using a spinning pencil, and both pairs of enumerators would walk in opposite directions.

In larger communities (cities), first two quarters were selected randomly for the assessment. The procedure for the selection of houses in these quarters was the same as the one used in smaller sites in the above.

When there were more than one households residing in a selected house, one of them was further sampled randomly. WFP's definition of a household was employed, i.e. '*a social unit composed of individuals with generic or social relations among themselves under one head or leader, living under the same roof, eating same pot and sharing a common resource base*'[9].

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[7] "P-code" is an abbreviated term for "Place Code". "P-codes" are similar to zip codes and postal codes and are part of a data management system that provides unique reference codes to thousands of locations in Liberia. These codes provide a systematic means of linking and exchanging data and analyzing relationships between them. Any information that is linked to one location with a "P-code" can be linked and analyzed with any other. (http://www.humanitarianinfo.org/liberia/infocentre/pcodes/index.asp)

[8] For this same reason, WFP has not yet launched activities in Vahun district.

[9] WFP (2002) *Emergency field operation pocketbook*. WFP: Rome, 22-23.

Table 2.3 - Sample sites by county and district

County	District	Sample site	Code	No of clusters sampled	Date of visit	No of samples	
						Households	Children
Lofa	Foya	Foya City / Kpello/Fornin	2110	2	14 & 15 April	40	36
		Shelloe / Wollidu	2110	1	13 & 14 April	20	20
	Kolahun	Kolahun / Nyewelehu	2112	2	15 & 17 April	39	31
		Popalahun	2112	2	16 April	20	15
		Masambolahun	2112	1	16 April	20	18
	Salayea	Gorlu	2114	1	13 April	20	13
		Ganglota	2114	1	13 April	20	16
	Vahun	(Not covered)*	2116	0	(Canceled)		
	Voinjama	Voinjama	2118	2	12 April	40	34
		Sakomedu	2118	1	17 April	20	26
		Velezala	2118	1	14 April	20	1
		Lawalazu	2118	1	15 April	20	21
		Bakiedou	2118	1	15 April	20	21
		Yandizu	2118	1	14 April	20	18
	Zorzor	Bokeza	2120	1	16 April	20	18
		Fissibu	2120	1	16 April	19	18
		Wozi	2120	1	16 April	20	10
	Sub-total			20		378	316
Nimba	Gbehlageh	Bleemieplay	3302	1	23 April	20	20
		Kparplay	3302	1	23 April	25	24
	Saclepea	Saclepea	3304	1	21 April	11	14
	Sanniquelleh-Mahn	Ganta	3306	5	19 & 21 April	100	99
		Gbuyee	3306	1	21 April	20	11
		LAMCO Camp	3306	2	22 April	40	25
		Sanniquelleh + Gehwee	3306	2	22 April	40	44
	Tappita	Yreah	3308	1	20 April	20	21
		Volai	3308	1	20 April	10	10
	Yarwein-Mehnsohnneh	Zeekapa	3310	1	(Canceled)	-	-
	Zoegeh	Beeplay	3312	1	20 April	20	25
		Display	3312	1	20 April	20	16
		Nanla	3312	1	23 April	18	9
		Tiaplay	3312	1	23 April	20	13
	Sub-total			20		364	331
Montserrado	Careysburg	Philip Farm	3002	1	27 April	16	21
		Central Kingsville	3002	1	27 April	20	14
	Greater Monrovia	Gardnersville	3004	2	26 April	40	38
		Barnersville	3004	1	28 April	20	10
		New Georgia	3004	1	26 April	20	10
		Chocolate City	3004	1	26 April	20	24
		Caldwell	3004	1	29 April	20	26
		Twe Farm	3004	1	29 April	20	14
		Day Break Mouth Open	3004	1	28 April	20	16
		Sayon Town	3004	1	29 April	20	20
	St. Paul River	Beverly Hills	3006	1	30 April	20	15
		Central Virginia	3006	1	30 April	20	15
		Mango Town	3006	1	29 April	20	18
		Freetown Virginia	3006	1	30 April	20	16
		Kenyayai	3006	1	30 April	20	18
		Brewersville	3006	1	28 April	20	29
		Perry Town	3006	1	28 April	20	22
	Todee	Koon Town	3008	1	27 April	20	20
		Division 13	3008	1	27 April	20	14
	Sub-total			20		396	360
Total				59		1131	1007

[*Note*] * See the text in 2.3.1.

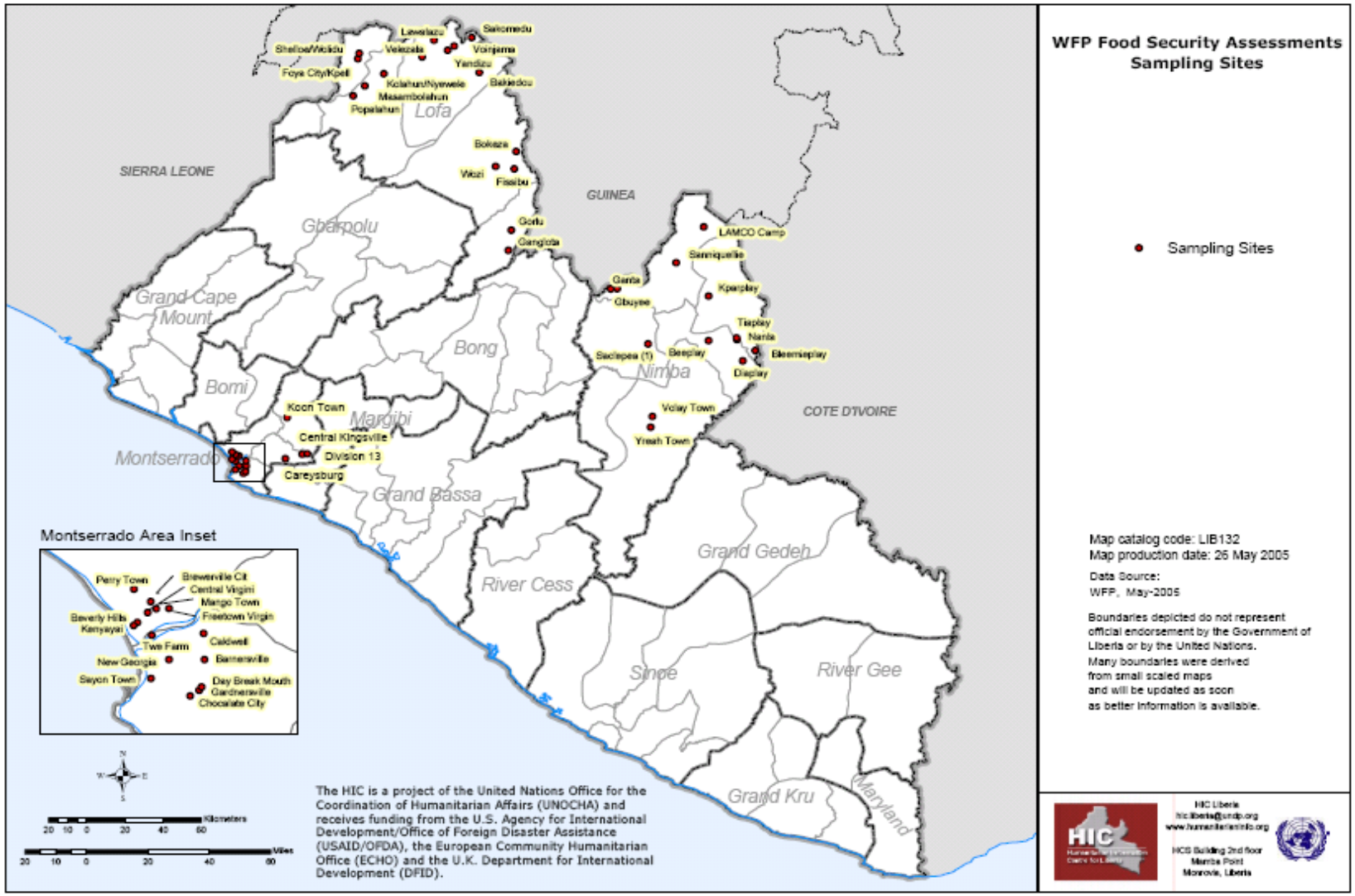


Figure 2.1 - Sampled sites

2.2.5 Data analysis

Descriptive analysis

Descriptive statistics (frequency distributions, proportions) were calculated to describe the samples of the three counties with regard to the questions included in the household questionnaire (demography, household status, water and sanitation, productive assets, agriculture, food consumption and source, occupation, and nutritional status of children of 6-59 months of age[10])

Nutritional status

EpiInfo© (version 10) was used to calculate the z-scores of the indicators for nutritional status such as z-scores of weight-for-height (WHZ), weight-for-age (WAZ), and height-for-age (HAZ), based on the United States National Center for Health Statistics (NCHS) reference values. GAM was defined as the status with WHZ<-2 or with edema, severe acute malnutrition as status with WHZ<-3 or edema. Cases which were flagged by EpiInfo© were excluded from the analysis. Due to absence of children 6-59 months of age during the assessment, or unavailability or errors in the date of birth, weight or height, indicators for nutritional status could not be calculated in 182 (16%) of 1135 eligible children. Thus, malnutrition indicators were calculated for 953 children in total.

Mortality

The interviewees of the household interview were asked to report the number of deaths in the household, as well as their age and the cause of death, over the last six months. Crude Mortality Rate (CMR) and Under-5 Mortality Rate (U5MR) were defined and calculated using the following formulas[11]. Recall time employed was 6 months (=183 days).

$$CMR = \frac{10000}{D} \times \frac{d}{n}$$

Where, *CMR* : Crude mortality rate (total deaths /10,000 people/ day)
D : Number of recall days (6 months = 183 days)
d : Number of deaths during recall period
n : Number of residents at the start of the recall period

$$U5MR = \frac{10000}{D} \times \frac{d_c}{n_c}$$

Where, *CMR* : Crude mortality rate (total number of deaths /10,000 people/ day)
D : Number of recall days (6 months = 183 days)
d_c : Number of deaths of children during under five years of age recall period
n_c : Number of residents at the start of the recall period

[10] In the following pages of this report, the term “children under five years of age” is used instead of “children of 6-59 months of age”.

[11] Sphere Project (2004) *Humanitarian Charter and Minimum Standards in Disaster Response*. Sphere Project: Geneva, 2004.

Morbidity

The occurrence of watery stools, cough/running nose, and fever during the last two weeks prior to the interview, as reported by the interviewees in the household interviews, was recorded.

Analysis of food access shortfall

Food access shortfall[12] was assessed by determining the gap between the actual food consumption pattern and a benchmark pattern considered to be typical for April in a "normal" year. In the absence of data from literature on the typical dietary pattern, this pattern was determined by the assessment team (table 2.6). Basically, the benchmark daily pattern consists of at least two meals daily, each composed of one staple food (rice, wheat or cassava), vegetables, and at least one of the animal products (meat, fish or poultry). Therefore, the households' food access shortfall was determined by comparing the actual food consumption pattern with the benchmark pattern, both in terms of meal frequency (two or more per day, or less than two), and in terms of frequency of consumption of the various food items (number of days per week). The households' actual food consumption pattern was assessed by recording for selected food items, the number of days they were consumed during the seven days preceding the interview, in addition to the number of meals on the day before the interview. By definition, the consumption frequencies ranged between 0 and 7.

Principal Component Analysis (PCA) and cluster analysis were used to identify, on the basis of the +-food consumption scores, major food consumption patterns. The steps taken for this analysis are to[13]:

- conduct PCA to identify several Principal Components (PCs) that more clearly explain diversity of frequency of consumption of food items;
- select, out of all the PCs created, whose number is equivalent to the number of food items, the PCs with greater variance of PCs scores (loadings) so that the cumulative variance would account for 85-90%; and
- classify the households into several groups according to PC scores (loadings) through cluster analysis.

ADDATI©[14] was used to conduct PCA and cluster analysis, and SPSS® (version 12.0) was used for the other statistical analyses. The above procedures of PCA and cluster analysis, resulted in a division of all households into four distinct food consumption categories (food consumption profiles), which differed from each other in the frequency of consumption of the various food items (i.e. in food diversity). Depending on the extent to which the food consumption profiles of these four categories diverged from the benchmark pattern, they were - somewhat arbitrarily - classified as adequate, acceptable, borderline and very poor, respectively (see 4.3).

[12] Emergency Food Security Assessment (EFSA) handbook recommends the term "*food access shortfall*" be used rather than "*food gap*". WFP (2005) *Emergency food security assessment handbook* (*1st edition*). WFP: Rome. 77-87.

[13] For the technical details, refer to "WFP (2005) *Thematic guidelines VAM analytical approach: Household food security profiles*, WFP: Rome"

[14] ADDATI is recommended for analyzing frequency of food consumption by the Vulnerability Analysis and Mapping (VAM) branch of WFP because it was developed explicitly for socio-economic and food security analysis by the University Institute of Architecture in Venice with the support from FAO.

Table 2.6 - Most likely dietary pattern in April in a "normal" year by county

	County		
	Lofa	Nimba	Montserrado
Number of meals per day	2	2	2 or 3
Minimum composition of a typical meal	▪ Rice / wheat / cassava ▪ Vegetables ▪ Meat / little fish	• Rice / cassava • Vegetables • Meat (bush) / little fish	• Rice / cassava • Vegetables • Fish / meat / chicken parts

To further assess compliance of the actual dietary pattern with the benchmark pattern, the four food consumption categories (profiles) were cross-tabulated with meal frequency (less than two, or two and more). This resulted in eight categories of households (table 2.7). These were classified, again somewhat arbitrarily, into four classes of food access shortfall or food (in) security: food secure, vulnerable (to becoming food insecure), moderately food insecure, and severely food insecure.

Table 2.7 - Definition of household food security level

Household food consumption profile	Number of meals per day [1]	
	≥ 2	< 2
Adequate	**Food-secure**	**Vulnerable**
Acceptable	**Vulnerable**	**Moderately food-insecure**
Borderline	**Moderately food- insecure**	**Severely food- insecure**
Very poor	**Severely food- insecure**	**Severely food- insecure**

[*Note*] [1] Mean of numbers of meals taken by adults and children

Analysis of relationship between household food security indicator and nutritional status

The relationship between the household food security indicator and nutritional status was tested. As a quantitative proxy indicator for a household's food security, the "food consumption score" was used as proposed in the Emergency Food Security Assessment (EFSA) handbook[15]. It is calculated by adding up the frequencies of consumption of the individual food items consumed. For example, if the following frequencies (number of days consumed in the previous seven days) were found: rice=5, wheat=3, cassava=0, vegetables=6, meat=2, fish=2, poultry=1, the food consumption score would be 5+3+0+6+2+2+1=19. By definition, the maximum food consumption score was equal to seven times the number of foods consumed. The weight-for-height z score was used as an indicator for nutritional status[16].

To examine the relationship between"food consumption scores" and z-scores for nutritional status, Spearman's correlation coefficients (ρ) were calculated

[15] WFP (2005) *Emergency food security assessment handbook*. WFP: Rome,

[16] Height-for-age was not considered to be an appropriate indicator for this purpose as it reflects health and nutrition over a long period prior to the assessment, and it is not sensitive to quick changes in health and nutrition. To some extent this is also true for weight-for-age, as this index is partly determined by height.

2.3 Limitations of the study

Use of the ICRC distribution list, which did not include all communities, as a sampling frame may have reduced the representativeness of the sampling frame of Lofa county. Also, exclusion of small villages with few houses (< 50) from the HIC's P-code list may have caused a sampling bias for Nimba and Montserrado.

Due to time constraints and its extremely poor accessibility, Vahun district of Lofa county was not covered by the assessment. Furthermore, in Nimba, one of the selected villages in Nimba (i.e. Zeekapa) could not be covered due to time constraints, and two villages that were inaccessible due to impassable bridges, had to be replaced by other villages. This may also have caused some bias.

Also due to time constraints, it was not possible to train the enumerators properly in diagnosing oedema. Therefore, it was decided not to assess oedema, and to use it as a criteria for acute malnutrition. This may have resulted in a slight bias (underestimation) of the prevalence of malnutrition, because children exhibiting oedema, but nonetheless having an adequate weight-for-height, were wrongly classified as well-nourished.

Chapter 3

SOCIO – ECONOMIC BACKGROUND

3.1 Pre-crisis condition

Lofa and Nimba counties used to be called the "breadbasket" of Liberia, indicating the importance of agriculture in both areas. Subsistence farming is the major occupation of the population of Lofa county, and rice is by far the predominant staple food in Liberia. Lofa and Nimba counties used to be the major rice producing areas in Liberia. There are two types of rice cultivation: upland and lowland. Lowland or "swamp" cultivation is the production of rice in the swamps in the valleys, whereas upland rice is dry rice grown on the slopes of the hills. Swamp rice is sown in July, and upland rice in May. The rice is harvested in October-November. "Slash and burn" is the most commonly practised upland farming system. Shortly before the start of the rainy season in May, a stretch of forest is cleared and burned, and subsequently cultivated for one or two years.

Lofa county has a very poor road infrastructure. The districts of Foya, Kolahun and Vahun are particularly affected, and almost isolated in the rainy season.

Nimba was less affected by the war than Lofa. Fewer people than in Lofa moved from their villages, and there was less damage to infrastructure. Just like Lofa county, Nimba has a serious road infrastructure problem. While the problem in Lofa is caused by muddy roads, in Nimba it is due to the numerous bridges that are in a poor condition. This makes many villages and towns almost inaccessible.

Montserrado county hosts the capital Monrovia. The population of Greater Monrovia depends for its income largely on non-agricultural sources of income.

3.2 Demography

Table 3.1 and 3.2 show demographic characteristics of households covered by the assessment.

Table 3.1 - Household residential status by county (percentage of households)

Status	Lofa (n_1 = 378)	Nimba (n_2 = 364)	Montserrado (n_3 = 396)
Resident*	14.3%	77.0%	62.4%
Resident host	1.6%	0.8%	3.3%
Returnee	79.9%	11.6%	29.9%
Internally Displaced Persons (IDPs)	4.0%	10.6%	4.4%
Total	100.0%	100.0%	100.0%

[*Note*] * Households who had not moved during the war

Table 3.2 - Sex of household heads household by county

Status	Lofa (n_1 = 378)	Nimba (n_2 = 363)	Montserrado (n_3 = 396)
Male	63.5%	63.6%	60.1%
Female	36.5%	36.4%	39.9%
Total	100.0%	100.0%	100.0%

Lofa

Lofa county was hardest hit by the conflict of all counties. Most of its inhabitants had fled their homes, and lived for years as refugees in Sierra Leone or Guinea, or as Internally Displaced Persons (IDPs) elsewhere in Liberia. After the peace agreement in August 2003, the people started repatriation little by little in 2004. Information provided by LRRRC, United Nations High Commissioner for Refugee (UNHCR) and ICRC indicates that the speed of repatriation – both organized and spontaneous - accelerated during the last months of 2004. The LRRRC office in Voinjama reported 23,000 returnees (IDPs and refugees) in March alone. UNHCR reported to have repatriated 4483 refugees between 14 February and 10 April, the great majority of the adults of whom were women.

Eighty percent of the households in the samples in Lofa were returnees (Table 3.1). The majority of them returned in 2004 (61%) and 2005 (31%). Zorzor was the district with the highest proportion of households (45%) that returned in 2005.

Fifty-four percent of the households interviewed in Lofa stated to have one or more members still living elsewhere, half of whom were expected to come back in less than three months. The most frequently mentioned reasons for these members still living elsewhere were: no means to bring them back (27%), waiting for repatriation (20%), and no means to support them back home (18%). In about one-third of the households in Lofa as well as the other two counties, the head was female (Table 3.2).

Due to the war, most people had lost their belongings. From visual screening, it was clear that much of the infrastructure in Lofa county, including houses, was damaged or destroyed during the war. Therefore, most of the inhabited houses were now shared by up to three or more returnee households. Furthermore, many returnees were busy constructing or rehabilitating houses. In the community interviews, a great need was expressed for zinc for roofing. Concern was also expressed for the fact that, due to the construction work, less time was available for cultivation.

Nimba

In Nimba county, the percentage of households classified as “returnee” was much lower than in Lofa (29.9% vs. 79.9%; Table 3.1). Nimba was less affected by the war than Lofa, and fewer people moved. Moreover, UNHCR had not yet started organised repatriation in Nimba. In 2004, refugees from Ivory Coast crossed the border and settled mainly in the border area in Zoegeh District. Meanwhile, many of them seem to have returned, whereas those remaining have been absorbed by the communities.

Montserrado

Montserrado county hosts the capital Monrovia. It has a big population, mainly located in Monrovia and its surroundings. The urban and sub-urban population depends to a large extent on non-agricultural employment. During the war, Montserrado was a net receiver of IDPs, and it had several

big camps. The presence of the IDPs increased pressure on the labour market, and the unemployment rate is still high.

3.3 Population estimate

There is no reliable population data for post-war Liberia due to the large population movements that have occurred, and still occur. The assessment team estimated the population numbers of the counties covered in this assessment as follows:

- *Lofa* The P-codes list of HIC listed a total of 69,000 housing units. Assuming five persons per housing unit, there would be 345,000 people. However, as this data were collected before or at the beginning of the organised repatriation started, there may have been 50% more people at the time of the assessment, i.e. approximately 500,000;

- *Nimba* The P-code list of HIC list indicates a total of 68,272 housing units, which might correspond with approximately 341,000 people. As well as Lofa, Nimba receives returnees, but the organized repatriation has not yet started, and that in Nimba less people moved than in Lofa;

- *Montserrado* The P-code list of HIC indicated a total of 37,000 housing units, which might correspond to approximately 200,000 people. It should be noted that the P-code list of HIC did not include the population residing in the city of Monrovia because of the difficulty of collecting reliable information there. For the same reason, the population of the city of Monrovia (but not the urban periphery) was also excluded from the sampling frame of the present assessment. Montserrado including the city of Monrovia may have about one million inhabitants.

Chapter 4

Food Security and Nutritional Status

4.1 Food availability

Lofa

The majority of the population of Lofa returned this year or last year. Among those who returned last year, many arrived late and missed the farming season. Lack of seeds and tools was another problem they faced, as reported in the community interviews. All in all, farming activities were limited last year, and the harvest fell short of the needs. As a result, many people now have to buy rice instead of using their own stock. The problem of the small harvest is compounded by the steady influx of new returnees with whom the scarce resources, including food, have to be shared. This is to some extent compensated by the food that registered IDPs receive when they return to their place of origin. The ration consists of food for four months for each household member. This ration is distributed in two batches: the first one when they return and the second one two months later. However, there have been some complaints that the second batch was not received.[17]

Rice was available on the market, but was expensive. In the community meetings, the price was reported to be L$[18] 15-25 a cup, L$ 45 per kg, or (approximately) L$ 1800 per bag. The price depended on the accessibility of a major market, and therefore tended to be higher in remote locations. The road conditions are notoriously bad in Lofa county, and rehabilitation of the roads was frequently mentioned as a priority in the community interviews.

Nimba

Food availability is not a problem in Nimba. Food is on the market, but it is expensive.

Montserrado

Also in Montserrado, food is on the market, but the price is high.

[17] ACF (2006) *Food security report Internally Displaced Persons (Montserrado, Margibi and Bong IDP Camps/ Bomi and Grand Cape Mount Communities, January-February 2005*. ACF: Monrovia.

[18] The conversion rate for the L$ was as follow in mid july 2005, One Liberian Dollar (L$) = 0.01754 US Dollar.

4.2 Food access and livelihood

Agriculture

Farming is the main livelihood activity of the respondents in Lofa and Nimba counties. Ninety-two percent and 81% of the households in Lofa and Nimba, respectively, had access to farmland (Table 4.1). In Montserrado county, which has a more urban or semi-urban character, this was 47%. It should be born in mind, however, that the city of Monrovia was not included in the Montserrado sample. In Lofa, access to agriculture land apparently has improved since January 2005, when more than half of returning households was reported to have no access.[19] In Lofa and Nimba, approximately 80% of those who had access to land, stated that they owned or inherited the land, whereas 12% squatted by permission. In Montserrado, 33% squatted.

Table 4.1 - Access to agriculture land and type of access by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 369)	Nimba (n_3 = 364)
Access to agriculture land	91.5%	47.2%	80.5%
out of whom:			
- Owned/inherited	83.5%	55.6%	82.0%
- Squatted by permission	12.6%	33.7%	12.8%
- Other (rent, share cropping)	3.9%	10.7%	5.2%

In April, when the assessment was carried out, the fields for upland farming in Lofa and Nimba were prepared by felling and burning the trees, and clearing the land. However, more than 20% of those who had access to land, stated they were not farming (Table 4.2).

Table 4.2 - Reasons for not farming by county

Status	Lofa (n_1 = 346)	Montserrado (n_2 = 187)	Nimba (n_3 = 293)
Households with land but not farming	21.8%	34.2%	25.9%
Reason for not farming:			
- No tools	33.3%	56.3%	34.2%
- No seeds/planting material	45.3%	51.6%	34.2%
- No access to labor	13.3%	25.0%	18.4%
- Late return	26.7%	3.1%	5.3%
- Other	34.7%	17.2%	42.1%

Lack of resources was a problem in all communities. Major reasons for not being engaged in farming were: lack of tools, no seeds or planting materials, and no access to labor. More details on the lack of productive assets are presented in Table 4.3. It shows that a high percentage of the respondents in Lofa and Nimba who had access to land, stated they did not have basic tools such as cutlass, axe, hoe or digger, shovel and files. In Montserrado, this percentage is even higher, although this is not surprising for a county with a predominantly urban or semi-urban character. However, also the possession of tools and assets that are more appropriate in an urban environment, such as construction and building tools, wheelbarrow, equipment for food preparation, was very limited (Table 4.3).

[19] WFP Liberia. *Lofa County food security and nutrition assessment. Februari 2005*. WFP: Monrovia.

Table 4.3 –Percentage of households not disposing of selected productive assets.

Tool	Lofa * (n_1 = 346)	Nimba * (n_2 = 293)	Montserrado (n_3 = 396)
Agricultural tools			
- Cutlass/axe	22.5%	21.8%	(*Not applicable*)
- Hoe/digger	59.0%	49.1%	(*Not applicable*)
- Wheelbarrow	98.6%	95.2%	(*Not applicable*)
- Shovel	85.5%	90.1%	(*Not applicable*)
- Files	87.9%	80.2%	(*Not applicable*)
- Farming tool			62.6%
Industrial tools **			
- Construction/building tools	(*Not applicable*)	(*Not applicable*)	93.7%
- Push-push	(*Not applicable*)	(*Not applicable*)	91.4%
- Workshop tools	(*Not applicable*)	(*Not applicable*)	98.2%
- Food processing tools	(*Not applicable*)	(*Not applicable*)	76.2%

[*Note*] * Only households with access to agriculture land were requested to answer the question.
** The questions regarding possession of industrial tools were asked only to the households in Montserrado.

"Late return" was another frequently mentioned reason for not being engaged in farming in Lofa county. Among those whose response was categorized as "other", there were a quite number of farmers who did not have the intention to engage in upland farming, and who were just waiting for the start of the lowland rice cultivation season in June-July. Those who said they had no time for farming, were busy doing other essential activities, such as construction of houses, or casual labor or petty trade to make an income.

Table 4.4 presents the data on the crops the respondents with access to farmland were cultivating, or intended to cultivate. Approximately two-third of the farmers in Lofa and Nimba cultivates rice, and one-third cultivates potatoes/eddoes and maize. In Nimba, cassava is grown by 65%, whereas this is only 38% in Lofa. In Montserrado, cassava, potatoes/eddoes, maize and vegetables are the predominant crops, and only 15% grow rice.

The respondents were asked how long they expected the rice and/or cassava harvest would last for the household (Table 4.5). In Lofa and Nimba, about half of them expected the rice harvest (due in October-November) to last for 4-6 months, and 40% expected it to last longer. In Montserrado, 62% replied that the rice would last less than 4 months. In Nimba, 45% of the farmers expected the cassava harvest to last 10-12 months, whereas this percentage is 15-24% in Montserrado and Lofa.

With the exception of chickens and ducks, the possession of livestock is almost non-existent in Lofa and Montserrado counties (Table 4.6). In Nimba, some households also have some goats, pigs or sheep.

Table 4.4 – Type of crops households are cultivating/intend to cultivate

Crop	Lofa (n_1 = 346)	Montserrado (n_2 = 187)	Nimba (n_3 = 293)
Rice	72.5%	15.0%	62.8%
Cassava	38.4%	45.5%	65.5%
Potatoes/eddoes	36.7%	29.9%	33.4%
Maize	38.4%	27.3%	35.5%
Beans	39.9%	2.1%	16.7%
Groundnuts	17.3%	3.7%	8.9%
Bitterballs	50.3%	26.7%	44.7%
Pepper	54.6%	31.6%	52.9%
Vegetables	42.2%	40.1%	41.6%
Cacao	6.9%	0.5%	8.2%
Coffee	7.2%	0%	4.8%
Oil palm	5.5%	0.5%	5.8%
Sugar cane	3.5%	8.0%	7.2%
Rubber	0.6%	1.1%	4.1%

Table 4.5 - Number of months the harvest is expected to last for the households

Number of months	Rice			Cassava		
	Lofa (n_1=246)	Montserrado (n_2=62)	Nimba (n_3 =184)	Lofa (n_1=150)	Montserrado (n_2=84)	Nimba (n_3 = 183)
0-3	9%	63%	12%	43%	51%	15%
4-6	50%	26%	46%	24%	25%	27%
7-9	19%	3%	23%	9%	8%	13%
10-12	22%	8%	20%	24%	16%	45%

Table 4.6- Possession of livestock (percentage of households)

Status	Lofa (n_1 = 346)	Montserrado (n_2 = 187)	Nimba (n_3 = 293)
Chicken	34.4%	43.7%	40.6%
Ducks	6.3%	10.4%	9.4%
Goat	1.1%	0.3%	10.3%
Pig	0.3%	0.3%	8.3%
sheep	0.8%	0%	6.1%

Sources of income

The major sources of income in Lofa and Nimba are reported to be the sale of crops (food crops and cash crops), casual and/or agricultural labour and small business and petty trade (Table 4.7). Sale of cash crops (including sale of oil palm products) is particularly prevalent in Lofa. In Montserrado county, sale of crops was less important, but salary-based employment and skilled labour were more prominent. Due to lack of reference data, it is not known if the presently found proportions of people resorting to activities such as selling crops and/or casual or agricultural labour are normal for this time of the year, or whether they reflect increased coping behaviour.

Table 4.7 - Major sources of income by county (percentage of households)

Source of income	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Sales of food crops	13.0%	6.8%	14.8%
Sales of cash crops[1]	30.2%	4.0%	15.4%
Sale of fruits/vegetables	3.7%	2.3%	4.9%
Sale of bush meat/fish	6.3%	1.3%	2.5%
Salaried employment	4.2%	23.7%	9.6%
Skilled labor/handicrafts	4.8%	15.7%	5.2%
Sale of firewood/charcoal	1.9%	5.1%	6.0%
Casual/agricultural labor	17.2%	10.6%	17.0%
Small business/petty trade	12.7%	22.7%	21.7%
Other	6.3%	6.7%	2.9%

Credit and savings

Access to credit is best in Nimba, and worst in Lofa county where 60% of the households has *no* access to credit (Table 4.8). This percentage tends to be slightly higher than in January, when 60-94% reported to have no access to credit. In Lofa, people mainly credit from relatives or friends (93%), whereas in Montserrado and Nimba, 24% and 46% of the households, respectively, also use local lenders and Susu clubs to get money (Table 4.9). The percentage of households who are able to make cash savings or lend out in cash or kind is highest in Nimba and lowest in Lofa. In Lofa, only 10% of the households declared to make cash savings, versus 28% in Nimba. Montserrado takes an intermediate position for all three variables. Clearly, with regard to credit and savings, Lofa is worst off. This is another signal that life in Lofa is more disrupted than in Montserrado and Nimba, and that access to food is more difficult there.

Table 4.8 – Access to credit, savings, and lend out

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Access to credit	39.4%	52.5%	63.7%
Cash savings	10.1%	18.2%	27.8%
Lends out in cash or kind	22.8%	42.9%	45.4%

Table 4.9 – Sources of credit

Status	Lofa (n_1 = 148)	Montserrado (n_2 = 208)	Nimba (n_3 = 232)
Relatives, friends	93.2%	76.4%	58.6%
Lenders, susu club	4.1%	24.5%	46.6%
Charities, NGOs	2.7%	1.9%	1.3%
Church, mosque	2.0%	1.4%	1.3%

Sources of food

Rice is the main staple food in Liberia. As shown in Table 4.10, approximately 75% of the households in Lofa and Nimba counties stated they had purchased most of the rice they consumed. Own production was the major source of rice in only 14% and 21% of the households in Lofa and Nimba respectively. As expected, in the highly urban or semi-urban county of Montserrado, almost all households (95%) purchased the rice they consumed.

In the absence of reference data for sources of food in a "normal" year, it is difficult to interpret the figures for Lofa and Nimba. In these counties, the food sources are expected to be mixed (i.e. purchased and own production) in April, but the share of own production might have been bigger than presently found, if there had been a normal harvest last year. This might particularly be true for the rural counties of Lofa and Nimba. Twenty-two percent of the households in Lofa reported not to have eaten rice at all in the seven days preceding the interview.

The sources of wheat are quite similar in the three counties: Most households - about 86% -purchased it, whereas only 8-12% received it as a gift and/or from food aid. This is remarkable in view of the fact that Lofa has had a large-scale influx of returnees who, if they were registered in camps, had a returnee package containing considerable quantities of wheat. Apparently, this wheat is sold, traded or exchanged upon arrival in the village, or even before.

As a crop and food, cassava is more important in Nimba than in the other two counties. In Nimba, almost 50% of the households consumed home produced cassava in the week preceding the interview, whereas this was only 32% and 21% in Lofa and Montserrado respectively. Around 60% of the households in Lofa and Nimba consumed home produced vegetables, versus 37% in Montserrado. The share of purchased meat, fish and poultry was greater than 50% in all three counties. In Lofa, half of the households consumed home produced palm oil. In the other counties, this was considerably less.

Action taken by the partners

- UNHCR has a repatriation programme for refugees in Lofa. Returning refugees get a returnee package containing a food ration for four months (provided in two batches, the second one after two months) for each family member.
- ICRC has distributed seeds and tools in Lofa (Vahun, Kolahun, Salayea, Foya and Voinjama districts) during January-April 2005. The distribution in Lofa was based on registrations of returnees in October and December 2004. ICRC estimates that 41,000 households have benefited from the tools distribution and 37,000 from the rice and beans seeds distribution. The intention was to provide each beneficiary household with 20 kg of rice seed. Monitoring by ICRC has shown that average actual quantities received are lower, possibly due to "dilution" resulting from sharing with families who returned after December and therefore were not registered by ICRC. The tools distribution programme intended to distribute a hoe and cutlass to each registered beneficiary household, and distribute axes, hammers, saws, nails, files, shovels and wheelbarrows for shared use between households. Tools have also been distributed in Nimba (3,000 beneficiary households). ICRC also has a rice multiplication programme in Lofa (Sammai Town, Saquonadu, Kugbemai) and Nimba (Kealay, Deoblee,Dubuzon). Bouaké 189 and Nerica have been chosen to be developed for lowland and upland farming, respectively.
- ACF has activities mainly in the field of water and sanitation.
- Peacewinds (Japan) assists particularly in the reconstruction of houses by providing zinc.

Table 4.10 – Major sources of food items consumed at least once in the seven days preceding the interview

Food item	Major source	Lofa	Montserrado	Nimba
		% of households*		
Rice	Purchase	77.6	94.9	74.9
	Own production	13.9	0.8	21.1
	Gift	5.8	3.7	1.1
	Food aid	-	0.3	-
Wheat	Purchase	84.3	86.1	87.8
	Own production	0.8	-	0.6
	Gift	7.3	7.7	4.4
	Food aid	4.0	5.7	3.3
Maize meal	Purchase	80.9	81.1	100.0
	Own production	4.3	-	-
	Gift	6.4	11.3	-
	Food aid	4.3	7.5	-
Cassava	Purchase	58.6	71.9	46.0
	Own production	32.0	21.3	48.9
	Gift	7.8	6.2	3.2
	Food aid	-	-	-
Vegetables	Purchase	27.1	62.2	39.6
	Own production	64.8	36.7	55.1
	Gift	6.1	0.5	4.0
	Food aid	-	-	-
Beans	Purchase	71.4	85.4	83.3
	Own production	14.1	-	7.4
	Gift	8.0	8.9	6.5
	Food aid	5.0	5.1	2.8
Fish	Purchase	72.8	97.0	88.5
	Own production	18.9	1.6	9.9
	Gift	3.3	1.6	9.9
	Food aid	-	-	-
Meat	Purchase	62.2	94.9	67.5
	Own production	23.5	1.0	24.6
	Gift	6.7	4.0	4.0
	Food aid	-	-	-
Poultry	Purchase	42.9	93.4	66.7
	Own production	42.9	4.8	29.2
	Gift	10.7	1.8	4.2
	Food aid	-	-	-
Palm oil	Purchase	39.2	91.0	70.3
	Own production	51.4	7.4	28.9
	Gift	5.8	1.1	0.6
	Food aid	-	-	-
Agro oil	Purchase	68.8	90.6	89.7
	Own production	6.3	2.9	6.9
	Gift	25.0	6.5	3.4
	Food aid	-	-	-
Eggs	Purchase	80.0	96.5	90.0
	Own production	10.0	3.5	10.0
	Gift	10.0	-	-
	Food aid	-	-	-
Milk (liquid or powder)	Purchase	100.0	100.0	100.0
	Own production	-	-	-
	Gift	-	-	-
	Food aid	-	-	-
Bread	Purchase	95.7	94.1	87.1
	Own production	2.1	0.7	7.5
	Gift	-	5.1	4.3
	Food aid	2.1	-	-
Sweets, sugar	Purchase	92.2	96.3	96.3
	Own production	-	0.9	0.9
	Gift	-	-	-
	Food aid	-	-	-

[*Note*] * Only the most frequently mentioned response options are listed in the table. Therefore, the percentages per food item per county do not necessarily add up to 100%. The balance is made by the other, rarely mentioned response options: Borrowed, Remittances, Exchange services, Traded goods, and Other.

4.3 Household food security profile

Meal frequency

Table 4.11 shows that the proportion of adults having only one meal per day in Lofa (72%) was higher than in Nimba and Montserrado (58 and 50% respectively). If it is assumed that two meals per day are consumed under normal conditions, the presently observed meal frequency in adults seems low, and is possibly depressed as a consequence of reduced access to food. In all the three counties, the proportion of children having two meals per day was greater than that of adults. Reducing food intake and meal frequency among adults in favour of the children, are two of the most frequently mentioned coping strategies in the household interviews. No association was found between meal frequency and sex of the head of household, the size of the household or dependency ratio on the other.

Table 4.11 – Number of meals per day by county (percentage of households)

	Number of meals per day	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Adults	0	0%	0.3%	0.3%
	1	72.5%	57.9%	50.4%
	2	24.8%	37.3%	45.7%
	3	2.4%	4.3%	3.6%
	4	0.3%	0.3%	0%
Children	0	0%	0.5%	0.3%
	1	30.6%	35.8%	23.8%
	2	60.0%	50.0%	62.6%
	3	9.1%	13.5%	13.2%
	4	0.3%	0.3%	0%

Analysis of the frequency of consumption of the major food items, revealed four major household food consumption profiles[20]:

1. Poor food consumption

Figure 4.1 shows the profile of the households with poor food consumption. None of the major food items are consumed every day. Even rice, the commonest staple food in Liberia, is not consumed daily in these households. The most frequently consumed items in this profile (4-5 days per week) are vegetable and palm oil as well as rice. Except for fish, which is consumed sometimes (2-3 days/wk), all the other animal protein (meat, poultry, or egg) are rarely or never consumed (0-1 days/wk).

The dietary pattern of the households classified into this profile by far does not meet the pattern typical for April in a normal year. (Table 2.6), nor does it meet the requirements of a healthy, diverse diet in general. Of 1138 households in the three counties, 424 (37.3%) are classified into this group.

[20] Note that the coloured cells in Figures 4.1, 4.2, 4.3 and 4.4 indicate the mean frequency of consumption of the major food items in the households classified into the respective profiles.

Profile 1	Frequency of consumption (days per week)			
	Always (6-7 days)	**Often (4-5 days)**	**Sometimes (2-3days)**	**Rarely/ never (0-1 days)**
Rice				
Wheat				
Maize				
Cassava				
Vegetables				
Beans				
Fish				
Meat				
Poultry				
Palm oil				
Argo oil				
Eggs				
Milk				
Bread				
Sugar/sweet				

Figure 4.1– Profile matrix for very poor food consumption

2. Borderline food consumption

Figure 4.2 shows the profile of the households with borderline food consumption. The households classified into this profile consume rice and palm oil almost every day, and vegetables and fish 4-5 days per week. Other food items are hardly consumed. Thus, food diversity is still low, and the pattern only partly meets the requirements of the reference diet. Although the diet may be adequate to satisfy the energy needs of the household members, the food consumption pattern requires more diversity. Of 1138 households in the three counties, 407 (35.8%) fall into this group.

Profile 2	Frequency of consumption (days per week)			
	Always (6-7 days)	**Often (4-5 days)**	**Sometimes (2-3days)**	**Rarely/never (0-1 days)**
Rice				
Wheat				
Maize				
Cassava				
Vegetable				
Bean				
Fish				
Meat				
Poultry				
Palm oil				
Argo oil				
Eggs				
Milk				
Bread				
Sugar/sweet				

Figure 4.2 - Profile matrix for borderline food consumption

3. Acceptable food consumption

Figure 4.3 shows the profile of the households with acceptable food consumption. Compared to the households with the borderline food consumption profile, the households with this profile enjoy a more diversified food pattern. For instance, meat, poultry, bread, and sugar/sweet are often (4-5 days/ wk) or sometimes (2-3 days/wk) consumed, while those items are consumed rarely or never (0-1 day/wk) in borderline food consumption profile. Of 1138 households in the three counties, 262 (23.0%) fall into this group.

4. Adequate food consumption

Figure 4.4 shows the profile of the households with adequate food consumption. The households classified into this profile consumed more food items more frequently. In addition to rice and palm oil, fish and vegetables are consumed (almost) daily (6-7days/wk). Moreover, the frequencies of consumption poultry, milk products, bread, and sugar/sweet are higher. Of 1138 households in the three counties, only 45 (4.0%) fall into this group.

Profile 4	**Frequency of consumption (days per week)**			
	Always (6-7 days)	**Often (4-5 days)**	**Sometimes (2-3days)**	**Rarely/never (0-1 days)**
Rice				
Wheat				
Maize				
Cassava				
Vegetable				
Bean				
Fish				
Meat				
Poultry				
Palm oil				
Argo oil				
Eggs				
Milk				
Bread				
Sugar/sweet				

Figure 4.4 - Profile matrix for adequate food consumption

Food insecurity level

By cross-tabulating the above household food consumption profile against the number of meals per day, households were further classified into four categories of food insecurity. The method and criteria for this procedure are described in Table 2.4. Figure 4.5 shows the proportion of households in each food insecurity level.

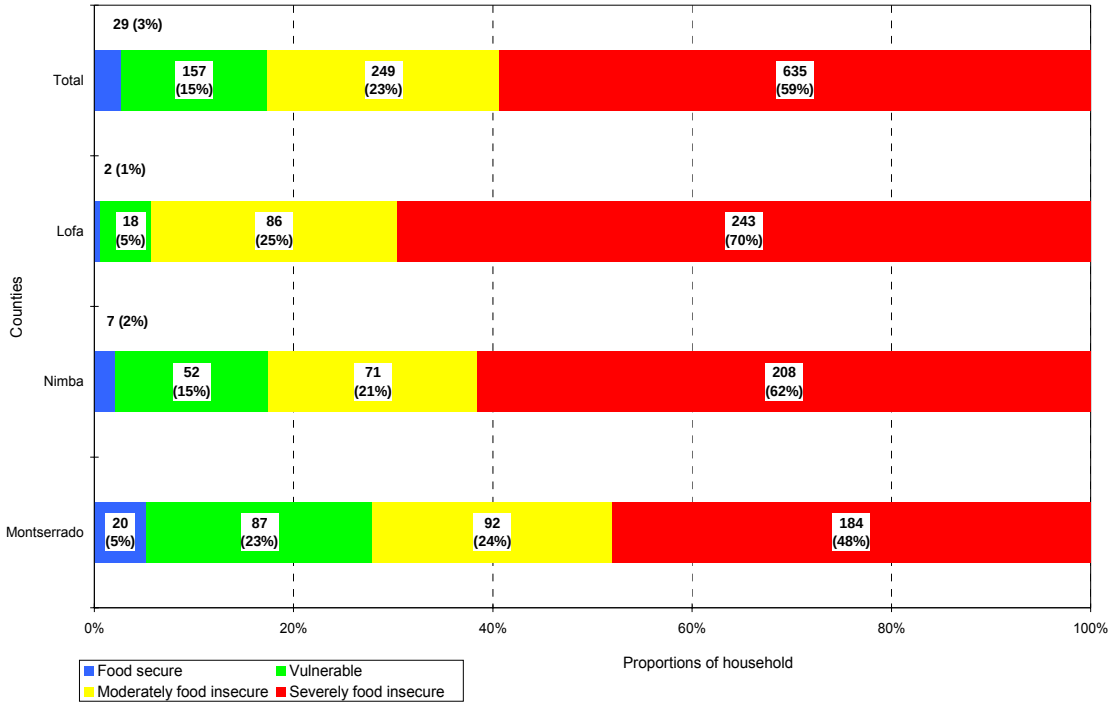


Figure 4.5 – Proportion of food insecure households by county

4.4 Food utilization and nutritional status

Cooking facilities

In Lofa, firewood was the cooking fuel in 97% of the households. In Nimba, 73% of the households used firewood, and 26% used charcoal (Table 4.12). In Montserrado, which is a more urbanized county, charcoal is the predominant cooking fuel (59% of the households) because there is less bush or forest to collect firewood. Generally, firewood is collected from the bush, whereas charcoal is purchased. This explains why in Lofa, where virtually all households use firewood, only 6.6% of the cooking fuel is purchased (Table 4.13). In Nimba and Montserrado respectively, 28% and 59% of the cooking fuel (charcoal) was purchased.

The percentage of households not owning cooking pots was the highest in Lofa (11.3%) and almost negligible (1.8%) in Montserrado (Table 4.14). As a consequence, the percentage of households borrowing cooking pots was also the highest in Lofa (24%). Moreover, 12% of the households in Lofa reported to have no cooking utensils, versus 3-4% in Montserrado and Nimba. For households which have to borrow cooking equipment from others (20-25% in Lofa), it is more difficult to prepare food and eat at a time that is convenient to them.

Table 4.12 - Type of major cooking fuel by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Firewood/bush	97.1%	40.9%	73.4%
Charcoal	2.9%	59.1%	26.4%
Fuel oil	0%	0%	0%
Kerosene	0%	0%	0%
Generator	0%	0%	0%
Gas	0%	0%	0.3%
Total	100%	100%	100%

Table 4.13 – Major sources of cooking fuel by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Purchase	6.6%	58.8%	28.0%
Bush	92.1%	39.4%	70.1%
Own production (charcoal)	0.3%	0.3%	1.1%
Total	100%	100%	100%

Table 4.14 - Number of cooking pots available at households by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Number of pots owned:			
0	11.3%	1.8%	8.0%
1-2	79.4%	65.2%	64.8%
≥ 3	9.4%	33.1%	27.2%
Number of pots borrowed:			
0	74.5%	90.9%	85.4%
1	12.2%	5.3%	6.0%
≥ 3	13.3%	3.8%	8.5%
No cooking utensils	12.7%	3.0%	4.1%

Health and sanitation

The prevalence of reported cases of diarrhoea, cough and fever among the children under five years of age category was very high (Table 4.15), ranging from 40-54% for diarrhoea to approximately 75% for fever. There was no clear difference between the three counties.

Table 4.15 – Percentage of under 5 children reported to have diarrhoea, cough and/or fever during the two weeks prior to the interview.

Status	Lofa (n_1 = 317)	Montserrado (n_2 = 360)	Nimba (n_3 = 333)
Diarrhoea	39.6%	43.8%	53.6%
Cough	57.4%	60.9%	58.0%
Fever	74.8%	74.5%	76.0%

Information was also collected on the main source of drinking water and the toilet facilities of the households because of the strong impact these factors may have on health and nutritional status (Table 4.16 and Table 4.17). A bore hole with a pump was the main source of drinking water for a majority of the households in Lofa and Montserrado. In Nimba, unprotected sources such as the unprotected well and a pond or river, were used by 50% of the households.

No association was found between the prevalence of diarrhoea in children under five years of age and the source of drinking water.

Table 4.16 – Type of drinking water sources by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
Piped into dwelling, yard or plot	2.1%	3.0%	0%
Bore hole with pump	74.7%	59.6%	25.5%
Protected dug well covered	2.7%	16.9%	23.1%
Rain water	0.8%	0%	0.8%
Unprotected well not covered	6.4%	14.9%	24.7%
Pond, river or stream	13.1%	4.5%	25.3%
Tanker	0%	0.5%	0%
Other	0.3%	0.5%	0%
Total	100%	100%	100%

Table 4.17 – Type of sanitation facility by county

Status	Lofa (n_1 = 378)	Montserrado (n_2 = 396)	Nimba (n_3 = 364)
NGO build latrine/pit latrine	15.1%	8.8%	3.6%
Traditional pit latrine	15.6%	21.5%	20.9%
Open pit	2.1%	9.3%	2.2%
Bush/open space	65.6%	39.4%	63.2%
Flush toilet	0%	17.2%	9.3%
Other	1.6%	3.8%	0.5%
Total	100%	100%	100%

The percentage of households using pit latrines – whether NGO-build or traditional – is about the same (25-30%) in all three counties (Table 4.17). NGOs' involvement in the construction of latrines was the highest in Lofa. Bush or open space is used by almost two-thirds of the households in Lofa and Nimba.

Mortality

Estimates of the CMR and the U5MR in Lofa, Montserrado and Nimba, as well as the emergency thresholds for both indicators, are presented in Table 4.18. In all the three counties, CMR and U5MR were higher than the emergency thresholds for Sub-Saharan Africa. According to the standards of the Sphere Projects, this " indicates a significant public health emergency, requiring immediate response". The major causes of death were reported to be illness and "old age" (Table 4.19).

Table 4.18 – Crude mortality rate and under-five mortality rate by county

	County			Emergency threshold for Sub-Saharan Africa
	Lofa	Montserrado	Nimba	
Crude mortality rate (deaths per 10,000 persons per day)	1.28	1.10	1.29	0.9
Under-five mortality rate (U5MR) (deaths per 10,000 under-five children per day)	2.92	2.52	2.55	2.3

[*Note*] * Save the Children (2005) *Emergency nutrition assessment*. Save the children: London. 191-192; and Sphere Project (2004) *Humanitarian Charter and minimum standards in disaster response*. 2004 edition

Table 4.19 – Causes of death by county

Cause of death	Lofa (n_1 = 58)	Montserrado (n_2 = 58)	Nimba (n_3 = 60)
Illness	68.9%	67.2%	76.7%
Accident/violence	6.9%	6.9%	0%
Old age	17.2%	12.1%	5.0%
Child died shortly after birth	1.7%	3.4%	1.7%
Mother died after delivery	1.7%	5.2%	3.3%
Not stated	3.4%	5.2%	13.3%

Nutritional status

Table 4.20 shows the prevalence of global and severe acute malnutrition in the three counties. The prevalence of GAM was low in Lofa (1.8%) and Nimba (3.2%), but slightly elevated in Montserrado (7.7%). The distribution of the weight-for-height z-scores is shown in figure 4.6. Compared to the reference curve, the curve of Montserrado is clearly shifted to the left, which is in line with the observed higher prevalence of GAM

Table 4.20 also indicates that the prevalence of stunting ranges from 27.1% in Montserrado to 41.4% in Nimba.

Based on the "decision framework for the implementation of selective feeding programmes", which is used by UNHCR and WFP[21] (table 4.21), and the currently found rates of malnutrition in conjunction with the presence of aggravating factors (e.g. high crude mortality and morbidity rates, poor access to food and to good quality drinking water, etc.), the situation in Lofa and Nimba is considered "acceptable". This implies that no population-level interventions are required, but attention must be given to malnourished individuals through regular community services.

Based on the same criteria, the situation in Montserrado is considered "risky", justifying targeted supplementary feeding for moderately malnourished children, and therapeutic feeding for severely malnourished children.

Table 4.20 – Prevalence of malnutrition in children 6-59 months of age

Status	County		
	Lofa (n_1 = 275)	Montserrado (n_2 = 285)	Nimba (n_3 = 311)
Global acute malnutrition (Weight-for-height z-score < -2)	1.8 (95%CI: 0.7-4.4)	7.7 (95%CI: 5.1-11.4)	3.2 (95%CI: 1.5-6.1)
Severe acute malnutrition (Weight-for-height z-score < -3)	0.4 (95%CI: 0.0-2.3)	1.0 (95%CI: 0.2-3.0)	0.0 (95%CI: 0.0-0.0)
Stunting (height-for-age z-score < -2	29.5 (95% CI: 24.3-35.3)	27.1 (95% CI: 22.3-32.4)	41.4 (95% CI: 35.7-47.4)

[*Note*] * Children with exceptionally high or low z-scores and therefore flagged by EpiInfo, were omitted in the analysis
** The 95% confidence intervals (CI) for the estimates are stated below the estimates as ranges (minimum – maximum)

Table 4.21 – Decision framework for the implementation of selective feeding programmes

Situation	Interpretation/response
Malnutrition rate < 5% with aggravating factors*	**Acceptable situation** • No need for population-level interventions • Attention to malnourished individuals through regular community services
Malnutrition rate < 10% with no aggravating factors	
Malnutrition rate 5-9% with aggravating factors	**Alert/risky situation** • Targeted supplementary feeding programme for mildly to moderately malnourished children under five years of age, selected other children and adults • Therapeutic feeding programme for the severely malnourished.

[*Note*] * Aggravating factors are for example: crude mortality rate >1 per 10,000 per day, and high prevalence of diarrhoeal or respiratory disease

[21] For example: UNHCR/WFP. UNHCR/WFP guidelines for selective feeding programmes in emergency situations. UNHCR/WFP, 1999

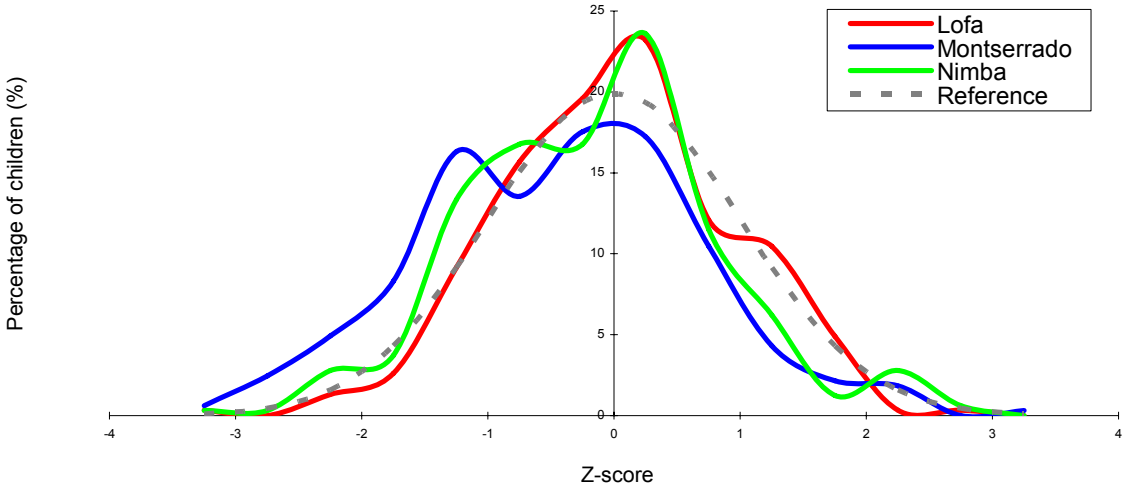
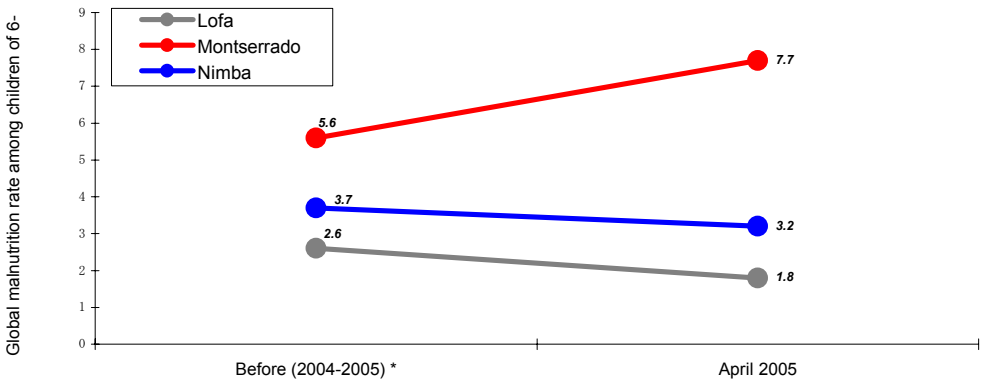


Figure 4.6 – Distribution of the weight-for-height z-score in children of 6-59 months of age

While conducting the assessment, it was already clear from visual screening that the nutritional and health status of the children in Lofa was fairly good. This was in apparent contradiction with the severity of the perceived household food insecurity and the harsh living conditions of the population, which mainly consists of returnees trying to settle again. It was speculated by some people that the nutritional status of the children was still good because of the good start they had when they left the refugee or IDP camps, where they had a fairly adequate diet (at least in terms of energy) and got medical treatment, when needed. However, some doubt on the validity of this hypothesis seems to be justified in view of the fact that only 31% of the households in the sample returned in 2005, i.e. shortly (less than 3-4 months) before the assessment was done. It is unlikely that the children of the remaining 69% of the households, who returned more than 4 months before the conduct of the assessment, would still have had a good nutritional status at the time of the assessment if their diet had not been (more or less) adequate in their current place of residence.



[Data source] * Nimba: WFP. (2005) Nimba food security and nutrition assessment. WFP Liberia: Monrovia. 13-16;19-20.
Lofa: WFP (2005) Lofa county food security and nutrition assessment. WFP Liberia: Monrovia. 22-23
Montserrado: OCHA. (2004) Situation report no.81. OCHA Liberia: Monrovia. 2-3.

Figure 4.7 – Comparison of GAM with results of earlier assessments

Moreover, we found no association between the year of return and nutritional status (weight-for-height z-score). Therefore, it is assumed that the diet they had in the period prior to the assessment was adequate (at least in terms of energy). However, this adequacy may have been – at least partly - a result of the relief food coming in through the returnee packages of the ever continuing influx of returnees, and/or the contribution of the school feeding to the household's food requirements. It is also possible that the diet of the children was adequate at the expense of that of the adults. Table 4.11 shows that the children in general had more meals per day than the adults, and a reduction of the meals of the adults in favor of the children is a common coping strategy in times of hardship

Relationship between food security and nutritional status

In the present assessment, the nutritional status – particularly weight-for-height - of children aged 6-59 months, and the food consumption score were used as proxy indicators for household food security. Ideally, one would expect a correlation to exist between both indicators. However, as shown in figure 4.8, this is not true in the present survey. Spearman's correlation coefficient between the food consumption score and the z-score was not statistically significant (*p*-value > 0.05). This may mean that either or both indicators do not validly represent the household food security situation, or that the relation between both parameters was blurred by other factors that impact on nutritional status, such as poor hygiene and sanitation, infectious diseases, poor care practices, etc. Further studies may be necessary to address this methodological issue.

In the present assessment, the other two indicators of nutritional status: Height-for-age and weight-for-age, are not used as (proxy) indicators for the current household food security situation. Height-for-age reflects the *long-term* influence of food intake and disease on growth in the past, and, contrary to weight, height is not sensitive to rapid changes of food intake and/or general health conditions. To some extent, this is also true for weight-for-age, as weight is related to height.

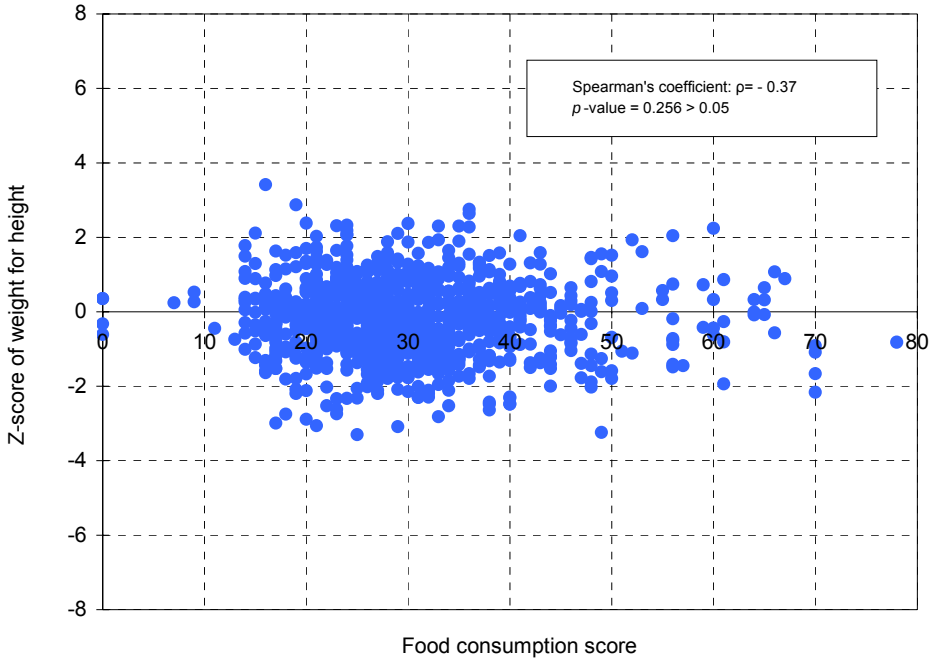


Figure 4.8 – Relationship between food consumption score and weight-for-height z-scores

Chapter 5

CONCLUSION AND RECOMMENDATIONS

5.1 Risks for food security and livelihood

Lofa

The present data confirm by and large the findings of other recent assessments in Lofa.[23] The population of Lofa mainly consists of IDPs and refugees, most of whom returned last year and this year. Many of them are still in resettling process, and it is expected that many more will return this year. At the time of the assessment, lack of agricultural inputs was a commonly heard complaint, both in the community and in the household interviews. ICRC has distributed seeds and tools in January-April 2005. However, people complained that the quantities they received were not sufficient, and did not enable them to cultivate an area large enough to meet their food needs. According to ICRC, the inputs may have been diluted due to influx of large numbers of returnees after the registration of beneficiaries in December 2004. Farmers also complained that early rains prevented them from successfully burning their fields. Furthermore, many returnees reported to be busy reconstructing their houses, and therefore had no time for farming. Others were engaged in off-farm employment to cater for their short-term needs. The lack of agricultural inputs and the relative unavailability of active farmers are a thread to the success of the next harvest due in October-November.

At the time of implementation of the assessment, food availability was a problem due to the poor harvest last year, and the very poor road conditions, which make transport of food to and from markets difficult and expensive. Employment opportunities were very limited, since life in Lofa is still disrupted. At the same time, food prices are high. The simultaneous occurrence of these factors has a strong negative impact on access to food.

Both the crude and the under-five mortality rates exceeded the emergency thresholds established by the Sphere Project. According to the criteria established by the Sphere Project, this indicates that the general health conditions and health services are poor, and that assistance is needed.

The results of household food consumption profiling, which is based on food diversity and meal frequency, suggest that 70% of the households would be severely food insecure, and therefore in need of assistance (Table 5.1). Another 25% of the households is classified as moderately food insecure. These households could probably be assisted effectively by food aid.

[23] WFP Liberia (2005). *Lofa County food security and nutrition assessment. February 2005*. WFP: Monrovia, and ACF (2005) *Food security report Lofa County; Voinjama, Kolahun & Foya Districts, February 2005.* ACF: Monrovia.

Table 5.1 – Numbers of people by food security status based on food consumption profiles

Level of household food security	Need of assistance	County		
		Lofa	Montserrado*	Nimba
Severely food-insecure	**Definitely needed**	348,000 (70%)	96,000 (62%)	210,000 (48%)
Moderately food-insecure	**Probably needed**	123,000 (25%)	48,000 (21%)	72,000 (24%)
Vulnerable	**May be needed**	26,000 (5%)	45,000 (15%)	52,000 (23%)
Food-secure	**No assistance needed**	3,000 (1%)	10,000 (2%)	7,000 (5%)
Total population		500,000 (100%)	200,000 (100%)	341,000 (100%)

[*Note*] * The sample of Montserrado did not include the population of Monrovia City

Despite the hard living conditions in Lofa, and food consumption data suggesting that a considerable proportion of the households is facing severe food insecurity, the nutritional status in children 6-59 months of age appears to be acceptable with only 1.8% being malnourished (weight-for-height Z-score <-2; Table 5.2). This relatively favourable situation, which seems conflicting with the outcome of the food consumption analysis, may be attributable to the various coping strategies deployed by the population, such as fewer meals for the adults in favour of the children, and collecting food from the bush or old farms. The availability of relief food from the school feeding programme and the returnee packages, may also have had a positive impact. On the other hand, it may well be that food consumption has been under-reported.

Table 5.2 - Estimated numbers of acutely malnourished children eligible for food aid

County	Total population	Under-5 population*	Under-5 acute malnutrition	
			Number	(%)
Lofa	500,000	100,000	1,800	1.8
Montserrado	200,000	40,000	3,080	7.7
Nimba	341,000	68,000	2,200	3.2
Total	1,041,000	208,000	7,080	3.4

[*Note*] *The under-5 population is assumed to be 20% of the total population

The malnourished under-fives, whose number in Lofa is estimated to be 1800 (table 5.2), and their households are eligible for assistance with food aid.

The discrepancy between the low prevalence of malnutrition in the children aged 6-59 months on the one hand, and the high proportion of households classified as food insecure on the basis of their food consumption profiles on the other, is confusing and complicates interpretation of the overall findings in terms of vulnerability and need of assistance. This discrepancy, which has been observed **in all three counties**, may be due to methodological errors, which needs further investigation. In the light of this conflicting information, **it was decided – for all three counties – to base the final conclusions regarding the food security situation and the response options primarily on the nutritional status of the population.**

This implies that, given the low level of acute malnutrition, **no population-level response is required in Lofa**. It is rather recommended to provide **specific support** to:

- feeding centres rehabilitating the remaining malnourished under-five children (the number estimated to be 1,080, see Table 5.2);
- food-for-work projects;
- school feeding; and
- returnees.

As an accompanying measure, it is recommended to continue monitoring the situation by means of nutritional surveillance.

Although the prevalence of global acute malnutrition in Lofa is low, the present food security situation in Lofa is fragile, and will remain fragile at least until the next rice harvest in October-November 2005. The situation may deteriorate because of the influx of new returnees with whom the scarcely available resources will have to be shared. Close monitoring is required, and limited, targeted assistance for the most vulnerable categories of the population (e.g. households with malnourished children) is recommended.

The perspectives for the food security situation after the next harvest depend largely on the success or failure of the rice harvest. Probably more agricultural inputs (seeds, tools, etc.) should be made available among the farmers. Failure of the harvest would extend the situation of food insecurity. Therefore, it is recommended that WFP ensure close and continuous monitoring of the agricultural situation (actual availability of tools and seeds; crop assessment, etc.).

Montserrado

The conclusions to be drawn for Montserrado apply to the county excluding the city of Monrovia, which was excluded from the sampling frame. The major factor threatening household food security in Montserrado, which is an urban or semi-urban area, is unemployment for the population of Greater Monrovia. Those employed by the Government have not received their salaries, and for those who depend on the private sector to make an income, employment opportunities are limited compared to the number of people looking for work. The presence of many IDPs in Montserrado still increases the pressure on the labor market. To improve the situation, it is crucial that the Government start paying the salaries, and that the private sector expands its activities. This can only be achieved in a climate of political and social stability. Repatriation of IDPs may help reduce pressure on the labor market.

Similarly to Lofa, both CMR and U5MR exceeded international emergency thresholds, which indicates that assistance is required.

The results of household food consumption profiling suggest that 48% of the households are severely food insecure. Therefore, they would be in need of assistance. Another 24% of the households are classified as moderately food insecure, and may also need assistance.

The prevalence of GAM was 7.7%, corresponding to an estimated number of 3,080 (table 5.2). In isolation, this figure is difficult to interpret. Its significance would increase if the trend of the malnutrition rate were known. A declining rate would be a positive signal. Unfortunately, there have been no previous assessments based on representative samples of the population. According to information

provided by Médecins Sans Frontières (MSF) Holland and Switzerland/Spain, several clinics for therapeutic and supplementary feeding in Montserrado have been closed over the past months as a result of decreasing numbers of admissions, and closure of the last clinic in Monrovia is planned for June 2005. According to MSF, the remaining cases of malnutrition would mainly be cases of "social malnutrition" (i.e. resulting from ignorance or negligence) rather than cases resulting from poor access to food.

The high CMR and U5MR, combined with the GAM prevalence of 7.7%, indicate that food security, and the health conditions in general, are a matter of concern. However, population-level interventions are not required. The following response is recommended:

- support to feeding centres to rehabilitate malnourished under-fives (number estimated to be 3,080; see Table 5.2);
- food-for-work projects;
- school feeding; and
- support to returnees.

In addition, as a flanking measure, it is recommended to closely monitor the nutritional status of the under-five children.

Once again, it should be noted that the city or Monrovia was not included in the survey sample of Montserrado County. Therefore, the conclusions and recommendations may not be valid for the population of Monrovia City.

Nimba

The population of Nimba mainly depends on agriculture, although there are some urban zones, e.g. Sanniquelli and Ganta. Besides rice, cassava is an important crop and food in Nimba. This renders Nimba less vulnerable to food insecurity than Lofa. The possession of livestock such as sheep, pigs and goats is also commoner than in Lofa. However, similar to Lofa, lack of productive assets such as tools and seeds was frequently reported to be a major problem.

Nimba was less affected by the war than Lofa. Thirty percent of the households sampled was classified as returnees, compared with 80% in Lofa. Therefore, social life is less disrupted than in Lofa, which is reflected among others by a greater access to credit than in Lofa, particularly to credit from institutions, such as Susu clubs. Savings in Nimba were also greater than in Lofa. A poor road infrastructure, mainly due to impassable bridges, is a major problem in Nimba, and impacts negatively on the availability of, and access to food in the villages affected. Improvement of the bridges is crucial to the development of the county and access to food.

Both CRM and U5MR were higher than the emergency thresholds. This indicates that the general health conditions are still bad, and that assistance is needed.

The results of household food profiling suggest that 62% of the households are severely food insecure. Therefore, they would be in need of assistance. Another 21% of the households are classified as moderately food insecure.

On the other hand, however, GAM prevalence among children 6-59 months of age was low (3.2%, corresponding to an estimated number of 2,020). **This low rate is indicative of an acceptable food security situation, which does not require population-level interventions**.

However, given the high mortality rates,, vulnerable groups need attention. Therefore, it is recommended to support:

- feeding centres to rehabilitate the remaining malnourished under-fives (estimated to be 2,020 in number; see Table 5.2);
- food-for-work projects;
- school feeding; and
- returnees.

Just like in Lofa and Montserrado, it is recommended to closely monitor the situation by nutritional surveillance.

In all the three counties, household food security can only improve as long as there is political and social stability. Elections have been planned in October, and this may result in increased tension and social unrest later on this year. Therefore, the humanitarian assistance community needs to stay on the alert.

5.2 Recommended follow-up activities of the assessment

- Urgently further investigate the adequacy of the distribution of seeds and tools in Lofa.
- Close monitoring of the agricultural activities in Lofa to test the adequacy of seeds and tools distribution, and to forecast the future food security situation. A crop and food supply assessment could be part of this.
- Monitoring of the nutritional status of under-five children, i.e. nutritional surveillance in all three counties. If it is not possible to conduct surveys with representative samples, it is recommended to monitor trents in the number of admissions of malnourished children to feeding centres (e.g. MSF), and/or the records of health centres.
- Time constraints did not allow he present mission to thoroughly investigate which relief and/or development organisations are working in the three counties, and if they have the capacity to, and are interested to act as partners of WFP in the implementation of relief activities. Such an assessment still has to be done.
- Assessment of opportunities for food-for-work activities in addition to the already existing support to FSLI. Particularly in Lofa, a lot of infrastructure has been damaged during the conflict, and support to the restauration of this infrastructure could be an option. In Lofa and Nimba, support to road construction (in Nimba particularly the bridges) could be considered.

5.3 Response and targeting options

The recommended response options for the three counties are presented in Tables 5.3 – 5.5. It is recommended to sustain the proposed responses at least until the next harvest in October/November.

Table 5.3 – Recommended response options for Lofa county

Response option	Reasons	Type	Targeting	Implementation
Distribution of food and agricultural inputs (tools, seeds) to returnees	Returnees have lost most, if not all of their belongings, and need help for a new start. Delaying cultivation may result in extension of the period of food insecurity.	Food: rice (if not available, wheat) Tools and seeds	Registered returnees	Part of returnee package? Red Cross?
Food for work	▪ There is lack of employment/ income opportunities ▪ There is a lot of work to do, e.g. road maintenance, rehabilitation of swamps, plantations; construction of pumps and latrines, (re)construction of houses, health centres. ▪ Prevalence of diarrhoea is high ▪ FFW is self-targeting	▪ Rice; if not available, wheat ▪ Construction materials	Self-targeting	Through FSLI With partner, e.g. Action Contre la Faim for sanitation, or Peacewinds for rehabilitation/construction of houses
School feeding (continuation of current ESF programme)	▪ Households with school-age children benefit most ▪ Discontinuation of the ongoing programme may have negative impact nutritional status of population	Rice; if not available, wheat Quantity: as before, plus adjustment for population increase due to returnees	Children registered at school	Through schools
Food to social service institutions, e.g. selective feeding centres (targeted SFP, TFP) and health centres dealing with vulnerable groups (e.g. pregnant, lactating women attending health centres), HIV/AIDS infected	Although the food security situation is currently not alarming, and therefore needs no population-level intervention, there will remain a need for some assistance to specific vulnerable groups, such households with malnourished members (due to insufficient access to food), pregnant and lactating women, HIV/AIDS infected people	Rice (wheat if rice is not available) for the households of rehabilitating malnourished children. Number of households: 1800/month* Ration: 100 kg/household/month Quantity needed in 6 months: 6 x 1800 x 100 = 1,080 MT HIV/AIDS households: 100 kg/month x number of affected households Pregnant + lactating women attending health centres	Through the regular health and/or social services or NGO-based services, or community based.	By the staff of the health services.
Nutritional surveillance	Continued monitoring of the nutritional status of children aged 6-59 months due to fragile food security situation	Every 6 months	Children 6-59 months	WFP

[*Note*] * Based on currently found point prevalence of acute malnutrition and assuming not more than one malnourished child per affected household.

Table 5.4 – Recommended response options for Montserrado county

Response option	Reasons	Type	Targeting	Implementation
Food to social service institutions, e.g. selective feeding centres (targeted SFP, TFP) and health centres dealing with vulnerable groups (e.g. pregnant, lactating women attending health centres), HIV/AIDS infected	Although the food security situation is currently not alarming, and therefore needs no population-level intervention, there will remain a need for a safety net for specific vulnerable groups, such households with malnourished members (due to insufficient access to food), pregnant and lactating women, HIV/AIDS infected people	Rice (wheat if rice is not available) for the households of rehabilitating malnourished children. Number of households: 3080/month* Ration: 100 kg/household/month Quantity needed in 6 months: 6 x 3080 x 100 = 1,848 MT HIV/AIDS affected households Pregnant + lactating women attending health centres:	Through the regular health and/or social services, or community based.	By the health and/or social services.
Food for work or food for training	Particularly in and around Monrovia, a large proportion of the population depends on wage labor, but there is a lack of employment opportunities, and unemployment is high. As mentioned in the previous chapter, the assessment mission was not able to make an inventory of potential work activities that could be supported. The feasibility of this response option depends on the availability of suitable work projects, and an inventory should first be made in a follow-up assessment	▪ Rice (wheat if rice is not available)	Self-targeting	Not known.
Continuation of existing school feeding programme	▪ Households with school-age children benefit most ▪ Discontinuation of the ongoing programme may have negative impact nutritional status of population	▪ Rice; if not available, wheat ▪ Quantity (the as before)	Children registered at school	Through schools
Nutritional surveillance	Continued monitoring of the nutritional status of children aged 6-59 months due to fragile food security situation	Every 6 months	Children 6-59 months	WFP

[*Note*] * Based on currently found point prevalence of acute malnutrition and assuming not more than one malnourished child per affected household.

Table 5.5 – Recommended response options for Nimba county

Response option	Reasons	Type	Targeting	Implementation
Food to social service institutions, e.g. selective feeding centres (targeted SFP, TFP) and health centres dealing with vulnerable groups (e.g. pregnant, lactating women), HIV/AIDS infected	Although the food security situation is currently not alarming, and therefore needs no population-level intervention, there will remain a need for a safety net for specific vulnerable groups, such households with malnourished members (due to insufficient access to food), pregnant and lactating women, HIV/AIDS infected people	Rice (wheat if rice is not available) for the households of rehabilitating malnourished children. Number of households: 2200/month* Ration: 100 kg/household/month Quantity needed in 6 months: 6 x 2200 x 100 = 1,320 MT HIV/AIDS affected households Pregnant + lactating women attending health centres	Through the regular health and/or social services, or community based.	By the health and/or social services.
Food for work	Nimba has some urban centres where a considerable proportion of the population depends on off-farm employment. This type of employment is relatively scarce. Moreover, there seem to be quite some opportunities for public work projects, e.g. repair/construction of bridges (very urgent!), schools, sanitary facilities, rehabilitation of swamps, etc.	▪ Rice (wheat if rice is not available)	Self-targeting	Not known.
Distribution of agricultural inputs (tools, seeds) to returnees	Returnees have lost most, if not all of their belongings, and need help for a new start. Delaying cultivation may result in extension of the period of food insecurity.	Tools and seeds	Registered returnees	Part of returnee package?
Continuation of existing school feeding programme	▪ Households with school-age children benefit most ▪ Discontinuation of the ongoing programme may have negative impact nutritional status of population	Rice; if not available, wheat Quantity: the same as before	Children registered at school	Through schools
Nutritional surveillance	Continued monitoring of the nutritional status of children aged 6-59 months due to fragile food security situation	Every 6 months	Children 6-59 months	WFP

[*Note*] * Based on currently found point prevalence of acute malnutrition and assuming not more than one malnourished child per affected household.

Annexes

Annex 1

HOUSEHOLD QUESTIONNAIRE LOFA & NIMBA

A. IDENTIFICATION:

1. Date of interview ……	DATE	□□ □□ □□
2. Interviewer ID ……	INTNO	□□
3. County _____ ……..COUNTY		□□
4. District _____ ……	DISTRICT	□□□
5. Community _____ ……COMMUN		□□
6. Household ID ……HHNO		□□
Check Supervisor/Team leader: signature …… Date checked:	□□ □□ 2005 Day Month	

B. Household demography

Name of respondent _____

7. Sex of head of household …… Male = 1 Female = 2	SEXHHH	□
8. Total number of persons **currently** living in this household ……	NOPERSHH	□□
8.1 Males less than 5 years (less than 60 months)……..	NOMA05	□□
8.2 Males 5-14 years ……	NOMA614	□□
8.3 Males 15-59 years ……	NOMA1559	□□
8.4 Males 60+ years ……..	NOMA60	□□
8.5 Females less than 5 years (less than 60 months)..……..	NOFE05	□□
8.6 Females 5-14 years ……	NOFE614	□□
8.7 Females 15-59 years ……	NOFE1559	□□
8.8 Females 60+ years ……	NOFE60	□□

C. Household circumstances

9. Status of the household ……..…… □

1 = resident 2 = resident host 3 = returnee 4 = displaced *If displaced, skip to 15*

10. If resident or returnee, are any members of your household currently living elsewhere? * Yes = 1 no = 2 □

11. If so, how many? …… number □□

- *If former members of the household are living elsewhere but do not depend on the interviewed household anymore , than the answer is No*

12. Do you expect them to come back? ……

12.1 Yes, within 3 months □
12.2 Yes, in 3-6 months □
12.3 Yes, in more than 6 months □
12.4 No, will not come back □
12.5 Do not know □

13. Why have they not come back?

13.1 I have no means to support them here □
13.2 Insecurity here □
13.3 Do not have the means to move them □
13.4 Other (specify) ……..…….. □

14. If returnee, when did you come back to this current settlement? …… Year □□□□

15. If displaced, do you plan to go back to your own village/town?

15.1 Yes, in less than 3 months □
15.2 Yes, in 3-6 months □
15.3 Yes, in more than 6 months □
15.4 No, will not go back □
15.5 Do not know □

16. What are the ***two main*** problems that prevent you, or have prevented you from returning? *(Tick two options)*

16.1 Insecurity ……. …….. □
16.2 No land in place of origin …… □
16.3 Land in place of origin occupied by others □
16.4 Cannot find work/earn enough money □
16.5 Roads/bridges/infrastructure destroyed □
16.6 Don't have enough resources to return □
16.7 Nothing existing to return to …… □
16.8 Other (specify) …… □

17. How many children do you have currently enrolled and attending school? …… Number □

18. What is the main source of drinking water for your household? (Select one)…… □
1 = Piped into dwelling, yard or plot *4 = Rain water* *7 = Tanker*
2 = borehole with pump *5 = Unprotected/well not covered* *8 = Other (specify)*
3 = Protected dug /well covered *6 = Pond, river or stream*

19. What kind of toilet facility does your household use? (Select one) …….. □
1 = NGO build latrine/pit latrine *4 = bush / open space*
2 = Traditional pit latrine *5 = Flush toilet*
3 = Open pit *6 = Other (specify) _____*

20. What is the main type of cooking fuel for this household? (Select one) …….. □
1 = Firewood / bush *4 = Kerosene*
2 = Charcoal *5 = Generator*
3 = fuel oil *6 = Gas* *7 = Other (specify) _____*

21. How do you obtain the fuel? ……. □
1=purchase 2=bush 3=own production (charcoal)

About kitchen equipment:
22. How many cooking pots do you use? …… 22.1 Own pots *number* □
22.2 Pots borrowed *number* □
23 Do you have cooking utensils (spoons, other…)? …… yes = 1 no = 2 □

D. Productive assets
24. Does your household own any of the following things? *(Tick all that apply)*

24.1 Cutlass / ax……	yes = 1 no = 2	□
24.2 Hoe / digger ……	yes = 1 no = 2	□
24.3 Wheel barrel ……	yes = 1 no = 2	□
24.4 Shovel ……	yes =1 no=2	□
24.5 Files ……	yes =1 no=2	□
24.6 Other (specify) …….. ……	yes =1 no=2	□

25. Does your family own livestock? …… yes = 1 no = 2 □
If no, skip to 27

26. If yes, how many? …… 26.1 goats □□
…… 26.2 cows □□
…… 26.3 chicken □□
…… 26.4 ducks □□
…… 26.5 pigs □□
…… 26.6. sheep □□

27. Do you have access to credit (cash or kind)? …… Yes = 1 No = 2 □
If no, skip to 29.

28. If yes, from whom do you usually get credit? *(Tick all that apply)*

28.1 relatives/friends ……	□
28.2 charities/NGOs ……	□
28.3 local lender / Susu club ……	□
28.4 church / mosque ……	□
28.5 Anybody …….	□
28.6 Other (specify) ……..	□

29. Does your household have cash saving? …… .Yes = 1 No = 2 □

30. Doe you lend out in cash or kind to other people? …….. Yes = 1 No = 2 □

E. Agriculture
31. Does your household have access to agriculture land …… Yes = 1 No = 2 □
If no, skip to 37

32. If yes, how did you or members of your household acquire this land? …… □
1 = rent *4 = lend by govt.*
2 = own land *5 = inherited*
3 = share cropping *6 = squat by permission* *7 = other (specify) _____*

33. Are you farming? ……Yes = 1 No = 2 ☐
If not, skip to 36.

34. If yes, what crops are you / will you be growing? *(Tick all that apply*)

34.1	Rice ……	
34.2	Cassave ……	
34.3	Potatoes / eddoes ……	
34.4	Maize (corn) ……	
34.5	Beans ……	
34.6	Groundnuts ……	
34.7	Bitterballs ……	
34.8	Pepper ……	
34.9	Vegetables ……	
34.10	Cacao ……	
34.11	Coffee ……	
34.12	Oil palm ……	
34.13	Sugar cane ……	
34.14	Rubber ……	

35. How many months is your harvest expected to last for the household?

35.1	rice …… *months*	
35.2	cassava …… *months*	

36. What are the reasons that your household is not / will not be farming? *(Tick all that apply*)

36.1	No tools	
36.2	No seeds/planting material	
36.3	No access to labour	
36.4	Late return (missed farming season)	
36.7	No access to land	
36.5	Other (specify) _____	

F. Sources of income
Throughout the year ……..

37. What is the household's most important income activity?

37.1	Sales of food crops	
37.2	Sales of cash crops	
37.3	Sale of fruits / vegetables	
37.4	Sale of livestock	
37.5	Mining	
37.6	Sale bush meat/ fish	
37.7	Salaried employment	
37.8	Skilled labour/handicrafts	
37.9	Sale firewood / charcoal	
37.10	Casual/agricultural labour	
37.11	Small business/ petty trade	
37.12	Government benefits	
37.13	Remittances	
37.14	Borrowing	
37.15	Begging	
37.16	Other : ……	

38. What is the household's second most important income activity?

38.1	Sales of food crops	
38.2	Sales of cash crops	
38.3	Sale of fruits / vegetables	
38.4	Sale of livestock	
38.5	Mining	
38.6	Sale bush meat/ fish	
38.7	Salaried employment	
38.8	Skilled labour/handicrafts	
38.9	Sale firewood / charcoal	
38.10	Casual/agricultural labour	
38.11	Small business/ petty trade	
38.12	Government benefits	
38.13	Remittances	
38.14	Borrowing	
38.15	Begging	
38.16	Other : ……	

G. Food consumption
39. Yesterday, how many meals did the ***adults*** in this household eat? …… ☐

40. Yesterday, how many meals did the ***children*** in this household eat yesterday? …… ☐

I now would like to ask you about all the different foods that your household members have eaten in the last 7 days.

41. Could you please tell me how many days in the past week your household has eaten the following foods?

42. Which were the major sources of those foods?

	Food item	**DAYS eaten in past week (0-7 days)**
41.1	Rice	
41.2	Wheat (Bulgur)	
41.3	maize meal	
41.4	Cassava (tubers)	
41.5	Vegetables (including leaves)/ fruits	
41.6	Beans (Pulses)	
41.7	Fish – fresh or dry	
41.8	Meat (bush /imported)	
41.9	Poultry (chicken / duck)	
41.10	Palm oil	
41.11	Argo oil	
41.11	Eggs	
41.12	Milk (liquid or powder)	
41.13	Bread	
41.14	Sweet, sugar	

	Sources of food (*see codes below*)	**Major source**
42.1	Rice	
42.2	Wheat (Bulgur)	
42.3	maize meal	
42.4	Cassava (tubers)	
42.5	Vegetables (including leaves)/ fruits	
42.6	Beans (Pulses)	
42.7	Fish – fresh or dry	
42.8	Meat (bush /imported)	
42.9	Poultry (chicken / duck)	
42.10	Palm oil	
42.11	Argo oil	
42.11	Eggs	
42.12	Milk (liquid or powder)	
42.13	Bread	
42.14	Sweet, sugar	

Food source codes:

1 = Purchase *2 = Borrowed* *3 = Remittances*
4 = Own production *5 = Received as gift* *6 = Exchange services*
7 = Traded goods *8 = Food aid* *9 = Other (specify)*

43. Has any member of your household received food aid in the past month? ……Yes = 1 No = 2 ☐

44. If yes, what type/source?

44.1	School feeding
44.2	Food for work
44.3	Supplementary feeding
44.4	Therapeutic feeding
44.5	Returnee package
44.6	General distribution

H. Household risks and coping strategies

45. When income and food sources fail, what is the first thing you do to manage?

45.1	Reduce quantity and quality of food	
45.2	Skip a day without eating	
45.3	Adults eat less	
45.4	Decrease expenditures	
45.5	Increase collection and sale of natural resources	
45.6	Pond to others, or sell furniture or other HH items	
45.7	Sell income generating equipment or assets	
45.8	Sell female reproductive livestock	
45.9	Additional wage labour	
45.10	Loans / creddit	
45.11	Received help from other in community	
45.12	Worked on relief programmes from gov't, NGO or UN	
45.13	Spend savings or investment	
45.14	Out-migrate to look for work	
45.15	Entire family moved to new location	
45.16	Sent children to work for money or food	
45.17	Marry off young daughters (less than 13 yrs)	
45.18	Begging	
45.19	Other: ……	
45.20	Did not do anything	

46. If that action (question 37) does not reach, what next thing you do?

46.1	Reduce quantity and quality of food	
46.2	Skip a day without eating	
46.3	Adults eat less	
46.4	Decrease expenditures	
46.5	Increase collection and sale of natural resources	
46.6	Pond to others, or sell furniture or other HH items	
46.7	Sell income generating equipment or assets	
46.8	Sell female reproductive livestock	
46.9	Additional wage labour	
46.10	Loans /credit	
46.11	Received help from other in community	
46.12	Worked on relief programmes from gov't, NGO or UN	
46.13	Spend savings or investment	
46.14	Out-migrate to look for work	
46.15	Entire family moved to new location	
46.16	Sent children to work for money or food	
46.17	Marry off young daughters (less than 13 yrs)	
46.18	Begging	
46.19	Other: ……	
46.20	Did not do anything	

I. Mortality

47. Has anybody died in the household in the past 6 months? 1=yes 2=no □
48. If yes, one person or more? …… Number □
For youngest who died: 49.1 Age …… years □
49.2 Cause of death *1=illnes 2=accident/violence 3=old age* □
4=child still born/shortly after birth 5= mother after delivery
For second youngest who died: 50.1 Age …… years □
50.2 Cause of death *1=illnes 2=accident/violence 3=old* age □
4= child still born/shortly after birth 5=mother after delivery .

Child health and nutrition

51. Now I would like to ask you questions about the health of the last three children born in the past 5 years. We will talk about one child at a time. (***Begin with the most recent birth, then the next recent, etcetera…….***)

Only include children older than 6 months and less than 60 months!

		M/F	Date of birth	Age (months)	Weight (kg)	Height (cm)	During the **last two weeks** (14 days) has the child had:		
	Name	M=1 F=2					Watery stools Yes=1 No=2	Cough or running nose Yes=1 No=2	Fever Yes=1 No=2
51.1		51.1.1 □	51.1.2 □□□□□□ day mon year		51.1.3 □□.□	51.1.4 □□□.□	51.1.5 □	51.1.6 □	51.1.7 □
51.2		51.2.1 □	51.2.2 □□□□□□ day mon year		51.2.3 □□.□	51.2.4 □□□.□	51.2.5 □	51.2.6 □	51.2.7 □
51.3		51.3.1 □	51.3.2 □□□□□□ day mon year		51.3.3 □□.□	51.3.4 □□□.□	51.3.5 □	51.3.6 □	51.3.7 □
51.4		51.4.1 □	51.4.2 □□□□□□ day mon year		51.4.3 □□.□	51.4.4 □□□.□	51.4.5 □	51.4.6 □	51.4.7 □

ID of child: 51.1 = youngest under 5
51.2 = second youngest under 5
51.3 = third youngest under 5

Annex 2

HOUSEHOLD QUESTIONNAIRE MONTSERRADO

A. IDENTIFICATION:

1. Date of interview ……DATE □□ □□ □□
2. Interviewer ID …… INTNO □□
3. County _____ …… COUNTY □□
4. District _____ ……DISTRICT □□□□
5. Community _____ ……COMMUN □□
6. Household ID ……HHNO □□

Check Supervisor/Team leader: signature …… Date checked: □□ □□ 2005
Day Month

B. Household demography

Name of respondent _____
7. Sex of head of household …… Male = 1 Female = 2 SEXHHH □
8.0 Total number of persons **currently** living in this household ……NOPERSHH □□
8.1 Males less than 5 years (less than 60 months)……NOMA05 □□
8.2 Males 5-14 years ……NOMA614 □□
8.3 Males 15-59 years …… NOMA1559 □□
8.4 Males 60+ years …… NOMA60 □□
8.5 Females less than 5 years (less than 60 months)…… NOFE05 □□
8.6 Females 5-14 years …… NOFE614 □□
8.7 Females 15-59 years ……NOFE1559 □□
8.8 Females 60+ years ……NOFE60 □□

C. Household circumstances

9. Status of the household …….. □

1 = resident 2 = resident host 3 = returnee 4 = displaced 5=refugee

If displaced/refugee 15

10. If resident or returnee, are any members of your household currently living elsewhere? * Yes = 1 no = 2 □

11. If so, how many? …… Number □□

- *If former members of the household are living elsewhere but do not depend on the interviewed household anymore , than the answer is No*

12. Do you expect them to come back? …… 12.1 Yes, within 3 months □
12.2 Yes, in 3-6 months
□
12.3 Yes, in more than 6 months
□
12.4 No, will not come back □
12.5 Do not know □

13. Why have they not come back? 13.1 I have no means to support them here □
13.2 Insecurity here □
13.3 Do not have the means to move them □
13.4 No accommodation □
13.5 Other (specify) …….. □

14. If returnee, when did you come back to this current settlement? ……Year □□□□

15. If displaced/refugee, do you plan to go back to your own Village/town/country? … 15.1 Yes, in less than 3 months □
15.2 Yes, in 3-6 months □
15.3 Yes, in more than 6 months □
15.4 No, will not go back □
15.5 Do not know □

16. What are the ***two main*** problems that prevent you, or have prevented you from returning? *(Tick two options)*

16.1 Insecurity ……. …….. □
16.2 No land in place of origin ……
□
16.3 Land in place of origin occupied by others □
16.4 Cannot find work/earn enough money
□
16.5 Roads/bridges/infrastructure destroyed
□
16.6 Don't have enough resources to return
□
16.7 Nothing existing to return to …..…… □
16.8 Other (specify) …… □

17. How many children do you have currently enrolled and attending school? …….. Number
□

18. What is the main source of drinking water for your household? (Select one) …….…… □
1 = Piped into dwelling, yard or plot *4 = Rain water* *7 = Tanker*
2 = borehole with pump *5 = Unprotected/well not covered* *8 = Other (specify)*
3 = Protected dug /well covered *6 = Pond, river or stream*

19. What kind of toilet facility does your household use? (Select one) …….. □
1 = NGO build latrine/pit latrine *4 = bush / open space*
2 = Traditional pit latrine *5 = Flush toilet*
3 = Open pit *6 = Other (specify)*_____

20. What is the main type of cooking fuel for this household? (Select one) …… □
1 = Firewood / bush *4 = Kerosene*
2 = Charcoal *5 = Generator*
3 = fuel oil *6 = Gas* *7 = Other (specify)* _____

21. How do you obtain the fuel? ……. □
1=purchase 2=bush 3=own production (charcoal)

About kitchen equipment:

22. How many cooking pots do you use? …… 22.1 Own pots *number* □
22.2 Pots borrowed *number* □

23 Do you have cooking utensils (spoons, other…)? …… yes = 1 no = 2 □

D. Productive assets

24. Does your household own any of the following things? *(Tick all that apply)*

24.1 Farming tools …… yes = 1 no = 2 □
24.2 Construction/building tools ……. yes = 1 no = 2 □
24.3 Wheel barrel/push-push …… yes = 1 no = 2 □
24.4 Workshop tools …….. Yes=1 no=2 □
24.5 Food preparation/ processing tools …… yes=1 no=2 □
24.6 Other (specify) …….. …… yes=1 no=2 □

25. Does your family own livestock? ……..yes = 1 no = 2 □
If no, skip to 27

26. If yes, how many? ……26.1 goats □□
……26.2 cows □□
……26.3 chicken □□
……26.4 ducks □□
……26.5 pigs □□
……26.6. sheep □□

27. Do you have access to credit (cash or kind)? ……Yes = 1 No = 2 □
If no, skip to 29.

28. If yes, from whom do you usually get credit? *(Tick all that apply)*

28.1 relatives/friends …… □
28.2 charities/NGOs …… □
28.3 local lender / Susu club …… □
28.4 church / mosque …… □
28.5 Anybody …… □
28.6 Other (specify) …….. □

29. Does your household have cash saving? …… Yes = 1 No = 2 □
30. Doe you lend out in cash or kind to other people? ……Yes = 1 No = 2 □

E. Agriculture

31. Does your household have access to agriculture land …… Yes = 1 No = 2 □
If no, skip to 37

32. If yes, how did you or members of your household acquire this land? …… □
1 = rent *4 = lend by govt.*
2 = own land *5 = inherited*
3 = share cropping *6 = squat by permission* *7 = other (specify)* _____

33. Are you farming? …… Yes = 1 No = 2 □
If not, skip to 36.

34. If yes, what crops are you / will you be growing? *(Tick all that apply*)

34.1	Rice ……
34.2	Cassave ……
34.3	Potatoes / eddoes ……
34.4	Maize (corn) ……
34.5	Beans ……
34.6	Groundnuts ……
34.7	Bitterballs ……
34.8	Pepper ……
34.9	Vegetables ……
34.10	Cacao ……
34.11	Coffee ……
34.12	Oil palm ……
34.13	Sugar cane ……
34.14	Rubber ……

35. How many months is your harvest expected to last for the household?

35.1	rice ……	*months*
35.2	cassava ……	*months*

36. What are the reasons that your household is not / will not be farming? *(Tick all that apply*)

36.1	No tools
36.2	No seeds/planting material
36.3	No access to labour
36.4	Late return (missed farming season)
36.7	No access to land
36.5	Other (specify) _____

F. Sources of income

Throughout the year ……..

37. What is the household's most important income activity?

37.1	Sales of food crops	
37.2	Sales of cash crops	
37.3	Sale of fruits / vegetables	
37.4	Sale of livestock	
37.5	Mining	
37.6	Sale bush meat/ fish	
37.7	Salaried employment	
37.8	Skilled labour/handicrafts	
37.9	Sale firewood / charcoal	
37.10	Casual/agricultural labour	
37.11	Small business/ petty trade	
37.12	Government benefits	
37.13	Remittances	
37.14	Borrowing	
37.15	Begging	
37.16	Other : ……	

38. What is the household's second most important income activity?

38.1	Sales of food crops
38.2	Sales of cash crops
38.3	Sale of fruits / vegetables
38.4	Sale of livestock
38.5	Mining
38.6	Sale bush meat/ fish
38.7	Salaried employment
38.8	Skilled labour/handicrafts
38.9	Sale firewood / charcoal
38.10	Casual/agricultural labour
38.11	Small business/ petty trade
38.12	Government benefits
38.13	Remittances
38.14	Borrowing
38.15	Begging
38.16	Other : ……

G. Food consumption

39. Yesterday, how many meals did the ***adults*** in this household eat ? ……. □

40. Yesterday, how many meals did the ***children*** in this household eat yesterday? ……. □

I now would like to ask you about all the different foods that your household members have eaten in the last 7 days.

41. Could you please tell me how many days in the past week your household has eaten the following foods?

42. Which were the major sources of those foods?

	Food item	**DAYS eaten in past week (0-7 days)**
41.1	Rice	
41.2	Wheat (Bulgur)	
41.3	maize meal	
41.4	Cassava (tubers)	
41.5	Vegetables (including leaves)/ fruits	
41.6	Beans (Pulses)	
41.7	Fish – fresh or dry	
41.8	Meat (bush /imported)	
41.9	Poultry (chicken / duck)	
41.10	Palm oil	
41.11	Argo oil	
41.11	Eggs	
41.12	Milk (liquid or powder)	
41.13	Bread	
41.14	Sweet, sugar	

	Sources of food (*see codes below*)	**Major source**
42.1	Rice	
42.2	Wheat (Bulgur)	
42.3	maize meal	
42.4	Cassava (tubers)	
42.5	Vegetables (including leaves)/ fruits	
42.6	Beans (Pulses)	
42.7	Fish – fresh or dry	
42.8	Meat (bush /imported)	
42.9	Poultry (chicken / duck)	
42.10	Palm oil	
42.11	Argo oil	
42.11	Eggs	
42.12	Milk (liquid or powder)	
42.13	Bread	
42.14	Sweet, sugar	

Food source codes:

1 = Purchase *2 = Borrowed* *3 = Remittances*
4 = Own production *5 = Received as gift* *6 = Exchange services*
7 = Traded goods *8 = Food aid* *9 = Other (specify)*

43. Has any member of your household received food aid in the past month? ……Yes = 1 No = 2 ☐

44. If yes, what type/source?

44.1	School feeding
44.2	Food for work
44.3	Supplementary feeding
44.4	Therapeutic feeding
44.5	Returnee package
44.6	General distribution

H. Household risks and coping strategies

45. When income and food sources fail, what is the first thing you do to manage?

45.1	Reduce quantity and quality of food	
45.2	Skip a day without eating	
45.3	Adults eat less	
45.4	Decrease expenditures	
45.5	Increase collection and sale of natural resources	
45.6	Pond to others, or sell furniture or other HH items	
45.7	Sell income generating equipment or assets	
45.8	Sell female reproductive livestock	
45.9	Additional wage labour	
45.10	Loans / credit	
45.11	Received help from other in community	
45.12	Worked on relief programmes from gov't, NGO or UN	
45.13	Spend savings or investment	
45.14	Out-migrate to look for work	
45.15	Entire family moved to new location	
45.16	Sent children to work for money or food	
45.17	Marry off young daughters (less than 13 yrs)	
45.18	Begging	
45.19	Other: ……	
45.20	Did not do anything	

46. If that action (question 37) does not reach, what next thing you do?

46.1	Reduce quantity and quality of food	
46.2	Skip a day without eating	
46.3	Adults eat less	
46.4	Decrease expenditures	
46.5	Increase collection and sale of natural resources	
46.6	Pond to others, or sell furniture or other HH items	
46.7	Sell income generating equipment or assets	
46.8	Sell female reproductive livestock	
46.9	Additional wage labour	
46.10	Loans /credit	
46.11	Received help from other in community	
46.12	Worked on relief programmes from gov't, NGO or UN	
46.13	Spend savings or investment	
46.14	Out-migrate to look for work	
46.15	Entire family moved to new location	
46.16	Sent children to work for money or food	
46.17	Marry off young daughters (less than 13 yrs)	
46.18	Begging	
46.19	Other: ……	
46.20	Did not do anything	

I. Mortality

47. Has anybody died in the household in the past 6 months? 1=yes 2=no □

48. If yes, one person or more? …… Number □

For youngest who died: 49.1 Age …… years □

49.2 Cause of death *1=illnes 2=accident/violence 3=old age* □

4=child still born/shortly after birth 5= mother after delivery

For second youngest who died: 50.1 Age ……..…… years □

50.2 Cause of death *1=illnes 2=accident/violence 3=old* age □

4= child still born/shortly after birth 5=mother after delivery .

Child health and nutrition

51. Now I would like to ask you questions about the health of the last three children born in the past 5 years. We will talk about one child at a time. (***Begin with the most recent birth, then the next recent, etcetera…….***)

Only include children older than 6 months and less than 60 months!

		M/F	Date of birth	Age (months)	Weight	Height	During the l**ast two weeks** (14 days) has the child had:		
	Name	M=1 F=2			(kg)	(cm)	Watery stools Yes=1 No=2	Cough or running nose Yes=1 No=2	Fever Yes=1 No=2
51.1		51.1.1 □	51.1.2 □□□□□□ day mon year		51.1.3 □□.□	51.1.4 □□□.□	51.1.5 □	51.1.6 □	51.1.7 □
51.2		51.2.1 □	51.2.2 □□□□□□ day mon year		51.2.3 □□.□	51.2.4 □□□.□	51.2.5 □	51.2.6 □	51.2.7 □
51.3		51.3.1 □	51.3.2 □□□□□□ day mon year		51.3.3 □□.□	51.3.4 □□□.□	51.3.5 □	51.3.6 □	51.3.7 □
51.4		51.4.1 □	51.4.2 □□□□□□ day mon year		51.4.3 □□.□	51.4.4 □□□.□	51.4.5 □	51.4.6 □	51.4.7 □

ID of child: 51.1 = youngest under 5
51.2 = second youngest under 5
51.3 = third youngest under 5

Annex 3

Community Questionnaire (Lofa & Nimba)

A: QUESTIONNAIRE IDENTIFICATION:

1. Date of interview ☐☐☐☐☐☐	2. Interviewer ID ☐☐
County name _____	3. County code ☐☐
District name _____	4. District code ☐☐
Community name _____	5. Community code ☐☐
Check Supervisor/Team leader: signature _____	Date checked: ☐☐ ☐☐ 2005

B. People and People Movements

About how many persons are living this community? _____

Are there displaced people in the community? [ ] yes [ ] no. if yes about how many? _____

Where are most of them from *(County 0f Origin)?*

_____

Are they expected to remain in the community for some time? [ ] yes [ ] no

Did people move out of the community as a result of the war? [ ] yes [ ] no

If yes, how would you describe this movement: [ ] everybody moved [ ] most people [ ] some people
[ ] few people [ ] nobody moved

Are you expecting them to come back? [ ] yes [ ] no if yes when:

If yes, when? [ ] after repatriation [ ] after elections [ ] after the farming season [ ] when schools close

other _____

If no why not?

_____

Is the community ready to help them when they come back? [ ] yes [ ] no

How will the community help?

_____

_____

C. Markets

Do you have market day right here in this community? [ ] yes [ ] no If no how far is the nearest market?

_____

Is it easy to get to the market? _____

_____

What would you say about prices for food?

_____

_____

Are there farms with cash crops in the community? [ ] yes [ ] no

About how many of these farms are in this community? _____

D. Community Priorities

Ask the community to identify the three most important priorities of their community. List the priorities, and then rank each priority according to perceived importance. Let community members reach a consensus on the criteria for the ranking.

Important Priorities	Rank	Criteria for Ranking
(1)		
(2)		
(3)		

[is food insecurity mentioned as a community problem?] **if it is mentioned ask:**

Why is it a problem? *[record responses in the table presented below]*

What is the community doing about it? *[record responses in the table presented below]*

Why is it a problem?	Community Action(s) Criteria for Ranking
(1)	
(2)	
(3)	

[if food insecurity is not mentioned as a community problem?] **then ask:**

What is the food situation in this community? _____

_____

_____

What proportion of the people in this community would you say run out of food in their homes:

(a) every day [ ] (b) every week [ ] (c) every month [ ]

a. Coping Strategies

Why do you think are the causes of people running out of food? _____

_____

_____

What do people do if there isn't enough food or if they run out of food? [Things people would do to make the food they have longer]

Things People Do	Rank (the most successful) Rank
(1)	
(2)	
(3)	

Social Networks

Do people sometimes go to different *places* to get food when they have ran out of food? [ ] yes [ ] no

What kinds of places do people go to and how often?

Places People go	How Often Do They Go There?	Rank
(1)		
(2)		
(3)		

Which of these places work best for the community? [get a consensus on ranking in order of effectiveness and do the ranking in the table above] *Ask why for each category mentioned. Do they go to them at different times or use them differently. Or they each have a different role?*

Are there other kinds of help here also in the community (people who will give food or money or credit) [ ] yes
[ ] no

If yes, can you describe how some of these networks work?

What would you say are the most important in helping people in this community manage when food has run out? Why are they important?

E. Recommendation

What do you think the [Government, Community, UN, Business/Private Sector] could do to make it easier for people to get enough food?

Organization	Proposed Actions/Programme
Government	
Community	
UN	
Business/Private Sector	

Participants name	Kind of work	Sex

Annex 4

Community Questionnaire (Montserrado)

A: QUESTIONNAIRE IDENTIFICATION:

1. Date of interview □□□□□□	2. Interviewer ID □□
County name _____	3. County code □□
District name _____	4. District code □□
Community name _____	5. Community code □□Check
Supervisor/Team leader: signature _____ Date checked: □□ □□ 2005	

B. People and People Movements

About how many persons are living this community? _____

Are there displaced people or refugees in the community? [ ] Displaced Number □□□□
[ ] Refugees Number □□□□

Where are most of them from *(County 0f Origin)?*

Displaced _____

Refugees _____

Are they expected to remain in the community for some time? [ ] yes [ ] no

Did people ***move out*** of the community as a result of the war? [ ] yes [ ] no

If yes, how would you describe this movement: [ ] everybody moved [ ] most people [ ] some people
[ ] few people [ ] nobody moved

Are you expecting them to come back? [ ] yes [ ] no

If yes, when? [ ] after repatriation [ ] after elections [ ] after the farming season [ ] when schools close

other _____

If no, why not?

_____

Is the community ready to help them when they come back? [ ] yes [ ] no

How will the community help?

_____

_____

C. Markets

Do you have a food market right here in this community? [ ] yes [ ] no

If no, how far is the nearest market? _____

Is it easy to get to the market? _____

What types of food are sold in the market? ……

…… ____

What would you say about prices for food?

_____

_____

Are there farms in the community? [ ] yes [ ] no

What is grown on these farms? _____

D. Community Priorities

Ask the community to identify the three most important priorities of their community. List the priorities, and then rank each priority according to perceived importance. Let community members reach a consensus on the criteria for the ranking.

Important Priorities	Rank	Criteria for Ranking
(1)		
(2)		
(3)		

How is food a problem? Is there no food to find, or is it too expensive? [ ] No food to find
[ ] Too expensive

What is the community doing about it? *[record responses in the table presented below]*

Community Action(s) Criteria for Ranking
(1)
(2)
(3)

[if food insecurity is not mentioned as a community problem?] **Then ask:**

What is the food situation in this community? _____

_____

_____

Are there people in this community who have to go without food for some time? [ ] yes [ ] no

If yes: - how many/what proportion? _____

- how long? _____

Coping Strategies

What do people do if there isn't enough food or if they run out of food? [things people would do to make the food they have longer]

Things People Do	Rank (the most successful) Rank
(1)	
(2)	
(3)	

Kinds of help

Is there any kind of help in the community (for example, people who will give food or money or credit) [ ] yes [ ] no

If yes, can you describe how it works?

What would you say are the most important in helping people in this community manage when food has run out? Why are they important?

E. Recommendation

What do you think the [Government, Community, UN, Business/Private Sector] could do to make it easier for people to get enough food?

Organization	Proposed Actions/Programme
Government	
Community	
UN	
Business/Private Sector	

Participants name	Kind of work	Sex

Annex 5

Summary of community questionnaire results

1. Results of community interviews Lofa and Nimba

		Lofa	Nimba
Number of interviews		17	18
		Frequency of responses:	**Frequency of responses:**
IDPs in community?	Yes	12	17
	No	5	1
Origin of IDPs	Lofa	7	1
	Nimba		14
	Bong	2	4
	Bomi		1
	Grand Kru		1
	Montserrado	2	
Expected to remain in community for some time?			
	Yes	11	16
	No	2	1
Did people move out of community due to war?			
	Everybody	9	7
	Most	8	8
	Some	0	0
	Few	0	2
	Nobody	0	1
Are you expecting them to come back?			
	Yes	16	16
	No	1	1
When?			
	After repatriation	12	9
	After elections	1	7
	After farming season	0	0
	When schools close	4	3
	When houses repaired	1	4
	Other	4	5
Is community ready to help them?			
	Yes	17	15
	No	0	0
How will community help?			
	Providing accommodation	14	16
	Help rehabilitate houses	4	1
	Sharing food	8	9
	Help farming	5	7
	Help with other needs	2	
Do you have market day in community?			
	Yes	11	5
	No	6	13
Is it easy to get to the market?			
	Yes	9	6
	No	8	12
What would you say about food prices?			
	Prices are high	15	
	Price of imported rice and bulgur are high, other commodities (incl. local rice) affordable	2 15-25 LD/cup 1875 LD/bag	15-30 LD/cup 1900 LD/bag
Are there cash crop farms in the community?			
	Yes	17	16
	No	0	1

Community priorities	**1st**	**2nd**	**3rd**	**1st**	**2nd**	**3rd**
Shelter (zinc for roofs)	8	4		3		
Construction/rehabilitation of community buildings	1	1				
Clinic/hospital	1	6	3	4	5	
Food	4	4	1	4	5	
Roads	2		2	1	1	
School		1	3	1	5	
Hand pump/ safe drinking water/toilets		1	4	5	2	
Other	2	1	2			
	Lofa			**Nimba**		

Why is food security of a problem?						
Most people are returnees; not farmed last year	6			7		
No seeds, tools	7			9		
Bad roads, long distance to market	2			2		
High food prices/no income, unemployment	2			4		
Other	7			8		
Community actions:						
Buying/exchanging/sharing seeds and/or tools	4			7		
Collect food from bush/hunting	2			1		
Kuu farming	2			7		
Contract labour	2			1		
Exchange for food; buying food	4			1		
Other	6			8		
Percentage of HH running out of food	**Range**			Range		
Daily	50-100			40-100		
Weekly	16-100			10-75		
Monthly	12-75			10-45		
Causes of running out of food (n;(%)):						
Returnee, missed farming season	12			2		
Unemployment	6			6		
Large family size	3			8		
No burning due to early rains	3					
No seeds, tools	2			4		
Sharing food with others	2			1		
Loss of breadwinner	2					
No time for farming	3					
High food prices	1			2		
Other	4			5		
Things people do when out of food:	**1st**	**2nd**	**3rd**	**1st**	**2nd**	**3rd**
Collect/consume food from bush/hunting	7	5	4	1	2	2
Palm oil/wine production	5	3	4	5	5	2
Contract work	1	2	3	4	1	2
Reduce food intake/meal frequency/change composition of meals	2	5	3	3	3	2
Seek assistance			2	2		2
Selling charcoal/wood				1	4	2
Other	1	1	3	1	5	3
Places people go to:	**1**	**2**	**3**	**1**	**2**	**3**
The bush for collecting food	8	3		4	1	
Relatives, friends, neighbours, chief	1	4	7	2	1	5
Neighboring countries/Monrovia	1	2	3		3	1
Market/nearby town	3	1	1	10	8	2
Other	1	4		2		1
Are there other kinds of help?						
Yes	10			12		
No	5			4		

What kind of help?		
Sharing food/meals	5	3
Helping on farms	2	
Credit cash/food	2	6
Other	3	2

2. Results of community interviews Montserrado

	Montserrado
Number of interviews	19
	Frequency of responses:
IDPs in community? Yes	16
No	3
Refugees in community?	
Yes	6
no	12
Origin of IDPs Lofa	9
Cape Mount	4
Bomi	5
Origin regugees	
Guinea	2
Sierra Leone	6
Expected to remain in community for some time?	
Yes	15
No	1
Did people move out of community due to war?	
Everybody	8
Most	10
Some	0
Few	01
Nobody	0
Are you expecting them to come back?	
Yes	14
No	0
When?	
After repatriation	0
After elections	11
After farming season	0
When schools close	1
When houses repaired	3
Other	0
Is community ready to help them?	
Yes	13
No	1
How will community help?	
Providing accommodation	13
Help rehabilitate houses	1
Sharing food	8
Help farming	3
Help with other needs	3
Do you have market in community?	
Yes	5
No	14
Is it easy to get to the market?	
Yes	10
No	7
Types of food sold in the market	Rice, casava, fish, vegetables, eddoes, potatoes, fufu, banana, plantain, meat
What would you say about food prices?	
Prices are high	17
Price of imported rice and bulgur are high, other commodities (incl. local rice) affordable	2 15 LD/cup 1300 LD/bag
	(Montserrado)
Are there farms in the community?	
Yes	17
No	0
What is grown on farms?	Rice, beans, vegetables, cassava, plantain, corn

	Montserrado		
Community priorities	**1st**	**2nd**	**3rd**
Shelter (zinc)	2	1	1
Clinic/hospital	6	2	3
Food	1		
Roads	1	1	2
School	1	6	2
Hand pump/ safe drinking water/toilets	3	6	6
Other	6	1	5
How is food a problem?			
No food in market			
Food too expensive	14		
What is the community doing about it?			
Backyard gardening	5		
Sale of garden crops	3		
Petty trade	4		
Contract labour	4		
Selling wood/coal	2		
Other	3		
What is food situation in community?			
Difficult because ood very expensive	12		
Unemployment, no income	3		
Difficult to find (returned late; little farming due to lack of land)	3		
No major problem	1		
People in community who have to go without food for some time?			
Yes	17		
no	1		
How many/what proportion?	Wide range, difficult to summarise		
How long?	Wide range, difficult to summarise		
What do people do if there is not enough food or if they run out of food?	**1st**	**2nd**	**3rd**
Eat less / less meals	5	3	5
Diversify meal composition	1	6	1
Seek assistance from friends, relatives, neighbours	3		2
Sell garden products	3	1	3
Credit/borrow	1	3	2
Petty trade, casula labour	3	4	2
Collect food in bush, go fishing/hunting		2	1
Beg	2		
Other			2
	(Montserrado)		
Is there any help in the community?			
Yes	10		
no	8		
Kind of help			
Borrow	1		
Beg assistance from friends, relatives	4		
Share food, money	2		
Credit	4		
Contract labour			

Most important help	
Borrow	1
Beg assistance from friends, relatives	3
Share food, money	2
Credit	4
Contract labour	1
Recommendations for government:	
Create jobs	6
Train farmers	2
Provide seeds, tools	6
Reduce/control price of food/rice	13
Maintain/construct roads	1
Agricultural projects, develop swamps	4
Recommendations for community:	
Backyard gardening	4
(swamp) farming	4
Identify/organise food-for-work projects	2
Farmers cooperatives	3
Appeal for food aid/seeds&tools	2
Start business	2
Community farms	2
Recommendations for UN:	
Provide tools, seeds	13
Food-for-work, food aid	7
Provide micro-credit	3
Other	3
Recommendations for business/private sector:	
Reduce prices	10
Provide credit, loans	8
Create employment opportunities	1
Establish branches outside Monrovia	2
Other	2

Annex 6

Sample characteristics and dates of visits

Table 2. Demographic data of sample

	Lofa	Montserrado	Nimba	Liberia (2000)*
Number of households	378	396	364	
Total number of persons in households	3183	3276	2514	
Average number in household	6.54	7.19	6.91	

	Males	Females	Males	Females	Males	Females	Males	Females
	% within sex		% within sex		% within sex		% within sex	
<5 yrs	15.2	15.1	15.9	13.0	15.4	13.6	17.7	17.6
5-14 yrs	34.6	28.6	33.0	34.1	36.3	32.5	25.2	25.1
15-59 yrs	46.9	49.5	48.8	49.3	45.4	49.7	52.5	52.7
60+ yrs	3.3	6.8	2.3	3.6	2.9	4.2	4.6	4.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total male, female (%)	48.6	51.4	49.0	51.0	49.2	50.8	50.0	50.0

[*Note*] * US Census Bureau (http://www.census.gov/cgi-bin/ipc/idbpyrs.pl?cty=LI&out=s&ymax=250)

Annex 4. Members of assessment team

Name	Function	Organisation
Frans de Koning	Team leader	International consultant
Joseph Hayuni	Supervisor	International consultant
Lancedell Mathews	Supervisor	National consultant
Jallah Kennedy	Supervisor	National consultant
Morris Kolubah	Interviewer/coordinator	WFP Liberia
Roosevelt Morris	interviewer	WFP Liberia
Zoakoa Jaa-Sao	interviewer	WFP Liberia
Nicholas Suku	interviewer	Action Contre la Faim
Tine Nagbwe	interviewer	Action Contre la Faim
Lelvin Nyanfor	interviewer	Action Contre la Faim
Augustine Musah	interviewer	Freelance
Nyama H. Harris	interviewer	Freelance
Mai W. Merchant	interviewer	Freelance
Winifred W. Newton	interviewer	Freelance
David Dee Kpangbala	interviewer	Freelance
Tom G. Koenig	interviewer	Freelance
Saye K.M. Dolo	interviewer	Freelance
Adolphus Allison	interviewer	Freelance
Gania Flomo	interviewer	Freelance
Veronica Payne	interviewer	Freelance
Solomon S. Ware	interviewer	Freelance
Ivor Holt	interviewer	Freelance
Helena Soko	interviewer	Freelance
Moses Badio	interviewer	Freelance
Hawa S. Cooper	interviewer	Freelance
James Regland	interviewer	Freelance
Amos Volawuo	interviewer	Freelance
Sadia Johnson	interviewer	Freelance
Simon Doe	Driver	WFP Liberia
Thomas Bundoo	Driver	WFP Liberia
James Kai-Kai	Driver	WFP Liberia
	Driver	
	Driver	
	Driver	