Refugee Nutrition Information System (RNIS), No. 30 – Report on the Nutrition Situation of Refugees and Displaced Populations

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United Nations
Sub–Committee on Nutrition

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If you have information to contribute to forthcoming reports, or would like to request back issues of the *Reports on the Nutrition Situation of Refugees and Displaced Populations* (*RNIS*), please contact:

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Highlights

Angola. Populations to which the international humanitarian community has recently gained access, such as those living in Malange, have generally experienced an improvement in their nutritional situation. However, the nutritional situation for some of the IDPs remains critical. UNITA–controlled areas remain inaccessible to humanitarian organisations and others.

Great Lakes. The humanitarian crisis in Burundi continues, particularly in Bujumbura Rurale where over 330,000 people remain in regroupment camps. The war in the Democratic Republic of Congo is increasing in intensity, and the humanitarian situation has deteriorated. About half of the displaced people in the Republic of Congo have returned to their places or origin following the recent Peace Accords. There is no longer an

acute nutritional crisis in Brazzaville and Pool, because of increased humanitarian access.

Eritrea and Ethiopia. The war–affected displaced in Ethiopia and Eritrea remain at moderate nutritional risk, although these programmes remain under–funded. Approximately 8 million people require food assistance in Ethiopia after several consecutive years of drought.

Liberia and Sierra Leone region. About half of Sierra Leone is now accessible to the humanitarian community, although little new nutritional information is currently available.

Somalia. The humanitarian situation in Somalia continues to be of concern, particularly in the southern and central regions where extremely high prevalences of malnutrition have been recorded in certain settlements.

Sudan. Localised conflict continues in Southern Sudan, and in certain areas the affected population is at considerable risk, for example around the oil fields. This situation may be further exacerbated as the hunger season is approaching. Of additional concern is that many of the international humanitarian agencies have withdrawn from SPLM controlled areas as a result of refusing to sign the new memorandum of understanding, and therefore the international humanitarian communities' ability to monitor and respond accordingly will be limited.

Balkans Region. The nutritional situation of the Kosovar population is not critical, despite the increase in the levels of violence in Kosovo. WFP and other donors are beginning to scale down their operations in anticipation of the harvest. The displaced in Serbia may be more vulnerable, but the RNIS has no nutritional information to confirm this.

East and West Timor. The impact of the turmoil on agricultural in East Timor was less than predicted and the population, the majority of whom have returned, are not considered to be at heightened nutritional risk. The humanitarian assistance to the refugees in West Timor remains patchy, and poorly organised. High prevalences of malnutrition have been recorded. There are large numbers of displaced people in Maluku.

Other areas. Situations which have not changed significantly since the last report include Guinea Conakry, Cote d'Ivoire, Rwanda, Uganda, Zambia, Nepal and Afghanistan.

Table 1
Risk Factors Affecting Nutrition in Selected Situations

Situations in the table below are classed into five categories (row 1) relating to prevalence and or risk of malnutrition (I – very high risk/prevalence, II – high risk/prevalence, III – moderate risk/prevalence, IV – not at elevated risk/prevalence, V – unknown risk/prevalence, for further explanation see inside of the back page). The prevalence/risk is indirectly affected by both the underlying causes of malnutrition, relating to food, health and care (rows 2–4, and also Figure 1 at back of report) and the constraints limiting humanitarian response (rows 5 –8). These categories are summations of the causes of malnutrition and the humanitarian response, but should not be used in isolation to prescribe the necessary response.

Factor	War–affected in Kinshasa, DRC	IDPs in Eritrea	IDPs in Bakool, Somalia	IDPs in Aweil East, BEG, Sudan	IDPs in North Uganda	IDPs in Panjshir, Afghanistan	Returnees to East Timor	Refugees in West Timor
1. Nutritional risk category	III	III	I	III	II	III	IV	II
2. Public Health Environment (water, shelter, overcrowding, access to health services)	O	X	X	X	?X	O	?**?**	X

3. Social & Care Environment (Social organisations and networks, Women's role, status and rights)	X	?**?**	?X	**?**	O	?**?**	**?**	?**?**
4. Food Security	X	X	X	O	X	X	O	X
5. Accessibility to population	**?**	**?**	O	O	X	O	**?**	O
6. General resources								
– food (gen stocks)	?X	X	?**?**	**?**	?**?**	X	?**?**	X
– non–food	?**?**	?X	X	?**?**	?**?**	?**?**	?**?**	?X
7. Personnel*	**?**	**?**	X	X	O	**?**	**?**	**?**
8. Information	**?**	**?**	O	O	**?**	**?**	**?**	**?**

? *Adequate O Mixed X Problem*
*?***?** *Don't know, but probably adequate ?X Don't know, but probably inadequate*

** This refers to both adequate presence and training of NGOs and local staff where security allows*

Sub–Saharan Africa

1. Angola

The prospects for peace in Angola seem remote. The country has been in a state of civil war since, and even before its independence. The humanitarian situation has not improved significantly during the reporting period: fighting between government and UNITA forces has intensified in some areas. Latest estimates suggest that 3.7 million people of Angola's population of 12.7 million may be categorised as "war–affected". Since January 1998, more than 1 million people have been confirmed as new IDPs (unconfirmed estimates are as high as 1.6 million). There has been an increase in the influx of Angolan refugees into Zambia and Namibia due to insecurity in the border regions since the start of the year (IOM – 28/03/00; WFP –30/03/00a).

Access and funding

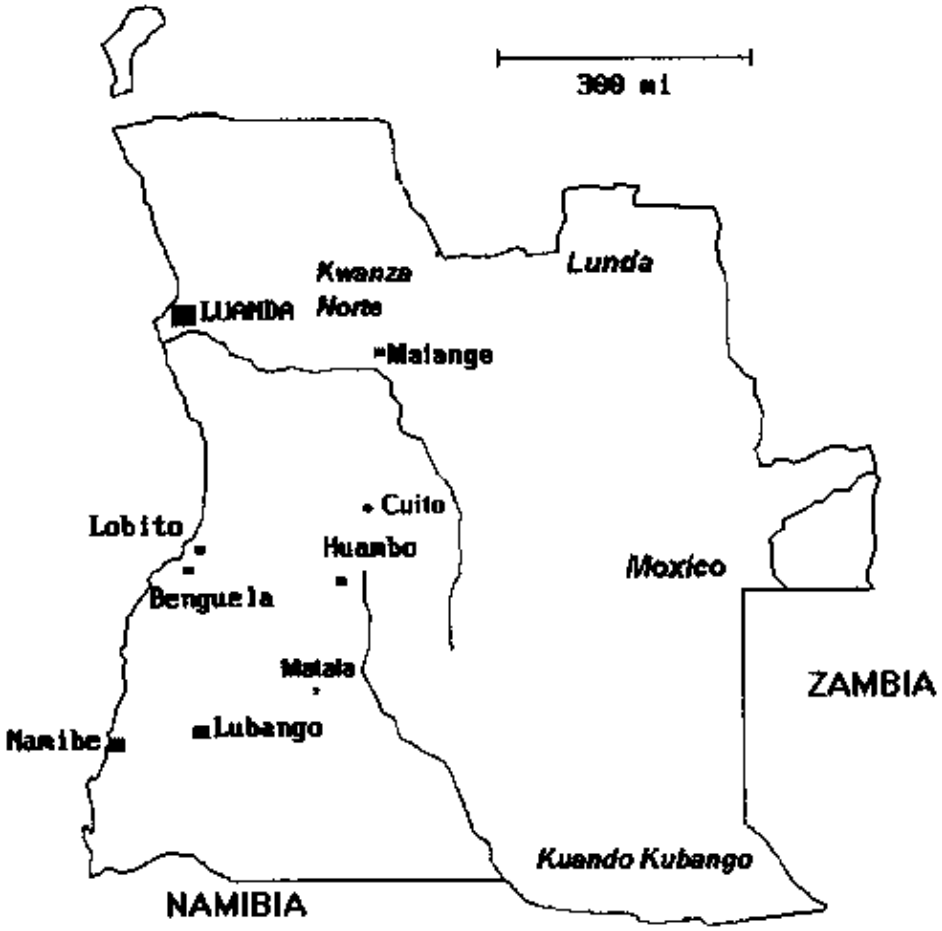
Security conditions continue to be one of the major constraints for the delivery of humanitarian assistance activities: most relief aid is still delivered by airlifts which are extremely costly. WFP targeted some 1.13 million people for food assistance in March 2000, the majority of who are in the Provinces of Malange (240,3000), Huambo (206,000), Bie (200,300) and Huila (121,100) (WFP –30/03/00a). There continues to be a lack of access, for humanitarian agencies and others, to areas outside government control.

WFP has recently issued an alert that without substantial new donor pledges the Angola programme could face serious difficulties as of July. Serious pipeline breaks are foreseen (WFP – 30/03/00b).

Malange Province

The nutritional situation in Malange city has improved dramatically, according to a survey by MSF–H in January 2000 (see annex). Extremely high prevalences of malnutrition had been recorded in Malange in September 1999 (see RNIS 29). According to this survey report the population of Malange city is only 180,000, which is less than half previous estimates of 400,000 (MSF–H – 01/00).

MSF–H also undertook a nutritional survey in Lombe, a village 23 km east of the city (population 8,000) (see annex). Both Lombe and Malange have long been centres to which displaced people come, as they are perceived as relatively safe areas. The worsening situation in March 1999 forced more people to come to Lombe. The renewed conflict has halted or interrupted resettlement efforts, and relief programmes, in the form of dry ration distribution, have only recently started in Lombe. Examples of other nutrition programmes include the distribution of cooked free meals for children as well as sick adults by a Catholic mission, a 'kitchen' project focusing on lactating mothers, and a small food–for–work project. The results of the nutrition surveys can be seen in the table below (MSF–H–01/00).



Results of surveys in Malange **and Lombe**

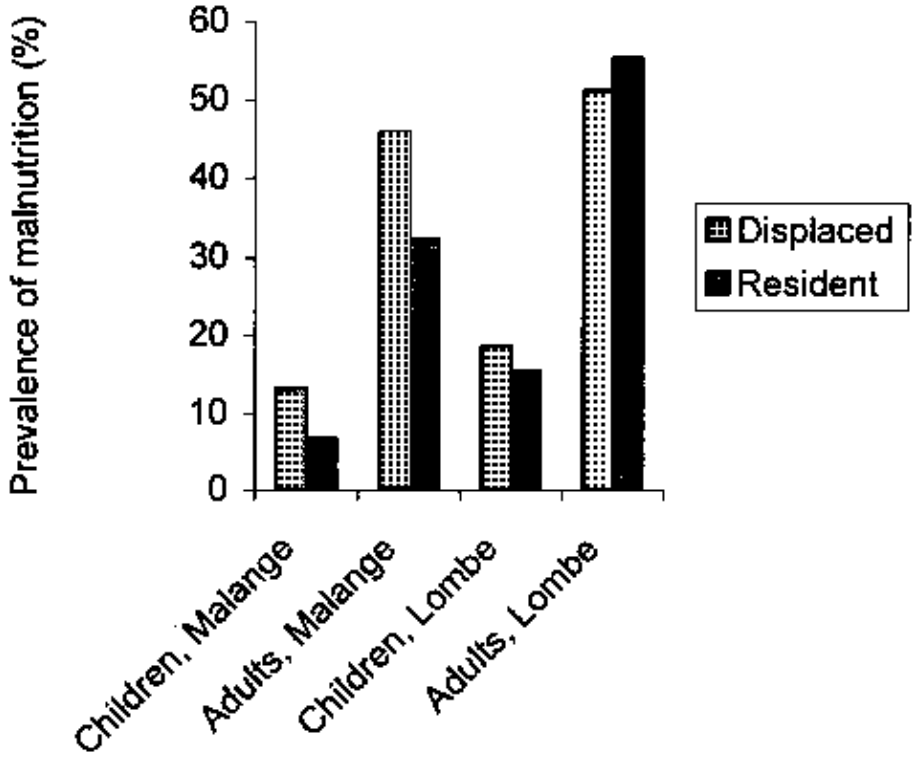
	Malange	**Lombe**
Children		
Proportion displaced	15.3%	52.7%
Acute malnutrition		
(<–2z scores and/or oedema)	7.8%	17.1%
Severe acute malnutrition		

(<−3z scores and/or oedema)	1.1%	6.4%
Adults		
Proportion displaced	17%	50%
Malnutrition		
(BMI<18.5 and/or oedema)	34.6%	53.6%
Severe malnutrition		
(BMI<16.0 and/or oedema)	10.9%	22.3%
CMR		
(deaths/10,000/day)	1.6	1.3
Under−five mortality		
(deaths/10,000/day)	2.5	2.8
Children		
Feeding programme coverage	26.0%	65%
Adults		
Feeding programme coverage	6.9%	4.7%

The decrease in malnutrition in Malange city is partially attributed to the restoration of WFP's general ration in August. The agency had been unable to deliver food to the community for five months during the siege (in the survey 74% of households reported receiving food from WFP, which is a great improvement compared to November when it was reported that 89% of malnourished adults did not have ration cards). There has also been an increase in goods available for sale in the city's markets because of improved access by road. In addition, many NGOs have been operating feeding centres and programmes in the city during the past nine months, although the coverage was reported to be relatively poor (between 20 to 25%) (MSF−H− 01/00).

The prevalence of malnutrition was considerably higher in Lombe than in Malange, particularly for adults. This was attributed to the lack of a general ration distribution in Lombe. In addition, there are fewer supplementary feeding centres in Lombe and no therapeutic feeding programmes at all (MSF−H−01/00).

In Malange local residents had a significantly lower prevalence of malnutrition than IDPs (adults and children). This was not true for Lombe, possibly because the general circumstances of residents, particularly income opportunities for residents are as poor as those for the displaced (see graph). In Malange, a significant association ($p<0.05$) was found between children who drank water from unprotected wells and malnutrition. In Lombe, children who drank water from the river were more likely to be malnourished (MSF−H−01/00).



The prevalence of malnutrition (defined by z–scores or the BMI and/or oedema) in Malange and Lombe among residents and displaced

Kuito, Bie Province

The nutritional situation of IDPs in camps in Kuito and in neighbouring Kunje, Bie Province, is precarious. The population of Kuito town and its suburban barrios has been estimated at 130,000 and the population of Kunje town and its suburban barrios at 25,000. About 110,000 IDPs were registered at the time of an MSF–B/ICRC survey in December 1999. Two main waves of IDPs have been registered – December 1998 and September 1999 –corresponding to high levels of military activities in the province, and new arrivals were still being registered. The surveys of children aged 6–59 months in the towns and the I DP camps recorded a deterioration in nutritional status since March 1999 (see annex). Mortality rates remained elevated in both resident and displaced groups (MSF–B/ICRC–12/99).

Results of surveys in Kuito, Bie Province

	March 1999	**July 1999**	**Dec 1999**	**Dec 1999**
	Town	**Town & camps**	**Town**	**Camps**
% of IDP families	14%	53%	29%	100%
Mortality (deaths/10,000/day)				
CMR	1.9	2.2	1.9	2.4
Under–five mortality	3.5	3.3	3.8	4.5
Acute malnutrition				
(<–2z scores and/or oedema)	4.2%	12.7%	8.0%	16.1%
Severe acute malnutrition				
(<–3z scores and/or oedema)	1.0%	3.5%	1.5%	1.3%

The authors of the surveys suggested that the relatively higher prevalence of acute malnutrition in the camps was due to limited access to food as well as poor sanitation and health facilities. Only 23% of all the families interviewed (in town and the camps) reported having received a general food distribution in December,

although a much higher proportion received food in November. WFP food deliveries were severely constrained during December due to the closure of the airport for almost two weeks. For general distribution, the current planned ration is 1,800/KCal/day and is targeted at IDPs and vulnerable categories of residents including children under five, disabled persons, and lactating and pregnant women. Since November 1999, families with malnourished children and families with pellagra (niacin deficiency) cases are also included. According to the survey only 42% of IDPs reported having access to general food rations. Access to community kitchens programmes where meals are distributed was even lower (approximately 5%). Coverage of the MSF−B feeding programmes were also low at 27% in town and 34% in the camps. Anecdotal reports suggest that an increasing number of older adults and children are becoming malnourished (MSF−B/ICRC −12/99).

RNIS 29 reported on an outbreak of pellagra in Kuito between August and November 1999. WFP has since supplied niacin rich food supplements (blended food) for the cases identified and also their families. The general ration, however, currently contains only 8−10 mg/person/day of niacin compared to the recommended daily allowance of 15−20 mg/person/day (WFP/MSF−B/ICRC/UNICEF −01/2000). A 30 day supply of vitamin B complex tablets was distributed to all women of 15 years and over in December by MSF. The MSF−B/ICRC survey estimated that 86% of women in the town and 90% of women in the I DP camps had received the tablets. However, compliance rates were relatively low for a variety of reasons, including misinformation and suspicions about the purpose or side effects of the tablets. Cases of pellagra are being treated through the supplementary feeding centres (MSF−B/ICRC−12/99).

Matala, Huila Province

The nutritional situation of the IDPs in Matala, Huila Province has improved since October 1999 according to two ACH surveys conducted in January (see annex). In October a rapid nutritional assessment using MUAC had estimated extremely high prevalences of malnutrition. The recent surveys were conducted on children aged 6−59 months from both newly arrived displaced groups (defined as those who had arrived after August 1999, population approximately 15,000) and more established displaced groups (those who had arrived before July 1999, population approximately 35,000) (ACH − 01/00).

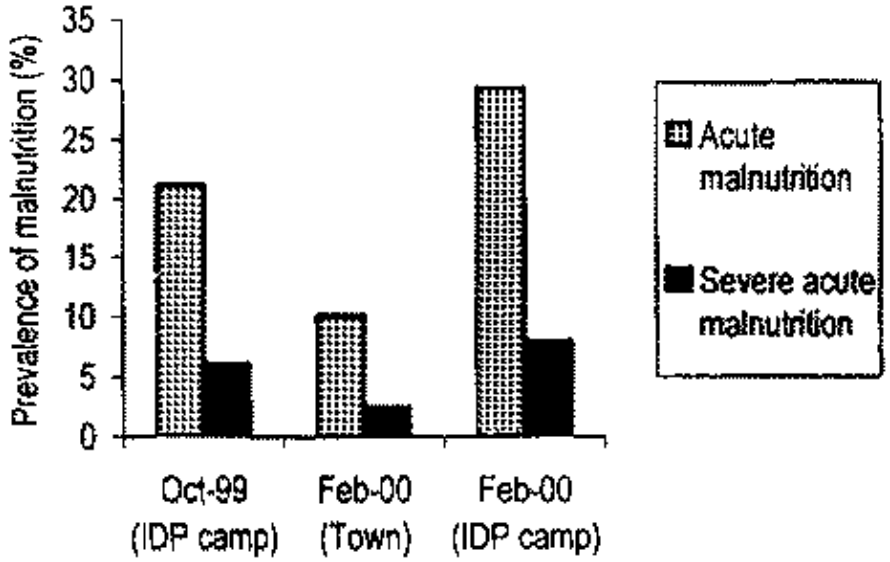
Results of surveys from Matala, Huila Province

	Newly arrived IDPs	**More established IDPs**
Acute malnutrition		
(<−2z scores and/or oedema)	9.9%	6.7%
Severe acute malnutrition		
(<−3z scores and/or oedema)	1.7%	1.3%
Vaccination coverage		
Confirmed by card	79.9%	6.9%
Confirmed by history	10.1%	17.5%
Not vaccinated	10.0%	75.6%
Under 5 mortality rate		
(deaths/10,000/day)	5.2	1.0
Proportion of households interviewed who received WFP food	98.8%	70.5%

The most significant difference between the two groups was the alarmingly high under−five mortality rate among the newly−arrived IDP group. This was largely due to a diarrhoea epidemic that accounted for 92% of all reported deaths in this age group. In stark contrast the prevalence of malnutrition was similar for both groups, although slightly lower among the more established IDPs. A large proportion of this group have access to land and have managed to establish vegetable gardens. In contrast, the newly arrived group of IDPs are more dependent on the ration provided by WFP, as they do not yet have access to land (ACH − 01/00). New IDPs have continued to arrive in Matala during the reporting period (OCHA − 20/02/00).

Ganda, Benguela Province

Two ACH nutritional surveys were conducted among children aged 6–59 months in Ganda, Benguela Province in February as a follow–up to a survey in October 1999 (see annex). At the time of the survey, the population of Ganda was estimated at about 36,000 residents – 3,000 IDPs in official camps and a further 6,300 IDPs living in the town either with host families or in rented accommodation. There have also been reports of a further 1–2,000 displaced people arriving in the area (ACH – 02/00; OCHA –20/02/00).



The prevalence of malnutrition (defined using z–scores and/or oedema) in Ganda, Benguela Province

The prevalence of acute malnutrition was extremely high among the IDPs in the official sites (see graph). Mortality rates for the IDP population (calculated by grave counting in the cemeteries around the displaced sites) were also elevated – CMR was estimated at 3.1/10,000/day and under–five mortality at 4.1/10,000/days. The IDPs in Ganda have very limited opportunities for self–reliance, their main source of income is from working on the residents' farms but this work is infrequent and poorly paid. The displaced are able to plant on very limited plots around the campsites, but this activity does not produce enough food for the majority of households. Residents are also suffering as both agricultural production and economic activities in the area have been limited by insecurity. A limited number of animals are still owned by the residents (ACH – 02/00).

Huambo

SCF–UK/WFP/MINARS are verifying beneficiaries in Huambo. WFP plans to undertake a general food distribution in April, focusing on the IDP population. The situation will be reviewed in the next three months when the availability of food locally should improve after the harvest. Previous reports have suggested that both the resident and displaced populations have poor nutritional status. The nutritional situation is still reported to be of concern (WFP–30/03/00a).

According to WFP, a nutritional survey in Caala in November estimated the prevalence of acute malnutrition at 23.3% and severe acute malnutrition at 5.8% (WFP –13/01/00). This survey is currently unavailable to the RNIS. ICRC assisted some 16,000 IDPs in Caala in January–March. An estimated 2–3,000 new IDPs have arrived during the reporting period (WFP – 30/03/00a).

Angolan refugees in Namibia

Fighting has intensified in recent months along the Angolan border with Namibia and in other areas of the province of Kuando Kubango. UNHCR and WFP are currently assisting some 11,000 Angolan refugees in Osire camp, Namibia, about 230 km north of the capital Windhoek (IRINSA 28/02/00; WFP – 30/03/00a). There is no information on the nutritional situation of these refugees.

Overall, the nutritional situation appears to be quite variable from the surveys described above. Populations to which the international humanitarian community has recently gained access have generally experienced improvement in their nutritional situation (category II or III). Generally the nutritional situation for the IDPs living in official sites in Kuito, Bie Province, and Ganda, Benguela Province is worse than that of adjacent town

residents (who include IDPs resident in towns) (category I), although in some smaller towns or villages like Lombe, Malange province the situation is similar for both IDPs and longer–term residents. In Matala the impact of non–nutritionally related causes of mortality are evident. The nutritional situation of the refugees in Namibia is unknown (category V).

Recommendations and priorities:

- Support WFP's programme in Angola to avoid pipeline breaks from July onwards.
- Maintain humanitarian assistance to the IDPs, particularly those in official camps or sites.
- Improve public health – a continued priority.
- Obtain information about the nutritional situation in UNITA controlled areas, and the need for humanitarian assistance.

From the MSF–H surveys in Malange and Lombe:

- Improve the general food distribution to the IDPs in Malange to ensure in particular that the IDPs and malnourished adults are not excluded.
- Start a general food distribution in Lombe targeted equally at IDPs and residents.
- Start a therapeutic feeding centre in Lombe.
- Improve coverage of all selective feeding programmes in both Malange and Lombe, through active case finding.
- Investigate water sources in both Malange and Lombe to assess the links with malnutrition.
- Investigate the source of livelihood and food security of people in Malange and Lombe.

From the MSF–B/ICRC surveys in Kuito:

- Improve access to safe water and essential health care facilities in order to reduce the high mortality rates.
- Improve coverage of the selective feeding programmes through screening and active case–finding, and investigate delays in discharging recovered children.
- Initiate food basket monitoring and continuing to reinforce nutritional surveillance.

For the pellagra outbreak:

- Supply the IDPs with foods rich in niacin and other B vitamins (preferably groundnuts, otherwise corn soya blend)
- Investigate whether or not residents are also suffering from other micronutrient deficiencies.
- Investigate the feasibility of setting–up local maize fortification schemes as a more long–term solution

From the ACH survey in Matala, Huila Province:

- Continue to supply food assistance, and increase this if possible.
- Support food security through appropriate agricultural and income–generating activities.
- Establish a nutritional surveillance system in the camps for the longer–term displaced.
- Improve the measles immunisation rate for this group.

• Strengthen the provision of safe water for the newly displaced.

From the ACH survey in Ganda:

• Provide a general ration, shelter, essential kitchen and other non−food items to all IDP households in the official sites for three months.

• Continue nutritional surveillance through the health centres.

• Strengthen active case finding.

2. Great Lakes

The humanitarian crisis in Burundi continues, particularly in Bujumbura Rurale where over 330,000 people remain in regroupment camps in appalling conditions. Large numbers of displaced people are beginning to return to their homes in the Republic of Congo after the peace agreements were signed in December 1999 and the humanitarian situation is improving. In the Democratic Republic of Congo, access to war−affected and other vulnerable populations was significantly reduced over the reporting period, and there are reports of a further 230,000 people being displaced. The humanitarian situation in some of the eastern provinces is reported to be particularly poor. A large number of refugees from Burundi and Democratic Republic have sought refuge in the United Republic of Tanzania since October 1999. The table below shows the estimated number of refugees, IDPs and returnees in need of assistance in the Great Lakes Region. A severe drought is currently affecting the horn of Africa including several countries in the Great Lakes Region.

Estimated numbers of refugees, IDPs and returnees in the Great Lakes Region

	Mar−1998	June−1998	Mar−1999	Jun−1999	Sep−1999	Dec−1999	Mar−2000
Burundi	600,000	670,000	222,000	451,000	617,000	821,000	830,000
Rwanda	690,000	550,000	690,000	640,000	673,000	650,000	652,000
RoC	400,000	50,000	213,000	213,000	343,000	823,000	438,000
DRC	568,500	621,000	788,000	952,000	1,104,000	1,185,000	1,418,000
Tanzania	345,000	329,000	328,000	373,000	373,000	400,000	465,000
Total	2,603,500	2,220,000	2,241,000	2,629,000	3,110,000	3,880,000	3,803,000

Burundi

The security situation in Burundi remains of concern. Reports of fighting in Bujumbura Rurale, Rutana, Ruyigi and Gitega have been received since the beginning of the year. The Arusha peace process talks have resumed under the leadership of Nelson Mandela and dialogue between the Government of Burundi and the major armed rebel factions has begun (OCHA − 03/00).

Humanitarian agencies have reported a deterioration in the humanitarian situation not only in the province of Bujumbura Rurale, but also in the provinces affected by the drought (North and East of the country) and in those affected by the escalation of the conflict (South and North, moving along the eastern border) (OCHA − 03/00). It is estimated that some 830,000 people, or approximately 13% of the total population, are presently displaced in Burundi. Many of these people have been displaced since 1993 (WFP−21/03/00).

Drought

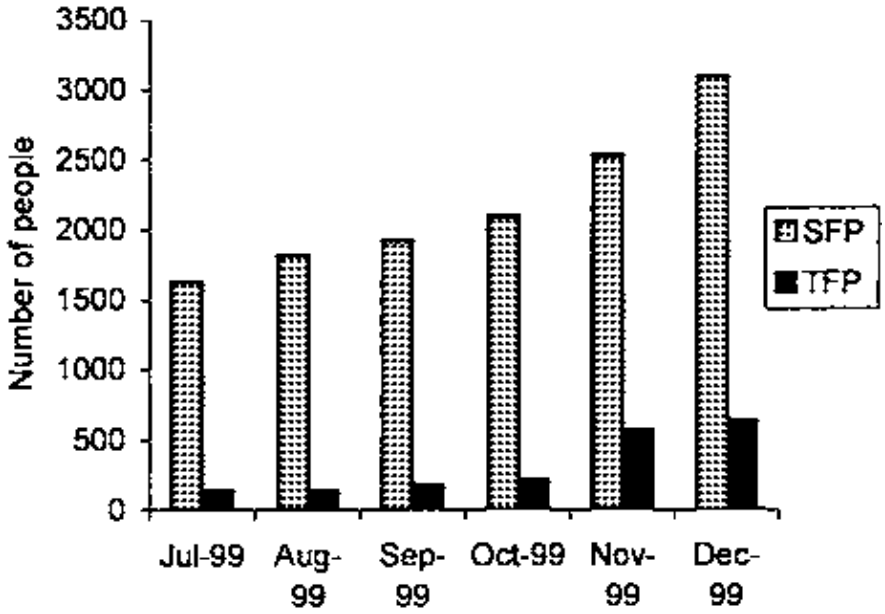
A joint FAO/WFP/Ministry of Agriculture assessment in December 1999 estimated that 2,250,000 people need assistance because of a drought in the country. FAO inputs will include bean and vegetable seeds as well as hoes. WFP will provide seed protection rations for 10−15 days using the same beneficiary lists as FAO (OCHA −03/00; WFP−22/02/00).

Bujumbura Rurale Regroupment Sites

Since September 1999, almost 70% of the population of Bujumbura Rurale has been regrouped into camps around the capital. An estimated 350,000 people were forcefully relocated into 53 sites. Living conditions in the camps are reported to be appalling – they are overcrowded and there is insufficient access to food, water, sanitation and health–care. An outbreak of cholera occurred in December and the risk of further epidemics remains high (Oxfam –15/03/99; WFP–23/02/99).

The nutritional situation in the regroupment camps is variable. According to WFP, nutritional assessments undertaken in eight sites in December 1999 estimated the prevalence of acute malnutrition between 3.6% and 18.0%. The prevalence of severe acute malnutrition varied from 0.5–4.6%. Further rapid nutritional assessments in January 2000 in Kabezi, Kavumu and Ruyaga sites estimated the prevalences of malnutrition at 29%, 17% and 14% respectively. These reports are currently unavailable to the RNIS (WFP – 22/02/00, 23/02/00, 21/03/00).

There has been a large increase in the number of admissions of all age groups to the therapeutic feeding centre in Bujumbura Marie between July and December 1999 (see graph). This is despite difficulties in accessing the therapeutic centres. The increase is partially attributed to limited access to farmland and low harvests; diversion of food aid by soldiers; and limited general food distributions due to insecurity and the evacuation of NGOs and the UN in many sites (MSF–B – 01/00, WFP – 21/03/00).



Number of people in Supplementary (SFP) and Therapeutic (TFP) feeding programmes in Bujumbura Marie

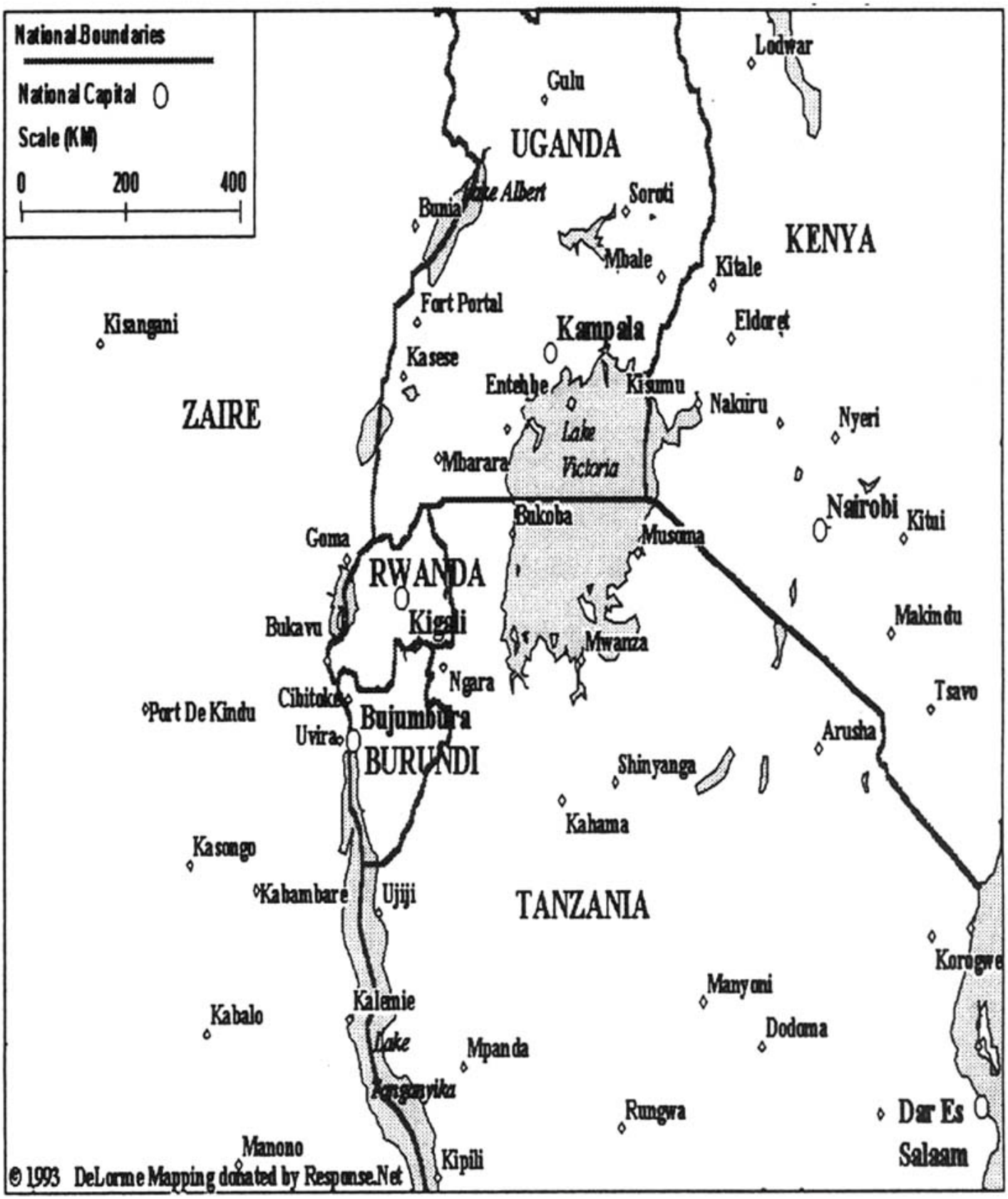
Much of the population in the regroupment camps live off small businesses or obtain employment as casual labourers within Bujumbura town. Others have access to their fields and are able to harvest cassava. Factors associated with the malnutrition in the camps include the lack of access to fields, loss of crops due to looting, uneven distribution of relief foods, low vaccination coverage and outbreaks of disease. The uneven distribution of relief foods was due to problems of access and the compilation of beneficiary lists. In addition, the food pipeline has been insufficient (OCHA – 03/00; WFP – 22/02/00, 21/03/00).

Drought in some areas of the province is exacerbating the problems of regroupment. The FAO/WFP/Ministry of Agriculture assessment in December 1999 indicated that the 2000A harvest (January) will be down 50% compared to 1999 for approximately 25% of the regrouped population in the Imbo agricultural zone (WFP – 23/02/99).

In response to fierce international criticism, the Government of Burundi has undertaken to dismantle 11 camps by May 2000. Phase I of the dismantling is underway and approximately 11,000 of the 60,000 people living in these camps have returned to their homes. Phase II is currently being planned. The scale and nature of food and non–food needs in the months to come will be partially determined by the timing of the IDPs' return to their homes. If the displaced have been able to plant in time for the 2000B season (planting should be in February and March) and the security situation remains stable, then it is possible food assistance will only be required on a large scale until the next harvest (May and June). However, food–aid needs will also be

determined by the amount of planting and tending to their crops that people who are still in the camps are able to undertake. A further unpredictable but important factor is the amount of looting that may or may not occur as the crops mature (Oxfam –15/03/99; WFP – 23/02/00, 21/03/00).

WFP used resources from the regional PRRO to provide food for 255,000 people in Bujumbura Rurale between September and December 1999. A new EMOP for Bujumbura Rurale was signed on March 1 2000. This EMOP aims to provide food for an average of 257,000 people per month over the next six months (WFP – 21/03/00).



THE GREAT LAKES REGION

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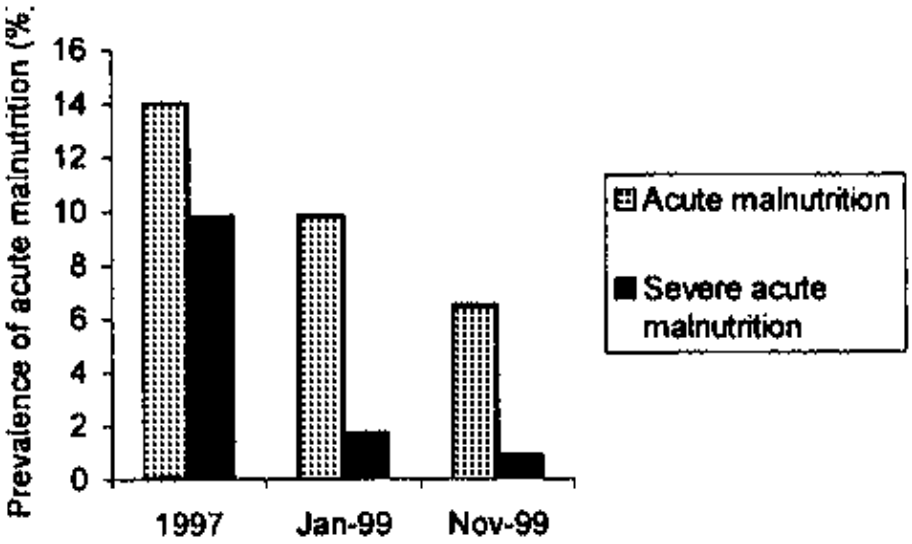
Kayanza Province

ACF–F conducted a food security assessment and nutritional survey in Kayanza Province in November 1999 (see annex). The majority of the survey population were returnees to Kayanza. The prevalence of acute malnutrition in children aged 6–59 months was estimated at 6.7%, which included 1.1% severe acute malnutrition (0.2% with oedema). These prevalences are significantly less than those estimated in January 1999 (see graph). The under–five mortality rate was estimated at 0.93/10,000/day and CMR at 0.56/10,000/day. The coverage of the therapeutic feeding centre programme was 26.3%. Measles vaccination was confirmed by card for 66.4% of children aged more than 9 months (ACF–F–11/99).



The prevalence of acute malnutrition (defined using z–scores and/or oedema) in Kayanza Province, Burundi In children aged 6–59 months

The survey also examined the nutritional status of adults (aged 18 years +) using the BMI and chronic energy deficiency (CED) cut–offs proposed by WHO (see table). Fourteen percent of adults were malnourished (BMI <17 kg/m^2). A significantly larger proportion of older adults (defined as 50+ years) were malnourished than younger adults, as is usual in the developing world. The prevalence of CED in adults had decreased significantly since January 1999. CMR was estimated at 0.53/10,000/day. The coverage of the therapeutic feeding programme was 15.5% for adults aged 18–49 years old, but 0% for adults aged more than 50 years (i.e., none of the malnourished older group were enrolled in the feeding programme) (ACF–F –11/99).

Results of adult nutritional survey in Kayanza

CED grade (BMI, kg/m^2)	18–49 years (n=658)	50+ years (n=275)	18+ years (n=933)
Severe CED (<16.0)	3.2%	7.6%	4.5%
Moderate CED (16.0–16.9)	7.4%	14.2%	9.4%
Marginal CED (17.0–18.4)	16.9%	25.5%	19.4%
Normal (>=18.5)	72.5%	52.7%	66.7%

The decrease in the prevalence of malnutrition in all age groups was partially attributed to an improvement in security conditions between January and November 1999. This has allowed the population to increase its agricultural activities over the year. The food security situation is, however, still fragile. A relatively large number of adults continue to be admitted to the therapeutic feeding programmes (ACF–F –11/99).

The food security assessment attempted to evaluate associations between various household characteristics and the risk of malnutrition in either children, adults or both. Characteristics examined included: the sex and age of the head of the household; the principle method of obtaining food; access to land; availability of

cassava; possession of livestock; access to food aid; available income and household size. Twenty−five percent of households were female−headed. Farming is the main source of food and income for households. In some communes market−purchase of food is important because of insecurity and theft, which hinders cultivation. Ninety percent of households reported not having received food aid during 1999. Livestock ownership varied within and between collines, and most families had only one source of income. Most were involved in small−scale trade or services, or sold farm products (including coffee as a cash crop). The only statistically significant association found was that families with a malnourished child were more likely to have a malnourished adult than those without a malnourished child. The authors of the survey commented that a more vulnerable group within this population probably exists, but that further studies are required to ascertain their characteristics and hence design appropriate interventions (ACF−F −11/99).

Karusi Province

MSF−B has reported a large increase in the number of admissions of children aged 0−17 years old to the NGO's therapeutic feeding centre in Buhiga between August and December 1999. The majority of cases came from outside Buhiga commune, from areas where there are no therapeutic feeding centres. A large proportion of the cases are from Ngozi province. Given that security conditions prevent a nutritional survey in the province it is not possible to assess whether the nutritional situation outside of Buhiga commune is worse than within Buhiga or whether the people are coming to the clinic because there are no clinics in the areas where they live (MSF−B − 01/00).

Rutana and Ruyigi Provinces

Population displacements have been reported in the Provinces of Rutana and Ruyigi due to a significant escalation of the conflict between the army and the rebels. There are unconfirmed reports that the Interhamwe and ex−FAR are participating in these attacks. The RNIS has not received any new information about the nutritional situation in these areas; the latest reports estimated the prevalence of acute malnutrition in Rutana to be 10−15% (see RNIS 28). The affected population in these areas receive little assistance as NGO and UN activities are limited due to the insecurity (OCHA−03/00).

Outflow of refugees

About 82,000 Burundians arrived in the United Republic of Tanzania between October 1999 and February 2000, bringing the total number of Burundians in the United Republic of Tanzania up to 340,000. Some 3,400 new arrivals were registered in only one day at the end of December (UNHCR − 31/03/00).

Overall, while the prevalence of malnutrition amongst the IDPs in Bujumbura is very variable, the RNIS considers a high proportion of these people to be at considerable risk (category I or II). Food insecurity is exacerbated by the appalling sanitary conditions. IDPs in other areas are considered to be at moderate risk (category II).

Recommendations and Priorities:

- Obtain access to IDPs in Bujumbura Rurale − this remains a priority.
- Improve the living conditions of the IDPs in Bujumbura.

From the ACF−F survey in Kayanza:

- Continue with therapeutic and supplementary feeding programmes.
- Improve nutrition education and coordination with other programmes.
- Analyse and support local capacities that could prevent malnutrition.
- Establish a system for monitoring the nutritional and food security situation.
- Continue with agricultural support projects.

Rwanda

There remain an estimated 620,000 IDPs in Rwanda, the majority of whom are in Ruhengeri and Gisenyi Prefectures. The government is moving ahead with its controversial “villagisation” or “imidgudu” scheme throughout the country.

There has been no new information on the nutritional situation of the displaced. The most recent survey in June 1999 in Gisenyi described the displaced population at moderate risk of malnutrition (see RNIS 28).

Refugees

There are approximately 32,300 Congolese refugees (from DRC) in Rwanda (14,5000 in Kitiza and 17,800 in Gihembe). An estimated 10,000 Congolese refugees have spontaneously returned to North Kivu from Rwanda since mid−1999. The latest reports from UNHCR states that the nutritional situation of these refugees is satisfactory. There are also some 500 Burundian refugees in the country (UNHCR – 07/12/99, 31/03/00; WFP – 29/03/00).

Returnees

According to UNHCR, there have been over 5,000 returnees to Rwanda since January. This inflow can be attributed to the relatively stable situation in Rwanda and the concomitant deterioration in the humanitarian situation in eastern DRC (UNHCR – 31/03/00).

Overall, there has been no new information on the nutritional situation of the IDPs and refugees in Rwanda. It is assumed that the population remains at moderate risk (category IV).

Recommendations and priorities:

- It is important to obtain information on the nutritional situation of IDPs and refugees in Rwanda.

Republic of Congo (RoC)

The second peace accord between the Government and opposition parties in the Republic of Congo (RoC) was signed on 29 December 1999 in Brazzaville. This has consolidated the first accord of 16 November and has resulted in a decline in military activities in the country. No reports of fighting have been received during the reporting period. Militia members are beginning to disarm voluntarily. Humanitarian access is expanding rapidly and approximately half the interior is currently reachable. The UN and NGOs are starting to provide rehabilitation assistance in communities of return, many of which had been completely gutted and left with few or no social services and economic activities (IRIN – 24/02/00, 10/03/00).

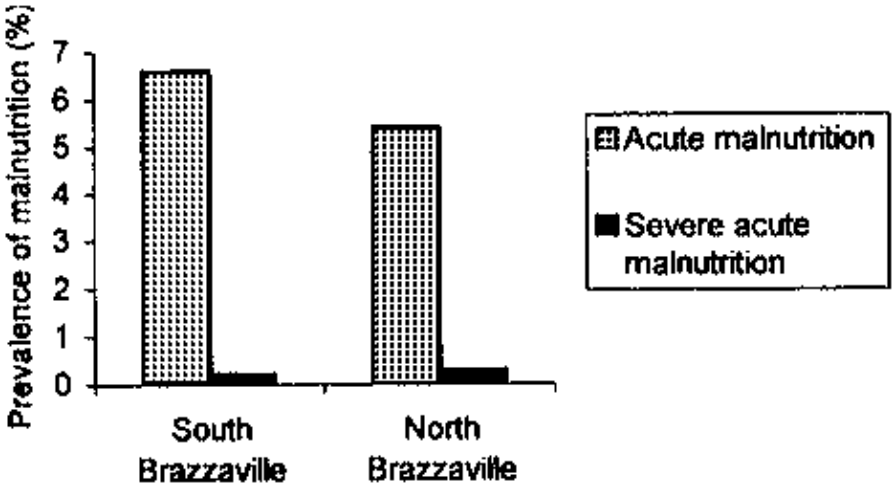
Displacement

The humanitarian situation is currently characterised by the continuous movement of displaced people from the forests to their homes and villages, particularly in areas where security is guaranteed. An estimated 400,000 people had returned by mid−February and a further 200,000 are expected to have returned home by April or May 2000. Thus approximately 600,000 (three−quarters of those who were still displaced in December 1999) may have returned home by the middle of this year (IRIN – 24/02/00, 10/03/00). At the same time, some displacement from the Pool to Brazzaville continues because of a lack of access to resources and health care in the Pool (ACF – 30/03/00).

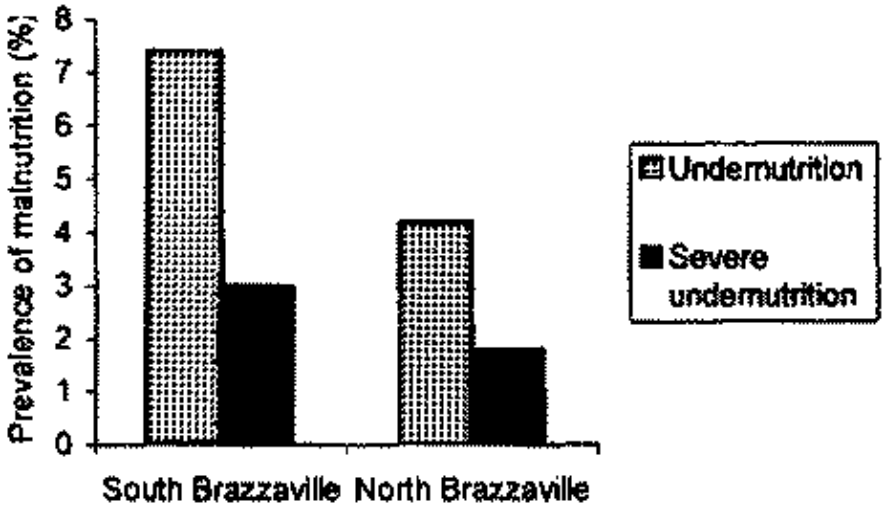
Brazzaville

The nutritional situation in Brazzaville has improved dramatically since September 1999 (see RNIS 28). ACF−F conducted nutritional surveys among both adults and children aged 6−59 months in March in both the southern and northern zones of the city (see annex). The prevalence of acute malnutrition varied from 5.4−6.6% in children and 7.4−4.3% in adults (adult malnutrition was defined using a BMI<17.0kg/m^2 for those aged 18−49 and BMI<16.0kg/m^2 for those aged fifty or more, and/or oedema), indicating that, currently, there is not a nutritional crisis in the city (see graphs). The nutritional situation of the population is, however relatively precarious given that there are still many displaced families from outside Brazzaville (mainly the

Pool) living with host families (ACF–F – 30/03/00). Previous assessments in Brazzaville found that IDPs were at higher risk of malnutrition than the residents (see RNIS 29).



The prevalence of acute malnutrition in children aged 6–59 months (defined using z–scores and/or oedema) in Brazzaville



The prevalence adult undernutrition (defined using the BMI an/or oedema) in Brazzaville

The Pool region

IDPs are returning to their homes in the Pool region as the security situation stabilises. Access to the Pool and the resumption of private and public transport has reduced the number of displaced at risk. The ICRC has closed their reception centre in Brazzaville for people displaced from the Pool. Humanitarian agencies have begun to undertake nutritional assessments in the region. Previous information about the nutritional situation in Pool was mainly obtained from reports from IDPs in safer areas. ACF opened therapeutic feeding centres in Boko and Mindouli (ACF–F –30/03/00).

In February, ACF–F undertook a MUAC assessment in Mayama (central Pool) on children between 75 and 130 cm tall (see annex). Eighteen percent of the sample was severely malnourished (MUAC<110mm) and 24.1% were had low MUAC (MUAC<125mm). The severely malnourished were taken to Brazzaville for treatment. In March in north Pool, ACF recorded MUAC measurements on 1903 children in various locations (the sampling methodology is currently unknown to the RNIS): 2% had very low MUAC and 9.9% had low MUAC (see annex). Thus the nutritional emergency in Pool appears to have passed, although ACF–F has stressed that there is an urgent need for medical assistance in the region (ACF–F – 30/03/00).

Niaria and Bouenza regions

ACF–F have reported that the nutritional situation in both Dolisie and (Niari region) and Nkayi (Bouenza region) is better than in Pool. This is partially attributed to easier access to food through farming and markets (ACF–F –30/03/00).

Refugees in RoC

Refugees from DRC have been crossing into RoC during the reporting period. They are fleeing fighting between rebel and government troops in Equateur Province, DRC. An estimated 25,000 refugees have settled in villages on the RoC side of the river Oubangui stretching some 500 km from Betou to the north and Njoundou to the south. Many of the refugees are fisherman and obtain their food from the river. UNHCR is facing fuel shortages and general insecurity in the area and hence the relief operation is extremely difficult. The agency has managed to provide plastic sheeting, fishing nets and soap to 13,500 refugees in 17 villages (IRIN –13/03/00; UNHCR –10/03/00).

There is no new information on the nutritional situation of the 8,000 Angolan or 5,000 Rwandan refugees in RoC.

Overall, the returnees to Brazzaville and war affected in the Pool and other areas, are considered at moderate risk of malnutrition, because although humanitarian agencies have access to them, many have lost their livelihoods (category III). Their nutritional risk has declined because of increased stability and humanitarian access. The nutritional situation of the other IDPs and returnees and refugees is unknown (category V).

Recommendations and priorities:

- As agencies gain access to previously closed areas, a range of humanitarian interventions is required to improve public health and strengthen food security.

From the ACF–F surveys:

- Continue to treat severely malnourished in the centre in Mindouli.

- Facilitate the prevention of malnutrition by nutritional surveillance in Brazzaville and the Pool.

- Continue to analyse the food security situation in Brazzaville and the Pool to develop appropriate food security interventions.

Democratic Republic of the Congo (DRC)

The reporting period has seen an unprecedented amount of diplomatic activity over the crisis in the DRC, culminating with the UN Security Council's Special session that approved the expansion of the UN mission into the DRC. Fighting has continued in much of the country, however. Renewed fighting occurred in Equateur and Kasai provinces and a high level of inter–ethnic tension was sustained in Orientale. Access to war–affected and other vulnerable populations was significantly reduced on both sides of the frontline in January 2000, reducing the humanitarian community's capacity to assist those in need. The reduced access was due to heightened insecurity in eastern parts of the country, and to the "bureaucratic" process for the granting of clearances in many Government–controlled areas (OCHA –15/02/99). Lack of access is the main constraint to humanitarian assistance in Eastern DRC. Out of a total estimated IDP population of 1.12 million, approximately 115,000 receive assistance in the Kivus and Orientale, 30,000 in Katanga, and 15,000 in Kinshasa.

Economy

The DRC wartime economy continued to decline in the reporting period. The Congolese Franc has continued to devalue and inflationary trends continue (333% in 1999). There have been official attempts to control market operations – including a ban on foreign currency holdings and fixing of the exchange rate at unrealistic prices. Shortages of basic goods are expected to worsen as importers and domestic traders who supply Kinshasa are being increasingly affected by these policies. Humanitarian agencies have also been affected and some are no longer capable of disbursing their limited project budgets to obtain goods and services at the fixed exchange rate (IRIN – 14/03/00; OCHA–03/00).

IDPs

There has been a 15% increase in the number of IDPs and Congolese refugees in third countries. IDPs alone increased by 230,000. There are currently an estimated 1.25 million IDPs within the country, whose distribution can be seen in the map/table below. New internal movements of the population have been recorded in all 11 provinces and the capital (OCHA–15/02/99).

Nutritional situation

The RNIS has received two new nutritional surveys for DRC in the reporting period in Kinshasa and Lemera in South Kivu. The latest report from OCHA suggests that some 10 million Congolese on both sides of the frontline face food shortages of varying degrees. The food security outlook is grim given that the majority of the food producing regions (the Kivus, Northern Katanga, parts of Maniema, western and eastern Orientale and Equateur) are seriously affected by the war. In addition, an estimated 800,000 farmers have been displaced and lost their production capacity; and road, fluvial and railway infrastructure is crippled by insecurity and dilapidation (OCHA –03/00).

Kinshasa

The most recent nutritional surveys in Kinshasa, undertaken by AAH–USA in October, indicated that the nutritional situation was not out of control and that the prevalence of acute malnutrition ranged from 3.5–7.7%. However, given the city's huge population (6 million inhabitants), a very large number of children require supplementary feeding. The prevalence of malnutrition was highest in the outskirts of the city (see RNIS 29).

Following the nutritional survey, ACF carried out a food security assessment. The aim of the survey was to assess household food security and the impact of the economic crisis and conflict, with resulting increased unemployment; loss of purchasing power; and decline of access routes to the centre of Kinshasa. The survey assessed food security in 4 zones: Kimbanseke, Selembao, Kingabwa and Kinshasa (2 peripheral and 2 central zones) (ACF–USA –03/00a).

The results of the assessment indicated that food security is most precarious for the population living on the outskirts of the city. Conflict has led to increasing migration out of the city. The outskirts of the city are most severely affected because they are mainly dependent on agriculture, but opportunities to sell produce are limited because of degradation of access routes. There are few other income earning strategies. In addition, irrigation systems used for market gardening have been destroyed due to looting in the 1991 and 1993 wars. People also have difficulties accessing seeds and tools. Water, electricity and health services are either not functioning or non–existent. Furthermore, where such services do exist, many people have been unable to pay their bills and their services have been cut off. As a result, people either have to beg for water from their neighbours or are forced to get their water from contaminated sources. Fishing has been affected by a night curfew and theft. These factors have had a negative impact on food security and nutrition (ACF–USA –03/00).

Acute food insecurity due to the current economic crisis was indicated by the following:

• Changes in consumption patterns: the majority of households are only eating one meal per day, whereas the better off would normally eat two or three. The poorest families have reduced the quantity of the one daily meal, or every family member has to fend for him or herself. Some only eat on alternate days. In the periphery, people collect wild foods such as insects, grubs and mushrooms.

• Changes in income earning strategies; a variety of alternative strategies have been developed. Some are based on speculation, i.e., the buying up of certain commodities, hoarding and selling them when the price has increased. Others include a system of loans without interest between groups of households, asking for gifts from relatives with regular salaries. Many have resorted to begging, and survey respondents mentioned an increase in prostitution (including by children, and sometimes only for food). Women in particular are looking for any way to make money, which reportedly has a negative impact on childcare.

• Reduction in expenditure on health and education.

• Changes in networks of sharing; in the periphery, there has been an increase in the proportion of nuclear families. Households refuse to host migrants, as they can no longer afford to feed them, and since there are few income earning possibilities in the periphery, there is little chance of the migrants contributing income to the household. In contrast, in the

centre, the number of people living and eating together in one compound has increased. It is possible for households in the centre to host migrants because of the greater income earning possibilities there.

ACF identified the most socially vulnerable as being:

• The children of prostitutes, who are taken care of by their extended families, but not treated equally to other children in the family. Many of the children in the ACF feeding programmes are children of prostitutes.

• Widows and orphans. These are not automatically taken care of by their extended family.

Recent anecdotal reports suggest that the food security in Kinshasa has improved since December 1999, because of the harvest. The food supplies to the city have changed from Equateur and Kisangani to BasCongo and Northern Kasai. However, the recent fighting in Kasai threatens the new food supply. It is expected that the hungry season will be earlier than usual because of the reduction in the harvest due to fighting (Fennell – 30/03/00).

Orientale Province

The conflict between the Lendu and Hema tribes is a major source of instability in eastern DRC. The conflict has rapidly expanded from its epicentre (Djigu), and by mid–January 2000 affected several densely populated areas including Bunia. The alleged partiality of the Ugandan army (which has occupied the Ituri district of the DRC since November 1998) may be fuelling the confrontation that has resulted in a heavy death toll and the displacement of some 220,000 civilians (OCHA –15/02/00).

The IDPs are concentrated in isolated bush areas, major trading centres and in Bunia town (where a small amount of food is being distributed by MEDAIR). The displaced populations are reported to be in need of protection, shelter, food, medical assistance and safe water, but widespread insecurities are preventing an adequate humanitarian response. Some international NGOs have been forced to leave after being accused of impartiality (IRIN –03/03/00). The most recent nutritional survey in Bunia estimated the prevalence of acute malnutrition at 11.6%, including 9.1% severe acute malnutrition (see RNIS 29). Recent anecdotal reports suggest that adults are also becoming malnourished and that there have been increasing numbers of deaths from diarrhoeal diseases (IRIN –17/02/00).

In Djigu, the displaced have congregated around the trading centre. Many of the IDP's houses and possessions have been destroyed – including seeds and tools. Seasonal planting has been affected which will have long–term implications for food security (IRIN – 03/03/00).

Recent reports have also described rising tensions in Kisangani, the site of a fierce battle between Ugandan and Rwandan troops in August 1999 (IRIN – 29/03/00).

North and South Kivu

IDP numbers are increasing in South and North Kivu. Hate speech and communal violence have increased alarmingly in the provinces, directed mainly at Congolese Tutsis (the Banyamulenge) by the Mayi Mayi militias. The longstanding ethnic tensions in the area have been exacerbated by the continuing Rwandan occupation and reported atrocities committed by their troops against the civilian population. War–affected communities are reported to be fleeing further from their homes in search of security and in anticipation of all–out war (IRIN – 31/03/00; OCHA –03/00). This displacement could have a severe impact on the food security of the affected population as the agricultural season is about to start.

SCF–UK undertook a food economy assessment of six areas of South and North Kivu Provinces between September and December 1999. There has been a decline in both the quantity and quality of foodstuffs consumed by farmers in traditionally wealthy agricultural regions of the Kivus. A summary of the findings is presented below (SCF–UK – 22/01/00). The main causes of food insecurity are the looting of livestock, disruption of trading activities and agriculture due to insecurity, loss of income (e.g. from sale of agricultural produce or wage labour), an increase in the cost of basic commodities, and displacement. Some people are reportedly held hostage in the forest.

South Kivu

• In all four zones (the Plaine de la Ruzizi, the Moyens Plateaux, the Savane and the Foret) all household types (poor, middle and rich) have suffered a reduction in their purchasing power since 1997. Households are able to obtain adequate calories and other basic items. However their reduced purchasing power has implications for the quality of diet, healthcare and education that they can afford.

• This loss of purchasing power is most serious for the poor in the Savane (which is the poorest zone). The poorest households are only able to obtain sufficient calories by forgoing expenditure on education and healthcare and reducing expenditure on soap, salt and other basic items. They are a priority for assistance.

• The ability of households to cope with a period of displacement (either when they are displaced themselves or when they must act as hosts) varies from zone to zone. Households in the Savane have the least capacity to cope with displacement, whereas those in the Foret have large fields of mature cassava that can be harvested. However, even those in the Foret may have longer–term problems if they are just harvesting (and not weeding or replanting because of security risks). Previous surveys in the region have shown that a purely cassava–based diet may lead to oedematous malnutrition.

North Kivu

• The Masisi Plateaux has suffered large–scale conflict since 1993, as well as extreme insecurity in the past two years. Large numbers of the population are displaced. Sources of food and income have decreased dramatically. Income sources for the poor include crop sales, agricultural labour and other labour types. Expenditure among the poor is minimal; none purchased kerosene and 60% of total expenditure was on food.

• Most of the displaced who were previously rich have moved to urban centres where they are in business. The poor have generally moved to rural villages where they survive by being manual labourers or by producing their own crops

• The poor households in the Zone Volcanique, Rutshuru were affected by a reduction in crop production and an increase in the prices of items they need to purchase.

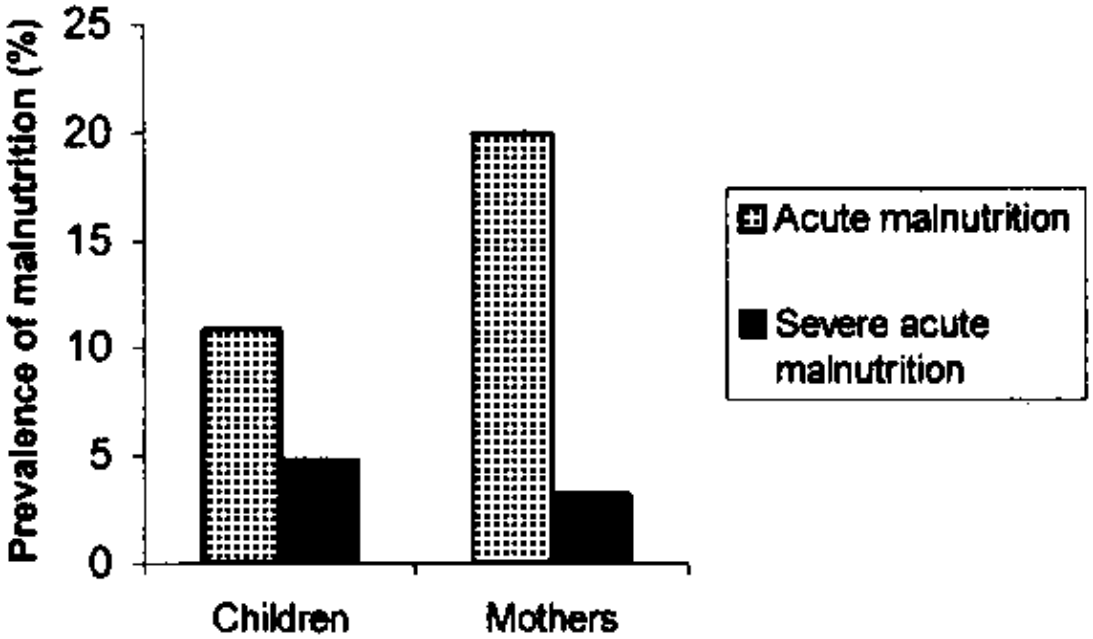
The food economy assessment did not discuss mineral extraction in the Kivus, which could be an important source of income.

ACF–USA undertook a nutritional survey of children aged 6–59 months and mothers in Lemera health zone, South Kivu in January 2000 (see annex). Lemera is part of the Moyens Plateaux food economy zone, its altitude (which determines the vegetation and cultivation type) varies from 1,200–2,000m. Prior to the wars in 1996 and 1998, cassava, beans, rice, bananas, sweet potatoes, maize and coffee were all grown. Much of the produce was sold. The war caused displacement and a breakdown of irrigation and infrastructure systems. Much of the population have moved off their land and have lost their tools and other farming inputs. The insecurity continues together with regular displacements and systematic looting. As reported above, this has resulted in very decreased expenditure on any non–food items, such as healthcare and education. ACF–USA provided seeds and tools to 10,000 households in September 1999 and plans to do so again later this year (ACF–USA–01/00).

Insecurity resulted in the survey being delayed several times and eventually prevented the team from visiting all the villages in the zone, thus the results presented reflect the nutritional situation of the majority of the population (which was estimated at 115,000), but are not based on an entirely random selection of children. The prevalences of malnutrition in both mothers and children can be seen in the graph (maternal malnutrition is defined as BMI<18.5kg/m^2 and/or oedema, and severe malnutrition as BMI<16.0kg/m^2 and/or oedema). A high proportion of severe malnutrition was oedematous malnutrition. The high prevalence of severe malnutrition in children in relation to moderate malnutrition (4.8 and 6.1% respectively) was attributed to the lack of primary health care. The feeding programme coverage was estimated at 33.3% for children aged 6–59 months. Retrospective mortality, estimated over the three months prior to the survey, was estimated at 2.46/10,000/day for children under five. This indicates an emergency. The major cause of mortality was reported by mothers as being fever (68%), followed by diarrhoea (20%). The very limited access to health care is an important risk factor (ACF–USA – 01/00).

Equateur, West and East Kasai Provinces

Sporadic cease–fire violations transformed into intense fighting in Equateur province around Ikela and Opela during the reporting period. An estimated 250,000 people are displaced. Similarly, military activity in West and East Kasai has also intensified, and an estimated 140,000 people are thought to be displaced in these provinces (OCHA – 03/00). No nutritional information is available.



The prevalence of acute malnutrition (defined using z scores and BMI and/or oedema) in children aged 6–59 months and mothers in Lemera, South Kivu

Refugees in DRC

Despite the continuing unrest in the DRC, thousands of refugees still seek protection in the country. There have not been any significant refugee influxes recently.

Sudanese refugees

There are an estimated 72,000 Sudanese refugees in Orientale Province. There is no new information on their nutritional situation.

Angolan refugees

There are an estimated 156,000 Angolan refugees in Bas–Congo, Bandundu, and Katanga Provinces. Some 56,000 Angolans fled into DRC in late 1998 and early 1999. These people joined the 100,000 refugees who were already in the country. The most recent assessment of these refugees described their nutritional situation as non–critical (see RNIS 29).

Congolese refugees (*from RoC*)

There are an estimated 11,600 refugees from RoC in Bas–Congo. The most recent nutritional survey in this area recorded extremely high prevalences of malnutrition, particularly kwashiorkor (see RNIS 30). Repatriation of the Congolese refugees to RoC is ongoing and it is anticipated that this process will be speeded up by the increased stability in RoC (UNHCR–31/03/00).

Burundian refugees

There are an estimated 19,500 Burundian refugees in South Kivu (UNHCR – 31/03/00). UNHCR's efforts to assist these people have been shattered by the fighting. There is no new information on their nutritional situation, but given the upheaval in South Kivu it is assumed that they are living in difficult conditions.

Rwandan refugees

There are approximately 35,000 Rwandan refugees in various locations throughout DRC. UNHCR and the Congolese government have started an operation to integrate some 5,000 of these refugees into Congolese

society. There is no new information on their nutritional situation.

Ugandan refugees

There are an estimated 3,200 Ugandan refugees in Orientale Province (OCHA – 15/02/99). There is no new information on their nutritional situation.

Overall, it is extremely difficult to draw any definite conclusions about the nutritional situation of the displaced in DRC because humanitarian agencies are unable to gain access to much of the affected areas. However, it seems probable that the areas in which there has been recent fighting and displacement will be the most nutritionally vulnerable (Orientale, Kivus, Equateur, East and West Kasia). These people are therefore considered to be at high to very high risk of malnutrition (category I and II). The displaced in other areas are considered at high to moderate risk (category II and III). The nutritional situation of the people in Kinshasa is temporarily improved, but is likely to deteriorate when food prices rise at the start of the hunger season (category IV). Given the economic vulnerability of people in Kinshasa, they remain at nutritional risk. The nutritional situation of the refugees is assumed to be unchanged: the Angolan refugees are considered non critical and the Congolese in Bas Congo are at very high risk. The nutritional situation of the other refugees is unknown.

Recommendations and Priorities:

- People will only become food secure with an end to the conflict. In the meantime, negotiating access to war affected populations is the main priority.

From the SCF–UK food economy assessment in the Kivus:

- Improve access to land, particularly for the poor. Provision of credit to the poor should be considered so that they can rent land.
- Support farmers through the provision of tools and seeds. Implement projects to drain land and to counter erosion etc.
- Promote small–scale animal raising projects
- Rehabilitate roads in order to improve market access.
- Provide free healthcare to the displaced and returnees to help them recover from their journeys.
- Monitor food security information (crop production/yields, market prices etc).

From the ACF–USA survey in Kinshasa:

- Improve public health; including access to health care and water.
- Improve access to markets for the peripheral zones by repairing roads.
- Agricultural support: including promotion of the keeping of small stock, improving access to fishing tools, and rebuilding
- of irrigation systems.
- Improve nutritional support. Ensure that the severely malnourished are admitted to feeding programmes, train CHWs in nutrition monitoring and educate mothers in hygiene and sanitation.

United Republic of Tanzania

Refugees from both Burundi and the DRC have continued to flood into the United Republic of Tanzania during the reporting period. In particular there has been a huge influx of Burundians, since October some 80,000

have sought refuge in the United Republic of Tanzania. The majority of the new arrivals are women, children and young men. The refugees are housed in camps in twelve locations in the Kagera, Kigoma and Tanga regions (UNHCR – 31/03/00; WFP –10/02/00).

At the end of March, UNHCR's refugee caseload stood at 465,000 persons. The planning figures for WFP's operation have increased to 525,000 (including 25,000 poor Tanzanians who live around the camps). Approximately 15,000 refugees receive therapeutic and supplementary feeding every month, including pregnant and lactating women. This operation is currently seriously under–funded (UNHCR – 28/02/00, 31/03/00; WFP–22/02/00).

The RNIS has not received any new information on the nutritional situation of the refugees. The most recent survey in Kigoma and Kagera estimated low prevalences of malnutrition in the camps (RNIS 27). Higher prevalences of malnutrition were recorded in the villages surrounding the camps (RNIS 28). Most of the refugees have no access to agricultural land are therefore totally dependent on the ration provided by WFP and its donors (UNHCR – 28/02/00).

Overall, the refugees in the United Republic of Tanzania are not considered to be at heightened risk of malnutrition (category IV), although if funding is not found for WFP's programme there will be a break in the pipeline in July, which could lead to increases in the rates of malnutrition.

3. Eritrea

Almost 20% of Eritrea's population is in need of humanitarian assistance according to the latest reports from UNCT. Some 372,000 war–affected people, who are living along the border with Ethiopia, and 212,000 drought–affected people, mainly in Northern Red Sea and Anseba Regions require food aid. This is an immense drain of resources on a country of a population of only 2–3 million people (UNCT–28/01/00).

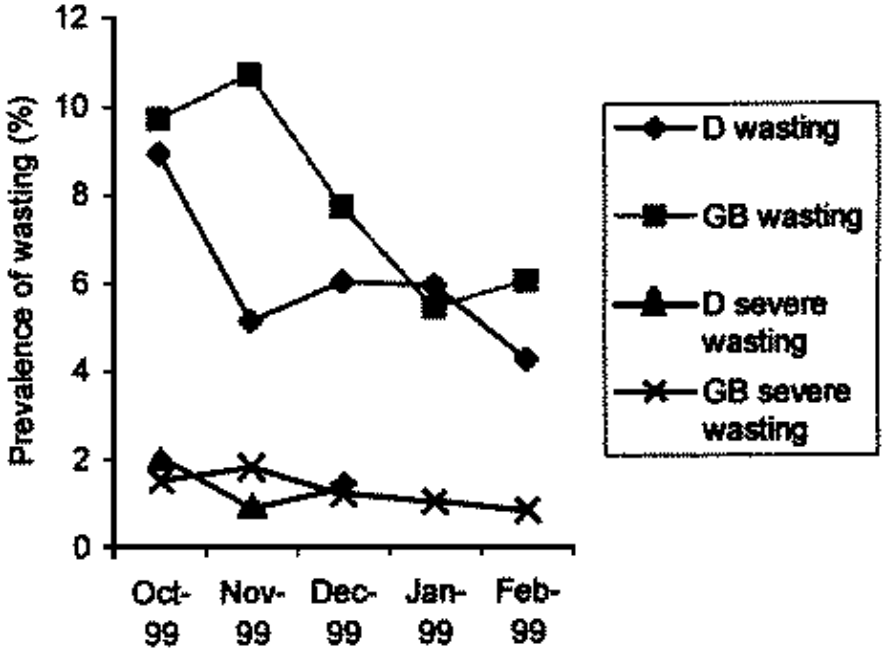
War–affected areas

Twenty months have passed since the outbreak of the border conflict between Eritrea and Ethiopia in May 1998. After several months of calm, new fighting broke out in February this year and tension along the border remains high, preventing displaced people from returning to their places of origin. Despite efforts by the Organisation of African Unity and the international community the peace process seems to have stalled (UNCT – 28/01/00; UNDP–10/03/00).

One hundred and thirty thousand of the displaced have settled in a string of 31 makeshift camps in Debub and Gash Barka Zones and a further 135,000 are housed with host families. Others are living with host families in Guluj. Many have been displaced 2 or 3 times, as fears of a fresh attack have led to the movement of several of the camps within shelling range. The vast majority of those who are living in camps come from rural agricultural areas. Many have lost their livestock and their land, and consequently their livelihoods. All the displaced children have missed an entire year of education. Health services are severely overstretched as a result of the additional needs of the IDPs, combined with the loss of many health professionals who left their posts to join the army. Sanitation conditions are appalling and the risk of outbreaks of childhood diseases is high. The host population has also suffered. Displaced people are forced to compete with stable, resident populations for land, grazing areas for their animals, water and basic social services that were already in short supply (SCF–UK–17/03/00, 23/03/00).

Despite this bleak picture, the nutritional status of children under five has generally remained within acceptable limits. The Ministry of Health, SCF–UK and UNICEF jointly established a nutritional surveillance programme in approximately 32 sites (in camps and in the host community) in October 1999 (see annex). The surveillance programme is linked to a supplementary ration programme in the camps, so the majority of the children are measured every month. However, there is quite a lot of movement in and out of the camps (in order to prepare fields or harvest etc) and there fore the population numbers are not stable. The nutritional situation in different sites is variable; however, prevalences of wasting above 10% were reported in up to one–fifth of monitored sites in October. Since October, the overall prevalence of wasting has decreased (see graph). This is largely due to the government's decision to distribute a locally produced supplementary food (DMK – a blended food made from wheat, chickpeas, groundnuts or milk powder and salt, and fortified with iron and vitamin A) to all children under five in addition to a general ration of wheat or sorghum, lentils or chickpeas and oil. Nevertheless, the current nutritional situation is fragile. Food stocks are running out and donors appear to be ambivalent about sending more; an interruption to the pipeline could result in very severe

consequences for the nutritional situation of these people (SCF–UK –17/03/00,23/03/00).



The prevalence of wasting (defined using medians) among IDPs In Debub Zone ("D") and Gash Barka Zone (GB), Eritrea

Overall, the nutritional situation of the war–affected population in Eritrea has to some extent stabilised although is still precarious given their dependence on humanitarian assistance. Pockets of malnutrition are likely to continue to appear unless preventative action is taken and therefore this population is considered at moderate risk of malnutrition (category III)

Recommendations and priorities:

- Prevent a break in the pipeline by supporting WFP's programme for the Eritrean IDPs.

- Continue nutritional surveillance of the war–affected population, and investigate the causes of high prevalence of malnutrition in the camps where it exists.

4. Ethiopia

The food security situation in Ethiopia is extremely precarious for some 8 million people affected by displacement as a result of the border war with Eritrea or drought in crop–dependent and livestock–dependent areas.

War–displaced population in Tigray and Afar

An estimated 350,000 people have been displaced by the conflict with Eritrea (316,000 in Tigray and 34,000 in Afar). Political analysts do not predict further significant displacement in 2000. However, with no immediate end to the conflict in sight and after the loss of two farming seasons, it is anticipated that this population will require support for at least a further 12 months. There is an urgent need to ensure an adequate availability of food assistance and to address significant un–met needs for shelter as an increasing number of people are now living in temporary camps. Water supplies, sanitation services and access to health services also need improving (UNDP – 14/02/00).

The last nutritional survey (August, 1999) among the displaced in Tigray estimated the prevalence of acute malnutrition at 7.7% (see RNIS 29).

Drought in Ethiopia

An FAO/WFP crop assessment mission to Ethiopia in December 1999 estimated that some 7.6 million people

affected by severe food shortages resulting from drought, water−logging and other weather−related hazards will require food aid support this year. The Mission has forecast the overall harvest in 1999 at 6% below that of 1998. This relatively low overall deficit masks very serious food shortages in specific areas including much of Tigray, northern parts of Amhara, east and south Oromiya, Somali, and south east SNNP and in Afar. In contrast to these traditionally vulnerable areas, in the surplus−producing areas of Ethiopia production was more than adequate, which means that food security will be very polarised in 2000 (FAO/WFP−26/01/00).

Coping mechanisms have been eroded for many rural households due to significant depletion of assets over recent years and limited income−generating activities, coupled with inadequate food aid response, poor targeting and resulting dilution of rations. A major cause of the current crisis was the poor harvest of the 1999 *meher* growing season (the main agricultural season harvested in November/December). The earlier 1999 *belg* (secondary season) was also extremely poor. This affected many of the traditionally food−insecure areas of the northeast of the country (South Tigray, North and South Welo), the eastern areas (East and West Harerghe), North and South Omo and the Special Weredas of southern Ethiopia (Amaro, Burji, Konso and Dirashe), as the bulk of their annual production is from cultivation of *belg* crops. In addition, the Somali region (Gode, Fiq, Liben, Korahe and Adfer zones) has received inadequate rainfall for the last three seasons resulting in the unusual migration of more than 57,000 pastoralists in search of water and food for human and livestock consumption (FAO/WFP − 26/01/00; UNDP −10/03/00; USAID − 07/03/00; WFP − 25/02/00, 31/03/00).

Not only have crops been lost, but large numbers of domestic animals have also died or lost their market value because of a combination of their poor condition and over−supply. For example, in Tigray livestock prices are half their level of the previous year. There is generally a chronic shortage of grazing and dry season forage, with the problem being more acute on very small farms in densely populated areas of Wollo, Tigray and elsewhere. Due to the late onset or the failure of the *belg* rains with consequent feed and water shortages, over 20,000 cattle were reported to have died in the Kobo and Alamata woredas in North Wollo and South Tigray. High livestock mortality was also reported from other areas (the Rift Valley area of Oromiya region, from Eastern and Southern Oromiya, and SNNP and Somali regions). Domestic animals are essential for land preparation for highland farmers (as well as for household food security) and any loss of livestock may adversely affect a farmer's coping capacity. If the *belg* rains fail again this year all of the areas described above will require additional relief interventions in order to avoid severe stress and large−scale migration (FAO/WFP − 26/01/00; UNDP − 10/03/00; WFP −25/02/00).

MSF−H undertook a nutritional survey among children aged 6−59 months in Konso special woreda, one of areas severely affected by the drought, in January 2000 (see annex). Konso woreda is mainly dependent on *belg* harvest production, which accounts for 75−80% of overall agricultural production. Most of the community are rain−dependent farmers. The *meher* harvest, which was due in November and December, was minimal and localised. The *belg* harvest is not usually due until June, but is currently delayed at least one month. The price of livestock has decreased and livestock condition is generally poor due to the shortage of food. Other important indicators of stress include the sales of assets. The prevalence of acute malnutrition was estimated at 12.9%, including 2% severe acute malnutrition. Oedema was recorded in 0.9% of the children. There has been a decrease in the rate of malnutrition since August 1999. However, the population's food security outlook is poor. In normal times, 82% of the population is dependent on agriculture in January for its main food source, but during the survey period this had dropped to 17%. An increasingly large proportion of the population was dependent on food aid or food purchase (the main source of cash income is petty trade) (MSF−H − 02/00; WFP − 31/03/00). No information was provided about the market supply of cereals.

Well−organised food−for−work schemes are in place in Konso, and these programmes covered more than 81% of the population. However, the free food distribution scheme (for households who do not have an adult fit for work) was reported to be irregular, and reached only 13% of the sampled population. Neither of the intervention programmes provides a ration that is nutritionally adequate if the ration is the sole source of food (less than 2000 Kcal/person/day and inadequate amounts of protein). The supplementary feeding programme coverage was 34%. Measles immunisation was also low at 24%. There were no reports of an increase in morbidity or mortality (MSF−H − 02/00).

In February WFP approved an EMOP to provide food to 2.3 million affected by natural disasters. (Although the overall assessed needs are that 7.6 million people require food assistance, it is standard WFP procedure in Ethiopia to request only one−third of the needs. The Ethiopian Government meets one−third and bi−lateral and NGO donations are expected to provide the difference.) The USDA recently approved a government−to−government contribution of 135,000 MT of food aid commodities for Ethiopia. According to recent USAID assessments, the most critical humanitarian issue in Ethiopia is the lack of infrastructure and resources to effectively monitor, deliver, and target relief assistance. In light of this, USAID/OFDA recently

approved a $600,000 grant to WFP to increase the capacity of the port of Djibouti, which will assist in the delivery of food aid to Ethiopia in the coming weeks (USAID –07/03/00; WFP–25/02/00).

At the time of press, there was growing concern that the *belg* rains, which were due in February and March, have failed almost completely. This will result in a further increase in the number of people in need of food assistance (IRIN–30/03/00).

Refugees

There are an estimated 250,000 Sudanese, Somali and Kenyan refugees in Ethiopia. No new information has been received on the nutritional situation of these groups, which was reported to be non–critical in the most recent report (UNDP–14/02/00).

The southern Sudanese refugees are located in four different sites in western Ethiopia and are mainly farmers or agro–pastoralists. UNHCR is trying to persuade the Ethiopian authorities to make additional land available for agricultural activities in order to improve the refugees' capacity for food production (UNDP –14/02/00).

The majority of the Somali refugee population is of rural origin with a pastoral economic base. Strategies for self–reliance are extremely limited, as refugees have no opportunities for employment, and no access to cultivable land. A limited number have become involved in petty trade and commerce. The refugees have well established, clan–based traditions and effective organisational structures for the management of their political, economic, social and cultural affairs. In 1999, 23,000 Somalis were assisted to repatriate (over 82,000 since 1997). UNHCR plans to repatriate some 60,000 Somalis to North West Africa in 2000. The refugees will each receive a cash allowance to enable them to feed themselves while in transit and WFP will provide a food package similar to those used for repatriation (UNDP –14/02/00).

Overall, the war–affected displaced population in Ethiopia remains at moderate risk of malnutrition (category III). The nutritional situation of the refugees appears to be non–critical, although more information is needed (category IV).

Priorities and Recommendations:

- Continue to provide support to the drought–affected populations, in terms of immediate food assistance and other initiatives, including food–for–work, to support food security.

- Given the lack of information on the nutritional situation of the refugees in Ethiopia there is a need to confirm that the situation remains non–critical.

From the MSF–H survey in Konso special Woreda:

- Distribute food to the poorest households (especially those without anyone who can participate in the food–for–work schemes) until the *belg* harvest.

- Provide seed and other farming inputs for the *belg* planting in June.

- Review the reasons for poor coverage of the supplementary feeding programme and modify programme accordingly. Establish a new therapeutic feeding programme.

- Continue to monitor the nutritional, health and food security situation.

5. Kenya

Refugees

There are currently some 215,000 Sudanese, Somalia and Ethiopian refugees in UNHCR camps in Dadaab and Kakuma. An estimated 20,000 new Somalia and Sudanese have sought refuge in the country since October 1999. WFP/UNHCR have reported a serious funding shortfall for the refugee operations in Kenya (IRIN – 01/03/00).

The RNIS has not received any new information on the nutritional situation of these refugees during the reporting period. The results of extensive food economy analyses and nutritional surveys were reported in RNIS 29. The food economy assessment found that the vast majority of the refugee population are almost entirely dependent on the ration provided by WFP and its donors. A break in the pipeline could have disastrous effects on the refugees' nutritional situation.

Drought

An estimated 780,000 Kenyans are at risk of drought in the next few months according to information gathered through local and national early warning systems and drought response co−ordination mechanisms. Although this is usually a difficult time of year, the situation is particularly severe (according to satellite rainfall and vegetation coverage mapping, as well as locally collected indicators such as population movements, terms of trade etc). The outlook for rains for March − May is also poor in Turkana district, in the northwest of the country, which remains the most affected area with some 250,000 people at risk. Other affected districts include Marsabit, Moyale and Mandera. The main constraints impeding relief assistance include limited access to affected areas and inadequate targeting−mechanisms (Oxfam −15/03/00; USAID −07/03/00).

In Turkana, the drought−monitoring bulletin reports an overall worsening trend: 75% of the district is likely to be in a state of emergency by the end of March. There has been no rain for many months, leading to increasing water stress, diminishing pasture, increased incidence of livestock diseases and livestock concentration around permanent water sources, as a significant number of shallow wells have dried up. The majority of the population are nomadic pastoralists, but an increasing proportion are reported to be adopting more sedentary lifestyles, resorting to petty trading as a consequence of the loss of their livestock and subsequent impoverishment (Oxfam −15/03/00).

Overall, the nutritional situation of the refugees in Dadaab is not considered critical (category IV). Those in Kakuma are considered to be at higher risk because of a recent nutritional survey that estimated a relatively high prevalence of wasting in the camps (category III). However, the nutritional situation of these refugees could deteriorate rapidly if WFP's funding shortfall for Kenya is not made up shortly.

Recommendations and priorities:

- Provide funding for WFP's programme for Kenya urgently.

6. Liberia/Sierra Leone Region

The nutritional situation for much of this region is stable or improving. Following the Peace Accord, much larger areas of Sierra Leone have become accessible to humanitarian agencies, although there is little information available about the nutritional situation. No significant changes in the humanitarian situation in Liberia, Cote d'Ivoire or Guinea−Conakry have been reported. The table below shows the numbers of affected people requiring assistance in these countries.

Estimated numbers of refugees, IDPs and returnees in the Liberia/Sierra Leone Region

	Mar−1998	June−1998	Mar−1999	June−1999	Sep−1999	Dec−1999	Mar−2000
Liberia	726,000	209,000	495,000	505,000	505,000	510,000	96,000
Sierra−L.	200,000	300,000	400,000	708,000	758,000	758,000	757,000
Cote d'Iv.	210,000	140,000	101,500	103,000	108,500	101,500	101,500
Guinea−C.	405,000	614,000	470,000	400,000	488,000	488,000	489,000
Total	1,541,000	1,263,000	1,466,500	1,716,000	1,859,500	1,857,500	1,443,500

Note that the numbers, given for Liberia are refugees only (returnees no longer included in this table). Numbers, for Sierra Leone are based on estimates of IDPs and refugees.

Liberia's seven–year civil war ended in July 1997. Since this time the international relief community in Liberia has focused its efforts on the resettlement and reintegration of returning refugees and IDPs. Over 130,000 Liberian refugees have been assisted by UNHCR to return home and at least an estimated 200,000 people have spontaneously repatriated since the start of the repatriation programme in May 1997. Following the regional review of the progress made on the repatriation operation in February 2000, it has been decided to continue the assisted returns mainly from Cote d'Ivoire and Guinea until the end of 2000 (UNHCR – 12/12/99, UNHCR – 27/03/00; WFP –17/12/00).

An estimated 75% of IDPs have returned to their places of origin and it is probable that the remaining 25% may settle permanently where they are. The Government of Liberia and WFP no longer consider these people as IDPs and the RNIS will no longer include them in its reports. WFP, however, continues to provide assistance to some 420,000 people (many of them returnees) in Liberia under a variety of programmes including food–for–work projects, vulnerable–group feeding and also school feeding (WFP –17/12/00).

Refugees in Liberia

There are an estimated 96,000 Sierra Leonean refugees in Liberia. Some 38,000 refugees assisted by UNHCR are now concentrated in camps in Montserrado and Sinje camp in Grand Cape Mount County. It is believed that some 58,000 non UNHCR–assisted refugees reside in Grand Cape Mount, Bomi, Bong, Margibi and Lofa Counties. Should the security situation in Sierra Leone considerably improve, UNHCR will start to facilitate the return of Sierra Leonean refugees during the course of 2000 (UNHCR–27/03/00).

Sinje camps

Due to insecurity in Upper Lofa in August 1999 most of the 17,000 refugees in Kolahun were forced to flee to Tarvey in Lowa Lofa as a result of considerable harassment from soldiers. More recently, UNHCR relocated these refugees (some 11,500) to a new camp in Sinje in Cape Mount County where they joined an existing caseload of refugees who had arrived in 1998.

ACF–F undertook anthropometric surveys of both the old and relocated refugees in the Sinje camps in December 1999 (see annex). WFP provides a ration of 1100 Kcal/person/day to the more established refugees in camp I, and a ration of 1700 Kcal/person/day to the relocated refugees in camp II. The rationale behind these rations is that the more long–term refugees have obtained access to land and have had time to establish means to obtain income, hence they require less support. In contrast the relocated refugees have no access to land yet and very limited means to acquire food and other basic needs. ACF–F found a slightly higher prevalence of acute malnutrition (not significantly so) in the more established refugee camp than in the newer camp, although mortality rates were higher among the relocated refugees (ACF–F – 12/99a). In the ACF feeding programmes the progress of children originally from Sinje was poor; some even showed a deterioration.

Results of nutritional surveys in Sinje camps

	Camp I (old refugees)	**Camp II (relocated refugees)**
Acute malnutrition	9.0%	6.5%
Severe acute malnutrition	0.6%	0.9%
CMR (deaths/10,000/day)	0.48	0.98
Under–five mortality rate (deaths/10,000/day)	1.05	1.61
Feeding Centre Coverage	57%	33%
Measles Vaccination Coverage (with card)	56.8%	57.1%

ACF−F undertook a food security assessment of the relocated refugees (camp II) in order to assess how they had survived since leaving Kolahun and also whether or not their ration could be reduced to be in line with that of the more established refugees. The main findings of the food security assessment are summarised below (ACF−F −12/99b):

• The refugees' food security has deteriorated since they left Kolahun. In Kolahun many of the refugees had established coping mechanisms, including personal food production through backyard gardens, rice farms and income−generating activities (petty trade, labour contracts). During the journey to Tarvey, however, the population encountered many difficulties and households were forced to spend their savings and sell their assets. At Tarvey food availability and accessibility were limited, as were income−generating activities − particularly for the households who had remained in Kolahun the longest (usually the most vulnerable such as older, single women or women with children). In addition, during this period many of the households were split up between Kolahun and Tarvey and as a result 34% of the households in Sinje are female−headed.

• There are opportunities for resource−generating activities in Sinje and its surroundings. However, labour contracts, which represented the main source of income in Kolahun, are more limited. Mining, waged work and petty trade are the major potential sources of income.

• Some 3,000 refugees (14%) are benefiting from rice, cassava and vegetable programmes. A palm oil plantation some 20 km from the camp may also provide employment/food for some of the refugees.

• At the time of the survey, the main source of food among the refugees in Sinje was the food distributions provided by WFP. To provide for the food needs not met by the ration, the majority of refugees (59%) have had to sell part of their assets, which has eroded their already fragile economic base. An estimated 14% of the population are living in extremely precarious conditions − they have no source of income and are forced to rely on begging/credit/or asset sales and they may not be able to meet their daily needs. The majority of households are involved in low income−generating activities: 64% of households are involved in petty trade (sale of small items, firewood, bush products, hand−made products, palm wine, food ration), 4% are in business, 6% have a member who has salaried work and 12% of the households rely on labour contracts.

• Bulgur wheat is the staple food in the ration and is consumed every day as a substitute for their preferred Sierra Leonean staple food − rice. Part of the vegetable oil in the ration is bartered or sold to have red palm oil, which is preferred. Access to protein rich sources of food is determined by the purchasing power of the family (the peas in the ration are not eaten regularly, but instead are cooked in bulk every few days).

• The main sources of expenditure include food, soap, household items, health, clothes, tools and credit repayments. The poorer refugees spend a higher proportion of their money on food (80−90%) than those involved in business or waged work (40−60%).

• An immediate decrease in the ration provided to the relocated refugees, to the level of that received by the more established group, was not recommended until increased opportunities for agricultural activities and self−sufficiency were obtained. Any decrease in the ration could severely affect the nutritional situation of these people, who have no source of food other than the general distribution. This is particularly true for households without an adult capable of working, or those who are headed by women.

• The relocated refugees are not ethnically similar to the local population in Sinje and difficulties integrating with the local population are anticipated.

Refugees in Vahun

There is no new information on the nutritional situation of the refugees in Vahun.

Overall, even though the refugees relocated to Sinje have been subject to considerable harassment and extremely difficult conditions, most are still managing to meet their food requirements. However, a deterioriation in their nutritional situation was reported. Their situation continues to be precarious and

therefore they are considered to be at moderate risk (category III). It is assumed that the nutritional situation of the refugees in Vahun remains non−critical (category IV).

Recommendations and Priorities:

From the ACF survey and assessment in Sinje Camps:

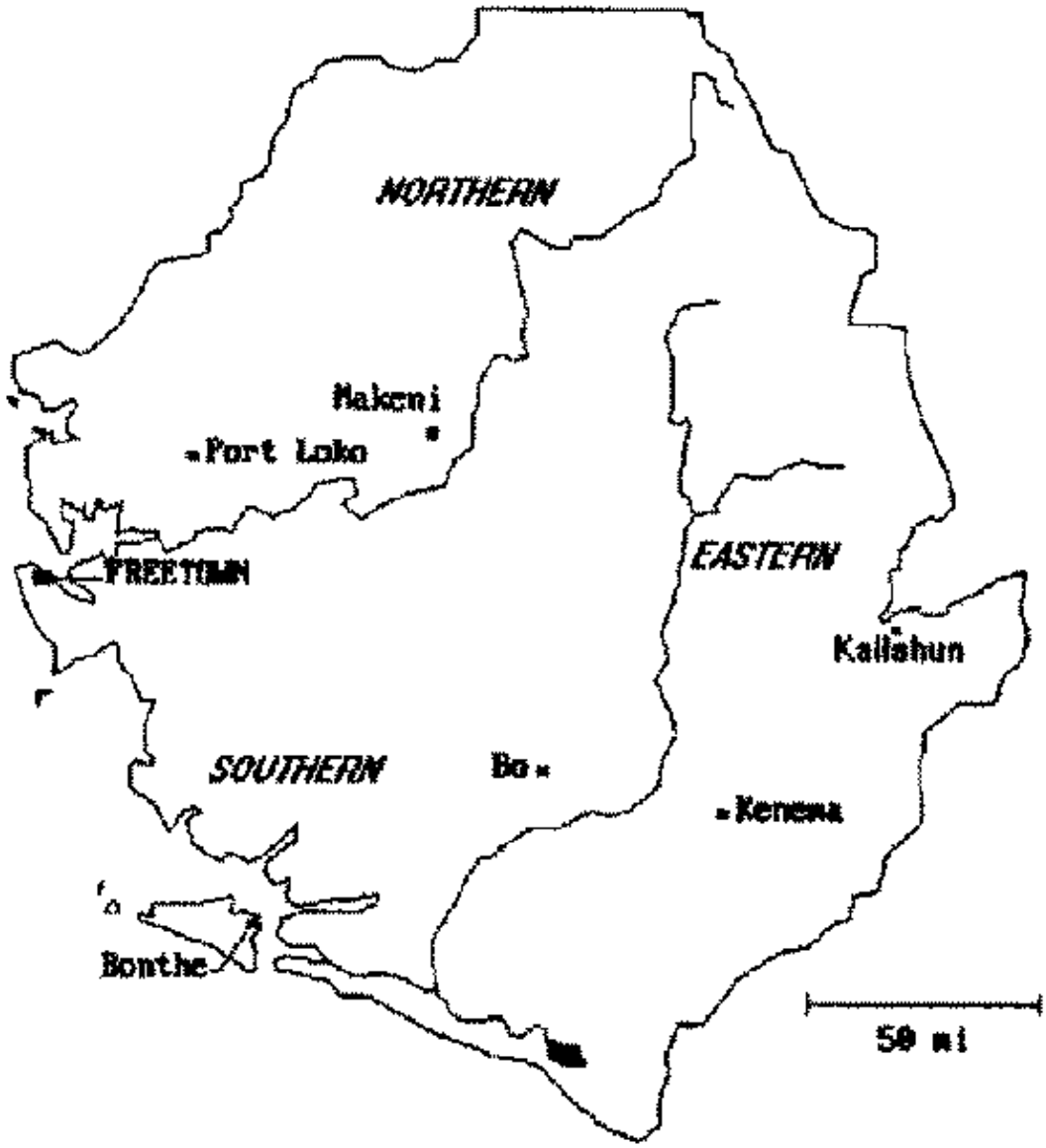
- Maintain the current level of ration for all refugees for the next three months.

- Re−evaluate the number of vulnerable households (those relying entirely on food distributions) and increase food assistance to this group.

- Continue nutritional surveillance; including food security assessments, anthropometric surveys and assessments of the coping mechanisms.

Sierra Leone

The civil war in Sierra Leone began in 1991. A Peace Agreement Accord was signed on 7 July 1999 in Lome. While some progress has been made towards the implementation of the accord, there are indications that the process is troubled. Security has improved in the south and west (particularly where the UN troops have been deployed), but the overall situation remains tense and volatile. Reports of atrocities against civilians continue to be received. The process of disarmament, demobilisation and rehabilitation of the rebels is slow. Achieving unhindered humanitarian access, one of the first major agreements signed by the parties to the conflict, has proved difficult. Despite the formation of the Government of National Unity, former RUF/AFRC (Revolutionary United Front/Armed Forces Revolutionary Council) fighters continue to lay claim to large areas of the country, obstructing free movement (OCHA – 07/03/00; RI – 01/03/00).



Humanitarian access

At this time humanitarian agencies still do not have unhindered and safe access to 7 out of 12 districts, which make up 80 of the country's 149 chiefdoms, with a total population of 2.4 million from a total population of less than 5 million (according to 1997 projections). Current operations in these areas (mainly in the northern and eastern parts of the country) are carried out under very difficult circumstances, characterised by frequent disruptions and uncertainty. In contrast the Southern Province, the Western Area and some parts of the Eastern Province are relatively stable (OCHA – 07/03/00). As parts of the country that were previously closed are now accessible, assessments and deliveries of assistance are underway.

Returns, resettlement and reintegration

Estimates of IDPs living both in camps and with hosts vary from 750,000 to 1,000,000. Resettlement assessment committees have been established at district and national levels to undertake assessments (based on national criteria) that will determine whether chiefdoms can be declared safe for resettlement and reintegration. The phasing down of IDP camps in the Western Area has begun and food aid will be stopped to IDPs from safe areas. Resettlement rations, food–for–work, food–for–training and related projects will be provided to those who wish to resettle. Those that are from unsafe areas will retain the right to continued accommodation and support services within an IDP camp. Low–cost housing schemes are being set up for those IDPs whose homes have been destroyed (OCHA –07/03/00; WFP–10/02/00).

There are more than 450,000 Sierra Leonean refugees living outside their country. UNHCR has reported a small, but steady, increase in spontaneous refugee returns, mainly from Guinea and Liberia. According to the most recent estimates nearly 10,000 people have returned to the major towns in the southern and eastern provinces. UNHCR has made projections (based on the security situation and other factors including logistics,

and the coming rainy season) for 108,000 refugees to return in the course of 2000. However, the implementation of the repatriation operation is closely linked to the progress made on the peace agreement (OCHA – 07/03/00; UNHCR – 27/03/00).

Agriculture

An FAO/GIEWS assessment mission to Sierra Leone in December 1999 (the first since November 1996) reported that the war has caused extensive disruption of the agricultural sector throughout the country including the southern region, which is currently peaceful. Only 12–15% of the total arable land is under crop–production. The staple food crop, which is rice, covers slightly less than half the cropped area. Other cereal crops grown include maize, sorghum, millet and benniseed. Cassava and sweet potatoes are now commonly accepted substitutes for rice as “crisis crops”, particularly in rebel–controlled upland areas. During the war the production of cassava increased by 70%, while that of sweet potato increased by about 20% (FAO – 04/02/00).

Sierra Leone, which was almost food self–sufficient before 1990, has become highly dependent on imports and food aid. Over the years, farmers have lost their productive resources including seeds, implements and other capital assets. There has been large–scale destruction of the marketing infrastructure and rural institutions (e.g.: agricultural research stations). As many rural farm families have been displaced, the availability of labour for planting and harvesting is a major constraint to recovery. Also, farmers’ holding capacity for whatever small harvest they have is low due to financial constraints and the fear of looting by rebels. Practically all farmers are dependent on the government or NGOs for the supply of seeds, and thus the amount of land planted is partially determined by the capacity of these agencies (FAO–04/02/00).

Southern Province

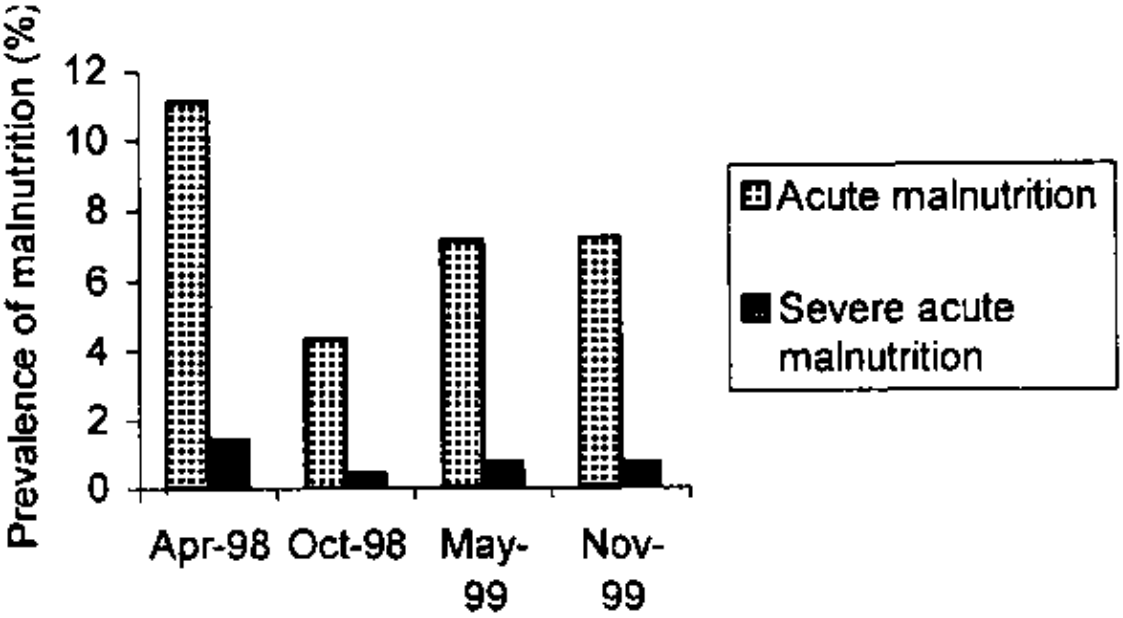
Freetown

No new reports on the nutritional situation of the population of Freetown have been received by the RNIS. WFP currently assists some 28,320 IDPs in six camps around Freetown. This assistance will be phased out as the displaced return to their communities. Those from areas that are declared unsafe will qualify for further assistance in Freetown (WFP –10/02/00).

Bo District

Bo, the largest district in the Southern Province, is an agricultural area. Most of the population are involved in rice farming. Other activities include cocoa and groundnut farming for cash and mining. An inter–agency verification of non–camp IDPs in Bo indicated that only 4,000 of the original 6,000 registered IDPs remain in Bo (most of whom live in Bo town). Not all of these people are considered vulnerable. A further 14,000 IDPs are registered in camps in Bo (OCHA –16/01/00).

ACF–F undertook a nutritional survey in Bo town among children aged 6–59 months in November 1999 (see annex). Thirty percent of the sample population were IDPs. The prevalence of acute malnutrition was estimated at 7.2%, including 0.7% severe acute malnutrition. Oedema was recorded in one child. No statistically significant differences were recorded in the prevalence of malnutrition for the displaced and residents. Retrospective CMR in the three months prior to the survey was estimated at 0.74/10,000/day and under–five mortality at 3.1/10,000/day. Bloody diarrhoea and malaria were the main causes of death in the population above five years old. Malaria was the primary cause of death in children under five. (Mortality was partially estimated during the rainy season, when the incidence of malaria is highest). Measles vaccination coverage was estimated at 33.6% according to card and increased to 87.3% if the child’s carer’s history was taken into account. The feeding centre coverage was low at 9,7% (ACF–F –11/99).



The prevalence of acute malnutrition (defined using z–scores and/or oedema) in Bo

Although not alarmingly high, the prevalence of malnutrition was higher than that estimated in the same, post–harvest, season in 1998 (see graph). This slight increase was attributed to continuing population movements in the area and an increase in the prices of basic food and nonfood items compared to 1998 (e.g.: local rice has increased by 60%, imported rice by 20%, cassava by 15%, and palm oil by 30%). The price increases were due to the devaluation of the Leone, excessive informal "payments" on the highway between Bo and Freetown, poor road networks and infrastructure and subsequent high transport costs. Analysis of the admissions to the feeding clinics in the town suggested that many of the malnourished were from the northern and eastern regions (ACF–F –11/99).

Eastern Province

Kenema

There are currently approximately 13,000 registered IDPs at the Lebanese camp. MERLIN has reported that the number of admissions to its feeding centre has decreased compared to last summer. The NGO is expanding its programme, however, in preparation for the coming hunger gap and also an increase in numbers as access from the outlying areas around Kenema improves (MERLIN –22/03/00). An outbreak of bloody diarrhoea (shigella) has been reported in the district by MSF–F (OCHA –16/01/00, 30/01/00).

Konta

A WFP/NGO assessment mission to Konta reported that the IDPs in the area are ready to resettle, but need assistance with resettlement packages. Some have started to return home. The IDP camp in Konta lacks water and sanitation facilities, blankets, shelter and healthcare. WFP has recently provided the IDPs with food. Konta is extremely difficult to access by road and the population had not received any assistance since April 1999 (WFP – 20/01/00).

Northern Province

Current operations in this area are carried out under difficult circumstances. Appropriate programming has been disrupted and interventions, where possible, are usually limited only to emergency relief, while assistance programmes aimed at rehabilitation and reconstruction await more favourable conditions (OCHA – 07/0300).

Liberian refugees

The residual caseload of Liberian refugees in Sierra Leone is about 7,000. They are currently being screened by UNHCR (OCHA – 30/01/00). The RNIS has not received any new information on the nutritional situation of these refugees, which is unknown.

Overall, the country continues to open up to humanitarian assistance, although there is little information available about the nutritional situation, with the exception of a single survey in Bo that indicated satisfactory nutritional status. However, given the recent upheaval and the approaching hungry season, the nutritional situation of the IDPs is likely to be precarious for the foreseeable future (category II or III). The nutritional situation of the Liberian refugees remains unknown (category V).

Recommendations and priorities:

In most assessed areas, priorities for urgent interventions include:

- Agricultural support, particularly in the northern and eastern regions.
- Close monitoring of the food security situation, especially in rural areas.
- Rehabilitation of water and sanitation facilities, and the health sector.
- Close monitoring of refugee and IDP returnees.
- Reinforce bridges and arterial routes before the start of the rainy season (April).

From the ACF–F survey in Bo:

- Maintain the therapeutic feeding programme to treat the malnourished from Bo and surrounding zones.
- Strengthen nutritional screening process in order to increase the coverage of the feeding programmes.
- Conduct a food security assessment.

Guinea–Conakry

Guinea–Conakry hosts approximately 489,000 refugees, principally from Liberia (120,000) and Sierra Leone (366,000). The remaining refugees are from a variety of countries, mainly Guinea–Bissau. The majority of the refugees are housed in Gueckadou, Forecariah and N'zerekore (UNHCR–12/12/99).

UNHCR has recently drawn attention to the plight of the refugees and residents of Guinea who are currently receiving a "cool response" from donors. Guinea's population of 7 million is reported to be becoming increasingly unhappy with the refugee situation as what little aid that does come to the country is targeted directly at the refugees instead of being split with the local population (UNHCR – 20/03/00).

The RNIS has received no new information on the nutritional situation of the refugees in Guinea. The most recent reports suggested that the refugees in Gueckadou (some 305,000 people), have a poor food security outlook, although the prevalence of malnutrition is relatively low (see RNIS 29).

Overall, the refugees in Guinea–Conakry remain at moderate risk of malnutrition because of the poor food security outlook (category III).

Cote d'Ivoire

Cote d'Ivoire currently hosts more than 100,000 Liberians and some 1,500 Sierra Leoneans. UNHCR has assisted 11,000 Liberians refugees to repatriate since August 1999 (IRIN–WA – 03/03/00). No new information is available on the nutritional situation of these refugees, which was reported to be satisfactory in the most recent reports (RNIS 27) (category IV).

7. Somalia

The humanitarian situation in Somalia continues to be of grave concern, particularly in Bay, Bakool and Gedo regions in the south of the country. The most recent estimates suggest that approximately 600,000 people living in the central and southern regions, excluding those in Mogadishu city, require emergency food assistance until the next *gu* harvest in July 2000. In the northern region the situation is generally less critical.

Following the collapse of the state and a decade of civil strife, Somalia remains deeply divided. With the exception of Somaliland and Puntland much of the country has the features of a "complex emergency". The population in northern Somalia is estimated to be about 1.75 million, comprising mainly pastoral communities and a rapidly increasing urban population (a combination of returnees and IDPs). The estimated population for the whole of southern and central Somalia is approximately 4.4 million, including approximately 1 million people who live in Mogadishu. In these areas there are high levels of insecurity, abuse of human rights and frequent population displacements (OCHA–11/99).

It is difficult to estimate the number of IDPs in Somalia, but the most recent estimate is between 300–350,000, the majority of whom are in Mogadishu. Approximately 50,000 of these people were newly displaced in 1999 (OCHA –11/99).

Southern and Central Somalia

The *deyr* crop assessment showed an increase in area cultivated in Bay, Lower Shabelle, Gedo and Middle Juba, but a drastic reduction was reported in the already highly vulnerable Bakool and Middle Shabelle. (FSAU – 01/00). Maize yield from irrigated farms along the rivers were expected to be favourable, whereas production of rain–fed sorghum suffered from failure of rains. It was anticipated that the *deyr* production will not solve the problems of the already vulnerable areas of the sorghum belt. Food shortages were expected in Bay, Bakool, Hiran, Gedo and part of Middle Juba.

International staff presence has been re–established in Bay and Bakool Regions following the capture of Baidoa and Hudur by the Rahanwein Resistance Army (RRA), with Ethiopian support, in June 1999. WFP re–established its office in Baidoa in January 2000. Terms of trade for the poorest and displaced throughout southern and central Somalia have deteriorated significantly between January 1998 and September 1999 (including in Gedo, Lower and Middle Shabelle, Hiran, Bakool, and Middle Juba). This has led international agencies, in particular ICRC, WFP and CARE, to distribute food to these groups (ICRC –02/00; Jaspars – 02/00).

During the reporting period, an upsurge in violent attacks and continued militia and factional rivalries, as well as an increase in militarisation, have seriously impaired the delivery of humanitarian assistance in many areas of southern Somalia (SACB – 07/02/00).

Bakool

The food security situation in Bakool region, which borders Ethiopia, is very precarious. An estimated 65–70,000 people are food–insecure in Hudur, Wajid and Rabdure districts. Poor *deyr* season rainfall over large areas of the Bakol region has led to extreme crop losses. This represents the seventh consecutive poor harvest in the area. Of particular concern are the poorest agro–pastoralists who depend on crop production for both food and income. The Rahanwein farmers of Bakool and Bay Regions are among the worst affected by the war. Their inability to build up food stocks or assets has made them particularly vulnerable. Serious water shortages were reported in February. Terms of trade between cereal and cattle have deteriorated due to poor cattle condition, and an increase in livestock sales. Collection of bush products and hunting has increased. IDPs from Bakool have arrived in Dollo, joining the existing IDP camps (Gedo Region). There are reports of increased rates of malnutrition (FSAU –26/01/00; FSAU–9/03/2000).

Hudur town

Hudur town, the capital of Bakool Region, continues to be one of the urban centres most severely affected by the civil war. A UNICEF survey in Hudur town among children aged 6–59 months in September 1999 estimated the prevalence of wasting at 21.2%, including 5.7% severe wasting (see annex). Oedema was recorded in 1.5% of the children measured. Seventy–four percent of severely malnourished children were in the 24 – 59 month age group, indicating a problem of acute food insecurity. High incidences of diarrhoea (38%) and acute respiratory infections (ARI) (17.1%) were recorded. Sixty–two percent of the households surveyed were recent returnees to Hudur (UNICEF – 09/99). More recent reports suggest that the prevalence

of acute malnutrition may have increased further since this survey was completed (FSAU – 26/01/00).

Rabdure District

Much of the population in Rabdure district has been displaced due to food insecurity and inter–clan fighting. The area is remote and food prices are consistently high. The pre–war population of Rabdure was 15,000–20,000, but only an estimated 2,000 people remained in February 2000. Since the beginning of December, UNICEF has supported a supplementary feeding programme for children under the age of five (FSAU – 24/03/00). The preliminary findings of a UNICEF survey in Rabdure indicate the prevalence of acute malnutrition is 30%, including 6% severe acute malnutrition. Two percent of the children had oedema. These results indicate a very alarming situation in Rabdure, especially the level of severe malnutrition, which is indicative of the proportion of children facing a high risk of mortality. Fifty–nine percent of households surveyed were displaced from other parts of the district, 21% were returnees. The survey also indicated that 72% of children had not been vaccinated against measles. Diarrhoea and ARI were considered a contributory cause of malnutrition, as 43% of children suffered from diarrhoea in the two weeks prior to the survey and 21% from ARI (UNICEF, 02/2000).

WFP distributed food to 26,000 people in Wajid district in late January and distributions took place for 9,000 people in Rabdure and 10,000 in El Berde in February. Double rations were planned for Rabdure and El Berde because of the severity of the situation. A second distribution was planned for Wajid in February. The rations included oil for the first time. No further distributions took place in Hudur, following the theft of the previous consignment. CARE distributed food to 5,080 families (30,480 people) in Bakool in October and November 1999. Further distributions were on–going in February/March 2000. ICRC distributed food to 2,000 displaced families in Bakool in October and in December/January. Armed militia have disrupted several of these distributions and deliveries (Jaspars – 02/00).

Bay

In general, food stock availability improved in January due to harvesting (with the exception of Burhakaba district) and WFP food distributions. Staple food (sorghum and maize) prices were positively affected, although imported and locally–produced cereals commodity prices remain abnormally high. Late–planted crops are not promising because of moisture stress. Self–employment opportunities, such as the sale of water, firewood, charcoal and petty trade are normal in Baidoa and Dinsor towns, but below normal in other areas. Agricultural employment opportunities are limited (FSAU – 04/02/00). In February, increased sales of livestock were reported due to shortage of cereal stocks. As in Bakool, there is a water crisis which is expected to worsen over the coming months (particularly in Bur Hakaba and Dinsor districts). (FSAU, 9/03/2000).

No new nutritional surveys or assessments have been received by the RNIS during the reporting period. RNIS 29 reported high prevalences of acute malnutrition from surveys in Baidoa and Burhakaba in August 1999. Whilst in the majority of areas the nutritional condition is reported to be normal, there are indications of malnutrition in Bur Hakaba and Qansah Dere districts (FSAU, 9/03/2000).

WFP distributed food to a total of 104,500 beneficiaries in Bay Region in January 2000. CARE distributed food to 15,420 families (91,440 beneficiaries) in October and November 1999, and the next round of food distribution was planned for February/March 2000.

Gedo

An inter–agency assessment was conducted in Gedo in February 2000, to assess the overall humanitarian conditions in the region. Pockets of extreme food insecurity exist in the region. Affected groups are estimated at 60–80% of the population. 75–100,000 people are considered food–insecure. Signs of severe vulnerability were observed, such as distress coping strategies, abnormal population movements, and reduction in food intake. On–going political instability, and the Somalia Aid Coordination Body (SACB) ban on rehabilitation activities also have a significant effect on people's food security. The most vulnerable population groups or areas are considered to be:

- Burdubo: the agro–pastoral population; because of past conflict, high food prices and abnormal population movements.

- Belet Hawa, Luuq and Dollo: the agro–pastoral population.

• Urban poor and IDPs: the poorest 30% in urban areas which has been disproportionately affected by the SACB ban, devaluation of the Somali Shilling and high cereal prices. IDPs are vulnerable because of their isolation from the rest of the community.

• Poorest 20% of the pastoralists in Belet Hawa, Dollo, Burdubo and Garbahare, and the poorest 60% in Luuq.

• Bardera: from February, the labourers cultivating irrigated farmland are considered vulnerable because labour opportunities for harvesting finish and there will be increasing competition for collection of bush products (FSAU –14/03/2000).

Bardera town

In December 1999, UNICEF undertook a nutrition survey in Bardera town. Further analysis and interpretation was undertaken by Food Security Analysis Unit (FSAU) with contributions and recommendations from the SACB Nutrition Working Group. The results show a very high prevalence of acute malnutrition at 23%, with 5.5% severely acutely malnourished, (including 1% oedema). This level of malnutrition is unusual in the period immediately following the harvest. Previous nutrition surveys in Bardera demonstrated fluctuating malnutrition rates: 38% (1993, UNICEF), 17% (Nov. 1995, ACF), and 15% (May/June 1998, UNICEF).

The factors affecting food security in Gedo before and during the time of the survey were on–going political instability and conflict, the late arrival of the *deyr* rains, adverse effects of previous bad harvests, insecurity resulting in the closure of one of the principle trade routes with Kenya and the suspension of rehabilitation assistance throughout the region. Food assistance to Bardera town and district was significantly reduced in the second half of 1999, in fact no general distribution was undertaken due to insecurity in the region UNICEF/FSAU –12/99).

Twenty–one percent of the surveyed population was displaced. The survey reported a high incidence of acute respiratory tract infection and diarrhoea. Of the children surveyed, 35% had experienced an episode of diarrhoea in the two weeks preceding the survey. UNICEF has supported improvements in the town water supply and environmental sanitation activities. ARI was experienced by 41.3% of the children. At the time of the survey, 24% of the children had not been immunised against measles. There was no information on normal morbidity patterns (UNICEF/FSAU–12/99).

Ninety–four per cent of the children had received Vitamin A supplements during the six months prior to the survey. This was largely attributed to the inclusion of Vitamin A supplementation during the first round of the polio immunisation campaign (NIDS). The challenge now lies in devising means by which this level of coverage can be maintained in the absence of high profile immunisation campaigns (UNICEF/FSAU –12/99).

It is particularly alarming to note that Bardera town is usually considered to be better off, in terms of nutrition, than other areas of Gedo, because of the health centres etc. If this is true, then the situation in the other areas may be very poor indeed (UNICEF/FSAU –12/99).

ACF established a therapeutic feeding programme in Luuq in February 2000. This followed assessments of very high rates of acute malnutrition in 1999. A rapid MUAC assessment in March 1999 estimated the prevalence of acute malnutrition at 52.7% (<12.5 cm). An earlier survey, in December 1998, estimated a prevalence of 32% acute malnutrition, of which 15.2% was severe (<11.0 cm). Local politics and organisational problems meant it took one year to set up the programme (ACF – 02/00).

CARE distributed food to 8,000 families in Gedo in October and November 1999, and distributions were on–going during the month of February. ICRC provided food for 3,750 displaced families in Gedo in October 1999 and January 2000. WFP was planning a distribution in Bardera in March 2000 (Jaspars – 03/00).

Juba Valley Region

The *deyr* season was good in the region and little food needs are being recommended, though there certainly will be pockets of food insecurity associated mainly with displacement and insecurity. There have been anecdotal reports of malnutrition among these groups, although the RNIS has received no surveys during the reporting period (FSAU–04/02/00, 24/03/00).

Kismayo appears relatively stable following the capture of the town by an alliance of forces. UNICEF have been on two exploratory missions to negotiate their return. Because of relative stability, food security for the

majority of the population is reported to be adequate. However, some groups are expected to be politically vulnerable. The risk of future attacks on Kismayo remains high (FSAU –30/03/00).

Lower and Middle Shabelle

Abnormally elevated prevalences of malnutrition have not been reported in Lower or Middle Shabelle. Pasture and livestock condition are normal, as was the production of the *deyr* crop. Employment opportunities are scarce in Lower Shabelle. Fighting in the Kurtun Warrey area has resulted in displacement. Communities are also absorbing IDPs from Bay and Bakool (FSAU – 09/03/00).

Central Rangelands

Hiran

In February, water availability was reported to be normal, and pasture and grazing conditions slightly below normal. Rainfed crops failed, and irrigated crop production was variable. Eastern areas are particularly affected. There are few work opportunities. Market prices have decreased – partially because of food–for–work activities by CARE. Sporadic fighting occurred during the month. (FSAU – 04/02/00; FSAU –09/3/00). ICRC reported a sharp deterioration in the terms of trade between unskilled labour wages and sorghum from January 1998 to September 1999. The agency distributed food to 2,500 displaced families in Hiran in October and December 1999 (ICRC – 02/00).

Health and nutrition in Hiran are reported to be normal, although there is concern that an outbreak of diarrhoea may occur in the upcoming dry season months, particularly as UNICEF activities are currently absent in this region (FSAU–09/03/00).

Two surveys were conducted in Hiran in August–September 1999 by IMC on children aged 6–59 months in Belet Weyne town and the villages surrounding the town (see annex). Belet Weyne District is located at the northern end of Hiran, and Ethiopia forms its northern border. It is estimated that almost half of the district's population lives in Belet Weyne town. The local economy is dominated by agro–pastoralist activities. The prevalences of wasting were relatively high, particularly in the town (see table). However, the under–five mortality rates are lower than those reported by UNICEF for Somalia (IMC–09/99a & b).

The surveys also assessed other factors associated with childhood malnutrition including oral hydration techniques and child feeding practices. Food insecurity as a potential underlying cause of malnutrition was not considered. However, it is likely that the higher prevalence of malnutrition in the town as compared to villages can, in part, be explained by the higher proportion of unskilled labourers and displaced people (IMC – 09/99a & b).

Cowpea Region

Food availability is moderate in most central region markets. This is due to normal rains, good pasture, and an above normal harvest. However, there are food shortages in specific drought–affected settlements. There have been anecdotal reports of malnutrition in some areas (FSAU – 09/03/00).

Results of nutritional surveys in Hiran

	Town	**Villages**
% population IDPs	9.6%	5.2%
Prevalence of wasting	23.6%	15.6%
Prevalence of severe wasting	4.7%	2.1%
Prevalence of oedema	0.5%	5.7%**
Prevalence of stunting	29.5%	28.9%
Prevalence of severe stunting	6.3%	8.3%
Measles vaccination		

by card	25.6%	45.6%
by mother's report	65.4%	74.7%
Vitamin A (single dose)		
by card	23.3%	29.5%
by mother's report	58.6%	51.2%
In 14 days prior to interview, reported prevalence of: diarrhoea	24.7%	24.9%
ARI	65.7%	61.5%
Under−five mortality rate (deaths/10,000/day)	1.6	1.9

** this prevalence may be over−estimated due to extremely sensitive criteria for identifying oedema in this survey.

Mogadishu

There has been no new information on the nutritional situation of the 240,000 displaced in Mogadishu. The RNIS has not received a nutritional survey of these people for more than two years. WFP has reported that these people are vulnerable and it would be useful to undertake an assessment of their nutritional situation in order to determine their needs.

Northern Regions

Somaliland

In February, the food security situation remained normal throughout Somaliland. A high influx of pastoral herders from neighbouring Ethiopian Somali territory have continued to enter the region. These people are mainly women and children who survive on assistance from those communities. Anecdotal reports have suggested that the nutritional status of some of the IDPs in the border towns with Ethiopia, e.g., Borama, may be poor. Other IDPs are arriving from Mogadishu and riverine areas in search of employment. As a result of the influx of the pastoralists, there is growing concern about the possible depletion of pasture and water. The transmission of livestock diseases may also increase. Although this situation needs monitoring, it is not considered critical at present (FSAU – 09/03/00).

Puntland

Pastoral communities in Bari, Nugal, and parts of Mudug have benefited from good *deyr* rains, improved livestock condition and peak livestock export sales. If the *gu* rains are late or fail, however, there is a likelihood of food insecurity in areas of Mudug and Nugal. There have been reports of increased numbers of IDPs (mainly destitute pastoralists) in the area from Bay, Bakool and other parts of the south. There is concern that these IDPs may have a negative impact on the food security of their hosts if they are not supported (FSAU −09/03/00).

Overall, the situation in Bay, Bakool and Gedo, is very poor (category I), because of continued fighting and displacement which is exacerbated by persistent drought. If humanitarian assistance programmes are able to continue, the situation should improve. IDPs in other areas are considered at high risk (category II). There is no new information on the nutritional situation in Mogadishu (category V).

Recommendations and Priorities:

• Support UNCU's attempt to improve access to war−affected populations (through the formulation of Ground Rules) and co−ordination among humanitarian agencies. This will facilitate agencies in taking a principled approach to food distribution.

• Improve the monitoring of the health and nutritional situation in Somalia.

• Support the FSAU in incorporating an analysis of the political determinants of food security and nutrition.

From the UNICEF survey in Hudur:

- Continue and expand the general food distribution in Hudur town and surrounding villages.
- Reduce diarrhoeal disease through improved household and public water sources.
- Improve immunisation and micronutrient supplementation services.
- Assist in seed distribution and the provision of farming tools.

From the UNICEF survey in Rabdure:

- Provide immediate food and non–food assistance.
- Improve the management and prevention of malnutrition and disease.

From the IMC surveys in Hiran:

- Improve disease prevention and cure education, specifically for diarrhoea.
- Improve education about child feeding practices, especially around the weaning period.

From the UNICEF survey *in Bardera:*

- Address malnutrition – this will involve selective feeding programmes and medical management of the severely malnourished.
- Address immediate needs of households with inadequate access to food. Provide a general food distribution in Bardera town and surrounding villages (including IDP camps) to reduce the impact of current household food–stock deficit, to increase general availability of and access to basic cereals and reduce prices.
- Develop health and nutrition surveillance system. Strengthen and extend existing health and nutrition services. This should include immunisation and micronutrient supplementation services, and basic health services for the management of childhood illnesses.
- Determine causes of diarrhoeal diseases and address them.
- Address the longer term problem of food insecurity.
- Provide safe water to Bardera.

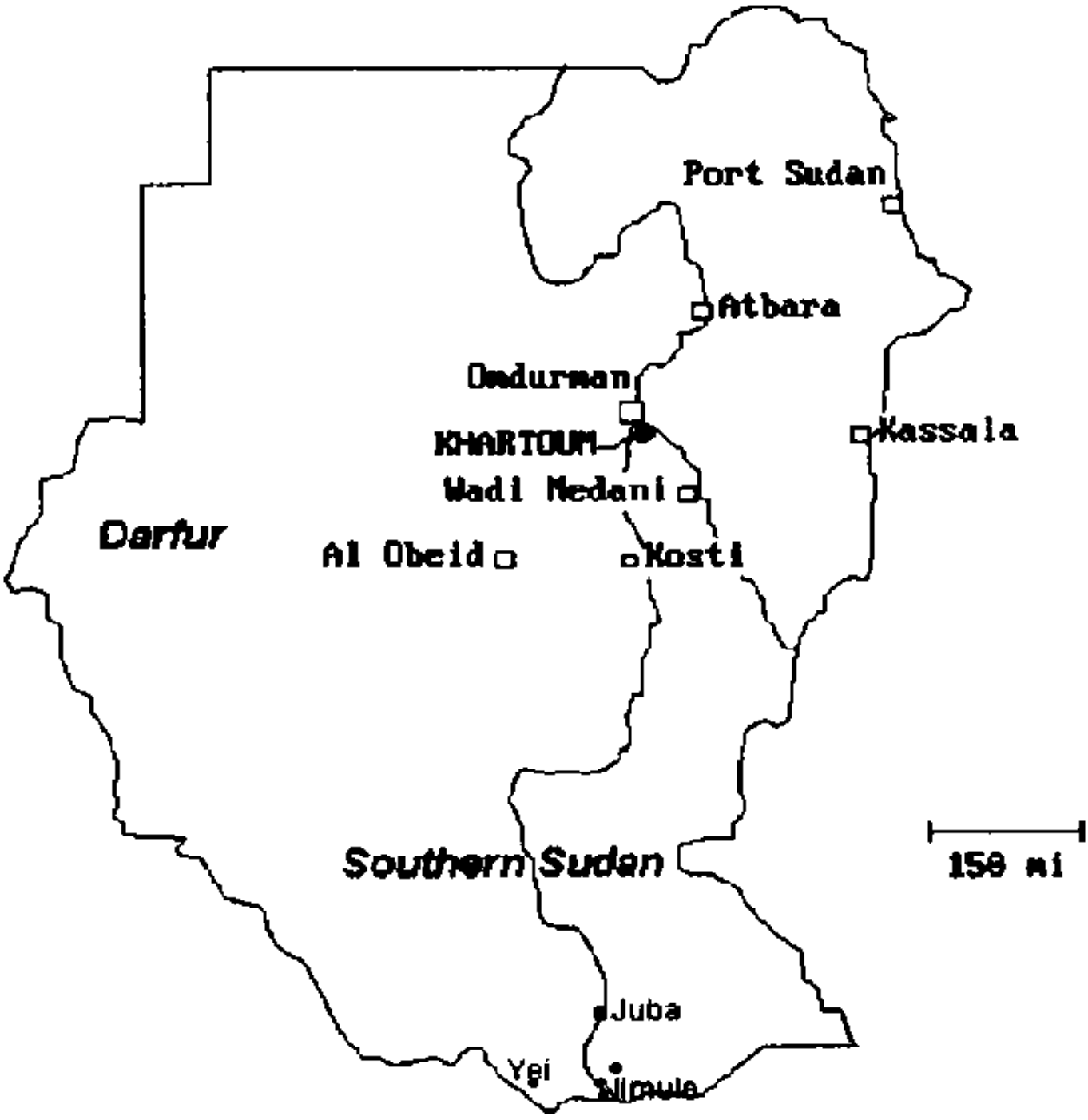
8. Sudan

On 13 January 2000, the Sudanese People's Liberation Movement/Army (SPLM/A) renewed its commitment to a three–month cease–fire declaration covering the southern areas of Bahr el Ghazal, Western Upper Nile and Central Upper Nile. On 15 January 2000, the Government of Sudan (GoS) also renewed its comprehensive cease–fire declaration. Despite these declarations, the civil war continues including bombings of civilian sites.

***Southern Sudan, Non–GoS controlled Areas,* (*OLS Southern Sector*)**

A refusal to sign the new Memorandum of Understanding imposed by the Sudan Relief and Rehabilitation Association (SRRA) has led to the forced withdrawal of 11 international NGOs from SPLM/A controlled areas during the reporting period. This withdrawal will inevitably have an effect on the health, nutrition, water, and food security situation of the people in locations that were being served by these NGOs. The timing of the withdrawal is particularly inappropriate as the agricultural season starts in March and distribution of agricultural inputs should commence before the onset of the rains (May) (FEWS/WFP –09/03/00).

WFP is currently putting plans in place to ensure that emergency food aid distributions in all accessible areas of southern Sudan continue uninterrupted after the withdrawal of the NGOs. There are concerns that gaps in the sector of supplementary/therapeutic feeding programmes will affect the population. In addition, failure to distribute inputs on time to farmers in affected locations may adversely affect agricultural production this year and consequently, longer–term food security (WFP – 03/00).



Upper Nile/Jongelei/Equatoria

Flight bans and insecurity, as a result of conflict in parts of Western Upper Nile and Eastern Equatoria regions, are preventing access to key roads in Equatoria and are causing the suspension of WFP operations in some areas (particularly RASS areas).

Ruweng County, Upper Nile Region

A recent assessment in Ruweng County, Upper Nile Region (a predominantly Dinka area, with some Nuer and Nuba displaced) has confirmed an urgent need for food aid and other forms of relief in this county. In 1999 the conflict in this area intensified and only 20% of households were able to harvest any crops. Health

care programmes have been severely disrupted and there are anecdotal reports of measles, diarrhoea, TB, and guinea worm. Obtaining sufficient food and water is a full–time occupation for most household members. WFP distributed food to this area in February, including to 2,400 Nuer IDPs, but a broader–based response is required in order to stabilise the nutritional situation (FEWS/WFP – 09/03/00; WFP –03/00).

Latjor State, Upper Nile Region

An influx of around 7,000 IDPs has been reported in Kiech Kuon area (Latjor State, Upper Nile) following insecurity north of this region. A rapid assessment in late January revealed a food deficit among the poorer residents as well as the newly–arrived IDPs. WFP food aid deliveries to the area will be increased (WFP – 03/00,17/03/00).

Bor County, Jongelei Region

MEDAIR completed a nutritional survey in Athooc *payam*, southern Bor County in December 1999 (see annex). The survey estimated the population of the *payam* at 48,5000 people, most of whom are Bor Dinka. The majority of the population were cattle owners prior to the Nuer attacks of 1989–92 when most of their cattle were raided. The survey estimated that only 10% of the population are now pastoralists compared to 80% previously. The prevalence of acute malnutrition was estimated at 21.7%, including 2.1% severe acute malnutrition. An assessment in June 1999 had estimated the prevalence of acute malnutrition at 35.8%, including 5.8% severe acute malnutrition (note that the two results are not strictly comparable due to differences in the sampling techniques) (MEDAIR –12/99).

The high prevalence of malnutrition recorded was attributed to several factors including relatively high morbidity rates; malaria was reported in 78.1% of the children in the month before the survey. Diarrhoea and chest infections were also common (58.2% and 39% respectively). Parts of the *payam* were severely flooded during the survey, which could partially explain the high levels of illness. The average number of persons per household was higher than that usually found in south Sudan – possibly because the flooding had led to families being forced to evacuate their homes and share with others. This may also have contributed to the malnutrition. WFP is currently undertaking a food security assessment in the area, to determine the causes of malnutrition (MEDAIR –12/99; WFP –15/03/00, 17/03/00).)

***Bahr–el–Ghazal* (*BEG*)**

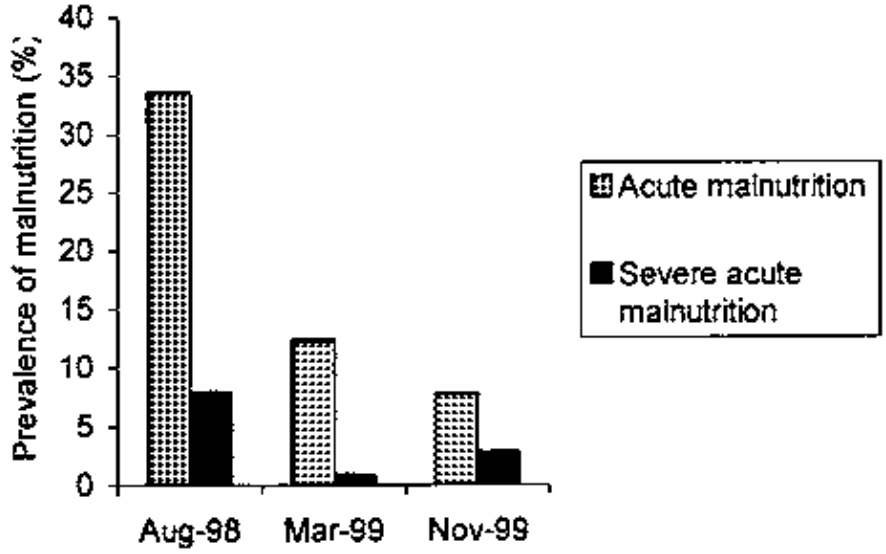
Twic County

An assessment in Twic County in February found that the food security situation had improved in 1999 compared to previous years mainly because of improved security. The poor and the displaced, however, remain vulnerable, particularly the Nuer displaced who have no strong kinship ties with the local population (FEWS/WFP – 09/03/00).

Aweil East and West Counties

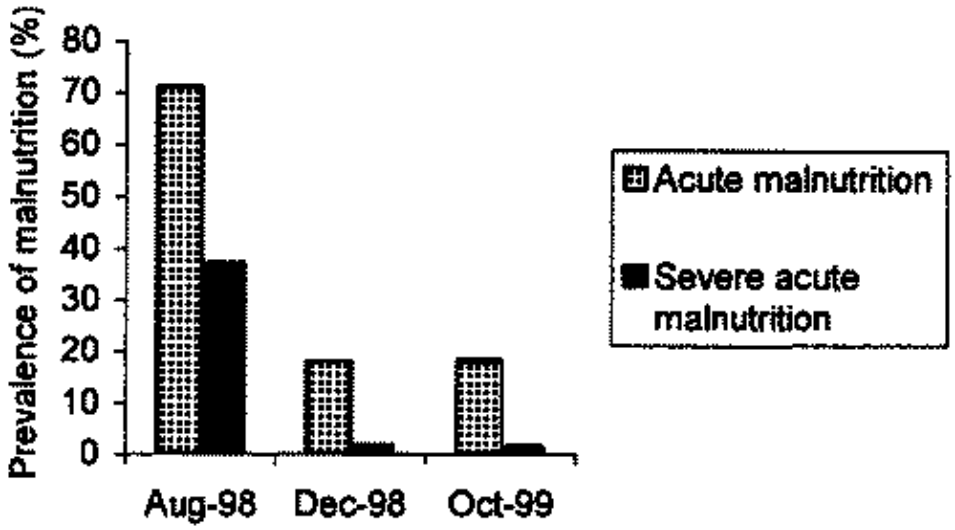
A multi–agency emergency assessment was undertaken in 8 returnee camps in Aweil East County in response to reports of an influx of approximately 3,000 returnees from the north. The returnees' options to obtain food are limited and many have no means of livelihood. Provisional findings indicate that in camps where the returnees have not received food distributions many people are exclusively surviving on wild food. In addition, living conditions are reported to be squalid – water and sanitation conditions are poor. Anecdotal reports of malnutrition have been received (FEWS/WFP – 09/03/00; WFP – 03/00).

An MDM nutritional survey in Akuem, Aweil East County in November 1999 among children aged 6–59 months, of which 12.7% were displaced, estimated the prevalence of wasting at 11.9%, including 1.3% severe wasting (see annex). Oedema was recorded in 2.5% of the children surveyed. The prevalence of malnutrition was lower than previous surveys in August 1998 and March 1999 (see graph), although a higher prevalence of oedema was reported. Such a high prevalence of oedema is not usual in BEG. The difference in the rates of malnutrition was partially attributed to seasonal differences in food availability. However, the authors of the survey noted that the prevalence of malnutrition in the most recent survey was relatively high, given that it was completed in the post–harvest period. No statistical associations were found between malnutrition and reported incidences of diarrhoea, measles, vomiting, fever or parasites. The under–five mortality rate was estimated at 3.1/10,000/day. Measles vaccination coverage was relatively low at 56.4%, this was particularly so for the flooded part of the survey area where the coverage was only 8.7% (MDM –11/99).



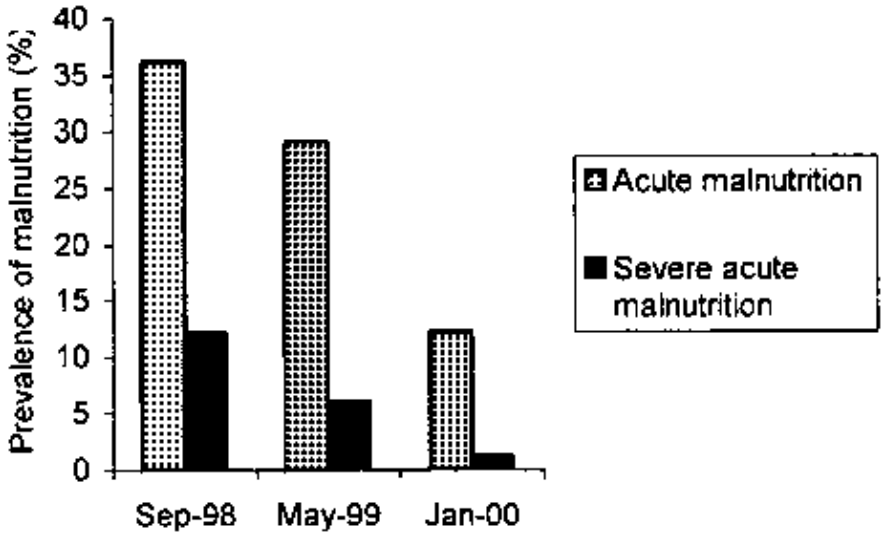
The prevalence of acute malnutrition (defined using medians and/or oedema) in Akuem, BEG

MSF–B undertook a nutritional survey in Panthou, Aweil East, among children aged 6–59 months in October 1999 (see annex). Twenty–eight percent of the children surveyed were from households that arrived in Panthou less than one month before the survey took place, i.e., were displaced. The survey estimated the prevalence of acute malnutrition at 18.2% (including 1.3% severe acute malnutrition). This was approximately the same level as that found in December 1998 (see graph). The prevalence of malnutrition was slightly higher among the displaced than residents. The authors of the survey suggested that the nutritional situation in Panthou is fragile, but stable, and that the general security situation, and hence food security, will determine the population's nutritional status over the coming months. The most vulnerable groups are the displaced, returnees and those people living in flooded areas. Coverage of the nutrition programme was very low at 1.3%, although this may be because the families were unwilling to have their SFP "bracelets" taken away from them and hence were hesitant to admit to enrolment (MSF–B–11/99).



The prevalence of acute malnutrition (defined using z–scores and/or oedema) in Panthou, BEG

TearFund undertook a survey in three *payams* of Malualkon, Aweil East County (Mangok, Baac and Malualbai *payam*) in January 2000 among children aged 6–59 months (see annex). Twenty–three percent of the population surveyed were displaced (mainly due to flooding and insecurity). The prevalence of acute malnutrition had decreased since September 1998 and was estimated at 12.2%, including 1.3% severe acute malnutrition (see graph). No oedema was recorded. The coverage of the therapeutic and supplementary feeding programmes was 62.5% and 60.4% respectively. The blanket supplementary feeding programme (for children under five years) was well attended by those who lived within the *payam* where the centre is located, but poorly attended by those who lived further away. Measles immunisation coverage was estimated at 32.7% (TearFund – 01/00).



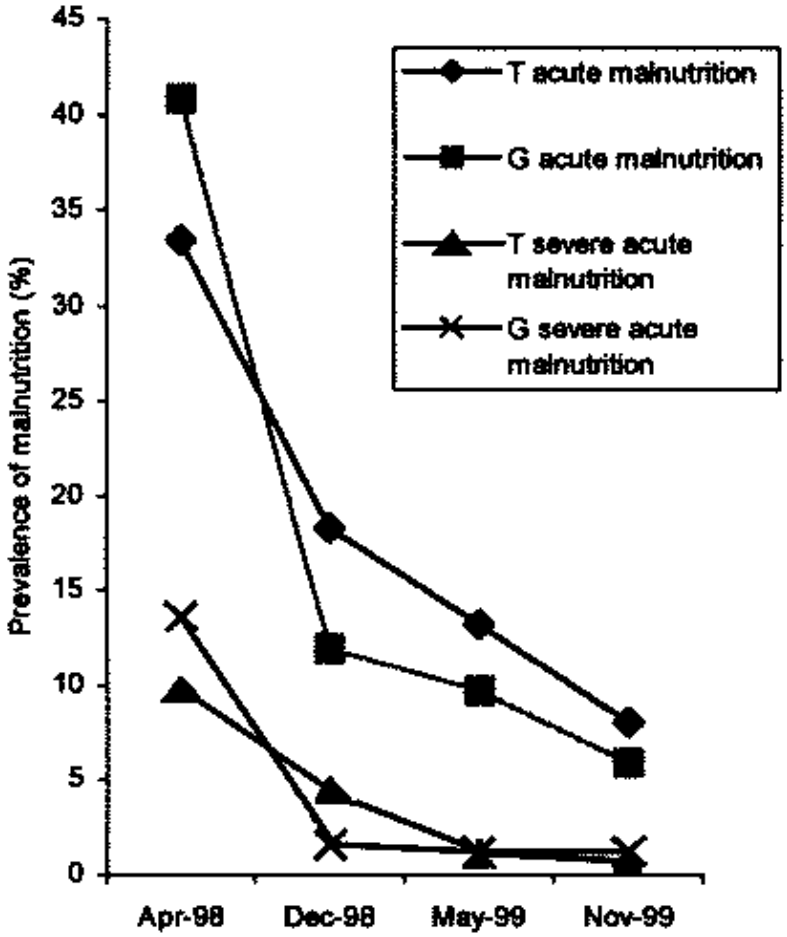
The prevalence of acute malnutrition (defined using z–scores and/or oedema) in Malualkon, BEG

The authors of this survey commented that the prevalence of malnutrition was still relatively high, even though the survey had been completed only 3 months after the harvest of sorghum and groundnuts. Some areas of the *payams* had suffered severe crop damage from floods while others suffered from insecurity. WFP has attempted to distribute monthly food rations to vulnerable households in the area by asking the chiefs to identify vulnerable families. The survey revealed that 85% of the households had received WFP food recently – a much higher figure than WFP had considered vulnerable. Thus it appears that WFP's rations are being widely shared among the community which ultimately reduces the ration per person (TearFund–01/00).

Concern completed a nutritional survey in three *payams* of Aweil West County (Gomjuer, Ayat and Malual West *payams*) in November 1999 among children aged 6–59 months (see annex). The survey estimated the prevalence of acute malnutrition at 10.4%, including 3.1% severe acute malnutrition. This is a decrease from May 1999, when the prevalence of acute malnutrition was estimated at 19.6%. CMR was estimated at 0.84/10,000/day and under–five mortality at 1.9/10,000/day. The measles coverage was low at 30% (Concern – 28/03/00).

Gogrial & Tonj Counties

According to WFP, preliminary findings from nutritional surveys by World Vision Sudan completed in late November in Panthou and Toch *payams* of Gogrial county and also the five *payams* of Tonj County indicate a decrease in the prevalence of malnutrition (see graph) in these areas (see annex, WFP – 03/00). These surveys are not yet available to the RNIS.

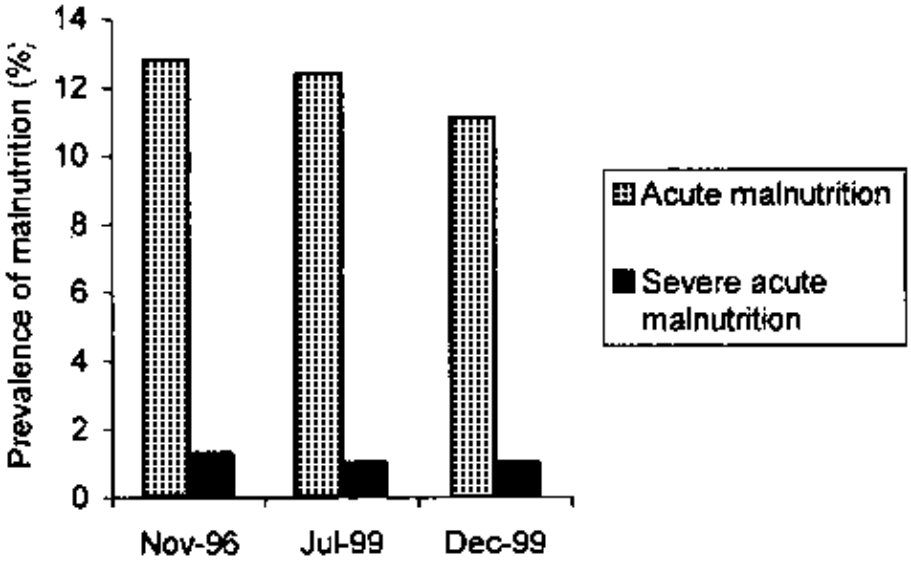


The prevalence of acute malnutrition (defined using medians and/or oedema) In Tonj (T) and Gogrial (G), BEG

***Southern Sudan: GoS controlled areas* (*OLS Northern Sector*)**

Juba, Equatoria

ACF–F conducted a nutritional survey in Juba, a government enclave and the largest town in southern Sudan, among children aged 6–59 months in December 1999 (see annex). The survey reported that the total population is approximately 128,000, of whom approximately 50% are displaced. The prevalence of acute malnutrition was estimated at 11.1% (including 1.0% severe). This is only a very slight improvement since July 1999 (see graph). Oedema was recorded in one child. The measles vaccination coverage rate was relatively low at 44.5%. The feeding programme coverage was 39.7% (ACF–F –12/99).



The prevalence of acute malnutrition (defined using z–scores and/or oedema) in Juba, Equatoria

Given the improvements in the general food security situation post harvest, greater improvements would have been expected. For example, a relatively stable security situation had allowed increased utilisation of the farmland around Juba. Also yields of sorghum, maize and groundnuts were good in 1999 and food prices in the market remained stable. In 1999, WFP provided full rations to 15,000 of the displaced, targeted vulnerable groups, including people who were disabled, had TB or were leprosy patients, and half rations for moderately malnourished children, elderly people, pregnant and lactating women based on anthropometric measurements. Targeted feeding was provided for a further 5,000 vulnerable people. The survey's authors suggested that health factors may have been the primary cause of the malnutrition (ACF–F –12/99), also only a proportion of the displaced benefited from humanitarian assistance.

WFP plans to reduce food assistance to the IDPs in Juba in 2000, given that increasing numbers of the displaced are able to cultivate their own foods. Food–for–work and food–for–school schemes will be expanded to compensate, at least partially, for the reductions. It will be important to continue to monitor the nutritional situation carefully (ACF–F–12/99).

Northern Sudan

The RNIS has received little information on the nutritional situation of most of the IDPs in Northern Sudan, including those in White Nile, South Kordofan, the Nuba Mountains and Red Sea State.

Khartoum

There continue to be nearly two million displaced southern Sudanese people in camps in and around Khartoum. Approximately 222,000 are living in four official IDP camps, while the remainder are settled in 15 main squatter areas. No nutritional surveys have been conducted among the IDPs in Khartoum State since January 1999.

Transition Zone

South Darfur

There are currently estimated to be 40,000 people living in the camps in South Darfur State. The most recent nutritional survey in the camps, in July, estimated a very high prevalence of malnutrition that was partially attributed to a measles outbreak (see RNIS 28). In November 1999, SCF–UK undertook a baseline food economy study in the Ed Daein camps (SCF–UK–12/99).

The displaced in the Ed Daein area are Dinka from BEG have been forced to flee, principally as a result of conflict (war–related looting, burning and stealing of property) and subsequent acute food insecurity. Camps of displaced Dinka have been in existence in south Darfur since at least 1986, others were opened in 1991. Most of the displaced have lost all their cattle, crops, grain stores and even homes. Out of a total of ten camps in the Buram, Adilla and Ed Daein Provinces, seven were visited in the course of the assessment. The assessment identified four types of household based on the household's major economic activity (SCF–UK 12/99):

• Sharecroppers (60–75% of households): An agreement is made between the displaced household and local or merchant farmers whereby each will receive half of the land's annual crop production. The relationship between the Dinka sharecroppers and the south Darfur landowners has a long history predating the existence of the IDP camps. It is generally agreed to be exploitative of the Dinka.

• Land leasers (10–15% of households): Few of the displaced are able to cultivate land for themselves. Although all citizens have a right to rent land, the unequal power relationships between the Dinka and the local population (Maalihia or Rizegat) result in the Dinka facing difficulties when acquiring fertile land for cultivation. A supply of drinking water is a prerequisite for farming activities. Water is generally

• taken to the fields by donkeys, but very few Dinka own carts or donkeys and the cost of renting them is prohibitive. Therefore many of the Dinka are only able to cultivate the less fertile land close to the village where they can carry the water on foot. In addition, seeds and tools are also required to cultivate. The Dinka who lease land are generally better off than the rest of the Dinka community, they may be camp leaders or traders who have links to the host community. These households support many dependent family members.

• Casual agricultural labourers (5–15% of households): Most sharecroppers are not allowed, or unable, to take time away from sharecropped farms to find casual work on other farms. Households who engage in agricultural labour earn more than those who sharecrop, but the displaced prefer to sharecrop as it provides them with a link to the host community and it gives them access to loans. Thus they are assured of accessing the food and cash they need, even in unforeseen circumstances such as illness. The link may even provide them with physical protection from reprisals following conflict in neighbouring south Sudan between the Dinka army and the northern militia.

• Small households (5–10% of households): These households, which generally have less than 4 people, are typically headed by a woman or an old, or sick, man. There are few female–headed households living alone without being attached to another household with whom they share cash or food in the camps. This is because most of the labour opportunities in Darfur are in agriculture and are for men (although women are involved in agricultural activities). In Khor Oman town camp, near Ed Daein, there are more of these types of households and the women generally find domestic work on a daily or monthly basis.

All types of households face food shortages and find it difficult to access their food and non–food needs. The displaced have extremely low levels of cash income, which affects their access to health care and education. Most households spend less than 5% of their income on health care, and ill health is considered by the Dinka to be one of their greatest problems. Virtually no households spend any money on education. The majority of households, the sharecroppers, purchase half or more of their food from the market (SCF–UK –12/99).

Relief foods reduced the food deficit for most households in 1999: relief food contributed 30–40% of food sources for sharecropping households. Food aid is also important in allowing households to spend more money on health or enabling them to take fewer loans. When relief food is distributed during the agricultural season, there is a reduction in the number of loans the displaced sharecroppers require from the farmers. Post–harvest after the repayment of loans to the farmer and other debts, there is, therefore, more of the groundnut harvest left for the Dinka sharecropper. This is likely to affect the subordinative relationship between the Dinka, and the local farmers and merchants (SCF–UK–12/99).

Refugees in Sudan

UNHCR is preparing for a repatriation of Ethiopian and Eritrean refugees from the Sudan later this year. There are an estimated 12,000 Ethiopians and 150,000 Eritreans living in refugee camps in eastern Sudan. Many of these refugees have been in the Sudan for more than 30 years (UNHCR–22/02/99).

No new information on the nutritional situation of these refugees is currently available. The most recent reports suggested that their nutritional situation was not critical (RNIS 28).

Overall, the nutritional situation of the IDPs in south Sudan, although improving in many areas, can still not be described as non–critical. Several surveys have indicated the prevalence of malnutrition is relatively high, i.e. above 10% (category II or III). Despite the ceasefire declaration, localised conflict continues, and in certain areas places the affected population at considerable risk, for example, in Bentiu around the oil fields. The wider situation may be further exacerbated as the hunger season is approaching. Of additional concern is that many of the agencies that monitor the situation have withdrawn from SPLM controlled areas as a result of refusing to sign the new MoU, and therefore the international humanitarian communities ability to monitor and respond accordingly will be limited.

In northern Sudan, there is very little new information available on the nutritional situation of either the displaced people in Khartoum, in the transition zones or in the government controlled areas of the south (category V). The rate of malnutrition in Juba suggests the displaced in particular remain at moderate risk (category III).

Recommendations and Priorities:

• The major priority is to ensure continuity in the provision of humanitarian assistance in southern Sudan, following the withdrawal of several NGOs. It is hoped that this withdrawal does not affect the ability to monitor the nutritional situation in affected areas.

• The lack of information generally for the north of Sudan is of concern as it is known there are large populations of displaced who require international humanitarian assistance.

From the MDM nutritional survey in Akuem:

• Continue the therapeutic feeding programme, and nutritional surveillance, particularly during the hunger gap period.

• Improve the vaccination coverage, especially in the flooded areas.

• Continue with the training of primary health care workers in order to improve public health.

From the MSF–B nutritional survey in Panthou:

• Continue to monitor the nutritional situation.
• Determine how to support the most vulnerable groups.

From the TearFund nutritional survey in Malualkon:

• Increase the food ration during the upcoming hunger gap.

• Improve access of the malnourished children to the programmes by starting home visits.

• Introduce root crops such as cassava, sweet potatoes, and fruit trees to increase food availability, especially during the hunger gap.

• Improve health facilities in the area by establishing a field referral facility.

• Continue to monitor the nutritional situation.

From the ACF–F nutritional survey in Juba:

• Continue to improve the nutritional surveillance of the population, including coverage of the feeding programmes and active case finding.

• Expand health and nutritional education programmes.

• Implement a food security programme for the most vulnerable groups.

• Improve the vaccination coverage.

From the SCF–UK food economy assessment in Darfur:

• Provide free or subsidised drugs and health care in all of the camps.

• Continue to provide relief food, particularly during the agricultural season.

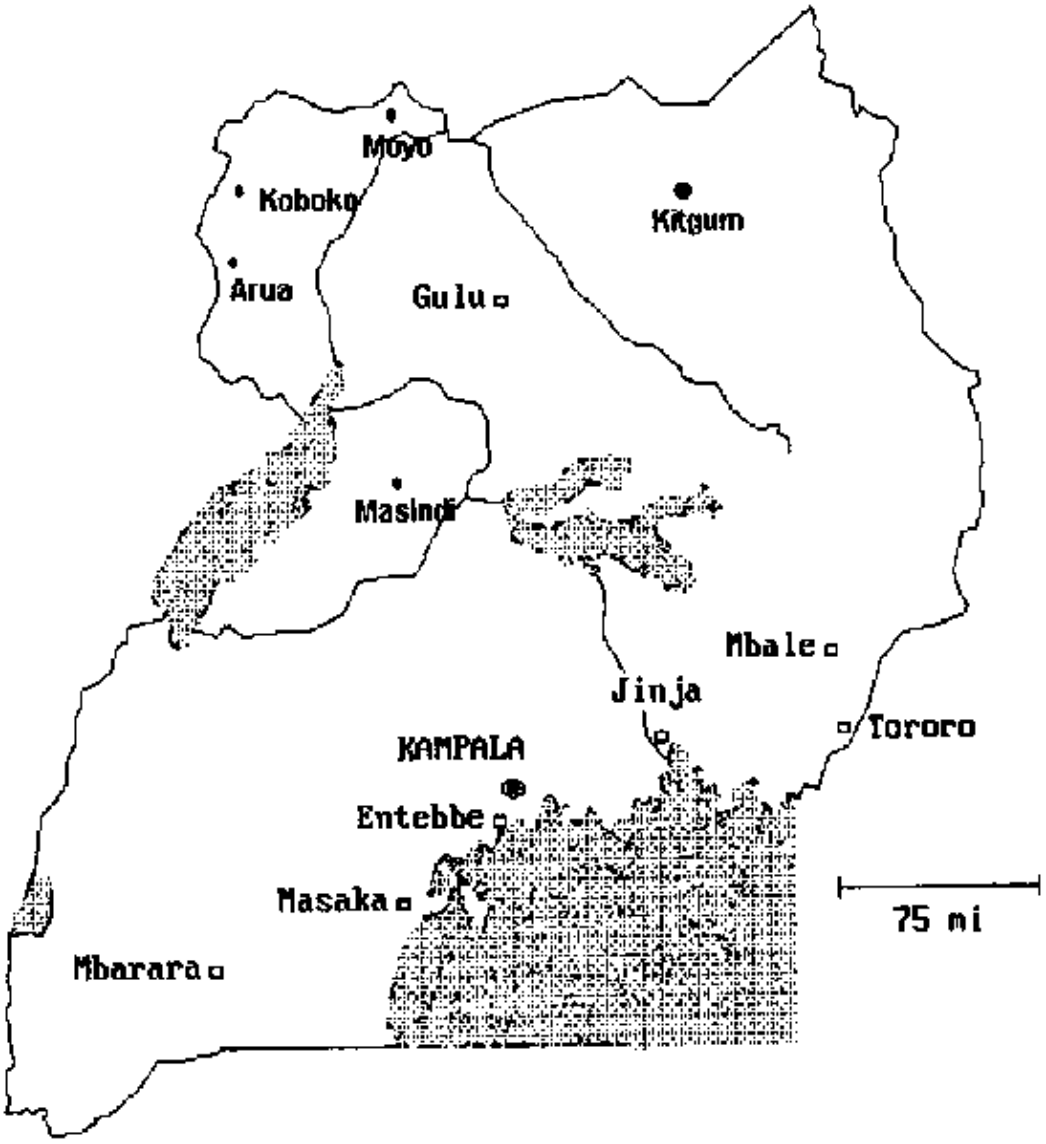
9. Uganda

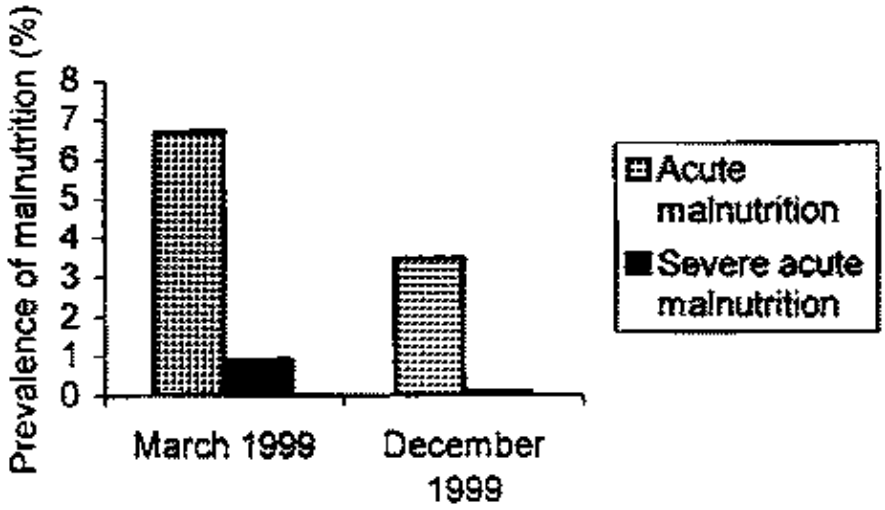
IDPs in North Uganda

The northern Acholi region of Uganda (Kitgum and Gulu Districts) has suffered from civil unrest for more than a decade. The Lord's Resistance Army (LRA) has been looting villages, abducting children and killing civilians since the late 1980s. 1999 was a relatively peaceful year for the Acholi region and many of the displaced were able to return to their homes and re–start their agricultural activities. However, after eight months of relative peace, in December 1999, the LRA re–entered Kitgum District. As a result, the insecurity has intensified and the violence in the region has started to increase again. Many of the displaced have had to return to the camps in order to seek protection. It is currently estimated that 393,000 people have been displaced by the fighting in the region (OCHA –18/02/00).

Kitgum District

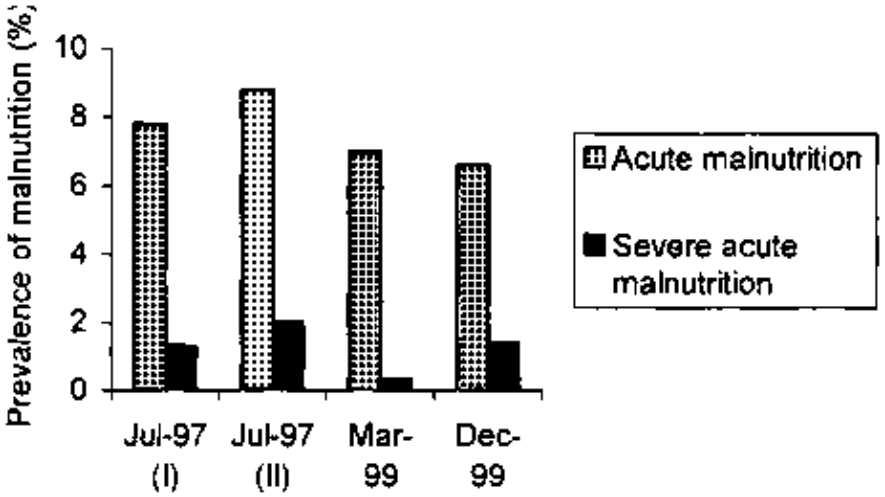
ACF–USA undertook two nutritional surveys among children aged 6–59 months in Kitgum District in December 1999 in order to assess the prevalence of malnutrition in villages (in the eastern part of the District) and in the IDP camps (in the west and north of the District) (see annex). The prevalence of acute malnutrition in village areas was relatively low at 3.5% and had decreased since the last survey in the area in March 1999 (see graph). This was partially attributed to the improvement in security, which allowed farmers to increase their agricultural activities. Also, March is the start of the hungry season and December the time of the second harvest, thus malnutrition rates would be expected to be higher in March. The 1999 harvest was reported to be good (ACF–USA – 03/00b).





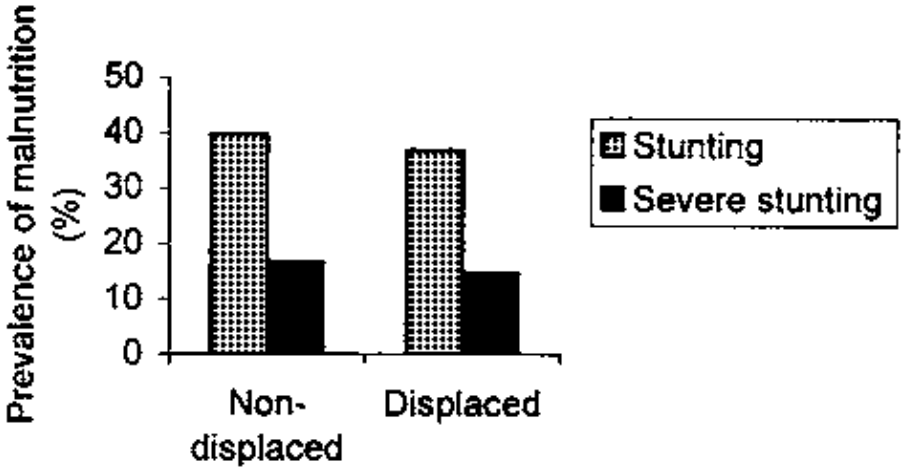
The prevalence of acute malnutrition (defined using z scores and/or oedema) In non–displaced villages in Kitgum

In contrast, the prevalence of acute malnutrition in the IDP camps had not decreased, and remained at approximately the same level as previous surveys (see graph). This may be because a remainder of vulnerable IDPs (households headed by older persons or children) were left in the camps – the less vulnerable households having moved back home to restart farming activities. In 1999 WFP provided a 50% ration to the population in all but two camps. The population in Potika and Agoro camps were considered more vulnerable and received a larger ration, for part of 1999. ACF have one therapeutic feeding centre and three supplementary feeding centres in the district. ACF also established a nutritional surveillance and agricultural support programme (ACF–USA – 03/00b).



The prevalence of acute malnutrition (defined using z scores and/or oedema) in IDP camps in Kitgum District (note that there were two surveys in July 1997 in separate camps)

The prevalence of stunting remained relatively high for both groups indicating a poor nutritional history for the residents as well as the displaced (see graph). These prevalences are roughly equivalent to the national prevalence of stunting which was estimated at 41.9% in the Ugandan demographic health survey in 1995, although Kitgum was not included in this survey because of insecurity (ACF–USA – 03/00b).



The prevalence of stunting (defined using z scores) in non−displaced villages and IDP camps in Kitgum

The mortality rate in children under five was 1.3/10,000/day, in both villages and camps, which is similar to that found in March 1999. The main cause of under−five mortality reported by mothers was fever (47% in villages and 53% in camps). The coverage of the feeding programmes and measles vaccination rates was relatively low in both areas (see table). The feeding programme coverage was particularly poor in the villages. (ACF−USA − 03/00b).

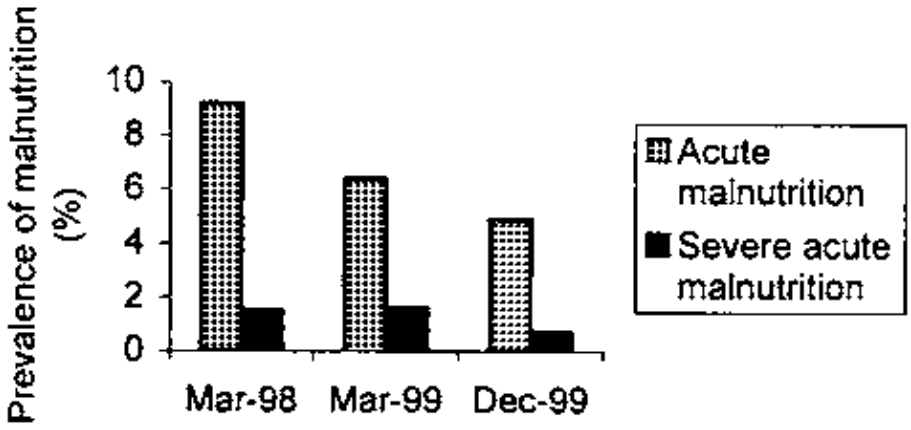
Results of the assessment in Kitgum

	Villages (non−displaced)	IDP camps
Feeding programme coverage (%)	6.1	20.0
Measles coverage (%)		
By card	18.2	16.2
By history	38.8	34.3

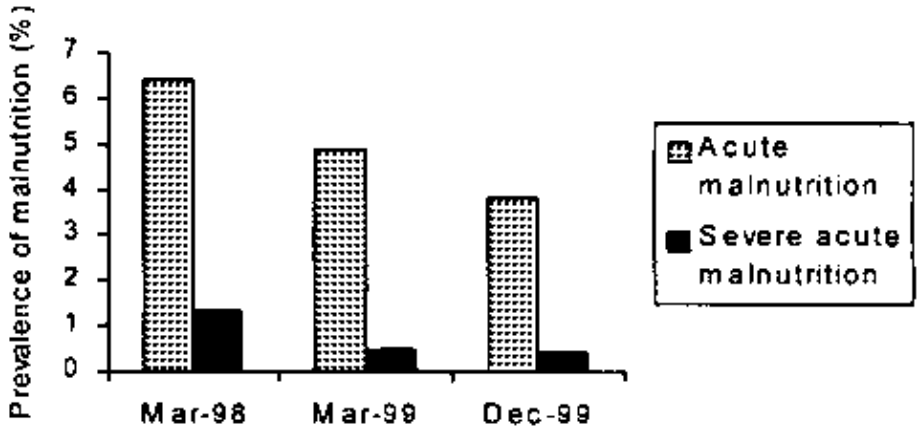
Gulu District

ACF−USA surveyed the nutritional status of children aged 6−59 months in Gulu District in September−October 1999 in camps with and without health facilities (see annex). The prevalence of acute malnutrition in both types of camps had decreased since the last survey in the area in March 1999 (see graphs). There were only small differences in the prevalence of malnutrition between the camps. Under−five mortality rates were low at 1.2/10,000/day in camps with health facilities and 0.6/10,000/day in camps without health facilities. The report provides no explanation as to why mortality in camps without health facilities is lower. As for Kitgum, the main cause of under−five mortality was fever in camps with health facilities (43%). In the same camps, 18.7% of deaths were due to measles. In camps without health facilities, only 25% of deaths were attributed to fever, 25% to diarrhoea and 50% to other causes (ACF−USA − 03/00c).

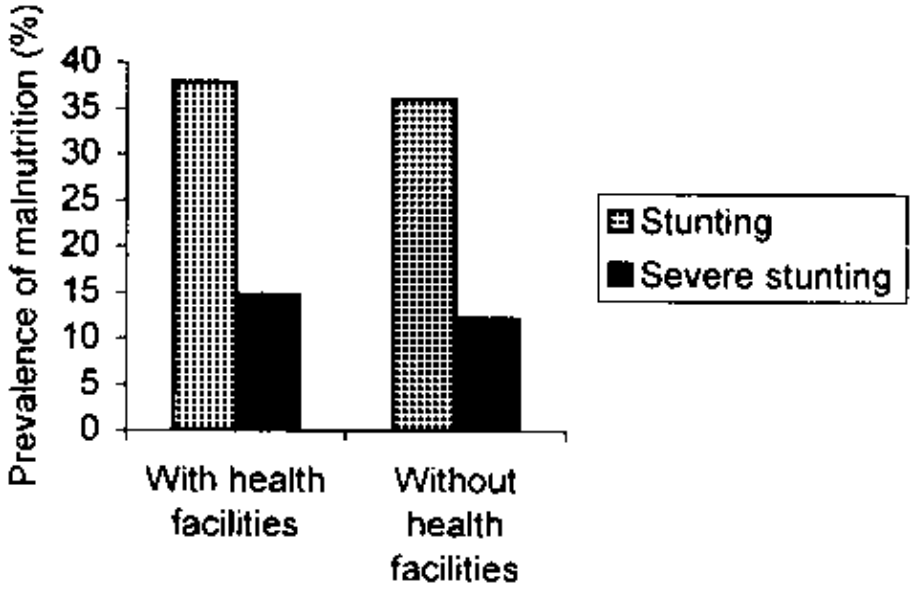
Similarly to Kitgum district, the improvement in the nutritional situation was partially attributed to the improvement in security, which allowed farmers to return to their homes and increase their agricultural activities. In addition, WFP maintained their food assistance to the camps and thus some of the population returned to the camps to benefit from the general distributions. The prevalence of stunting remained high for both groups indicating a poor nutritional history for the population of Gulu (see graph) (ACF−USA −03/00c).



The prevalence of acute malnutrition (defined using z scores and/or oedema) in IDP camps with health facilities in Gulu District



The prevalence of acute malnutrition (defined using z scores and/or oedema) in camps without health facilities in Gulu District



The prevalence of chronic malnutrition (defined using z scores) in Gulu District

ACF has two therapeutic feeding centres and 19 supplementary feeding centres in the district. The coverage of the feeding programmes and measles vaccination rates can be seen in the table below. As expected, the feeding programme coverage and measles vaccination rate was better in camps with health facilities (see table) (ACF–USA–03/00c).

Results of the assessment in Gulu

	Camps with health facilities	**Camps without health facilities**

Feeding programme coverage (%)		44.0	25.8
Measles coverage (%)			
	By card	37.2	29.1
	By history	45.1	59.1

Since these surveys were undertaken the security situation in both Gulu and Kitgum has deteriorated significantly. The presence of bands of LRA rebels continues to force residents to seek safety in displaced camps around the District once again. This may have important negative consequences for the nutritional situation of the population of Kitgum and Gulu. For example, the population of Gulu did not have time to transfer or sell their harvests before the new outbreak of insecurity in mid−December. They were also unable to complete harvesting the remainder of their crops in January and February. This has resulted in the IDPs having very limited food stocks (ACF−USA − 03/00c).

In addition to reduced food stocks, the insecurity has resulted in relief efforts being suspended. International humanitarian agencies have not been given clearance from the authorities to move outside the town. This will disrupt medical and nutritional assistance programmes. Only WFP was able to distribute food to some 175,900 IDPs in early January. Military escorts were employed to accompany the convoys (OCHA −18/02/00; WFP −10/02/00, 17/03/00).

IDPs in West Uganda

Bundibugyo

The Allied Democratic Forces (ADF) have substantially increased their attacks since December 1999 in Bundibugyo and Kabarole Districts. Targets include IDP camps. WFP has reported that the number of persons registered for food distributions in IDP camps in Bundibugyo has increased over the reporting period as people are seeking protection. Anecdotal reports suggest that public health conditions in some of the camps are deteriorating as the system is being strained by the increasing number of people. Most relief activities in Bundibugyo remain suspended due to insecurity, although WFP convoys did deliver food in January (OCHA −18/02/00; WFP − 22/02/00).

Kasese

There are reports of up to 65−70,000 IDPs in Kasese district, approximately half of whom are living in IDP camps. Those not living in the camps are reported to be more food−insecure as relief food has only been provided to those in the camps (OCHA−18/02/00).

Refugees in Uganda

WFP assisted some 137,200 Sudanese refugees in six different settlements in northern Uganda over the reporting period. Food assistance was phased out for some 20,200 Sudanese refugees at the end of December 1999, per the recommendations of the June 1999 Joint Food Assessment Mission (WFP−22/02/00).

Some 16,350 Congolese and Rwandan refugees are housed in the settlements of Orunchinga and Nakivale. New arrivals from Rwanda who have come via northern Tanzania have been recorded during the reporting period. A Joint Food Assessment Mission (JFAM) to Oruchinga refugee camp, in Mbara district estimated the camp population at 5,000. According to WFP, the team reviewed a recent nutritional survey for children aged 6−59 months, which estimated the prevalence of acute malnutrition at 3.0% compared to 5.2% in June 1999. The RNIS has not received this report (WFP−22/02/00).

Drought in Uganda

A joint assessment mission which included WFP, ADRA, OXFAM, LWF, FAO, UNHCR and government officials visited the districts of Kotido and Moroto in the Karamoja area of northeastern Uganda, following a government request for food assistance and reports of drought and subsequent crop failure. The mission confirmed crop failure in most sub−counties. Sales of cattle have also increased and their prices are reduced.

Coping mechanisms included able−bodied household members migrating in search of labour. Only one meal a day was being consumed and the reliance on wild foods had increased. WFP's school feeding programme enrollment had increased by 30%. WFP is preparing an EMOP to provide relief assistance to approximately 150,000 people for a period of six months (WFP − 10/02/00, 22/02/00).

Overall, the IDPs in Gulu and Kitgum are considered to be at increased risk of malnutrition. Although the survey results from late last year reported relatively low prevalences of acute malnutrition the increased insecurity places them at greater risk (category II). For similar reasons, those in western Uganda are also considered to be at heightened risk of malnutrition (category III). The nutritional situation of the refugees is not considered to be critical (category IV).

Recommendations and priorities:

- Monitor the nutritional situation of the IDPs as closely as possible given the security conditions.

From the ACF−USA surveys in Gulu and Kitgum:

- Enhance the prevention of malnutrition by health education.
- Increase the measles vaccination rates in all areas.
- Improve the feeding programme coverage.
- Design more appropriate programmes aimed at improving self−sufficiency of the population (if security situation becomes stable again).

Recommendations from JFAM (*from WFP*) *for the refugees in Oruchinga camp:*

- Undertake a survey to determine the availability of land for the allocation of plots to all families.
- Provide seeds for the planting season.
- Reduce the cereal and pulse ration by 25% (to 75% of full ration), with oil and salt remaining at full ration levels, by January 2000.

10. Zambia

Fighting in south−eastern Angola between UNITA and Angolan Government forces has resulted in an influx of more than 24,000 Angolan refugees into Zambia's Western province since October 1999. There are contingency plans to cope with an influx of a further 15,000 refugees. Some 10,000 of the newly arrived refugees have been stuck on the western bank of the Zambezi River at Sinjembela, however UNHCR and IOM are transporting them to a new camp 120 km inland away from the insecure border (at the time of press some 3,000 refugees remained in Sinjembela. Reports from Sinjembela indicate that the overall health situation among the refugees is not critical, although the incidence of diarrhoeal diseases has increased − possibly due to the onset of the rainy season and the congestion in the camp area. There have been anecdotal reports of malnutrition. MSF−H is vaccinating the refugees against measles. Logistical difficulties continue to make access to the camp difficult (IOM −28/03/00; IRIN−SA − 24/02/00, 21/02/00, 17/02/00; UNICEF−21/02/00).

There is no new information on the nutritional situation of the 25,000 refugees from DRC who arrived in 1999. Some 11,000 of these refugees are assisted in Mwange settlement. The rest of the population has spontaneously settled in the border area.

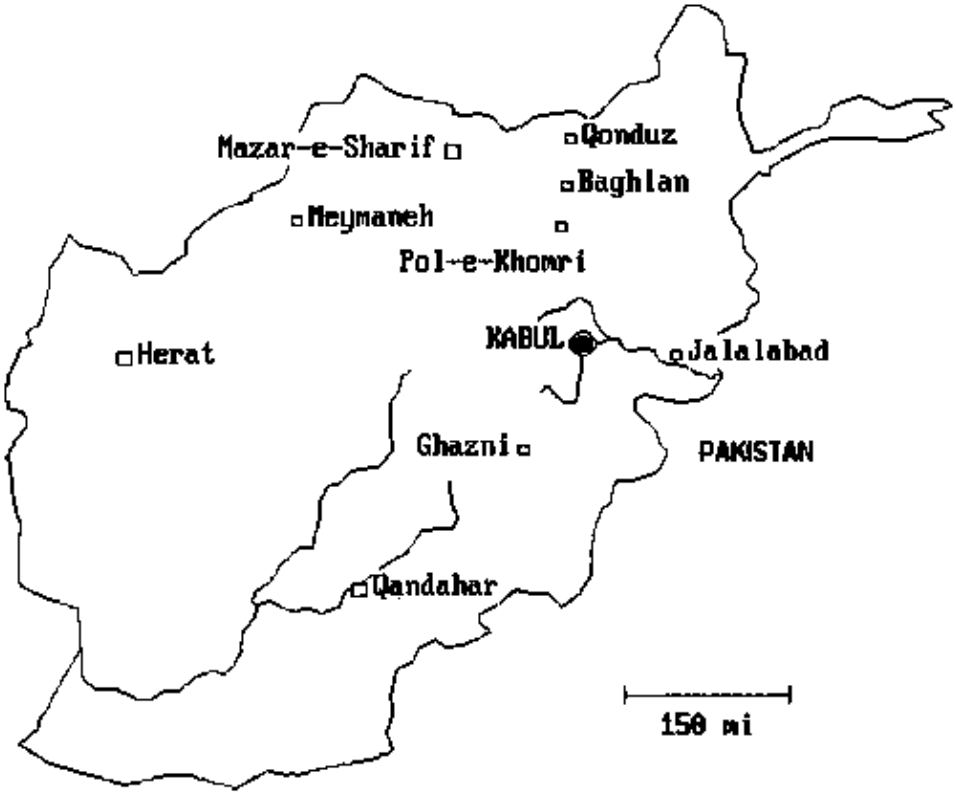
Overall, the RNIS has not received any information concerning the nutritional situation of the new Angolan refugees. They are assumed to be at moderate risk of malnutrition (category III). Their nutritional situation of the other refugees is assumed to remain non−critical (category IV).

Asia – Selected situations

The most recent overview of the numbers of refugees and displaced people in Asia (as of end of 1998) estimates that there are 4.7 million refugees on the continent. Over 1.2 million of these were Afghans in Pakistan and Iran (1.4 million). There are reported to be approximately 500,000 Iraqis in Iran. Comprehensive figures on the number of displaced in Asia are unavailable.

This section of the report gives updated information on some of these situations. The current nutritional situation of the Afghan refugees/displaced persons is described. Information on the Bhutanese refugees in Nepal and refugees is included. There is also information on the nutritional situation of the population in East Timor, the refugees in West Timor and displaced people in other parts of Indonesia although this section is not comprehensive.

11. Afghanistan Region



The conflict in Afghanistan has been ongoing for more than twenty years, leading to massive displacement both within the country and, as refugee movements, into Iran and Pakistan. Although large parts of the country remained relatively peaceful in 1999, fighting continued in Bamiyan, Shomali, and in north–eastern parts of the country (OCHA–31/12/99).

Food assistance

WFP is planning to provide food assistance to approximately 1.5 million people under a newly approved relief operation. A poor harvest in 1999 (the first year since 1995 to show a decrease in total cereal production) and a drop in flour imports (partially due to more vigorous border controls curtailing smuggled food from neighbouring countries, particularly Pakistan) have resulted in spiraling wheat flour prices. The price of wheat flour in Kabul has increased almost 50% since October 1999. The impact of these price increases has been exacerbated by a simultaneous drop in people's purchasing power as a result of a rise in unemployment (WFP – 11/02/99).

The UN is assisting approximately 300,000 IDPs in Kabul, Panjshir, Hazarajat, Dara Souf, Kunduz, and Khojar Ghar (OCHA – 07/12/99).

Kabul

Three thousand families (approximately 16,000 people) displaced from Shamalle since August continue to be housed in the ex−Soviet Embassy compound. WFP, other UN agencies and NGOs, continue to provide assistance to this group. The majority of the displaced population in Kabul are housed by relatives, who are often poor and vulnerable themselves. A programme has been launched in the city to provide employment for some 4,000 families in the winter. No reports on the nutritional situation of the IDPs in Kabul are currently available to the RNIS. WFP−supported bakeries feed some 266,000 people in the city.

IDPs in Panjshir Valley

Displacement from the Shamalle Plain into the Panjshir Valley and Kabul began in August 1999 as a result of fighting between the Taliban Government and opposition forces in the area. Panjshir is one of the main strongholds of the government opposition within Afghanistan. There is some controversy surrounding the actual number of displaced people remaining in the Panjshir valley. WFP estimates that there are 42,000 IDPs (6,000 families with an average of 7 people per family). IDPs are living in either official or unofficial camps, public buildings or with host families (ACF−F−12/99).

ACF−F undertook nutritional and food security assessments among the IDPs in Panjshir Valley in late 1999 (see annex). The nutritional assessment was not a survey, as it was not considered representative of the total population due to the difficulty of obtaining reliable population figures (partially because the IDPs were constantly moving around the valley during the time the assessment was conducted). The table below shows the results of the nutritional assessment. No comparative national survey data is available, however the most recent ACF−F survey in Kabul estimated the prevalence of acute malnutrition at 8.7%(see RNIS 27). Vaccination rates confirmed by card were relatively low at 40.7%, although a further 33.3% of carers reported that children had been vaccinated and that the cards were lost (ACF−F − 12/99).

Results of Panjshir nutritional assessment

	Official camps (n=158)	**Public buildings (n=159)**	**Unofficial camps (n=160)**
Acute malnutrition (<−2z scores and/or oedema)	12.0%	12.6%	7.5%
Severe acute malnutrition (<−3z scores and/or oedema)	1.9%	3.8%	1.3%

The findings of the food security assessment are summarised below (ACF − 12/99):

• Forty−two percent of the IDP households came from rural areas, the remaining 58.2% were from urban settlements. The average length of displacement at the time of the assessment was 4.5 months.

• The majority of the displaced from southern Shamalle, who were displaced before those from northern Shamalle, were living in official camps. This group were forced to flee their homes with very little warning and as a result were unable to bring many of their possessions with them. They have received both food and non−food items since arriving in Panjshir. In contrast, the displaced from northern Shamalle who were displaced later and were able to bring some of their assets with them were more likely to live in the unofficial camps and public buildings. At the time of the survey, this group had received less assistance than those from southern Shamalle and had had to sell larger quantities of their assets in order to maintain a basic quality of life. Assets were sold to obtain food, wood and medicines.

• Coping mechanisms other than sale of assets for both groups included working for food−for−work projects, working in the bazaar, obtaining loans and begging. (Begging was not widely reported but the assessment team observed that many women were begging; it was thought that the 12% of female−headed households were particularly dependent on begging for their survival).

• Both groups of IDPs were considered ‘vulnerable’ at the time of the assessment. It was estimated that only 20% of the IDPs from northern Shamalle could be considered self−reliant and 10% of those from southern Shamelle. The IDPs in the official camps had smaller food

stocks than the other groups, although they were consuming a greater diversity of food types. All households (except one) possessed basic commodities such as cooking utensils etc.

• Water consumption for all groups was far below the basic requirement of 20l/person/day (average consumption 4.8l/person/day in camps and 7.5l/person/day in the public buildings). Water is mainly collected from rivers, unprotected springs and irrigation channels, except in one of the official camps where chlorinated water is available. Latrines were present only in the official camps and some of the public buildings, but lack of privacy meant that some of the latrines were not socially acceptable. The scarcity of latrines presents a serious public health risk.

• The main source of fuel for all households was bushes collected from the mountains, although some coal powder has been distributed in the public buildings and official camps. Collection time for bushes averaged between 3–6 hours/day and was mainly undertaken by older children.

• More interventions have been planned for the group from southern Shamalle than for those from the north. Given the depletion of the latter group's assets this programme could result in increased vulnerability among those from northern Shamalle.

• Nearly all the IDPs interviewed expressed a desire to return to their homes, however this is dependent on security conditions and it is not possible to predict when security in Shamalle will improve sufficiently to allow people to return. Furthermore, reports suggest that many of the displaced's homes have been destroyed by looting and fighting.

Emergency Food distribution in southern Afghanistan

WFP has been registering the most vulnerable families in Kandahar, Helmand and Zabul provinces during the reporting period. It is estimated that WFP will provide 250 kg of wheat per household to an estimated 200,000 people in Kandahar City and Zabul province (OCHA – 15/02/00).

Return of Refugees

A meeting in Kabul has endorsed UNHCR's repatriation plan that envisages the return of 200,000 Afghan refugees from Pakistan and Iran in 2000. UNHCR will provide logistical support to all those who express the desire to return home and will assist the returnees with shelter and water. Surveys to assess the needs of potential returnees will be conducted shortly (OCHA – 25/02/00).

Pakistan

Pakistan hosts 1.2 nillion refugees in 203 villages In the north west frontier, Baluchistan, and Punjab provinces. In 1999, some 92,000 Afghan refugees voluntarily repatriated from Pakistan (OCHA – 25/02/00).

The RNIS has not received any new reports on a change in the adequate nutritional status of the approximately 320,000 Afghan refugees who receive food assistance in Pakistan. The remaining refugees are considered self–sufficient and receive no food assistance, although UNHCR helps to sustain government activities in health and education in the villages where they live.

Islamic Republic of Iran

An estimated 1.4 million Afghan refugees and some 500,000 Iraqi refugees remain in the Islamic Republic of Iran. There is no new information on the nutritional situation of these refugees, the most recent reports indicated that the situation was not critical (see RNIS 28).

UNHCR and the Iranian government have agreed on ways of facilitating the repatriation of Afghan refugees remaining in Iran, in order to better organise the return process and put an end to the deportations (OCHA – 29/02/00).

Overall, the IDPs in Afghanistan are considered nutrition–ally vulnerable (category III) and continue to need humanitarian assistance. The nutritional situation of the refugees in Pakistan and the Islamic Republic of Iran remains uncritical (category IV).

Recommendations and priorities:

• Obtain information on the nutritional and health status of the refugees in Pakistan and the Islamic Republic of Iran.

From the ACF–F assessment in Panjshir:

• Open one therapeutic feeding centre and five supplementary feeding centres in the area.

• Improve the sanitation facilities.

• Continue to monitor the nutritional situation of the IDPs, including undertaking a nutritional screening of all children aged 6–59 months.

12. Bhutanese Refugees in Nepal

An estimated 83,000 ethnic Nepalese fled Bhutan between 1990 and 1993 in fear of the enforcement of new citizenship laws and the "one nation, one people" policy of cultural assimilation passed by the Government of Bhutan in the late 1980s. These refugees were settled into seven camps in the Jhapa and Morang districts in south–eastern Nepal. There are currently some 97,600 Bhutanese in these camps. There has been no effective resolution of their plight to date.

In general, the health and nutritional situation in these camps is adequate. The most recent nutritional survey among children aged 6–59 months estimated the prevalence of wasting at 9.9% (see RNIS 28).

UNHCR/CDC adolescent survey

At the request of UNHCR and WFP, CDC undertook a survey of protein–energy and micronutrient malnutrition among adolescent (10–19 years of age) Bhutanese refugees in October 1999. The results of the protein–energy survey were reported in RNIS 29. Although micronutrient deficiencies had been noted since these camps were created in 1990, there had been an increase in the number of cases, especially of angular stomatitis (AS), since March and April, 1999.

The key finding from the micronutrient survey was that AS, which was found in 29% adolescents examined, was found to be statistically associated with low riboflavin status and low serum folate, therefore confirming bio–chemically and clinically the presence of micronutrient deficiency diseases.

The results of the micronutrient survey are summarised below (see annex for methods):

• AS was found in 133 (29%) of 463 adolescents examined. The prevalence of AS was not significantly associated with age or sex. Biochemical analyses showed that both low riboflavin status and low serum folate were significantly related to AS. AS was not related to serum vitamin B12 or vitamin A status.

• Eighty–six percent of the 183 adolescents chosen at random that had not received recent vitamin B complex supplementation had abnormally low serum riboflavin level. Low riboflavin status was not related to age or sex; however, low riboflavin status was related to camp of residence. Adolescents with a riboflavin level at or below the survey population mean average were 2.3 times more likely to have AS than those with riboflavin levels above the mean.

• Of the 190 adolescents without recent iron and folate supplementation, 67 (35%) had subnormal serum folate levels (< 2.6 ng/ml). Low serum folate was not related to sex or camp; however, the prevalence of low folate levels increased with age. AS was 1.6 times more likely among those with low serum folate levels than those with normal levels.

• Among the 154 adolescents without recent vitamin B complex supplementation, 32 (21%) had subnormal serum levels of vitamin B12 (< 201 pg/ml). Low serum vitamin B12 status was not related to camp or sex; however, as with folate, the prevalence of low vitamin B12 increased with age. There was no significant association between low serum vitamin B12 status and AS.

• Twenty−four percent of the adolescent sample were anaemic using the WHO recommended age and sexspecific definitions. Seven percent of the sample had haemoglobin levels less than 11 g/dl and one adolescent was found to be severely anaemic (haemoglobin < 7 g/dl). The prevalence of anaemia rose sharply after 11 years of age, with females aged 12 and older having an anaemia prevalence of 33%. Females who had experienced menarche had significantly more anaemia than their pre−menarche counterparts. Among males the prevalence of anaemia peaked at 14−15 years of age and then fell in older age groups, Anaemia was not related to riboflavin, folate, or vitamin B12 status; however, it was related to low vitamin A status.

• Among the 190 adolescents who underwent phlebotomy and who denied recent iron supplementation, 109 (57%) had an elevated serum transferrin receptor level (TfR > 8.0 ug/mL) indicating decreased iron stores. High TfR was related to being anaemic. Elevated serum TfR was not related to age, sex, or camp; however, it was more common in girls who had achieved menarche than those who had not.

• Among the 190 adolescents assessed, 26% had retinol levels below 20 ug/dl suggesting low vitamin A status and 83% had retinol levels below 30 ug/dl. There was no association between low serum retinol status and night blindness. Low serum vitamin A status was not related to age, sex, camp of residence, or AS.

In response to these findings fortified cereal blend (WSB) will be distributed to 5,000−6,000 school aged children from vulnerable families for two and half months and to all children under five for four months. UNHCR is also extending its fresh vegetable supplies and expanding the kitchen garden project. It is hoped that these changes will increase the average daily consumption of riboflavin, other important B−vitamins, and other micronutrients to levels more consistent with international and U.S. daily recommended intakes. Increasing the available riboflavin and folate in the refugee diet may decrease the rate of reported AS.

Overall, the nutritional situation of the Bhutanese refugees in Nepal is not considered critical (category IV). However, the biochemical results of the October 1999 survey suggest that the micro−nutrient status of the adolescent refugees is marginal and that surveillance measures need to be continued.

Recommendations and priorities:

• Because a high proportion of adolescent females are anaemic, and an even higher proportion is iron deficient, it is recommended that all adolescent females should receive iron supplementation. Such supplementation could be through distribution of tablets containing iron and folate, or through distribution of iron pots for home cooking, or other means.

Additional long−term strategies that may enhance the overall nutritional value of the general ration include:

• Providing fortified flour in place of part of the rice ration. If acceptability of fortified flour is not immediately assured, there may be a need for communication/education program to create demand for fortified flour.

• Reassessing the feasibility of the poultry project that has already been pilot tested.

13. Indonesia/East Timor Region

East Timor

Following the violence and population displacement after the 30 August 1999 referendum, the situation in East Timor has continued to improve. An estimated 108,500 people have been assisted by UNHCR/IOM to return from West Timor, other parts of Indonesia and Australia (UNHCR − 21/03/00). A further 45,000 people have returned spontaneously (UNTAET − 20/03/00).

Agriculture

An FAO/WFP crop and food supply assessment mission to East Timor in December 1999 found that the level of destruction of agriculture was less than anticipated. The major damage was to livestock, food and seed stocks. The main constraint to agriculture was population displacement; in some areas a relatively large proportion of farmers were unable to complete sowing their maize crop in November/December. The most vulnerable areas include Bobonaro, Covalima and Oecussi Enclave (FAO/WFP – 21/12/99).

WFP has recently moved from a general distribution to as many as 600,000 people in November (from an estimated total population of 750,000) to targeted group feeding and food–for–work activities. The vulnerability of particular geographic areas in East Timor is determined directly by the extent of public and private infrastructure as well as the presence of community markets and baseline poverty indicators. Targeted groups include those who have no access to food due to a lack of money, destruction of livelihoods, or those who live in areas where no food is available (FAO/WFP – 21/12/99; WFP – 28/01/00).

The RNIS has not received any new nutritional surveys or assessments for East Timor. The most recent assessments did not report elevated levels of malnutrition, although isolated pockets of acute malnutrition may exist.

Overall, the agricultural situation is not as bad as anticipated and the security situation has now improved. The situation has stabilised and hence the population is not considered to be at elevated nutritional risk (category IV).

Recommendations and priorities:

- Monitor the nutritional situation in Dili and the surrounding areas.

From the FAO/WFP assessment:

Various interventions will be required to enhance productivity and food production. These include:

- Seed multiplication programmes for maize and rice.
- Rehabilitating irrigation facilities.
- Reducing post harvest losses.
- Improving rice–milling facilities.
- Investing in small–scale machinery.
- Breeding, vaccination and extension campaigns to increase livestock numbers.
- Providing basic equipment to increase fish production.

Indonesia

Refugees in West Timor, Indonesia

UNHCR estimates that some 145,000 refugees from East Timor remain in West Timor. The majority of the refugees are living in one of more than 200 sites in Belu district; most of the remainder are in Kupang district. The number of people per site varies from 60 to 4,000. According to UNHCR, large numbers of East Timorese in West Timor wish to return to East Timor (and are being encouraged to do so by the Indonesian authorities), but are prevented from doing so by either intimidation or their own apprehensions concerning their safety and/or financial security on their return. UNHCR continues to assist those refugees who wish to repatriate. It is anticipated that approximately 50,000 East Timorese will ultimately decide to remain in Indonesia (WFP/UNHCR – 03/00; USCR – 22/02/00).

The humanitarian situation of the refugees is reported to be very poor in some of the camps. High prevalences of acute malnutrition have been recorded. Infant mortality rates are also elevated, mainly because of increased incidence of malaria, diarrhoea and tuberculosis. In addition, local and international human rights organisations have documented cases of extortion, abduction, sexual violence, and unlawful

killings by the militia (RI – 23/02/00).

UNHCR/WFP joint assessment mission

A UNHCR/WFP joint assessment mission to West Timor in January reported the following findings (WFP/UNHCR – 03/00):

• Food aid is currently being provided to the refugees by a number of relief agencies including WFP and local and international NGOs, although the Government of Indonesia has provided the largest share of food assistance (400g rice/person/day) and also a cash stipend of 1,500 *rupiahs/refugee/day* (equivalent to 14 US cents) to purchase additional necessities. Distributions of both rice and cash have been sporadic and not in sufficient quantities to cover the refugees daily needs. (The ration only provides 1440 Kcal and 28g of protein, which is well below the recommended minimum). No systematic monitoring of the basic food distribution was in place. The responsibilities for the distribution of rice and cash are being transferred from the Department of Social Affairs (DEPSOS) to the provincial government level in March. However, there are uncertainties about future commitments on the part of the Government of Indonesia to ensure continued assistance to refugees in West Timor (WFP/UNHCR – 03/00).

• Most refugees brought a substantial quantity of personal possessions with them to West Timor, including various household items, livestock (pigs, chicken, cattle), food items and even cash/savings. However, most food and luxury items appear to have been consumed or sold and therefore no longer represent a sizeable resource.

• Some of the refugees have family or blood ties with the West Timorese and are living with, or nearby, relatives who have been willing to share resources. West Timor, however, is one of the poorest provinces in Indonesia and the burden on local resources is becoming apparent.

• Few job opportunities are available to the refugees – Indonesia remains entrenched in a severe economic crisis with high levels of unemployment.

• Approximately 50,000 of the refugees are Indonesian government civil servants, police, military personnel, pensioners and their families. These people continue to benefit from basic government salaries and pensions, although other benefits normally provided to them have been discontinued. It is this group of people who are most likely to remain in West Timor.

• Very little land has been allocated to the refugees, other than that within the environs of the camps where some households have established kitchen gardens. Refugees living with relatives have greater access to farmland.

• All refugees have some form of shelter ranging from pre–fabricated barracks to loosely constructed shelters made of plastic sheeting and branches. Many households received cooking/kitchen sets, blankets, water containers, mosquito nets etc, (there are no exact data on these items). Water sources, latrines and bathing facilities have been established in most of the larger camps, but some of the smaller camps are not as well equipped. The quality of the drinking water is unknown. Soap distributions have been erratic.

• Current health care services tend to be more based on a curative rather than a preventative approach, this factor combined with delays before seeking assistance may be contributing to the higher incidence of preventable diseases, such as diarrhoea and scabies. Malaria, diarrhoea, acute respiratory infections and measles were the most common causes of deaths reported by mothers (UNICEF – 12/99). The incidence of malaria and diarrhoea are attributable to the recent rainy season conditions.

Nutritional surveys in West Timor

UNICEF undertook two nutritional surveys on refugee children aged 6–59 months in West Timor during the reporting period: one in mid–December in Belu district and the other in January in Kupang district (see table and annex) (UNICEF – 12/99, 02/00).

Oedema was not assessed in the Belu survey. No oedema was found in the survey in Kupang. The sampling technique employed in the Belu district survey resulted in an overestimate of the prevalence of wasting in this area as younger children were over−represented. However Belu does appear to have a higher prevalence of wasting than Kupang (see different age group comparisons) and also a higher prevalence of wasting than that estimated by a national survey conducted by UNICEF in 1995. There were no significant differences in the prevalence of stunting (low height−for−age) between the two districts or the national survey.

Results of surveys in Belu and Kupang Districts

	Belu District Dec 1999 (n=842)	**Kupang District Jan 2000 (n=892)**	**Baseline data 1995****
6−59 months			
Wasting*	23.6%	12.1%	12.9%
Severe wasting*	3.6%	1.0%	2.8%
Stunting*	46.8%	43.1%	42.2%
Severe stunting*	17.9%	17.5%	19.2
6−23 months			
Wasting*	28.2%	20.7%	
Severe wasting*	5.2%	1.8%	
24−59 months			
Wasting*	19.5%	8.6%	
Severe wasting*	2.0%	0.6%	

* all measurements converted to z−scores
** UNICEF national survey on children aged 0−59 months

MSF−H/MOH completed a nutritional screening of children aged 6−59 months in Naen Camp in North Central Timor in mid−February (see annex). Naen camp is made up of barracks, each with 20 small rooms − one per family. Water is provided by a shallow well, although some days none is available. All available children were screened with MUAC and a proportion also had their height and weight measured. The results of the MUAC screening revealed that 29.5% of the children were acutely malnourished (MUAC<135mm) and 10% were severely malnourished (MUAC<110mm). This prevalence may be somewhat elevated because children under 12 months were included in the assessment (it is not normal to measure arm circumference on infants less than 12 months as they would naturally have a smaller arm circumference measurement). Using weight−for−height, the prevalence of acute malnutrition was estimated at 33%, including 7% severe acute malnutrition (MSF−H − 03/00). These results are somewhat surprising given that the prevalence of low MUAC (<135 mm) is usually higher than that of low weight−for−height, particularly when children under six months are included in the MUAC assessment.

The main explanation given for the high prevalence of malnutrition was the irregular and infrequent distribution of the general ration. A blanket wet−supplementary feeding programme for children aged 6−59 months had been established, but this is only a temporary, emergency measure. Until the general ration improves (in both quality and timing of distribution − prior to the survey there had been no food distribution in the camp for two months), so that households may plan their food needs, the supplementary feeding programme will remain relatively ineffective in decreasing the prevalence of malnutrition. Other explanations given for the high prevalence of malnutrition included; no structured system for screening, referring and treating the severely malnourished (which was partly a result of lack of medical expertise); low birthweights; and relatively high levels of illness. In addition, the survey was undertaken during the lean/hungry season (as a result of limited availability of crops) (MSF−H − 03/00).

Other parts of Indonesia

Sectarian violence continues to claim lives in other areas of Indonesia. During 1999 and into the first quarter of this year, the two provinces of Maluku and Morth Maluku have experienced high levels of conflict. Starting in Ambon in January 1999, the conflict escalated at various periods of the year, spreading to other areas of Maluku. Some 440,000 persons (more than 20% of the population) have escaped or been evacuated within Maluku, North Maluku or to the neighbouring provinces in Sulawesi. Smaller numbers have also gone to Irian Jaya and elsewhere in Indonesia. (OCHA – 03/00; USCR – 22/02/00).

The needs of the IDPs vary depending on the intensity of the conflict in the area where they are located and also on their living arrangements. Some IDPs living with host families are able to cope, but are placing a heavy burden on their hosts who may need assistance. IDPs in areas that have stabilised (e.g., Ambon Island and South–East Maluku) are better off than those in areas still affected by conflict (e.g., Halmahera Island, the Island of Bacan and a number of other islands in North Maluku) or those living in poor camp conditions (OCHA – 03/00).

ACF–F is currently distributing food to 135,000 IDPs in Central Maluku including the islands of Ambon, Seram, Serarua, Haruku and Bum. The NGO is also considering starting a new distribution in North Malukus where the violence has escalated since late December 1999. This includes the island of Ternate where there are currently 72,000 IDPs and the island of Halmahera where fighting continues (hence there has been no reliable survey of the numbers of displaced people, but 40,000 are estimated) (ACF–F – 07/03/00). WFP has been supporting ACF's programme by providing the rice needed for their feeding programmes (OCHA – 03/00).

The RNIS has not received any nutritional assessments for the displaced outside of West Timor during the reporting period.

Overall, the patchy performance of the humanitarian assistance programme, in terms of irregular food distributions, weak health services, etc., is of concern, and combined with the relatively high rates of malnutrition suggest that the refugees in West Timor are at high risk of malnutrition (category II). The nutritional situation of the IDPs in the rest of Indonesia is currently unknown (category V).

Recommendations and priorities:

- Improve the quality and co–ordination of humanitarian assistance programmes within West Timor (including the nutritional surveillance programmes).

- Monitor the nutritional situation of the displaced outside of West Timor.

From the MSF–H survey in Naen camp:

- Improve the quality of the general ration and ensure that it is distributed regularly.

- Provide seeds and tools for kitchen gardens.

- Provide support and training in the management and identification of malnutrition.

From the UNHCR/WFP joint assessments and UNICEF surveys:

- Increase the general food distribution to a standard ration of not less than 1,900 Kcal/person/day (this figure was calculated using the demographic profile of the population which has a high proportion of young children).

- Ensure that the ration includes a food basket of cereals, pulses and oil.

- This ration should not be provided to those receiving regular income from the Government of Indonesia (UNHCR must determine who is eligible before the distributions start and introduce a ration card system).

- Implement a blanket dry–supplementary feeding programme for all children under five.

- Organise targeted feeding programmes for other vulnerable groups including moderately malnourished children.

• Establish a nutrition and food basket monitoring system.

• Redirect health care services towards community outreach programmes.

14. Balkans Region

One year after the start of NATO air strikes on the Federal Republic of Yugoslavia (FRY) and the massive humanitarian relief effort that followed, the level of violence in the region remains very high, particularly in the southeastern and northern regions of Kosovo (UNMIK – 14/01/00, 10/03/00).

Kosovo

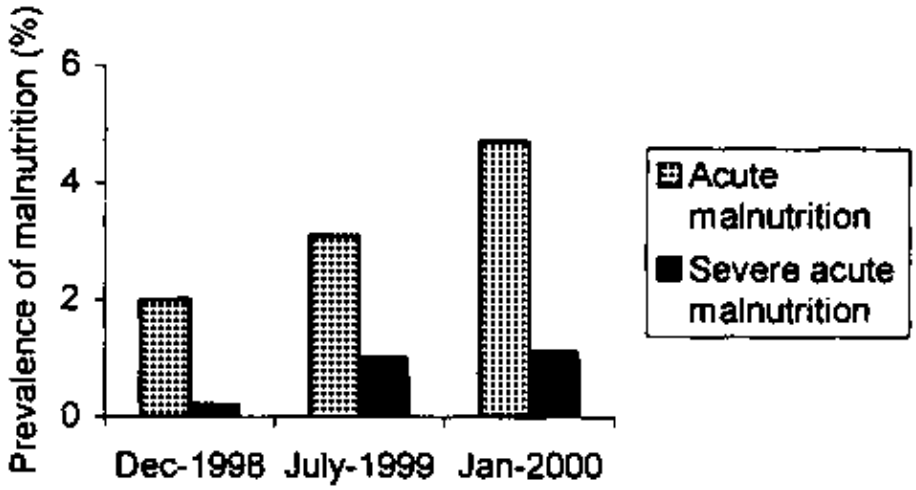
The violence continues against ethnic Serbs, Roma and Moslem Slavs who have remained in the province, as well as moderate ethnic Albanians. The current rate of “murder, abduction, violent attack, intimidation and house burning” has nearly reached the levels of June 1999 when the international administration began. A protracted face–off between the ethnic Albanian and Serbian communities in Mitrovica has epitomised the problems of the community. Two of the major problems associated with the security situation are the virtual absence of job prospects for minorities and the demobilisation of the former Kosovo Liberation Army (AI –13/03/00; USCR – 10/01/00).

Returns and Displacement

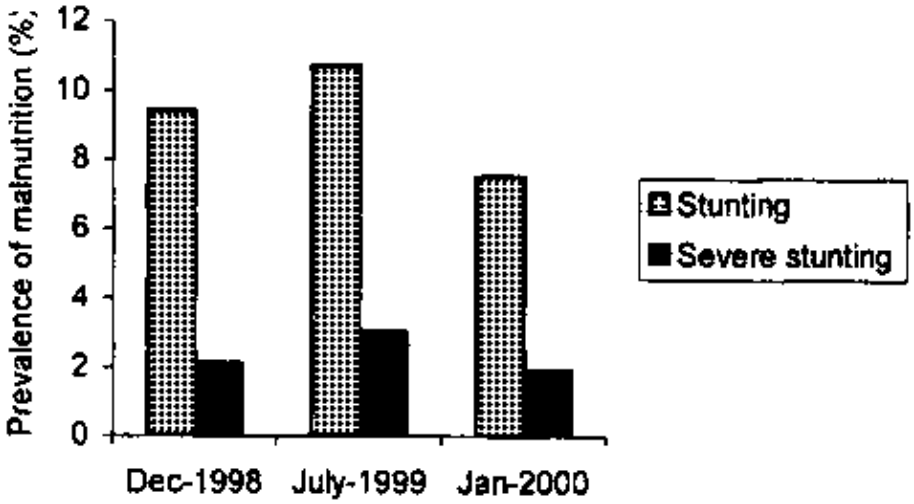
From a total of 900,000 people who fled the province in 1999, UNHCR estimates that only 70,000 refugees from Kosovo are still living outside the province. UNHCR has continued to register ethnic Albanians who arrive in Kosovo from southern Serbia following security incidents in the area. These IDPs tend to settle in small villages along the border. Typically, they are absorbed by host families. An estimated 7,000 ethnic Albanian IDPs have registered since last June, but the total number of displaced may be considerably higher as not all have registered for assistance. There are some 60–70,000 Albanians living in southern Serbia in the Presevo valley area (USAID – 24/03/00; UNMIK – 10/03/00). In addition to the newly–arrived ethnic Albanians, many of the remaining Serb populations in Kosovo are living in newly formed ethnic enclaves rather than in their original homes and hence may also be considered displaced.

Nutritional survey

AAH–UK undertook a nutritional survey of children aged 6–59 months, mothers, and older persons in January 2000 (see annex). The prevalence of acute malnutrition was low in all groups. There has been a slight (non–significant) increase in the prevalence of acute malnutrition in children aged 6–59 months since December 1998 and July 1999 (see graph). The prevalence of stunting was 7.5%, including 1,9% severe stunting (see graph) (AAH–UK – 03/00).



The prevalence of acute malnutrition (defined using z–scores and/or oedema) in children aged 6–59 months in Kosovo



The prevalence of stunting (defined using z–scores) in children aged 6–59 months in Kosovo

The mean age of the mothers measured was 31 years. Their mean BMI was 24 kg/m^2. The prevalence of maternal undernutrition was low when diagnosed using either the BMI (see table) or the MUAC or both in conjunction. (The prevalence of maternal malnutrition was estimated at 4.9% using a MUAC<220mm, 5.4% using BMI<18.5 kg/m^2 and as 3.2% using BMI and MUAC in conjunction.) These prevalences are lower than those found in the UK. In fact, the prevalence of overnutrition, and obesity, was considered to be a greater public health risk than that of under–nutrition in this group (10.7% of the sample had a BMI>30kg/m^2). There was no statistical association between maternal and child malnutrition (AAH – 03/00).

A low prevalence of undernutrition was also reported for the older age group (defined as aged 65 years or over). Overweight and obesity were more common than underweight (see table). In similar studies in Bosnia–Hercegovina in 1995 older persons were found to be at higher nutritional risk than either young children or adults, particularly in the elderly who lived alone. Possible explanations for the low prevalence of malnutrition in Kosovo are the traditional practice of family co–habitation with older people, and also the fact that the conflict period was shorter in Kosovo than in Bosnia–Hercegovina (AAH – 01/03). It should be noted that the number of elderly per household was lower than expected. The survey in Macedonia also showed a lower than expected proportion of elderly people.

Results of nutritional surveys for adults and older persons in Kosovo

	Maternal prevalence (%) (n=798)	**Older people Prevalence (%) (n=224)**
Severe undernutrition (BMI<16kg/m2)	0.2	1.3
Moderate undernutrition (BMI 16–16.9 kg/m2)	0.9	0.4
Marginal undernutrition (BMI 17–18.4 kg/m^2)	4.2	3.6
Normal (BMI 18.5–24.9 kg/m^2)	60.7	46.4
Overweight (BMI 25–29.9 kg/m^2)	23.6	32.0
Obese (BMI >30 kg/m^2)	10.4	16.0

The results of these surveys do not suggest an alarming nutritional situation. However, the author observed that the urban IDPs, marginalised minority groups, people living in isolated mountain areas, and families with social problems appeared to be more vulnerable to malnutrition. These problems were compounded by poor shelter and the cold. Chronic malnutrition remains a cause for concern (AAH – 03/00).

Nutrition Strategy

There is no longer a need for food aid on the same scale provided since June 1999 when the population first returned to Kosovo. This is in part due to the harvest that will take place in July, the establishment of social welfare structures and the recovery of business and employment opportunities in the province (UNMIK – 10/03/00; UNHCR – 02/00).

As Kosovo continues to be rebuilt and the UNMIK (United Nations Interim Administration in Kosovo) structures become more established, more responsibility for food distributions is being given to UNMIK, away from the international agencies. The current WFP/UNHCR food distribution system will remain in place until the end of June 2000. Up until the end of March, beneficiary figures will remain at approximately 900,000, but this figure will be downscaled incrementally from April to June, with a 20% reduction occurring on aver age each month. The majority caseload should stand at approximately 460,000 by the end of June (this does not include the minorities) (UNHCR – 02/00,29/03/00).

From May onwards, food assistance will gradually be provided through a new system whereby beneficiaries will be identified and registered with the Social Welfare Centres (CSWs) of the Social Welfare Department (UNMIK). Those registered with one of the 25 CSWs will be able to collect food rations from a distribution point associated with the CSW. The criteria for eligibility to food will be based on “the problem of a lack of access to food”. There may be families who are entitled to financial assistance who do not necessarily require food assistance, so the financial and food assistance components will be separate to some extent. The food/financial assistance scheme will be gradually phased in with Category I applicants (households with noone in the family capable of working) being processed by the CSWs first and then Category II applicants (households with people able to work, but unemployed) etc. (UNHCR – 02/00, 29/03/00).

The problems of access to food currently faced by minority communities are different from those faced by the majority of the population (see RNIS 29). All ethnic groups will be included in the selection process for food eligibility on an equal basis. However, it is likely that some minority groups will not be able to physically access the distribution points because of the insecurity; hence it is probable that a system of direct delivery will be required until at least the end of the year (UNHCR – 02/00). Some of the minorities now receive food aid through the Yugoslav Red Cross or the Orthodox Church. This solved some of the problems associated with distribution through the Mother Theresa Society, whose members are mainly ethnic Albanians. In some cases, food is distributed directly by international NGOs (UNMIK – 10/03/00).

Health

WHO and UNMIK are planning the development of a primary health care system in Kosovo that will take between 3–5 years to create. Sites for family health centres, with *ambulantes* serving this function, are currently being identified. The creation of the new health structure directly affects the issue of access to adequate health care for minorities. Minorities may have limited access to health care if their community does not have an *ambulanta* (USAID – 24/03/00; UNMIK – 10/03/00).

Shelter

The majority of emergency shelter programmes have concluded, There is a currently a shift in the programmes away from shelter to reconstruction in the spring (UNMIK – 14/01/00).

Serbia and Montenegro

UNHCR estimates there are some 200,000 IDPs from Kosovo in Serbia and Montenegro, up to a quarter of whom are Roma. They have joined more than half a million long–term refugees from Croatia and Bosnia and Hercegovina who fled the 1991–95 wars in the former Yugoslavia. The registration of IDPs in Serbia is in progress and is scheduled to be completed by mid–April (OCHA – 17/03/00; UNICEF – 21/03/00; UNMIK – 10/03/00).

IDPs in Montenegro

ACF–F undertook an anthropometric screening of displaced Roma children aged 6–59 months, living in tents and pre–fabricated barracks of Konik camp, Podgorica, Montenegro in November 1999 (see annex). These children and their families have lived in Konik camp since the conclusion of the NATO air raids (i.e., 0–7 months at the time of the survey). The prevalence of acute malnutrition was not abnormally elevated (see table), although some malnutrition was recorded in the younger age group, which may indicate poor feeding and care practices in this population (ACF–F – 11/99).

The prevalence of stunting was considerably higher, particularly in the older group. The authors of the survey cautioned that age in months was relatively difficult to obtain accurately in this population and hence the prevalence of stunting may not be very accurate (ACF–F – 11/99).

Results of nutritional screening in Konik Camp

	Prevalence (%)
Acute malnutrition (<–2 zscores W/H and/or oedema)	2.9
Severe acute malnutrition (<–3 zscores W/H and/or oedema)	0.96
Stunting (<–2 zscores height–for–age)	16.1
Severe stunting (<–3 zscores height–for–age)	1.9

Vulnerable groups in Serbia

The FRY economy has continued its downward spiral. At the end of 1999, GDP was 30% lower than in the previous year. Inflation has increased and the value of the *dinar* has dropped, resulting in a decrease in the real value of wages. The Yugoslav Red Cross (YRC) provides daily meals through soup kitchens to 100,000 vulnerable people in the FRY. Eligible beneficiaries are registered by the Social Welfare Centre and receive a meal coupon worth one meal a day. The most vulnerable people include: the disabled or chronically ill, older people with low pensions, residents of institutional homes, vulnerable families (those headed by a single–parent or with many children) and people with no earning potential – particularly those in the urban areas without rural ties (OCHA – 31/12/00). There is currently no information on the nutritional situation of these groups, but a WFP mission has begun a household food economy assessment in Belgrade (OCHA – 17/03/00).

The YRC also provides assistance to IDPs, predominantly from Kosovo, in Serbia and Montenegro. This programme provides an individual food parcel of 10kg of wheat flour to each beneficiary on a monthly basis and a family hygiene parcel per family every second month (ICRC – 07/03/00).

Macedonia

UNHCR estimates that some 24,000 Kosovar Albanians are still living with host families in Macedonia. By the end of March they will lose their refugee status and the Macedonian authorities will no longer assist in their repatriation (USAID – 24/03/00). The RNIS has not received any new information on the nutritional situation of these refugees, which was previously described as adequate.

Overall, the nutritional situation of the majority Albanian population in Kosovo is satisfactory (category IV). The minorities are more vulnerable and are therefore described as category III. The nutritional situation of the IDPs in Serbia is unknown (category V). The nutritional situation of the displaced populations in Montenegro is not currently critical (category V).

Recommendations and priorities:

From the AAH–UK survey in Kosovo:

- Monitor the new distribution systems carefully, particularly their effects on minorities.
- Continue to undertake assessments of the population's nutritional status, in particular to monitor the effect of increased targeting from June 2000.
- Initiate public health initiatives to reduce the prevalence of obesity.

From the ACF–F survey in Konik I DP camp:

- Continue to provide supplementary food distributions to the children aged 6–36 months.

• Monitor the growth performance and nutritional status of the children.

• Provide parent and care–givers with information about the patterns and aetiology of malnutrition.

For Serbia:

• Information on the nutritional situation of the vulnerable, including IDPs, is needed.

Listing of sources

Listing of Sources for March 2000 RNIS Report 30

AAH–UK	03/00	Nutrition anthropometric report, Kosovo, January 2000
ACF	02/00	Personal communication with ACF Somalia
ACF–F	11/99	Nutritional survey and food security assessment in Kayanza Province, Burundi November 1999
ACF–F	11/99	ACF–F 11/99 Nutritional anthropometric survey in Bo town, Sierra Leone, November 1999
ACF–F	11/99	Anthropometric screening of Roma IDP children 6–59 months living in Konik Camp, Podgorica, Montenegro
ACF–F	12/99a	Nutritional anthropometric survey: Sinje Camp I & II, Cape Mount County, Liberia
ACF–F	12/99b	Update on Sierra–Leonean Refugees' Food Security in Sinje Camp II, December 1999
ACF–F	12/99	Nutrition survey in Juba, Equatoria December 1999
ACF–F	12/99	Nutritional survey and food security assessment, exploratory mission – Panjsheer Valley, Northern Afghanistan October–December 1999
ACF–F	07/03/00	Personal communication with nutritionist in Indonesia
ACF–F	30/03/00	Report on the nutritional activities in Congo–Brazzaville, March 2000
ACF–USA	01/00	Nutrition survey in Lemera Health Zone, South Kivu January 2000
ACF–USA	03/00a	Food security assessment in Kinshasa, September–November 1999
ACF–USA	03/00b	Nutritional anthropometric survey of children under five years old, Kitgum District
ACF–USA	03/00c	Nutritional anthropometric survey of children under five years old, Gulu District
ACH–S	01/00	Nutritional survey report for Huila Province
ACH–S	02/00	Nutritional survey report for Ganda town, Benguela Province
AI	13/03/00	Kosovo: KFOR and UNMIK fail to uphold human rights standards in Mitrovica
Concern	27/03/00	Personal communication from Nairobi office
FAO	04/02/00	Crop and food supply situation in Sierra Leone
FAO/WFP	21/12/99	Crop and food supply assessment mission to East Timor
FAO/WFP	26/01/00	Crop and food supply assessment mission to Ethiopia
FEWS/WFP	09/03/00	Southern Sudan March 2000 Update

Fennel	30/03/00	Personal communication from Kinshasa
FSAU	26/01/00	Famine alert in Bakol region
FSAU	04/02/00	Food Security Assessments of Somalia January 2000
FSAU	09/03/00	Food Security Assessments of Somalia February 2000
FSAU	14/03/00	Interagency assessment for Gedo
FSAU	24/03/00	Personal communication with nutrition officers
FSAU	30/03/00	Personal communication with nutrition officers
ICRC	02/00	Personal communication with ICRC Somalia
ICRC	07/03/00	Crisis in the Balkans – ICRC/IFRC situation report no. 62
IFRC	13/01/00	Press release: Angolan refugees
IMC	09/99a	Belet Weyne Villages: Health and Nutrition survey September 1999
IMC	09/99b	Belet Weyne Town: Health and Nutrition survey September 1999
IOM	28/03/00	Update on Angolan Refugees
IRIN	01/03/00	News Brief
IRIN	17/02/00	Update 863
IRIN	24/02/00	News Brief
IRIN	03/03/00	Special report in the Ituri clashes
IRIN	10/03/00	News Brief
IRIN	13/03/00	Update 880
IRIN	31/03/00	DRC: Refugees international calls for peaceful dialogue
IRIN–SA	17/02/00	17/02/00 News Brief
IRIN–SA	21/02/00	21/02/00 News Brief
IRIN–SA	24/02/00	24/02/00 News brief
IRIN–SA	28/02/00	28/02/00 Namibia: WFP called in to help refugees
IRIN–WA	03/00/00	03/03/00 Update 667
Jaspars	03/00	Personal communication
MDM	11/99	MDM 11/99 Nutritional survey in Akuem, BEG, November 1999
MEDAIR	12/99	Nutritional survey in Athoc, Bor County, Jongelei
MERLIN	22/03/00	Personal communication with desk officer for Sierra Leone
Mount et al	1987	Adaptation of coenzyme stimulation assays for the nutritional assessment of vitamins B1, B2 and B6 using the Cobas Bio Centrifugal analyzer. Ann Clin Biochem 1987; 24:41–4
MSF	17/01/00	Angola: MSF concerned by cases of adult malnutrition
MSF–B	11/99	Nutritional survey in Panthou, BEG, October–November 1999
MSF–B	01/00	Nutritional report for 4th trimester Burundi
MSF–B/ICRC	12/99	Rapid nutritional assessment in Kuito, Bie Province
MSF–H	02/00	Nutrition and mortality survey in Malange, January 2000

MSF−H	02/00	Report on nutritional status monitoring study for Konso Special Woreda, February 2000
MSF−H/MOH	03/00	Nutrition screening results of Naen Camp, February 2000
OCHA	11/99	UN Consolidated Appeal for Somalia
OCHA	07/12/99	Humanitarian update for Afghanistan
OCHA	31/12/99	Humanitarian update for Afghanistan
OCHA	31/12/99	Humanitarian risk analysis no. 7: FRY
OCHA	16/01/00	Sierra Leone humanitarian situation report 1−16 January 2000
OCHA	30/01/00	Sierra Leone humanitarian situation report 17−30 January 2000
OCHA	15/02/00	Humanitarian update for the Democratic Republic of Congo
OCHA	15/02/00	Humanitarian update for Afghanistan
OCHA	18/02/00	Humanitarian update − Uganda Volume II
OCHA	20/02/00	Humanitarian situation in Angola: 07−20 February 2000
OCHA	25/02/00	Kabul endorses repatriation plan for Afghan refugees
OCHA	03/00	Humanitarian operations in Burundi 20 December−15 February
OCHA	03/00	Interagency appeal for the Maluku crisis
OCHA	07/03/00	Sierra Leone humanitarian situation report: special issue, 7 March 2000
OCHA	17/03/00	Belgrade: weekly update report 10
Oxfam	15/03/00	Personal communication from nutritionist
RI	23/02/00	East Timorese refugees in Indonesia
SACB	07/02/00	Somali Aid Co−ordination Body Update
SCF−UK	12/99	The food economy of the Displaced Dinka living in camps in South Darfur, Sudan
SCF−UK	01/00	NSP Results January 2000
SCF−UK	22/01/00	Household food economy assessment of North and South Kivu
SCF−UK	17/03/00	Personal communication with nutritionist in Eritrea
SCF−UK	23/03/00	Personal communication with nutritionist in Eritrea
TearFund	01/00	Anthropometric nutritional survey: Malualkon, Aweil East, BEG January 2000
UNCT	28/01/00	UN Country team appal for humanitarian assistance for Eritrea and Ethiopia
UNCT	29/02/00	Somalia Monitor 01 −29 February
UNDP	14/02/00	Ethiopia Situation Report for period December 1999−January 2000
UNDP	10/03/00	Ethiopia Situation Report for period February 2000
UNHCR	07/12/99	Personal communication with nutritionist in Rwanda
UNHCR	12/12/99	Personal communication with desk officer for Africa
UNHCR	01/00	Status of East Timorese refugees in West Timor/Indonesia
UNHCR	02/00	Strategy for “transition” period for HCR/WFP’s food assistance programme in Kosovo

UNHCR	04/02/00	Briefing notes
UNHCR	22/02/00	Briefing notes
UNHCR	28/02/00	Press release
UNHCR	10/03/00	Press release
UNHCR	21/03/00	Briefing notes
UNHCR	27/03/00	Personal communication with West Africa Desk Officer
UNHCR	29/03/00	Personal communication with nutritionist in Kosovo
UNHCR	31/03/00	Personal communication with Great Lakes Desk Officer
UNICEF	09/99	Nutrition survey report conducted in Hudur town, September 1999
UNICEF	12/99	Nutritional assessment of displaced people from Timor Timur in Belu district
UNICEF	02/00	Nutritional assessment of displaced people in Kupang District
UNICEF	02/00	Preliminary results of Rabdure nutritional survey
UNICEF	21/02/00	Internal report on refugees in Zambia
UNICEF	12/99	Nutrition survey, Bardera town, Gedo Region Somalia, December 1999
UNMIK	14/01/00	Kosovo Humanitarian Update issue 19
UNMIK	10/03/00	Kosovo Humanitarian Update issue 23
UNTAET	20/03/00	Humanitarian Pillar Situation Report 18–20 March 2000
USCR	10/01/00	Crisis in Kosovo
USCR	22/02/00	Indonesia: Situation in East/West Timor
USAID	07/03/00	Horn of Africa fact sheet
USAID	24/03/00	Kosovo crisis fact sheet no. 143
WFP	17/12/99	Personal communication with desk officer for West Africa
WFP	13/01/00	Emergency report no. 2
WFP	20/01/00	Emergency report no. 3
WFP	27/01/00	Emergency report no. 4
WFP	28/01/00	Press briefing on East Timor
WFP	02/00	Southern Sector OLS draft monthly report: January 2000
WFP	10/02/00	Great Lakes Region Monthly Report, December 2000
WFP	10/02/00	Emergency report no. 6
WFP	22/02/00	Great Lakes Region Monthly Report, January 2000
WFP	23/02/00	Personal communication from Burundi
WFP	25/02/00	Press Release
WFP	25/02/00	Emergency Report no. 8
WFP	03/00	Southern Sector OLS draft monthly report: February 2000
WFP	10/03/00	Emergency report no. 10
WFP	15/03/00	Personal communication from OLS southern sector

WFP	17/03/00	Monthly nutrition update for OLS southern sector
WFP	17/03/00	Emergency report no 11
WFP	21/03/00	Personal communication from Burundi
WFP	29/03/00	Personal communication from Nairobi
WFO	30/03/00a	Sitrep for Angola 22–29 March 2000
WFP	30/03/00b	Press Release
WFP	31/03/00	Personal communication from Adis Ababa
WFP/MSF–B/ICRC UNICEF	01/00	Recommendations for intervention in Kuito, Bie Province as a response to the Pellagra outbreak
WFP/UNHCR	03/00	Joint Assessment Mission to West Timor

Abbreviations used in the text

AAH–UK	Action Against Hunger UK
ACF–F	Action Contre la Faim France
ACF–USA	Action Against Hunger USA
ACH–S	Action Against Hunger Spain
AI	Amnesty International
BEG	Bahr El Ghazal
BMI	Body Mass Index
CAD	Children's Aid Direct
CMR	Crude Mortality Rate
DRC	Democratic Republic of Congo
FAO	Food & Agricultural Organization of the United Nations
FEWS	Famine Early Warning System
FSAU	Food Security Assessment for Somalia
ICRC	International Committee of Red Cross
IDP	Internally Displaced Person
IRIN	Integrated Regional Information Network (of DHA)
IRIN–WA	Integrated Regional Information Network for West Africa (of DHA)
IRIN–SA	Integrated Regional Information Network for Southern Africa (of DHA)
MSF–B	Medecins Sans Frontieres – Belgium
MSF–CH	Medecins Sans Frontieres – Switzerland
MSF–F	Medecins Sans Frontieres – France
MSF–H	Medecins Sans Frontieres – Holland
MSF–S	Medecins Sans Frontieres – Spain

MOH	Ministry of Health
MUAC	Mid−ipper arm circumference
NGO	Non−governmental Organisation
OA	Oxfors Analytica
OCHA	Office for the Co−ordination of Humanitarian Assistance
OLS	Operation Lifeline Sudan
RI	Refugees International
RoC	Republic of Congo (Congo−Brazzaville)
SCF−UK	Save the Children Fund – US
SCF−US	Save the Children Fund – US
UNDPI	United Nations Department of Public Information
UNHCHR	United Nations High Commissioner for Human Rights
UNHCR	United Nations High Commission on Refugees
UNICEF	United Nations International Children's Emergency Fund
USAID	US Agency for International Development
WFP	World Food Programme
WHO	World Health Organization
WHM	World Harvest Mission

Tables and figures

Table 2: Information Available on Total Refugee/Returnees/Displaced Populations requiring assistance (as of March 2000). Please note that these are best estimates at the time of going to press

	Population Numbers								
Situation	**Condition**					**Total**	**Change from Mar−98**	**Nutr Stat***	**C**
	I: V. High Risk	**II: High Risk**	**III: Mod Risk**	**IV: Not Critical**	**V: Unknown**				
Sub−Saharan Africa									
1. Angola	150,000	300,000	611,000			1,061,000	0	imp.	Situ. fo areas s Situatio access Others
2. Great Lakes Region									
Burundi	100,000	230,000	500,000			830,000	9,000	det.	IDPs in Rurale risk. Of risk. Dr

	Rwanda			652,000			652,000	2,000	stat.
	Congo/Brazzaville			200,000		238,000	438,000	–385,000	imp.
	E Dem Rep of Congo	306,000	300,000	520,000	156,000	136,000	1,418,000	232,000	det.
	Tanzania				465,000		465,000	65,000	stat.
3. Eritrea				372,000			372,000	112,000	stat.
4. Ethiopia				350,000	250,000		600,000	26,000	stat.
5. Kenya				90,000	125,000		215,000	18,800	stat.
6. Liberia/Sierra Leone Region									
	Liberia			38,000	58,000		96,000	–414,000	stat.
	Sierra Leone		300,000	450,000		7,000	757,000	–1,000	stat.
	Guinea–Conakry/Cote d'Ivoire			489,000	101,500		590,000	1,000	stat.
7. Somalia		100,000				250,000	350,000	0	det.

									high pr malnut
8. S. Sudan		300,000	2,100,000	162,000		2,562,000	14,000	imp.	Nut. sit IDPs g not crit Sudan shown.
9. Uganda		400,000	221,000	173,000		794,000	112,000	det.	Securit deterio Refuge Drough shown.
10. Zambia				175,000	25,000	200,000	25,000	stat.	Nutritio new re Others non–cr
Total (Sub–Saharan Africa)	656,000	1,830,000	6,593,000	1,665,500	656,000	11,400,500	–183,200		
Asia (Selected Situations)									
11. Afghanistan Region			300,000	1,400,000		1,700,000	0	stat.	IDPs Ir modera Refuge and Ira
12. Bhutanese Refugees in Nepal				97,600		97,600	–900	stat.	No sign in the r situatio
13. Indonesia/East Timor region							0		
East Timor			153,000			153,000	3,000	imp.	Nut. sit to East critical.
Indonesia		145,000				585,000	444,000	det.	IDPs Ir high ris camp c situ. of unknow
14. Balkans Region			174,000	900,000		1,100,000	0	stat.	Return not crit informa in Serb

Nutritional categories: (for a fuller explanation of the see the inside of the back page)

I. Very high risk – Populations reported with very high risk of malnutrition (or with a high prevalence of malnutrition, where available >20% wasting, and/or micronutrient deficiency diseases and sharply elevated mortality).

II: High risk – Population at high risk of malnutrition (or with a high prevalence of malnutrition)

III: Moderate – Population at moderate risk of malnutrition (or with a moderate prevalence of malnutrition, pockets of malnutrition may exist)

risk

IV: – Probably not at heightened nutritional risk
Not
Critical

V: – No information on nutritional status available
Unknown

Table 3: Summary of Origin and Location of Major Populations of Refugees, Returnees and Displaced People in Africa Requiring Assistance March 2000 – RNIS #30 (population estimates in thousands) Please note that these are best estimates at the time of going to press

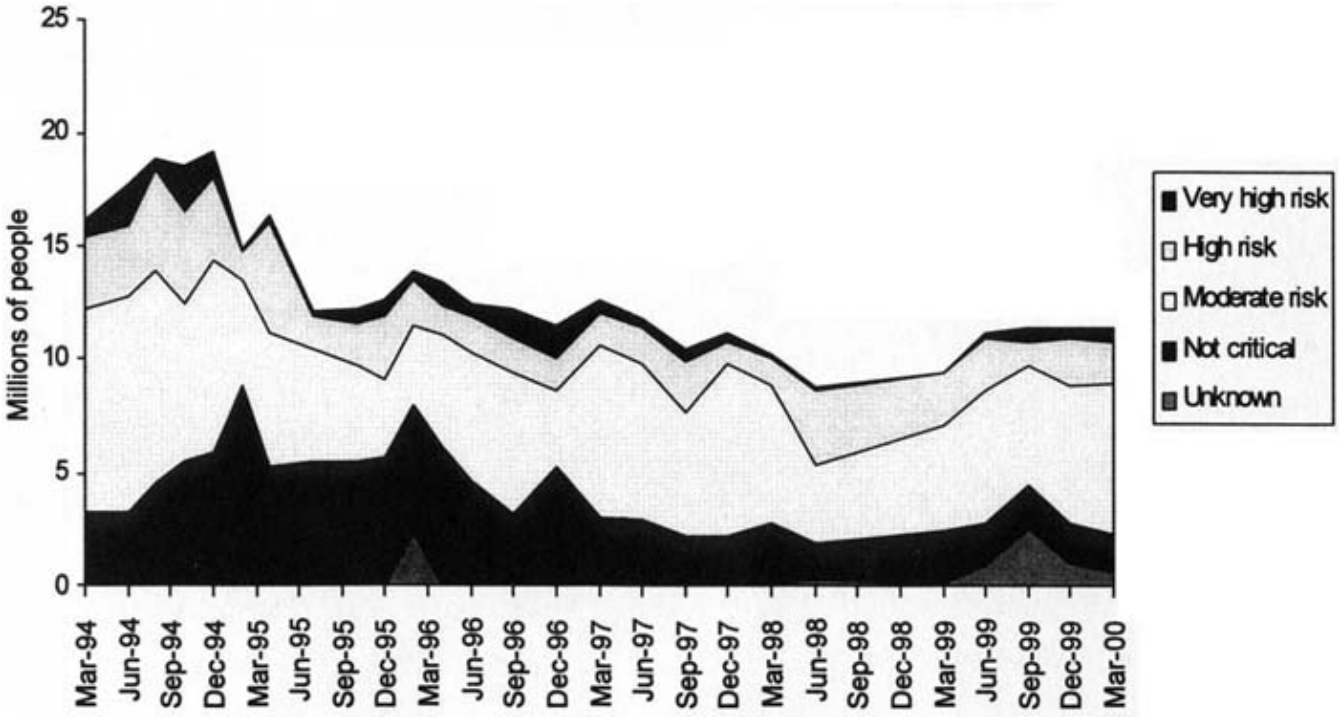
	To/In									
From	***Angola***	***Burundi***	***Congo/ Brazzaville***	***Cote d'Ivoire***	***Dem Rep Congo***	***Eritrea***	***Ethiopia***	***Guinea Bissau***	***Guinea Conakry***	
Angola	1061		8		156					
Burundi		830			20					
Congo/Brazzaville			400		12					
Cote d'Ivoire										
Dem Rep Congo			25		1120					
Eritrea						372				
Ethiopia							350			
Guinea Bissau									3	
Guinea Conakry										
Kenya							5			
Liberia				100					366	
Rwanda			5		35					
Sierra Leone				2					120	
Somalia							185			
Sudan					72		60			
Tanzania										
Uganda					3					
Zambia										
TOTAL	1061	830	438	102	1418	372	600	0	489	

1. *This chart is intended to include major population groups in Africa* (*i.e. over 100,000 people affected from country of origin*).

2. *'Boxes on the diagonal* (*shaded*) *show internally displaced populations and returnees* (*total = 8,874,000*).

3. *Numbers referred to in the text are usually by the country where the population is located* (*i.e. column totals*).

4. *For the regional situations of Burundi/Rwanda and Liberia/Sierra Leone the description is by country of origin* (*i.e. row totals*).



The Number of refugees, returnees and IDPs in Sub–Saharan Africa and their nutritional risk over time

Annex 1: Results of Surveys Quoted in March 2000 RNIS Report #30 – usually children 6–59 months

Survey Area	***Survey Conducted by***	***Date***	***% Wasted*****	***% Severely Wasted*****	***Oedema (%)***	***Crude Mortality (/10,000/day)***	***Under 5 Mortality (/10,000/day)***	***Meas Immuni Coverag***
1. Angola								
a. Malange	MSF–H	Jan–00	7.8*	1.1*		1.6	2.5	
b. Lombe	MSF–H	Jan–00	17.1*	6.4*		1.3	2.8	
c. Kuito, Bie Province								
Town	MSF–B/ICRC	Dec–99	8*	1.5		1.9	3.8	
Camps	MSF–B/ICRC	Dec–99	16.1*	1.3*		2.4	4.5	
d. Matala, Huila Province								
New IDPs	ACH	Oct–99	9.9*	1.7*	0.9*		5.2	79.
More–established IDPs	ACH	Oct–99	6.7*	1.3*	0.6*		1.0	6.9
e. Ganda, Benguela Province								
Town	ACH	Feb–00	29.3*	8*	3.6	3.1		
Camps	ACH	Feb–00	10.0*	2.4*	0.9			
2. Great Lakes								
a. Kayanza, Burundi	ACF–F	Nov–99	6.3	0.7	0.2	0.5	1.3	89.
b. Brazzaville, RoC								
South Brazzaville	ACF–F	Mar–00	6.6*	0.2*				
North Brazzaville	ACF–F	Mar–00	5.4*	0.3*				

c. Mayama, RoC	ACF–F	Feb–00	24.1 (MUAC)	17.6 (MUAC)				
d. North Pool, RoC	ACF–F	Mar–00	9.9 (MUAC)	2.0 (MUAC)				
e. Lemera, DRC	ACF–USA	Jan–00	7.4	1.3	3.5	2.5	0.7	
4. Ethiopia								
a. Konso Special Woreda	MSF–H	Jan–00	12.9*	2.0*	0.9			
6. Liberia/Sierra Leone Region								
a. Sinje Camp, Liberia								
Camp I (*old refugees*)	ACF–F	Dec–99	9.0	0.6	0.0	0.6	1.0	
Camp II (*newly established refs.*)	ACF–F	Dec–99	6.5*	0.9*	0.0	1.0	1.6	
b. Bo town, Sierra Leone	ACF–F	Nov–99	7.2*	0.7*	0.1	0.7	3.1	
7. Somalia								
a. Hudur	UNICEF	Sep–99	15.5	5.7	1.5			
b. Rabdure	UNICEF	Dec–99	30.0*	6.0*				
c. Bardera	UNICEF	Dec–99	17.5	4.5	1.0			
d. Belet Weyne								
Town	IMC	Aug–99	23.6	4.7	0.5		1.6	
Villages	IMC	Sep–99	15.6	2.1	5.7 (?)		1.9	
8. Sudan								
a. Athoc	MEDAIR	Dec–99	21.7	2.1				
b. Akuem, BEG	MDM	Nov–99	11.9	1.3	*2.5*		3.1	
c. Panthou, BEG	MSF–B	Oct–99	18.2	1.3	*0.0*			
d. Malualkon, BEG	TearFund	Oct–99	12.2	1.3	0.0			
e. Aweil West, BEG	CONCERN	Nov–99	10.4*	3.1*		0.8	1.9	
f. Gogrial, BEG	World Vision	Nov–99	5.9	1.2				
g. Tonj, BEG	World Vision	Nov–99	8	0.6				
h. Juba, Equatoria	ACF–F	Dec–99	11.1*	1.0*				
9. Uganda								
a. Kitgum								
Non–displaced villages	ACF–USA	Dec–99	3.5	0.1	0		1.3	
IDP camps	ACF–USA	Dec–99	6.6*	1.4*	0.3		1.3	
b. Gulu								
	ACF–USA	Oct–99	4.9*	0.7*	0.2		1.2	

	Camps with health facilities								
	Camps without health facilities	ACF–USA	Oct–99	3.8*	0.4*	0.3*		15.2	29.
11. Afghanistan									
a. Panjshir									
	Official camps	ACF–F	Nov–99	12.0*	1.9*				40.
	Public Buildings	ACF–F	Nov–99	12.6*	3.1*				40.
	Unofficial camps	ACF–F	Nov–99	7.5*	1.3*				40.
14. Indonesia									
a. Belu district, W. Timor		UNICEF	Dec–99	23.6	3.6				
b. Kupang district, W. Timor		UNICEF	Jan–00	12.1	1.0				
c. Naen camp, W. Timor		MSF–H	Feb–00	33.0	7.0				
15. Balkans Region									
a. Kosovo		AAH–UK	Jan–00	4.6	1.0	0.1			18.
b. Konik camp, Montenegro		ACF–F	Nov–99	2.9	1.0	0.5			

**wt/ht unless specified; cut–off = n.s. means not specified but usually –2SD wt/ht for wasting and –3SD wt/ht for severe wasting

*Oedema is included in this figure.

MUAC unless specified cut–off for wasting is < 124 mm and < 110 mm for severe wasting

Measles immunisation coverage is usually determined by card

NOTE: see box on back cover for guidance in interpretation of indicators.

Notes on Annex 1 and other nutritional assessments in the text

1. Angola

a Malange This survey was conducted by MSF–H in Malange in January 2000, in conjunction with ADRA–International, Concern, GVC, Ministry of Health (Malange Province), MSF Holland, UNICEF and World Vision. Standard two–stage cluster methodology was employed. 939 children aged 6–59 months were measured. Acute malnutrition (<–2z scores and/or oedema) was estimated at 7.8% (95% CI 6.2–9.7%). Severe acute malnutrition (<–3z scores and/or oedema) was estimated at 1.1% (95% CI 0.5–2.0%). Oedema was not reported separately. Retrospective CMR was estimated for the six months prior to the survey at 1.6/10.000/day and under–five mortality was estimated at 2.5/10,000/day. 911 adults were measured. Adult malnutrition was defined as BMI < 18.5 and/or oedema above the ankle and was estimated at 34.6% (95% C.I. 31.5–37.8%). Adult severe malnutrition was defined as BMI < 16 and/or oedema above the ankle and was estimated at 10.9% (95% C.I. 9.0–13.1%).

b Lombe This survey was conducted by MSF–H in Lombe in January 2000. Standard two–stage cluster methodology was employed. 912 children aged 6–59 months were measured. Acute malnutrition (<–2z scores and/or oedema) was estimated at 17.1% (95% CI 14.7–19.7%). Severe acute malnutrition (<–3z

scores and/or oedema) was estimated at 6.4% (95% CI 4.9–8.2%). Oedema was not reported separately. Retrospective CMR was estimated for the six months prior to the survey at 1.3/10,000/day and under–five mortality was estimated at 2.8/10,000/day. 913 adults were measured. Adult malnutrition was defined as BMI < 18.5 and/or oedema above the ankle and was estimated at 53.6% (95% C.I. 50.3–56.8%). Adult severe malnutrition was defined as BMI < 16 and/or oedema above the ankle and was estimated at 22.3% (95% C.I. 19.7–25.2%).

c Kuito Two surveys were conducted by the ICRC/MSF–H: one in Kuito town and also Kunje (a small town located 7 km from Kuito); and the second in camps located in the periphery of Kuito in late December, 1999. For each survey, a two–stage random cluster sampling methodology was applied. Acute malnutrition (<–3z scores and/or oedema) in the town was estimated at 7.9% (95% CI 5.8 – 10.9%), and in the camps at 16.1% (12.7 – 19.4%).%). Severe acute malnutrition (<–3z scores and/or oedema) was estimated at 1.5% (0.9 – 2.6%) in the towns, and at 1.3% (0.6 – 2.0%) in the camps. The mortality rate was estimated based on the head of each household reporting any deaths for November and December. The under–five mortality rate was 3.8/10,000/day in Kuito and Kunje town, and 4.5/10,000/day in the camps for the displaced. Coverage of measles vaccination according to cards was 43% for Kuito and Kunje town, and 59% for IDPs in camps.

d Matala These surveys were undertaken by ACH–S in camps for the newly displaced and more established refugees in Matala in January 2000. Exhaustive sampling methods were employed in the newly–arrived IDP camps. 1238 children aged 6–59 months were measured. Acute malnutrition was defined as <–2z scores and/or oedema and the prevalence was estimated at 9.9%. Severe acute malnutrition was defined as <–3z scores and/or oedema and the prevalence was estimated at 1.7%. Oedema was recorded in 0.9% of the sample. Retrospective mortality for children under five in the three months prior to the survey was estimated at 5.2/10,000/day. Measles immunisation information was collected by reference to cards, the rate was estimated at 79.9%. Standard two–stage cluster methodology was employed in the camps for the longer–established IDPs. 932 children aged 6–59 months were measured. Acute malnutrition was defined as <–2z scores and/or oedema and the prevalence was estimated at 6.7% (C.I. 4.6–9.5%). Severe acute malnutrition was defined as <–3z scores and/or oedema and the prevalence was estimated at 1.3% (C.I. 0.5–2.9%). Oedema was recorded in 0.6% of the sample. Retrospective mortality for children under five in the three months prior to the survey was estimated at 1.01/10,000/day, Measles immunisation information was collected by reference to cards, the rate was estimated at 6.9%.

e Ganda These surveys were undertaken by ACH–S in Ganda town and in the IDP camps in February 2000. Exhaustive sampling methods were employed in the IDP camps. 225 children aged 6–59 months were measured. Acute malnutrition was defined as <–2z scores and/or oedema and the prevalence was estimated at 29.3%. Severe acute malnutrition was defined as <–3z scores and/or oedema and the prevalence was estimated at 8%. Oedema was recorded in 3.6% of the sample. Retrospective mortality for children under–five in 47 days prior to the surveys was estimated at 4.1/10,000/day. CMR was estimated at 3.14/10,000/day. Standard two–stage cluster methodology was employed for the survey in the town. 900 children aged 6–59 months were measured. Acute malnutrition was defined as <–2z scores and/or oedema and the prevalence was estimated at 10% (C.I. 7.4–13.3%). Severe acute malnutrition was defined as <–3z scores and/or oedema and the prevalence was estimated at 2.4% (C.I. 1.3–4.5%). Oedema was recorded in 0.9% of the sample.

2. Great Lakes

a Kayanza This survey was undertaken by ACF–F in Kayanza Province, Burundi in November 1999. Standard two stage cluster methodology sampling method was employed. 897 children aged 6–59 months were measured. The prevalence of acute malnutrition (<–2z scores weight–for–height and/or oedema) was estimated at 9.8% (C.I. 7.2–13.1%) and that of severe acute malnutrition (<–3z scores weight–for–height and/or oedema) at 1.7% (C.I. 0,7–3.5%). Oedema was found in 0.9% of the children. Measles immunisation information (children aged 18–59 months) was collected either from the vaccination card or from interview with the mother. The rate estimated by card was 66.4%. 802 non–pregnant mothers were also measured. Retrospective mortality of children under five for the 90 days prior to the survey was estimated at 0.93/10,000/day. 890 adults were measured. Adult nutritional status was defined using the BMI, MUAC and oedema. The prevalence of severe under–nutrition (BMI<16.0 kg/m^2) was estimated at 8.4%, moderate undernutrition (BMI 16.0–16.9 kg/m^2) at 12.0%, marginal under–nutrition (BMI 17.9–18.4 kg/m^2) at 27.3%. Oedema was recorded in 1.2% of the sample population. CMR for the 90 days prior to the survey was estimated at 0.56/10,000/day.

b Brazzaville These surveys were undertaken by ACF–F in Brazzaville city, RoC in March 2000. The RNIS does not currently have the full survey reports and no data on the methodology is currently available. In south

Brazzaville, the prevalence of acute malnutrition (<−2z scores and/or oedema) was estimated at 6.6% (C.I. 4.5−9.4%) and that of severe acute malnutrition (<−3z scores and/or oedema) at 0.2% (C.I. 0.0−1.4%). No information on oedema was available. Adult nutritional status was defined using the BMI and oedema. The prevalence of severe undernutrition (BMI<16.0 kg/m^2 and/or oedema for adults aged 18−49 years, BMI<15kg/m^2 and/or oedema for those aged more than fifty) was estimated at 3.0%. The prevalence of moderate malnutrition (BMI 16.0−17 kg/m^2 and/or oedema for adults aged 18−49 years, BMI 15−16 kg/m^2 and/or oedema for those aged more than fifty) was estimated at 4.4%. In north Brazzaville, the prevalence of acute malnutrition (<−2z scores and/or oedema) was estimated at 5.4% (C.I. 3.6−8.1%) and that of severe acute malnutrition (<−3z scores and/or oedema) at 0.3% (C. I. 0.0−1.2%). No information on oedema was available. Adult nutritional status was defined using the BMI and oedema. The prevalence of severe undernutrition (BMI<16.0 kg/m^2 and/or oedema for adults aged 18−49 years, BMI<15kg/m^2 and/or oedema for those aged more than fifty) was estimated at 1.8%. The prevalence of moderate malnutrition (BMI 16.0−17 kg/m^2 and/or oedema for adults aged 1849 years, BMI 15−16 kg/m^2 and/or oedema for those aged more than fifty) was estimated at 2.4%.

c Mayama This survey was undertaken by ACF−F in Mayama, Pool, RoC in February 2000. The RNIS does not currently have the full survey report and no data on the methodology is currently available. 624 children between 75−130 cm were measured. Very low MUAC (<110 mm) was found in 17.6% of the sample and 24.1% had MUAC<125mm.

d Pool These data were collected by ACF−F from various locations in the north Pool Region, RoC in March 2000. The RNIS does not currently have the full survey report and no data on the methodology is currently available. 1903 children between 75−130 cm were measured. Very low MUAC (<110 mm) was found in 2% of the sample and 9.9% had MUAC<125mm.

e Lemera This survey was undertaken by ACF−USA in Lemera, South Kivu Province, DRC in January 2000. Standard two−stage cluster methodology sampling method was employed. 895 children aged 6−59 months were measured. The prevalence of acute malnutrition (<−2z scores weight−for−height and/or oedema) was estimated at 10.9% (C.I. 8.2−14.4%) and that of severe acute malnutrition (<−3z scores weight−for−height and/or oedema) at 4.8% (C.I. 3.1−7.4%). Oedema was found in 3.5% of the children. Retrospective mortality of children under five for the 90 days prior to the survey was estimated at 2.46/10,000/day. 809 non−pregnant mothers were measured. Maternal nutritional status was defined using the BMI, MUAC and oedema. The prevalence of severe undernutrition (BMI<16.0 kg/m^2 and/or oedema) was estimated at 3.2%, moderate undernutrition (BMI 16.0−16.9 kg/m^2) at 3.6%, marginal undernutrition (BMI 17.9−18.4 kg/m^2) at 13.2%. Oedema was recorded in 1.2% of the sample population. CMR for the 90 days prior to the survey was estimated at 0.72/10,000/day.

3. Eritrea

a Debub and Gash Barka These data were collected by SCF−UK/UNICEF/Ministry of Health as part of a nutritional surveillance programme in 32 sites in Debub and Gash Barka Zones of Eritrea. The surveillance is linked to a supplementary ration programme in the camps, so the majority of the children are measured every month. However, there is quite a lot of movement in and out of the camps (in order to prepare fields or harvest etc) and therefore the population numbers are not stable. The prevalence of wasting (defined using medians) varied between sites. Oedema was measured, but the results were excluded from the analysis as they were felt to be inaccurate. The authors reported that there was only a small amount of oedema.

b Konso Special Woreda. This survey was conducted by MSF−H in January 2000. Standard two−stage cluster methodology was employed. 915 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 12.9% (95% Cl 9.7−16.1%). Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 1.0% (95% Cl 0.9−3.1%). Oedema was recorded in 0.9% of the children. Measles vaccination rates were estimated by reference to cards.

6. Liberia/Sierra Leone Region

a Sinje Camp These surveys were undertaken by ACF−F in Sinje camps I and II, Cape Mount County, Liberia in December 1999. Systematic sampling methods were employed. Acute malnutrition was defined as <−2z scores and/or oedema. Severe acute malnutrition was defined as <−3z scores and/or oedema. Retrospective mortality in the three months prior to the surveys was estimated by questionnaire. Measles immunisation information was collected either from the vaccination card or from interview with the mother. In camp I, 357 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 9.0% (C.I. 6.3−12.6%) and severe acute malnutrition was 0.6% (C.I. 0.1−2.2%). No oedema was recorded. CMR was

estimated at 0.59/10,000/day and under−five mortality at 1.05/10,000/day. Measles vaccination coverage according to card was estimated at 56.8%. In camp II, 461 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 6.5% (C.I. 4.5−9.3%) and severe acute malnutrition was 0.9% (C.I. 0.2−2.4%). Oedema was recorded in one child. CMR was estimated at 0.98/10,000/day and under−five mortality at 1.61/10,000/day. Measles vaccination coverage was estimated at 57.1% by reference to cards.

b Bo town This survey was conducted by ACF−F in Bo town, in November 1999. Standard two−stage cluster methodology was employed. 940 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 7.2% (95% CI 5.1−10.1%). Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 0.7% (95% CI 0.2−2.2%). One oedematous child was found. Retrospective CMR was estimated at 0.74/10,000/day and under−five mortality was estimated at 3.1/10,000/day. Measles vaccination coverage was estimated at 33.6% by reference to cards.

7. Somalia

a Hudur This survey was undertaken by UNICEF in Hudur town, Bakool in September 1999. Standard two−stage cluster sampling methodology was employed. A total of 910 children between 6 and 59 months or between 65 and 110 cm were measured. The prevalence of wasting (<−2z scores) was estimated at 15.5% and that of severe wasting (<−3z scores) at 5.7%. Oedema was recorded in 1.5% of the sample. Parents or caretakers were interviewed about measles immunisation (reference to cards was also made), vitamin A supplementation in the six months prior to the survey and morbidity in the two weeks prior to the survey. Measles vaccination rate was estimated at 43.0%.

b Rabdure This survey was undertaken by UNICEF in Rabdure, Bakool. A total of 498 children between 6 and 59 months or between 65 and 110 cm were screened during the survey. The prevalence of acute malnutrition (<−2z scores and/or oedema) was estimated at 30% and that of severe acute malnutrition (<−3z scores and/or oedema) was estimated at 6%. Two percent of the sample was oedematous. Measles vaccination rate was estimated at 28.0%. The RNIS has not yet received this report and thus no further details are currently available.

c Bardera This survey was undertaken by UNICEF in Bardera town, Gedo in December 1999. Standard two−stage cluster sampling methodology was employed. A total of 903 children between 6 and 59 months or between 65 and 110 cm were measured. The prevalence of wasting (<−2z scores) was estimated at 17.5% and that of severe wasting (<−3z scores) at 4.5%. Oedema was recorded in 1% of the sample. Parents or caretakers were interviewed about measles immunisation (reference to cards was also made), vitamin A supplementation in the six months prior to the survey and morbidity in the two weeks prior to the survey. Measles vaccination rate was estimated at 76.0%.

d Belet Weyne These survey were conducted by IMC in Belet Weyne town and villages, Hiran in August−September 1999. Standard two−stage cluster methodology was employed. In Belet Weyne town, 900 children aged 6−59 months were measured. Wasting (<−2z scores weight−for−height) was estimated at 23.6%. Severe wasting (<−3z scores weight−for−height) was estimated at 4.7%. Stunting (−2z scores height−for−age) was estimated at 29.5%. Severe stunting (−3z scores height−for−age) was estimated at 6.3%. The prevalence of oedema was estimated at 0.5%. Retrospective under−five mortality was estimated for the year prior to the survey at 1.6/10,000/day. Measles vaccination status was confirmed either by card or by mother's/carer's report and was estimated at 23.3% (using cards). In Belete Weyne Villages, 900 children aged 6−59 months were measured. Wasting (<−2z scores weight−for−height) was estimated at 15.6%. Severe wasting (<−3z scores weight−for−height) was estimated at 2.1%. Stunting (−2z scores height−for−age) was estimated at 28.9%. Severe stunting (−3z scores height−for−age) was estimated at 8.3%. The prevalence of oedema was estimated at 5.7% (although the authors commented that this estimated prevalence may have been incorrect due to methodological problems). Retrospective under−five mortality was estimated for the year prior to the survey at 1.9/10,000/day. Measles vaccination status was confirmed either by card or by mother's/carer's report and was estimated at 29.5% (using cards).

8. Sudan

a Athoc This survey was conducted by MEDAIR in Athoc *payam*, southern Bor County, Upper Nile in December 1999. Standard two−stage cluster sampling methodology was employed. 986 children aged 6−59 months or 65 to 115 cm were measured. Wasting (<−2z scores) was estimated at 21.7%. Severe wasting (<−3z scores) was estimated at 2.1%. Oedema was not reported. Parents or caretakers were interviewed about measles immunisation (reference to cards was also made), and morbidity in the month prior to the

survey, The measles vaccination rate was estimated at 55%.

b Akuem This survey was conducted by MDM in Akuem, Aweil East County, BEG in November 1999. Standard two−stage cluster methodology was employed. 795 children aged 6−59 months were measured. Wasting (<−2z scores) was estimated at 11.9% (95% CI 9.8−14.3%). Severe wasting (<−3z scores) was estimated at 1.3% (95% CI 0.5−2.1%). Oedema was recorded in 20 children (2.5%). Measles vaccination rates were estimated at 56.4 by reference to cards. Under−five mortality rate was obtained by asking mothers about deaths of their children during the previous rainy season (six months) and was estimated at 3.1/10,000/day.

c Panthou This survey was conducted by MSF−B in Panthou, Aweil East County, BEG in October 1999. Standard two−stage cluster methodology was employed. 450 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 18.2% (95% CI 11.2−25.2%). Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 1.3% (95% CI 0.0−2.6%). No oedema was reported.

d Malualkon This survey was conducted by Tearfund in three *payams* of Malualkon, Aweil East County, BEG in January 2000. Standard two−stage cluster methodology was employed. 900 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 12.2% (95% CI 10.2−14.3%). Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 1.3% (95% CI 0.0−3.4%). No oedema was found. The measles vaccination rate was estimated at 32.7% by asking mothers (no vaccination cards were issued during the measles campaign).

e Aweil West This survey was conducted by CONCERN in three *payams* of Aweil West County, BEG in November 1999. Standard two−stage cluster methodology was employed. 881 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 10.4%. Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 3.1%. Oedema was not reported separately. The measles vaccination rate was estimated at 30% by asking mothers and reference to cards. CMR was estimated at 0.84/10,000/day and under−five mortality at 1.9/10,000/day.

f Gogrial This survey was conducted by World Vision Sudan in Panthou and Toch Payams of Gogrial County, BEG in November 1999. As the survey is not available to the RNIS the methodology is unknown. Wasting (<80% median weight−for−height) was estimated at 5.9%. Severe wasting (<70% median weight−for−height) was estimated at 1.2%. No further details are currently available.

g Tonj This survey was conducted by World Vision Sudan in the five Payams of Tonj County, BEG in November 1999. As the survey is not available to the RNIS the methodology is unknown. Wasting (<80% median weight−for−height) was estimated at 8.0%. Severe wasting (<70% median weight−for−height) was estimated at 0.6%. No further details are currently available.

h Juba This survey was conducted by ACF−F in Juba, Equatoria in December 1999. Standard two−stage cluster methodology was employed. 900 children aged 6−59 months were measured. Acute malnutrition (<−2z scores and/or oedema) was estimated at 11.1% (95% CI 8.4−14.5%). Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 1.0% (95% CI 0.3−2.6%). One oedematous child was found. The measles vaccination rate was estimated at 44.5% by reference to cards.

9. Uganda

a. Kitgum District These surveys were undertaken by ACF−USA in non−displaced villages and IDP camps in Kitgum District, Uganda in December 1999. Two stage cluster methodology sampling method was used for both surveys. Acute malnutrition was defined as <−2z scores weight−for−height and/or oedema. Severe acute malnutrition was defined as <−3z scores weight−for−height and/or oedema. Chronic malnutrition was defined as <−2z scores height−for−age. Severe chronic malnutrition was defined as <−3z scores height−for−age. Retrospective mortality for children under five in the three months prior to the surveys was estimated by questionnaire. Measles immunisation information was collected either from the vaccination card or from interview with the mother. In the non−displaced villages, 947 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 3.5% (C.I. 2.1−5.7%) and severe acute malnutrition was 0.1% (C.I. 0.0−1.2%). No oedema was recorded. The prevalence of chronic malnutrition was estimated at 39.7% (C.I. 35.3−44.3%) and severe acute malnutrition was 16.5% (C.I. 13.3−20.2%). Under−five mortality was estimated at 1.27/10,000/day. Measles vaccination coverage according to card was estimated at 18.2%. In the IDP camps, 939 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 6.6% (C.I. 4.6−9.4%) and severe acute malnutrition was 1.4% (C.I. 0.6−3.1%). Oedema was

recorded in 0.3% of the sample. The prevalence of chronic malnutrition was estimated at 36.8% (C.I. 32,5−41.5%) and severe acute malnutrition was 14.7% (C.I. 11.7−18.3%). Under−five mortality was estimated at 1.32/10,000/day. Measles vaccination coverage according to card was estimated at 16.2%.

b Gulu District These surveys were undertaken by ACF−USA in IDP camps with and without health facilities in Gulu District, Uganda in September−October 1999. Two stage cluster methodology sampling method was used for both surveys. Acute malnutrition was defined as <−2z scores weight−for−height and/or oedema. Severe acute malnutrition was defined as <−3z scores weight−for−height and/or oedema. Chronic malnutrition was defined as <−2z scores height−for−age. Severe chronic malnutrition was defined as <−3z scores height−for−age. Retrospective mortality for children under five in the three months prior to the surveys was estimated by questionnaire. Measles immunisation information was collected either from the vaccination card or from interview with the mother. In the camps with health facilities, 950 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 4.9% (C.I. 3.2−7.4%) and severe acute malnutrition was 0.7% (C.I. 0.2−2.1%). Oedema was recorded in 0.2% of the sample. The prevalence of chronic malnutrition was estimated at 37.8% (C.I. 33.542.4%) and severe acute malnutrition was 14.7% (C.I. 11.7−18.3%). Under−five mortality was estimated at 1.16/10,000/day. Measles vaccination coverage according to card was estimated at 37.3%.

In the camps without health facilities, 958 children aged 6−59 months were measured. The prevalence of acute malnutrition was estimated at 3.8% (C.I. 2.3−6.0%) and severe acute malnutrition was 0.4% (C.I. 0.0−1.7%). Oedema was recorded in 0.3% of the sample. The prevalence of chronic malnutrition was estimated at 39.8% (C.I. 35.4−44.3%) and severe acute malnutrition was 15.2% (C.I. 12.0−18.7%). Under−five mortality was estimated at 0.6/10,000/day. Measles vaccination coverage according to card was estimated at 29.1%.

11. Afghanistan

a Panjshir This assessment was conducted by ACF−F in Panjshir in November−December 1999. Three of the most vulnerable groups of IDPs were chosen (those living in either official or unofficial camps, public buildings) and ten clusters were selected randomly from within these groups. Because of problems associated with estimating the population numbers this assessment cannot be considered a survey. 477 children aged 6−59 months were measured. In the official camps, public buildings and unofficial camps, acute malnutrition (<−2z scores and/or oedema) was estimated at 12.0%, 12.6%, 7.5% respectively. Severe acute malnutrition (<−3z scores and/or oedema) was estimated at 1.9%, 3.1%, 1.3%. Oedema was reported separately. Measles vaccination rates were estimated by reference to card or by asking the mother/carer.

12. Nepal a Nepal This survey was undertaken by CDC in the Bhutanese refugee camps in Nepal in October 1999. Adolescent survey subjects were chosen by systematic random sampling from computerized registration data after data for all camps were combined. Survey workers registered adolescent subjects, obtained consent, conducted dietary interviews, measured weight, height, sitting height and MUAC, examined and referred subjects as necessary, and obtained blood specimens. Laboratory samples included a fingerstick blood sample for haemoglobin from all survey subjects. From half the survey subjects blood was collected by venipuncture for testing for levels of riboflavin, serum transferrin receptors (TfR), and serum retinol (vitamin A). In addition, each adolescents with a severe case of AS had blood drawn for riboflavin level. Riboflavin status was assessed by measuring the activity of a riboflavin−dependent enzyme, erythrocyte glutathione reductase (EGR) in red blood cells (Mount et al −1987). The serum levels of folate and B12 were measured directly using a commercial radioimmunoassay kit (BioRad Laboratories, Hercules, California). TfR testing was done with a commercial kit (Ramco Laboratories). The serum collected in this survey was assayed for retinol by high−performance liquid chromatography at the CDC laboratories.

13. Indonesia

a Belu This survey was undertaken by UNICEF in Belu district, West Timor in December 1999. Standard two−stage cluster sampling methodology was employed, except the youngest child in the household was measured. 842 children aged 6−59 months were measured. The prevalence of wasting (<−2z scores weight−for−height) was estimated at 23.6% and severe wasting (<−3z scores weight−for−height) at 3.6%. Oedema was not re− corded. The prevalence of stunting (<−2z scores height−for−age) was estimated at 46.8% and severe stunting (<−3z scores height−for−age) at 17.9%.

b Kupang This survey was undertaken by UNICEF in Kupang district, West Timor in January 2000. Standard two−stage cluster sampling methodology was employed. 893 children aged 6−59 months were measured. The prevalence of wasting (<−2z scores weight−for−height) was estimated at 12.1% and severe wasting

(<–3z scores weight–for–height) at 1.0%. Oedema was not recorded. The prevalence of stunting (<–2z scores height–for–age) was estimated at 43.1% and severe stunting (<–3z scores height–for–age) at 17.5%.

c Naen Camp This assessment was undertaken by MSF–H in Naen Camp, West Timor in February 2000. Exhaustive sampling methods were employed, but the lists were thought to be incomplete. 186 children aged 6–59 months were measured for height and weight and 221 for MUAC. Wasting (<–2z scores) was estimated at 33% and severe wasting (<–3z scores) at 7%. Oedema was not reported. Low MUAC (<135 mm) was estimated at 29.5% and severe low MUAC (<110 mm) at 10.0%. Note that MUAC included children aged 6–12 months which is not normal practice.

14. Balkans Region

a Kosovo This survey was undertaken by AAH–UK in Kosovo in January 2000. Two stage cluster methodology sampling method was employed. Among children aged 6–59 months (of who 934 were measured), the prevalence of acute malnutrition (<–2z scores weight–for–height and/or oedema) was estimated at 4.7% (C.I. 3.0–7.2%) and that of severe acute malnutrition (<–3z scores weight–for–height and/or oedema) at 1.1% (C.I. 0.4–2.6%). The prevalence of chronic malnutrition (<–2z scores height–for–age) was estimated at 7.5% (C.I. 5.4–10.4%) and that of severe chronic malnutrition (<–3z scores height–for–age) at 1.9% (C.I. 0.9–3.8%). Measles immunisation information (children aged 18–59 months) was collected either from the vaccination card or from interview with the mother. The rate estimated by card was 18.0%. 802 non–pregnant mothers were also measured. Maternal nutritional status was defined using the BMI and MUAC. The prevalence of severe undernutrition (BMI<16.0 kg/m^2) was estimated at 0.2%, moderate undernutrition (BMI 16.0–16.9 kg/m^2) at 0.9%, marginal undernutrition (BMI 17.9–18.4 kg/m^2) at 4.2%, overweight (BMI 25–29.9 kg/m) at 23.6% and obesity (BMI>30 kg/m) at 10.4%. 224 older persons (more than 65 years old) were also measured. Their nutritional status was defined using the BMI and MUAC. The prevalence of severe undernutrition (BMI<16.0 kg/m^2) was estimated at 1.3%, moderate undernutrition (BMI 16.0–16.9 kg/m^2) at 0.4%, marginal undernutrition (BMI 17.9–18.4 kg/m^2) at 3.6%, overweight (BMI 25–29.9 kg/m) at 32.0% and obesity (BMI>30 kg/m) at 16.0%.

b Konik camp This screening was undertaken by ACF–F in Konik Camp, Montenegro in November 1999. Exhaustive sampling methods were employed. 416 children aged 6–59 months were measured. The prevalence of wasting (<–2z scores weight–for–age) was estimated at 2.9% and severe wasting (<–3z scores weight–for–age) at 0.96%. Oedema was found in one child. The prevalence of chronic malnutrition (<–2z scores height–for–age) was estimated at 16.1% and that of severe chronic malnutrition (<–3z scores height–for–age) at 1.9%.

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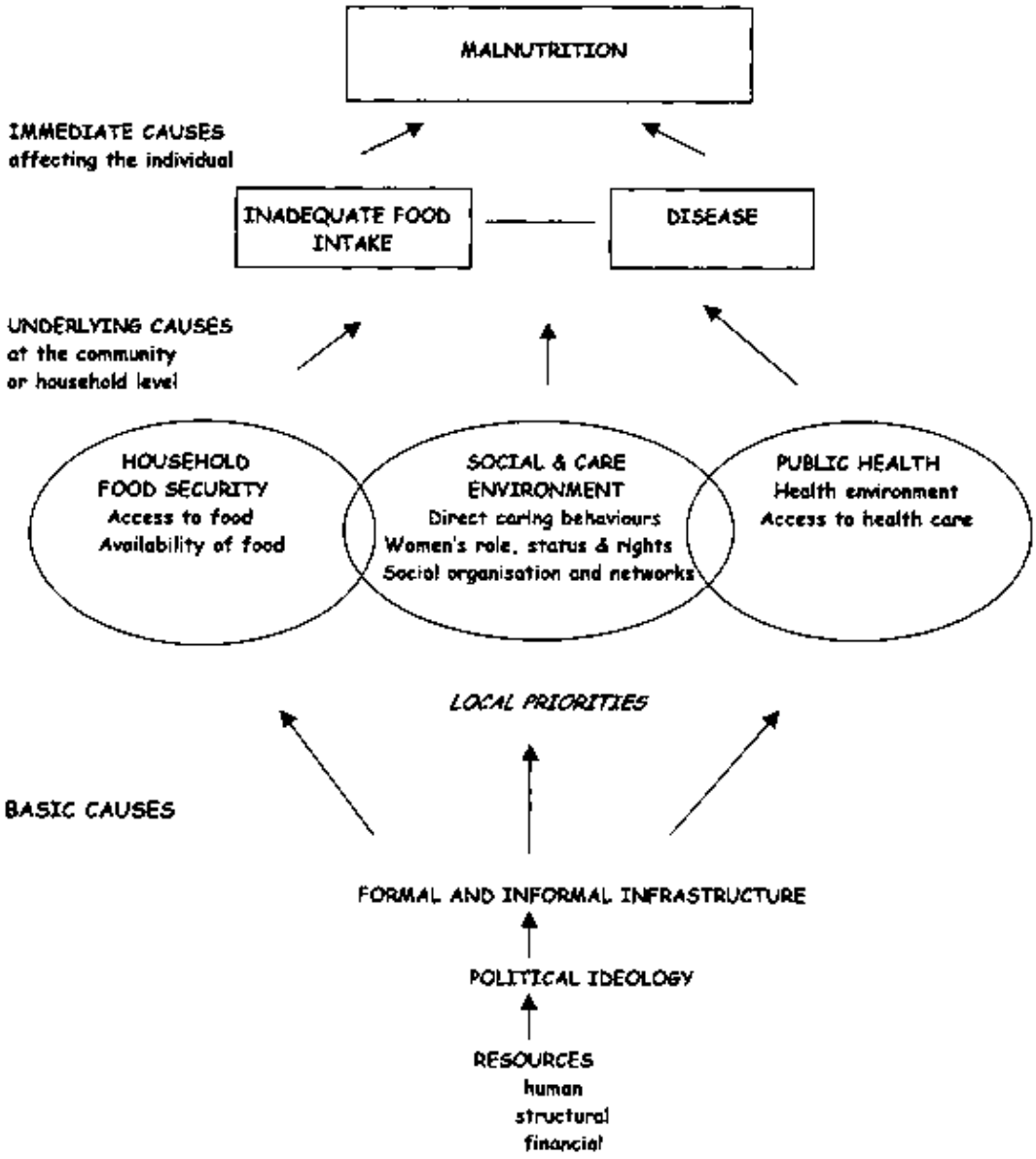
Map of Africa

Seasonality in Sub–Saharan Africa*

Angola	Coastal area desert, SW semi–arid, rest of country: rains Sept–April
Burundi	Three crop seasons: Sept–Jan, Feb–Jun., and Jul–Aug.
CAR	Rains March–Nov

Djibouti	Arid Climate
Ethiopia	Two rainy seasons February to May and June to October
Kenya	N−E is semi−arid to arid, Central and SW rains: March−May and Nov−Dec.
Liberia	Rains March−Nov
Mozambique	Coast is semi−arid, rest wet−dry. Harvest May
Rwanda	Rains Feb−May with Aug. harvest and Sept−Nov with Jan harvest
Sierra Leone	Rains March−Oct.
Somalia	Two seasons: April to August (harvest) and October to January/February (harvest)
Sudan	Rains April−Oct.
North	Rains begin May/June
South	Rains begin March/April
Togo	Two rainy seasons in S, one in N. Harvest August
Uganda	Rains Mar−Oct.
Zaire	Tropical climate. Harvest in N: November; in S January

*SOURCES: FAO, “Food Supply Situation and Crop Prospects in Sub−Saharan Africa”, Special Report; No 4/5.



The SPHERE Project Conceptual Model of the causes of malnutrition in emergencies (draft, adapted from UNICEF)

Note: the Sphere project is an initiative to improve the quality of humanitarian assistance and to enhance accountability of the humanitarian system, through the production of globally applicable minimum standards. The humanitarian Charter is at the core of the Sphere project – it re–affirms what is already known from international humanitarian law and human rights treaties. The charter makes explicit links to the defined levels of service delivery set out in the five core sectors: water supply and sanitation; nutrition; food aid; shelter and site planning: and health services. Together, the Charter and Minimum Standards offer an operational framework for accountability in humanitarian response – a common set of criteria for programme monitoring; a benchmark from which to make some judgement about the effectiveness of work; and, probably most importantly, a benchmark for use in advocacy to enhance levels of services. To obtain more information on the Sphere project at http://www.sphereproject.org or email: sphere@ifrc.org

The UN ACC/SCN[1], which is the focal point for harmonizing policies in nutrition in the UN system, issues these reports on the nutrition of refugees and displaced people with the intention of raising awareness and facilitating action to improve the situation. This system was started on the recommendation of the SCN's working group on Nutrition of Refugees and Displaced People, by the SCN in February 1993. This is the thirtieth of a regular series of reports. Based on suggestions made by the working group and the results of a survey of RNIS readers, the Reports on the Nutrition Situation of Refugees and Displaced People will be published every three months, with updates on rapidly changing situations on an 'as needed' basis between full reports.

[1] ACC/SCN, c/o World Health Organization, 20 Avenue Appia, CH–1211 Geneva 27, Switzerland. Telephone: (41–22)791.04.56, Fax (41–22)798.88.91, Email accscn@who.ch, Website; http://www.unsytem.org/accscn/

Information is obtained from a wide range of collaborating agencies, both UN and NGO (see list of sources). The overall picture gives context and information which separate reports cannot provide by themselves. The information available is mainly about nutrition, health, and survival in refugee and displaced populations. It is organised by "situation" because problems often cross national boundaries. We aim to cover internally displaced populations as well as refugees. Partly this is because the system is aimed at the most nutritionally vulnerable people in the world – those forced to migrate – and the problems of those displaced may be similar whether or not they cross national boundaries. Definitions used are given in the box on the next page. At the end of the situation descriptions, there is a section entitled "Priorities and recommendations" which is intended to highlight the most pressing humanitarian needs. The recommendations are often put forward by agencies or individuals directly involved in assessments or humanitarian response programmes in the specific areas.

The tables and figures at the end of the report provide a quick overview. Table 1 gives an estimate of the total refugee/displaced/returnee population, broken down by 'risk' category. Situations are classed into five categories relating to risk and/or prevalence of malnutrition. The prevalence/risk is indirectly affected by both the underlying causes of malnutrition, relating to food, health and care, and the constraints limiting humanitarian response. These categories are summations of the causes of malnutrition and the humanitarian response:.

- Populations in *category I* – the population is currently in a critical situation; they either have *a very high risk of* malnutrition or surveys have reported a very high prevalence of malnutrition and/or elevated mortality rates.

- Populations in *category II* are currently at *high risk* of becoming malnourished or have a high prevalence of malnutrition.

- Populations in *category III a*re at *moderate risk* of malnutrition or have a moderately high prevalence of malnutrition; there maybe pockets of high malnutrition in a given area.

- Populations in *category IV* are not at elevated nutritional risk.

- The risk of malnutrition among populations in *category V* is not known.

These risk categories should not be used in isolation to prescribe the necessary response.

In table 2, refugee and displaced populations are classified by country of origin and country of asylum. Internally displaced populations are identified along the diagonal line, which may also include some returnees. Figure I shows the trends over time in total numbers and risk categories for sub–Saharan Africa. Annex I summarises the survey results used in this report.

Indicators

WASTING is defined as less than –2SDs, or sometimes 80%, wt/ht by NCHS standards, usually in children of 6–59 months. For guidance in interpretation, prevalences of around 5–10% are usual in African populations in non–drought periods. *A* 20% prevalence of wasting is undoubtedly high, although this may depend on the context.

SEVERE WASTING can be defined as below –3SDs (or about 70%). Any significant prevalence of severe wasting is unusual and indicates heightened risk. (When "wasting" and "severe wasting" are reported in the text, wasting includes severe – e.g. total percent less than –2SDs, *not* percent between –2SDs and –3SDs.)

STUNTING is defined as less than –2SDs height–for–age by NCHS standards, usually in children aged 6–59 months.

SEVERE STUNTING is defined as less than –3SDs height–for–age by NCHS standards, usually in children aged 6–59 months. (When "stunting" and "severe stunting" are reported in the text, stunting includes severe – e.g. total percent less than –2SDs, *not* percent between –2SDs and –3SDs.)

BMI (wt/ht^2) is a measure of energy deficiency in adults. We have taken BMI<18.5 as an indication of mild energy deficiency, and BMI<16 as an indication of severe energy deficiency in adults aged less than 60 years (WHO, 1995).

MUAC (cm) is a measure of energy deficiency in both adults and children. In children, equivalent cut–offs to –2SDs and –3SDs of wt/ht for arm circumference are about 12.0 to 12.5 cms, and 11.0 to 11.5 cms. In adults a MUAC<22 cm in women and <23 cm in men may be indicative of a poor nutritional status; although lower cut–offs are employed in some studies. BMI and MUAC are sometimes used in conjunction to classify adult nutritional status (James et al, 1994).

OEDEMA is the key clinical sign of kwashiorkor, a severe form of protein–energy malnutrition, carrying a very high mortality risk in young children. It should be diagnosed as *pitting* oedema, usually on the upper surface of the foot. Where oedema is noted in the text, it means kwashiorkor. Any prevalence detected is cause for concern.

ACUTE MALNUTRITION is the prevalence of wasting and/or oedema.

CHRONIC MALNUTRITION is the prevalence of stunting.

A CRUDE MORTALITY RATE in a normal population in a developed or developing country is around 10/1,000/year which is equivalent to 0.27/10,000/day (or 8/10,000/month). Mortality rates are given here as "times normal", i.e. as multiple of 0.27/10,000/day. [CDC has proposed that above 1/10,000/day is a very serious situation and above 2/10,000/day is an emergency out of control.] Under–five mortality rates (U5MR) are increasingly reported. The average U5MR for Sub–Saharan Africa is 175/1,000 live births, equivalent to 1.4/10,000 children/day and for South Asia the U5MR is 0.7/10,000/day (in 1995, see UNICEF, 1997, p.98).

FOOD DISTRIBUTED is usually estimated as dietary energy made available, as an average figure in kcals/person/day. This divides the total food energy distributed by population irrespective of age/gender (kcals being derived from known composition of foods); note that this population estimate is often very uncertain. The adequacy of this average figure can be roughly assessed by comparison with the calculated average requirement for the population (although this ignores maldistribution), itself determined by four parameters: demographic composition, activity level to be supported, body weights of the population, and environmental temperature; an allowance for regaining body weight lost by prior malnutrition is sometimes included (see Schofield and Mason 1994 for more on this subject). For a healthy population with a demographic composition typical of Africa, under normal nutritional conditions, and environmental temperature of 20°C, the average requirement is estimated as 1,950–2,210 kcals/person/day for light activity (1.55 BMR). Raised mortality is observed to be associated with kcal availability of less than 1,500 kcals/person/day (ACC/SCN, 1994, p81).

INDICATORS AND CUT–OFFS INDICATING SERIOUS PROBLEMS are levels of wasting above 20%, crude mortality rates in excess of 1/10,000/day (about four times normal – especially if still rising), and/or significant levels of micronutrient deficiency disease. Food rations significantly less than the average requirements as described above for a population wholly dependent on food aid would also indicate an emergency.

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