Nutrition Information in Crisis Situations

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Highlights

Floods in the Horn of Africa— High vulnerability of populations

—Major floods have recently hit parts of Kenya, Somalia and Ethiopia. Estimated numbers of the affected populations are changing rapidly because assessments are still on-going, and new flooding is still occurring.
The major impacts of the floods are the destruction of assets, shelter and infrastructure including roads, contamination of water, destruction of farmlands and deaths of animals. This leads to a disrupted food supply, increase food insecurity, and risk to disease for both humans and animals. In most of the affected areas, road accessibility remains one of the biggest constraints for humanitarian intervention. Most of the areas affected by floods were chronically high food-insecure and, in addition, had been recently affected by drought. Prevalence of malnutrition was generally very high. Although no data on nutrition assessments were made available to NICS, populations in most of the areas affected by floods are considered to be at very high risk of malnutrition, given the food insecurity and poor nutrition situation that prevailed before the onset of the floods, and the impact of the floods in terms of increase in food insecurity and risk of disease.

Kenya—Food insecurity persists

— Rains have improved the situation in drought-affected areas but floods have had a very negative impact in parts of Coastal and North-Eastern provinces. Food security of pastoralists who were not affected by the floods is expected to improve somewhat, even though they will not be able to recover in the short term.

Sudan—Darfur still at risk

— As a follow-up of surveys conducted in September 2004 and September 2005, a survey was conducted in Darfur in September 2006.
Preliminary results showed prevalence of acute malnutrition within the same range as in 2005, except in West Darfur which showed a slight increase in malnutrition. Overall, about 70% of the population was still food insecure, with 46% severely food insecure. This is comparable to 2005. However, food insecurity has increased in West and South Darfur. On the contrary, food security has improved in North Darfur. IDPs in camps are the most vulnerable and their food insecurity has increased compared to last year. On the other hand, food security of residents seemed to have somewhat improved compared to last year. The worsening of food insecurity in South and West Darfur reflects the increase in food insecurity of IDPs in camps, who represent about half of the surveyed population in these states.

Sudan—Growing civil insecurity in some areas

— The agricultural season in South Sudan was good this year and adequate access to food during the coming dry season was forecasted. However growing civil insecurity in some areas might temper post-harvest gains.

Niger—Food security and nutrition situation not critical

— The food security and nutrition situation was not critical in Niger in October 2006, with a less severe hungry period than last year. Availability of cereals was good, and subsidised and free food distributions were continuing. Crop estimates suggest that this year's harvest will be good globally. However, pockets of food insecurity persist with some departments having had food deficits for the last two years.

Central African Republic— Increasing concerns

— The country has been affected by civil insecurity for years. An upsurge in violence erupted over the last few months, especially in the north of the country. In the northwest, civil populations have been trapped and targeted by the different parties. It is estimated that the number of IDPs has tripled since the beginning of the year. An estimated 150,000 people are believed to be living in the bush with a very poor diet and difficult access to health care, some of them for more than one year. However, the lack of reliable data makes a thorough assessment of the humanitarian situation difficult.

Chad—Increasing insecurity

—The security situation has seriously deteriorated in Eastern Chad since the beginning of the dry season. Renewed attacks by rebels on villages, after a relative calm during the rainy season, have led to the displacement of thousands of people. As of November 2006, it was estimated that about 90,000 people were displaced. Due to insecurity, most humanitarian workers have pulled out from Bahai, Irida and Gereda, making delivery of assistance to the six refugee camps located there very difficult.

Risk Factors affecting Nutrition in Selected Situations

Situations in the table below are classed into five categories 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 section "Indicators and classification" at the end of the report).
The prevalence/risk is indirectly affected by both the underlying causes of malnutrition, relating to food security, public health environment and social environment, and the constraints limiting humanitarian response. 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.

	Ethiopia Refugee camps	**Kenya** Turkana district	**Sudan** Conflict-affected populations in Darfur	**Sudan** Red Sea State	**Ghana** Refugee camps
Nutritional risk category	II	II	II	II	II/III
Food Security					
Households' livelihoods	😐	☹	☹	☹	😐
External assistance	😐	☹	😐	☹	😐
Public health environment					
Availability of water and access to potable drinking water	☹	😐	😐	?	😐
Health care	😐	😐	😐	☹	😐
Sanitation	😐	☹	😐	?	?
Social and care environment					
Social environment	?	?	?	?	?
Child feeding practices	☹	☹	?	?	😐
Delivery of assistance					
Accessibility to population	😐	😐	😐	😐	☺
Resources for humanitarian Intervention	😐	😐	😐	?	😐
Availability of information	😐	😐	😐	😐	😐

☺ Adequate 😐 Mixed ☹ Inadequate

Greater Horn of Africa

Floods

Major floods have recently hit parts of Kenya, Somalia and Ethiopia (see map).

Affected populations in Kenya, Somalia and Ethiopia

Estimated numbers of the affected populations are changing rapidly because assessments are still on-going, and new flooding is still occurring. The table below gives some of the latest estimates available (table 1). Rains are expected to continue at least through December so the situation might deteriorate further (WFP, 20/11/06). The major impacts of the floods are the destruction of assets, shelter and infrastructure including roads, contamination of water, destruction of farmlands and deaths of animals. This leads to a disrupted food supply, increase food insecurity, and risk to disease for both humans and animals. In most of the affected areas, road accessibility remains one of the biggest constraints for humanitarian intervention.

Table 1 Estimates of affected population, Kenya, Ethiopia and Somalia floods, November 2006

	Affected population	Displaced population
Kenya	700,000, including 100,000 refugees (OCHA, 29/11/06)	
Ethiopia	362,000 (GoE, 23/11/06)	122,500 (GoE, 23/11/06)
Somalia	Worst-case scenario 902,000 (FSAU, 30/11/06)	340,000 (FSAU, 30/11/06)

Table 2 Estimates of affected populations, Kenya, Nov 2006 (OCHA, 29/11/06)

Districts	Affected population
North-Eastern province	
Garissa	150,000
Mandera	58,000
Wajir	84,000
Isiolo	30,000
Ijara	71,000
Coast province	
Tana River	93,000
Kilifi	24,000
Kwale	53,000

Kenya

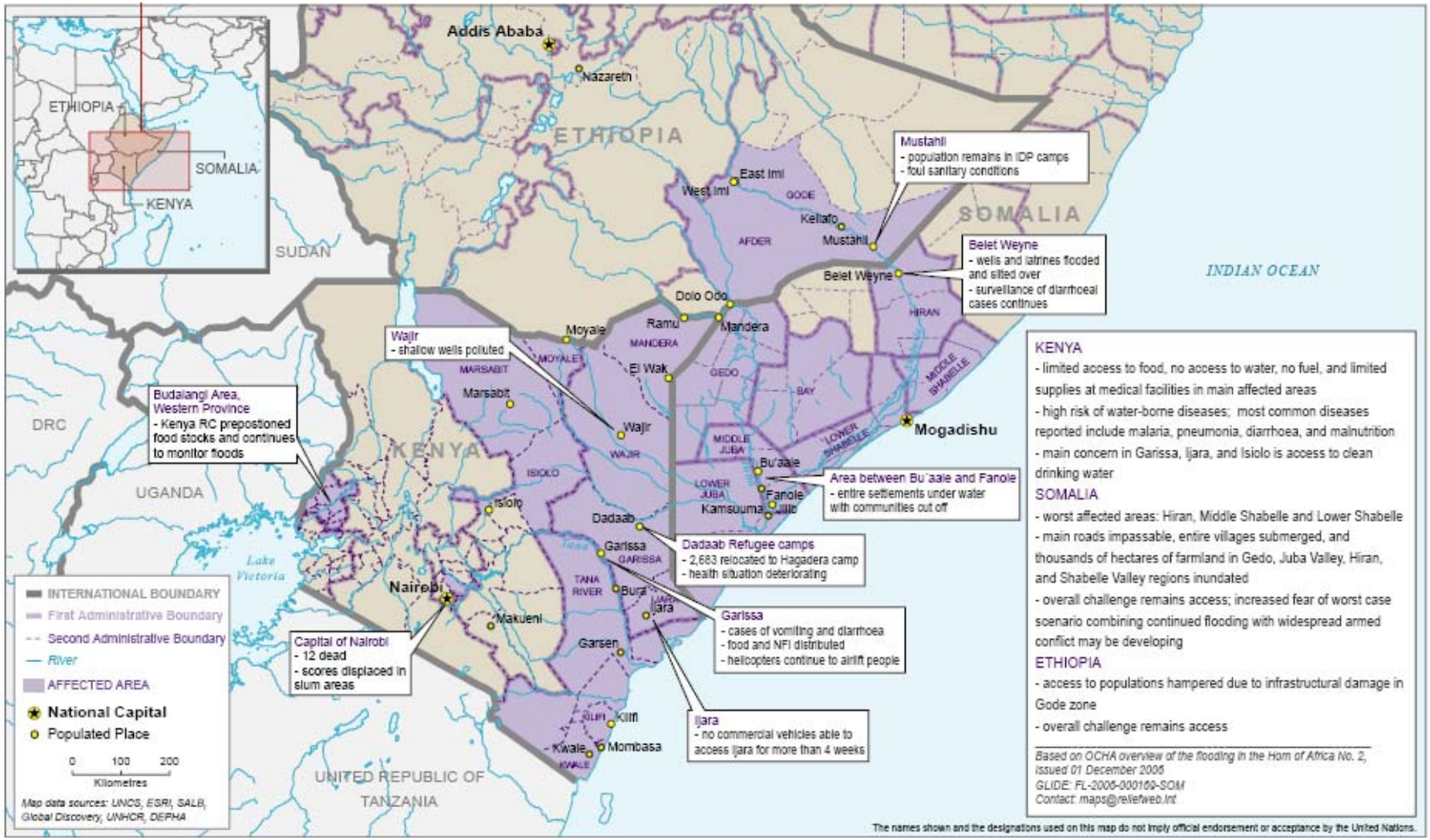
The most affected provinces in Kenya are North-Eastern and Coastal provinces although some floods have also affected Nyanza and Western provinces as well as Nairobi (OCHA, 28/11/06; OCHA 29/11/06) (table 2). In addition to the districts given in table 2, Moyale district in North-Eastern province and Mombasa district in Coastal province have been reported to have been affected (WHO, 19/11/06). In Garissa, Ijara and Tana River districts, critical issues noted were limited access to food, limited supplies in health facilities and major need for water treatment (OCHA, 29/11/06). There is little substantial evidence of major outbreaks so far. However, it seems that cases of diarrhoea have risen significantly in Dadaab area (WHO, 26/11/06). Thirteen cholera cases have also been confirmed in Mombasa (WHO, 26/11/06), two cases in Moyale (OCHA, 22/11/06) and 12 cases in Kwale (WHO, 19/11/06). Water sources are contaminated, drainage systems have collapsed and water pipes have been washed away (WHO, 26/11/06).

US$ 11.8 M have been allocated to UN agencies through the Central Emergency Relief Fund (CERF), for support in food, nutrition, logistics, protection, health, water, and refugee and livestock sectors in Kenya (OCHA, 22/11/06).

WFP has launched a massive three-month air operation to help affected populations in Kenya and Somalia (WFP, 24/11/06). However, it is unlikely that all food aid can be moved by air, so opening of roads remains an important priority (OCHA, 22/11/06). Food had been pre-positioned in affected districts before the onset of the rainy season and the main constraint for distribution was linked to logistics (OCHA, 29/11/06). Health interventions and distributions of non-food items have also taken place. It is difficult to know the extent of the gaps from existing information. Animal health intervention will be critical in safeguarding livestock from Rift Valley Fever in Kenya (OCHA, 22/11/06). The livestock export ban that followed the 1997 floods was only lifted this year.

The Kenyan government has been urged by aid

Horn of Africa floods (Reliefweb, 01/12/06)



groups to declare the recent floods that have affected the country a "national disaster" (AFP, 27/11/06).

Dadaab camps

More than 100,000 of the 160,000 refugees in Dadaab camps have been displaced by the floods (UNHCR, 21/11/06). About 90% and 70% of the refugees have been affected in Ifo and Dagahaley camps, respectively (UNHCR, 13/11/06). Most have lost their personal belongings. Latrines have flooded, contaminating standing water and posing a serious health risk.

Transfer of the most affected refugees in Ifo camp has begun; partly to Hagadera camp which was not affected by floods and partly to higher and dryer ground near Ifo camp, where some refugees have already settled, although no infrastructure is in place, notably water supplies and sanitation facilities. The new site is expected to cater for 20,000 people. UNHCR is currently working on the design and management of the new camp (UNHCR, 24/11/06).

Dadaab camps are very isolated due to impassable roads. Some supplies are airlifted but Dadaab airstrip cannot take large cargo planes. In addition to supplying the affected population, diesel is needed to run the generators that power the pumps supplying water in the three camps (UNHCR, 24/11/06).

Food stocks in Dadaab will last until mid-December (WFP, 24/11/06). Food distributions were conducted as usual in mid-November in Dagahaley and Hagadera camps while in Ifo about 8,000 people received a 7-day ration and 17,700 people received high energy biscuits. However, shortage of cooking fuel remains a main concern (OCHA, 22/11/06). Non-food items and health supplies have been delivered (UNHCR, 21/11/06). Malnutrition and diarrhoea have been reported to be rising rapidly (UNHCR, 28/11/06).

Somalia

Floods of the Juba and Shabelle rivers have displaced about 340,000 people in Hiran, Middle Shabelle, Lower Shabelle, Gedo, Middle Juba and Lower Juba regions (FSAU, 30/11/06) (table 3). A UN appeal for US$ 12 M will be launched soon (OCHA, 27/11/06). CERF has already allocated US$ 3.3 M. Priority gaps were water and sanitation, and health and logistics. Problems of access hamper the delivery of assistance. In Middle and Lower Shabelle, roads could be used for delivery of aid while in other areas airlifts were necessary (ICRC, 22/11/06; IRIN, 22/11/06). Tension and insecurity in Somalia might further hamper delivery of humanitarian aid, although both the Union of Islamic Court (UIC) and the Transitional Federal Government (TFG) have pledged to cooperate with aid workers (IRIN, 24/11/06).

Table 3 Estimated displaced population, Somalia, Nov 2006 (FSAU, 30/11/06)

Regions	Displaced population
Shabelle riverine	
Hiran	104,000
Middle Shabelle	66,000
Lower Shabelle	24,000
Juba riverine	
Gedo	36,000
Middle Juba	100,000
Lower Juba	10,000

UNICEF, CARE and Save the Children have assumed lead response roles in Jowhar, Lower Shabelle and Hiran (UNCT, 14/11/06). Food, shelter materials, treated mosquito nets and sand bags have been provided.

In Bellet Weyne, about 80% of the population of the eastern part of Belletweyne town and 20% of the western part have been displaced (IRIN, 28/11/06), amounting to about 50,000 people in addition to 15,000 from surrounding villages. Water purification and shelter were the most pressing needs. Some food has been distributed, and water and health interventions have taken place (OCHA, 24/11/06). 70% of latrines were flooded and almost 90% of the wells were contaminated (WHO, 20/11/06).

Areas around Buaale, Jilib and Jamaame in Lower Juba have also been badly affected (IRIN, 24/11/06). In Marere, cases of cholera have been reported and it has been estimated that 70% of the water sources were contaminated due to flooding (MSF, 22/11/06). Moreover, food stocks were lost, crops from the December harvest have been destroyed and livestock washed away.

Table 4 Estimated affected population, Ethiopia (GoK, 23/11/06)

Districts	Affected population
Gode zone	
Kalafo	80,000
Mustahil	65,000
Danan	8,250
East Imi	75,000
Ferfer	13,514
Gode (Lab/west)	14,175
Adadle	250
Afder zone	
West Imi	36,000
Jarati	100,000
Hargele	10,000

Ethiopia

A new wave of floods hit the Somali region in October 2006 and especially Gode, Afder, Liben and Korahe zones, where around 122,500 people have been displaced, 362,000 affected and 80 killed (GoE, 23/11/06) (table 4).Floods have also washed away livestock and damaged already poor infrastructure. Prices of non-staple food items have increased considerably. Access to the population is very difficult. A joint appeal for US$ 7 M to cover non-food requirements was launched in November. The food requirements will be partly covered by the DPPA.

Acute Watery Diarrhoea continues to spread, with a total of 40,341 cases and 435 deaths reported in Oromia, SNNP, Tigray, Afar, Amhara and Somali regions (OCHA, 27/11/06).

Aerial transportation has been put in place, and a response in term of food and non-food needs is taking place (OCHA, 01/12/06).

Background to the food security and nutrition situation in affected areas

Most of the areas affected by floods were chronically high food-insecure and, in addition, had been recently affected by drought. Table 5 shows the data on nutrition situations available for 2006 in some of the areas affected. Prevalence of malnutrition was generally very high.

Overall

Although no data on nutrition assessments were made available to NICS, populations in most of the areas affected by floods are considered to be at very high risk of malnutrition (category I), given the food insecurity and poor nutrition situation that prevailed before the onset of the floods, and the impact of the floods in terms of increase in food insecurity and risk of disease.

Table 5 Prevalence of acute malnutrition in some of the flood-affected areas in 2006*

	Date	Acute malnutrition in Z-scores (%) (95% CI)
Kenya		
Moyale district	Mar-06	18.2 (15.9-20.8)
Mandera district (El Wak, Wargadud, Lafey, Kotulo and Shimbir Fatuma divisions)	Oct-06	15.3 (12,6 – 18,1)
Isiolo district (Merti and Sericho divisions)	May-06	28.5 (25.6-31.6)
Dadaab refugee camps	Aug-06	22.2 (19.9-24.9)
Somalia		
Gedo region	Mar-06	23.8 (21.1-26.7)
Lower Juba (Afmadow and Hagar districts)	May-06	22.0 (19.4-24.9)
Lower Juba (Sakow and Bualle districts)	Apr-06	21.9 (19.3-24.8)
Middle Juba (Jilib riverine)	May-06	16.2 (13.8-18.8)
Ethiopia		
Gode zone (East Imi district)	Feb-06	21.7 (18.1-25.7)
Gode zone (Danan district)	Jan-06	23.5 (19.9-27.6)
Afder zone and Liben zones (Dolo Ado, Dolo Bay & Bare districts)	Sept-06	14.5 (11.8-17.5)
Afder zone (Elkere and Hargelle districts)	Aug-06	10.5 (8.1-12.8)

* (from NICS database, http://www.unsystem.org/scn/Publications/RNIS/rniscountry_database.html)

Ethiopia

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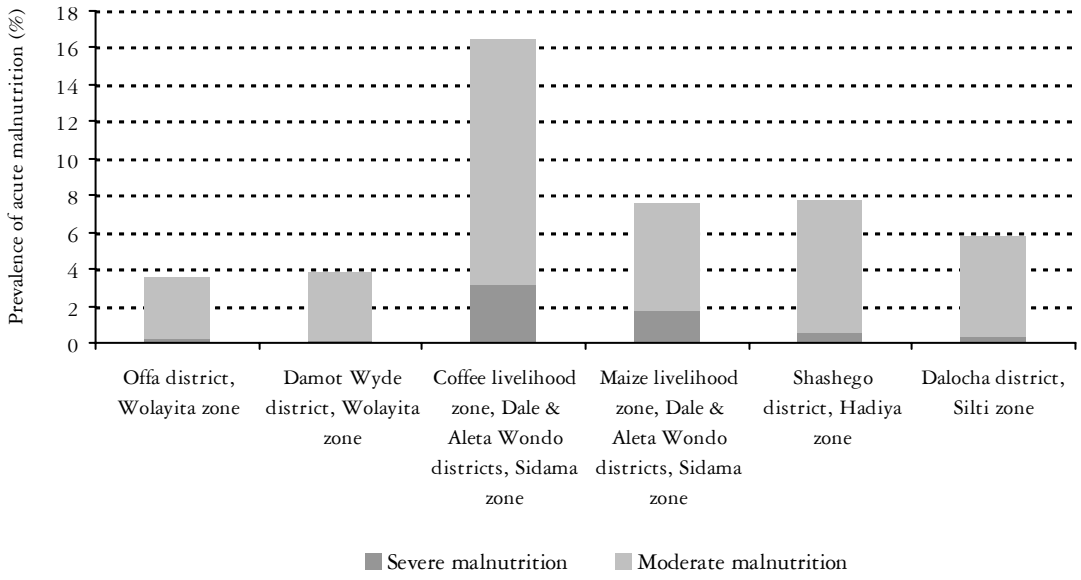
SNNPR

Results of nutrition surveys in SNNPR showed contrasting situations (figure 1) (ENCU, 30/09/06). The nutrition and food security situation was acceptable in Offa and Damot Woyde districts in Wolayita zone shortly after the first green crop, and was typical for this time of the year. On the other hand, the situation was critical in the coffee livelihood zone of Dale and Aleta Wondo districts, Sidama zone, according to a survey conducted during the hunger gap. Last year's *Meher* harvest was reported as poor and the area has received little food aid within the past years. The situation was expected to improve following the beginning of the harvest in July. A nutrition survey carried out in the maize livelihood zone of the same districts, just after the beginning of the green harvest, showed a better situation, considered typical for this time of the year.

Nutrition situations were average in Shashego district, Hadiya zone and Dalocha district, Silti zone, and considered typical for the end of the

Figure 1 Results of nutrition surveys in SNNPR, 2006 (ENCU, 30/09/06)



hunger gap period. Mortality rates were below alert thresholds in all of the surveys.

Oromia region

Three nutrition surveys, conducted in Deder and Meta districts of East Hararghe zone and Daro Lebu district, West Haraghe zone, showed situations considered as typical for food-insecure populations at this time of the year (figure 2) (ENCU, 30/09/06). The nutrition situation in Daro Lebu was comparable to that of last year at the same period. All the surveys showed mortality rates below alert threshold.

Amhara region

In Kalu and Dessi Zuria districts, South Wollo zone, the nutrition situation was poor and considered worse than in normal times (figure 2) (ENCU, 30/09/06). In Dessi Zuria, the food security situation was also reported as poor, while Kalu experienced a bad *Meher* season harvest in 2005. Around 30% of the population in these districts were entitled to productive safety net programme or food aid. Mortality rates seemed under control.

Somali region

In the mostly pastoral districts of Dolo Ado, Dolo Bay and Bare, Liben and Afder zones, a precarious nutrition and food security situation was reported (table 6) (ENCU, 30/09/06). Early depletion of water and pasture was noticed, and further deterioration was expected until the start of the next rainy season in October 2006. The ongoing programmes, such as food distribution, did not seem to have improved the situation significantly.

The nutrition situation was also poor in Elekere and Hargelle districts, Afder zone (table 6) (ENCU, 30/09/06). Food security was unfavourable due to poor crop production in the agro-pastoral and riverine areas because of early cessation of rains. While livestock condition was good, reproduction levels were below normal.

Under-five mortality rates were high in both surveys.

Refugee camps

Nutrition surveys were conducted in five Sudanese refugee camps, one Eritrean refugee camp and one Somali refugee camp between May and August 2006 (UNHCR/joint, 10/06). The results showed average to precarious nutrition situations (figure 3) while mortality rates appeared below alert thresholds.

According to interviews of women with a child aged less than two years, child feeding practices varied according to the camp, but were

Figure II Results of nutrition surveys in Oromia and Amhara, 2006 (ENCU, 30/09/06)

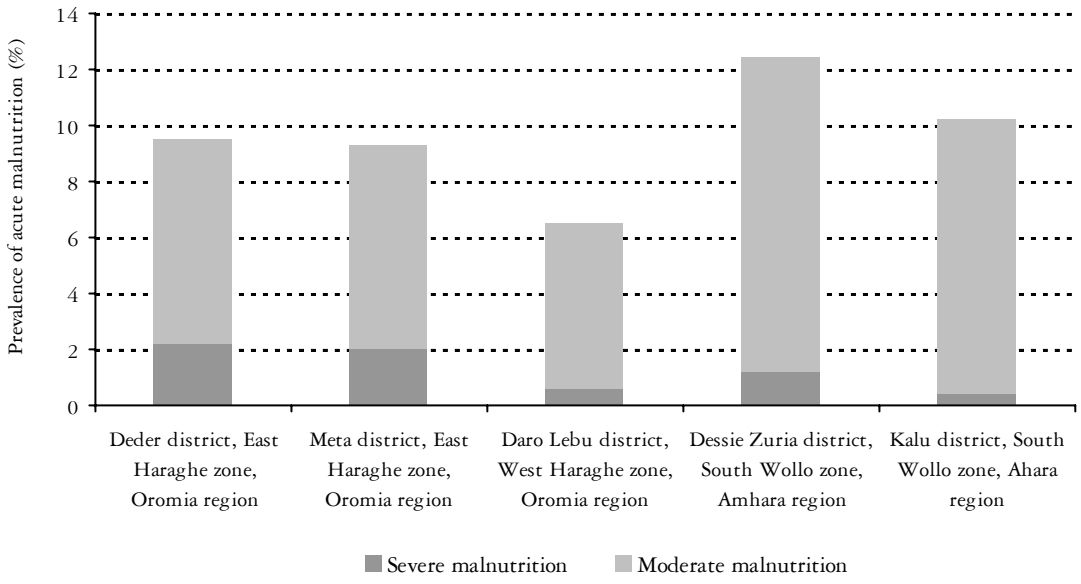


Table 6 Results of surveys in Somali region, Ethiopia, August-September 2006 (ENCU, 30/09/06)

Location	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	Crude Mortality (/10,000/day)	Under 5 Mortality (/10,000/day)
Elkere & Hragelle districts, Afder zone	10.5 (8.1-12.8)	0.5 (0.1-1.0)	0.62 (0.37-0.87)	1.79 (0.82-2.75)
Dolo Ado, Dolo Bay & Bare districts, Afder & Liben zones	14.5 (11.8-17.2)	0.7 (0.1-1.3)	0.62 (0.40-0.90)	2.5 (1.6-3.4)

generally poor (table 7). From the information available in the survey reports, the general food distribution met minimum daily needs in all the camps, except Yarenja, but no micronutrient enriched blended food was distributed (table 8). Although some of the refugees were able to cultivate small plots, crops did not play a significant role in the food ration. Some income-generating activities were available for some refugees but seemed to remain limited. Regular distribution of non-food items appeared inadequate, obliging people to sell part of their food rations for essential non-food items. The water and sanitation environment varied depending on the camp.

Bonga and Pugnido camps showed a sharp decrease in the prevalence of acute malnutrition, compared to 2005. This might be partly explained by an improvement in the quantity and regularity of the general food distribution as well as the implementation of a blanket feeding programme for all children aged 6-59 months since the last survey. Due to the improvement of the nutrition situation, it was recommended that blanket supplementary feeding be stopped.

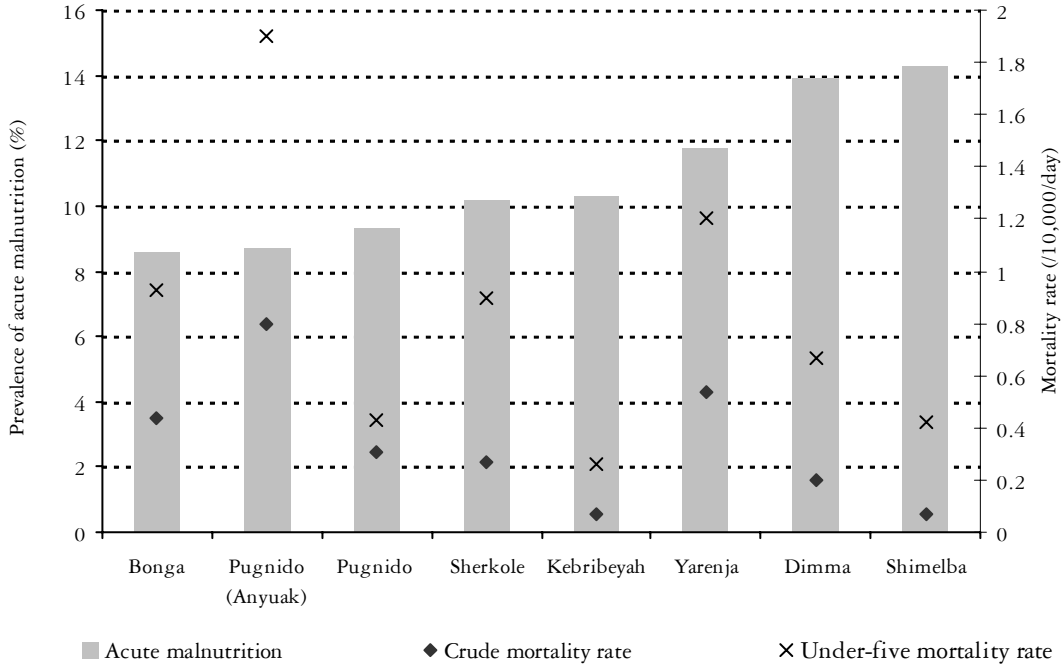
Table 7 Child's feeding practices, refugee camps, Ethiopia, May-August 2006 (UNHCR/joint, 10/06)

	Bonga	Pugnido	Sherkole	Yarenja	Shimelba	K/beyal
Breast fed in less than one hour after birth	90.7	73.0	26.3	40.5	71.8	57.0
Exclusive breast feeding	52.2	66.0	35.9	51.9	51.5	20.5
Timely introduction of complementary food at 6 month	14.9	34.8	23.9	13.0	39.5	30.9
Mothers who used bottle feeding	0.7	16.2	1.4	2.3	4.8	4.8
Mother having knowledge that breast feeding should continue up to 24 months	67.2	49.9	66	48.1	NA	64.7
Mother having knowledge that complementary food should start on 6 months	32.5	56.0	33.5	10.7	NA	27.7

Table 8 Food security and sanitation environment, refugee camps, Ethiopia, 2006 (UNHCR, 10/06)

	Bonga	Pugnido	Sherkole	Yarenja	Shimelba	K/beyah
General food distribution (Kcal/pers/day)	≈ 2,100	≈ 2,100	≈ 2,100	< 2,100	≈ 2,100	≈ 2,100
Micro-nutrient enriched blended food as part of the general ration	No	?	No	No	No	No
Blanket supplementary feeding for children 6-59 months	Yes	Yes	No	?	?	?
School feeding	Yes	?	Yes	Yes	?	No
Backyard garden	Yes	Yes	Yes	Yes (no cultivation in 2006)	Yes	Yes
Income generating activities	?	?	?	Sale of firewood and fish	Some	Some
Distribution of non-food items	?	?	?	?	Inadequate	?
Clean water availability (l/pers/day)	6	?	Adequate	Adequate	18	< 10
Sanitation incl. latrine coverage (/ people)	1/20	?	Not good	Good	1/36	1/23

Figure III Results of nutrition and mortality surveys, Refugee camps in Ethiopia, September 2006 (UNHCR/joint, 10/06)



Overall

Floods in Somali region has affected more than 300,000 people who are at high risk of food insecurity (category I). The nutrition situation in refugee camps showed poor to precarious nutrition situations coupled with insufficient coverage of food and non-food needs (category II).

Kenya

Short rains have brought some relief to the drought-affected areas. However, floods have had devastating effects in parts of Kenya (see above). Where there was no flooding, grazing pastures and the condition of livestock have improved. Nevertheless, pastoralists remain food-insecure due to the long-standing effects of droughts on their livelihoods, and because of structural factors (Fews, 9/10/06; Fews, 8/11/06). Maize crops are expected to be good.

Improvement of the nutrition situation in Mandera district

A nutrition survey, conducted in Wargadud, Lafey, El Wak, Kotulo and Shimbir Fatuma divisions, Mandera district, in October 2006 showed that the situation had improved significantly compared to March this year (MSF-B, 10/06). **Prevalence of acute malnutrition was 15.3% (12.6-18.1) including 1.0% (0.4-1.7) severe malnutrition in October vs. 29.8% (25.9-33.6) including 2.3% (1.3-3.3) severe**

malnutrition in March. Mortality rates have also decreased significantly from 1.5 (0.9-2.1) to 0.3 (0.1-0.5) for CMR and from 4.1 (2.1-6.1) to 0.8 (0.2-1.2) for under-5 MR. Although no explanation was given in the report, improvement might be partly attributed to seasonal effects: March corresponded to the peak of the drought after poor Oct-Dec 2005 short rains, while fair long rains improved the food security thereafter (FEWS, 09/10/06). Relief aid might also have helped: Food distributions targeting 75% of the population were conducted as well as blanket supplementary feeding for children under 5 years between June and September.

High prevalence of malnutrition in Turkana district

Six nutrition surveys were conducted simultaneously in Turkana district in May 2006 (CCF/OXFAM/WV/UNICEF, 05/06). Results showed critical nutrition situations (table 9). Turkana district has suffered recurrent droughts within the past years, the latest being in 2005-2006. When available, comparisons showed that the situation was comparable to 2005 but has improved compared to 2004 in Kaaleng, Kibish, Lapur and Lokitaung divisions, while it has worsened in Kakuma, Lokicchogio and Oropori divisions (figure 4). People who fish for a livelihood seemed to have the better nutritional status while natural resource dependants and casual/formal employees were the worse off. Pregnant and lactating women also had a poor nutrition status according to MUAC measurements (table 9). Access to latrines was poor in all the surveys, while access to safe drinking water ranged from 31.8% in Central, Kerio and Kalokol divisions to 68.5% in Kaaleng, Kibish, Lapur and Laukitaung divisions.

Child-feeding practices were poor with exclusive breastfeeding varying between 25% and 45%, and introduction of complementary feeding at six months ranging from 3.3% to 21.0%, depending on the survey.

Food distributions were received by 29.7% to 87.6% of the families interviewed depending on the survey. Rations accounted for about 30% of energy needs. Most of the ration was consumed with about 10% to 15% being shared. Relief food represented about 20% of the source of food, while gifts from relatives represented about 15% and buying in markets,

Table 9 Results of nutrition surveys in Turkana district, Kenya, May 2006 (CCF, OXFAM, WV, 05/06)

Location	Children 6-59 months old		Pregnant and lactating women	
	% Acute Malnutrition (95% CI)	% Severe Acute Malnutrition (95% CI)	MUAC < 210 mm (%) (95% CI)	MUAC < 230 mm (%) (95%CI)
Kainuk & Katilu divisions	21.2 (17.3-25.1)	3.1 (1.5-4.8)	2.7 (0.5-4.9)	24.8 (18.9-30.7)
Turkwell and Loima divisions	23.6 (19.6-27.7)	4.3 (2.4-6.3)	5.2 (2.2-8.2)	29.8 (23.6-36.0)
Kaaleng, Kibish, Lapur & Lokitaung divisions	24.0 (20.0-27.9)	3.4 (1.7-5.0)	10.9 (6.3-15.5)	47.9 (40.4-55.3)
Kakuma, Lokicchogio & Oropori divisions	26.6 (22.4-30.7)	4.7 (2.7-6.7)	4.8 (1.7-8.0)	24.9 (18.5-31.3)
Central, Kerio & Kalokol divisions	26.6 (22.4-30.7)	5.2 (3.1-7.2)	11.5 (6.9-16.0)	45.6 (38.5-52.7)
Lokichar, Lokori & Lomelo divisions	25.9 (21.7-30.0)	3.3 (1.6-5.0)	10.1 (5.8-14.5)	44.3 (37.2-51.4)

Figure IV Trends in prevalence of acute malnutrition, Turkana district, Kenya

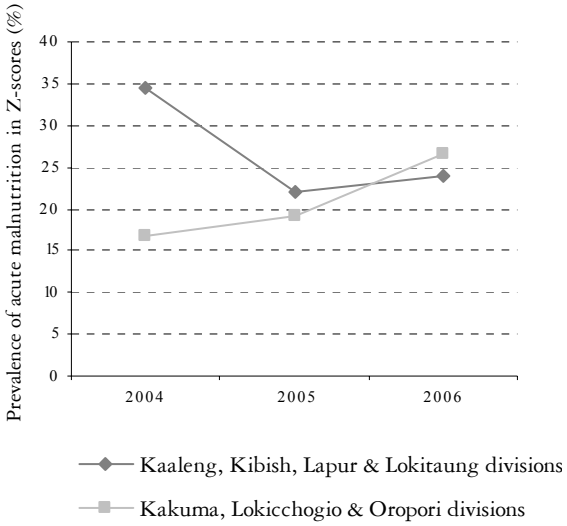
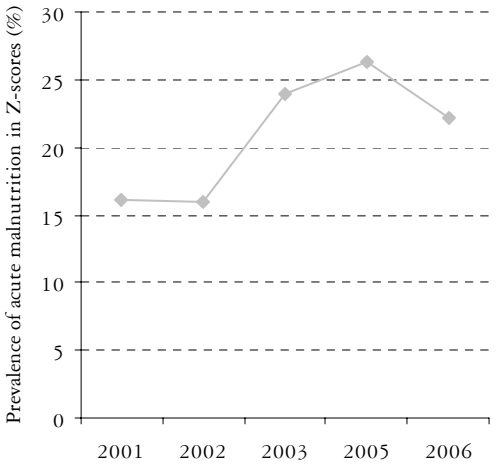


Figure V Trends in prevalence of acute malnutrition, Dadaab refugee camps, Kenya



which was the major source, 49%. At the time of the surveys, families were obliged to use coping mechanisms, with between 30% and 51% of the households using severe or very severe coping mechanisms. This showed that food insecurity was highly prevalent.
The survey reports deplored that no concerted efforts to improve food security and health exist at district level.

Nutrition situation remains critical in Dadaab camps

A nutrition survey was conducted in Dadaab camps in June 2006 (GTZ, 08/06). At that time, the camps hosted about 130,000 refugees mostly from Somalia. About 30,000 new Somali refugees have recently arrived at the camps, fleeing insecurity in Somalia. The survey showed a critical nutrition situation that has not improved within the last few years (figure 5). Anaemia levels among children and women were also very worrying with 78% and 72.7% of the children and pregnant women showing anaemia, respectively. Although anaemia is probably due to low levels of micronutrients in the diet, the high consumption of tea and high prevalence of malaria can be compounding factors.
Food distributions (cereals, oil, pulses, CSB and sugar) were regular within the year preceding the survey. However, due to a very limited capacity of the refugees to gain incomes, part of the food was used to buy other foods such as tea, sugar, milk and vegetables and non-food items especially soap, which were not distributed regularly in the camps. Food rations last on average 9 days instead of the 15 days they are intended to. To compensate for this, most of the refugees (81.2%) relied on borrowing from neighbours and relatives and buying food (37.8%) with incomes earned from manual labour or firewood collection.
Exclusive breastfeeding was 29.1% and timely introduction of complementary feeding was only 25%. Dietary diversity for children seemed very poor, reflecting the monotonous diet of the refugees, and the number of meals they ate per day was lower than recommended. Vitamin A supplementation and measles vaccination coverage were good and mortality rates were below alert thresholds.

Overall

Rains have improved the situation in drought-affected areas but floods have had a very negative impact in parts of Coastal and North-Eastern provinces. Food security of pastoralists who were not affected by the floods is expected to improve somewhat, even though they will not be able to recover in the short term.

Somalia

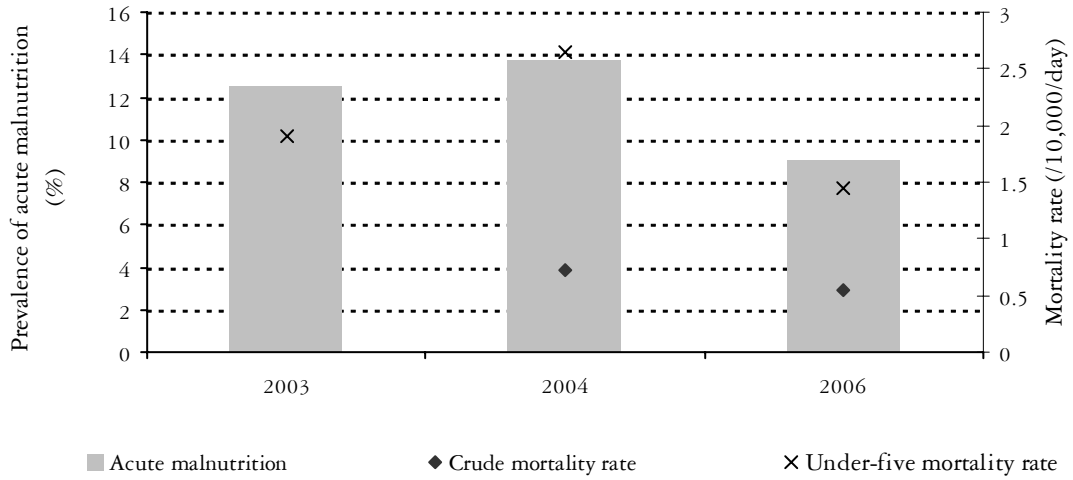
Although there have been some negotiations, tension and insecurity still prevail in Somalia (AFP, 02/12/06). The Supreme Islamic Council of Somalia now controls most of the southern and central Somalia, while the Transitional Federal Government is being backed by the Ethiopians. There is a fear that violence may escalate further. More than 30,000 Somali have fled to Kenya since the beginning of the year, with an acceleration in the last two months (OCHA, 31/10/06). Recent floods have has a devastating effect in parts of southern Somalia (see above)

Situation still precarious, despite improvement, in Sool plateau and Berdale district

Sool plateau experienced a major crisis between 2002 and 2004 due to successive droughts (see previous NICS reports). Rains were above normal in 2005 and 2006, improving the recovery of livestock, although a significant number of herds had been lost during the drought years. A nutrition survey conducted in August 2006 showed a significant improvement in the nutrition situation compared to June 2004 and May 2003 (figure 6) (FSAU/N, 09/06). This was attributed to improved livelihood and food security situations, as well as the substantial humanitarian response. Mortality rates also almost halved compared to 2004 (figure 6). However the situation is still precarious and classified as an acute food and livelihood crisis.

A nutrition survey conducted in Berdale district also showed a precarious nutrition situation, despite improvement compared to May 2002 (FSAU/N, 09/06). The area experienced poor rains in 2005-2006. **Prevalence of acute malnutrition was 11.2% (9.5-13.6) including 2.6 (1.8-3.9) severe acute malnutrition. Crude and under-five mortality rates were 1.28/10,000/day and 1.46/10,000/day, respectively.**

Figure VI Trends in prevalence of acute malnutrition, Sool plateau, Somalia



Sudan

Darfur

Security has remained highly volatile, hampering delivery of humanitarian aid, especially in North Darfur (UNNews, 05/12/06). Agricultural production was expected to remain similar to last year in South and West Darfur but to be reduced in North Darfur (UNICEF, 09/06).

As a follow-up of surveys conducted in September 2004 and September 2005 (see NICS 4 and NICS 8), a survey was conducted in Darfur in September 2006 (joint, 09/06). The target population was the displaced people and resi-

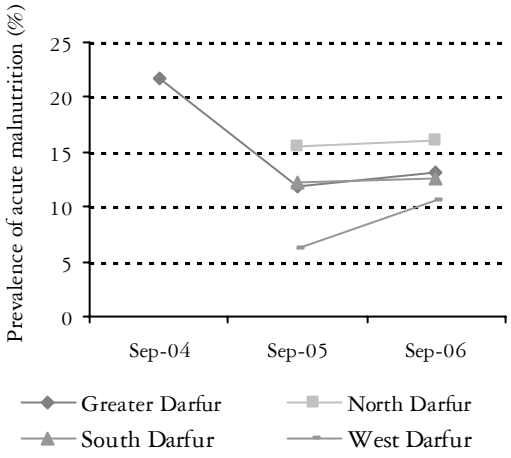
dents affected by the conflict, representing 3.74 M people, compared to 3.2 M in 2005. However, some areas could not be reached due to insecurity. The survey was designed to adequately measure the indicators in each Darfur state and in Darfur region overall.

Preliminary results showed prevalence of acute malnutrition within the same range as in 2005, except in West Darfur which showed a slight increase in malnutrition (figure 7). Slightly more than half of the surveyed population were displaced people, with the highest percentage in West Darfur (67.5%) and the lowest in North Darfur with 35.5%. Overall, IDPs seemed to have a slightly better nutrition status than residents. Vitamin A and measles vaccination coverage were below recommended. Iron/folate supplementation during pregnancy as well as Vitamin A post-partum supplementation was very low, 30.8% and 19.1%, respectively. About 7% of the pregnant or lactating women had a MUAC < 21.5 cm. Access to safe drinking water slightly increased from 63.0% in 2005 to 73.3% in 2006. The highest increase was seen in South Darfur. On the contrary, there was no change in access to latrines which was about 58% overall. Displaced people seemed to have better access to safe sources of drinking water (86%) than residents (57%) and to latrines: 68% vs. 51%.

About half of the population cultivated land in 2006, this is the same as in 2005. This was made up of about 80% of the residents, 48% and 15% of the IDPs in community and in camps being able to cultivate. According to the households interviewed, lack of security was the main constraint to cultivation. The number of households owning livestock is stable compared to 2005. Insecurity was also cited as the main constraint to animal raising because of theft and looting, and difficult access to pastures and grazing routes. The main sources of income for the population were waged labour (37%), sale of crops (20%), sale of firewood (15%), petty trade (10%) and sale of food aid (10%).

Overall, about 70% of the population was still food insecure, with 46% severely food insecure. This is comparable to 2005. However, food insecurity has increased in West and South Darfur, with respectively 57% and 50% of the

FIGURE VII TRENDS IN PREVALENCE OF ACUTE MALNUTRITION, DARFUR, SUDAN



population being severely food insecure in 2006 compared to 48% and 41% in 2005. On the contrary, food security has improved in North Darfur with 42% of the households considered food secure in 2006 compared to 32% in 2005, and 34% of families being highly food insecure compared to 44% in 2005.

There are also great differences between residents and IDPs, with 42%, 27% and 14% of the residents, IDPs in community, and IDPs in camps being considered food secure, and 35%, 46% and 62% of the same groups considered severely food insecure. IDPs in camps are the most vulnerable and their food insecurity has increased compared to last year. This might be partly explained by the decrease in food distributions. On the other hand, food security of residents seemed to have somewhat improved compared to last year. The worsening of food insecurity in South and West Darfur reflects the increase in food insecurity of IDPs in camps, who represent about half of the surveyed population in these states.

Food aid delivery has gradually increased throughout the year, reaching 53% of the population in January and about 67% in July during the hunger season. However, insecurity, especially in North Darfur has prevented adequate food distribution which has remained around 50% throughout the year. About 30% of the recipients sold food aid, mainly to pay milling costs and buy other foods. The priorities identified by the households interviewed were firstly security/peace, followed by drink-

ing water, health services and food aid. Food aid was the second priority for IDPs but the last for residents.

Nutrition surveys conducted in Kabkabyia town, North Darfur and in Kalma IDP camp and Nyala town and IDP camps, South Darfur in October 2006 showed high prevalence of acute malnutrition (ACF-F, 10/06).
In Nyala town, prevalence of acute malnutrition showed no improvement compared to the same period last year (figure 8). Seasonal patterns highly affect the nutrition status as shown in the figure. At the time of the survey, there was a cholera outbreak which might have contributed to the increase in death rates. The pre-harvest situation in south Nyala rural areas revealed that the area planted remains low and insufficient to cover the population's needs. Shortage of seeds was the main hindering factor, despite seeds and tools distributions (ACF-F, 09/06). The report stated that seeds and food distributions, and increase in rural casual work during the period have contributed to maintaining an average situation.
In Kalma camp, prevalence of acute malnutrition was still very high and had slightly increased compared to 2005 at the same time (figure 9). Seasonal variations in prevalence of acute malnutrition were also present. A cholera outbreak might have contributed to the increase in mortality rate. Food distributions have been reported as having been reduced to 75% of full ration for oil, sugar and pulses. The slight increase in prevalence of acute malnutrition might be partly explained by the increase in food insecurity among IDPs in camps, as reported in the joint survey (see above).
In Kabkabyia town, prevalence of acute malnutrition seems to have increased regularly since 2004 (figure 10). The report of the survey mentioned the increase in insecurity, the recent halving of the food rations and the delayed rainy season as some factors that might explain this increase. On the other hand, mortality rates have remained stable.

The fact that surveys conducted in localised populations showed higher prevalence of acute malnutrition than the Darfur -wide nutrition survey, although they were conducted within

FIGURE VIII TRENDS IN PREVALENCE OF ACUTE MALNUTRITION, NYALA TOWN, SOUTH DARFUR, SUDAN

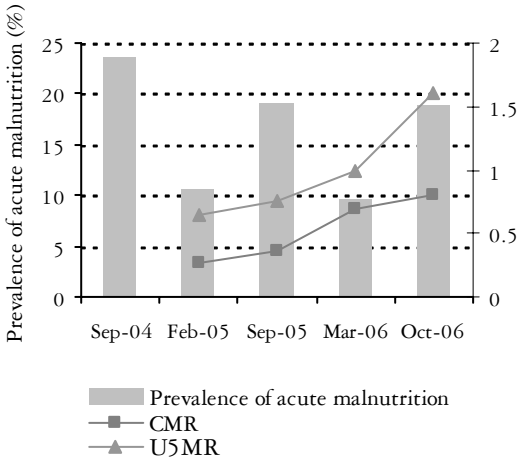


FIGURE IX TRENDS IN PREVALENCE OF ACUTE MALNUTRITION, KALMA CAMP, SOUTH DARFUR, SUDAN

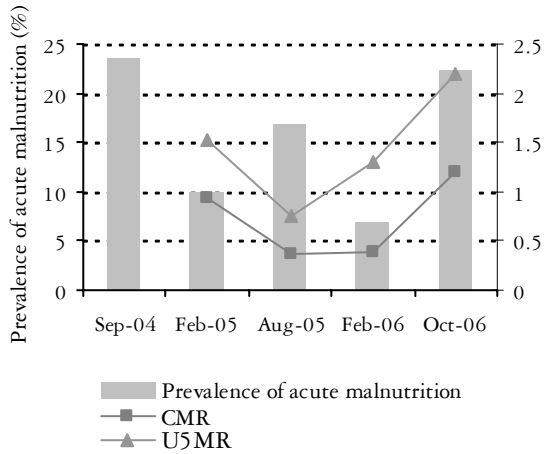
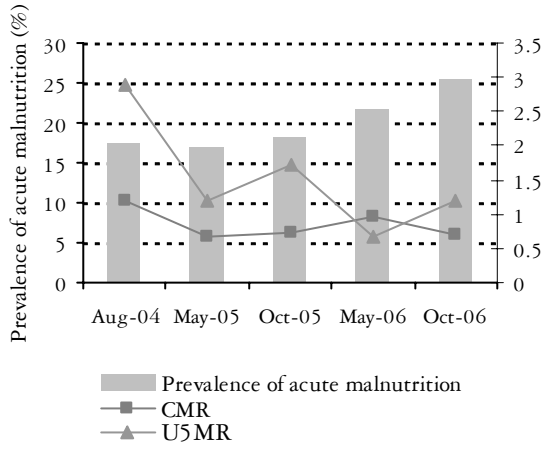


FIGURE X TRENDS IN PREVALENCE OF ACUTE MALNUTRITION, KABKABYIA TOWN, NORTH DARFUR, SUDAN



the same period, might be partly explained by the fact that localised surveys focused on the most vulnerable populations.

South Sudan

The agricultural season in South Sudan was good this year and adequate access to food during the coming dry season was forecasted (Fews, 11/06). However growing civil insecurity in some areas might temper post-harvest gains (see map) (Fews, 04/12/06).
So far this year, about 350,000 people have been reported as having returned. Due to the population census scheduled for November 2007, it is expected that large numbers of people will return during next year, putting further stresses on the food security.

Nutrition surveys conducted in Bentiu and Rob Kona, Unity state, in August 2006 showed a stable situation compared to previous years (figure 11) (ACF-F, 08/06). **In Nyaldu and surrounding villages, the nutrition situation was also precarious with 13.6% (9.4-19.1) acute malnutrition, including 1.6% (0.4-4.6) severe malnutrition.** However, the situation was less serious than shown by a rapid assessment in November 2005 (see NICS 8).

Major areas of concern, South Sudan (FEWS,

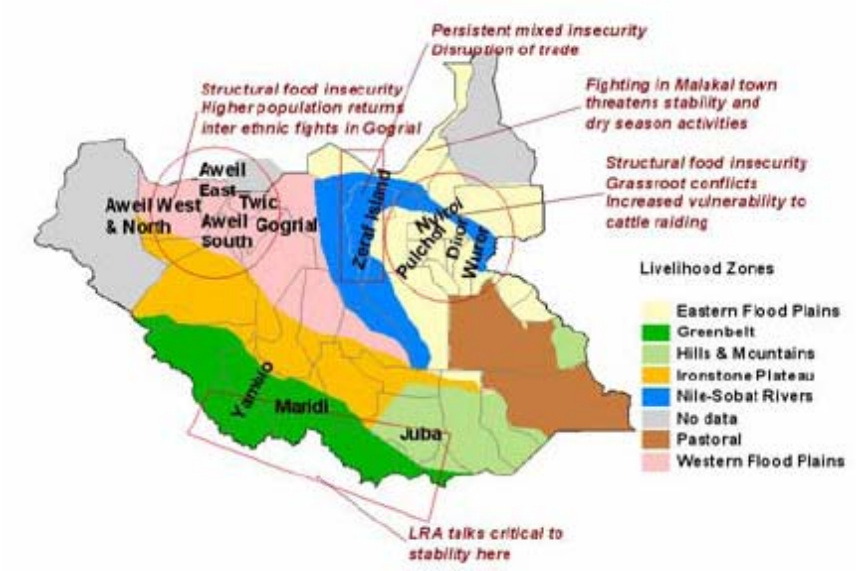
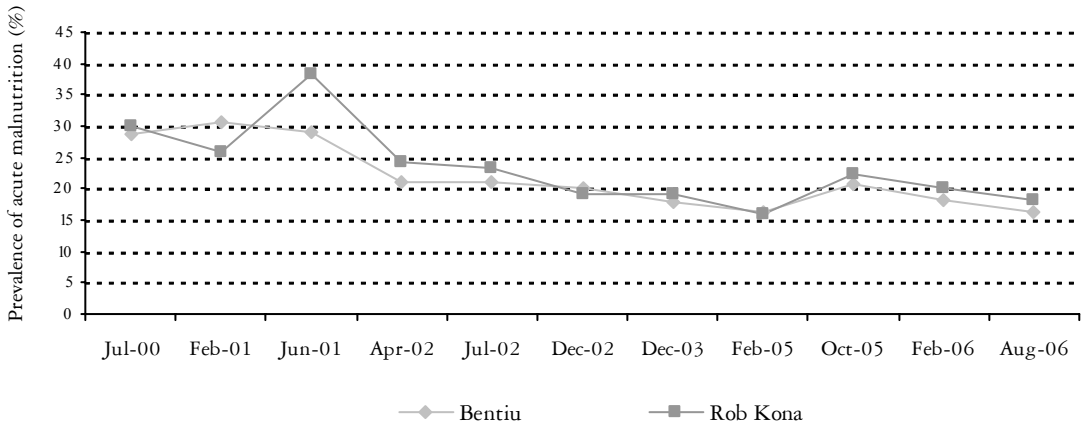


Figure XI Trends in prevalence of acute malnutrition, Bentiu and Rob Kona towns, Sudan



Red Sea state

Four nutrition surveys were conducted simultaneously in rural areas of Port-Sudan in June/July 2006 (MoH/UNICEF/OXFAM, 06-07/06). Results revealed critical nutrition situations during the hunger-gap season (figure 12). The situation is far worst in rural areas than in Port Sudan town according to a survey conducted in August 2005 when the prevalence of acute malnutrition was 11.5% (8.8-14.9). Historical data show that high prevalence of acute malnutrition similar to those reported in these surveys has been recorded in the area for years. Vitamin A deficiency was also present. Red Sea is a food deficit state with low food production capacity of agro-pastoral households and livestock herd composition having drastically changed over the last century because of increased competition for grazing areas and water resources and reduced capacity to cope with drought. Moreover there are limited income opportunities which constraints purchasing power. Access to markets in rural areas is extremely limited due to sparsely populated and remote communities. Although the National Strategic Reserve Authority stabilises sorghum prices by supplying markets with specific quantities of sorghum at reduced prices, this tends to focus on larger markets which are not accessible for most of this population. In addition, the state has experienced recurrent drought as well as frequent flooding over the past ten years with limited opportunities for recovery that have rendered the population chronically food insecure. Food distributions have been conducted in Port Sudan and Tokar localities but have been delayed in Halaib and Sinkat.

Access to primary health care services, including nutrition centres, is very limited in rural areas, with most of the health facilities being located in urban centres.

Refugee camps

Nutrition surveys were conducted in eight camps, accommodating mainly Eritrean refugees, in September 2006 (UNHCR/joint, 09/06). The situation was precarious to critical depending on the camp (figure 13). Seasonal trends showed that prevalence of acute malnutrition is higher at this time of year than at the beginning of year.

Figure XII Prevalence of acute malnutrition, Red Sea state, Sudan, July 2006 (MoH/joint, 07/06)

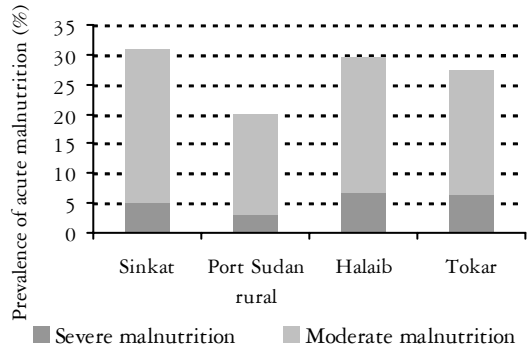
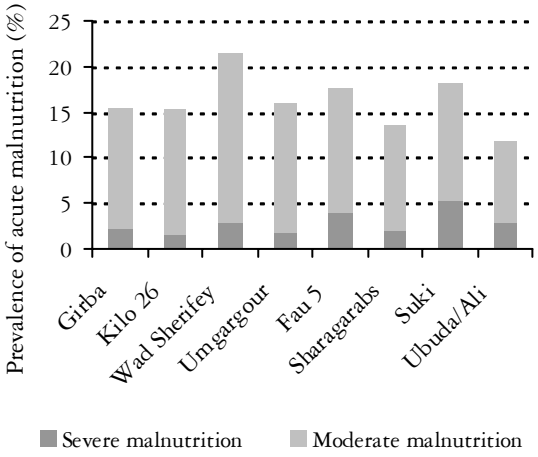


Figure XIII Prevalence of acute malnutrition, refugee camps, Sudan, September 2006 (UNHCR/joint, 09/06)



Recommendations

Some of the recommendations of the MoH/UNICEF/OXFAM survey in rural areas of Red Sea state

- Provide food assistance to the vulnerable populations in each locality
- Pilot development of community-based treatment of severe malnutrition in each locality
- Strengthen and expand food security and nutrition surveillance systems
- Reinforce vaccination programmes at community level
- Increase access to primary health care
- Develop and diversify livelihoods

West Africa

Ghana

A nutrition survey was conducted in Bududuram refugee camp sheltering 39,000 Liberian refugees (NCS/UNHCR, 05/06). **The results revealed a poor nutrition situation. Prevalence of acute malnutrition was 11.3% (9.4-13.6), including 0.7% (0.3-1.6) severe malnutrition. Mortality rates were below alert thresholds: 0.61 deaths/10,000/day and 0.19/ deaths/10,000/day for U5MR and CMR, respectively.** The prevalence of acute malnutrition has increased somewhat compared to the same time last year when it was 7.7% (6.1-9.6).

About 10,000 refugees, considered the most vulnerable, were entitled to a food distribution in the camp (UNHCR/WFP, 07/06). These included new arrivals, malnourished children, chronically ill persons, refugees with disabilities and elderly above 60 years. Others are thought to be self-sufficient, being able to find employment in the camp area or in Accra. The food distribution is meant to be 2,100 Kcal/ pers/day. However the ration has not always fulfilled this target in 2005 and 2006 due to pipeline breaks and insufficient funding. Food availability in the area was good with a number of markets near the refugee camps and stable food prices. According to a rapid food security assessment among a limited number of refugees, the main sources of income were trading, providing services, labour and borrowing. Agriculture was constrained due to limited land available. Refugees pay for medical care, although it is subsidised in the camp. Access to water seemed to be a problem and refugees pay high prices for safe-drinking water.

The UNHCR/WFP Joint Assessment Mission stated that the current targeting of food aid may be inadequate and that it might be changed to implement a targeted approach based on household level food security criteria. They emphasised that a comprehensive food security assessment should be conducted. Repatriation was ongoing in the camp but forecasts suggest that a significant number of refugees will not be repatriated and will need to be integrated locally.

Niger

The food security and nutrition situation was not critical in Niger in October 2006, with a less severe hungry period than last year (Fews, 31/10/06). Availability of cereals was good, and subsidised and free food distributions were continuing. Crop estimates suggest that this year's harvest will be good globally. However, pockets of food insecurity persist with some departments having had food deficits for the last two years: Tillaberi, Tchintabaraden, Maine Soroa, Arlit, Bilma and Tchirozerine (WFP, 30/11/06). Moreover, in Bilmat, Tchirozerine, Main Soroa and Tillaberi, the deficits are 50% or more of needs.

A nutrition survey conducted in Aguie health district, Maradi region, in September 2006 (end of the hunger-gap period) showed an average nutrition situation with 8.2% (6.0-10.4) acute malnutrition, including 0.8% (0.2-1.3) severe malnutrition (MSF-B, 09/06). Mortality rates were also average: CMR = 0.5 deaths/10,000/day (0.3-0.7) and U5MR = 1.3 deaths/10,000/day (0.6-2.1).

Central Africa

Central African Republic

The country has been affected by civil insecurity for years. An upsurge in violence erupted over the last few months, especially in the north of the country. In the northeast, recent fighting has displaced thousands of people (OCHA, 16/11/06). In the northwest, civil populations have been trapped and targeted by the different parties (MMCAR, 11/06). It is estimated that the number of IDPs has tripled since the beginning of the year (MMCAR, 11/06). Several villages have recently been attacked and their inhabitants have deserted them (WFP, 05/12/06). An estimated 150,000 people are believed to be living in the bush with a very poor diet and difficult access to health care, some of them for more than one year. As the northwest is the breadbasket of CAR, the disruption of production in these regions has also had an impact on the rest of the country (WFP, 05/12/06)

There are few humanitarian agencies currently on the ground and their access to the population is increasingly difficult (MSF, 11/06). However, there is more and more interest in CAR with US OFDA having recently placed CAR on its list of emergencies and ECHO having sent an assessment mission (MMCAR, 11/06). Although the displaced people have received some food, health and non-food items assistance, there are urgent needs for further assistance. A CAP requiring US$ 49.5 m for 2007 has been launched recently (CAP, 2007). United Nations Humanitarian Air Services were set up in November 2006 to run daily flights to destination across the country (OCHA, 16/11/06).

According to the Multidisciplinary Mission to CAR, the crisis has multiple facets (MMCAR, 11/06). The state is weak and almost absent outside the capital, Bangui. The country is also acutely underdeveloped and social indicators, including life expectancy, have dropped for years. This together with insecurity has led to a humanitarian crisis with one million people, a quarter of the population, affected. However, the lack of reliable data makes a thorough assessment of the humanitarian situation difficult.

Despite this bleak picture, a nutrition survey conducted in Bangui in January 2006 showed an acceptable nutrition situation: acute malnutrition was 4.7% (2.9-7.2), including 0.7% (0.1-2.1) severe malnutrition (ACF-F, 01/06). Mortality rates were also under control: U5MR = 0.98 deaths/10,000/day and CMR = 0.52 deaths/10,000/day.

There are also 50,000 refugees from CAR in Chad and a further 20,000 who have fled recently to Cameroon (MMCAR, 11/06; Reuters, 07/12/06).

Recommendations

Some of the recommendations from the Multidisciplinary Mission in CAR

- Improve in-country coordination and inclusiveness
- Increase UN agencies' in-country emergency programming skills/response capacity
- Increase the UN's presence in the most affected areas
- Increase the presence of NGOs
- Ensure adequate linkages between emergency, recovery and development

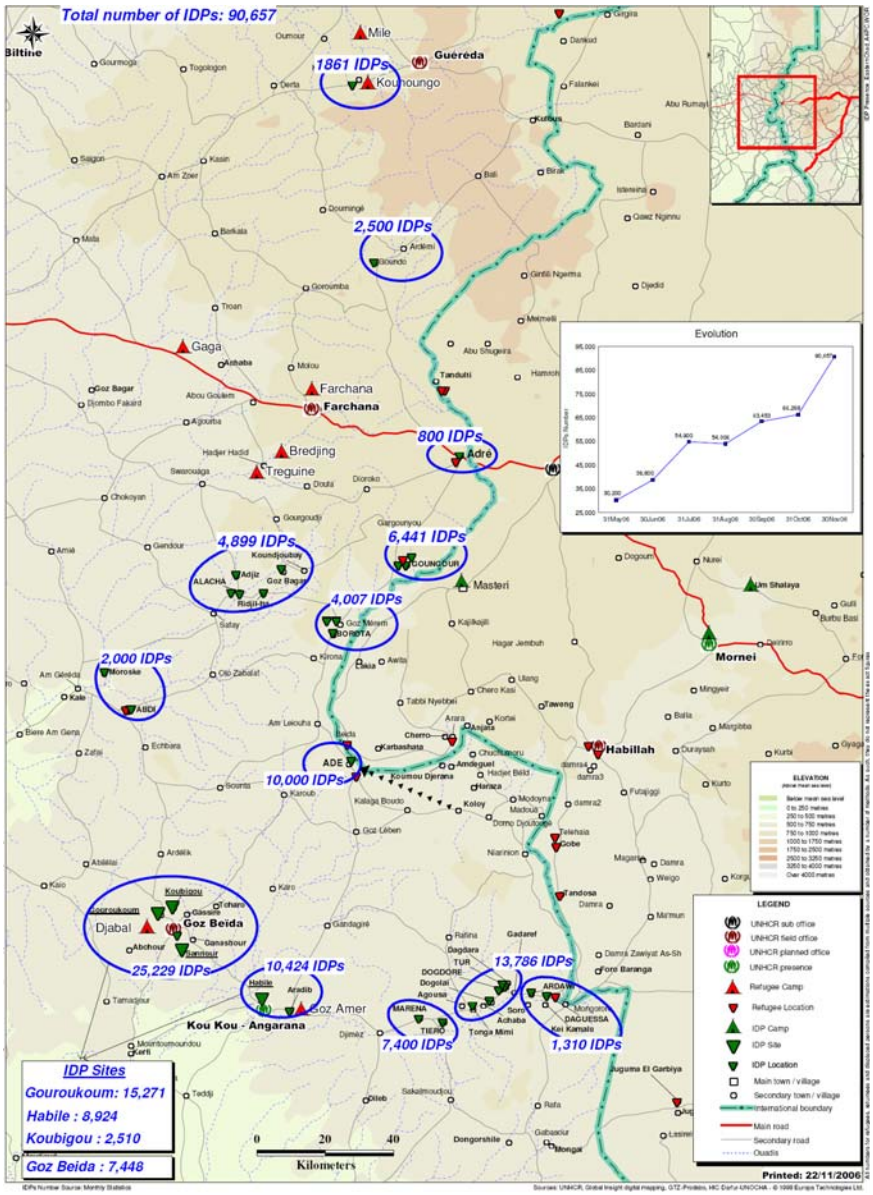
Chad

The security situation has seriously deteriorated in Eastern Chad since the beginning of the dry season. Renewed attacks by rebels on villages, after a relative calm during the rainy season, have led to the displacement of thousands of people. As of November 2006, it was estimated that about 90,000 people were displaced (see map). Due to insecurity, most humanitarian workers have pulled out from Bahai, Irida and Gereda, making delivery of assistance to the six refugee camps located there very difficult (UNHCR, 08/12/06). However,

as of beginning of December, refugee camps had adequate supplies for one month. Despite difficult conditions, food and non-food aid has also been provided to the displaced populations, who are thought to be highly vulnerable. As a result of the violence, it has been reported that 30,000 people from Chad and Central African Republic have recently fled to Cameroon where UNHCR is to open an office (Reuters, 07/12/06).

Nutrition surveys conducted in the refugee camps between June and September 2006, before the renewed violence, showed average nutrition situations, with a marked improvement compared to previous surveys. Acute malnutrition ranged from 4.7% in Kounoungou to 12.0% in Gaga (UNHCR, 11/06). Further details are not available as NICS has not received the reports of the surveys. The improvement might be partly explained by a sustained full general ration, improvement in health and nutrition activities in some of the camps, increase in quantity and quality of water available, and engagement in agricultural activities for some of the refugees.

IDPs presence in Eastern Chad as of end November 2006 (UNHCR, 11/06)



Democratic Republic of Congo

Joseph Kabila is the first democratically elected President in DRC for over 40 years (DFID, 06/12/06). He won the second round of the elections, which were regarded as largely credible and transparent according to international and national observer missions, by 58% of the vote against 42% for his challenger Jean-Pierre Memba.

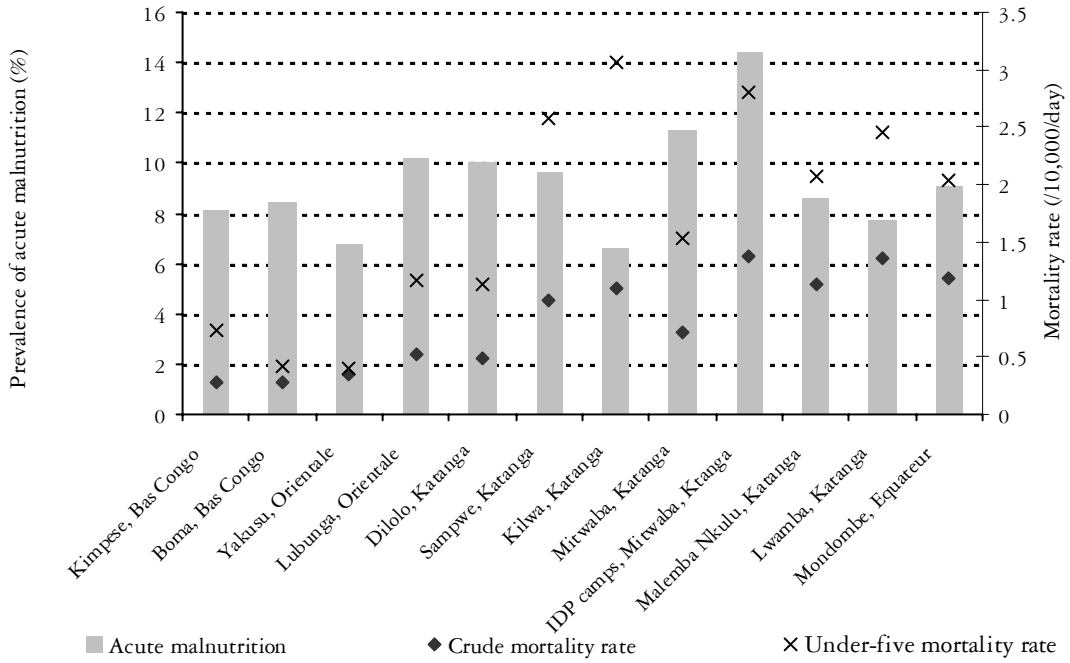
Security conditions have improved in parts of DRC such as Ituri and Katanga (OCHA, 24/11/06) although new fighting erupted in North Kivu (IRIN, 06/12/06). The number of displaced people was estimated at 1,075,300 as of October 2006, a significant decrease compared to 2005 and 2004 when it was 1,624,000 and 2,127,000, respectively (UNHCR, 08/11/06). The number of displaced people especially decreased in Kasai Occidental, Maniema and Katanga provinces. About 80,000 refugees are estimated to have returned in DRC this year; 410,000 remained out of their country (UNHCR, 28/12/06).

The overall living conditions in DRC remain difficult for most of the population with limited agricultural and economic opportunities and a poor public health system (ACF, 17/11/06).

Several nutrition surveys conducted in Bas Congo, Katanga, Orientale and Equateur provinces between June and September 2006 showed average to precarious situations (figure 14) (AAH-US/UNICEF, 06/06-09/06). The worst situation was seen in Mitwaba displaced camps and Mitwaba health zone, Katanga, which have experienced several years of insecurity. Prevalence of severe malnutrition was especially worrying: 4.9% (3.2-7.4) and 6.5% (4.7-8.9) in Mitwaba health zone and displaced camps respectively. This was probably due to a high number of oedematous children.

In Kilwa, Katanga, where a nutrition survey conducted in displaced camps in March 2006 showed an alarming situation (see NICS 9), the nutrition situation of non-displaced population was average, in July 2006. The security conditions had improved a lot in the area compared to March. However, the survey recorded a significant percentage of oedematous children, and mortality rates were above alert thresholds.

Figure XIV Prevalence of acute malnutrition, DRC
(AAH-US/UNICEF, 06/06-09/06)



In Malemba Nkulu and Lwanba health zones, Katanga, the prevalence of acute malnutrition has slightly increased in 2006 compared to the same period in 2005 (see NICS 8), although confidence intervals of the 2 surveys overlap. Mortality rates ranged from under control in six areas, to above alert thresholds in the other six areas.

Overall

Despite an improvement in security, livelihoods and nutritional status remain precarious (category II) in DRC.

Uganda

Due to hostilities almost ceasing between the Lord's Resistance Army (LRA) and the government of Uganda since August 2006, security conditions in Northern Uganda have continued to improve. Humanitarian access is easier and plans to help the IDPs to return are being put in place (OCHA, 15/11/06). Some displaced households have already begun to go back home, especially in Lira district. However, the suspension of the peace talks by the LRA on 30 November makes the future uncertain (IRIN, 30/11/06). Moreover, living conditions in the camps and in areas of return are still unacceptable (RI, 21/11/06).

The situation has worsened in Karamoja due to poor crop production and the growing insecurity due to disarmament of Karamojong warriors (FEWS, 20/11/06). Food aid will be required for 500,000 people.

Asia

Afghanistan

In addition to the drought that resulted in a 50 to 80% percent loss of the rain fed harvest and caused water shortages in the north of the country, floods have damaged homes and agricultural land throughout the country, especially in the north-west that was already affected by the drought (Fews, 11/06). Crop losses and water shortages are the most acute in Badghis, Faryab, Jwazjan, Sari Pul and Samangan provinces. Deterioration of security in southern Afghanistan has led to the displacement of an additional 20,000 people. WFP has

distributed food to the population affected by the floods and the drought as well as to 81,000 people displaced by insecurity in the southern provinces of Kandahar, Helmand and Uruzgan (BAAG, 30/11/06).

According to several reports, the fate of the Afghan population remains bleak (AAH, 10/06; AREU, 08/06).

Abbreviations and acronyms

AAH-US	Action Against Hunger USA
ACF-F	Action Contre la Faim France
AFP	Agence France Presse
AREU	Afghanistan Research and Evaluation Unit
BAAG	British Agencies Aghanistan Group
BMI	Body Mass Index
CAP	Consolidated Appeals Process
CMR	Crude Mortality Rate
< 5 MR	Under-five Mortality Rate
DFID	Department for International Development, United Kingdom
ENCU	Emergency Nutrition Coordination Unit
FEWS	Famine Early Warning Systems Network
FSAU	Food Security Analysis Unit for Somalia
GoE	Government of Ethiopia
IDP	Internally Displaced Person
IRIN	International Regional Information Network
MOH	Ministry of Health
MSF-B	Médecins sans frontières - Belgique
MUAC	Mid-upper arm circumference
NCS	National Catholic Secretariat
NGO	Non-governmental Organisation
OCHA	Office for the Co-ordination of Humanitarian Assistance
RI	Refugees International
UNCT	United Nations Country Team
UNHCR	United Nations High Commission on Refugees
UNICEF	United Nations International Children's Emergency Fund
WFP	World Food Programme
WHO	World Health Organisation
WV	World Vision

References

Greater Horn of Africa

Floods

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ICRC	22/11/06	Emergency aid more than 300,000 flood victims in southern Somalia
IRIN	22/11/06	Horn of Africa: Agencies step up relief for flood victims
IRIN	24/11/06	Political tensions could hinder flood relief efforts, says UN
IRIN	28/11/06	Somalia: Floods displace thousands more in Hiiran region
MSF	22/11/06	Flooding increases humanitarian needs in Somalia
OCHA	22/11/06	Kenya floods - OCHA situation report No 2
OCHA	24/11/06	Somalia: Floods OCHA situation report No 7
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ACF-F	08/06	Nutritional anthropometric survey, children 6 to 59 months, Bentiu, Rob Kona and Nyaldu, Unity state, Sudan
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ACF-F	10/06	Nutritional anthropometric and retrospective mortality survey, chil dren 6 to 59 months, Nyala town and IDP camps, South Darfur state, Sudan
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Fews	11/06	Southern Sudan: Food security update
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West Africa

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Chad

Reuters	07/12/06	CAR, Chad refugees spill into east Cameroon– UNHCR
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UNHCR	08/12/06	Chad: Situation remains volatile, relocation continues

DRC

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AAH-US	07/06	Rapport d'enquête nutritionnelle anthropométrique, zone de santé de Kilwa, province de Katanga, République Démocratique du Congo
AAH-US	07/06	Rapport d'enquête nutritionnelle anthropométrique, zone de santé de Sampwe, province de Katanga, République Démocratique du Congo
AAH-US	07/06	Rapport d'enquête nutritionnelle anthropométrique, zone de santé de Kimpese, province de Bas Congo, République Démocratique du Congo
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AAH-US	08/06	Rapport d'enquête nutritionnelle anthropométrique, zone de santé de Malemba Nkulu et Lwamba, province de Katanga, République Dé mocratique du Congo
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AAH-US	09/06	Rapport d'enquête nutritionnelle anthropométrique, zone de santé de Yarusu, province Orientale, République Démocratique du Congo
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UNHCR	08/11/06	Situation des déplacés en RDC de 2004 à 2006. Distribution géographique et tendances (carte)
UNHCR	28/11/06	La RDC, la Zambie et l'UNHCR signent un accord sur le retour des réfugiés congolais

Uganda

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IRIN	30/11/06	Uganda: Talks hit fresh snag amid rebel protest
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Asia

Afghanistan

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AREU	08/06	Urban livelihoods in Afghanistan
BAAG	30/11/06	BAAG Afghanistan monthly review Nov 2006
Fews	11/06	Afghanistan food security update

Results of surveys

Survey Area	Date	Population	Estimated Population Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI)[§]		Severe Acute Malnutrition** (%) (95% CI)[§]		Oedema (%)
GREATER HORN OF AFRICA									
ETHIOPIA									
SNNPR									
Offa district, Wolayita zone	Jun-06	Residents	160,510	Concern[1]	3.6	2.3-4.8	0.2	0.0-0.6	0.2
Damot Woyde district, Wolayita zone	Jun-06	Residents	217,080	Concern[1]	3.8	2.5-5.2	0.1	0.0-0.4	0.1
Coffee Livelihood zone, Dale & Aleta Wondo districts, Sidama zone	Jun-06	Residents	-	ACF-F[1]	16.5	12.5-20.5	3.1	1.4-4.8	1.0
Maize Livelihood zone, Dale & Aleta Wondo districts, Sidama zone	Aug-06	Residents	-	ACF-F[1]	7.6	5.5-10.0	1.7	0.9-2.6	1.3
Shashego district, Hadiya zone	Jul-06	Residents	118.380	MSF-CH[1]	7.7	5.7-9.6	0.5	0.2-1.2	0.0
Dalocha district, Silti zone	Jul-06	Residents	148,110	SC-US[1]	5.7	4.2-7.2	0.3	0.0-0.7	0.1
OROMIA REGION									
Deder district, East Hararghe zone	Jul-06	Residents	243,520	GOAL[1]	9.5	7.1-12.5	2.2	1.1-4.0	1.2
Meta district, East Haraghe zone	Jul-06	Residents	238,980	GOAL[1]	9.3	7.0-12.4	2.0	1.0-3.7	1.0
Daro Lebu district, West Haraghe zone	Aug-06	Residents	166,190	GOAL[1]	6.5	5.1-8.2	0.6	0.3-1.3	0.4
AMHARA REGION									
Dessie Zuria district, South Wollo zone	Aug-06	Residents	249,780	Concern[1]	12.4	9.6-15.1	1.2	0.4-2.0	0.3
Kalu district, South Wollo zone	Aug-06	Residents	196,510	Concern[1]	10.2	7.9-12.5	0.4	0.0-0.8	0.0
SOMALI REGION									
Elkere & Hargelle districts, Afder zone	Aug-06	Residents	-	SC-UK[1]	10.5	8.1-12.8	0.5	0.1-1.0	0.0
Dolo Ado, Dolo Bay & Bare districts, Afder & Liben zones	Sept-06	Residents	-	SC-UK[1]	14.5	11.8-17.2	0.7	0.1-1.3	0.0
REFUGEE CAMPS									
Bonga, Gambella region	Jul-06	Refugees	17,505	UNHCR/joint	8.6	7.0-10.2	0.6	0.0-1.3	0
Pugnido, Gambella region	Aug-06	Refugees	-	UNHCR/joint	9.3	6.2-12.5	1.1	0.6-1.7	0
Pugnido (Anyuak), Gambella region	Aug-06	Refugees	-	UNHCR/joint	8.7	-	0.6	-	0
Dimma, Gambella region	May/ Aug-06	Refugees	-	UNHCR/joint	13.9	10.1-17.6	1.3	0.1-2.7	-
Sherkole, Beneshangul- Gumuz region	Jun-06	Refugees	15,605	UNHCR/joint	10.2	8.8-11.5	0.6	0.0-1.2	0.1
Yarenja, Beneshangul-Gumuz region	Jun-06	Refugees	3,785	UNHCR/joint	11.8	-	1.2	-	0
Kebribeyah, Somali region	Jun-06	Refugees	16,070	UNHCR/joint	10.5	6.6-14.4	0.5	0.2-1.1	0
Shimelba, Tigray region	May-06	Refugees	11,500	UNHCR/joint	14.3	-	1.6	-	0

*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema
** Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema
[§]95% Confidence Interval; not mentioned if not available from the survey report
[1] From ENCU quarterly bulletin (ENCU, 30/06/06). The details of the methodology are not reported but the methodology is in accordance with the ENCU specifications for nutritional surveys, which are in line with international standards.

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Measles immunisation coverage (%)[#]		Assessment of micronutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI)[§]		Under 5 Mortality (/10,000/day) (95% CI)[§]	
Proved by card	Card + history							
18.6	-	-	79.8	-	0.14	0.03-0.31	0.47	0.35-1.28
15.2	-	-	69.6	-	0.39	0.11-0.68	0.69	0.24-1.62
11.5	94.3	-	89.0	-	0.2	0.0-0.43	0.19	0.0-0.55
8.5	71.2	-	62.7	-	0.16	0.0-0.48	0.57	0.0-1.69
-	71.8	-	72.5	-	0.45	0.25-0.64	0.97	0.29-1.65
9.3	87.8	-	94.7	-	0.05	0.03-0.09	0.02	0.01-0.06
5.4	75.1	-	83.9	-	0.36	0.17-0.66	0.58	0.14-1.67
19.5	78.4	-	91.3	-	0.2	0.06-0.47	0.38	0.09-1.48
9.5	51.2	-	60.1	-	0.16		0.46	
24.7	84.7	-	90.6	-	0.31	0.11-0.52	0.27	0.0-0.89
50.1	92.1	-	96.6	-	0.49	0.17-0.81	-	
1.3	75.1	-	42.5	-	0.62	0.37-0.87	1.79	0.82-2.75
1.3	57.8	-	49.0	-	0.62	0.40-0.90	2.5	1.6-3.4
87.5	94.8	-	94.7	-	0.44	0.17-0.72	0.93	0.18-1.68
-	89.7	-	-		0.31	0.14-0.47	0.43	0.18-0.67
-	76.2	-	-	-	0.8	-	1.9	-
-	91.8	-	-	-	0.2		0.67	
19.1	88.7	-	-	-	0.27	0.05-0.49	0.90	0.2-1.6
93.9	98.4	-	-	-	0.54	-	1.20	-
-	91.2	-	-	-	0.07	0.0-0.16	0.26	0.0-0.7
-	97.5	-	-	-	0.07	-	0.42	-

[#] Measles vaccination coverage for children aged 9-59 months

Survey Area	Date	Population	Estimated Population Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI)[§]	Severe Acute Malnutrition**(%) (95% CI)[§]	Oedema (%)
KENYA							
MANDERA DISTRICT							
Wargadud, Lafey, El Wak, Kotulo and Shimbir Fatuma divisions, urban and peri-urban	Mar-06	Residents	39,090	MSF-B	15.3 12.6-18.1	1.0 0.4-1.7	-
TURKANA DISTRICT							
Kainuk & Katilu divisions	May-06	Residents	-	CCF/joint	21.2 17.3-25.1	3.1 1.5-4.8	1.6
Turkwell & Loima divisions	May-06	Residents	-	CCF/joint	23.6 19.6-27.7	4.3 2.4-6.3	0.8
Kaaleng, Kibish, Lapur & Lokitaung divisions	May-06	Residents	-	Oxfam/joint	24.0 20.0-27.9	3.4 1.7-5.0	0.4
Kakuma, Lokicchogio & Oropori divisions	May-06	Residents	-	Oxfam/joint	26.6 22.4-30.7	4.7 2.7-6.7	1.2
Central, Kerio & Kalokol divisions	May-06	Residents	-	WV	26.6 22.4-30.7	5.2 3.1-7.2	1.1
Lokichar, Lokori & Lomelo divisions	May-06	Residents	-	WV	25.9 21.7-30.0	3.3 1.6-5.0	0.9
REFUGEE CAMPS							
Dadaab refugee camps	Jun-06	Refugees	129,130	GTZ	22.2 19.9-24.9	4.9 3.7-6.4	-
SOMALIA							
Sool plateau, Sool & Sanag regions	Aug-06	Residents	45,845	FSAU/ UNICEF	9.0 7.3-11.0	0.7 0.3-1.6	0
Berdale district, Bay region	Sep-06	Residents	129,730	FSAU/SRCS/ UNICEF	11.2 9.5-13.6	2.6 1.8-3.9	0.4
SUDAN							
DARFUR							
Emergency affected populations, Greater Darfur	Sept-06	Displaced/ Residents	3.74 M	Joint	13.1 11.2-15.0	2.0 1.4-2.6	-
Emergency affected populations, North Darfur	Sept-06	Residents/ Displaced	-	Joint	16.0 12.3-19.8	2.5 1.3-3.7	-
Emergency affected populations, West Darfur	Sept-06	Displaced/ Residents	-	Joint	10.5 8.1-13.0	1.4 0.6-2.3	-
Emergency affected populations, South Darfur	Sept-06	Displaced/ Residents	-	Joint	12.6 8.7-16.6	1.9 0.8-2.9	-
Kabkabiya town, North Darfur	Oct-06	Displaced/ Residents	69,900	ACF-F	25.4 21.6-29.7	1.8 0.8-3.6	0
Kalma IDP camp, South Darfur	Oct-06	Displaced	91,235	ACF-F	22.3 18.6-26.4	2.2 1.1-4.1	0
Nyala town and IDP camps, South Darfur	Oct-06	Residents/ Displaced	-	ACF-F	18.9 15.5-22.9	1.0 0.4-2.6	0
RED SEA STATE							
Sinkat locality	Jun/Jul-06	Residents	171,635	MoH/joint	30.8 26.8-35.2	4.9 3.2-7.3	0.6
Port Sudan locality (excluding Port Sudan town)	Jun/Jul-06	Residents	64,715	MoH/joint	19.7 16.7-22.7	3.1 1.8-5.2	0
Halaib locality	Jun/Jul-06	Residents	67,060	MoH/joint	29.5 24.4-33.9	6.6 4.6-9.4	0.1
Tokar locality	Jun/Jul-06	Residents	118,870	MoH/joint	27.3 23.2-31.4	6.4 4.2-8.8	0.1

*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema (NCHS/WHO references)
** Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema (NCHS/WHO references)
[§]95% Confidence Interval; not mentioned if not available from the survey report

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Measles immunisation coverage (%)[#]		Assessment of micronutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI)[§]		Under 5 Mortality (/10,000/day) (95% CI)[§]	
Proved by card	Card + history							
21.9	87.0	-	-	-	0.3	0.1-0.5	0.8	0.2-1.2
60.2	84.4	-	-	MUAC < 210 mm[1]: 2.7% MUAC < 230 mm[1]: 24.8%	-		-	
68.7	92.0	-	-	MUAC < 210 mm[1]: 5.2% MUAC < 230 mm[1]: 29.8%	-		-	
60.9	78.6	-	-	MUAC < 210 mm[1]: 10.9% MUAC < 230 mm[1]: 47.9%	-		-	
47.7	78.4	-	-	MUAC < 210 mm[1]: 4.8% MUAC < 230 mm[1]: 24.9%	-		-	
68.8	89.2	-	-	MUAC < 210 mm[1]: 11.5% MUAC < 230 mm[1]: 45.6%	-		-	
65.7	87.5	-	-	MUAC < 210 mm[1]: 10.1% MUAC < 230 mm[1]: 44.3%	-		-	
49.7	97.7	See p 13	-	-	0.33		1.2	
-	75.7	-	54.0	-	0.54	0.40-0.69	1.45	0.89-2.02
-	80.1	-	65.7	-	1.28	0.96-1.61	1.46	0.75-2.17
-	66.9	-	37.7	-	-		-	
-	66.3	-	44.4	-	-		-	
-	65.0	-	34.2	-	-		-	
-	68.3	-	33.3	-	-		-	
30.4	60.4	-	-	-	0.69		1.21	
12.7	88.5	-	-	-	1.2		2.2	
31.8	88.6	-	-	-	0.8		1.6	
27.2	64.1	-	83	BMI < 16: 9.0% BMI < 17: 21.5%	0.7		1.18	
28.5	52.0	-	63.2	BMI < 16: 7.8% BMI < 17: 17.7%	-		0.43	
29	67.1	-	89.2	BMI < 16: 8.3% BMI < 17: 18.9%	0.8		1.0	
41.3	71.3	-	84.9	BMI < 16: 6.3% BMI < 17: 11.1%	0.41		1.06	

[#] Measles vaccination coverage for children aged 9-59 months
[1] Pregnant and lactating women aged 15-49 years

Survey Area	Date	Population	Estimated Population Number	Survey Conducted by	Acute Malnutrition* (%) (95% CI)[§]		Severe Acute Malnutrition** (%) (95% CI)[§]		Oedema (%)
UNITY STATE									
Bentiu town	Aug-06	Residents	37,090	ACF-F	20.1	15.3-25.9	2.3	0.8-5.3	-
Rob Kona town	Aug-06	Residents	30,700	ACF-F	23.8	18.7-29.9	2.8	1.2-6.0	-
Nhialdu area	Aug-06	Residents	7,855	ACF-F	18.9	-	1.7	-	-
REFUGEE CAMPS									
Girba	Sept-06	Refugees	9,134	UNHCR/ joint	15.4	-	2.3	-	-
Kilo 26	Sept-06	Refugees	8,915	UNHCR/ joint	15.3	-	1.6	0.9-2.7	-
Wad Sherifey	Sept-06	Refugees	33,410	UNHCR/ joint	21.6	-	2.8	-	-
Umgargour	Sept-06	Refugees	9,755	UNHCR/ joint	16.0	-	1.8	1.1-2.8	-
Fau 5	Sept-06	Refugees	1,375	UNHCR/ joint	17.6	-	4.0		-
Sharagarabs	Sept-06	Refugees	20,315	UNHCR/ joint	13.6	-	1.9	1.2-2.9	-
Suki	Sept-06	Refugees	3,080	UNHCR/ joint	18.2	-	5.2	-	-
Ubuda/Ali	Sept-06	Refugees	3,895	UNHCR/ joint	11.8	-	2.9	-	-
WEST AFRICA									
GHANA									
Bududuram refugee camps	May-06	Refugees	39,000	NCS/ UNHCR	11.3	9.4-13.6	0.7	0.3-1.6	-
NIGER									
Aguie health district, Maradi region	Sept-06	Residents	273,470	MSF-B	8.2	6.0-10.4	0.8	0.2-1.3	0.2
CENTRAL AFRICA									
DEMOCRATIC REPUBLIC OF CONGO									
BAS CONGO PROVINCE									
Boma health zone	Jul-06	Residents	-	AAH-US	8.4	6.1-11.4	0.8	0.2-2.3	-
Kimpese health zone	Jul-06	Residents	-	AAH-US	8.1	5.8-11.0	1.3	0.5-2.9	-
KATANGA PROVINCE									
Dilolo health zone	Aug-06	Residents	137,915	AAH-US	10.1	7.6-13.4	2.2	1.1-4.2	-
Sampwe health zone	Jul-06	Residents	136,090	AAH-US	9.6	7.1-12.8	3.9	2.3-6.2	1.8
Kilwa health zone	Jul-06	Residents	240,478	AAH-US	6.6	4.5-9.4	2.7	1.5-4.8	2.3
Malemba Nkulu	Aug-06	Residents	-	AAH-US	8.6	7.7-10.7	1.2	0.4-2.8	-
Lwamba health zone	Aug-06	Residents	-	AAH-US	7.7	5.5-10.7	0.6	0.1-2.0	-
Miwaba health zone	Jul-06	Residents	-	AAH-US	11.3	8.6-14.7	4.9	3.2-7.4	-
Mitwaba IDP camps	Jul-06	Residents	-	AAH-US	14.4	11.8-17.6	6.5	4.7-8.9	-
EQUATEUR PROVINCE									
Mondombe health zone	Jun-06	Residents	99,470	AAH-US	9.1	6.7-12.3	2.6	1.4-4.6	-
ORIENTALE PROVINCE									
Yarusu health zone	Sept-06	Residents	116,880	AAH-US	6.8	4.8-9.7	1.5	0.6-3.2	-
Lubunga health zone	Sept-06	Residents	130,025	AAH-US	10.2	7.6-13.4	2.1	1.1-4.0	-

*Acute malnutrition (children aged 6-59 months): weight-height < - 2 Z-scores and/or oedema (NCHS/WHO references)
** Severe acute malnutrition (children aged 6-59 months): weight-height < - 3 Z-scores and/or oedema (NCHS/WHO references)
[§]95% Confidence Interval; not mentioned if not available from the survey report
NOTE: see at the end of the report for guidance in interpretation of indicators

Continued...

Measles immunisation coverage (%)[#]		Assessment of Micro-nutrient deficiencies	Vitamin A distribution coverage, within the past 6 months	Women's anthropometric status (%)	Crude Mortality (/10,000/day) (95% CI)[§]		Under 5 Mortality (/10,000/day) (95% CI)[§]	
Proved by card	Card + history							
54.5	87.4	-	-	-	0.05		0.13	
52.2	78.2	-	-	-	0.18		0.72	
36.7	65.0	-	-	-	0.05		0.28	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
-	-	-	-	-	-		-	
50.1	83.3	-	95.5	-	0.19		0.61	
18.3	71.8	-	-	-	0.5	0.3-0.7	1.3	0.6-2.1
35.1	90.5	-	99.5	-	0.28	0.15-0.42	0.42	0.03-0.81
38.6	89.8	-	94.1	-	0.27	0.13-0.41	0.73	0.24-1.23
5.8	80.4	-	82.3	-	0.48	0.27-0.7	1.13	0.37-1.89
29.2	66.2	-	88.6	-	0.99	0.56-1.43	2.57	1.44-3.71
2.9	58.9	-	75.6	-	1.09	0.74-1.45	3.07	1.89-4.26
5.5	51.2	-	82.2		1.14	0.6-1.69	2.7	0.6-5.8
27.7	39.3	-	84.6	-	1.36	0.0-2.8	2.46	1.43-3.54
49.2	84.2	-	88.3	-	0.71	0.46-0.97	1.53	0.64-2.43
15.8	59.2	-	78.6	-	1.38	0.97-1.78	2.81	1.88-3.74
6.5	79.5	-	96.9	-	1.18	0.62-1.73	2.03	0.97-3.09
47.3	82.5	-	89.5	-	0.34	0.13-0.55	0.40	0.00-0.83
10.7	59.4	-	81.8	-	0.52	0.26-0.77	1.16	0.37-1.94

[#] Measles vaccination coverage for children aged 9-59 months

Survey methodology

The Greater Horn region

Ethiopia

Refugee camps

The surveys were conducted by UNHCR/ WFP/ARRA from May to August 2006. A two-stage cluster sampling methodology of 30 clusters was used in each camp, except in Shimelba, Pugnido (Anyuak) and Yarenga where exhaustive surveys were conducted. The surveys also estimated measles vaccination coverage and mortality rates over the previous 90 to 150 days depending on the camp.

Kenya

Wargadud, Lafey, El Wak, Kotulo and Shimbir Fatuma divisions, Madera district

The survey was conducted by MSF-B in Oct 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 914 children between 6-59 months. The survey also estimated measles vaccination coverage and mortality rates over the previous 75 days

Northern and Western areas of Mandera divisions

The surveys were conducted by CCF, OXFAM and W, depending on the area, in May 2006. Two-stage cluster sampling methodologies of 30 clusters were used. The surveys also estimated measles vaccination coverage and various food security and public health indicators.

Dadaab camps

The survey was conducted by GTZ/UNHCR in June 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 1146 children 6-59 month olds. The survey also estimated anaemia measles vaccination coverage, retrospective mortality rates over the previous 3 months and child's feeding practices.

Somalia

Sool plateau

A random-sampled nutrition survey was conducted by FSAU/joint in August 2006. A two-stage 30-by-30 cluster sampling methodology was used to measure 935 children between 6-59 months. The survey also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates and various food security and public health indicators.

Berdale district, Bay region

A random-sampled nutrition survey was conducted by FSAU/joint in September 2006. A two-stage 30 cluster sampling methodology was used to measure 984 children between 6-59 months. The survey also estimated measles vaccination coverage and crude and under-five mortality rates and various food security and public health indicators.

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Sudan

Affected populations, Greater Darfur

The survey was conducted in September 2006. Thirty clusters of 25 households were surveyed in North, West and South Darfur. The survey also estimated measles vaccination and vitamin A distribution coverage, crude and under-five mortality rates and various food security and public health indicators.

Kebkabiya town, North Darfur

The survey was conducted by ACF-F in October 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 960 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rate over three months prior to the survey.

Kalma IDP camp, South Darfur

The survey was conducted by ACF-F in October2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 960 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rate over three months prior to the survey.

Nyala town and IDP camps, South Darfur

The survey was conducted by ACF-F in October 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 960 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rate over three months prior to the survey.

Bentiu , Rob Kona and Nhialdiu, Unity State

The surveys were conducted by ACF-F in August 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 958 & 959 children between 6-59 months in Bentiu & Rob Kona, respectively. An exhaustive survey was conducted in Nhialdiu and surrounding villages. 442 children were measured. The surveys also estimated measles vaccination coverage and retrospective mortality rate over three months prior to the survey.

Sinkat, Port Sudan rural, Halaib and Tokar localities, Red Sea state

The surveys were conducted in June-July 2006. A two-stage 30-by-30 cluster sampling methodology was used. The surveys also estimated measles vaccination coverage, retrospective mortality rate over three months prior to the survey and various food security and public health indicators.

Refugee camps

The surveys were conducted in September 2006. A two-stage 30-by-30 cluster sampling methodology was used in Kilo 26, Sharabad I,II and II, Wad Sherifey and Umgargour. Exhaustive surveys were conducted in Suki, Fau 5, Abuda and Girba camps.

West Africa

Ghana

The survey was conducted by NCS/UNHCR in May 2006. A two-stage cluster sampling methodology of 30 clusters of 30 households was used. The survey also estimated measles vaccination coverage and retrospective mortality rates.

Niger

Aguie district, Maradi region

The survey was conducted by MSF-S in September 2006. A two-stage cluster sampling methodology of 30 clusters was used to measure 326 children between 6-59 months. The survey also estimated measles vaccination coverage and retrospective mortality rates.

Central Africa

Democratic Republic of Congo

Eleven health zones in Equateur, Bas Congo, Katanga and Orientale provinces

The surveys were conducted by AAH-US between June and September 2006. A two-stage 30 x 30 cluster sampling methodology were used in each survey to measure children between 6-59 months. In the survey in IDP camps, a systematic sampling was used. The surveys also estimated measles vaccination and vitamin A distribution coverage and retrospective mortality rates.

Indicators and risk categories

The methodology and analysis of nutrition and mortality surveys are checked for compliance with internationally agreed standards (SMART, 2002; MSF, 2002; ACF, 2002).
Most of the surveys included in the Reports on Nutrition Information in Crisis Situations are random sampled surveys, which are representative of the population of the targeted area. The Reports may also include results of rapid nutrition assessments, which are not representative of the target population but rather give a rough idea of the nutrition situation. In that case, the limitations of this type of assessments are mentioned.
Most of the nutrition survey results included in the Reports target children between 6-59 months but may also include information on other age groups, if available.
Detailed information on the methodology of the surveys which have been reported on in each issue, is to be found at the end of the publication.

Nutrition indicators in 6-59 month olds

Unless specified, the Reports on Nutrition Information in Crisis Situations use the following internationally agreed criteria:

. **Wasting**, defined as weigh-for-height index (w-h) < -2 Z-scores.
. **Severe wasting**, defined as weigh-for-height index < -3 Z-scores.
. **Oedematous malnutrition or kwashiorkor**, diagnosed as bilateral pitting oedema, usually on the upper surface of the feet. Oedematous malnutrition is always considered as severe malnutrition.
. **Acute malnutrition**, defined as the prevalence of wasting (w-h < -2 Z-scores) and/or oedema
. **Severe acute malnutrition**, defined as the prevalence of severe wasting (w-h < -3 Z-scores) and/or oedema.
. **Stunting** is usually not reported, but when it is, these definitions are used: stunting is defined as < - 2 Zscores height-for-age, severe stunting is defined < - 3 Zscores height-for-age.
. **Mid-Upper-Arm Circumference (MUAC)** is sometimes used to quickly assess nutrition situations. As there is no international agreement on MUAC cut-offs, the results are reported according to the cut-offs used in the survey.
. **Micro-nutrient deficiencies**
Micro-nutrient deficiencies are reported when data are available.

Nutrition indicators in adults

No international consensus on a definitive method or cut-off to assess adult under-nutrition has been reached (SCN, 2000). Different indicators, such as Body Mass Index (BMI, weight/height2), MUAC and oedema, as well as different cut-offs are used. When reporting on adult malnutrition, the Reports always mention indicators and cut-offs used by the agency providing the survey.

Mortality rates

In emergency situations, crude mortality rates and under-five mortality rates are usually expressed as number of deaths/10,000 people/day.

Interpretation of indicators

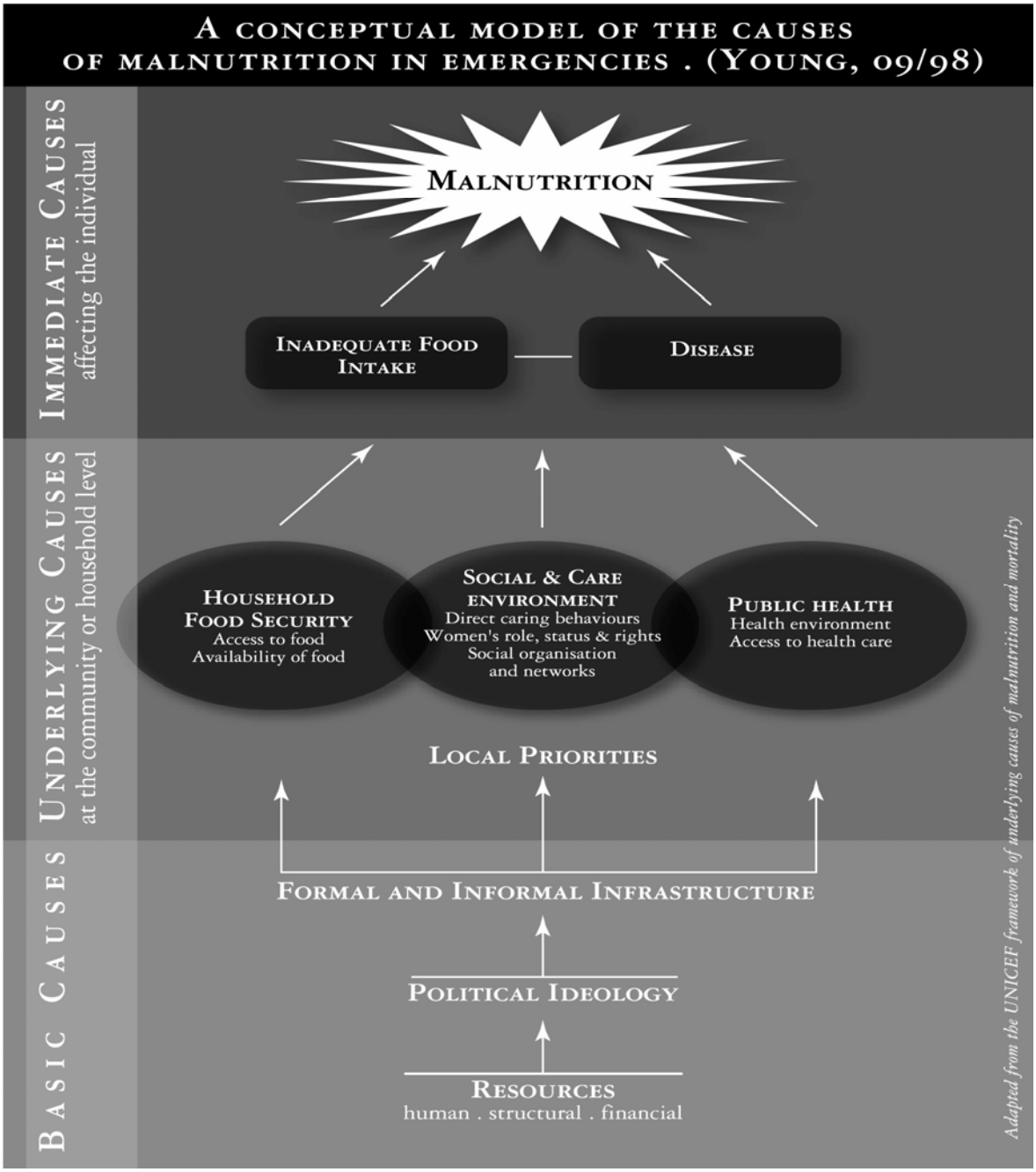
Prevalence of malnutrition and mortality rates are late indicators of a crisis. Low levels of malnutrition or mortality will not indicate if there is an impending crisis. Contextual analysis of health, hygiene, water availability, food security, and access to the populations, is key to interpret prevalence of malnutrition and mortality rates.
Thresholds have been proposed to guide interpretation of anthropometric and mortality results.
A prevalence of acute malnutrition between 5-8% indicates a worrying nutritional situation, and a prevalence greater than 10% corresponds to a serious nutrition situation (SCN, 1995). The Crude Mortality Rate and under-five mortality rate trigger levels for alert are set at 1/10,000/day and 2/10,000/day respectively. CMR and under-five mortality levels of 2/10,000/day and 4/10,000/day respectively indicate a severe situation (SCN, 1995).
Those thresholds have to be used with caution and in relation to contextual analysis. Trend analysis is also recommended to follow a situation: if nutrition and/or mortality indicators are deteriorating over time, even if not above threshold, this indicates a worsening situation.

Classification of situations

In the Reports, 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* are 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 an elevated nutritional risk.
• The risk of malnutrition among populations in *category V* is *not known*.

Nutrition causal analysis

The Reports on Nutrition Information in Crisis Situations have a strong public nutrition focus, which assumes that nutritional status is a result of a variety of inter-related physiological, socio-economic and public health factors (see figure). As far as possible, nutrition situations are interpreted in line with potential underlying determinants of malnutrition.



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NICS quarterly reports

The UN Standing Committee on Nutrition, which is the focal point for harmonizing nutrition policies in the UN system, issues these Reports on Nutrition Information in Crisis Situations with the intention of raising awareness and facilitating action. The Reports are designed to provide information over time on key outcome indicators from emergency- affected populations, play an advocacy role in bringing the plight of emergency affected populations to the attention of donors and humanitarian agencies, and to identify recurrent problems in international response capacity. The Reports on Nutrition Information in Crisis Situations are aimed to cover populations affected by a crisis, such as refugees, internally displaced populations and resident populations.

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.

Based on suggestions made by the working group and the results of a survey of the readers, the Reports on Nutrition Information in Crisis Situations are published every three months.

Information is obtained from a wide range of collaborating agencies, both UN and NGOs. The Reports on Nutrition Information in Crisis Situations are put together primarily from agency technical reports on nutrition, mortality rates, health and food security.

The Reports provide a brief summary on the background of a given situation, including who is involved, and what the general situation is. This is followed by details of the humanitarian situation, with a focus on public nutrition and mortality rates. The key point of the Reports is to interpret anthropometric data and to judge the various risks and threats to nutrition in both the long and short term.

This report was compiled by Dr Claudine Prudhon of the UNS/SCN Secretariat
Sarah Philpot assisted in the editing.
Design concept: Marie Arnaud Snakkers

The chairman of the UNS/SCN is Catherine Bertini

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If you have information to contribute to forthcoming reports, or would like to request back issues of the report, please contact:

Claudine Prudhon, NICS Coordinator,
UNS/Standing Committee on Nutrition
20, avenue Appia, 1211 Geneva 27, SWITZERLAND
Tel: +(41-22) 791.04.56, Fax: +(41-22) 798.88.91,
Email: scn@who.int
Web: http://www.unsystem.org/scn

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