Refugee Nutrition Information System (RNIS), No. 02 – Report on the Nutrition Situation of Refugee and Displaced Populations

Table of Contents

Refugee Nutrition Information System (RNIS), No. 02 – Report on the Nutrition Situation of F	<u>Refugee</u>
and Displaced Populations	1
HIGHLIGHTS	1
INTRODUCTION.	2
CURRENT SITUATION	3
1. Liberia, Sierra Leone, Guinea, Cote d'Ivoire (see Map 1).	3
2. Western Ethiopia/Eastern Ethiopia/Ogaden (see Map 2)	
3. East, Central and West Sudan (see Map 3)	6
4. Northern Kenya (see Map 4)	6
5. Southern Somalia (see Map 5)	6
6. Mozambicans (see Map 6)	7
7. Rwanda (see Map 7)	8
8. Angola (see Map 8)	8
9. Southern Sudan (see Map 9)	9
10. Northern Uganda (see Map 10)	
11. Shaba Region, Zaire (see Map 11)	
12. Western Sudan (see section 3)	11
13. South West Uganda (see Map 10)	
14. Zaire (refugees) (see Map 11)	
15. Burundi situation (Burundi, Rwanda, Tanzania, Zaire) (see Map 15)	
16. Mauritania/Senegal (see Map 16)	13
17. Djibouti (see Map 17)	13
Southern Iraq	_
FIGURE 1 REFUGEE AND DISPLACED POPULATIONS	16
MAPS	17

Refugee Nutrition Information System (RNIS), No. 02 – Report on the Nutrition Situation of Refugee and Displaced Populations

Geneva, 8 December 1993

SCN 94 Refugees (a2)

ACC/SCN REFUGEE

NUTRITION INFORMATION SYSTEM

UNITED NATIONS ADMINISTRATIVE COMMITTEE ON COORDINATION SUB-COMMITTEE ON NUTRITION



REFUGEE NUTRITION INFORMATION SYSTEM (RNIS)

No. 2 ACC/SCN, Geneva, 8 December 1993

Note: The numbering of situations evolved from earlier reports and has no implications for priority, etc.

The designations employed and the presentation of material in this report do not imply the expression of any opinion whatsoever on the part of the ACC/SCN or its UN member agencies concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The information in this report is compiled from many sources — UN member agencies of the SCN, NGOs, and others. While efforts are made to check accuracy where feasible, by their nature the data are often anecdotal and should not be taken as more than a compilation of information provided, in good faith, by those reporting to us. In particular the material should not be regarded as necessarily endorsed by, or reflecting the official positions of, the ACC/SCN and its UN member agencies.

This report was compiled by the ACC/SCN Secretariat, with the help of Dr Jeremy Shoham, London School of Hygiene and Tropical Medicine.

Funding support and commitments are gratefully acknowledged from NORAD, USAID, UNHCR, and WFP, as are inputs in kind from UNICEF and Save the Children Fund, UK.

HIGHLIGHTS

Civil wars in Angola, Burundi, Liberia, and Sudan, continue to cause widespread suffering, severe malnutrition, and high death rates. These situations account for over half of the 16 million people affected in the region. In total, over one million are conservatively estimated to be severely malnourished, and a further nearly two million at very high risk. Some key points are:

- In Angola, a number of the main towns are under siege, and humanitarian groups are only now getting access. Early information indicates that many thousands have died from wounds, disease and starvation; one survey showed a 20% prevalence of severe wasting among young children. In other parts, food distribution has improved greatly in the last few months; in October 1.24 million received a general ration. Much now depends on bringing an end to the fighting.
- The attempted coup d'etat in Burundi caused nearly one million people to flee, three quarters of them women and children, to Rwanda, Tanzania, and Zaire. The suddenness and magnitude of the Burundi refugee crisis has overwhelmed international capacity for early relief efforts. Recent reports from Rwanda, for example, indicate an emergency out of control

with crude mortality rates more than twenty times normal, related to overcrowding, poor sanitation, and inadequate food.

- The situation in Liberia continues to cause high rates of malnutrition and mortality in a number of pockets for example Upper Margibi County (NPLF area) where very high prevalences of severe wasting (34%) and mortality (17 times normal) are reported to continue. Nearly three million people are considered affected, equivalent to the entire population of Liberia. Food distributions have proceeded during October and November by various means, showing some progress in meeting nutritional needs of substantial parts of the population.
- In many parts of Sudan, and particularly in the south, the long–standing civil war continues to wreak havoc with the lives of more than three million people. Some emergency food supplies have succeeded, and improvement is reported in some camps; however measles outbreaks are also reported, likely to produce high death rates. Epidemic outbreaks of kala azar (leishmaniasis) have been confirmed.

Micronutrient deficiencies are reported in a number of camps, particularly with long-stay inhabitants. In the Ogaden, in Ethiopia, many cases of scurvy have been reported, as well as vitamin A deficiency and anaemia. Refugees in Djibouti are reported to be no longer suffering from beri-beri (due to lack of thiamine related to an unvaried diet of mainly rice), as the ration has now been improved. Pellagra, due to niacin deficiency, has been reported in Shaba Region, Zaire, as well as possible beri-beri.

Some improvement is reported elsewhere in Shaba, Zaire, and in general the situation the Mozambique continues to improve overall, although some areas have special problems — for example poisoning from ill–prepared cassava, diarrhoea and dysentery from sanitation problems. The Northern Kenyan and Somali situations are in a fragile but stable condition. The situation in much of the internally displaced population in Rwanda has substantially improved, following increased distribution of food rations.

Major factors causing nutrition and health crises during the last two months are conflicts and resulting inaccessibility of large population groups to relief. However, there are several other factors which have constrained effective interventions, and in some cases prevented improvement in nutrition which would otherwise have been possible. These factors include the following.

- Inadequate donor pledges for needed resources.
- Security problems inability to deliver food to ports, and logistical problems of moving supplies to distribution centres.
- Over- and under-registration of beneficiaries, leading to inappropriate quantities of rations.

INTRODUCTION

The UN ACC/SCN¹ (Sub–Committee on Nutrition), which is the focal point for harmonizing policies in nutrition in the UN system, decided to set up an information system to track the nutrition of refugees and displaced people. Distributing this information should help to bring action to improve the situation. This decision was made, 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 second of a regular series of reports, issued every two months, starting with the problems in Africa.

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: JBMASON@UNICC.BITNET.

Information is obtained from a wide range of collaborating agencies, both UN and NGO (see list at end). Increasingly, the information exchange will be in both directions: you tell us what is known, we compile and get reports back to you. The overall picture gives context and information which separate reports cannot provide by themselves. Those receiving our reports may be able to directly initiate action to deal with the problems being monitored. In due course, it may become possible to monitor responses, which would clearly provide additional important information.

The information available is mainly about nutrition, health, and survival in refugee and displaced populations. It is organized 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 below.

Wasting is defined as less than –2SDs, or sometimes 80%, wt/ht by NCHS standards, in children of 6–60 months. For guidance in interpretation, prevalences of around 5–10% are usual in African populations in non–drought periods. We have taken more than 20% prevalence of wasting as undoubtedly high and indicating a serious situation: more than 40% is a severe crisis. Evidence from refugee camps shows such levels to be associated high mortality rates (MMWR Vol.41 No. RR–13). **Severe** wasting can be defined as below –3SDs (or about 70%). Any significant prevalence of severe wasting is unusual and indicates heightened risk. Equivalent cut–offs to –2SDs and –3SDs of wt/ht for arm circumference are about 13.5 cm and 12.5 cm; however in practice surveys using MUAC measurements tend to give higher rates of wasting than surveys using wt/ht measurements on the same population.

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 the text, it means kwashiorkor.

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.]

1,900 kcals/caput/day is often used *as* the target requirement for a food aid–dependent population. These requirements are however often elevated by cold temperatures, essential activity levels and needs for catch–up growth, restoration of weight loss, and illness.

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 1,900 kcals for a population wholly dependent on food aid would also indicate an emergency.

The population groups identified here are the main existing refugee/returnee populations currently in Sub–Saharan Africa (see Map A). Also included are large population groups, displaced from their homes, currently experiencing hardship as a result of civil war and/or drought.

A summary of information on populations in camps currently most affected is given in Table 1, located as shown in Map B. To give context, in Table 2, we give an estimate of the probable total refugee/displaced/returnee population involved, numbers at risk and how many on which we have information. Populations in category I in Table 2 are currently in a critical situation, generally based on nutritional survey data. These populations have one or more indicators mentioned above (in box) higher than cut-offs indicating a serious problem. Populations *at risk* (category IIa in Table 2) of experiencing nutritional health crises are generally identified on the basis of the above indicators where these are approaching crisis cut-off levels and also on more subjective/anecdotal information where security and logistical circumstances prevent rigorous data collection but suggest a high degree of risk. Populations in category IIb are not known to be at particular risk, while nothing is known about populations in category III.

CURRENT SITUATION

1. Liberia, Sierra Leone, Guinea, Cote d'Ivoire (see Map 1)

Despite the signing of the cease–fire agreement in August 1993 the civil war in Liberia has continued unabated in certain areas. The usual population of Liberia is about 2.5 – 3 million. It is estimated that virtually the entire population is affected by the war and much of the population are now displaced or refugees. For example, WFP's current planning figure for emergency feeding is 2,675,000. Food is now reaching the majority of the displaced and war affected population in Liberia. However, there are substantial population

groups who, due to insecurity, remain virtually inaccessible; such surveys as have been feasible show appalling levels of malnutrition and mortality among these.

Current estimates (November 1993) of the numbers of refugees and displaced people in the region are2:

 Liberia
 1,750,000

 Sierra Leone
 150,000

 Cote d'Ivoire
 250,000

 Guinea
 600.000

 Total
 2,750,000

Some 400,000 refugees are expected to return to Liberia, into NPLF areas (see Map 1B), although a new exodus of refugees from Lofa County to Guinea is also reported. There have also been reports of people fleeing North and East Lofa County into NPLF territory due to continued insecurity. Fighting has more recently been reported in parts of River Cess County between the NPLF and LPC (new rebel group) with the result that thousands of civilians are fleeing to Lac Plantation and Buchanan in Grand Bassa County.

Food distributions have been proceeding during October and November through a combination of air–drops (e.g. Vahun, in Upper Lofa County), cross–border and cross–line convoys (NPFL areas) and intra–area distributions. Levels of *per capita* food receipts are however not known, but have certainly varied depending upon a variety of security and logistical constraints. In some areas planned distributions have reportedly been slow or non–existent. In early November the detaining of WFP convoys by the security forces in Gbarnga led to the virtual suspension of distributions in former NPLF areas. The overall effect is undoubtedly that considerable numbers of people have not had access to adequate food supplies, and thus extensive malnutrition among these is to be expected. Direct information by area is given in the next paragraphs.

The total population in the *NPLF* area of Liberia (see Map 1B) is estimated at 820,000 of which 200,000 are in areas with reportedly catastrophic rates of wasting (Upper Margibi, Lower Bong and Lac Plantation and other parts of Grand Bassa County). The most recent survey in Upper Margibi County (October 1993) found crude mortality rates of 4.6/10,000/day (17 x normal) and a prevalence of 34% of children were severely wasted. More than 25% of children showed oedema. These results show no major improvement since similar findings in July. Food availability in October was reportedly low with only 30% of households expecting any rice harvest. Emergency food aid distributions in Upper Margibi County have been minimal; in September 67% of households received small amounts of rice, while in October coverage was only 17% and quantities were similarly inadequate.

The total population in *ULIMO* areas (see Map 1B) is estimated at 390,000 of which 100,000 are Sierra Leonean refugees. Of this population, 160,000 people are in Upper Lofa County where excessive rates of wasting were prevalent before a recent WFP/HCR intervention began. Most recent survey results from Upper Lofa County show considerable improvement with levels of wasting falling between August and October 1993, from 30% to 16% in Vahun Town, and 16% to 9% in Yandehun; however, there are still pockets where very high levels of wasting are evident, e.g. Lukasu (20%) and Yengema (25%). These crises appear to occur where subsistence production is minimal and/or where there are high concentrations of recent returnees or newly displaced.

The WFP current planning figure for emergency feeding in *Sierra Leone* is 300,000 of whom only 6000 are refugees. The remaining 294,000 are internally displaced due to civil conflict in Sierra Leone. Many of the displaced are in villages rather than in camps. A recently completed assessment (November 1993) found nutritional status was generally adequate. However, there may be small population pockets where lack of access due to insecurity prevents food aid delivery which is adversely affecting nutritional status. There are currently no hard data to verify this.

We have had no recent reports on the Liberian and Sierra Leonean refugees in *Guinea* and *Cote d'Ivoire* and assume that these populations remain in stable condition.

² These numbers are compiled from many sources. They are intended to give a general idea of the distribution of refugees and displaced in the region. For this reason, they may not tie in exactly with other figures in the text.

World Food Programme requests to donors for non-food aid requirements (administration, logistics etc, of \$4.2 million for 1994) have largely remained unmet.

Based on the above information, the populations in the region are categorized in Table 2 as follows. 100,000 are currently severely malnourished in Liberia (Table 2, column I). This refers to Upper Margibi County and parts of Upper Lofa County. A further 260,000 are considered to be at high risk (Table 2, column IIa) as they are in areas where fighting continues and access is restricted. The remaining 2,205,000 people (Table 2, column III) represent: those receiving food aid in Liberia in relatively secure areas and with some access to harvests; internally displaced in Sierra Leone; and refugees in Guinea and Cote d'Ivoire.

The situation could slowly improve for the majority of the population in Liberia in the coming months if means of delivering food aid are improved; harvesting took place from October, but production was extremely poor with reduced areas planted due to the conflict. However, the unpredictability of the fighting may well determine that new population groups are put at risk and that population groups currently in crisis remain so.

2. Western Ethiopia/Eastern Ethiopia/Ogaden (see Map 2)

The food pipeline for refugees/returnees programmes in Ethiopia is reported to be satisfactory. The current caseload for emergency feeding of Somali in the east and Sudanese refugees in the west is 200,000 (150,000 Somali and 50,000 Sudanese). This is a considerable reduction on the planning figure of 510,000 Somali refugees in South East Ethiopia used throughout 1993 and reflects the acknowledged over–registration of refugees that has been an underlying problem throughout this programme. The current emergency feeding programme for Ethiopian returnees from Somalia which provides rations to 375,000 people in the South East (Dolo/Suftu), the East (Herrerghe) and Ogaden (Gode, Bohelegare) will end in December 1993.

The food security and nutritional condition of these various populations is complex. Available information is summarized below.

South East Ethiopia The Somali refugees in the South East of Ethiopia generally demonstrate adequate nutritional status although improvements could still be made. Overall, nutritional status has improved and most recent data show a range of 5–16% wasting. At the end of September there were still many children under five (4,000) receiving supplementary feeding in the five refugee camps. There were also reported disruptions to WFP's supply of sugar, DSM and beans during this period so that the family ration given to those households with severely malnourished children was reduced.

The general ration has consisted mainly of wheat grain and vegetable oil, with monthly distributions adequate for 10–15 days only. This has come about largely because of massive over– registration of beneficiaries so that it has not been necessary or possible to resource and distribute sufficient food to match the number of ration cards in the system. It is estimated that ration cards outnumber refugees by 3:1. The relatively stable nutritional status amongst most of this population can thus be partly explained by the excess ration cards and also other coping strategies employed by this population which includes crop and livestock production and small–scale trading.

There are still anecdotal reports of some cases of scurvy in South East Ethiopia.

Ogaden Although mortality and anthropometric data on the Ethiopian returnee/displaced population (45,000) in the three camps of Gode 1 and 2 and Bohelegare in the Ogaden showed some improvement from June–July 1993, (given in RNIS #1) to September 1993 (new data), these populations are still in a critical state. Data for September shows crude mortality rates of 1.2/10,000/day (4.4 x normal) in Gode 1 and 2 and 1.3/10,000/day (4.8 x normal) in Bohelegare. Levels of wasting in the Gode camps were 25% (this compares with 44% in June 1993). Clinics in the camps also reported many cases of scurvy (incidence of 1.5/1000/month seen at clinics), vitamin A deficiency and anaemia throughout August and September. One kg of wheat and 0.5 kgs of oil per beneficiary were distributed in August (70 days after the previous distribution). No distributions were made in September probably due to local logistical problems.

Eastern Ethiopia We have no information on this population.

Western Ethiopia (50,000 Sudanese refugees) Refugees reside in settlements and unlike the programmes in the East, the population is given land and encouraged to farm. The population is said to have satisfactory to poor nutritional status, with high levels of wasting (15–25%) amongst new arrivals. In the Bonga settlement

the level of wasting is well below 10%. The food distribution is well controlled and equitable. The production of mixed crops, in conjunction with the general ration of maize, beans, oil and salt, provide a generally balanced diet.

It is estimated that 45,000 returnees/displaced are in crisis (Table 2, column I) in Ethiopia in the Ogaden, and that the remaining 575,000 refugees/returnees/displaced are in a stable condition (Table 2, column IIb). No major change in the overall situation in the short–term is foreseen. The 45,000 people in crisis in the Ogaden are clearly vulnerable to seasonal factors although the end of the rains in October could signal an improvement.

3. East, Central and West Sudan (see Map 3)

In the areas of Eastern, Western and Central Sudan, there are 2.5 million displaced Sudanese. They are mainly displaced due to the conflict in the south, but persistent drought has also led to large numbers of destitute people requiring assistance.

There are approximately 1.5 million displaced in Khartoum, many of whom are Dinkas from the south. We have no information on the nutritional status of these people, but as there are no NGOs able to assist them, they are in a potentially vulnerable situation.

There have been confirmed reports of a spreading epidemic of kala azar (visceral leishmaniasis) affecting both local people and refugees/displaced. See section 9 for further details. SCF/UK reports wasting rates for children in 10 Dinka displaced camps in Ed Daein at 13% compared to 6% for the Darfur population. EPI coverage is very poor for children in the camps with only 3% measles vaccination coverage.

There are also about 500,000 displaced people in what is known as the transitional zone in Southern Darfur and Southern Kordofan. An additional 500,000 internally displaced are in Western Darfur. We have no information regarding their nutritional status.

4. Northern Kenya (see Map 4)

Repatriation of Somali and Ethiopian refugees continues spontaneously at a rate of 1,000–1,200 per week leaving a current refugee population of approximately 359,000 (361,980 on 29 October (WFP)). Although anthropometric data indicate low levels of wasting and planned food distributions are proceeding normally, there are still anecdotal reports of scurvy from some of the camps.

There has been an influx of Sudanese refugees from Southern Sudan into Kakuma camp in NW Kenya. The current rate of influx is 200 per week. On the other hand, some Somali refugees are returning home citing insecurity in the camps as the reason for leaving.

The 359,000 refugees in Northern Kenya appear to be in relatively stable condition. However, due to banditry and a current severe drought, a substantial (unknown) portion of this population may now be starting to be exposed to particular risk (see Table 2). Ample in–country food stocks and donor pledges would suggest that the relatively stable situation will endure in the coming months unless the current drought and likely resulting emergency programme divert resources away from the refugee programme.

5. Southern Somalia (see Map 5)

UNISOM estimate that there are 1.6 million displaced people/refugees in Somalia.

There is little news on nutritional conditions since the previous RNIS bulletin which reported a relatively stable situation. At that time, all free general distributions of food aid had been terminated so that food was only allocated to certain targeted programmes, e.g. hospital vulnerable group feeding, food for work, school feeding and resettlement. The overall situation still appears stable although there have been reports of deteriorating security in Gedo and Bay regions due to banditry as well as spill—over effects from events in Mogadishu. Due to fighting 2,000 newly displaced have just arrived in Wajit. Such events may affect food

security in these areas as farmers may not be able to tend their fields. NGOs working in Bardhera (Gedo region) report that the recent harvest was not successful because of insecurity and there are concerns that nutrition levels will be adversely affected. There are reports of high levels of wasting in Luuq (Northern Gedo).

Nutritional survey reports from Kismayo Town (October 1993) indicate a deteriorating situation with 24% prevalence of wasting as defined by <80% wt/ht. Data from villages in the Juba valley show very high levels of wasting (>50%) using MUAC measurements. However, there have been serious reservations expressed about the quality of some of these data. Nevertheless, the overall sense is that there is a need for food distribution in the lower and middle Juba to counter the low nutrition status among inhabitants in that region.

In Mogadishu supplementary feeding has shifted from wet to dry take home rations of premixed commodities so that the number of feeding centres will decrease. However, each district will retain therapeutic feeding centres for severely malnourished children.

WFP's recently agreed emergency programme planning figure for the second quarter of 1994 is 140,000 people and is based on the assumption that the majority of Somalia will be self–sufficient by this time. This number of people will be targeted to receive food rations to assist in their resettlement.

In sum, it is estimated that 140,000 people are currently at risk (Table 2, column IIa) and that the remaining 1,460,000 internally displaced/refugees are in stable condition (Table 2, column IIb). An unknown number, e.g. in Kismayo, are probably currently severely malnourished. The numbers are based on WFP planning figures for 1994 for assisting returnees and information from Lower and Middle Juba. Nonetheless, the situation in the short–term is extremely volatile and should large numbers of UN peace–keepers withdraw and clan fighting resume, the numbers at risk could rise dramatically.

6. Mozambicans (see Map 6)

The status of Mozambican refugees in Malawi, Zimbabwe, Swaziland, Tanzania and South Africa is stable and spontaneous and organized repatriation is continuing. The total refugee/returnee population was estimated at 1,515,000 in August 1993, of which an estimated 546,100 are returnees within Mozambique. An additional estimated 850,000 are internally displaced.

In August the rates of returnees to Mozambique decreased but repatriation of the 25,000 refugees from Swaziland began in September. Since the signing of the peace accord a year ago, there have been 401,132 arrivals in Northern/Central provinces (10% from Zimbabwe and 90% from Malawi). The current UN planning figure for emergency feeding in Mozambique is 1,396,100 (i.e. 546,100 returnees + 850,000 internally displaced).

A cereal shortfall is predicted for the 1993/1994 marketing year, despite the improved harvest. Not all of the shortfall will be covered by commercial imports, it is presently estimated.

On the provincial level, the food and nutrition situation is stable but with large differences between certain population groups. Nutrition surveys conducted amongst at–risk groups such as the recently resettled indicate high levels of wasting based on MUAC measurements (>30%, <12.5 cm). However, surveys using weight–for–height data generally indicate levels of wasting <10% among the general populations. It is still difficult to assess populations in RENAMO zones in a number of provinces, both to evaluate their nutritional status and to provide nutrition and health services. The situation may well deteriorate during the coming hungry season especially in areas like Gaza Province where the first and second harvest have been very poor.

Nampula Province is particularly worrying as the nutrition situation appears to have been deteriorating. An epidemic of tropical neuropathy caused by cassava intoxication suggests food insecurity as the cassava is being harvested early and prepared too quickly. New cases were being reported in September, but no information has been available since then.

The sanitary situation is also worrying. A major outbreak of cholera has been reported in Nampula Province and Southern Cabo Delgado. It has apparently affected several thousand people although numbers of new cases appeared to go down in October. Water supply is becoming increasingly problematic as wells are drying up in several provinces (Gaza, Inhambane, Manica and Zambezia). Diarrhoea and dysentery are still important problems in many provinces.

The entire 2,365,000 Mozambican refugee/returnee population is placed in the "not at risk" category in Table 2 (column Ilb). However, an unknown number of returnees are clearly experiencing emergency conditions with reports of cassava intoxication, cholera and high levels of wasting (indicated by an ^(a2) in column I). The overall situation of relative stability seems likely to persist in the coming months although there will continue to be pockets of crisis as basic needs provision for new returnees fails to meet demand in the early stages of resettlement. The start of the rainy season in the northern and central provinces could exacerbate the cholera outbreak.

7. Rwanda (see Map 7)

The arrival of 375,000 Burundi refugees in the south will place an additional strain on Rwanda's resources with an already large displaced population in the north. The internal displacement occurred previously as a result of full–scale fighting between government forces and the Patriotic Front of Rwanda (FPR) which led to two large waves of displacement, the most recent having taken place in February 1993 (second wave). However, considerable nutritional improvement is reported in the last few months, with increased food distribution and reduced malnutrition.

Over 500,000 displaced people have now returned to their land in the DMZ and approximately 330,000 are in camps north of Kigali. This camp population will not return home in the immediate future due to the presence of the FPR and highly mined areas of land. Rates of wasting (September 1993) in eleven of the largest camps (4–10%) show that the nutrition situation has improved substantially since May 1993 (5–21%). Mortality data from the displaced camps in Byumba East and West also show a considerable improvement in health status over the same period.

In accordance with a report by the Nutrition Committee (a consortium Of NGOs and MOH) general rations were adapted by camp according to the vulnerability of the population by mid–September. Therefore the population of Kigali North (approximately 93,000) are now receiving 2,400 kcal/caput/day while the those in Byumba East (77,730) receive 2,170 kcal/caput/day. The remainder in government held areas (approx 170,000) receive 1600 kcals/caput/day while those in the DMZ receive 1,000 kcal/caput/day.

At the end of October a shortage of beans led to a 50% reduction in the ration of beans for all categories of recipient. The results of an agro–nutritional survey in the West lead to the decision to terminate distribution to part of the population in Ruhengeri West thereby reducing the overall caseload to 830,000. During October there have been periodic disruptions to the distribution of food to those in GOR areas due to security problems caused by re–location of distribution sites and failure to produce reliable beneficiary lists. Between July and August some 450,000 false beneficiaries were been removed from distribution lists. There have been reports of poor nutritional and health status in the DMZ due to delays in establishing feeding centres and health services.

WFP have repeatedly alerted donors to the urgent need for funding for: temporary staff to strengthen the operation, other support costs, and non-food items. Cash contributions are indispensable for continuing the operations and the response to previous appeals has been extremely limited.

The displaced population in Rwanda (830,000) is categorized as in the "not currently at risk" category (Table 2, column IIb) based on information on health and nutritional status. No significant change in this status in the short–term is being predicted as food supplies (with the exception of beans) seems assured, despite the "lean season" in November/December. However, if the current Burundi refugee crisis draws down stocks reserved for this population then the situation might change for the worse.

8. Angola (see Map 8)

Following the resumption of Angola's civil war in October 1992, information in October 1993 (RNIS report #1) indicated that up to two million conflict and drought affected people may be at serious risk of starvation and disease related mortality, but that lack of access to much of the country (CARE Angola estimate 80%) has prevented the collection of data to verify the impact of this emergency. Current planning figures used by WFP for emergency food aid programming are 344,000 displaced persons, 112,000 returnees, 1,251,000 conflict affected and 256,000 drought affected people — a total of 1,963,000 people.

During October military attacks continued throughout the country. Aid priority was given to the city of Benguela which, along with Malange, demonstrated some of the most appalling humanitarian conditions in the accessible cities of Angola. By mid–October UNITA had authorized the UN to fly humanitarian aid to a number of destinations in UNITA controlled areas. Assessment missions were duly scheduled for Huambo and Kuito. Humanitarian aid has thus resumed to a number of areas and cities that had not been accessible for several months.

There is still however, a paucity of recent data on the impact of this war/drought induced emergency. Preliminary results of a WFP nutrition survey in Malange (11 October 1993) found 20% prevalence of severe wasting amongst children under five years of age and an overall rate of 34% wasting. An earlier MSF nutritional survey in the Municipality of Benguela in September only found 10.3% wasting and a crude mortality rate of 0.8/10,000/day (3 x normal). However, MSF caution against an over–optimistic assessment of the situation in Benguela as these data may not be properly representative and also because the food aid receipts are well below acceptable levels (less than 1,000 kcal/caput/day). Furthermore, coverage of the general ration distribution is extremely limited (65% of target population) as is coverage of supplementary and therapeutic feeding programmes (15% of the estimated number of malnourished children). There is also grave concern over the vaccination status of the population and the high level of measles related mortality. MSF caution that the situation could deteriorate quickly and dramatically.

There are currently at least six large urban populations where access has until recently been extremely limited and where nutritional and health crisis conditions may well be present. These are: Kuito, Huambo, Menongue, Luena, Malange (definitely in crisis) and Saurimo. There are no reliable population data for these cities.

Anecdotal reports suggest that since the siege of Kuito began in January 1993 20,000 people have died from wounds, disease and starvation. Other reports claim that one third of the population have died from starvation.

Elsewhere food distributions have improved greatly since June when the number of general ration beneficiaries was 230,000. In October 1,240,000 people received a general ration. Very approximately, these rations have supplied, at an aggregate level, 70% of caloric needs. As with other current emergency programmes, pulses (e.g. beans) have been in short supply. Pledges have been made but not received. There has also been an on–going shortage of cash funds for the UN implemented emergency feeding programme which has affected transport, non–food items and logistical support.

At least 173,000 people in Angola are currently estimated to be in crisis (Table 2, column I) as based on the survey from Malange, while an unknown number may be in crisis in those towns which have been under prolonged siege. As we have no "hard" data on this population we have indicated in Table 2 that there are a further 1,789,020 internally displaced and war–affected people, some of whom may be in crisis or at high risk (Table 2, column III). In the short–term, as information from formerly besieged towns becomes available from the current round of UN and NGO needs–assessments, we may learn of crises similar to those currently seen in Malange. However, providing UNITA continue to allow humanitarian aid into previously inaccessible cities then the situation could continue to improve. The rainy season has begun and crops have been planted. Harvesting will not be for several months (usually April). Therefore much of the needed food will have to come from the international community.

9. Southern Sudan (see Map 9)

The unresolved civil war continues to create an extremely fluid situation to which the international relief effort must continually adapt. Although severe food shortage is largely contained this situation does give rise to periodic emergencies as various population groups are displaced or cut–off from relief supplies. A combination of air–drops, train and barge deliveries continue to supply food aid dependent populations. However, trains and barges only manage to reach those populations close to the relevant infrastructure. Needs assessments continue to be carried out every two to three months to account for rapidly evolving events. The current planning figure used by the UN for emergency feeding in the south is 1,000,000 displaced and drought affected people.

Reports in early October indicated a poor food supply in Equatoria (e.g. Kagwada and Wondura) while continued air drops to between 30–40,000 people in previously emergency affected Kongor were reportedly containing the crisis.

Reports were also received of high mortality rates in the displaced persons camps in Malakal, Upper Nile province at the end of October. This was attributed to overcrowding and consequent spread of disease as well as lack of adequate supplies of food. There were also reports of an increase in the population in the Tonga area by up to 20% (25,000 recent arrivals) due to the return of the displaced from the north. Rapid nutritional surveys conducted by a UNICEF mission found high rates of wasting and the need for relief assistance to approximately 167,000 in the Tonga–Funjak area. There has also been a recent report of high levels of severe wasting in Obel Camp III in Gos Sabat Vasin, Upper Nile Province where the population is entirely dependent on relief aid. As a result of these findings a special air–drop was made to bridge the food gap until the next barge delivery arrived.

A survey conducted in September 1993 in Ashwa camp (population of 27,000) showed levels of wasting of 16%. This represents an improvement on survey results from May 1993 when levels of wasting were 25%. The number of admissions to the feeding centre had also decreased. While this does indicate an improved nutritional situation, the level of wasting is still unacceptably high and reportedly partly reflects the poor general ration.

Outbreaks of measles were reported in Ame, Atepi and Ashwa in September. These affect all age groups and there were 559 cases reported. This is probably an underestimate due to cultural beliefs of keeping the sick at home. The number of deaths reported is 182, but this too is probably an underestimation due to cultural beliefs. Emergency immunization has begun in the area.

In October, an epidemic of fatal visceral leishmaniasis was confirmed in Southern and Eastern Sudan. Blood tests in one refugee camp in Upper Nile province showed 25% of the population tested positive for the disease.

In November, the GOS failure to fulfill its commitment to supply 153,000 mt of sorghum for all emergency programmes in Sudan led to urgent request to donors to supply the missing grain. The airlift to Juba was suspended as a result. It is now continuing sporadically. The general distribution in Juba is for 242,000 people and there are reports of increasing levels of wasting with 32,000 people now receiving supplementary feeding.

In sum, the populations in Tonga–Funjak area (167,000) and the three camps of Ame, Atepi and Ashwa which are currently experiencing a measles epidemic (100,000) are currently in a critical situation, therefore assigned to column I in Table 2. The remaining war–affected population of 733,000 are clearly at considerable risk given the continuing insecurity and have therefore been assigned to column IIa in Table 2. Wider–spread famine is being mitigated due to OLS (Operation Lifeline Sudan) which is expected to continue. However, periodic pockets of famine will also probably continue to appear as populations displaced or cut–off by recent fighting are forced to await assessment and delivery of food aid and other basic needs.

10. Northern Uganda (see Map 10)

There are currently approximately 97,000 Southern Sudanese refugees in Ajumani, Moyo District, in Northern Uganda. A further 50,000 are reported in Koboko although the planning figure for this group is 60,000 as the influx continues with persistent fighting in the south of Sudan. In Koboko the overall health situation is reported to be good with over 75% of refugees having been vaccinated. However, a MUAC survey in August in a newly established camp near Koboko for new arrivals found 22% wasting. Also, data for August for all the camps in Koboko found that 80% of all under five mortality was due to measles, and that the average crude death rate was 2/10,000/day (7 x normal) which was very high.

The refugee population is relatively stable at present, and not currently reported to be in a critical situation (see Table 2, column IIb). Unless the influx of Sudanese refugees increases dramatically, the situation may remain stable.

11. Shaba Region, Zaire (see Map 11)

The ethnic violence in Shaba region (reported in the last RNIS bulletin) continues with further large-scale displacement of the mining work-force to transit camps in Kolwezi, Kamina, Likasi and Mwene-Ditu. There is also a portion of the displaced in Mwene-Ditu that returns to West and Eastern Kasai. Population movement is, therefore, in both directions.

Our most recent information (September–October 1993) is that the displaced population around Kolwezi and Kamina has decreased slightly to 21,000 and 4,000 respectively and that crude mortality rates appear to have improved greatly to between 0.23–1.1/10,000/day (normal to 4.1 x normal). The previous report cited CMRs of between 2–5/10,000/day (7.4–18 x normal). The displaced population around Likasi has also fallen slightly to 65,000 (formerly 75,000) and CMRs are also low 0.3/10,000/day (normal levels). However, nutritional data from the dispensaries in Likasi (October 1993), although not representative of the overall displaced population, show extremely high levels of wasting (38%) with 5% severe wasting amongst children presented. There is also data which indicates the existence of pellagra while observed adult oedema may be due to beri–beri. Given this information, the low CMR in Likasi may be an under–estimate and probably in part reflect a reluctance to declare deaths for fear of losing entitlement to available food rations. The same circumstances may apply to the low CMRs found in Kolwezi and Kamina. We have no current information on per capita food receipts amongst these displaced groups.

The previous RNIS report identified a nutritional and health crisis in Mwene–Ditu (September 1993) affecting more than 60,000 displaced people situated in three camps and around the main town. We have no new data on this population.

Over 140,000 displaced from Shaba are now estimated to have arrived in East and West Kasai. OXFAM began food distributions to this population in October on the basis that this would be reimbursed by WFP in the near future. Constraints on WFP, which delayed the start of this operation (the displaced began to arrive in June), have been due to a variety of factors which include delayed needs assessment missions, donor reluctance to pledge food due to political considerations and high transport costs, and shortage of funds within WFP. We have no current information on the nutritional and health situation of this population. Food distribution and clinics are now running smoothly in these transit towns and there are no indications that the situation will change.

12. Western Sudan (see section 3)

This section is now combined with section 3.

13. South West Uganda (see Map 10)

There are two groups of refugees in South West Uganda, from Rwanda and Zaire, amounting to a total population of 15,850. These refugees have been receiving UNHCR assistance since 1990. There are also 1,300 Rwandese refugees that crossed the border into Cyanika, Uganda on 5 October this year. No further information is available.

14. Zaire (refugees) (see Map 11)

Apart from the Burundi refugee crisis (see no. 15 below) and ethnic conflict in Shaba discussed earlier (see no. 11) there are a number of other current refugee/displaced person emergency problems in Zaire.

There are 27,600 Angolan refugees in Shaba region distributed over three sites. This population is on partial rations as they are partly self–sufficient. Their nutritional status is believed to be good. There are also 200,000 Angolan refugees in Lower Zaire and 60,000 in Kinshasa. These latter refugees live amongst the local population. We have no data on their nutritional or health status.

There are between 100–125,000 Sudanese refugees and 15,000 Ugandan refugees in Upper Zaire. There have been enormous difficulties in providing food to these refugees due to poor road infrastructure. One of the three camps is said to be virtually unreachable. Zairian authorities have also occasionally held up food deliveries. Nevertheless, assessment missions have reported an adequate food situation, partly due to economic assimilation with the local population, and even recommended ration reductions in one camp.

Approval by WFP has recently been given to operate an emergency feeding programme for 60,000 displaced people in Kivu (7 November 1993). The displaced are residing mainly in churches and schools and the situation has arisen from tribal conflict. We have no data on health or nutritional conditions amongst this

population.

Overall, these refugee populations are not reported to be in critical situations, although there is concern regarding the populations in Upper Zaire due to difficulty in transporting food to them.

15. Burundi situation (Burundi, Rwanda, Tanzania, Zaire) (see Map 15)

Burundi Refugees and Displaced People as of November 1993

Burundi	150,000	Internally displaced
Rwanda	375,000	Refugees
Tanzania	325,000	Refugees
Zaire	58,600	Refugees
Total	908,600	Refugees, internally displaced

Following an attempted coup d'etat on 20th October, and subsequent heavy fighting, around one million people were uprooted, most fleeing the country. It is estimated that 75% of the refugees are women and children. These refugees have crossed borders into Rwanda, Tanzania, and Zaire.

There are approximately 375,000 refugees concentrated in five regions of Rwanda – Butare (252,000), Gikongoro (20,000), Cyangugu (20,000), Kibungo (13,000) and Kigali (70,000) – occupying 21 camps. High concentrations of refugees in some camps are causing concern due to potential health and sanitation problems. In order to respond quickly WFP had borrow food from the emergency programme stocks for the internally displaced. Beans could only be supplied initially as a half ration.

The most recent last reports from Rwanda now indicate an emergency out of control with crude mortality rates as high as 5.8/10,000/day (21 x normal) in some camps. This is due to a combination of overcrowding, poor sanitation, lack of water (<5 litres/person/day), use of polluted water sources, and inadequate food rations (<1,400 kcals/day). A survey done in the prefecture of Butare showed levels of wasting of 15% and severe wasting of 2% – showing severe malnutrition not yet highly prevalent. However, 89% of the children in this prefecture are vaccinated against measles.

Initial estimates from Tanzania were that Kagera and Kigoma regions were hosting approximately 245,000 refugees. However, the continued influx has now created a case–load of at least 325,000. Here the situation is also reported to be deteriorating rapidly with high mortality rates, escalating levels of wasting, and outbreaks of sanitation–related diseases (such as cholera in Kibondo). Food, medicine and shelter have been in short supply and WFP is urgently seeking funding for local purchase of cereals and beans, and to cover the costs of monitoring food deliveries and distribution points. Food supply has therefore been irregular and existing provision continues to be hampered by flooded roads.

A similar crisis is being reported in Zaire where the initial case–load of 39,000 refugees in Uvira Region has now increased to 58,600 in 17 different sites/camps. Initial food needs were met by local purchase. The most current reports indicate a rapidly deteriorating situation with overcrowding, lack of shelter, insufficient food and epidemics of cholera and dysentery in certain camps. More and more wasting among children is evident (no precise survey data are available yet) and mortality rates are said to be increasing.

In Burundi itself, the internally displaced population is estimated to be 150,000, although given areas of insecurity, accurate figures are not easily obtainable. Estimates are that tens of thousands of people have died in the violence. Fresh fighting has been reported in Southern Burundi. The displaced are located in small camps of varying sizes. They currently lack shelter and clean water and are highly vulnerable to dysentery, measles and meningitis. Sufficient food aid pledges have been secured for this population.

It is clear that the suddenness and magnitude of the Burundi refugee crisis has completely overwhelmed international relief capacity and initial relief efforts.

The entire Burundi refugee population in Rwanda (375,000) is considered to be in a critical situation (Table 2, column I). This is shown, for example, by the mortality data. We have placed the remaining Burundi refugees

in Zaire and Tanzania and Burundi internally displaced in column IIa, as we know that they are at serious risk due to a variety of factors. In the short–term we expect the situation to deteriorate further in advance of the international aid community being able to provide adequate food, water, shelter, and health care.

16. Mauritania/Senegal (see Map 16)

There are between 55–60,000 Mauritanian refugees living in approximately four hundred settlements in the northern pan of Senegal. The population is stable with no major problems and are unlikely to be repatriated in the near future. The population are largely self–sufficient and only receive partial emergency rations. These rations are due to be phased out in 1994.

17. Djibouti (see Map 17)

There are currently 30,000 Somali and Ethiopian refugees residing in four camps in Southern Djibouti, who have fled civil wars in former Northern Somalia and Eastern Ethiopia. The government has recently been requesting the transfer of urban refugees to two additional camps which it is estimated would create an overall camp population of 32,000 refugees. The previous RNIS report drew attention to anecdotal reports of beri-beri amongst this refugee population. This condition is caused by lack of thiamine and associated with rice based diets. Subsequent investigation by a UNHCR nutritionist (October 1993) confirmed the existence of this problem, particularly amongst children under five and women of child bearing age. Most cases were reported between August 1st and September 30th but there were no data on the prevalence of the condition. Although other possible factors were cited, e.g. sharing of food ration, lack of adequate cooking fuel, the occurrence of beri-beri appeared to coincide with a change in the ration whereby rice became the main cereal in the ration between July and September thereby reducing the thiamine content. Between January and June the ration had contained more than sufficient thiamine. The nutritionist recommended that, starting with the November ration, the wheat flour in the food aid pipeline be replaced by maize or whole wheat. The addition of corn soy blend in order to improve thiamine content of the ration was also recommended. These recommendations were accepted and are being implemented.

The overall prevalence of wasting is 8%.

In Table 2 we have placed this refugee population (32,000) in column IIb on the basis that the distributed food ration has been modified to account for thiamine deficiency. However, we have placed an asterisk in column I to indicate that an unknown number of people affected by the reported outbreak of beri–beri may still be recovering.

Southern Iraq

The overall population in the marshlands of Southern Iraq is approximately 350,000. The health and nutritional crisis affecting the marsh Arab population of Southern Iraq which was reported in the last RNIS bulletin is continuing as the life sustaining marshes are further destroyed through the government drainage programme. The traditional sources of food, such as water buffalo and fish, are increasingly scarce. Additionally, government offensives and recently reported attacks (September 1993) against the Hammar marsh populations are factors contributing to the increasing number of Iraqi refugees in Southern Iran.

28,200 marshland Arab refugees are now living in refugee camps in Southern Iran administered by the Iranian Red Crescent and government. New arrivals passing through the border crossing, Himmet, number 80–100 daily. Over 800 refugees are currently waiting at Himmet for transfer to other camps. No nutritional surveys have been carried out on the new arrivals for security and logistical reasons.

We would like to thank all those agencies who contributed information to this report, particularly AICF, CDC, Concern, FRCS, GOAL, ICRC, MSF-Belgium, MSF-France, MSF-Holland, SCF-UK, UNHCR, UNICEF, and WFP

Table 1: Camps and Displaced Populations In Crisis (as of December 1993)

Note: Situations are included when there is some data: those not included for lack of data are <u>not</u> necessarily better – see text

	Population (date of report) ¹	% Wasting <80% wt/ht	Mortality/10,000/day (factor x normal)	Under Five Mortality/ 10,000/day	Food-kcals/caput/day	Water Supply/caput	Micro Def
Liberia							
Upper Margibi County	80,000 (10/93)	41% 25% oedema	4.6 (17)	14.3			
Vahun	(10/93)	16%					
Yengema	(10/93)	25%					
Ethiopia							
Gode Camp 1	21,905 (9/93)	25% 6% oedema	1.2 (4.4)	1.7			an:
Gode Camp 2	16,581 (9/93)		1.2 (4.4)	1.7			
Bohelagare	7,200 (9/93)		1.3 (4.8)	1.9			
Angola							
Malange City	173,980 (10/93)	34% 19.8% –3SD					
S Sudan							
Ame	100,000 (10/93)						
Ashwa							
Atepi							
Burundi							
Displaced	150,000 (11/93)						
Rwanda	375,000 (11/93)	15%	58 (21.5)		1.400	<5L	
Tanzania	407,000 (11/93)						
Zaire	59,000 (11/93)						

¹ Date of report includes data in all columns unless otherwise noted.

Table 2: Information Available on Total Refugee/Displaced/Returnee Populations (as of December 1993)

Those reported on with high prevalences of malnutrition and/or micronutrient deficiency disease and sharply elevated mortality (at least 3 × normal)

Ila -- At high risk, but no data available. Population likely to contain pockets of malnourished

IIb -- Probably not currently in critical situation, nor known to be at particular risk

III -- Population known to exist, but condition unknown

No information

	I	lla	IIb	н	Total	Comments
Liberia/Sierra Leone/Guinea/Cote d'Ivoire	100.000	260.000	2.390.000		2.750,000	Category I is those in Upper Margibi County (80,000) and some in Upper Lola. The higher total reflects better information.
2. Ethiopia	45.000		575.000		620,000	Category I represents refugees in the Ogaden. The increased total reflects better information.
3. E., Central & W. Sudan	(a2)			2,500,000 (a1)	2,500,000	These are displaced from South Sudan, including an estimated 1.5m in camps near Khartoum, and victims of persistent drought.
4. Kenya		(b2)	359.000 (b1)		359,000	Situation presently stable, but banditry and drought are risks.
5. Southern Somalia	(a2)	140,000	1.460.000		1,600,000 (a1)	An unknown portion of the population is in crisis. The increased total reflects better information.
6. Mozambicans	(a2)	_	850,000 (a1) (id) 1,515,000 (r)		2,365.000	Cholera reported in Nampula Province. The increase total reflects more complete information.
7. Rwanda (Id)		"	830,000		830,000	The decrease is population is due to the correction of over–registration, and increased sell sufficiency. Situation improved for many.
8. Angola (Id/wa)	173.980 (c3)	(c2)		1,789,020 (c1)	1,963,000	Cities (e.g. Malange) have desperate situation, although information is scarce.
9. South Sudan (Id)	267.000	733,000	_		1.000.000	Measles outbreak, pockets of population inaccessible.
10. Northern Uganda			147.000		147.000	The increased total represents improved

						information.
11. Zaire (ld)/Shaba		(a2)	290.000 (a1)		290.000	Some improvement recently.
12. see 3. above						
13. South West Uganda	-		16,000	ı	16,000	Increased numbers relied improved information.
14. Zaire (r)	75.000		87,600	264.000	426.600	Column I represents some refugees in NW corner and 60,000 displaced in Kivu. Increased totals reflect better information.
15. Burundi/Rwanda/ Tanzania/Zaire	375.000	533.600			908,600	Category I is the number of refugees in Rwanda at high risk with elevated mortality. Situation beyond relief capability.
16. Mauritania/Senegal			60.000		60.000	The increased total reflects improved information.
17. Djibouti	(a2)		32,000 (a1)	-	32,000	The total contains an unknown number still at risk after beri-beri outbreak in Sept.
Total	1,035.980	1,666,600	8,611,600	4,553,020	15,867.200	

⁽r) refugees, (id) internally displaced, (ret) returnees, (wa) war affected

FIGURE 1 REFUGEE AND DISPLACED POPULATIONS

 $^{^{(}a1)}$ Unknown number of these probably severely malnourished, hence $^{(a2)}$ is also marked in column I.

 $^{^{(}b1)}$ Unknown number of these probably at high risk, $^{(b2)}$

⁽c1) Unknown number of these probably at high risk. (c2), or sever (...) urished (c3).

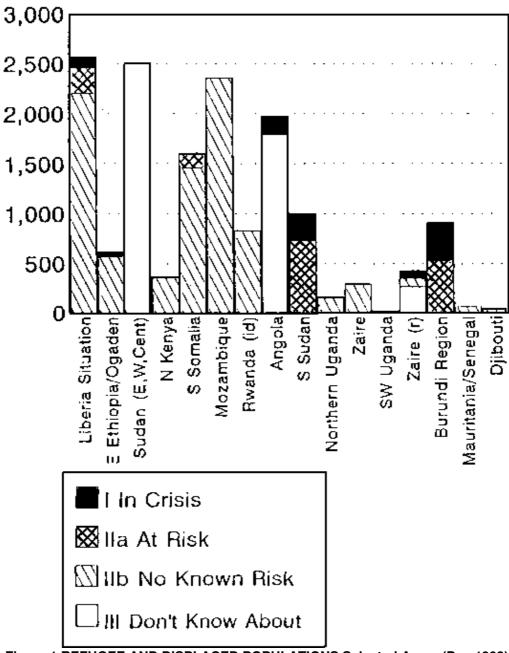
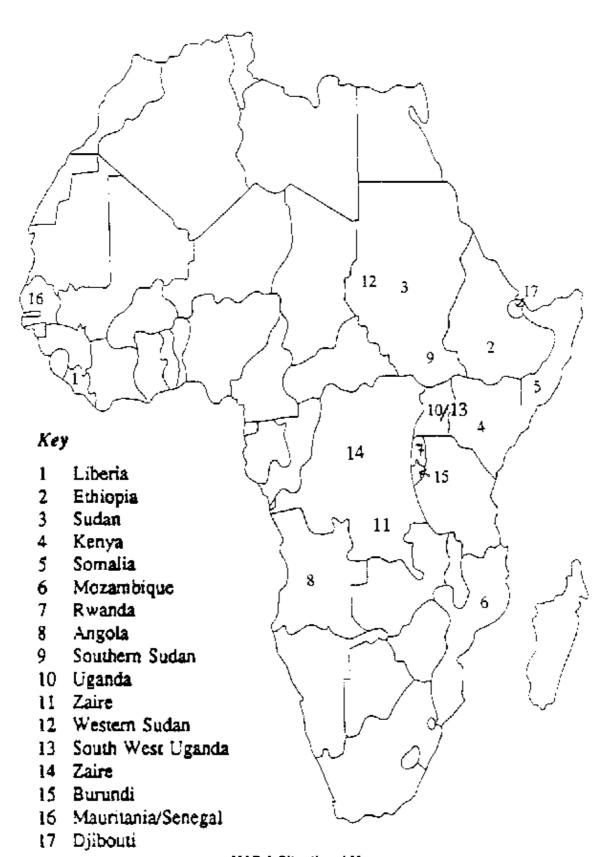
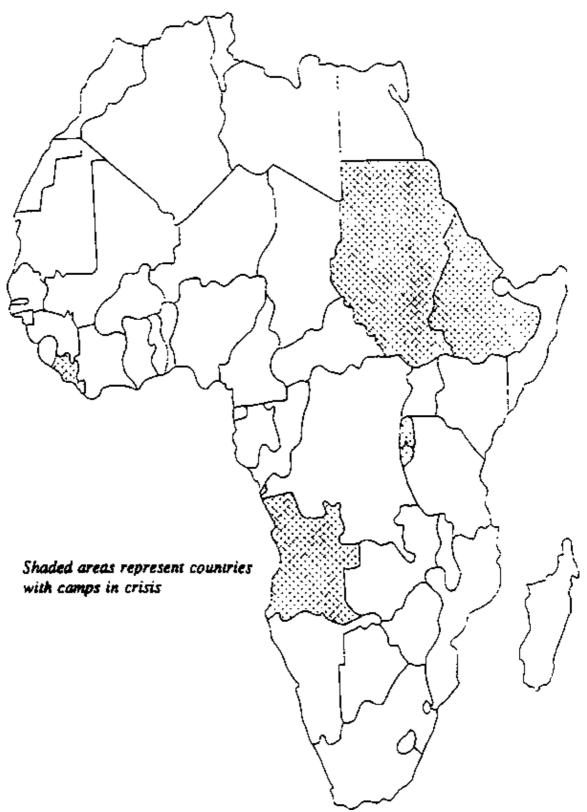


Figure 1 REFUGEE AND DISPLACED POPULATIONS Selected Areas (Dec 1993)

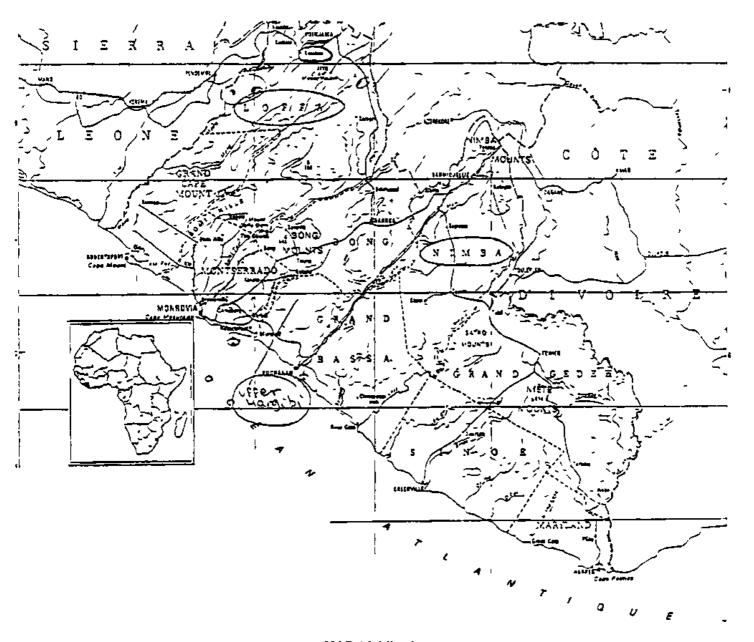
MAPS



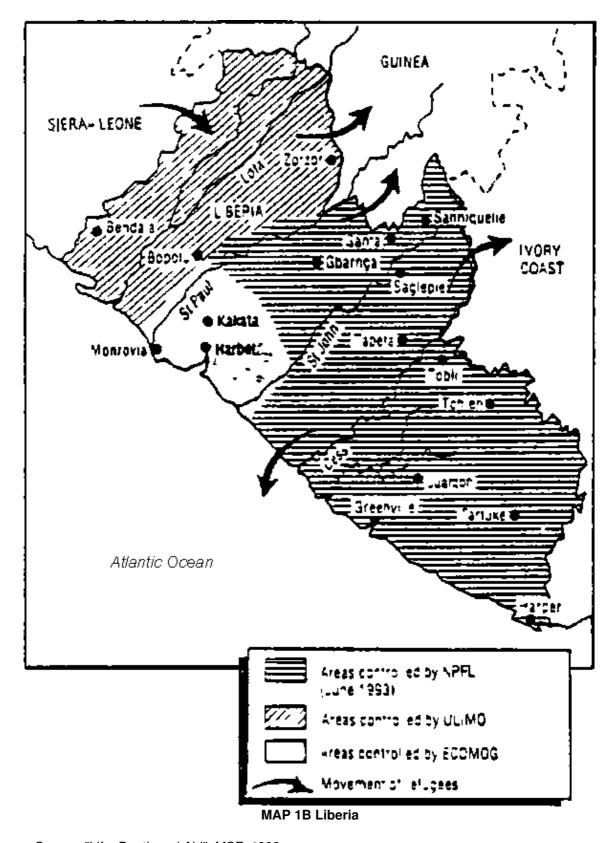
MAP A Situational Map



MAP B Location of Populations in Table 1

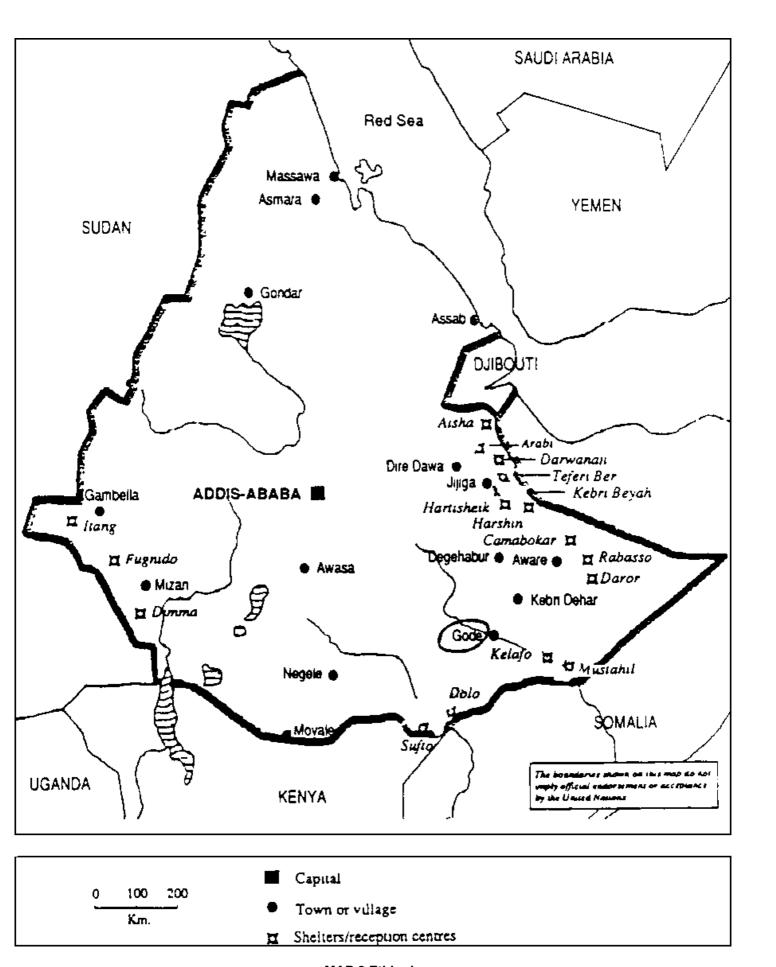


MAP 1A Liberia

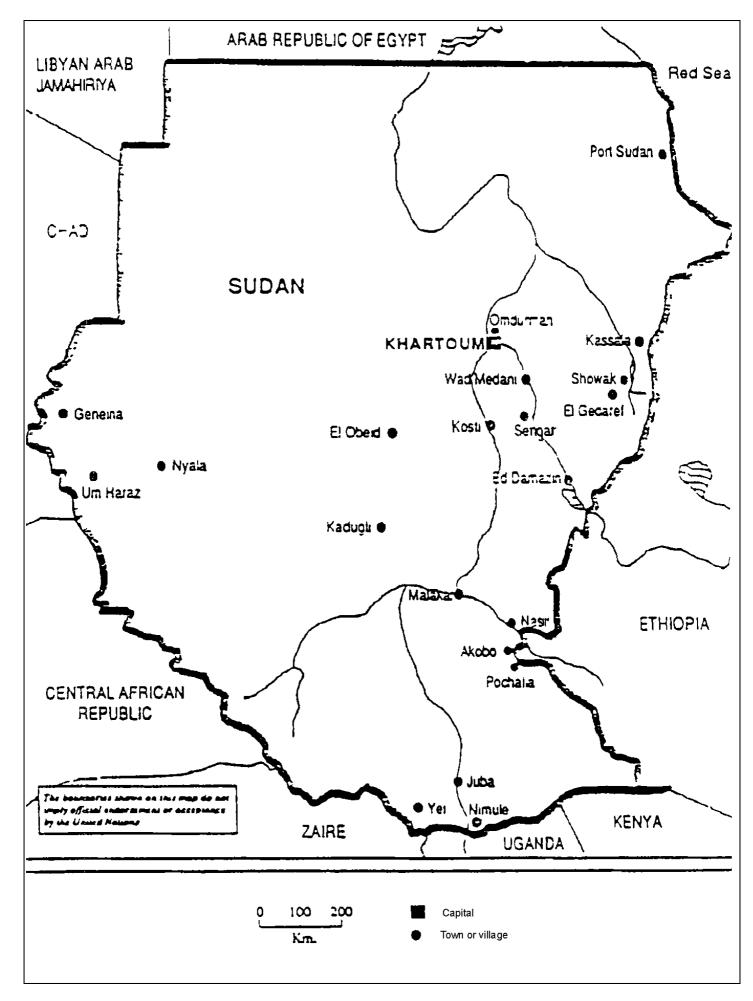


Source: "Life, Death and Aid", MSF, 1993

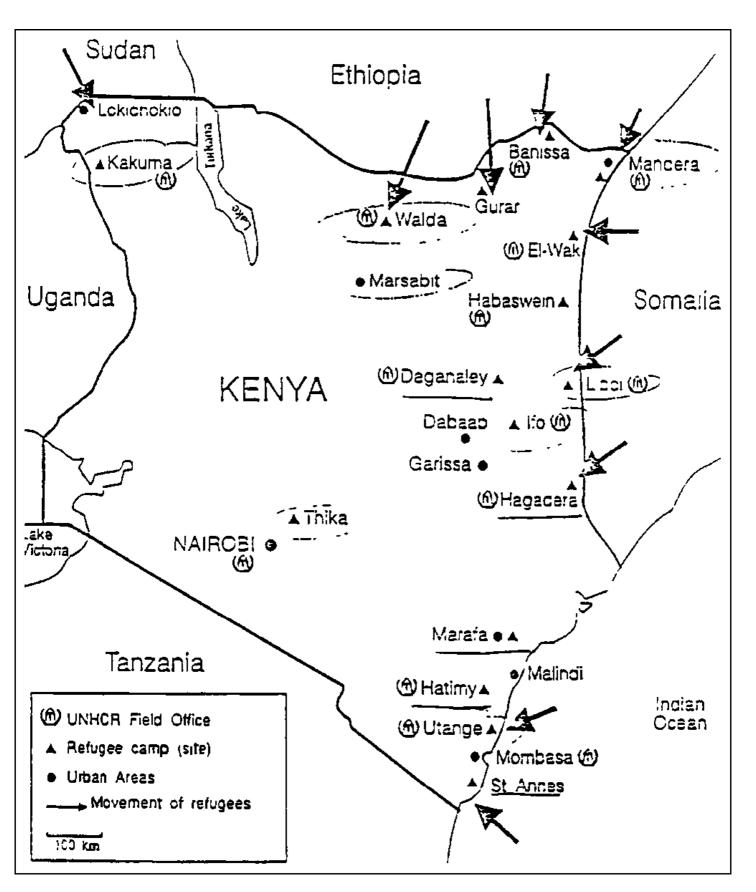
Reproduced with permission from MSF-UK and Routledge.



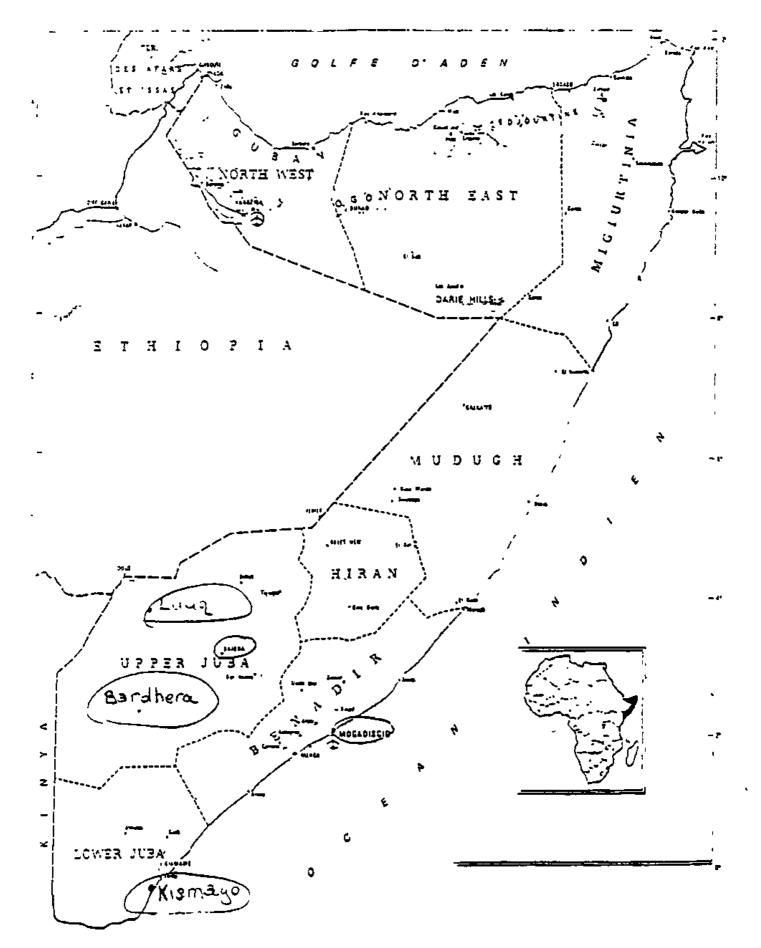
MAP 2 Ethiopia



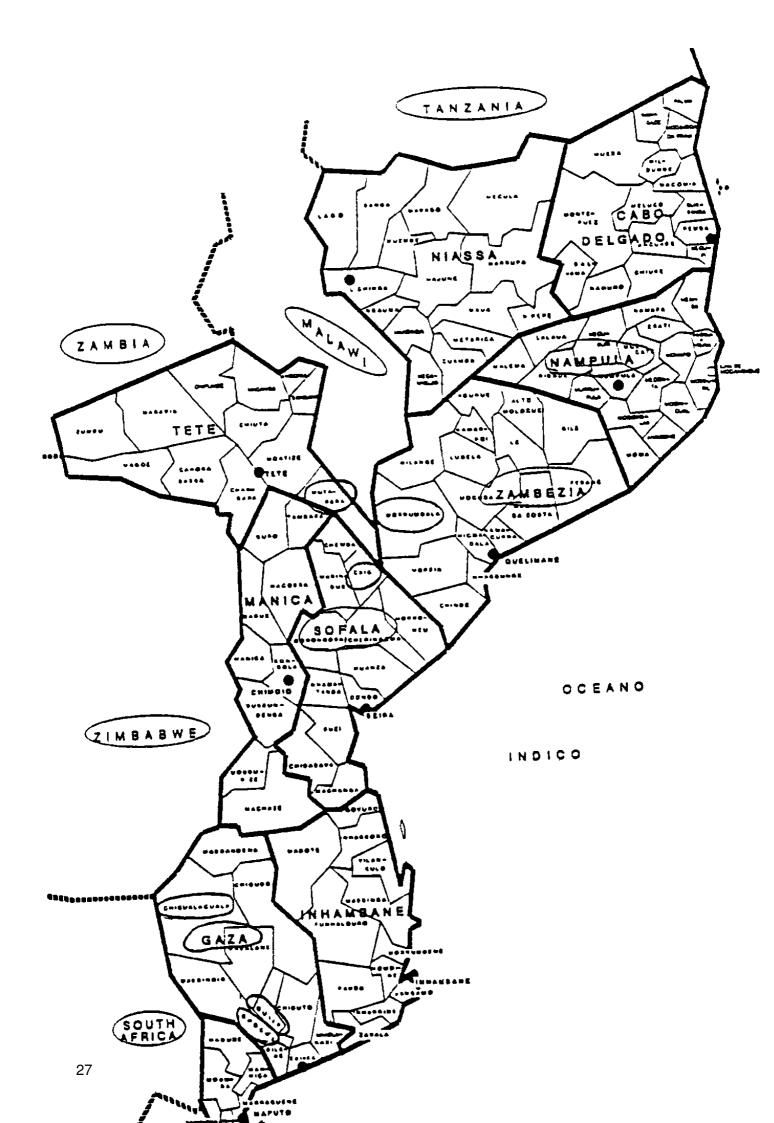
MAP 3 Sudan



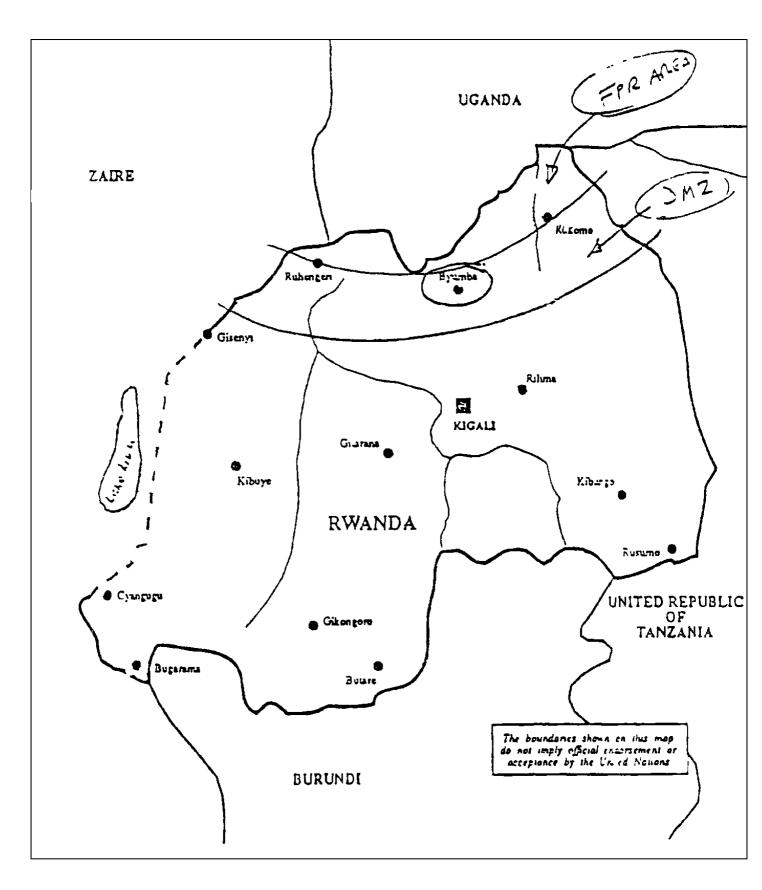
MAP 4 Kenya

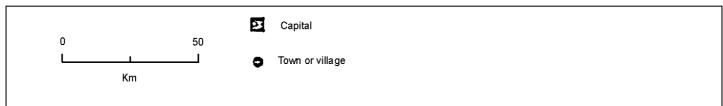


MAP 5 Somalia

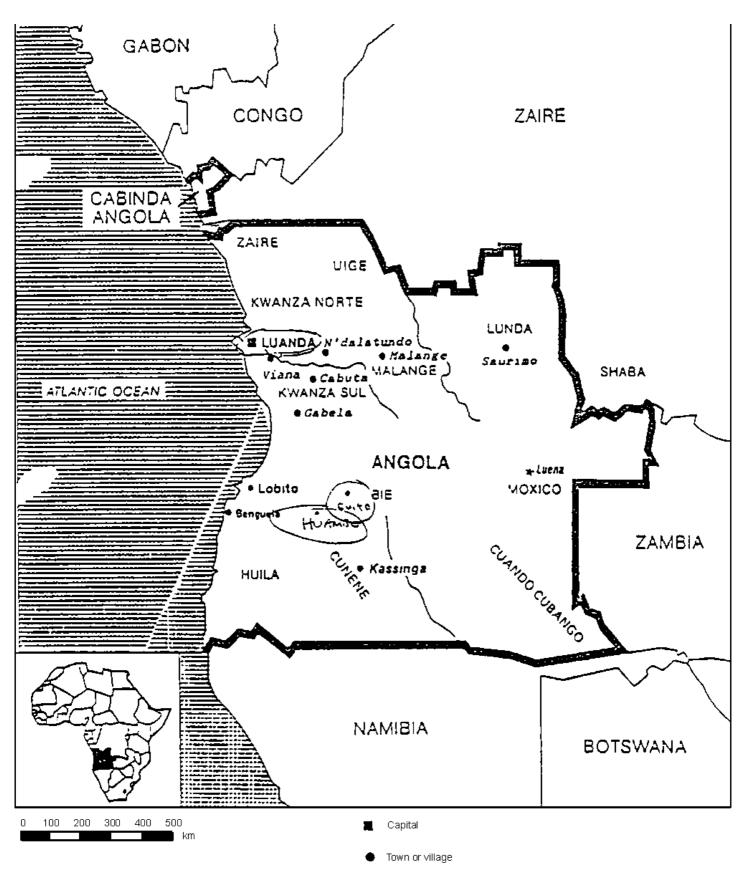


MAP 6 Mozambique

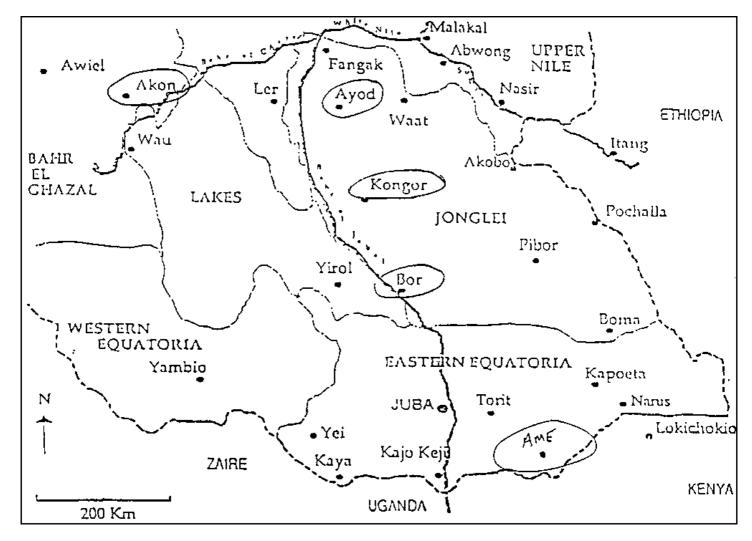




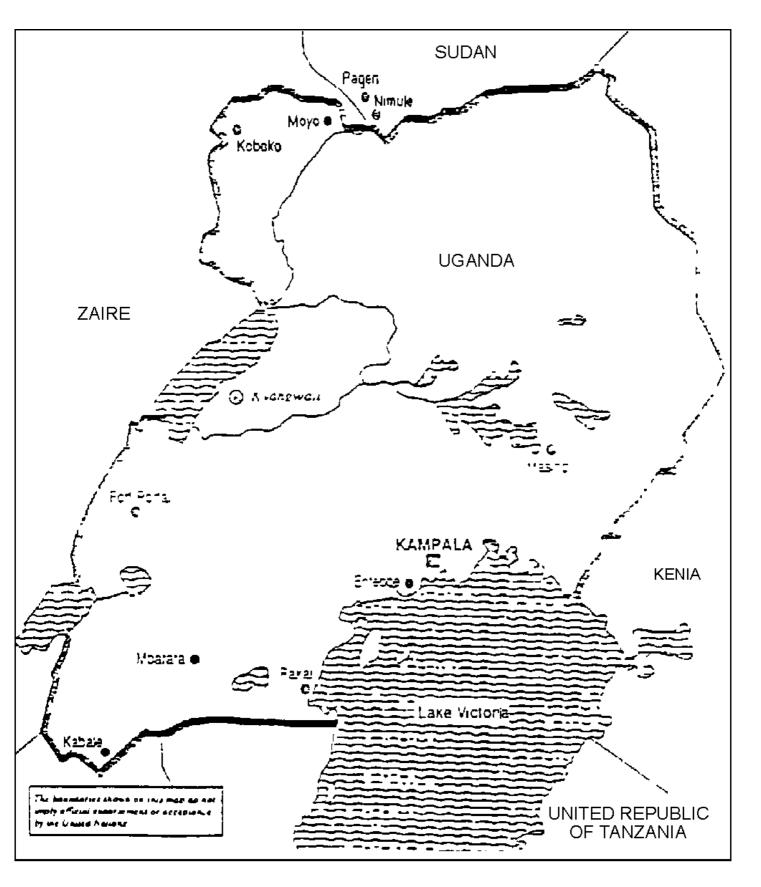
MAP 7 Rwanda

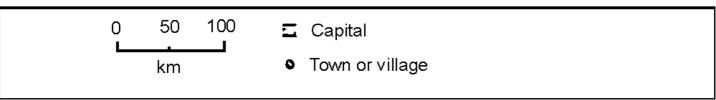


MAP 8 Angola

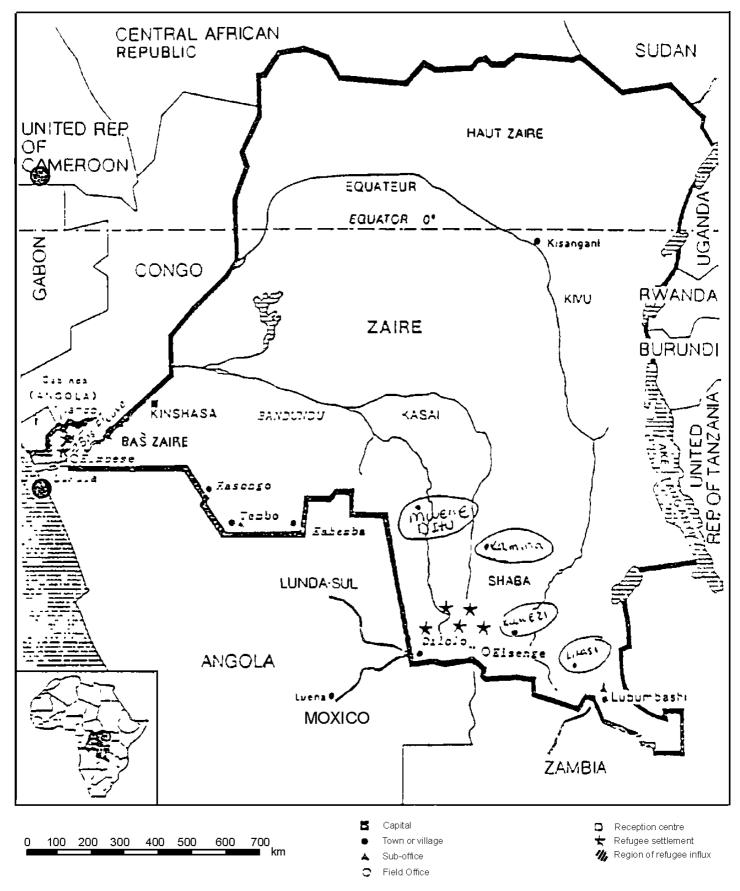


MAP 9 Southern Sudan

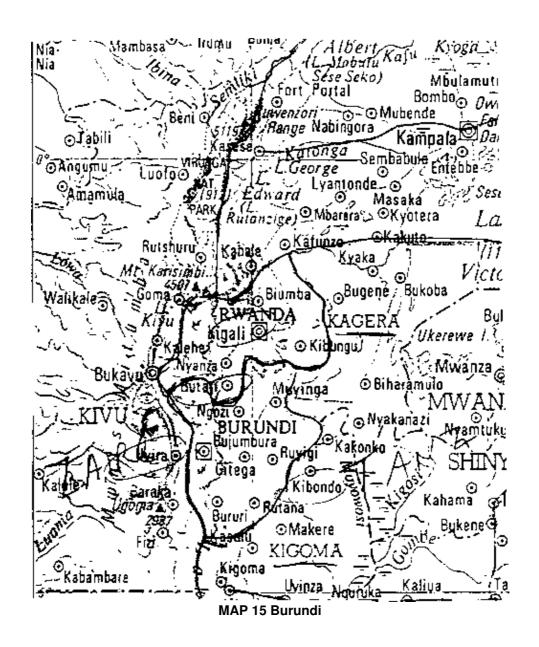




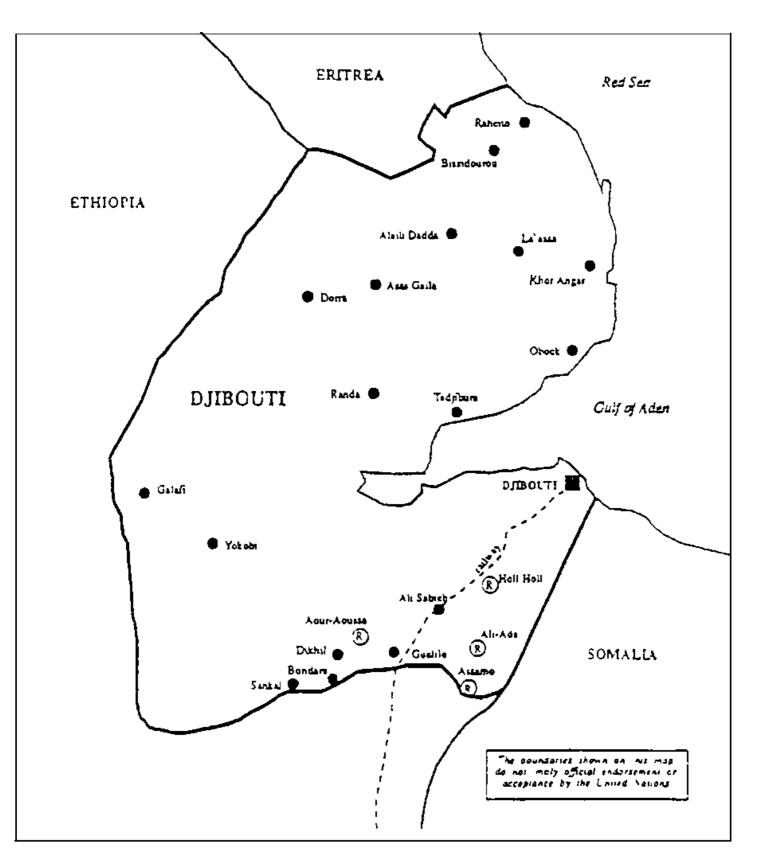
MAP 10 Uganda

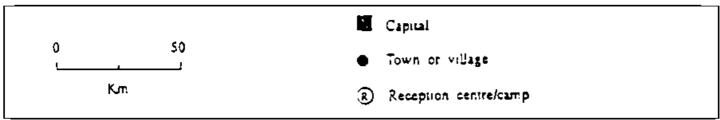


MAP 11 Zaire









MAP 17 Djibouti