

**Refugee Nutrition Information System (RNIS), No. 05 – Report on the  
Nutrition Situation of Refugee and Displaced Populations**



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

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## HIGHLIGHTS

*Internal conflicts continue to be the major cause of severe malnutrition among refugees and displaced people in Sub-Saharan Africa. In Angola, Liberia, and Southern Sudan hundreds of thousands of people are inaccessible for security reasons, and it is estimated that over 2 million people in Rwanda are displaced and cannot be reached at present.*

*Overall numbers of refugees and displaced people in Sub-Saharan Africa are estimated to have increased, since April, by around 1.5 million. Many of these are from Rwanda -- and at very high risk -- but new information has also increased the estimated numbers affected in Shaba, Zaire, by around half a million displaced.*

*New survey data are available for several situations. Most shocking is the very high -- and rising since April -- extent of severe malnutrition in Southern Sudan (e.g. in children 45% wasting, 14% severe wasting, 5% oedema) with associated child deaths at least ten times the usual rate for Sub-Saharan Africa.*

**Angola** *Fighting continues in Angola, making it difficult to reach the estimated 3.2 million people in need of aid. Much of the food supply to cities is being airlifted. Wasting levels are moderate, but pellagra has now been reported.*

**Liberia** *Even though sporadic fighting is continuing, there are some signs that the peace process is moving slowly forward which could lead to the eventual repatriation of the refugees and better accessibility to the roughly three million affected population.*

**Southern Sudan** *The situation is the most severe known in Sub-Saharan Africa, and deteriorating among the two million affected. Levels of wasting are being consistently measured at over 30% with severe wasting over 10%. These levels of wasting indicate a severe crisis. Access for external assistance is difficult (from north or south), but greater assistance should take highest priority.*

**Burundi/Rwanda Region** *It is estimated that over 3.5 million people in the region are affected, especially by the civil war in Rwanda. Those in Rwanda are probably all at high risk nutritionally because of inaccessibility for security reasons. The half million or so refugees in Tanzania are at risk more because of logistical*

inaccessibility. Details are not yet available, but it is feared that inaccessibility along with the large numbers in small areas could easily lead to a rapid deterioration in nutrition.

The situations in other parts of Africa are more stable, and refugees in Kenya, Mozambique, Zambia, and the Togo/Ghana region are generally receiving the aid they require.

The two Asian refugee populations reported on here (Bhutanese refugees in Nepal and refugees from Myanmar in Bangladesh) have largely been in the host country for at least a year, and these are not the emergency situations so often seen in Africa. However, after years of living on rations micronutrient deficiencies are commonly occurring. Cases of beri-beri, scurvy, angular stomatitis, and pellagra are reported.

Opportunities for external assistance to help improve matters vary by situation. Some of the major factors are summarized in the table, for nine of the most serious situations. Overall food aid availability — in the country and in the pipeline — is a particular constraint in Sudan and for the camp populations in E. Ethiopia (Ogaden), as are non-food supplies. In the Liberia situation, food in the pipeline for refugees in Guinea is currently inadequate. The logistics of distributing food to needy populations is a serious problem in Liberia, Angola, Sudan (especially South), and Burundi/Rwanda; and fragile in most of the other serious situations. Local rations are reported inadequate in quantity and quality (micronutrients, variety) for at least some dependent populations in most situations (usually in camps). Immunization rates are low in Somalia and Southern Sudan, and also not known to be adequate in Liberia, Eastern Ethiopia, and Mozambique. For most of these problems, an input of additional resources (food, cash, sometimes personnel) could alleviate the malnutrition and mortality.

#### ADEQUACY OF FACTORS AFFECTING NUTRITION

Factor	Liberia	Ogaden	E.W.C. Sudan	Somalia	Mozambique	Angola	S. Sudan	Shaba	Burundi/Rwan
1. General resources									
– food (gen. stocks)	✓	X	X	✓	✓	✓	X	✓	✓
– non-food	✓	X	X	✓	✓	✓	X	✓	✓
2. Food pipeline	X	X	X	✓	✓	✓	X	✓	X
3. Non-food pipeline	✓	X	X	✓	✓	?	X	✓	✓
4. Logistics	X	X	?✓	X	X	X	X	?	X
5. Personnel*	?✓	✓	?✓	✓	✓	?✓	✓	?	?
6. Camp factors**	? X	✓	?✓	X	?✓	X	? X	? X	X
7. Local rations – kcals	X	X	X	✓	?	? X	X	✓	X
– variety/micronutrients	X	X	?✓	?	?	X	X	?	X
8. Immunization	?	?	?	X	?	?	X	?	✓
9. Information	✓	?	X	✓	X	X	✓	X	X

✓ Adequate    X Problem    ? Don't know    ?✓ Don't know, but probably adequate    ? X Don't know, but probably inadequate

\* This refers to both adequate presence and training of NGOs and local staff where applicable.

\*\* This refers to problems in camps such as registration, water/sanitation, crowding, etc.

## INTRODUCTION

The UN ACC/SCN<sup>1</sup> (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.

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This is the fifth of a regular series of reports, issued every two months. This report is the first in the series to include reports on some Asian refugees and displaced people. Subsequent reports will be expanded to include more information on Asian refugee and displaced populations. We have chosen to begin the Asia section with the relatively small population of Bhutanese refugees in Nepal (approximately 86,000) and refugees from Myanmar in Bangladesh (approximately 200,000) due to persistent reports of micronutrient deficiencies. As in the past, Southern Iraqi refugees in Iran are also included.

Information is obtained from a wide range of collaborating agencies, both UN and NGO (see list at end). The overall picture gives context and information which separate reports cannot provide by themselves. The information available is mainly about nutrition, health, and survival in refugee and displaced populations. It is 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 on the next page.

At the end of most of the situation descriptions, there is now a section entitled "**How could external agencies help?**". This responds to many suggestions for such information, through the ACC/SCN's working group on Nutrition of Refugees and Displaced People.

The tables, figures and maps at the end of the report can provide a quick overview. Map A shows the location of the situations described and the shaded areas are those in a critical situation. To give context, in Table 1, we give an estimate of the probable total refugee/displaced/returnee population, broken down by numbers at risk. Populations in category I in Table 1 are currently in a *critical situation*, based on nutritional survey data. These populations have one or more indicators showing a serious problem. Populations *at high risk* (category IIa in Table 1) of experiencing nutritional health crises are generally identified either on the basis of indicators where these are approaching crisis levels and/or also on more subjective or anecdotal information often where security and logistical circumstances prevent rigorous data collection. Populations *at moderate risk* (category IIb in Table 1) are potentially vulnerable, for example based on security and logistical circumstances, total dependency on food aid, etc. Populations in category IIc are not known to be at particular risk and no information is currently available on populations in category III. Figure 3 shows trends in estimated population and risks in six countries. Each of these graphs shows the population broken down into the portion estimated to be at high risk (shaded area) and low or no risk (white area). Annex I summarizes the surveys quoted in the report and Annex II gives a general idea of seasonality in Sub-Saharan Africa.

### INDICATORS

**Wasting** is defined as less than -2SDs, or sometimes 80%, wt/ht by NCHS standards, usually 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. **Severe** wasting can be defined as below -3SDs (or about 70%). Any significant prevalence of severe wasting is unusual and indicates heightened risk. (When "wasting" and "severe wasting" are reported in the text, wasting includes severe - e.g. total percent less than -2SDs, *not* percent between -2SDs and -3SDs.) Evidence from refugee camps shows elevated levels of wasting to be associated high mortality rates (CDC, 1992). Equivalent cut-offs to -2SDs and -3SDs of wt/ht for arm circumference are about 12.0 to 12.5 cms, and 11.0 to 11.5 cms, depending on age.

**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 *pining* oedema, usually on the upper

surface of the foot. Where oedema is noted in 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.] Under-five mortality rates (U5MR) are increasingly reported. The average U5MR for Sub-Saharan Africa is 181/1,000 live births (in 1992, see UNICEF, 1994), equivalent to 1.0/10,000 children/day.

**Food distributed** is usually estimated as dietary energy made available, as an average figure in kcals/person/day. This divides the total food energy distributed by population irrespective of age/gender (kcals being derived from known composition of foods); note that this population estimate is often very uncertain. The adequacy of this average figure can be roughly assessed by comparison with the calculated average requirement for the population (although this ignores maldistribution), itself determined by four parameters: demographic composition, activity level to be supported, body weights of the population, and environmental temperature; an allowance for regaining body weight lost by prior malnutrition is sometimes included. Formulae and software given by James and Schofield (1990) allow calculation by these parameters, and results (Schofield, 1994) provide some guidance for interpreting adequacy of rations reported here. For a healthy population with a demographic composition typical of Africa, with actual (observed) body weights under normal conditions, and environmental temperature of 25°C, the average requirement computes as 1,720 kcals/person/day for low activity (1.4 BMR), and 1,850 kcals/person/day for moderate activity (1.54 BMR); at 15°C, these figures are 1,900 and 2,040 kcals/person/day. Substituting NCHS reference weights for children adds about 130 kcals to these figures.

**Indicators and cut-offs indicating serious problems** are levels of wasting above 20%, crude mortality rates in excess of 1/10,000/day (about four times normal – especially if still rising), and/or significant levels of micronutrient deficiency disease. Food rations significantly less than the average requirements as described above for a population wholly dependent on food aid would also indicate an emergency.

## References

CDC (1992) Famine-Affected, Refugee, & Displaced Populations: Recommendations for Public Health Issues, MMWR 41 (No RR '3)

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Schofield C. (1994) Pers. Comm.

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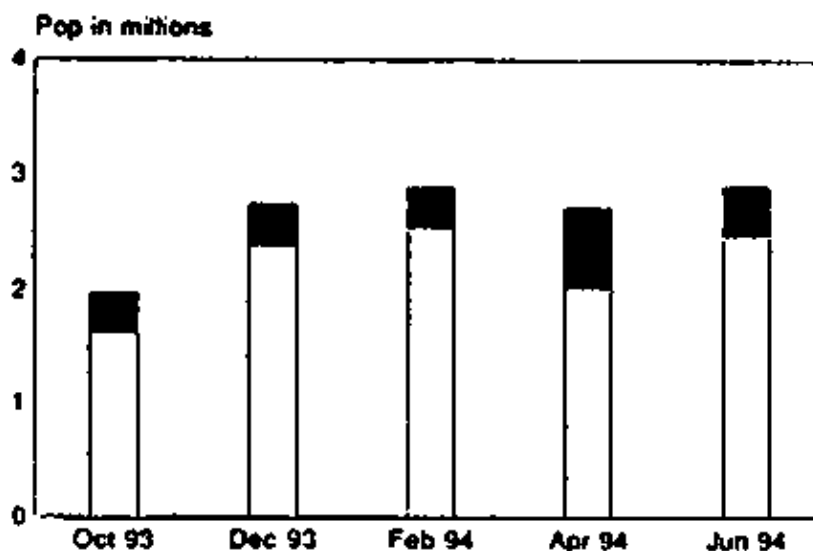
## CURRENT SITUATION (Sub-Saharan Africa)

### 1. Liberia Region

(see Map 1 and Figure 3A)

While the estimated number of people in the region affected by the civil wars in Liberia and Sierra Leone remains virtually unchanged at 2.9 million the installation in March of a transitional government in Liberia may now have broken the political stalemate [WFP 9/05/94]. In accordance with the peace agreement signed in July 1993, general elections are scheduled to take place in early September. It is thought that these elections may encourage many refugees to return to vote [UNHCR 13/05/94], although if current levels of violence continue this may be open to doubt.





A. Liberia – Trend in numbers of refugees/displaced and proportion severely malnourished and at high risk (black area).

However, the disarmament process is proceeding slowly with approximately 3,000 soldiers out of an estimated 50–60,000 surrendering their weapons. Coupled with various political impasses leading to factionalism within ULIMO, this timetable for elections now appears optimistic. A positive aspect of this is that it may provide greater time to raise funds for a repatriation programme [UNHCR 13/05/94, WFP 3/06/94].

Current estimates of populations affected are as follows:

Location	Dec 1993	Feb 1994	April 1994	June 1994
<b>Liberia</b>	1,750,000	1,750,000	1,750,000	1,750,000
<b>Sierra Leone</b>	150,000	300,000	297,000	300,000
<b>Cote d'Ivoire</b>	250,000	250,000	250,000	234,000
<b>Guinea</b>	600,000	600,000	415,000	628,000
<b>TOTAL</b>	2,750,000	2,900,000	2,712,000	2,912,000

Over the past two months food distributions have covered 1.5 million displaced persons in Greater Monrovia and Bomi and Nimba counties. However, an estimated 300,000 people have been cut off from any assistance in South Eastern and Central Liberia and Upper Lofa due to insecurity. Most recently food distributions in the Western counties of Lower Lofa, Bomi and Cape Mount have been postponed because of continued fighting within ULIMO. Rural areas of Grand Bassa and Rivercess have not been accessible due to fighting between NPFL and LPC [WFP 9/05/94].

**NPFL Area** There are 455,000 people being provided with food aid in this area. Recent skirmishes between the NPFL and LPC (Liberia Peace Council in the central counties of Grand Bassa, Rivercess and Grand Gedehe have made these areas inaccessible [WFP 9/05/94].

A nutritional survey carried out in early April in *Nimba county* found wasting levels of 12.7% with 6.7% severe wasting (see Annex I la). In some areas wasting rates were above 20%. Measles immunisation campaigns started in February have increased vaccination coverage to over 72%. Throughout this crisis there has been an observed association between measles outbreak and malnutrition/oedema. Crude mortality rates were measured at 1/10,000/day (3 x normal) with an under-five mortality rate of 2/10,000/day, the latter especially is considered to be high. With the advent of the hungry season between May and September it is expected that the nutritional status of this population will deteriorate further unless there is improved food distributions in the region. There have been no organised general food distributions in Nimba county since September 1993. In February 1994 Lutheran World Foundation (LWF) began distributing rations of rice in the larger towns only, and is gradually expanding its distribution capacity [MSF-B 4/4/94, WFP 9/06/94].

Mean length of stay in supplementary feeding centres has been increasing and may reflect inappropriate rations for malnourished children as there was a temporary lack of corn–soya blend (CSB) available for feeding. Data from therapeutic feeding centres in Bong and Nimba county in March indicated 22% and 55% of admissions respectively as having oedema [MSF–B Mar 94].

*ULIMO Area* Internal fighting between different factions in ULIMO has led to the displacement of approximately 10,000 to the outskirts of Monrovia (ECOMOG controlled) and has prevented aid from reaching Bomi and Cape Mount counties [WFP 9/05/94]. Upper Lofa county remains inaccessible due to continued fighting within ULIMO. It is assumed that the approximately 175,000 displaced Liberians and Sierra Leonean refugees are in a critical state as they have been cut off from aid since December 1993 [UNHCR 13/05/94].

*Sierra Leone* There are an estimated 300,000 refugee and displaced people in Sierra Leone. Sporadic fighting continues with government forces now on the offensive after earlier rebel gains in the South East in April. Some assistance has now reached the 82,000 people previously cut off in Kenema and Segbwema but insecurity prevents regular food aid deliveries [UNHCR 25/05/94, WFP 9/05/94].

*Cote d'Ivoire* After a screening exercise conducted on distribution cards, the number of beneficiaries has decreased to 234,000 from 258,000 [WFP 9/05/94]. Many of the refugees work on local farms, on coffee plantations, or are involved in other income generating projects thereby attaining varying degrees of self–sufficiency. Almost 100,000 are now enrolled in an agricultural co–operative scheme which it is hoped will lead to them attaining complete self–sufficiency by the end of 1994 [UNHCR 6/05/94]. Cross border deliveries into Liberia are continuing [WFP 9/05/94].

*Guinea* There are an estimated 628,000 Liberian refugees in the Guinea Forrestiere region of Guinea of which 50,000 are relatively new arrivals [UNHCR 6/05/94, WFP 23/05/94]. It is reported that many of the new arrivals are not being registered, and are therefore not receiving any rations. General ration provision is said to be insufficient. It is reported that the quantity is low and the ration is lacking a protein source and certain micronutrients [CAMA 13/06/94]. In the East the prevalence of wasting among children was reported as 11.9%, with 2.2% kwashiorkor in Thuo and 2.8% in Banie. In the West these wasting rates among the refugees have recently been recorded at 18.9% (see Annex I 1b) and there are anecdotal reports of levels of wasting as high as 25% among new arrivals [CAMA 13/06/94]. These high rates are believed to be due not only to new influxes of refugees from Liberia, but also to a decrease in the basic ration since 1993. Up to 120,000 refugees are estimated to be benefitting from agricultural projects and it is hoped that the majority of these individuals will no longer require food aid support by the end of the 1994 [UNHCR 6/05/94]. A new influx of 1,758 people from Lofa due to renewed fighting was reported at the end of May

Overall, the 50,000 new arrivals in Guinea are considered to be at high nutritional risk (category I in Table 1) with high levels of wasting; the populations in Sierra Leone and Liberia with little or no food distribution are thought to be at high risk (category IIa in Table 1). Since fighting continues in Liberia, the rest of that population is considered to be at moderate risk (category IIb in Table 1) and the refugees in Cote d'Ivoire are not currently thought to be at particular nutritional risk (category IIc in Table 1).

***How could external agencies help?*** Current external resource availability appears adequate for the accessible populations, however about half the affected population is inaccessible to external assistance. There are signs of a future break in food pipeline supplies for Guinea. Only rice and oil are being distributed in some camps; beans or another culturally acceptable source of protein are required. There are reportedly registration problems in some camps in Guinea – over–registration is reported, as well as under–registration. However, if the elections in Liberia do take place along with the anticipated repatriation then considerable funding will be needed for a repatriation programme and for the restoration of infrastructure to allow adequate resource provision in the early stages of resettlement.

There is a need to ensure a continuous supplies of CSB for selective feeding programmes.

## **2. Western Ethiopia/Eastern Ethiopia/Ogaden**

(see Map 2)

The estimates of the numbers of refugees/returnees/displaced in Ethiopia remain at 179,000. This includes 44,000 Sudanese refugees in the West, 100,000 Somali refugees in the East and 35,000 returnees and displaced people in three camps in the Ogaden. We have received no recent reports of this latter population

who have been in nutritional crisis for many months. The most recent report which indicated extreme levels of wasting, mortality, and micronutrient deficiency diseases such as scurvy was in February and was cited in the last RNIS report.

Ethiopia is reported to be experiencing a serious drought affecting about 7 million people. Large numbers of people are said to be abandoning villages and there are reports of deteriorating nutritional status in Northern Wollo, Southern Tigray, Gondor, Wolayita and South Omo [FAO Mar/April 1994, SCF 14/04/94, WFP 30/05/94]. Although people have been advised to remain in villages and await aid supplies there has already been some movement towards centres such as Sekota and Korem where food aid stocks are presently insufficient to meet demand [WFP 8/04/94].

***How could external agencies help?*** The situation remains unchanged for the approximately 35,000 in the Ogaden and seems likely to continue this way unless deliberate action is taken. Food adequate in quantity, variety and quality is not getting to the population in camps in the Ogaden for a variety of reasons, including internal. Donors may want to consider that priority be given to rectify this continuing nutritional crisis. Furthermore, the severe drought is likely to cause deterioration, and it is clear that food aid will be required on a massive scale.

### **3. East, Central and West Sudan**

(see Map 3)

In the areas of East, Central and West Sudan there are approximately 1,700,000 displaced Sudanese. A large proportion are displaced Southerners who have fled the civil war in the South. However, environmental marginalisation of certain Northern areas and continuing drought in the West has led to the destitution of many families who have been forced to settle in camps or the outskirts of large towns and become dependent on external assistance.

The current drought has caused sharp cereal price rises throughout Sudan indicating an acute food shortage [SCF Apr 1994, WFP 2/05/94]. Prospects for the harvests are poor and in areas where harvesting has already occurred, reduced production has been reported [FAO Mar/Apr 94].

*Khartoum* The displaced population in camps around Khartoum may be as high as one million people. In March levels of wasting in the four official displaced camps in Khartoum were measured at 20.8% (see Annex I 3a) [UNICEF 23/03/94]. Over the past six years levels of wasting have often reached crisis levels in these camps when seasonal grain prices have increased dramatically. Recent reports indicate the need for more therapeutic feeding facilities in these camps and greater regularity in supply of supplementary foods for malnourished children. Medical facilities are also reportedly poor with frequent shortages of key drugs such as chloroquine and antibiotics [UNICEF 12/05/94, UNICEF 23/03/94].

*Darfur* Due to prolonged drought, it is widely anticipated in Darfur that in the absence of substantial external food supply there will be large scale migration out of the area and substantial famine deaths [SCF Apr 94]. A recent assessment mission identified 67,300 people in Southern Darfur as in need of aid due to rising cereal prices and continuing drought. The food shortage in this region has been exacerbated by the arrival of Chadians who purchase what little food there is in the local markets due to the hyper-inflation in their own country [WFP 2/05/94].

*Kordofan* Although food was distributed to approximately 500,000 drought affected people in North Kordofan in March, there were insufficient stocks for the April distribution. The GOS has indicated that up to 100,000 people may face starvation in Hamrat El Wiz and Gebrat El Sheik [WFP 2/05/94].

Prevalence of wasting among children in Dilling and Kadugli have been recorded at 19% (see Annex I 3b) and there have also been reports of wild food consumption in other areas [WFP 2/05/94].

Overall, the 100,000 reported to be facing starvation in Kordofan are at high risk (category IIa in Table 1) and the rest of the displaced population is considered to be at moderate risk (category IIb in Table 1).

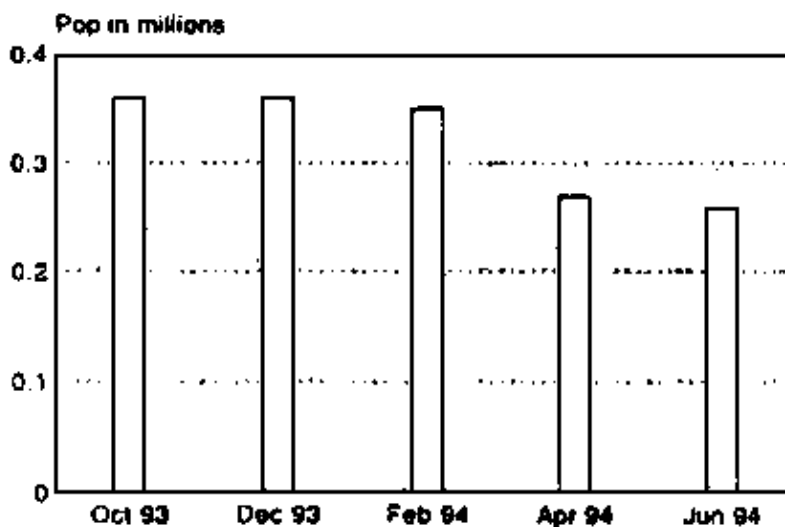
***How could external agencies help?*** Since the Government of Sudan declared a drought emergency only a small amount of food aid has been pledged or received. There is now a considerable overall physical shortage of food in the country. Although there are well-known political obstacles, withholding food aid (and non-food

resources) will inevitably prolong and worsen existing food shortages, especially in the more remote areas. There is also a need for greater provision of foods for supplementary feeding programmes and of essential drugs for large numbers of displaced populations in camps of which there are probably 1 million near Khartoum.

#### 4. Kenya

(see Map 4 and Figure 3B)

While the overall number of refugees in Kenya has decreased to 268,000 due to repatriation, there has been a reported influx of both Somali refugees in Garissa district (about 300 arrivals per week) and Sudanese refugees (about 200–300 arrivals per week). Both influxes are due to increased fighting in the respective countries of origin. The majority of refugees in Kenya are Somali (219,967), Sudanese (38,271) and Ethiopians (8,805) [UNHCR–a 25/05/94, WFP 2/05/94].



B. Kenya – Trend in numbers of refugees/displaced.

Food stocks are reportedly adequate and all major roads are passable allowing prompt delivery to camps [UNHCR–a 25/05/94, WFP 2/05/94].

Information available from March for Hagadera camp (estimated population 31,300 Somali refugees) shows a crude mortality rate of 0.36/10,000/day and an under-five mortality rate of 0.73/10,000/day (see Annex I 4a) [MSF–B–a Mar 94]. The crude mortality rates are around normal levels.

A population count was scheduled for Kakuma camp but the mainly Sudanese refugees population refused and looted all materials related to the exercise. A riot ensued, where many houses were burned so that assistance had to be suspended. The census has now been postponed and assistance resumed [UNHCR–a 25/05/94].

The situation for the refugee population remains generally under control with no populations currently at particular nutritional risk (category IIc in Table 1).

**How could external agencies help?** The overall needs of this refugee population are reported to be adequately met.

#### 5. Somalia

(see Map 5)

Although there have been no large scale outbreaks of fighting, numerous security incidents, e.g. in Mogadishu, Bardera, Hargeisa (Somaliland), Baidoa and Kismayo have occurred. In some cases international agency staff have had to be evacuated.

Food deliveries in Luuq were hampered by lack of military escorts for convoys and poor road conditions to Buaale and Bardera have restricted food aid deliveries. In spite of these difficulties over 1,000 small food-for-work rehabilitation projects have continued to be supplied with food through nine regional centres while the remaining 20% of food aid has been used as direct assistance for 274,000 people [WFP 16/05/94].

A nutritional survey carried out in Genale in February 1994 showed 2.8% wasting with 1.1% severe wasting (see Annex I 5a) [AICF 1/02/94]. A survey carried out in Bur Akabe district in January 1994 measured wasting at 4.5% and severe wasting at 2.49 (see Annex I 5b). This is a considerable improvement over a survey carried out in the same district in April 1993 when wasting was measured at 11.8%. The crude mortality rate was 0.72/10,000/day. However, it was estimated that only 7.1% of children between 12–23 months old were vaccinated against measles [AICF 1/01/94].

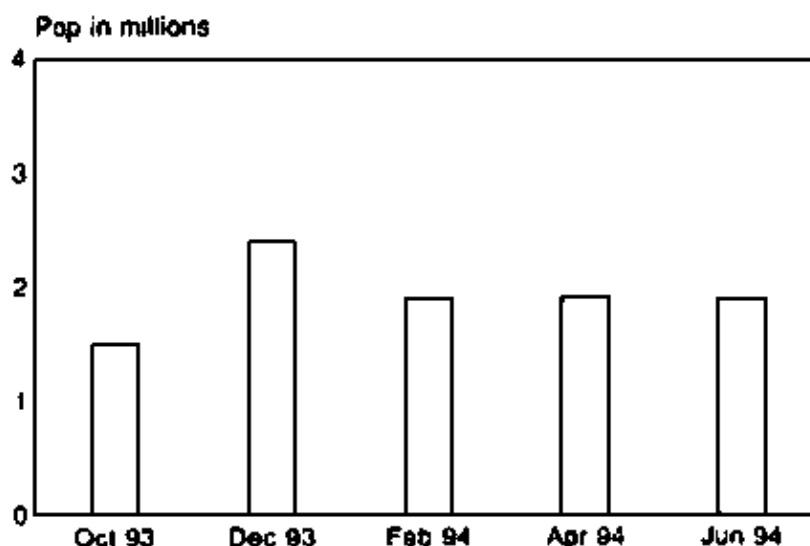
The spread of cholera in Kismayo has slowed down with the total number of cases treated so far at 2,724. However, new cases have been confirmed in Juba valley [WV Apr 94].

**How could external agencies help?** Continued donor support is essential for rehabilitation programmes while international agencies must build up local staffing capacity for nutritional and health service provision. This may prove vital in the event of future breakdown in security and the evacuation of international agency staff. Given the low levels of immunization measured in Bur Akabe, an immunization campaign is probably warranted.

## 6. Mozambique

(see Map 6 and Figure 3C)

Estimates for the numbers of people in need of assistance in the region (Mozambique and refugee hosting countries) remain stable at 1,850,000. It is estimated that assistance in Mozambique will be required at least until March 1995, the main beneficiaries being returnees arriving after the planting season (October), demobilized soldiers and drought/cyclone affected populations [WFP 16/05/94/].



C. Mozambique – Trend in numbers of refugees/displaced.

Repatriation is continuing. As of April 1994 out of this 1.85 million total, 775,000 refugees had returned to Mozambique. The arrival of a further 51,000 is expected over the next few months although there are an estimated 800,000 Mozambican refugees still residing in neighbouring countries [MSF–CIS Feb 94, WFP 16/05/94].

Those people in areas with access to land who had previously received timely and adequate agricultural inputs were believed to have sufficient food until the coming harvest, but inadequate rains have led recently to poor harvest prospects. In addition, those who had failed to plant, e.g. new returnees, will continue to be dependent on food distributions. Some problems with food distributions had been noted due to poor roads, transportation problems, lack of fuel and insufficient quantities of food available. As a result certain areas have not received distributions for several months, e.g. Mogincual in Nampula district [FAO/WFP May 94, MSF-CIS Mar 94, WFP 9/06/94].

Thus, the nutritional situation in Mozambique was reported to be generally stable, but with pockets of malnutrition thought to exist, especially among recent returnees [MSF-CIS Feb 94]. Increasing rates of malnutrition have been reported in districts of Tete and Nampula provinces with significant numbers of new returnees.

The health situation in districts affected by cyclone Nadia in Nampula and Cabo Delgado provinces, e.g. the district of Nacaia Porto, has been precarious as health infrastructure and water supply systems were damaged [DHA 19/04/94].

Anti-personnel mines remain a severe problem throughout the country with accidents continuing so that some NGOs have been forced to reconsider their activities in isolated provinces. These mines also render many fields useless that would ordinarily be used for farming [MSF-CIS Feb 94].

Overall the population is not currently considered to be at particular nutritional risk (category IIc in Table 1).

***How could external agencies help?*** A key priority is to establish a better system of monitoring recent returnees. This may require greater decentralization of international agency staff, on a temporary basis to areas where large groups have returned. Agencies supporting recent returnees may need more resources for such activity. Logistics remained a problem for remoter areas in part because of land mines, partly because of a lack of infrastructure. A transition to more local food purchasing is planned, showing a shift from food aid to non-food resources. More use of local trading channels for food distribution is desirable.

## **7. Rwanda**

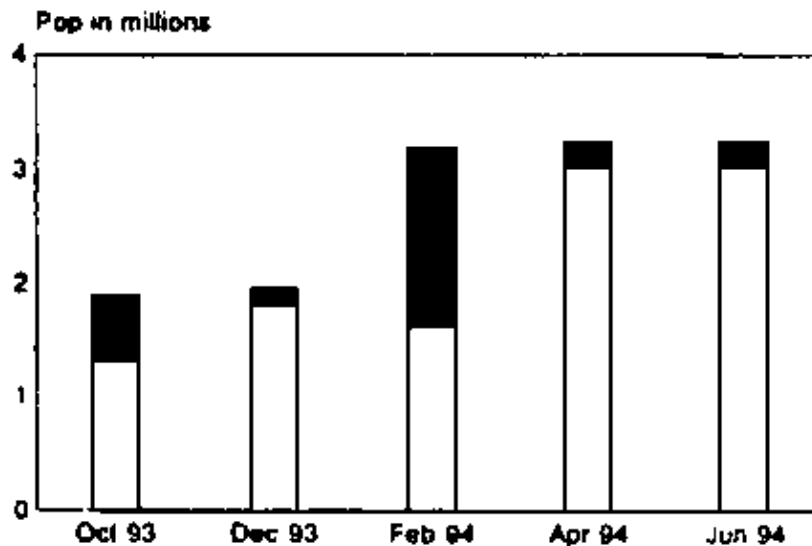
(see Map 7)

This section formerly dealt with the internally displaced populations in Rwanda. Due to the civil war and the resulting displacement both internally and across international borders, this section will now be included under #15: Burundi/Rwanda Region.

## **8. Angola**

(see Map 8 and Figure 3D)

It is estimated that the total number of people needing food and non-food aid has remained at 3.2 million [DHA Dec 93]. An FAO/WFP food and crop assessment mission in April estimated that emergency food aid will be required for 2.2 million people between April 1994–March 1995 [FAO Mar/Apr 94],



D. Angola – Trend in numbers of refugees/displaced and proportion severely malnourished and at high risk (black area).

Since April, the civil war in Angola has continued unabated. There have been reports throughout April and May of concerted fighting around Malanje town, Kuito, Huambo town and province, Kwanza–South Benguela and Kwanza North. Major provincial capital cities are still effectively under siege, although with some interruptions, international agencies continue to fly in massive amounts of food aid. Up to 900 tons a week are being flown into Huambo by WFP with an estimated population of 400,000 people largely dependent on food aid.

In spite of these efforts, limited infrastructure and logistical capacity as well as periodic interruptions to supply caused by insecurity, have meant that thousands of Angolans are still at considerable risk. There is little recent nutritional or mortality survey data, but a number of anecdotal/qualitative reports are cause for concern. Following a visit in April by the UN under–secretary for humanitarian affairs, a statement was made that the situation in Kuito was "one of the worst in the world", while a UN joint assessment mission to Tchindjenje and Balombo in Huambo province at the end of April found a "very grave situation".

In April, an airlift began into Cubal in Benguela province where an estimated 100,000 displaced people were reported to be in need of food aid [WFP 9/05/94].

Although the nutritional situation in Malange (estimated population 200,000) is reported to be improving, crude mortality rates in April were measured at 1.3/10,000/day (4 x normal). The under–live mortality rate was 0.4/10,000/day. A nutrition survey conducted in May measured wasting at 6.6% with severe wasting at 1.3% (see Annex I 8a). This is a considerable improvement over levels of wasting measured in October 1993 (37%) and February (11.1%) in large part due to WFP's success in airlifting food. However, anecdotal reports are now arriving of pellagra in Melange [MSF–H 7/05/94, MSF–H 23/05/94].

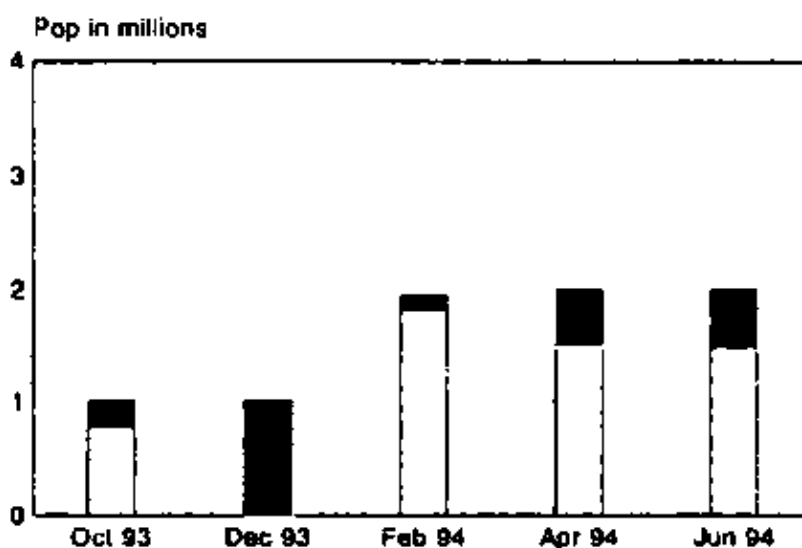
**How could external agencies help?** The international community is providing effective support and this needs to continue. Large scale relief and rehabilitation measures may be required when the most affected populations (e.g Kuito and Huambo) become accessible, when security improves; donor contingency planning may be needed. Insecurity necessitating airlifting remains a constraint, requiring special funding. There is also an urgent need for data on nutritional and health status from these large urban centres. Currently, the majority of data are anecdotal reports. Measures to support such data collection should be supported where possible.

## 9. Southern Sudan

(see Map 9 and Figure 3E)

Increased fighting during May and June in Southern Sudan displaced many thousands and continues to disrupt relief operations. This was compounded by the onset of the rainy season. This fighting is reported to affect most of Southern Sudan with population movements throughout the provinces of Bahr el Ghazal,

Equatoria, Jonglei and Upper Nile. Some international personnel have been moved into Uganda. This is the peak agricultural period so the next harvest later this year will be seriously affected. Emergency food stocks are reported "almost exhausted" in Bahr el Ghazal [WFP 2/05/94, WFP 16/05/94, WFP 27/05/94].



E. Southern Sudan – Trend in numbers of refugees/displaced and proportion severely malnourished and at high risk (black area).

Many areas served by air operations from Lokichokio (in Kenya), which were severely curtailed during April due to lack of funds, have received less than 50% of projected food needs. Flights from Entebbe to Juba also ceased in April due to lack of funding. Overall, shortage of funds and food meant that only 65% of WFP planned food deliveries for April took place for a target population of 530,000 [WFP 16/05/94]. Some airlifting from Entebbe to Juba restarted in June. WFP requests donors to allocate relief food to meet the food gap for Southern Sudan (ex Khartoum) which is estimated at 24,000 MT [WFP 13/06/94].

Nutritional survey reports from several areas in the South show crisis levels of wasting with some of these areas having been directly affected by interruptions to the air-drop operation. This is described by area below. Population estimates by area are unavailable.

*Equatoria* The food situation in Juba remains critical with only enough food to allow 70% of those eligible for wet feeding to enrol on the programme. Furthermore, the displaced camps around Juba have only been supplied with rations of small amounts of vegetable oil and pulses with no staple foods [WFP 2/05/94].

In spite of the rains and insecurity, road convoys did manage to reach 150,000 people in 17 villages in Eastern Equatoria. Another convoy reached 35,000 people to the Eastern side of the Lopit mountains where WFP reported a serious food deficit. There were also reports of 51,000 people newly displaced from Opari, Aswa, and Pageri who were moving towards Mugale (East of Nimule) [WFP 16/05/94].

The nutrition situation is thought to be extremely bad. For example, a nutritional survey in April carried out at Labone camp (estimated population 50,000) near the Ugandan border found high levels of wasting at 37.0% including 13.8% severe wasting. Rates of oedema were measured at 4.5% (see Annex I 9a) [AICF 19/04/94].

*Bahr el Ghazal* The food and nutritional situation in many areas has been reported as critical. The current crisis in the county has undoubtedly been worsened by the effects of the 1993 drought. The status of the displaced living in Marial Ajith and Eastern Bank camp is alarming as the last general food distribution in February reached only one quarter of the displaced who in turn only received 25% of cereal needs for a short period. Current reports are that wild foods are the only food now available. Local relief authorities have been reporting high mortality in the camps due to starvation and sickness, worsened by poor sanitation [WFP 2/05/94].

A nutritional survey carried out in Alek county (in the north of the province with an estimated population of 345,000) found very high levels of wasting of 45.4% with severe wasting measured at 10.3% (see Annex I 9b) (this shows a dramatic deterioration compared to October 1993 results of only 12% wasting).



Measles immunisation coverage was less than 50% which is insufficient to prevent an epidemic the effect of which would be catastrophic. How far these results apply to a wider area is not Known, but it is possible that any bias would be to underestimate malnutrition as this area is receiving some assistance [MSF-F 16/04/94].

Serious fighting was reported between GOS and SPLA in Wau and Gogrial in Western Bahr El Ghazal in the first week of May [UNICEF 13/05/94].

*Upper Nile* The military-political situation remains complex with mass population movements along the river making needs assessment and food aid delivery difficult. Unconfirmed reports are that tens of thousand of people have been pushed towards the Ethiopian border. In April approximately 17,000 people in Nassir received a half ration via an air drop [WFP 16/05/94].

*Jonglei* With reduced air lift capacity during April only limited food could be distributed to Waat town (estimated population 16,000) despite the acute need shown by a nutrition survey in March. This survey showed 24.8% wasting, with 4.9% severe wasting (see Annex I 9c). Crude mortality rates were 4.4/10,000/day (11 x normal) and under-five mortality rates were 11.2/10,000/day. We are again seeing alarmingly high mortality rates. Recent reports indicate people are eating seeds and that even wild foods are in short supply [MSF-H Mar 94, WPF 16/05/94].

In sum, the populations of Bahr El Ghazal, Labone camp in Equatoria and Juba are known to be in a critical state (category I in Table 1). The 100,000 people on the border at Nimule are thought to be in a critical nutritional condition (category IIa in Table 1) and the rest of the displaced population can be considered to be at moderate risk (category IIb in Table 1).

**How could external agencies help?** Food aid supplies for Southern Sudan via Khartoum for May-December are estimated to be inadequate by about half, requiring 24,000 MT; current pipeline supplies will last until August. It is hoped to transport supplies by a combination of road, rail, water, and air. A main priority for Southern Sudan is to continue funding for the air transport operation on which urgent relief measures are dependant. The interruptions in the programmes due to lack of funding are directly worsening nutritional status and mortality. Once adequate food deliveries can be resumed, there is a need for greater decentralization in international agency operations, and where working through local implementing partners, to assist these in improved needs assessment and monitoring. Immunization, water/sanitation and health services are critically inadequate, both for those in camps and otherwise displaced (the majority).

## 10. Uganda

(see Map 10)

This section deals with the Sudanese and Zairian refugees in Uganda. The Rwandan refugees will be discussed in section #15: Burundi/Rwanda situation.

Population estimates over time are as follows:

Origin	Feb 1994	April 1994	June 1994
<b>Sudanese Refugees</b>	188,000	190,000	206,000
<b>Zairian Refugees</b>	5,000	5,000	15,000
<b>Rwandan Refugees</b>	11,350	3,500 (before 6 April)	10,000*
<b>TOTAL</b>	204,350	198,500	231,000

\*Rwandan refugees are discussed under #15.

There are approximately 15,000 Zairian refugees in Uganda, about 4,500 of whom arrived in 1992 while the remaining 10,500 arrived in January 1994. Most of these refugees are in Kyaka camp with a total estimated population of 12,500. Water supply is reported to be the main problem as there is only sufficient water supply capacity at camp level for a population of 5,500. Delays have been reported in the delivery of food although

this is more due to lack of forward planning than a lack of available food [UNHCR 29/04/94].

There are an estimated 206,000 Sudanese refugees in Uganda. 86,000 are in Arua district and 120,000 in East Moyo district. Those in Arua district are settled in six camps in the Koboko area where they started arriving in August 1993. Since January 1994, conflict in Southern Sudan has given rise to a steady influx of around 1,000 per week [UNHCR 29/04/94, UNHCR 23/05/94].

Although the management and administration of the camps is reported to be satisfactory, water shortages have reached critical levels so that at best supplies only serve adequately 70% of the population. In February, the ration distributed was reduced by 30%, but has now been raised again. Nevertheless, delays in food deliveries have resulted in refugees in Koboko going without food for periods exceeding 30 days [UNHCR 29/04/94].

There has also been a steady influx since January 1994 of 1,000 refugees per week into the camps in East Moyo. Some 93,000 refugees are spread over three transit camps while the remaining 27,000 are living in settlements having reached various levels of self-sufficiency. A food ration cut was introduced recently for this latter population. A November 1993 assessment mission suggested that a portion of the 93,000 in transit, although not having access to land, had reached a certain level of self-sufficiency [UNHCR 29/04/94].

Although there have been reports of renewed Ugandan rebel activity in the North making road travel difficult, and water provision and erratic food deliveries cause some hardship, the overall situation for the Sudanese refugee population seems to be under control. However, there are approximately 100,000 displaced people on the Sudanese border at Nimule. If this population were suddenly to cross the border, the strain on existing relief capacity in Uganda might prove excessive [UNHCR 29/04/94, UNHCR 23/05/94].

**How could external agencies help?** There is still a need to strengthen existing NGO/agency capacity to look after new arrivals – requiring expertise as well as resources to combat poor water supplies and to improve coordination. It is also important that sufficiently sensitive surveillance systems are established to quickly detect any adverse reaction in those situations where rations are reduced for populations attaining a degree of self-sufficiency.

## 11. Shaba/Kasai Regions, Zaire

(see Map 11)

There is little new information about the several hundred thousand displaced people of Kasai region origin who were forced to flee Shaba region due to ethnic violence in 1993. The previous RNIS report recorded that those that had returned to Kasai region were faced with limited external agency support and had high levels of wasting and child mortality.

Recent reports from Mwene Ditu, a transit area with a total displaced population of approximately 65,000, continue to be very worrying. In March, crude mortality rates in Simmons camps just outside of Mwene-Ditu (estimated population 3,500 people) were recorded at 3/10,000/day which is ten times the normal level. The under-five mortality rate was 1/10,000/day which is a considerable improvement over the February rate of 5/10,000/day. In May, unconfirmed cholera cases were reported [MSF-B-b Mar 94].

A nutritional survey conducted in March showed levels of wasting at 31.7% with 3.8% severe wasting (see Annex I 11a). 79.6% of children had been vaccinated against measles. Water availability is only 6 litre/person/day. A 40% mortality rate among those hospitalized is reported. After beginning a general distribution in February, the ration had reached at 2500 kcals/caput in March which should bring some improvement [MSF-B-c Mar 94],

NGOs working in Mwene Ditu have been arguing for regular general ration provision but also fear a disincentive effect to return home if this is implemented.

Kananga is a transit town, like Mwene Ditu, that has been receiving those displaced from Shaba. The total estimated population of Kananga is 663,000, and the breakdown between residents and the displaced population is not known. A survey done in January 1994 showed 6.1% wasting with 0.7% severe wasting (see Annex I 11b). However, 2.8% of those measured had oedema. According to a MUAC measurement, the level of wasting in the displaced population is twice as high as the level in the resident population. A baseline

survey done in July 1993 showed wasting at 3.3% and severe wasting at 0.9%; oedema was measured at 8.1%. The pattern of malnutrition has changed a bit, but overall rates are static [OXFAM 29/10/93, OXFAM 7/06/94].

The displaced population of Mwene Ditu is considered to remain at high risk (category 1 in Table 1), although the ration is now reported to be adequate. The remainder of the displaced population in the region (including Kananga) can be considered to be at moderate risk (category IIb in Table 1).

***How could external agencies help?*** Information on the displaced returning to Kasai is still scarce and needs improving. Facilities for the displaced (at camps and in the towns) are clearly inadequate. Food supplies are improving, but water/sanitation, health services etc. are inadequate and greatly underfunded; supplementary feeding for children needs expansion, especially close to camps.

## **12. Ghana, Togo, Benin Region**

(see Map 12)

The 100,000 Togolese refugees in Benin and 100,000 in Ghana are reported to be in a stable and satisfactory nutritional and health situation (category IIc in Table 1), although there is currently some discussion about whether the refugees in Ghana have attained enough self sufficiency to justify an immediate reduction in general ration provision [UNHCR 11/05/94].

As many as 150,000 additional people have been displaced in Northern Ghana due to the ethnic violence which broke out in early February 1994 between the Kokombas on one side and Nanumbas, Dagombas, Gonjas and Mamprusis on the other side. The number of casualties is thought to run into thousands and many villages have been razed to the ground. The displaced population has moved to towns, (e.g. Bimbila), camps, (e.g. Nyohini) and military barracks. Although the displaced population is thought to be in a stable nutritional and health condition, the low measles immunisation coverage of 51% is cause for concern [UNHCR 25/02/94].

## **13. Central African Republic**

(see Map 13)

There has been no information indicating change in the nutritional and health status of the 12,000 Chadian refugee population [WFP 9/06/94] since the last report in April 1994. The population is categorized as not at particular risk (category IIc in Table 1).

## **14. Zaire (Refugees)**

(see Map 11)

This section will discuss Angolan, Sudanese and Ugandan refugees; Rwandan and Burundi refugees are now included in #15: Burundi/Rwanda Region.

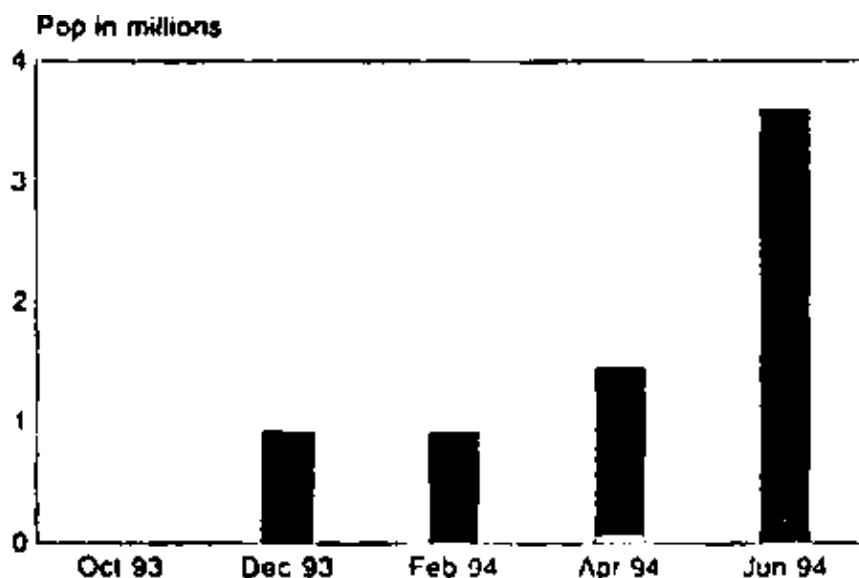
The situation has not reportedly changed for the approximately 163,000 assisted refugees in Zaire who are not considered to be at particular nutritional risk (category IIc in Table 1) [UNHCR 26/05/94].

## **15. Burundi/Rwanda Situation**

(See Map 15 and Figure 3F)

The death of the Rwandan president on April 6th and ensuing civil war escalation has so far led to the displacement of an estimated 2.5 million people both within Rwanda and across borders into neighbouring

Tanzania, Burundi, Zaire and Uganda. The ferocity and brutality of this war has led to the slaughter of probably over 200,000 people. Reports of the shores of Lake Victoria in Tanzania being awash with thousands of corpses, many of them mutilated women and children, has left the international community asking itself what steps it could have taken to prevent Rwanda's transformation into what many have likened to a human abattoir.



F. Burundi/Rwanda Region – Trend in numbers of refugees/displaced and proportion severely malnourished and at high risk (black area).

Estimates of the displaced/refugee/returnee populations over time are:

	Dec 1993	Feb 1994	April 1994	June 1994
<b>Burundi</b>	150,000	282,000	536,000	1,000,000
<b>Rwanda</b>	375,000	272,300	250,000	2,060,000
<b>Tanzania</b>	325,000	300,000	60,000	410,000
<b>Zaire</b>	58,600	60,000	60,000	113,000
<b>Uganda</b>				10,000
<b>TOTAL</b>	908,600	914,300	906,000	3,593,000

*Rwanda* Approximately two million people are currently displaced within Rwanda with hundreds of thousands camped outside Kigali where vigorous fighting continues. While most of the 275,000 Burundi refugees that were in Rwanda have returned home, an estimated 60,000 remain in Southern Rwanda [UNHCR—a 26/05/94]. The poor security situation in Rwanda has so far only allowed limited relief activities so that humanitarian activities in Kigali have been limited to small scale feeding of the displaced located mainly in the stadium and in hotels while in the South where the refugee and displaced population is estimated to be 243,000, some limited distributions have occurred.

A division of labour has been agreed between WFP and ICRC which will leave WFP with responsibility for the North–Eastern part of Rwanda and the Southern part up to and including Butare. There are also many NGOs waiting to move into Rwanda as soon as security permits [SCF 24/05/94]. It is hoped that the security council resolution to strengthen UNAMIR forces by expanding their numbers to 5,500, will allow creation of safe haven areas and the distribution of relief supplies.

Already, food stocks for the displaced population must have run out and it is probable that vulnerability is growing as stocks of medical goods, clean water and food are depleted, made inaccessible or destroyed. Malnutrition is reported among children in displaced camps in Kigali [WFP 13/06/94]. It should be expected that a large proportion of the population will require distributions of a complete food basket. Even before the escalation of the civil war, earlier drought and conflict had led to estimates of food deficits of 285,000 MT [FAO 29/04/94].

*Tanzania* Between April 28–29th 250,000 Rwandans arrived near the town of Ngara in Western Tanzania. Tanzania is now hosting the largest number of refugees in the region – current estimates are of 410,000 people with an influx continuing at 500–4000/day. Before this recent influx Tanzania was already hosting 60,000 Burundi and Rwandan refugees. The majority of refugees are women, children and young men under 18 years from the Hutu tribe. There are now seven camps in Ngara and Karagwe districts the largest of which is Benako. Often refugees cross the border and still have a difficult journey of several days to the nearest camps [UNHCR 18/05/94, UNHCR–a 26/05/94].

The camps are overcrowded, with insufficient water supply although since these refugees arrived in good health, these problems have not yet been reported to cause high mortality and malnutrition rates. The pipeline of food commodities for both Rwandese and Burundi refugees in Tanzania is satisfactory for between 2–4 months depending on commodity, and is based on diversions, local purchases using immediate response account funds, and loans. However, the movement of food commodities has been made difficult by the recent heavy rainfall in Karagwe and Bukoba districts which has washed many bridges away and made roads impassable. Feeding centres and clinics are now being established in the camps [UNHCR–a 26/05/94].

Information available from *Benaco* camp (estimated population 281,000) at the end of May showed wasting prevalences in children of 14.4% (see Annex I 15a). This was measured during a measles immunization campaign resulting in an almost complete coverage. The general distribution is reported to be usually satisfactory, despite assessments showing that the food basket for 21 May varied from 1300–2200 kcal/person/day [MSF–F 28/05/94].

*Burundi* There may be as many as one million people dependent on emergency food aid in Burundi. These people are internally displaced from the October coup and subsequent fighting, refugees returned from Rwanda, and Rwandan refugees (an estimated 70,000). While there is sporadic fighting in rural areas around Bujumbura, the general situation in Burundi is calm [UNHCR–a 26/5/94]. There is, however, some concern that the fighting in Rwanda may spread to Burundi.

Due to logistical constraints, particularly insufficient off-loading capacity at the lake port of Bujumbura, rations for the assisted population were not exceeding 1,000 kcals/person/day. However, port capacity is now reported to be improved and WFP reports that rations are providing 1900 kcals/person/day [WFP 9/06/94]. The nutritional situation for those beneficiaries outside of the camps is said to be satisfactory, but there is particular concern for those Rwandese refugees and Burundi returnees in camps (approximately 200,000) who are almost entirely dependent on external food aid [WFP 23/05/94, WFP 9/06/94].

*Zaire* There are now an estimated 102,000 Burundi refugees in Zaire, 49,000 of whom fled following the October 1993 coup attempt with the remainder being new arrivals from the current Rwanda crisis. A further 11,000 Rwandan refugees in Kivu and Goma have also fled recent events in Rwanda. The overall situation for these refugees is described as stable but in need of improvement [UNHCR–a 26/05/94].

*Uganda* There are approximately 10,000 recent Rwandan arrivals in Uganda, but it is reported that many more are gathered at the border and may cross over at any time [UNHCR–a 26/05/94].

*Overall* The refugee and internally displaced population of Rwanda (approximately 2.06 million people) are considered to be at high risk due to their lack of access to relief resources while the 410,000 refugees in Tanzania are also at high risk due to overcrowding, and insufficient water (category IIa in Table 1). The 1 million refugees and returnees in Burundi camps are at high risk due to poor general ration delivery (category I in Table 1). The 113,000 refugees in Zaire are placed at high risk (category IIa in Table 1) while the 10,000 refugees in Uganda are defined as at moderate risk (category IIb in Table 1).

***How could external agencies help?*** Food aid pledges and cash resources for non-food aid items are urgently needed for the enormous programme and have yet to be met following the UN emergency appeal in early May. The immediate response account of WFP urgently needs to be replenished to allow local purchases of food. Funding for storage capacity is also desperately needed. Logistics are a constraint due to the distances involved, affecting supplies not only of food but of equipment for water/sanitation, more of which is needed. Camps are generally crowded, unsanitary and with poor variety of diet.

Until the violence inside Rwanda lessens it will be difficult to extend external assistance. Comments below refer to the populations outside of Rwanda. In Tanzania, the large number of refugees and resulting overcrowding in existing camps require urgent measures to relocate some populations and to establish optimal sanitation and hygiene conditions in all camps. In Burundi, where security is generally much improved, there is a need to establish nutritional surveillance of returnees and the internally displaced as general ration

provision is far below requirements.

## 16. Mauritania/Senegal

(see Map 16)

The nutritional and health situation of this population of 60,000 Mauritians remains stable and satisfactory (category IIc in Table 1).

## 17. Djibouti

(see Map 17)

There is no reported change in the nutritional and health status of the 32,000 Somali and Ethiopian refugees. The last RNIS report in April recorded low crude mortality rates but some residual evidence of a beriberi outbreak.

## 18. Zambia

(see Map 18)

Zambia hosts over 200,000 refugees from Zaire, Angola and Somalia, although only 36,000 refugees in Zambia receive food aid assistance. The majority of these have arrived within the past two years and on arrival are given land and a general ration for two years on the assumption that they will achieve self-sufficiency within that time.

The current assisted population is estimated remain at:

Origin	February/June 1994
Zairian Refugees	18,000
Angolan Refugees	17,000
Somali Refugees	1,000
<b>TOTAL</b>	36,000

The majority of this refugee population is not generally at risk. Recent reports indicate that the poor 1993/94 harvest has meant that 75% of a refugee population (in Maheba settlement, overall population of 25,000) are in urgent need of assistance [CARE Jan 94].

**How could external agencies help?** Better monitoring of agricultural production of "self-sufficient" refugees are required so that more timely warning of the effects of production failure can be given to donors.

## CURRENT SITUATION (Asia)

The numbers of refugees in Asia grew from approximately 5.1 million in 1982 to 7.2 million in 1992. The single largest group of refugees comes from Afghanistan; in 1992 there were 4.1 million Afghans in Iran and 1.6 million in Pakistan, accounting for about 80% of the total refugee population of the region [UNHCR 1993]. In this section of the report, we will start by including available information on the relatively small populations of Bhutanese refugees in Nepal and refugees from Myanmar in Bangladesh because of persistent reports of micronutrient deficiencies. As in the past, we will include information on Southern Iraqi refugees in Iran.

## 19. Bhutanese Refugees in Nepal

Late in 1990, people of Nepalese origin in Bhutan (some of whom had been in Bhutan for many generations) began fleeing to Nepal via India [IFRC 24/9/92]. While small numbers of refugees continue to arrive, the major influx appears to have stopped and the current population is approximately 86,000 in eight different sites. There are also large numbers of refugees (at least 20,000 in September 1992) living with relatives and friends outside the camps [UNHCR 27/01/93, UNHCR 12/08/93, UNHCR 31/05/94].

Mortality rates and levels of wasting are currently at lower levels than those found in the local/host community. Immunization coverage is reported to be "high". The refugees regularly receive a basic ration of rice, pulses, oil, salt and sugar with a complementary ration of fresh vegetables. Apart from minor interruptions, delivery of the basic ration commodities has been consistently adequate throughout the programme. However, there are continuing logistical problems with the speed of vegetable delivery thereby reducing the micronutrient value of these commodities. Approximately 20–25 litres of water per capita are available [UNHCR 27/01/93, UNHCR 31/05/94].

Since the second half of 1993 there have been numerous reports of micronutrient deficiencies occurring. A beri–beri outbreak reached its peak in November 1993 but is now reportedly under control [SCF Jan 1994, UNHCR 9/03/94]. In January 1994 the first cases of pellagra and scurvy were noted and recent anecdotal evidence in May suggest that people mainly between the ages of 10–30 years may be affected.

In early February the overall incidence rates measured by Save the Children for the various deficiencies were as follows;

Scurvy	0.7/10,000/day
Pellagra	0.5/10,000/day
Angular Stomatitis (primary)	3.6/10,000/day
Angular Stomatitis (secondary)	3.1/10,000/day

It is unclear whether increasing reports of these deficiencies occur due to increased incidence or better surveillance and diagnosis, and there is some disagreement as to the validity of these diagnoses. Micronutrient supplements are being given to patients and a fortified food will soon be added to the food basket. Furthermore, parboiled rice has been distributed since March 1994 in the ration. It was initially reported to be poorly accepted by the refugees, but now it is well accepted. Current recommendations are to continue fresh vegetable distribution wherever possible [SCF 6/06/94, UNHCR 31/05/94, UNHCR 10/06/94].

***How could external agencies help?*** Donors should support any initiative to supply fortified blended food for the general ration while every effort to ensure the supply of fresh vegetables should continue to be made. Inter–agency coordination is improving and should greatly facilitate the on–going monitoring of the situation (i.e. quality of food basket, nutritional status etc).

## 20. Refugees from Rakhine State, Myanmar in Bangladesh

Towards the end of 1991 the Rohingya Muslim minority in Myanmar Rakhine state began arriving in South East Bangladesh. By June 1992 the refugee population had reached 250,000. This population was distributed between 15 camps in Cox's Bazar District which is a disaster prone area with regular flooding and occasional cyclones.

Within a short period of time data indicated that the population were experiencing a nutritional and health crisis as crude mortality rates as high as 2.1/10,000/day (7 times normal) and under five mortality rates of 5.6/10,000/day were being recorded. Nutritional survey data established wasting levels as high as 26.6% with 8.6% severe wasting [UNHCR 28/05/92]. Surveys also showed high levels of night blindness (1.2%) and angular stomatitis [H. Keller Jun 92].

By early 1994 the total refugee population had decreased to just under 200,000, mainly due to repatriation. At that time, the health status of the refugees had improved considerably. Crude mortality rates were recorded

as 0.26/10,000/day and the under-five mortality rate was 0.33/10,000/day. These rates are comparable to those in the host community. However, angular stomatitis was still being seen amongst the population so that a decision was taken to increase riboflavin (B2) intake by adding fortified dried skimmed milk (DSM) to the supplementary feeding programme ration.

Most recent reports from two camps (total population of 32,000) indicate the continuing existence of riboflavin deficiency. Preliminary calculations, based on established requirement guidelines, estimate that the food basket, which is based upon parboiled rice, provides less than 50% of riboflavin and less than one third of vitamin C requirements (FAO). It is highly likely that other micronutrient deficiencies are also present, but are not being detected at the moment. SCF is currently exploring ways to address these deficiencies [SCF 6/06/94].

Voluntary repatriation is now a main focus of the refugee programme, although some questions remain as to security in Myanmar [SCF 6/6/94, UNHCR Dec 93]. However, early in May a cyclone caused extensive damage to the camps and dock area that was to be used as a point of embarkation for the repatriation programme. The reception centre in Myanmar was also completely destroyed. These have now been reconstructed and it is hoped that repatriation will now begin in earnest. A medical screening is planned for all departing refugees in the hope that those who are nutritionally and medically vulnerable will be identified and followed up once they have returned to their village of origin [UNHCR-a 6/05/94, UNHCR 31/05/94, UNHCR Dec 93].

**How could external agencies help?** Donors should support efforts to provide micronutrient fortified DSM in the general ration. There should be careful monitoring to ensure its proper use at the household level and that the incidence of diarrhoea does not increase once it has been introduced into the general rations a result of poor preparatory practices.

## 21. Southern Iraq

As food and medicine are still not available in southern Iraq, and the marshes, chief source of income for the people living there, continue to be drained, people continue to flee to Iran.

Current estimates are that there are approximately 22,000 people living in six camps in Iran, just over the Iraqi border. Most of these people have been in Iran for a few years and are fairly well settled – almost all have proper housing and some have work.

The situation is much worse for the approximately 2,200 new arrivals from Himmet living in tents, with no escape from the heat which sometimes reaches 50°C. It is said that water supply is inadequate and of poor quality; many are forced to drink unclean water from a nearby river. Anecdotal reports state that diarrhoeal diseases are quite common and that many children are anaemic [AI-Hakim 6/6/94, WFP 23/05/94].

Some food is reported to be available to these refugees, but no milk is available for the children and vegetables are scarce. Anecdotal reports indicate that the number of marasmic children is growing [AI-Hakim 6/6/94].

No new information is available on the approximately 200,000 Marsh Arabs still inside Iraq.

## Listing of Sources for June 1994 RNIS Report

Listing of Sources for June 1994 RNIS Report		
Org*	Date	Title of Report
AICF	1.01.94	Nutritional Survey in Bur Akabe, Somalia
AICF	1.02.94	Nutritional Survey in Genale, Somalia



AICF	19704.94	Nutritional Survey in Labone Refugee Camp South Sudan
AI-Hakim	6.06.94	Conversation
CAMA	13.06.94	Conversation
CARE Int'l	Jan. 94	Malnutrition and Food Assessment Survey Report
DHA	19.04.94	Cyclone Nadia Update
FAO	29.04.94	Special Alert – Rwanda
FAO	Mar/Apr 94	Foodcrops and Shortages
FAO/WFP	May. 94	Special Alert – Assessment Mission to Mozambique
H. KELLER INTL	Jun. 92	An Extension of Distress Monitoring to the Rohingya Refugee Camps
IFRC	24.09.92	Appeal for Nepalese Refugees
MSF-B	Mar. 94	Report on the Nutritional Activities MSF-Belgium in Greater Liberia
MSF-B	4.04.94	Nutritional Survey Report Nimba County
MSF-B-a	Mar. 94	Sitrep – Kenya Mission
MSF-B-b	Mar. 94	Rapport Mensuel d'Activities MSF-Mwene Ditu Mars 1994
MSF-B-c	Mar. 94	Enquete Nutritionelle Mwene Ditu Camps Simmons Mars 1994
MSF-CIS	Feb. 94	Monthly Bulletin (Mozambique)
MSF-CIS	Mar. 94	Monthly Bulletin (Mozambique)
MSF-F	16.04.94	Nutrition Survey in Alek County
MSF-F	28.05.94	Health Sitrep – Benaco Camp Tanzania
MSF-H	Mar. 94	Nutrition and Mortality Survey – Waat
MSF-H	7.05.94	Monthly Medical Report Melange (1/4/94–30/4/94)
MSF-H	23.05.94	Preliminary results – Melange
OXFAM	Jul. 93	Nutritional Survey, Kananga Zaire July 1993
OXFAM	7.06.94	Follow-up Survey In Kananga, Zaire
SCF	Jan. 94	Faxed Update on Bhutanese Refugees In Nepal
SCF	12.02.94	Letter on Bhutanese Refugees in Nepal
SCF	Apr. 94	Briefing Paper on the Food Crisis in Sudan
SCF	14.04.94	Ethiopian Famine – Press Release
SCF	24.05.94	Faxed Update (Rwanda/Tan, Bhutan, Bangladesh)
SCF	6.06.94	Faxed Update on Bhutanese Refugees and Bangladesh
UNHCR	1993	State of the World's Refugees
UNHCR	27.01.93	Sitrep on Bhutanese Refugees Dec 1993
UNHCR	12.08.93	Sitrep on Bhutanese Refugees June–July 1993
UNHCR	Dec. 93	Joint Appeal for the Voluntary Repatriation from Bangladesh to Myan
UNHCR	25.02.94	Joint GOG/UN/NGO Assessment Mission Northern Region (Ghana)
UNHCR	9.03.94	Sitrep No. 2 Nepal

UNHCR	29.04.94	Mission report to Uganda
UNHCR	6.05.94	Summary of Liberia Region
UNHCR	11.05.94	Sitrep (Ghana) April 1994
UNHCR	13.05.94	Notes for Visit to Washington
UNHCR	18.05.94	Update on Rwanda and Burundi Emergencies
UNHCR	23.05.94	Sitrep on Sudanese Refugees in Northern Uganda
UNHCR	25.05.94	Conversation (Liberia)
UNHCR	26.05.94	Conversation (Zaire)
UNHCR	28.05.94	Sitrep Bangladesh
UNHCR	31.05.94	Conversation (Nepal, Bangladesh)
UNHCR-a	6.05.94	Cyclone/Emergency in Bangladesh – Situation Report No. 2
UNHCR-a	25.05.94	Conversation (Kenya)
UNHCR-a	26.05.94	Conversation (Burundi/Rwanda Region)
UNICEF	23.03.94	Operation Lifeline Sudan Update
UNICEF	13.05.94	Operation Lifeline Sudan Update
WFP	8.04.94	Weekly Report
WFP	2.05.94	Weekly Report
WFP	9.05.94	Weekly Report
WFP	16.05.94	Weekly Report
WFP	23.05.94	Weekly Report
WFP	23.05.94	Aide Memoire for Mission to Iran
WFP	27.05.94	Weekly Report
WFP	30.05.94	Weekly Report
WFP	3.06.94	Weekly Report
WFP	9.06.94	Faxed comments
WFP	13.06.94	Weekly Report
WV	Apr. 94	Somalia Monthly report: April 1994

*Org	
AICF	Action International Contre la Faim
CAMA	Relief Branch of Eglise Protestante
FAO	Food & Agricultural Organization of the United Nations
ICA	Iraqi Civil Aid
ICRC	International Committee of Red Cross
IFRC	International Federation of Red Cross
MSF-B	Medecins Sans Frontieres – Belgium
MSF-CH	Medecins Sans Frontieres – Switzerland

MSF-CIS	Medecins Sans Frontieres – Celula Inter–Seccoes
MSF-H	Medecins Sans Frontieres – Holland
OXFAM	
SCF	Save the Children Fund
UNDHA	United Nations Department of Humanitarian Affairs
UNECOSOC	United Nations Economic Security Counsel
UNHCR	United Nation's High Commission on Refugees
UNICEF	United Nation's Children Fund
WFP	World Food Programme
WV	World Vision

<b>Table 1</b>		<b>Information Available on Total Refugee/Displaced Populations (as of May/ June 1994)</b>						
	:							
<b>I</b>	:	<i>Those reported on with high prevalences of malnutrition and/or micronutrient disease and sharply elevated mortality (at least 3x normal)</i>						
<b>Ila</b>	:	<i>At high risk. Limited data available, population likely to contain pockets of malnutrition</i>						
<b>Ilb</b>	:	<i>At moderate risk may not be data available. Population may contain pockets of malnutrition</i>						
<b>Ilc</b>	:	<i>Probably not currently In critical situation, nor known to be at particular risk</i>						
<b>III</b>	:	<i>Population known to exist, but condition unknown</i>						
								<b>Total From</b>
	/	<b>Ila</b>	<b>Ilb</b>	<b>Ilc</b>	<b>III</b>	<b>Total</b>	<b>Comments</b>	<b>April Report</b>
1. Liberia/Sierra Leone/	50000	382'000	2'246'000	234'000		2'912'000	Column I: new arrivals In Guinea Ha: Upper Lofa & sporadically accessible	2'712'000
Guinea/Cote d'Ivoire							In Sierra Leone Ilb:rest of Lib & Guinea Ilc Cote d'Ivoire	
2. Ethiopia*	35'000			144'000		179'000	36.000 In the Ogaden still in crisis Approx 7 mill drought affected	179'000
3. E. Central & W. Sudan		100'000	1'600'000			1'700'000	This is revised estimate for	1'700'000

						1994		
4. Kenya				268'000		268'000	Decrease due to repatriation	272'000
5. Southern Somalia				274'000		274'000		274'000
6. Mozambicans				1'850'000		1'850'000	Pockets of malnutrition exist	1'850'000
7. Rwanda (id) Now incl in #15						0	Now Included as part of #15	2'072'500
8. Angola (id/wa)	200'000		3'000'000			3'200'000	Total numbers estimated needing food and non-food old	3'200'000
9. Southern Sudan (id)	429'000	100'000	1'471'000			2'000'000	Column I:N Bahr el Ghazal. Labone Juba. IIb: Those At Nimule	2'000'000
10. Uganda			194'000	27'000		221'000	Inadequate water supplies In many camps	198'500
11. Shaba, Zaire (id)	65'000		803'000			868'000	Displaced In Mwene Ditu at high risk. Residents In Mwene Ditu and those	246'000
							Kananga at moderate risk	
12. Togolese Refugees			150'000	200'000		350'000	At some risk due to low immunization coverage	391'000
13. Central African Republic			12'000			12000	Population reported stable	11'000
14. Zaire (r)				163'000		163'000	Number In RNIS #4 probably underestimate	85'000
15. Burundi /Rwanda Region	1'000'000	2'583'000	10'000o			3'593'000	Those In Burundi Known to have Inadequate ration. Tanzania, Rwanda, Zair	906'000

							at high risk, and those in Uganda at moderate risk	
16. Mauritania/Senegal				60'000	60000		No reported change from RNIS #4	60'000
17. Djibouti				32'000	32'000		No reported change from RNIS #4	32'000
18. Zambia			25'000	11'000	36'000		Poor harvest puts 25000 self-sufficient refugees at risk	36'000
<b>Total</b>	1'779'000	3'165'000	9'511'000	3'263'000	0	17'718'000		16'225'000
*There are approximately 7,000,000 drought affected people in Ethiopia. No details on their nutritional state are available								

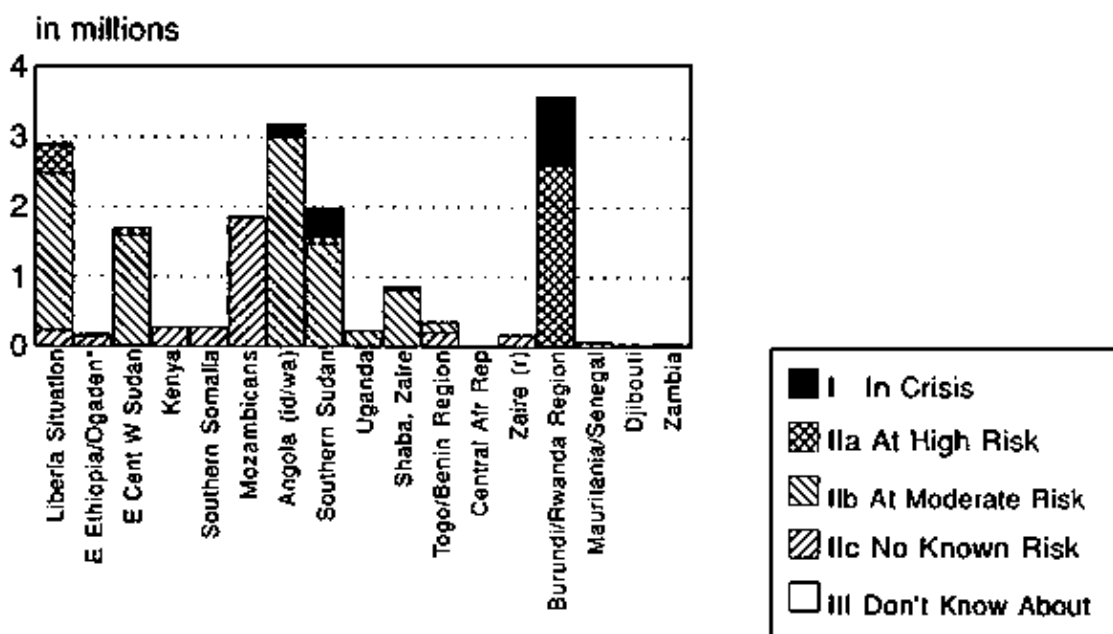


Figure 1. REFUGEE AND DISPLACED POP – Selected Areas (May/June 1994)

\*excludes estimated 7,000,000 drought affected

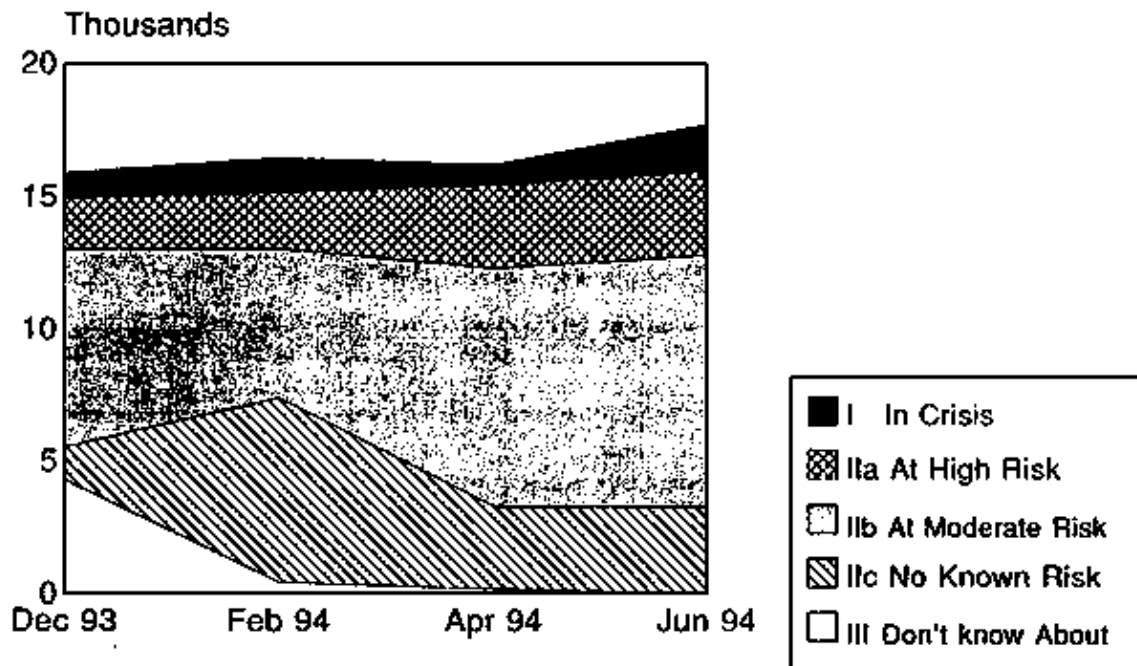
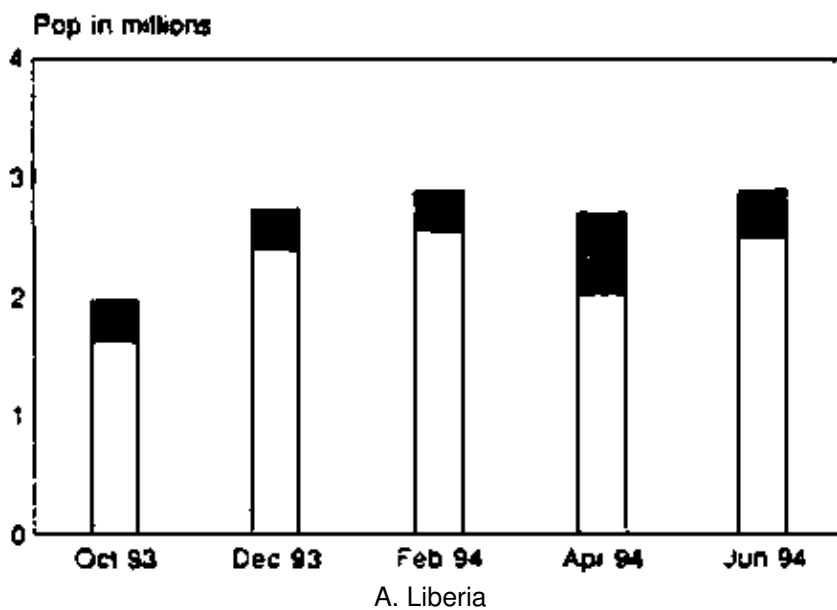
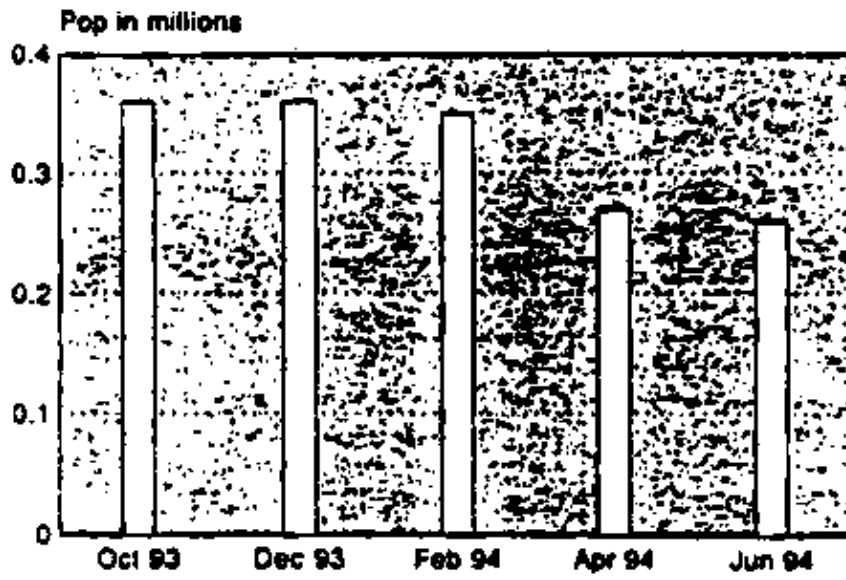


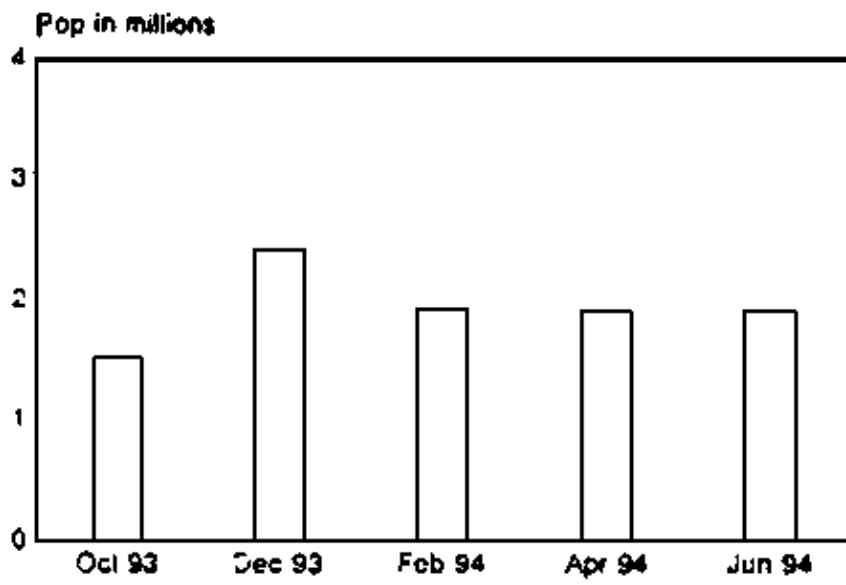
Figure 2. Trends in Total Refugee/Displaced Populations – By Risk Categories – Africa: December 1993–June 1994

Figure 3 Trends in Population Estimates and Risk Categories in Six Countries

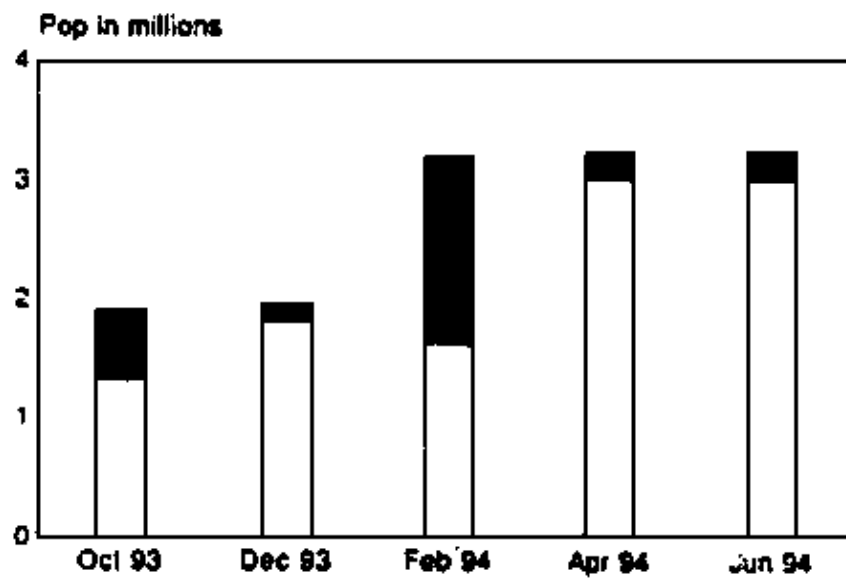




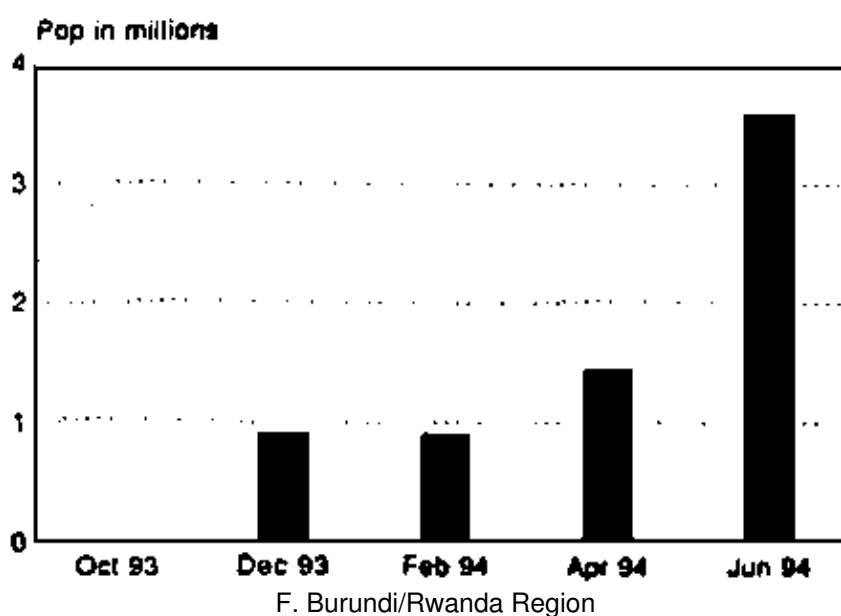
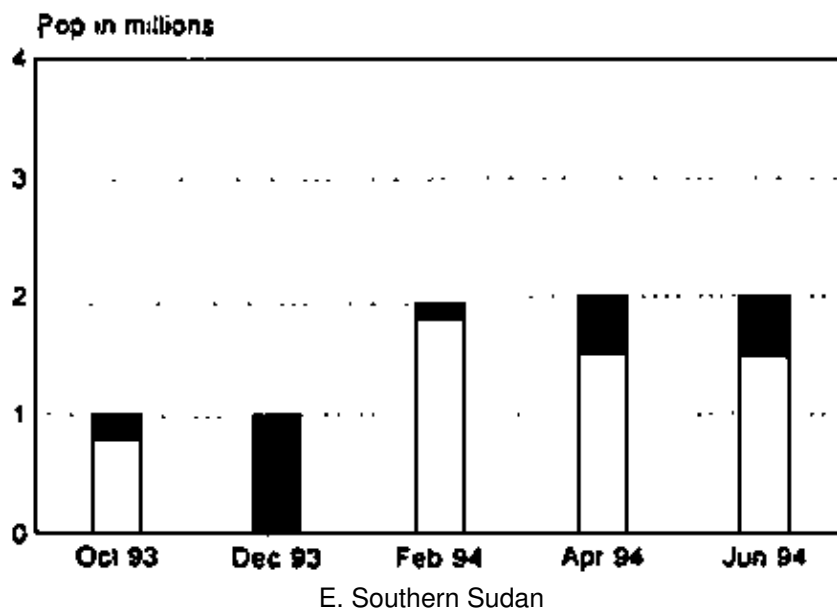
B. Kenya



C. Mozambique



D. Angola



## Annex 1

<i>Results of Surveys Quoted in June Report</i>						
	<i>Survey</i>			<i>% Severely Wasted*</i>	<i>Mortality (/10,000/day)</i>	
	<i>Conducted by</i>	<i>Date</i>	<i>% Wasted*</i>	<i>% Severely Wasted*</i>	<i>Mortality (/10,000/day)</i>	<i>Other data</i>
<b>1. Liberia Region</b>						
<i>a. Nimba</i>	MSF-B	Apr. 94	12.7	6.7	1	Under-five mortality rate: 2/10,000/day
<i>b. Guinea</i>	UNHCR/CAMA	May. 94	11. 9-25 (n.s.)			Kwashlorkor at 2.2-2.8%



<b>3. East Central and West Sudan</b>						
a. Khartoum	UNICEF	Mar. 94	20.8			
b. Dilling, Kadugli	WFP	May. 94	19			
<b>4. Kenya</b>						
a. Hagadera Camp	MSF-B	Mar. 94			0.36	Under-five mortality rate: 0.73/10.000/day
<b>5. Somalia</b>						
a. Genale	AICF	1.02.94	2.8	2.4		
b. Bur Akabe	AICF	Jan. 94	4.5		0.72	
<b>8. Angola</b>						
a. Melange	MSF-H	May. 94	6.6 (n.s.)	1.3		Anecdotal reports of pellagra
<b>9. S Sudan</b>						
a. Labone Camp	AICF	19.04.94	37.0	13.8		Oedema was 4.5%
b. Alek County	MSF-F	16.04.94	45.4	10.3		
c. Waat	MSF-H	Mar. 94	24.8	4.9	44	Under-five mortality rate: 11.2/10.000/day
<b>11. Shaba Region, Zaire</b>						
a. Mwene Ditu	MSF-B	Mar. 94	31.7	3.8		Water availability 6l/caput
b. Kananga	OXFAM	Jan. 94	6.1	0.7		Oedema: 2.8%
<b>15. Burundi/Rwanda Region</b>						
a. Benaco Camp	MSF-F	28.05.94	14.4 (MUAC)			Measles Immunization coverage almost 100%
* wt/ht unless specified; cut-off = n.s. means not specified but usually -2SD wt/ht for wasting and -3SD wt/ht for severe wasting						

#### NOTES

##### 1. Liberia Region

a. This was a two stage cluster sample of 688 children conducted from 29 March to 4 April 1994 by MSF-B in Nimba County. The results were 12.7% wasting (<-2 sd and/or oedema) and 6.7% severe wasting (<-3 SD and/or oedema). Oedema was measured in 3% of those sampled. MUAC was also measured giving the following results: 29.7% <135mm, 6.7% <120mm, and 1.3% <110mm.

b. No further details are currently available.

### **3. East, Central and West Sudan**

- a. No further details are currently available.
- b. No further details are currently available.

### **4. Kenya**

- a. This information is from a MSF–B sitrep for Hagadera Camp in Kenya in March.

### **5. Somalia**

a. This survey was conducted by AICF in Genale in February 1994. 358 children from 6–59 months old were surveyed. A cluster sample method was used. Wasting was measured at 2.8% using a cut-off of  $<-2$  sd and/or oedema. Severe wasting was 1.1% using a cut-off of  $<-3$  sd and/or oedema. Oedema alone was measured at 0.8%.

b. This survey was conducted by AICF in Bur Akaba in January 1994. This was across sectional random cluster sample survey with 335 children aged 6–59 months. Wasting was measured at 4.5% using  $<-2$  sd and/or oedema and severe wasting was measured at 2.4% using  $<-3$ sd and/or oedema as a cut-off. Oedema alone was seen in 1.2% of those measured.

### **8. Angola**

- a. This survey was conducted by MSF–H in Melange from 19–23 May 1994. As these are preliminary results, details are not yet available.

### **9. S. Sudan**

a. This survey was conducted by AICF from 17–19 April 1994. A total of 530 children 6–59 months old were sampled (cluster sample method). Wasting was measured at 37.0% using  $<-2$  sd and/or oedema as a cut-off. Severe wasting was measured at 13.8% using  $<-3$  sd and/or oedema as a cut-off. Oedema alone was measured at 4.5%.

b. This survey was conducted by MSF–F from 9–16 April 1994. 535 children from 6–59 months old were measured, and a two stage cluster sampling method was used. Wasting was measured at 45.4% using  $<-2$  sd as a cut-off. Severe wasting was measured at 10.3% using  $<-3$  sd as a cut-off.

c. This survey was conducted by MSF–H on 16 March 1994. It was a random sample survey and 452 children from 6–59 months old were measured. Weight/height was used to measure and it was found that 24.8% of the children were wasted and 4.9% were severely wasted.

### **11. Shaba Region, Zaire**

a. This survey was conducted by MSF–B in March 1994. All children aged 6–59 months in Simmons Camps were included in the survey for a sample size of 450. Severe wasting was measured at 31.7% using  $<-2$  sd and/or oedema as a cut-off. Severe wasting was 3.8% and the cut-off was  $<-3$  sd and/or oedema.

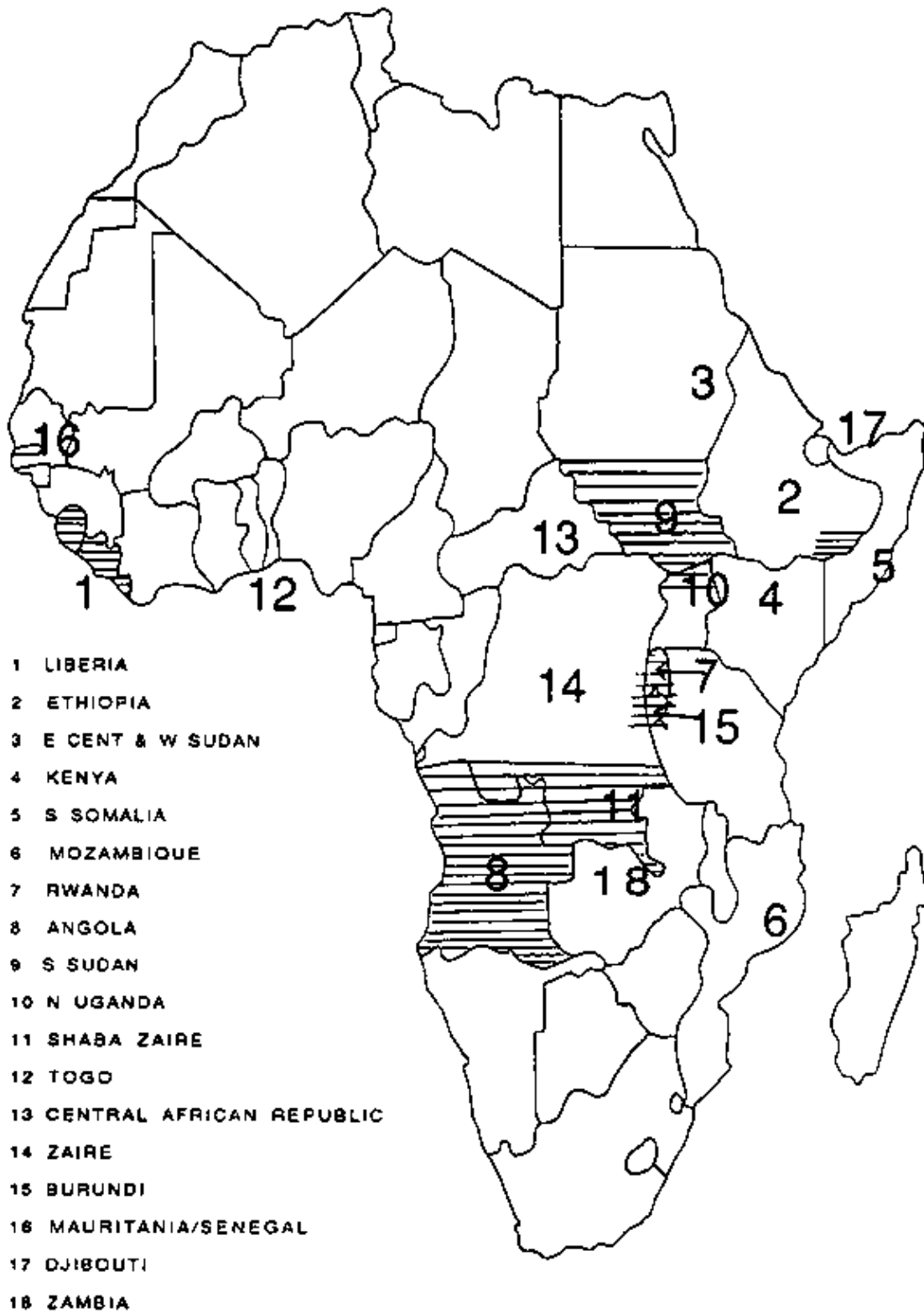
b. This survey was conducted by OXFAM in January 1994. The sample size was 945 children under five years old. The cut-off for wasting was  $<-2$  sd (6.1%) and severe wasting was  $<-3$  sd (0.7%). Oedema was measured at 2.8%.

### **15. Burundi/Rwanda Region**

a. This information for the Rwandan refugees in Benaco Camp in Tanzania comes from a MSF–F sitrep. The levels of wasting are not from a nutrition survey; they are from a screening for a measles immunization campaign using MUAC.

## Annex 2

<b>Seasonality in Sub-Saharan Africa*</b>	
<b>Country</b>	<b>Climate/Rainy Season/Harvest</b>
<i>Angola</i>	Coastal area desert, SW semi-arid, rest of country: rains Sept–April
<i>Burundi</i>	Rains Feb–May and Sept–Nov
<i>CAR</i>	Rains March–Nov
<i>Djibouti</i>	Arid Climate
<i>Ethiopia</i>	N coast, lowlands in S and E: semi-arid, rest rainy climate. Harvest in November
<i>Kenya</i>	N–E is semi-arid to arid. Central and SW rains: March–May and Nov–Dec
<i>Liberia</i>	Rains March–Nov
<i>Mozambique</i>	Coast is semi-arid, rest wet–dry. Harvest May
<i>Rwanda</i>	Rains Feb–May and Sept–Nov
<i>Sierra Leone</i>	Rains March–Oct.
<i>Somalia</i>	South is semi-arid, rest arid. Harvest Aug–Sept
<i>Sudan</i>	Rains May–Oct
<i>Togo</i>	Two rainy seasons in S, one in N. Harvest August
<i>Uganda</i>	Rains Mar–Oct
<i>Zaire</i>	Tropical climate. Harvest in N: November; in S January
Source: FAO, "Food Supply Situation and Crop Prospects in Sub-Saharan Africa",	
Special Report; No. 4/5, Dec 1990.	



MAP A Situational Map

**SIERRA LEONE**

**IVORY COAST**

**MONROVIA**





**ROBERTSFIELD**

**HARBEL**

**BUCHANAN**

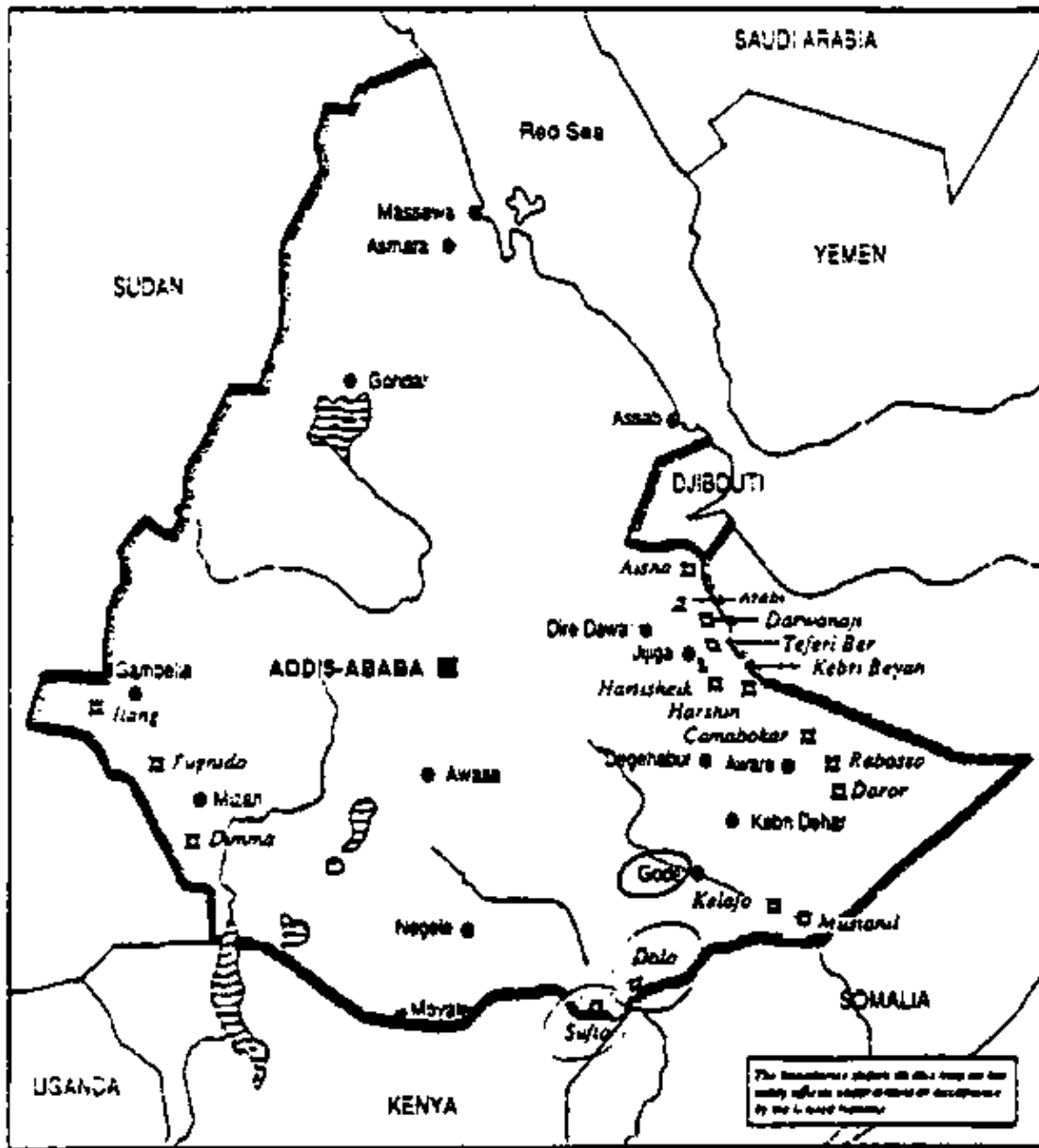
**GREENVILLE**

# Legend

-  administrative units
-  main roads
-  railways
-  main towns

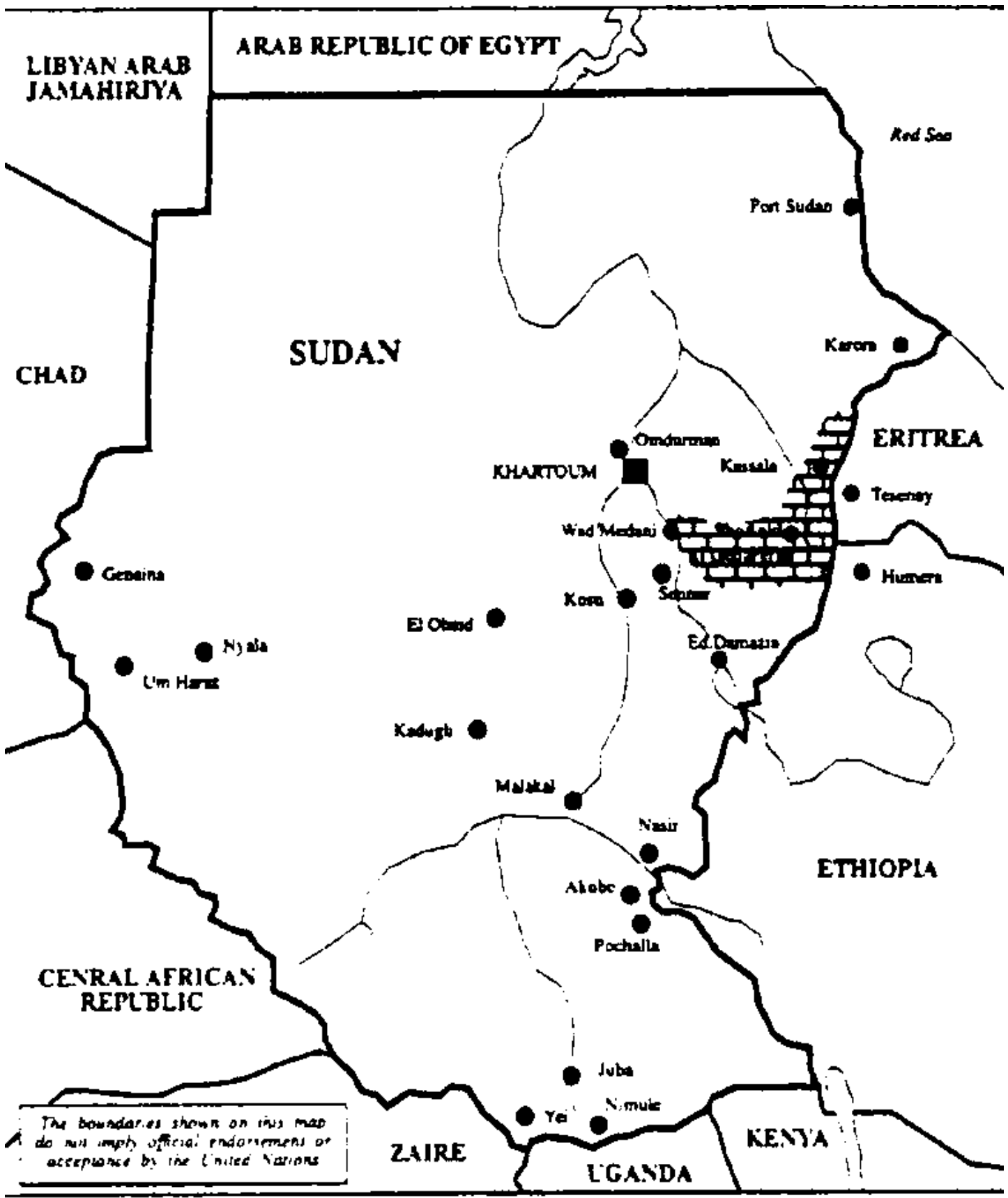
1 inch : 138kms

MAP 1 Liberia

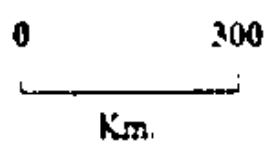


MAP 2 Ethiopia





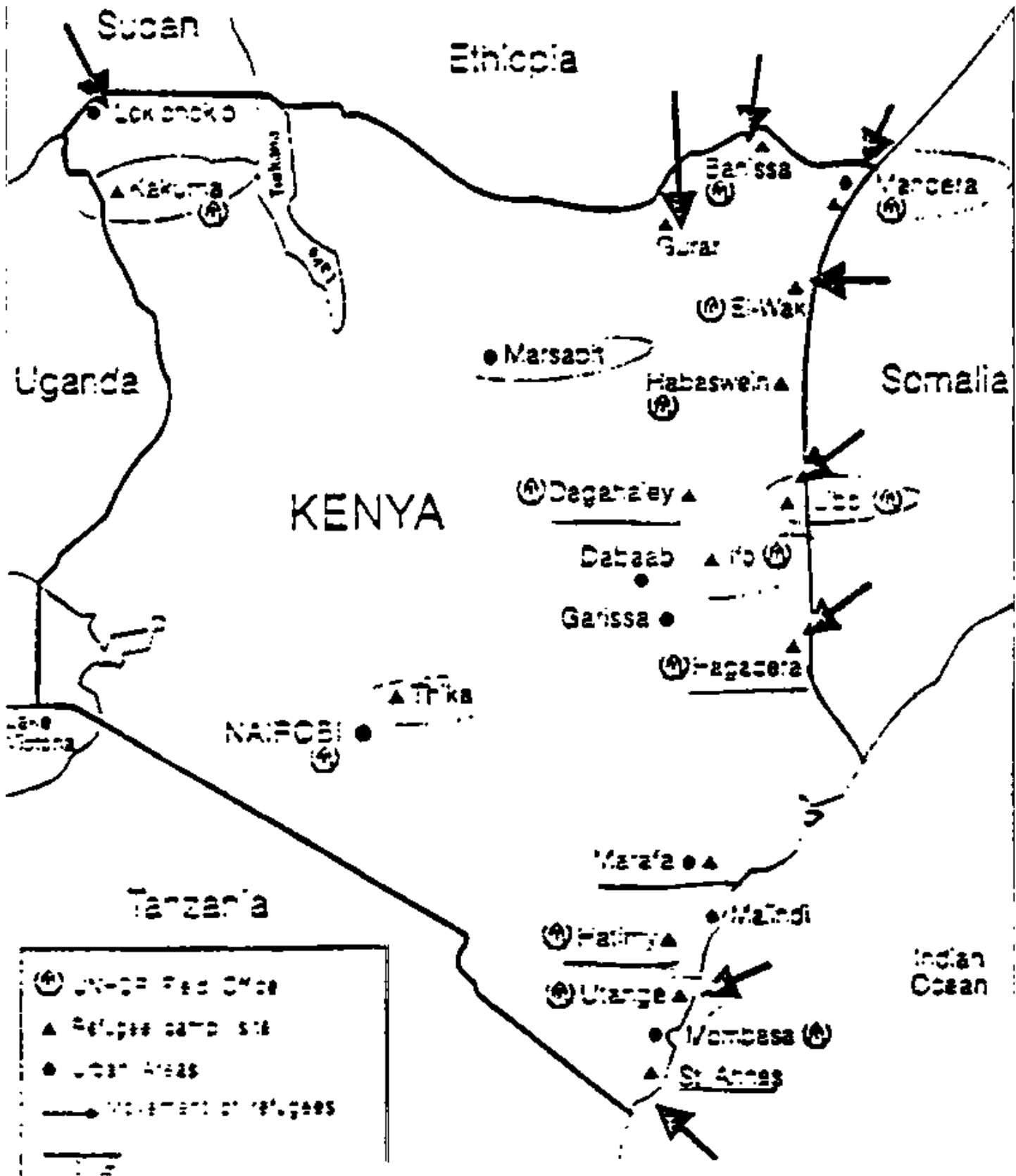
The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations



- Capital
- Town or village
- ▨ Refugee area (Eastern Sudan)



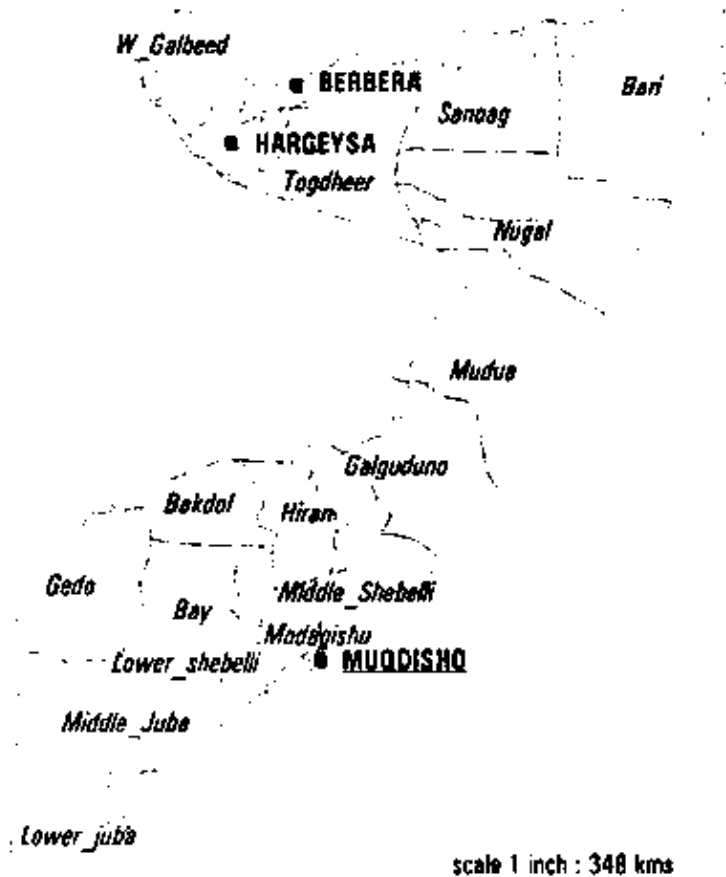
MAP 3 Sudan



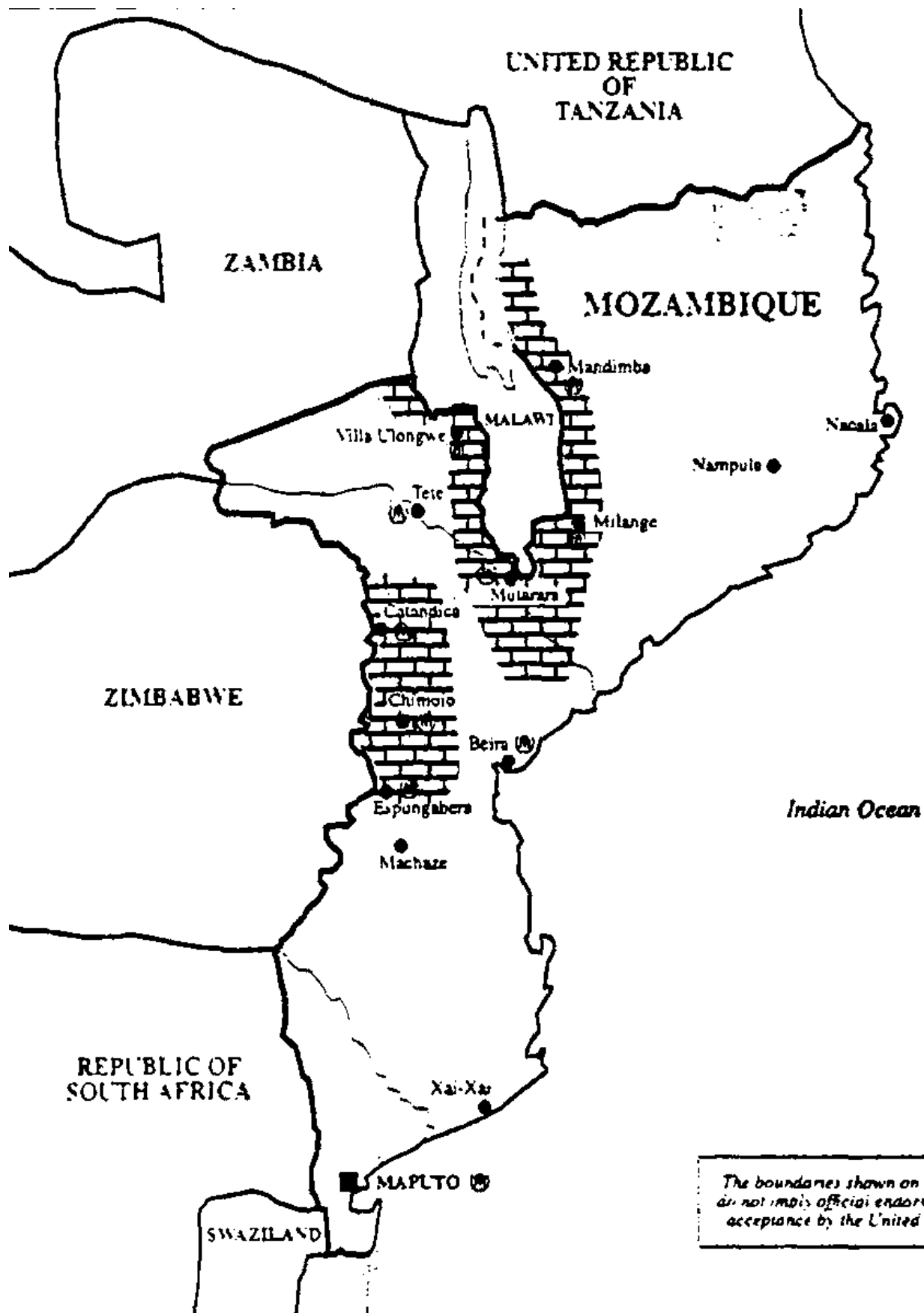
MAP 4 Kenya

# legend

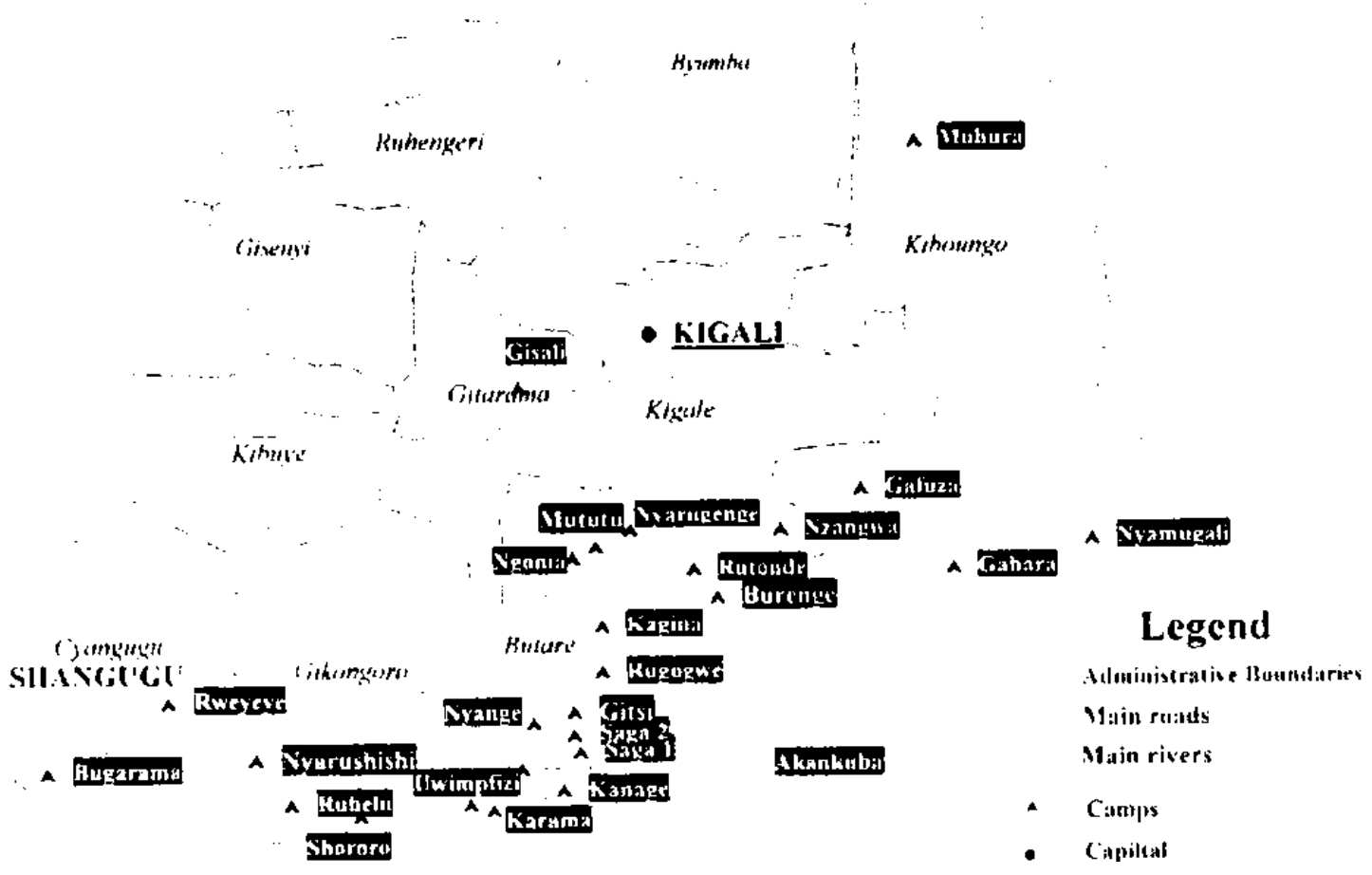
- Administrative units
- Main roads
- Main rivers
- Main towns



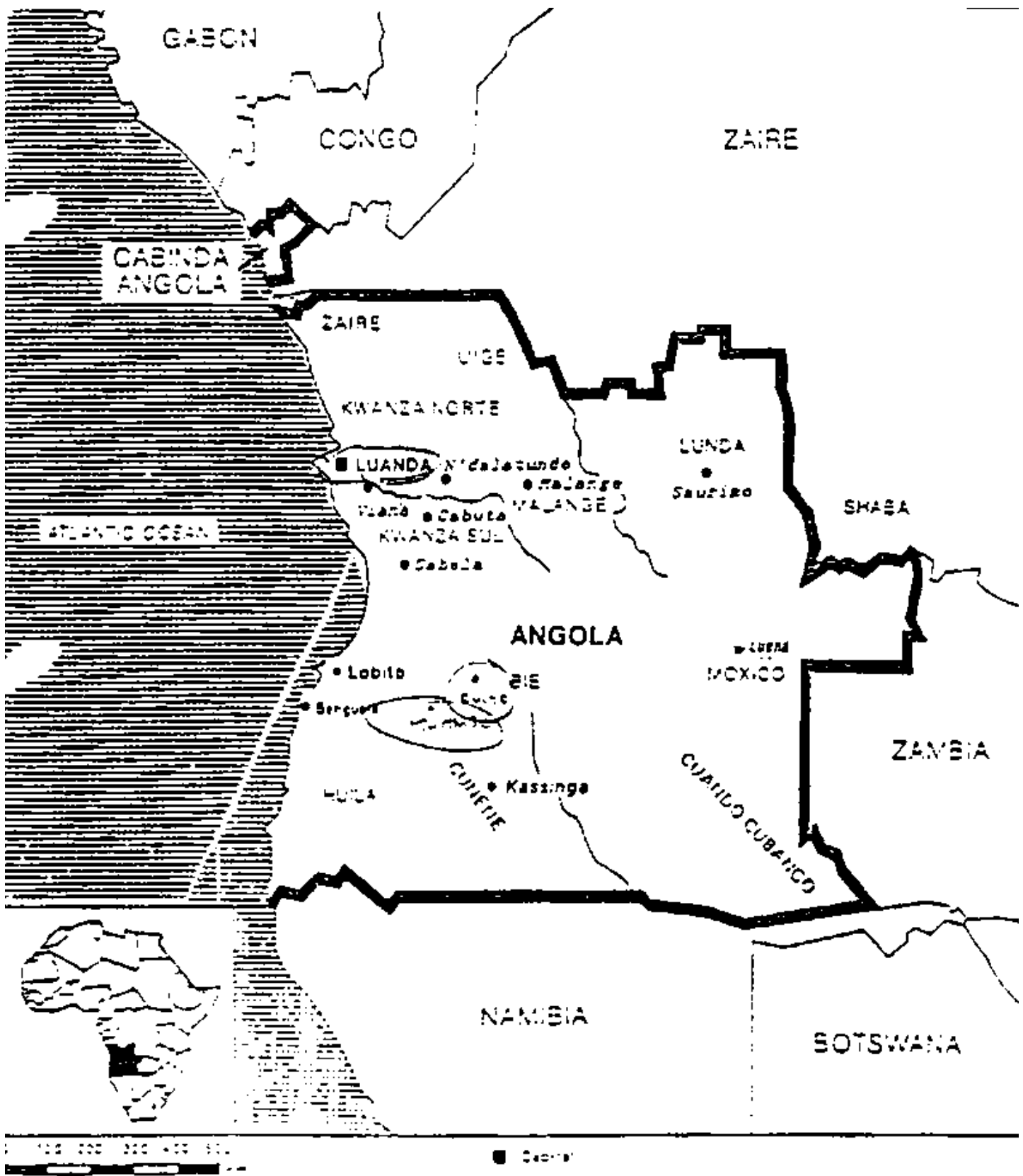
MAP 5 Somalia



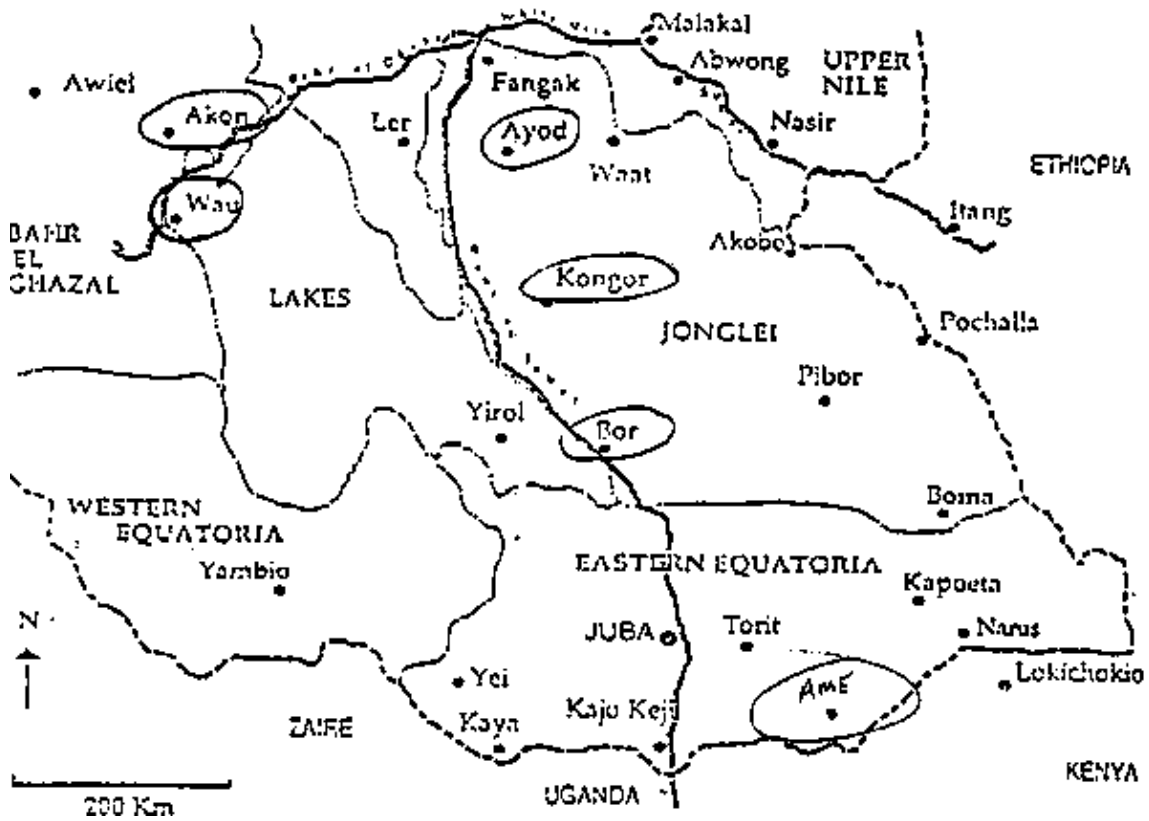
MAP 6 Mozambique



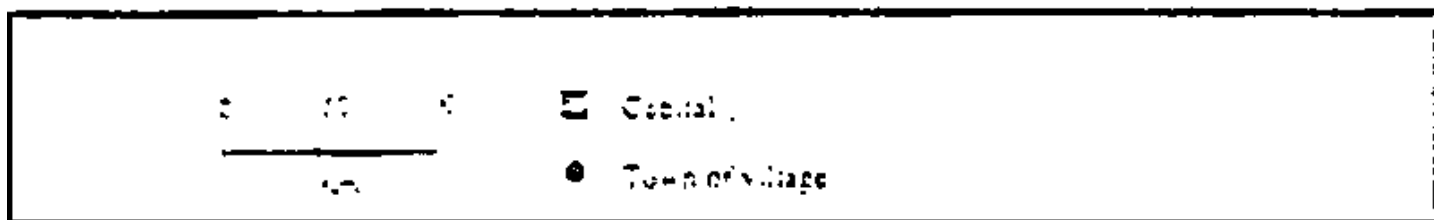
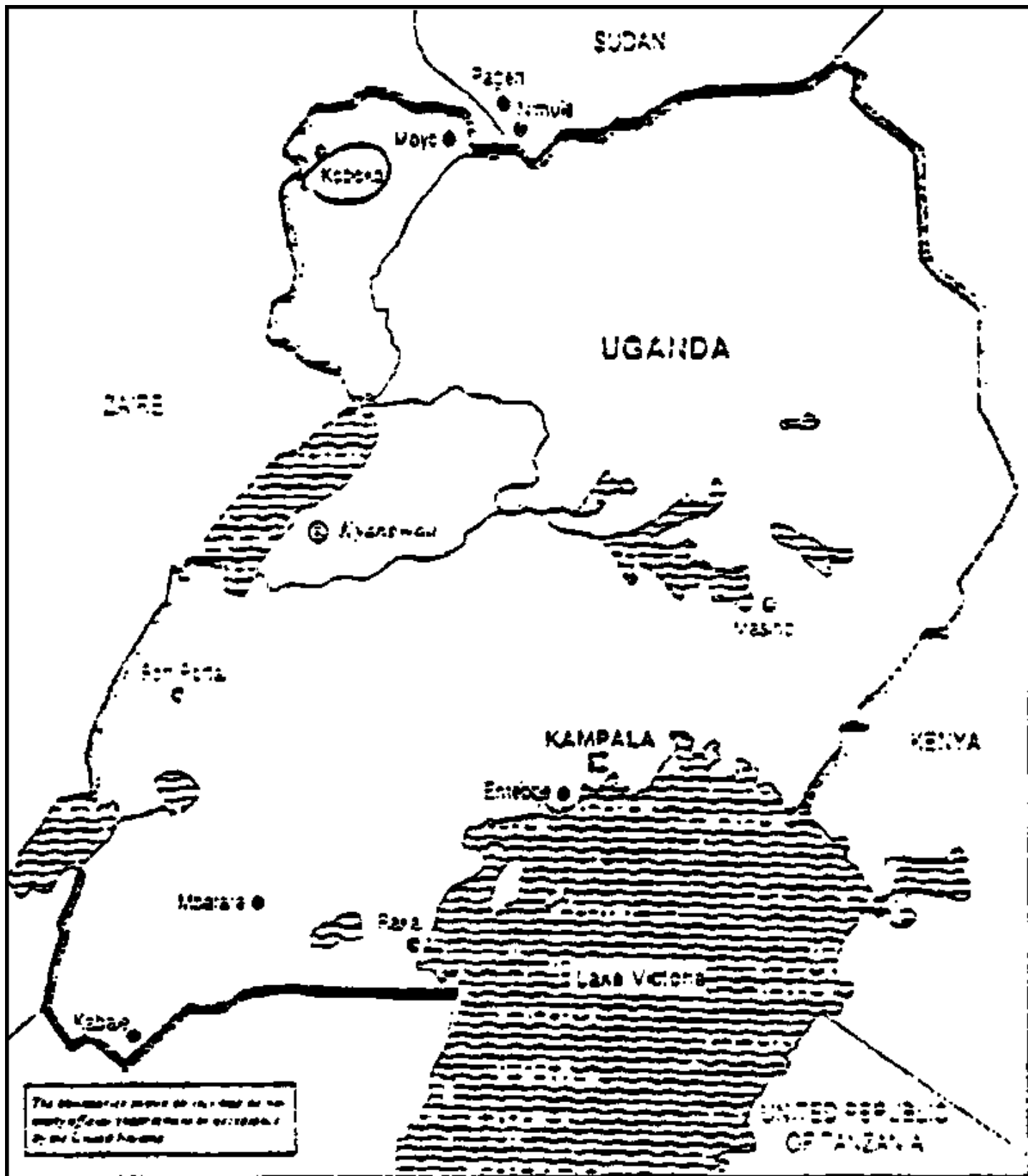
MAP 7 Rwanda



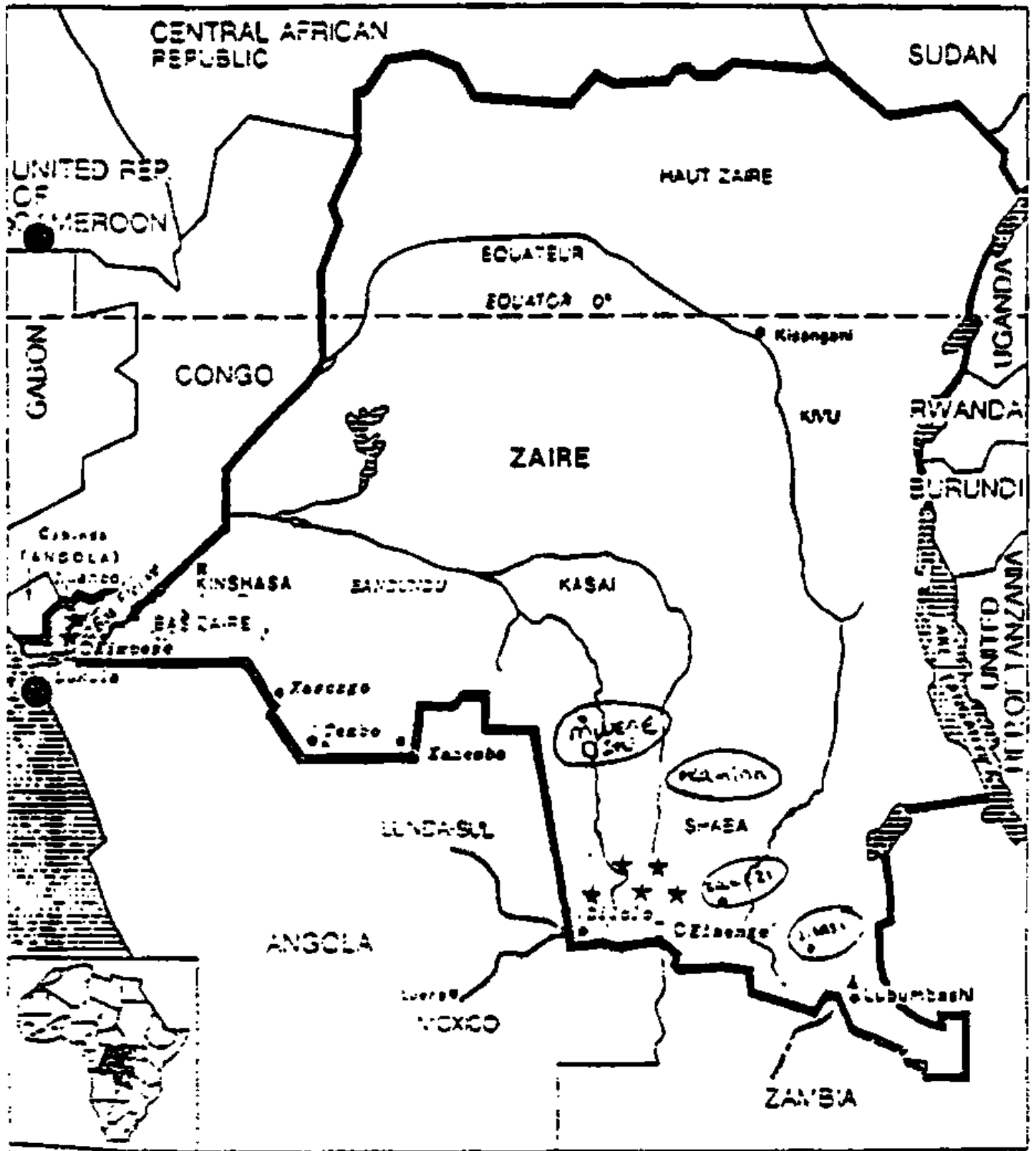
MAP 8 Angola



MAP 9 Southern Sudan



MAP 10 Uganda



MAP 11 Zaire



**Legend**

- - - Administrative units
- Main roads
- Main towns

**GHANA**

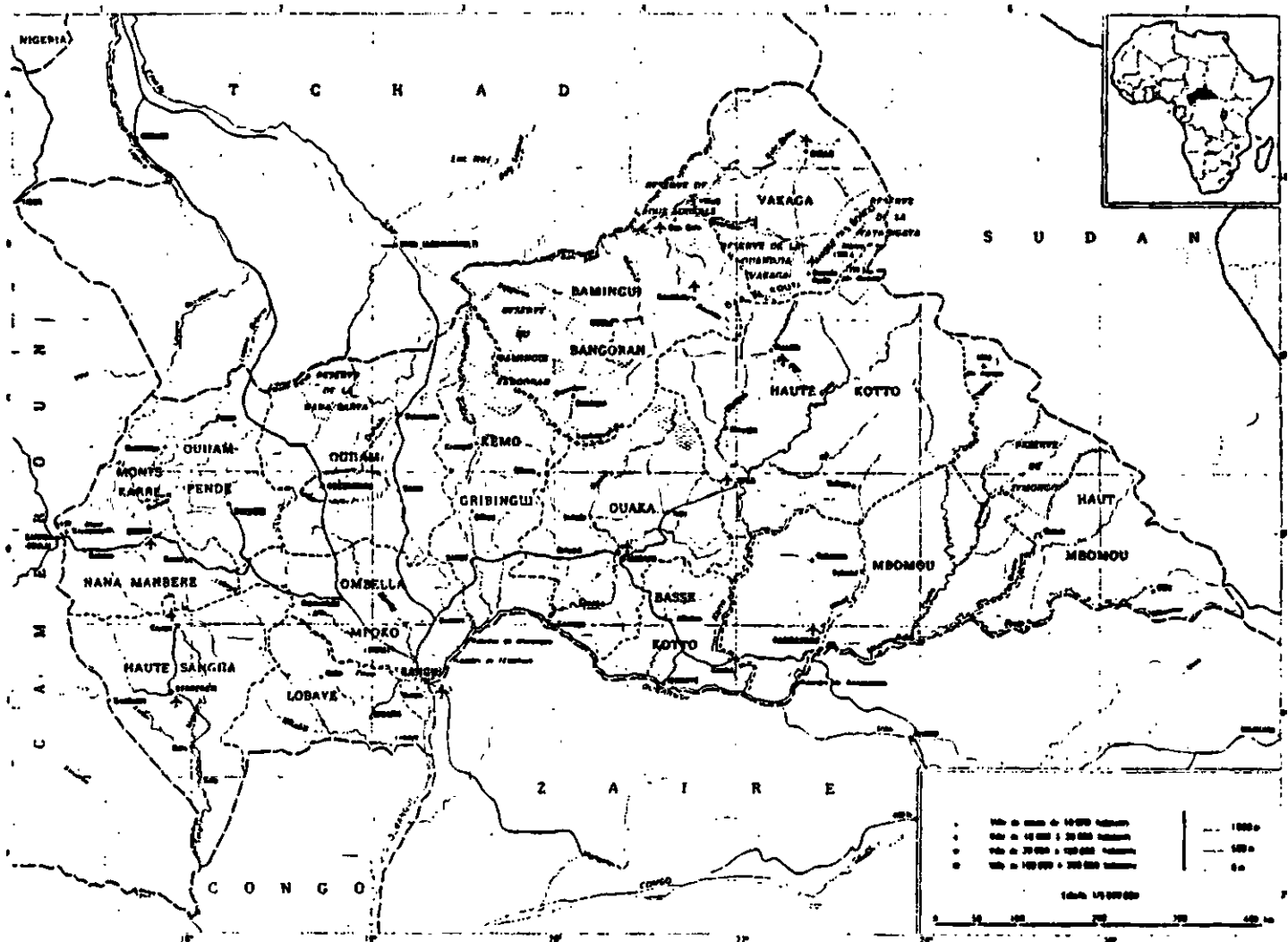
**BENIN**

• **SOKODE**

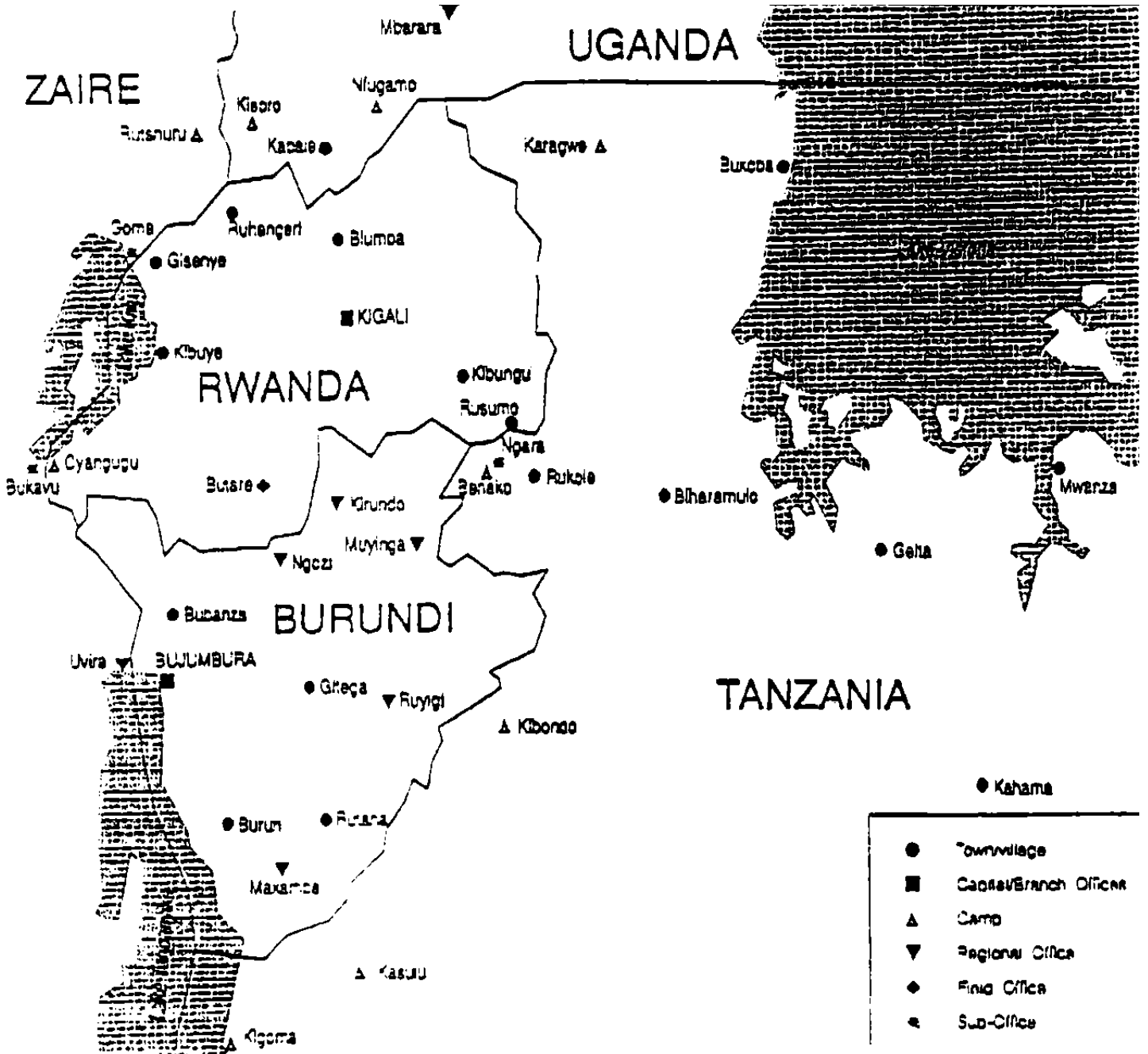
• **LOME**

Scale 1 inch : 134kms

MAP 12 Togo



MAP 13 Central African Republic

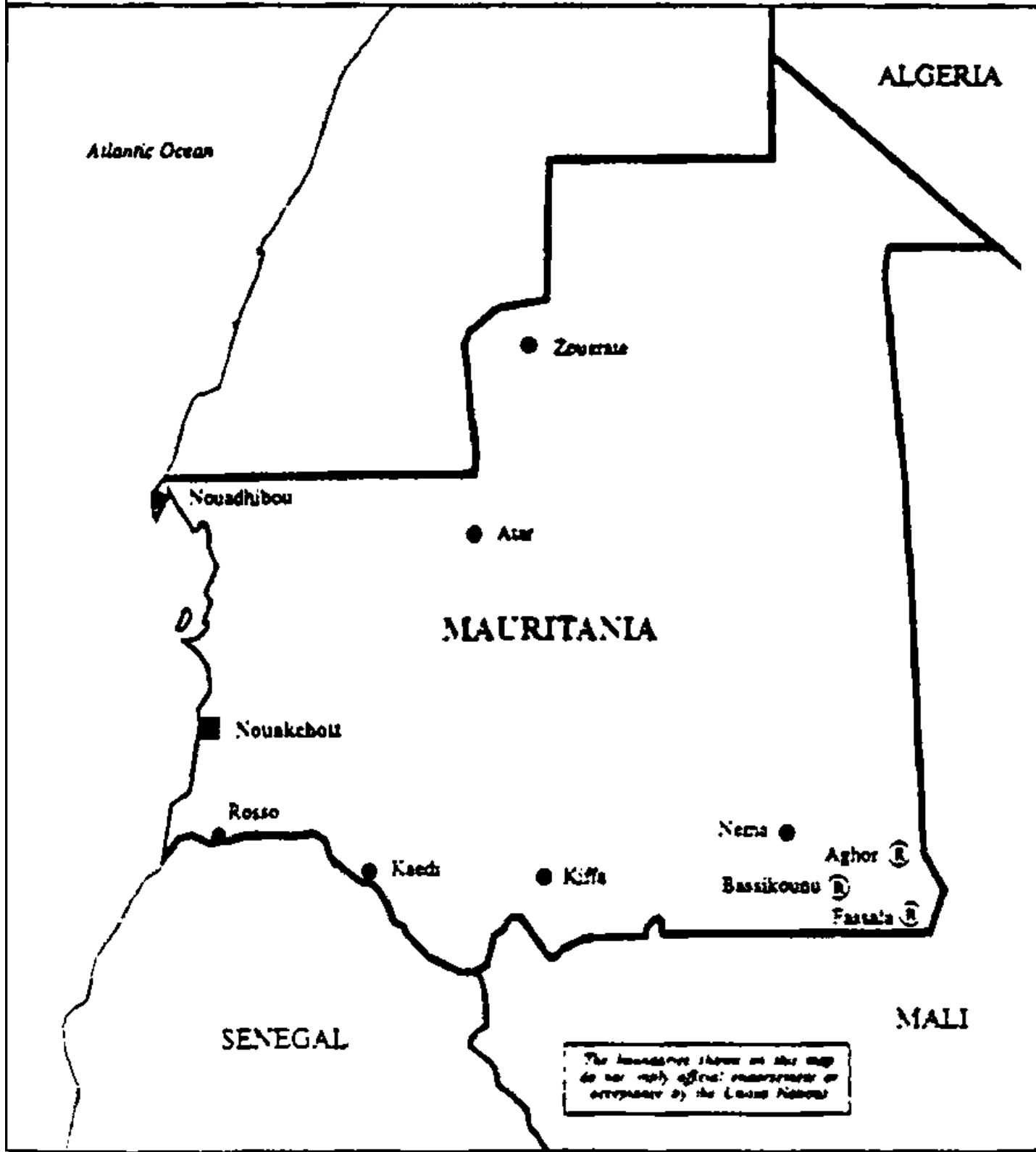


MAP 15 Burundi



Area  
 Estimated population  
 Population density  
 Rainy season

1,030,700 sq.km.  
 2,140,000 (1992)  
 2.02 per sq.km. (approx.)  
 July - September



0 200  
 Km.

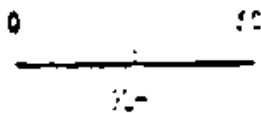
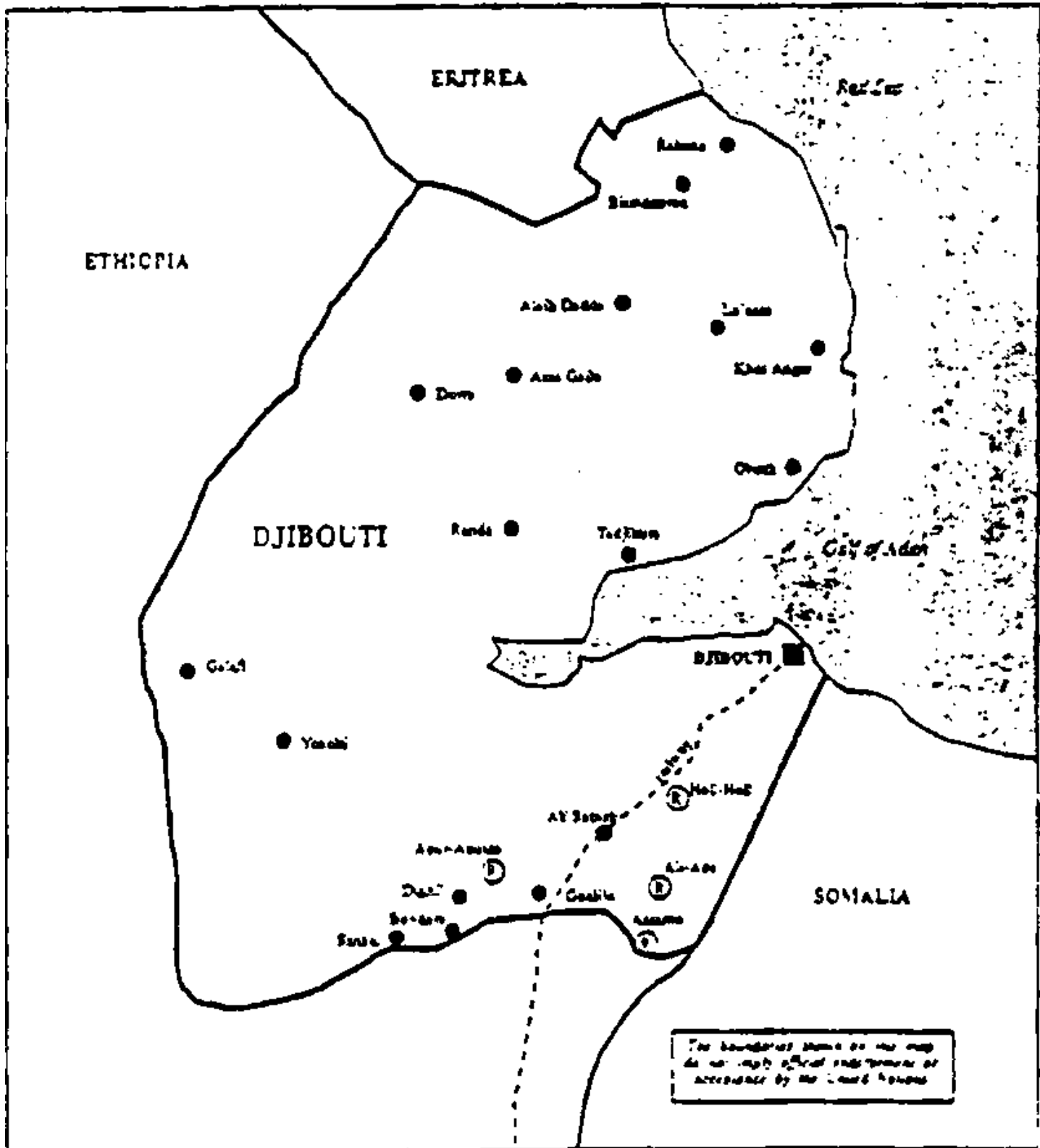
- Capital
- Towns or village
- ⊕ Settlement of refugees or displaced persons

MAP 16 Mauritania/Senegal



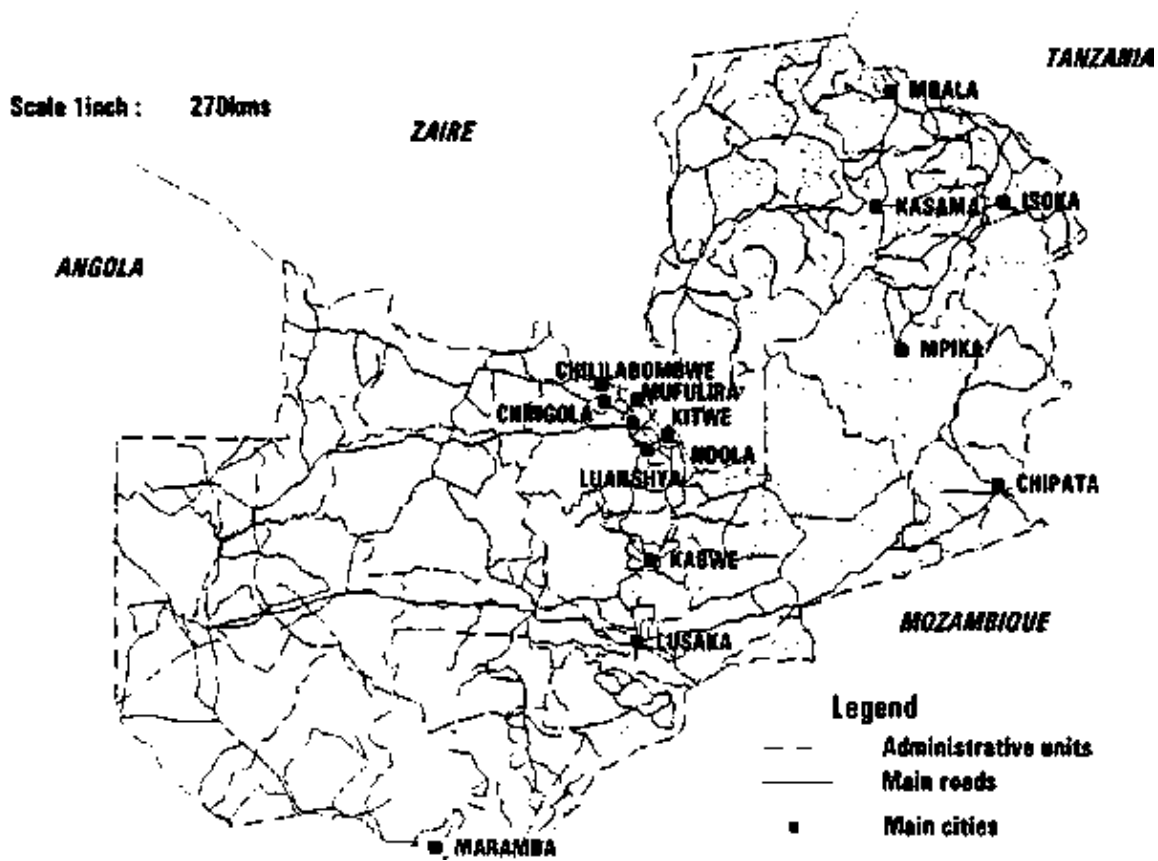
Area  
 Estimated population  
 Population density

22,783 sq. km.  
 470,000 (1952)  
 20.6 per sq. km. (approx.)

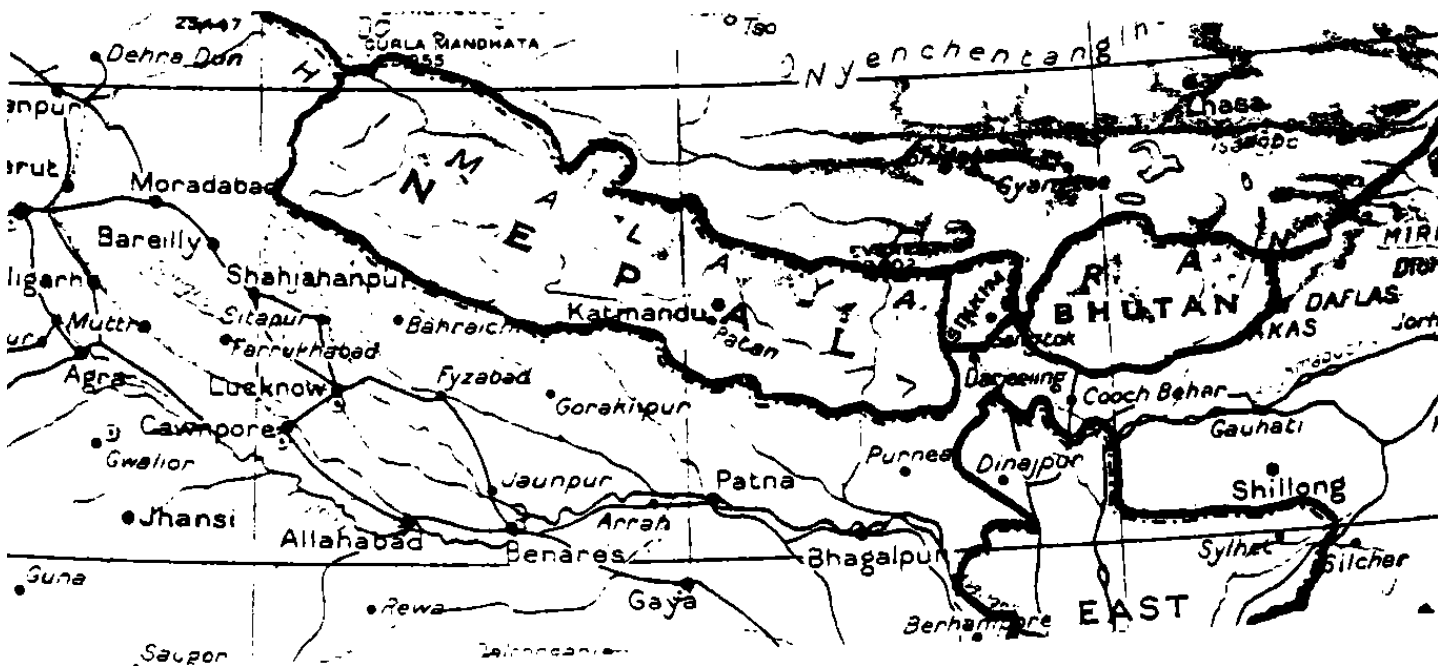


- Capital
- Town or village
- Ⓧ Reception centre camp

MAP 17 Djibouti

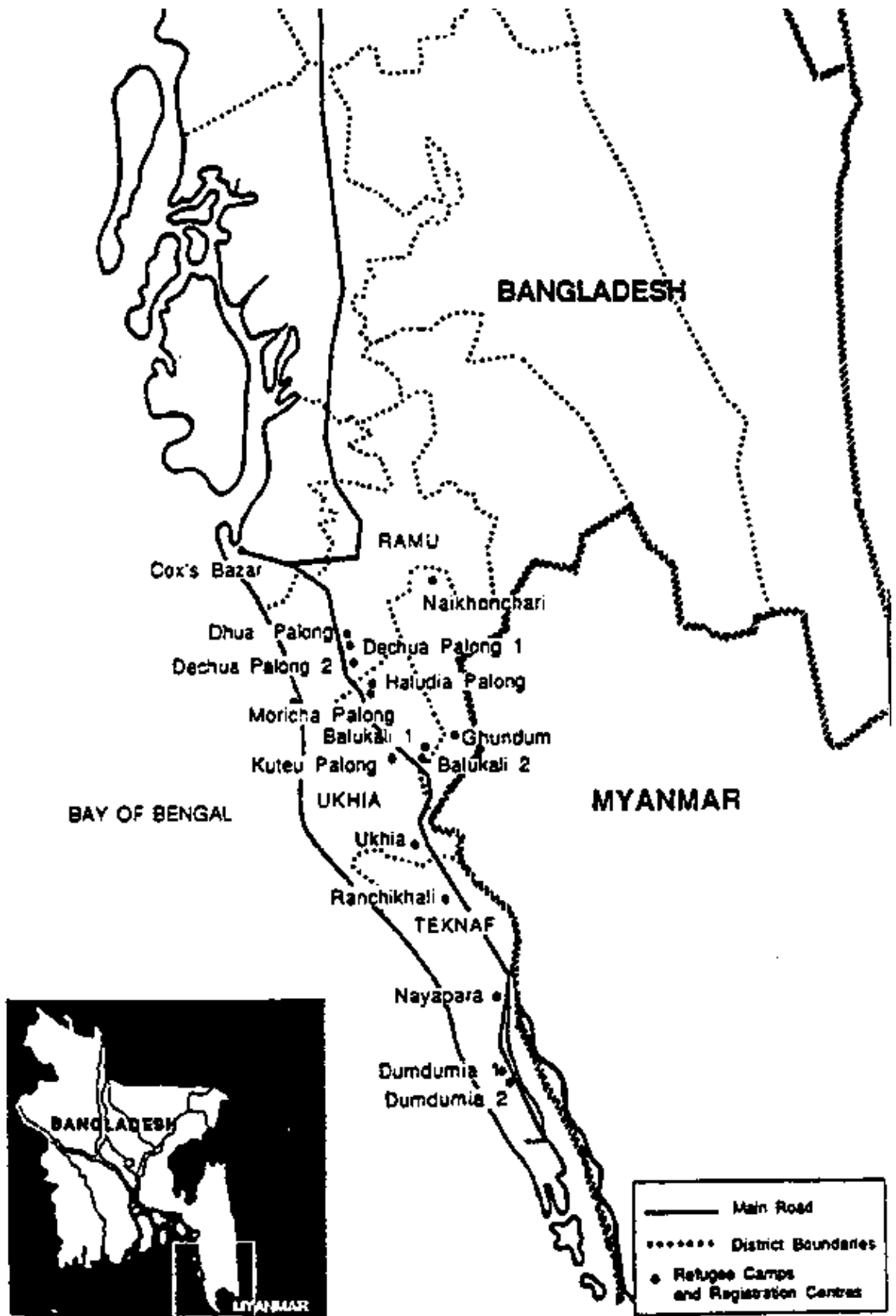


MAP 18 Zambia



MAP 19 Nepal





MAP 20 Bangladesh

