Refugee Nutrition Information System (RNIS), No. 04 – Report on the Nutrition Situation of Refugee and Displaced Populations

Table of Contents

Refugee Nutrition Information System (RNIS), No. 04 – Report on the Nutrition Situation of Refugee and Displaced Populations **1**

HIGHLIGHTS 1

INTRODUCTION 2

CURRENT SITUATION 4

1. Liberia Region 4

2. Western Ethiopia/Eastern Ethiopia/Ogaden 6

3. East, Central and West Sudan 7

4. Kenya 7

5. Southern Somalia 9

6. Mozambique 9

7. Rwanda 10

8. Angola 11

9. Southern Sudan 12

10. Uganda 14

11. Shaba/Kasai Regions, Zaire 15

12. Ghana, Togo, Benin Region 16

13. Central African Republic 16

14. Zaire (Refugees) 16

15. Burundi Situation (Burundi, Rwanda, Tanzania, Zaire) 16

16. Mauritania/Senegal 19

17. Djibouti 19

18. Zambia 20

Southern Iraq 20

List of Sources 21

Annex 1. Surveys Quoted 30

Annex 2. Seasonality in Sub–Saharan Africa* 34

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ACC/SCN REFUGEE NUTRITION INFORMATION SYSTEM

UNITED NATIONS ADMINISTRATIVE COMMITTEE ON COORDINATION SUB–COMMITTEE ON NUTRITION

No. 4 ***ACC/SCN, Geneva, 19 April 1994***

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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 in four countries – Angola, Liberia, Rwanda and Sudan – continue to cause extensive nutrition and health problems for at least ten million people (estimated before the recent upsurge of fighting in Rwanda). The extent of the humanitarian disaster in Rwanda is only just becoming known – at the time of writing (19 April) two million people are said to be internally displaced, many heading for the borders. Presumably among their difficulties will be access to food and medical care.

Two other conflicts (highlighted in the February RNIS report) have stabilized at present, in Burundi and Shaba, Zaire. The nutritional situation is largely under control for the refugee and displaced populations in North Kenya, Mozambique, South Somalia, Togo, and for refugees in Zaire. Of the estimated 15 million refugees and displaced people in Sub–Saharan Africa, about 2.4 million are thought to be severely malnourished or at high risk; about 3.3 million in a relatively adequate nutritional situation; and the remaining ten million or so at moderate risk.

Overall, the trend in numbers affected from January/February to March/April 1994 is flat, but the distribution of known risks has changed considerably (see Figure 2). Reports indicate that the proportion of severely malnourished or at high risk has increased in Liberia (from 350,000 in January to 700,000 now, roughly 12% to 25% prevalences) and in Southern Sudan (150,000 to 500.000, 8% to 25%). However, this proportion seems to have fallen in Angola (from 1.6 million in January to 240,000 now, 50% to about 10%) and slightly in the Burundi region (914,000 to 846,000, 100% to 95%), at least before April 6 when the Presidents of Burundi and Rwanda were killed.

Angola *While fighting continues, assistance is reaching many of the cities mostly by air, and the limited evidence is for some improvement in nutrition (e.g. 11% wasting in Melange, down from 34% in October 1993). Mortality rates (overall and under–five) are reported to remain high.*

Liberia *Large areas are inaccessible due to insecurity and likely to have severe malnutrition and high mortality – 350,000 people are estimated to be in this situation, the largest such group known in Africa. Accessible populations are also highly vulnerable, especially with rains due in May. Around three million people in the area, equivalent to the entire population of Liberia, are affected. Much depends on the outcome of recent attempts to agree on disarmament.*

Rwanda *Little is known of the nutrition conditions of the reported two million people since 6 April. Before then, nutrition was improving, with effective food distribution, for most of the displaced and returnee populations. Governments and external assistance agencies are preparing to receive large numbers of refugees in the neighbouring countries, but providing effective assistance within Rwanda is largely impossible at present.*

Sudan *Fighting in Southern Sudan has intensified in the last two months or so, leading to a rapid increase in numbers displaced, as well as much more difficulty in supplying those at risk. At least two million people are affected in Southern Sudan, many more being displaced further north, and seeking refuge in neighbouring countries. Surveys record up to 30% wasting, nearly 10% severe, and mortality rates up to ten times normal. The rapid increase in numbers makes the situation similar to a new emergency, and much more resources are required. In East, Central and Western Sudan there are estimated to be 1.7 million displaced people, due both to the conflict in the south and worsening drought in the west. An important issue here for donors concerns whether and how to provide assistance in the current political situation in Sudan.*

Other situations described in the report are less critical, but nonetheless affect very large numbers of people. They are to a varying extent being brought under control, usually with substantial external assistance, and the issue is to bring about improvement when it is feasible more quickly, so that mortality falls to normal levels and lives are saved. The nutritional situation of nearly one million Burundi people displaced as a result of disturbances that began in October 1993 was precarious (in early April) but expected to improve with anticipated new food supplies; the present situation of those who sought refuge in Rwanda (about 250,000) is not known. The improving situation in Mozambique means that nearly two million people are returning to more normal life, and in other areas, such as Kenya, Southern Somalia, and Togo, nutrition and survival are successfully improving. Other chronic situations are less favoured – in Shaba and Kasai regions, Zaire, around one quarter of a million displaced people remain with greatly restricted food and access to health care. As noted in all previous RNIS reports, the nutrition situation for people in the Ogaden, Eastern Ethiopia, continues poor, including micronutrient deficiencies.

This report contains sections for most of the geographical situations indicating some priorities for external assistance. This is intended to give general guidance, responding to requests received recently.

We continue to report on the situation of the displaced and refugee population in or from Southern Iraq drawn to our attention due to the severity of malnutrition. Although information is scarce, it seems that the situation has not improved, and it is likely that hundreds of thousands of people are severely malnourished and/or at high risk – such information as is available is given in the last section of the report.

INTRODUCTION

The UN ACC/SCN[1] (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 fourth of a regular series of reports, issued every two months, starting with the problems in Africa.

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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. A summary of available information on populations in camps currently most affected is given in Table 1. Map A shows the location of the situations described and the shaded areas are those in a critical situation. To give context, in Table 2, we give an estimate of the probable total refugee/displaced/returnee population, broken down by numbers at risk. Populations in category I in Table 2 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 2) 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 2) 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 HI. 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

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James W.P.T. and Schofield C. (1990) *Human Energy Requirements.* FAO/OUP.
Schofield C. (1994) Pers. Comm.
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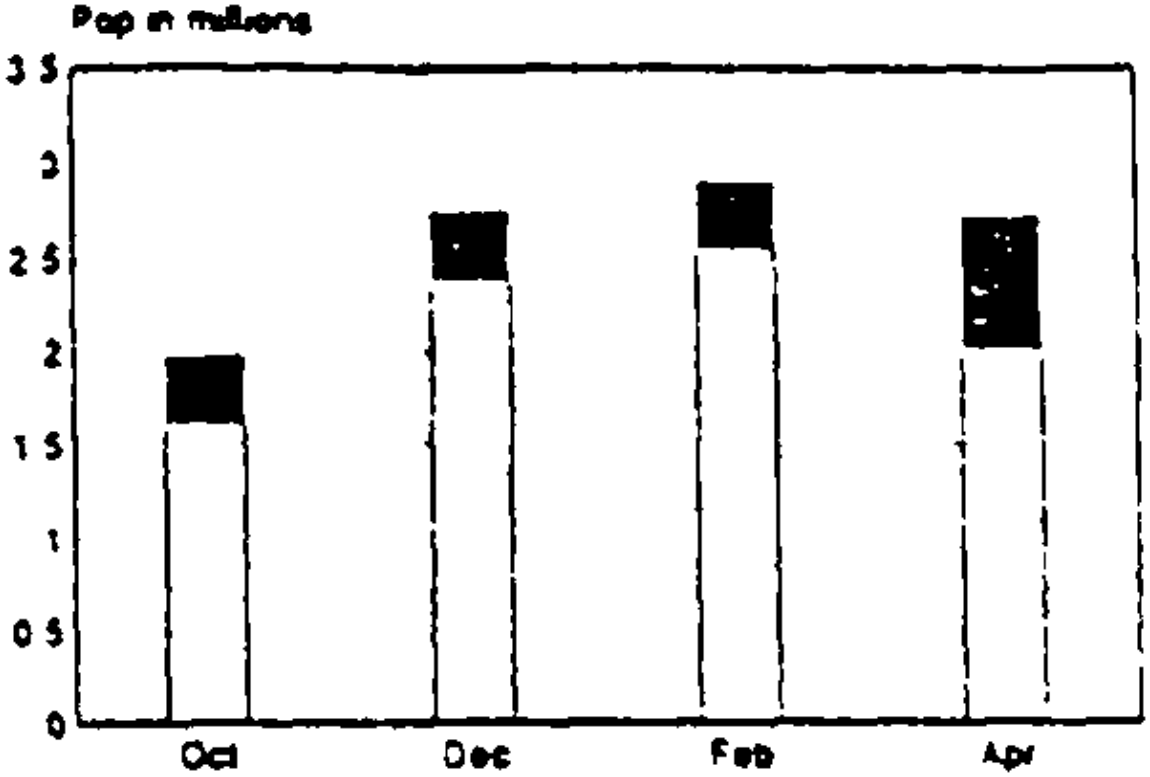
CURRENT SITUATION

1. Liberia Region

(see Maps 1A, 1B and Figure 3A)



A. Liberia

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

A large proportion of the population of Liberia continues to be affected by the civil war while the unstable situation in Sierra Leone is also affecting large numbers. Estimates for the region are that 2,600,000 refugees and internally displaced people will require emergency assistance throughout 1994.

Estimates of populations affected are as follows:

	December 1993	**February 1994**	**April 1994**

Liberia	1,750,000	1,750,000	1,750,000
Sierra Leone	150,000	300,000	297,000
Cote d'Ivoire	250,000	250,000	250,000
Guinea	600,000	600,000	415,000
TOTAL	2,750,000	2,900,000	2,712,000

In February, the security situation continued to deteriorate and expanded ECOMOG forces were deployed enabling cross−line convoys to deliver some relief food to Bong County (Gbanga). Fighting has been heaviest in Bong, Bassa, Lofa, River Cess and Sinoe counties [WFP 11/02/94]. An estimated 120,000 people in South East Liberia and 145,000 in Upper Lofa Country are currently cut off from food distributions (WFP 28/02/94]. However, recent agreement reached between the various warring factions has led to the tentative beginning of disarmament and the hope that previously inaccessible areas such as Upper Lofa County will become accessible to relief agencies. The planting season is now beginning − the fields are being prepared and seeds should be planted by June. It is reported that there is a shortage of seeds and an inadequate harvest would extend the region's dependence on external food sources [SCF 18/04/94]. Here are some details by area.

NPLF Area In Bong, Nimba and Grand Bassa Counties the low measles vaccination coverage of 44% prompted plans to expand the vaccination programme, starting in mid−February with Nimba County [MSF−B 21/01/94].

A survey conducted in January in Upper Margibi, Lower Bong and Grand Bassa Counties (population approximately 350,000) found 4.5% wasting with 1.5% severe wasting. However, crude mortality rates were 1.4−1.7/10,000/day (5 to 6 x normal) and under−five mortality rates were 3.7−5.6/10,000/day (see Annex I la). Food aid distributions are said to be insufficient (less than 1400 kcals/capita) with distributions primarily along main roads leaving large inaccessible and remoter areas unserved. As local harvest resources have largely been depleted, the impact of the coming rainy season in May is almost certain to cause a deterioration in nutrition and health status as food transportation becomes more difficult [MSF−H 29/03/94].

ULIMO Area Fighting is continuing throughout Upper Lofa, and currently there are no international organizations present in the area. There is, therefore, little information on the status of the resident population. The anticipated return of relief agencies and resumption of their activities once disarmament is properly under way will undoubtedly be hampered by the large−scale destruction of infrastructure which has reportedly taken place with this most recent round of fighting. Given the likely displacement of many Liberians from this region into Sierra Leone accurate assessments of numbers in this area are not available [UNHCR−A 24/03/94].

Sierra Leone The most recent estimates of numbers of refugees and internally displaced people in Sierra Leone is 297,000. However, given the lack of information on numbers of people fleeing Upper Lofa, this may now be an under−estimate of the actual population. Reports at the beginning of February indicated that intensification of rebel activities had cut off the main access route to Segbwema, a major food distribution site for 70,000 displaced persons in Eastern province. A further 12,000 Sierra Leoneans in Kenema were cut off from NGO assistance due to insecurity at the end of February. The general situation was described as unstable and generating concern about impact on relief operations throughout February and March [WFP 28/03/94].

Overall, there is a gleam of hope in the situation in the Liberia region with the recent disarmament agreement, already leading to the return of a reported 19,000 refugees to Liberia from Cote D'Ivoire and Guinea [UNHCR−A 24/03/49]. However, 350,000 people with known high mortality rates are at risk (category I in Table 2) especially with the rains due in May. Those in inaccessible areas, such as Upper Lofa, (estimated population of 145,000), South East Liberia (estimated population 120,000) and the 82,000 refugees and internally displaced in Sierra Leone are also believed to be at high risk, although precise details of their condition are not known (category Ha in Table 2). The remainder of the affected population in Liberia are considered to be at moderate risk (category IIb in Table 2) with a tendency to improvement if the current disarmament process continues.

How could external agencies help? Part of the affected population is *inaccessible* for security reasons, and thus external assistance is not currently a major issue. However, the infrastructure within such areas has presumably been damaged, and donors could consider future funding needs for reconstruction as a

prerequisite for effective rehabilitation when security allows access; transport, food, medical supplies, and personnel will also be likely to be needed. This currently applies to a population of around 265,000 in Liberia, and another 82,000 in Sierra Leone.

For the population *accessible* in terms of security, nutrition is improving with the harvest and with external assistance, which is understood to be presently adequately funded. However, remoter areas, even if accessible from a security viewpoint, are reportedly under served with relief food and supplies. The low coverage of measles immunization remains a major risk; stepped up immunization has begun, but additional funding may be needed for wide coverage.

2. Western Ethiopia/Eastern Ethiopia/Ogaden

(see Map 2)

Current estimates of the number of refugees/returnees/displaced in Ethiopia are 179,000 in total. This includes 44,000 Sudanese refugees in the West, 100,000 Somali refugees in the East, and 35,000 returnees and displaced people in the Ogaden.

Western Ethiopia Most recent reports are that this group of 44,000 Sudanese refugees who are being helped to permanently settle in Western Ethiopia have an adequate nutritional status [UNHCR–B 24/03/94).

Eastern Ethiopia There are approximately 100,000 Somali refugees in this area. Repatriation plans are in place but implementation is pending [UNHCR–B 24/03/94], although there are reports of substantial population movements already (SCF 13/4/94].

Ogaden (Gode 1&2, Bohelagare camps) A census carried out in the three camps in January 1994 indicates a returnee and displaced person population of 35,000. Crude mortality rates in February in Gode 1 and 2 were 0.9/10,000/day (3 x normal) and under–five mortality rates were 0.9/10,000/day (see Annex I 2a). These rates show a slight improvement over those reported from November when mortality rates were 1.1/10,000/day and under–five mortality rates were 1.4/10,000/day. As many people are now moving in and out of Bohelagare camp the mortality figures are no longer thought to be very meaningful, however.

Micronutrient deficiency diseases such as scurvy and vitamin A deficiency are reported every month at the camp clinics. In January the incidence of scurvy diagnosed at the clinics was reported as 12.8/1,000/month which is three times that seen in November and the incidence of signs of vitamin A deficiency was 0.6/1,000/month (see Annex I 2b). The extent of vitamin A deficiency is unclear. Food distributions to the camps have been erratic and between November and January per capita calorie receipts have worked out at 95 kcals/person/day. Indeed throughout 1993 rations have amounted to less than 1,000 kcals/person/day. It is therefore not surprising that a nutritional survey carried out in December showed wasting levels of 30.5% with severe wasting at 6.8% (see Annex I 2c). Measles vaccination coverage was 88.9% [MSF–B–A Jan.94, MSFB Feb.94).

The 35,000 returnees/displaced in the Ogaden remain in a critical situation. While the mortality rates indicate an improving situation, prevalence of wasting and the continued presence of micronutrient deficiencies indicate the extremely poor nutritional condition of this group (category I in Table 2). Without the provision of an adequate general ration and a rehabilitation programme to encourage self–sufficiency this situation is unlikely to improve. The 144,000 Sudanese and Somali refugees are in a stable condition and are probably not currently at risk (category IIc in Table 2).

How could external agencies help? One issue here concerns the future of the relatively small population (35,000) in the Ogaden, who are in a chronically deprived situation. They need much better food rations (quantity and quality) for survival – as well as the means for rehabilitation of livelihood. It is unclear why this situation has persisted for so long. Certain NGOs are working in the area, and may require increased support (e.g. MSFB, SCF).

Vitamin A supplementation for vulnerable groups may be indicated. Scurvy is also occurring, less easily tackled through supplementation, requiring fresh fruit and vegetables. Provision of fortified blended foods may also need to be considered.

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. They are displaced mainly due to the conflict in the South, but persistent, worsening drought in the West has led to large numbers of people needing assistance.

Kordofan Results from a state nutrition survey in January 1994 in Kordofan found levels of wasting in the provinces varying between 7.1% and 14.6% with severe wasting as high as 4.5% in Sodari. In the camps for displaced Southerners and the drought affected, levels of wasting varied between 1.1% and 26% with severe wasting at 5.6% in Abyei (see Annex I 3a and b). Although a few provinces and camps had lower levels of wasting compared with the July 1993 survey, the majority showed an increase in prevalence of wasting. This may partly be explained by a constant influx of new arrivals who are malnourished [UNICEF 22/03/94]. Another factor may be the continuous rise in cereal prices (22% per month) due to the poor harvest and lack of fuel for transport.

There are also reports of approximately 4,200 people migrating south of Kadugli due to insecurity and/or drought There is concern that this additional group of people will exhaust the already low food stocks in the area [WFP 11/02/94].

At the end of February there were reports from North Kordofan of NGOs being forced to turn away drought affected applicants from Food For Work projects. The demand for employment is overwhelming compared to last year's minimal response. In South Kordofan food stocks in local markets were almost completely run–down [WFP 28/02/94].

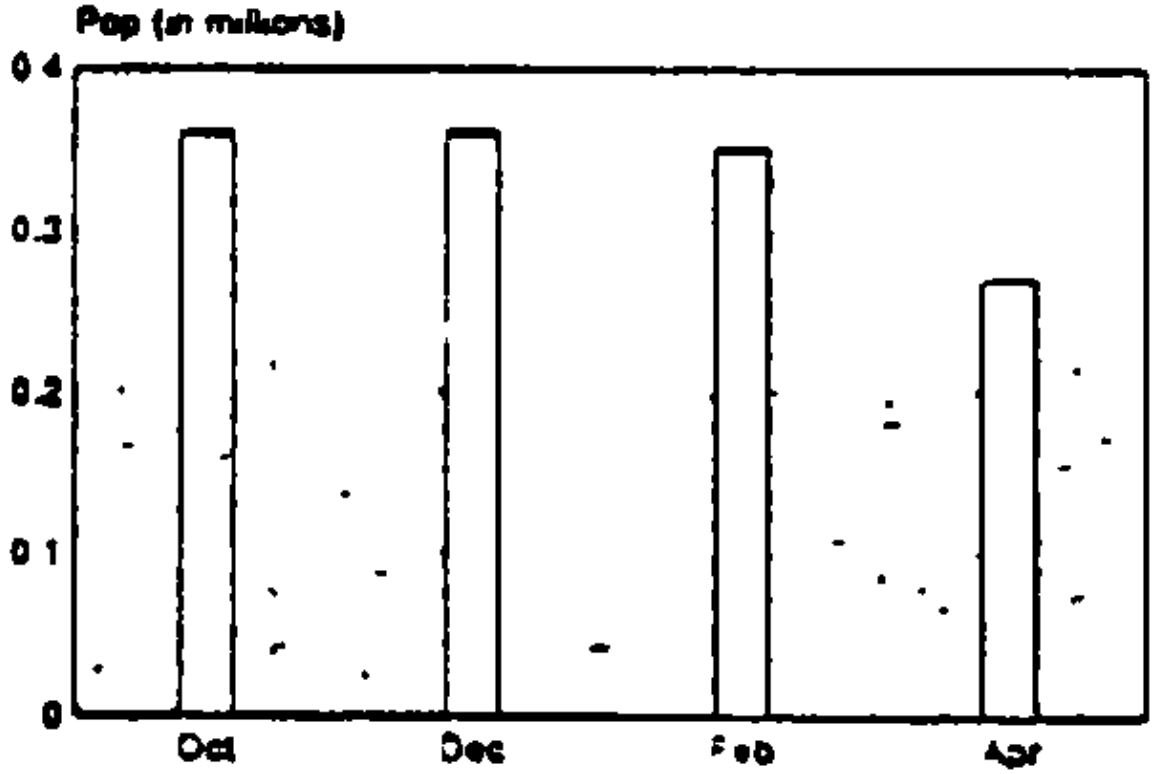
Darfur The impact of the drought in Darfur has been severe causing a huge escalation in cereal prices with scarcity in many local markets reported in February. Remittances from migrant workers in Libya have now stopped, worsening the situation [SCF 13/04/94].

While we know some portion of the 1,700,000 people in this area is in a critical state, population breakdowns are not currently available. We have, therefore, categorized the entire population as IIb in Table 2.

How could external agencies help? Some donors are reluctant to provide general rations for camps, for political reasons, hence food supplies are erratic at least to those camps showing high levels of malnutrition. Unless donor policies change in the current context, provision of external food will remain a problem influencing nutrition.

4. Kenya

(see Map 4 and Figure 3B)



B. Kenya

Trend in numbers of refugees/displaced.

The overall number of Somali and Ethiopian refugees in Kenya has decreased from 352,000 in January 1994 to 272,000 in March 1994 and two more camps are now closed (El Wak and Mandera) with the Somali inhabitants either being repatriated or moved to another camp. However, the influx of Sudanese refugees from Southern Sudan continues. The situation is complicated by the worsening drought in Kenya which is creating a demand for assistance from the local population [UNHCR 22/03/94, WFP 11/03/94]. The Government of Kenya is working to contain the effects of drought.

Information available in January 1994 from *Hagadera* camp (population 30,000) shows a crude mortality rate of 0.4/10,000/day and an under–five mortality rate of 1.3/10,000/day (see Annex I 4a). The under–five mortality rate has improved since January (1.9/10,000/day) [MSF–B–B Jan.94]. However, in February, the under–five mortality rate increased to 1.9/10,000/day, mainly due to diarrhoea [MSF–B–C Feb.94).

A nutritional survey conducted in *Marafa* camp in January found 7.1% prevalence of wasting with no severe wasting (see Annex I 4b). These rates are a considerable improvement on June 1993, when a survey found 16% wasting and 3.4% severe wasting [IFRC 28/03/94].

There continues to be a steady influx of approximately 300–400 Sudanese refugees per week into *Kakuma* camp in the northwest. Camp infrastructure and resources appear to be adequate to cope with this rate of influx, and the nutritional condition of this refugee population is believed to be satisfactory [UNHCR 22/03/94].

The overall refugee population in Kenya continues to decline as repatriation proceeds. The refugee situation can be described as under control with no population groups at unusual risk (population categorized as IIc in Table 2).

How could external agencies help? A priority for the refugees/displaced population, either in Northern Kenya or repatriating to Somalia and Ethiopia, would be rehabilitation of their means of livelihood when they return. Probably, the most effective way is going to be support for local NGOs, notably in Somalia. At the same time, serious drought is affecting the area, and the usual needs for mitigating the effects of drought are becoming increasingly important.

5. Southern Somalia

(see Map 5)

The work of humanitarian agencies, which has now largely moved into a rehabilitation phase, is still being periodically hindered by security incidents throughout the country. For example, all international NGOs were recently forced to withdraw from Bardera leaving only a skeletal WFP staff; and WFP had to evacuate all staff from Belet Uen at the end of January due to a serious looting incident.

Applications from local NGOs to WFP for food to support rehabilitation activities are increasing and at the end of March implementation was proceeding without major problems in Bardera, Baidoa, and Bakool [WFP 11/02/94]. For example, the operation of a health program in Baidoa is continuing, with changes being implemented to require a minimum external supervision [WV 31/03/94].

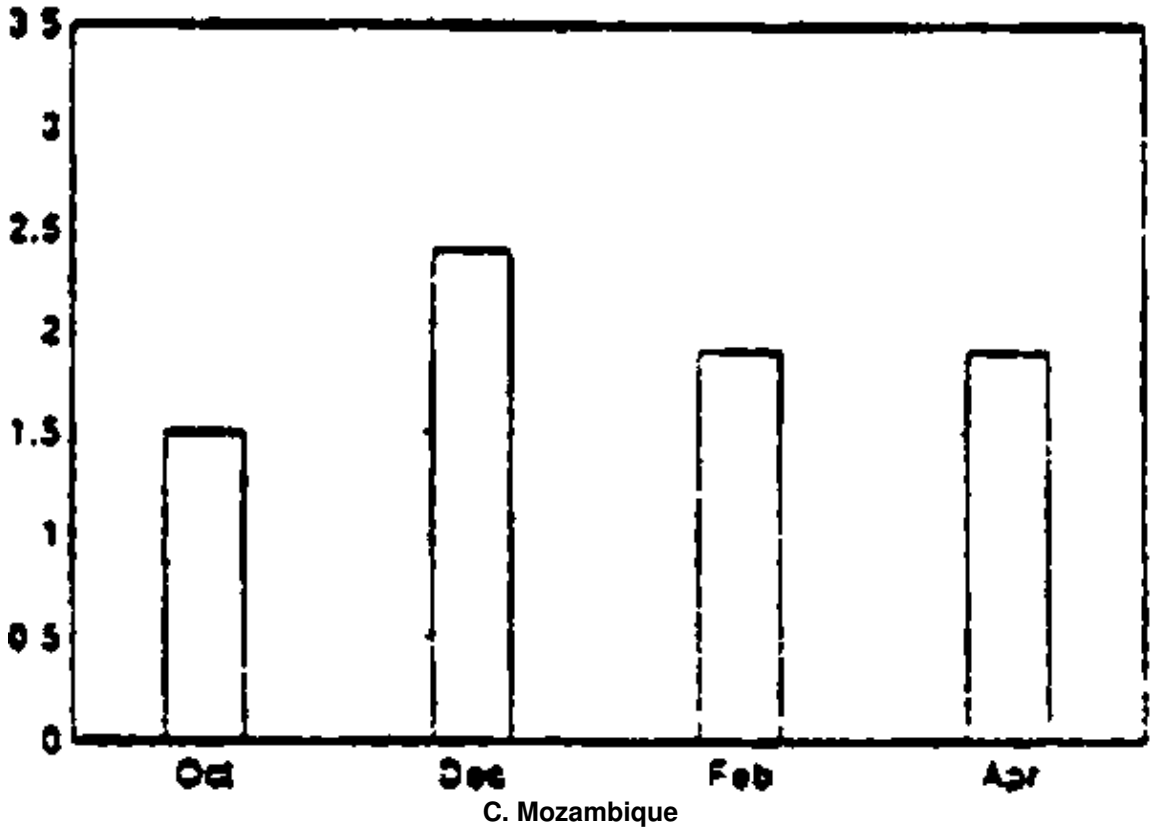
A nutritional survey carried out in Mogadishu in April showed 8.1% wasting and 1.3% severe wasting in North Mogadishu (where relatively few displaced people are living) and in South Mogadishu (where most displaced people are living) the level of wasting was 8.9% with 2.1% severe wasting (see Annex I 5a) [AICF 15/04/94].

The population requiring emergency assistance (274,000) is not thought to be currently at any heightened nutritional risk (category IIc in Table 2).

How could external agencies help? Rehabilitation of livelihood, especially supporting locally active NGOs, is one priority. These efforts will have to be large scale and sustained. The particular ecology of Somalia means that rehabilitation of livelihood that depends upon livestock (including camels), drought–resistant agriculture, and access to water (bore holes, etc.) will make particular demands upon technology, equipment, and funds.

6. Mozambique

(see Map 6 and Figure 3C)



C. Mozambique

Trend in numbers of refugees/displaced.

WFP are providing emergency food aid for 1,850,000 beneficiaries of whom approximately one third are returnees. It is estimated that 600,000 Mozambicans who were previously refugees in South Africa, Malawi, Swaziland, Zimbabwe, and Tanzania, returned in 1993.

Food distribution has been posing a problem in some areas as there is inadequate transport capacity to move food while road conditions have deteriorated due to the rains. This is the situation in Mecula District, Niassa Province where, according to reports in January, returnees from Tanzania had been without assistance for months. An assessment in the region in December showed levels of wasting at 13.6% (see Annex I 6a) [MSF−CIS Dec.93].

Land mines also remain a problem as the rains have exposed some deeply buried mines which have caused accidents. Mines have also inhibited farming in some area. However, in January, the number of mining incidents declined considerably.

In several districts "growth faltering rates" increased to around 15% while the number of malnourished children admitted to feeding centres increased in several areas. As January is the peak of the hungry season this may be a seasonal trend of increasing malnutrition as food reserves are dwindling. It may also reflect the greater vulnerability of returnees many of whom arrived too late to participate in last years agricultural season while others did not possess enough seeds and tools to do so. Others may have received food assistance upon arrival but as they moved further towards their zones of origin, ended up beyond the reach of food aid distributions [MSF−CIS Jan.94].

In January there were no more cases of cholera reported in Namapa district and the outbreak in Memba was diminishing. The number of deaths reportedly due to diarrhoea also seemed to be decreasing [MSF−CIS Jan.94].

Meteorological data indicated favourable rains throughout January and the prospects of a good national harvest in February [MSF−CIS Jan.94).

Overall, the situation appears to be under control although there are pockets of heightened vulnerability. This population is therefore not considered to be currently at particular risk (category IIc in Table 2).

How could external agencies help? Most of the areas into which the population has returned are now accessible in terms of security, although there are pockets, particularly in the north, that are logistically difficult to reach. Rehabilitation of the means of livelihood of the returning population is needed. The repair and development of infrastructure, roads, bridges, etc. is required. In the short run, access to remote areas in the north may require airlifting with a transient high cost De−mining operations will be of high priority, not only to prevent injury, but to rehabilitate livelihood.

7. Rwanda

(see Map 7)

Information available as of 19 April is that the deaths of the President and Prime Minister of Rwanda have plunged the country into a civil war. Some million people are reported by the Government to be displaced, a number said to be plausible by two aid agencies. Many of these people are trying to flee the country, and humanitarian agencies are preparing to provide assistance from neighbouring countries (especially Tanzania, Uganda and Zaire) [SCF 18/04/94]. Presumably access to food and medical are among the severe problems of the survivors. However, providing assistance within Rwanda is not currently possible for most external assistance agencies. Most information presented here is for the situation prior to 6 April 1994. (See #15 below for information on the Burundi refugees in the South.)

Food distributions of rations containing 1,900 kcals/person/day were continuing in March for the 320,000 displaced in the camps North of Kigali; these were probably adequate on average. Distributions were also continuing for the 25−30,000 returnees in the Rwandan Patriotic Front (RFP) zone in the North. The nutritional status amongst these groups was, at that time, said to be good and continuing to improve, and food distributions had been satisfactory [ICRC 28/03/94, WFP 11/03/94, WFP 28/03/94).

Surveys in January in nine of the camps (population 150,000) found only 1.2% prevalence of wasting with 0.4% severe wasting. Crude mortality rates were 0.3/10,000/day and under−five mortality rates were

0.8/10,000/day. These mortality rates are approximately what one would expect in a non−displaced population in Rwanda. However, water availability was only 6 litres per person per day which is well below recommended levels (20 litres/person/day) (see Annex I 7a) [MSF−H 29/03/94].

The effects of a drought inside the DMZ, which caused the extension until June 1994 of the general distribution of a half ration for 240,000 returnees to the DMZ, seemed to have been contained as reports before the recent destabilization were that nutritional status had been continually improving in this area. However, there were no hard data on this.

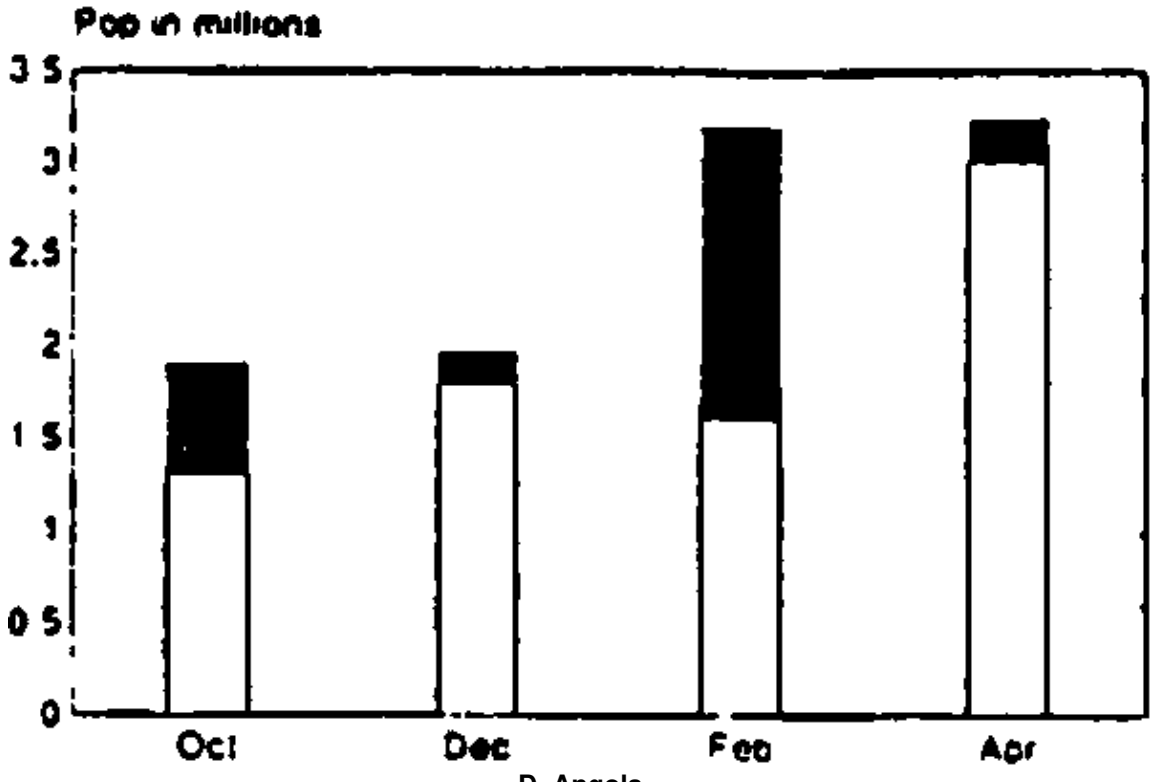
There were also reports of the spontaneous repatriation of approximately 12,500 Rwandan refugees from Uganda to the RPF controlled area in the North. The remaining Rwandan refugee population in Uganda is 3,500. UN forces in Rwanda were providing an escort for these returnees, and food was be distributed for at least one month. However, these returnees were settling in an area with many land mines which will constrain their ability to farm and make them more nutritionally vulnerable [UNHCR 24/03/94, UNHCR 29/03/94).

Recent events in Rwanda have lead to a very unstable and fluid situation. The destabilization of the country has forced humanitarian agencies out of Rwanda. The Rwandan Red Cross, MSF and the International Committee of Red Cross remain operational. For these reasons the entire displaced population (572,200) is categorized as "at moderate risk" (category IIb in Table 2), and the estimated 1,500,000 war affected are considered to be at high risk (category IIa in Table 2).

How could external agencies help? Before the deaths of the Presidents of Rwanda and Burundi in an air plane crash on 6 April, the priorities for external assistance included a need for more information about conditions in the demilitarized zone (DMZ). This area has been affected by drought, and only half−rations have been distributed. A nutrition survey was needed. An appeal will be issued on or about 25 April for emergency assistance needed in Rwanda. At the present time the situation is too uncertain to go beyond this.

8. Angola

(see Map 8 and Figure 3D)



D. Angola

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

It is estimated that 3,200,000 people in Angola currently require assistance [UN/DHA Dec.93]. WFP's forward planning figure is to feed 2.06 million for the entire year (i.e. 2.06 million person−years of food will be required) [WFP 23/02/94].

The civil war in Angola is continuing, although access for humanitarian aid is improving. After a temporary suspension in early February, relief flights to Huambo and Cuito have now resumed. However, shelling of Melanje recommenced at the beginning of March, while Menonge came under heavy attack one week later causing the evacuation of international relief staff. Apart from these incidents, relief operations have continued normally to most other destinations over the past two months with priority being given to Huambo, Cuito and Melanje. Meanwhile peace talks were held in Lusaka but eventually broke down at the end of March. Although the cities tend to be government controlled, UNITA controls much of the countryside and supplying the cities is difficult.

In spite of this agencies will continue to airlift food to major cities which have borne the brunt of the civil war. Many of these cities have large displaced populations who are known to have suffered high rates of conflict, malnutrition and disease related mortality. Apart from sporadic interruptions due to insecurity, food deliveries by relief agencies have gradually improved. While there are only data from Melanje which demonstrate an improved nutritional status, it is probable that other cities show similar improvement. Two recent surveys which may be typical of other areas are described below.

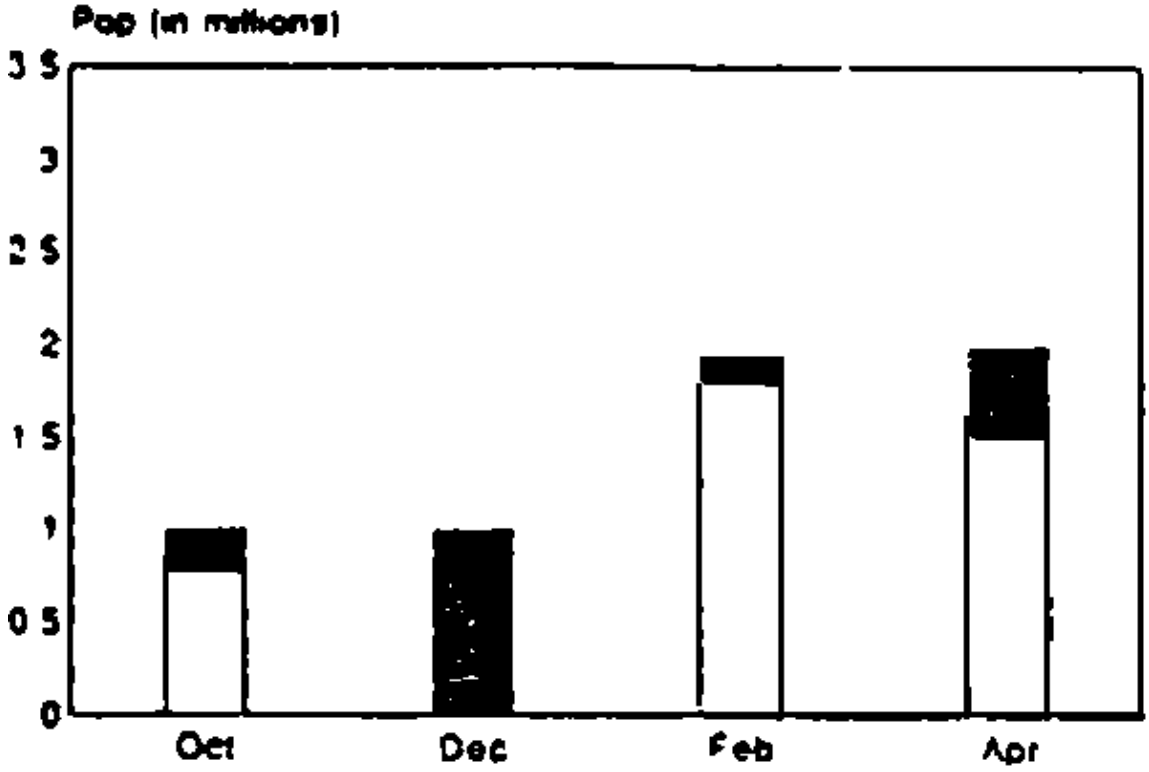
Melanje had suffered severe food shortages since mid 1993 due to the continued fighting between the NPLA and UNITA forces. A significant proportion of the cities' food demands was from large displaced populations entering the city as refugees from surrounding municipalities. In February a nutrition survey in Melanje (population estimated at 240,000) indicated a wasting level of 11.2% and severe wasting of 2.2%. (see Annex I 8a). This compares favourably with data in October 1993 which recorded wasting levels of 34% with 19% severe wasting. Crude mortality rates in February of 1.0/10,000/day and an under−five mortality rate of 1.7/10,000/day are still very high; these include war related deaths. These rates are similar to those reported in January (1.3/10,000/day). In February the average ration receipt was 1,720 kcals/person/day, marginally adequate on average. Melanje will continue to be heavily dependent on food supplies in the coming months so that it can be expected that any interruptions to food supplies from outside will very quickly precipitate another nutritional crisis [MSF−H 29/03/94].

In order to determine the need for emergency selective feeding a nutritional survey was conducted in Ombadja district, in the province of Cunene in December 1993. The low levels of wasting found, 4.8% with 1.1% severe wasting, led to the decision not to open feeding centres in the area (see Annex I 8b) [AICF 10/12/93].

How could external agencies help? Requirements depend on the security situation, and especially the effect on logistics. Delivering food fast enough by air, the main available route, to the cities, is proving very difficult, as well as expensive. Food in the pipeline seems currently not the main constraint, although supplies of medicine may be. Lack of information remains an important constraint, and as feasible surveys of nutrition conditions, immunization coverage, etc. would be most desirable, especially in the cities that have been cut off. If and when the security situation improves, repair to infrastructure will be important to facilitate relief efforts.

9. Southern Sudan

(see Map 9 and Figure 3E)



E. Southern Sudan

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

The situation for the estimated two million displaced/war affected people in Southern Sudan has worsened with the government's intensive dry season offensive. There have been numerous reports of civilian targets being bombed and thousands of people already in a weakened state are being forced to migrate with many crossing the borders into Uganda and Kenya (for information on Uganda, see #10; for information on Kenya, see #4). In March there were reports; of 5,000 newly displaced in Wau and 70,000 displaced from Ame and Atepe in Eastern Equatoria with a further 14,000 displaced to Ulang in Upper Nile province. Fighting also displaced 53,000 people in the Mundi area of Western Eqatoria.

This situation is compounded by the short−fall in cereal for the on−going relief operation which has led to less than 50% of food requirements for Southern Sudan being met in January 1994. A further problem has been the lack of funds to cover costs of transport so that numerous planned airlifts of food have had to be postponed. As a result relief food stocks have recently been very low or exhausted in a number of places including Wau, Meiram, Dilling, Kadugli, Juba and Abyei. Donors have been asked to provide funds for both transport and local purchase of sorghum and also to expedite food deliveries to ensure pre−positioning prior to the on−set of the rainy season.

A number of recent surveys indicate the seriousness of the situation.

Upper Nile An anthropometric survey in Chotbura found 24.3% wasting with 6.4% severe wasting (see Annex I 9a). There was also evidence that families had exhausted traditional coping mechanisms and that food and livestock resources were very limited [WV Dec.93, WV Jan.94].

A survey conducted in Obel−2 displaced camp in February found 30.2% wasting with 6.7% severe wasting (see Annex I 9b). Over two thirds of those found to be wasted were girls [UNICEF 22/03/94].

Eastern Equatoria Reports from Juba indicate that there has been almost no food for the displaced population and that many have had to resort to eating wild roots and leaves [WFP 11/03/94). CART (a government/NGO consortium with responsibility for food distribution) reported that 65 children died in the first two weeks of February. With newly available donor funds the resumption of airlifts in mid−March should halt the nutritional decline [WFP 28/02/94].

Bahr el Ghazal There are reports of an estimated 11,000 people in urgent need of food deliveries with numbers increasing due to drought and insecurity in the area. It is reported that three to six children are dying

daily in Mariel Ajeith displaced camp in Wau and Unicef found that over 25% of children surveyed in the camp were "suffering from malnutrition" [WFP 11/03/94).

Jonglei Information available from Waat where there are approximately 17,000 displaced people shows 17.4% wasting and 2.6% severe wasting. Crude mortality rates were 3.1/10,000/day (ten times normal) and under−five mortality rate was 9.7/10,000 day (see Annex I 9c) [MSF−H 29/03/9].

The already precarious situation in Southern Sudan is being seriously threatened by the renewed government offensive which is creating new waves of displacement. Funding, logistical, food availability and security problems which have existed throughout this conflict, are being compounded by the demands of feeding an even larger displaced population. The 17,000 displaced in Waat are known to have high prevalences of malnutrition and elevated mortality rates and are therefore categorized in column I in Table 2. The remaining displaced population (483,000) is thought to be at high risk (category IIa in Table 2), while the war affected population of 1,500,000 is thought to be at moderate risk (category IIb in Table 2).

How could external agencies help? Recent fighting has increased the numbers of people displaced, stopped transport by barge of food supplies, and thus increased (for both reasons) the dependency on airlifting which urgently requires more funding. Security and poor land communications are a problem everywhere. The rapid increase in numbers makes the situation similar to the start−up of a new emergency. Food in the pipeline is inadequate, pledges need to be speeded up, and funds made available for local and regional purchases of food, and for transport especially by air. Health services, immunization coverage, etc. are all likely to be urgent problems.

10. Uganda

(see Map 10)

The civil war affecting Southern Sudan has caused thousands of Sudanese to flee the country to Uganda. These refugees are primarily in Moyo and Koboko districts. Population estimates over time are as follows:

	February 1994	**April 1994**
Sudanese Refugees	188,000	190,000
Zairian Refugees	5,000	5,000
Rwandan Refugees	11,350	3,500 (before 6 April)
TOTAL	204,350	198.500

Most of the Sudanese refugee population in the North West of Uganda (120,000 of the estimated 190,000) either live in settlements and are partly self−sufficient, or reside in transit camps. Their situation is generally believed to be stable.

However, there are approximately 2,000 Sudanese refugees at the Pachara Reception Centre in Moyo district. Pachara is one of an increasing number of reception centres to accommodate the newly arrived Sudanese. Reception centres (sometimes called transit centres) are meant to be a first stop when the refugees arrive, and from there they are moved to proper camps or settlements once land is available. This centre was originally set up as a temporary measure to isolate the incoming population due to a measles epidemic amongst the new arrivals. As it was intended to be a temporary centre, facilities are inadequate for permanent residence. Water availability is only 4 litres/person/day and of reportedly poor quality. Up until December 1993 food distributions were regular but have now become erratic. Between 22 November 1993 and 11 February 1994 crude mortality rates were 2.4/10,000/day which is 8 times the normal level while wasting was 31.3% with 7.4% severe wasting (see Annex I 10a), indicating a very serious situation. Pachara has also been the source of a meningitis outbreak which by mid−March had spread to a number of nearby settlements and transit centres [MSF−CH 01/03/94].

Approximately 20,000 Sudanese refugees have recently arrived in the area of Koboko (bordering Zaire), bringing the total number of refugees in this area to 70,000. Crude mortality rates in January 1994 were 0.6–1.1/10,000/day (2–4 x normal) and under–five mortality rates were 1.8–2.8/10,000/day (see Annex I 10b). It was reported that 80% of children between 9 months and 14 years old were immunized against measles [UNHCR 11/02/94]. More recent information (March 1994) shows levels of wasting of 11.6% and 2.1 % severe wasting. The crude mortality rate was 0.7/10,000/day (2 x normal) and the under–five mortality rate was 1.5/10,000/day (see Annex I 10c) possibly showing some improvement over January. Major types of morbidity and causes of mortality were diarrhoea, dysentery, and malaria. In view of the continuing risk several NGOs are warning against plans to cut the current food ration of 2000 kcals/person/day to less than 1500 kcals/person/day [MSF–H 29/03/94].

In sum, new arrivals from Southern Sudan (approximately 2,000) in the Pachara reception centre are at high risk (category I in Table 2) while the rest of the newly arrived Sudanese in Koboko (20,000) are considered to be at high risk. The remainder of the refugee population (176,500) are not at particular risk. However, there are concerns as new transit centres open to accommodate the continued influx of new arrivals from Southern Sudan that the absence of suitable relief agencies on the ground will lead to conditions similar to those currently seen in Pachara reception centre. The increase in the Sudanese refugees in Uganda is mainly due to the arrival of 300–400 refugees/day (up from approximately 100/day in February) fleeing the intensified fighting in Southern Sudan.

How could external agencies help? The increasing influx of refugees from Southern Sudan will overstretch the capabilities of local relief agencies. There is need to strengthen existing NGO/agency capacity to look after new arrivals – requiring expertise as well as resources, to combat overcrowding, poor water supplies, bad camp facilities, and to improve coordination. The food in the pipeline is reported to be adequate.

11. Shaba/Kasai Regions, Zaire

(see Map 11)

The needs of the displaced population in *Shaba* in the transit towns of Kamina (population 4,000) and Kolwezi (population 21,000) and Likasi (population 20,000) are now reported to be adequately met. Relief agencies are planning to phase out their programmes in Kolwezi and Kamina although the 20,000 people living in temporary shelters in Likasi will continue to require international agency support.

The situation is very worrying in *Kasai* region, to where several hundred thousand people displaced from Shaba due to the eruption of ethnic violence (which is now subsiding) are returning. Although nutritional survey results are not currently available, wasting and child mortality rates are reportedly high amongst this returnee population [WFP 25/03/94].

Part of the displaced population from Shaba arriving in Mwene–Ditu stay in that area, while others move on further to the north. In February there were approximately 13,000 arrivals and 2,000 departures. A nutritional survey carried out in January 1994 in Mwene Ditu (estimated resident population of 140.000 and displaced population 65,000) showed levels of wasting of 13% and severe wasting of 4.9%. This was further broken down into residents of Mwene Ditu (wasting 10% and severe wasting 4.1%) and displaced (wasting 19.5% and severe wasting 6.6%) (see Annex I 1 la). The crude mortality rate from a camp for the displaced reported in February was 3/10,000/day (10 x normal). There are approximately 8 litres/caput of water available [MSF–B–C Jan.94, MSF–B–A Feb.94].

The inaccessibility of the area and high transport costs have constrained food supplies to Kaisi. Limited food supplies carried by aircraft and train have only been delivered to the area since the beginning of March. Airlifts would be the most appropriate mode of transport but the response to requests for donor funds to cover such an expensive operation has been very limited [WFP 25/03/94].

In sum, the displaced population of Mwene–Ditu in Kaisi is in a critical situation (category I in Table 2) while the non–displaced population is at moderate risk (category IIb in Table 2). The populations in the Shaba towns of Kamina, Kolwezi and Likasi are not known to be at particular risk (category IIc in Table 2).

How could external agencies help? Costs associated with moving food into Kasai, a remote area, are a major constraint, for which donor assistance is needed. Resettlement of the displaced population returning to Kasai (many having been away for decades) requires help, through local and external NGOs. Information is

scarce, and a survey of the returnee population in Kasai would be very useful.

12. Ghana, Togo, Benin Region

(see Map 12)

The 100,000 Togolese refugees in Benin and 135,000 in Ghana continue to be in a stable nutritional and health situation (category IIc in Table 2) [UNHCR–A 24/03/94].

However, due to ethnic fighting in Ghana, approximately 6,000 people have recently been reported to be seeking refuge in Togo, while approximately 150,000 people are displaced within Ghana. No further details are available, and their nutritional situation is unknown [WFP 13/04/94]. An assessment mission is planned for mid–April to determine the needs of this newly displaced population [UNICEF 15/03/94].

13. Central African Republic

(see Map 13)

There has been no change in this Chadian refugee population (11,000) since the last RNIS report which, apart from some goitre, indicated a stable nutritional situation.

14. Zaire (Refugees)

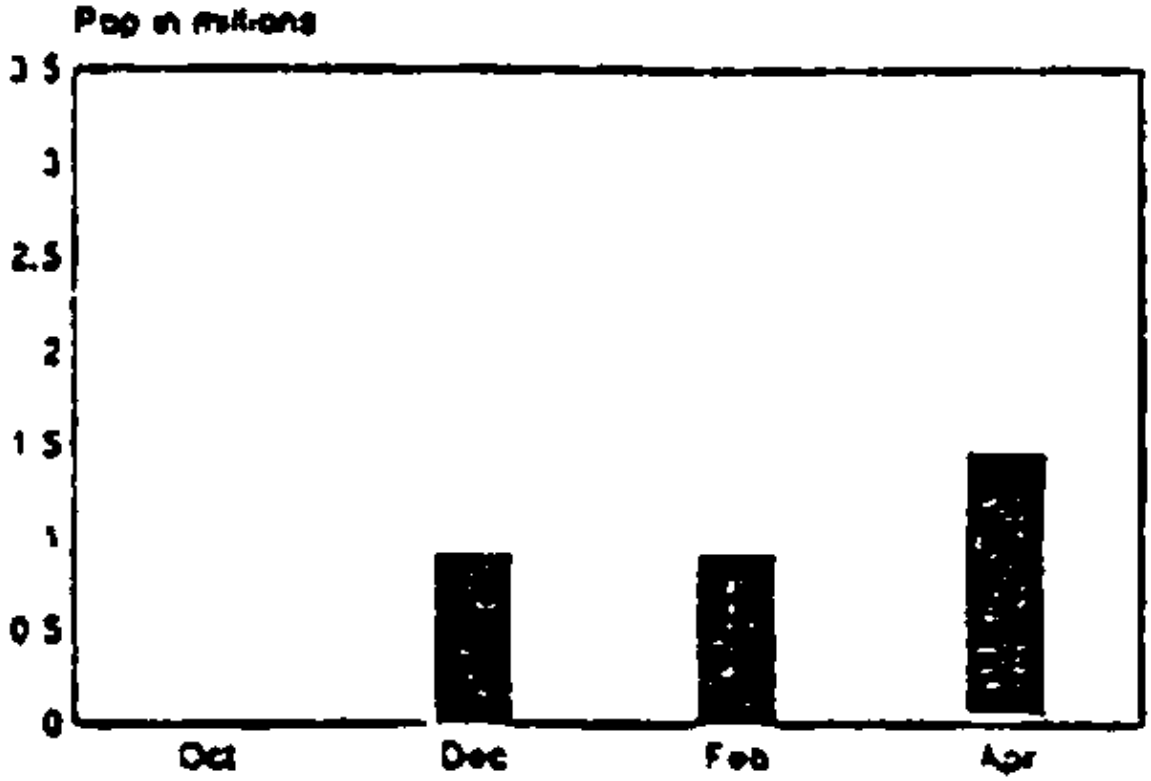
(see Map 11)

Of the approximately 260,000 Angolans in Bas Zaire (south) only 25,000 are receiving assistance, and that will end by mid–May. These refugees have been in Zaire for many years (they left Angola before the current civil war) and are integrated into the community and self–sufficient.

The number of Sudanese and Ugandan refugees in Haut Zaire (north) receiving rations has been reduced from approximately 140,000 to 60,000. This reduction in numbers is due to the integration of the refugees into the local community [WFP 15/04/94]. (Please note: Burundi refugees in Zaire are discussed separately – see #15 below.)

15. Burundi Situation (Burundi, Rwanda, Tanzania, Zaire)

(See Map 15 and Figure 3F)



F. Burundi

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

The deaths of the Presidents of Rwanda and Burundi on 6 April 1994 have lead to widespread violence in Rwanda, while as of 18 April, Burundi remains calm. The Burundi refugees in Rwanda must be at very high risk. The available information, reported here, refers mostly to the situation before 6 April 1994.

The establishment of a new presidency in Burundi along with the beginning of the planting season in March led to the spontaneous repatriation of many Burundi refugees from Zaire and Tanzania along with a smaller number from Rwanda. Some Burundi refugees in Rwanda were said to be crossing the Rwandan border into Burundi by day to plant and tend fields and returning to Rwanda at night. Prospects for the harvest are said to be satisfactory, but due to insecurity, normal sowing levels have not been reached. However, violence in the capital city of Bujumbura early in March led to further displacement and a reduction in the rate of repatriation [FAO/WFP Apr.94].

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

	December 1993	February 1994	April 1994
Burundi	150,000	282.000	536,000
Rwanda	375,000	272,300	250.000
Tanzania	325,000	300,000	60,000
Zaire	58,600	60,000	60,000
TOTAL	908,600	914,300	906.000

Burundi It is estimated that 25,000 refugees have spontaneously returned to Burundi since the beginning of January. The security situation in Burundi is precarious with continued sporadic fighting, especially in Bujumbura. It is estimated that approximately 15,000 people have fled the city to surrounding hills and across the border into Zaire after the most recent ethnic clashes in early March [UNHCR 29/03/94, WFP 11/02/94, WFP 28/03/94]. At the end of March it was estimated that there were over 500,000 internally displaced/returnees registered as in need of assistance but only enough resources to meet 30% of a full ration. The situation is expected to improve in April as food arrivals increase. There is little information on the nutritional status of those displaced within Burundi or returning from neighbouring countries although there

were anecdotal reports from WFP field monitors of extensive moderate and severe malnutrition amongst returnees from the Tanzanian camps and consequent need for additional supplies (including supplementary foods).

A nutritional survey was carried out in the province of Ruyigi (near the Tanzanian border) in February 1994. The estimated population of the province in 250,000, and the level of wasting was 10.7% with 2.2% severe wasting (see Annex I 15a), indicating a moderate level of malnutrition [MSF−B−B 01/02/94].

Rwanda While there were reported (prior to 6 April) to be sufficient stocks of most food commodities there continued to be a shortage of beans so that the ration was reduced for the 250,000 Burundi refugees remaining in Rwanda. Corn−soya blend was distributed to compensate for this shortfall although only a partial ration could be allocated because of limited availability. Already in March ethnic clashes briefly interfered with relief efforts [WFP 28/02/94].

With increased quantities of food being distributed, improved health care in the camps and the movement of many refugees to *Maza,* a new camp in Rwanda, conditions for Burundi refugees in Rwanda overall were improving in March. The level of wasting in the camps, 40% (with 10% severe wasting) in January 1994, had been reduced to 20−25% (although this is still extremely high). Mortality rates were also improving; crude mortality rates were 0.71/10,000/day and the under−five mortality rate was 1.6/10,000/day (see Annex I 15b). This is still 2.6 times normal but an improvement on crude mortality rates of 3.7−5.6/10,000/day recorded in January. Exact immunisation coverage is not known although 68% of children in the camps have a vaccination card. After many months of crisis health and nutrition status was beginning to improve substantially after mid−February, although crude mortality rates were still 1.9/10,000/day (6 x normal) [UNHCR 29/03/94, WFP 18/02/94, WFP 28/03/94].

Information from March on *Kagina* camp (population 15,200) showed 25.4% wasting with 10.8% severe wasting, and a crude mortality rate of 0.7/10,000/day (2.5 x normal). The under−five mortality rate was 1.1/10,000/day (see Annex I 15c). In *Rugogwe* (population 10,500) the level of wasting was 16.7% with 6.1% severe wasting. Crude mortality rates were 1.1/10,000/day (4 x normal) and the under−five mortality rate was 2.3/10,000/day (see Annex I 15d). In *Ngoma* camp (population 9,000) levels of wasting were 7.6% with 2.0% severe wasting. The crude mortality rate was 0.6/10,000/day (2 x normal) and the under−five mortality rate was 0.7/10,000/day (see Annex I 15e). While the food basket was not providing full nutritional requirements, it was improving [MSF−H 29/03/94).

A survey conducted in mid−March 1994 in *Kanage* (estimated population 17,000) found wasting levels of 12.4% and severe wasting at 4.4% (see annex I 15f). Food distributions were often said to be late and provided a variable calorie content of 1,130−2,110 kcals/person/day. It is believed that the refugees have access to other food sources. Measles vaccination coverage is almost 86%. These data indicated an improving situation in the camp [MSF−B 18/03/94].

Kankuba is a new camp which opened in January 1994 and has an estimated population of 3,100. Wasting levels recorded in Mid−March were 4.9% with 0.9% severe wasting (see annex I 15g). Measles vaccination coverage here is also almost 86%. The results of this survey also confirmed an improving nutritional status for the refugees in the camp [MSF−B 25/03/94].

Information from camps called *Saga I & II* also showed an improving nutritional state with wasting levels of 3.7 − 5.4% and severe wasting 0.3 −1.5% (see Annex I 15h) [AICF 11/04/94].

Despite the re−registration that took place in December 1993, registration problems persist due to lost/stolen cards, unregistered cards (indicating cards were sold before or during the census) and some computer errors in deleting names. There also continues to be a small influx of Burundi refugees due to the resurgence of fighting amounting to approximately 10,000 new arrivals. A census is planned for Mid−April when new ration cards will be issued. [UNHCR 21/03/94, WFP 28/03/94]

Tanzania It was estimated in March that 80% of the Burundi refugees had spontaneously repatriated leaving approximately 60,000 in the camps. It is presumed that those that stayed behind are those least able to travel, e.g. the sick, malnourished and old, and that as a result, health and nutrition status in the camps remains a major concern. Food supplies have gradually improved. In February, rations ranged from 1,400−1,800 kcals/person/day − rather low − depending on the district, while by March supply had further improved [UNHCR 28/02/94, UNHCR 14/03/94].

Crude mortality rates for the first week of March varied between camps from 0.5–2.2/10,000/day (2–7 x normal) while under–five mortality rates varied from 0.7–7.4/10,000/day (see Annex I 15i). This is a considerable improvement compared to January when crude mortality rates varied between 2–7/10,000/day. The highest under–five mortality rate has been found in Kasula district and is thought to be due to malaria. A malaria control plan has now been prepared to combat this problem [UNHCR 14/03/94].

Zaire The clashes in Bujumbura in March resulted in the displacement of a further 15,000 Burundis into Zaire [UNHCR 28/03/94]. Logistical problems meant that supplies to the existing 49,000 refugees already in camps and living among the local population have been irregular so that this further refugee influx places an added strain on the food supply capacity [WFP 18/03/94].

In sum, the situation within Burundi is still politically tense with the displaced population in a precarious situation (category IIa in Table 2). While the situation for refugees in Rwanda showed much improvement compared to the extreme crisis reported up until January, mortality and wasting levels still indicate a serious situation (category IIa in Table 2). Mortality rates in Tanzania were very high, and the population is considered to be at high risk (category I in Table 2). Although little is known about the nutritional condition of the refugees in Zaire, logistical constraints would indicate that they are at heightened risk (category IIb in Table 2).

With the deaths of the Presidents and the subsequent destabilization of Rwanda, it is probable that many Burundi refugees in Rwanda will leave the country. This could further jeopardize their precarious situation. It is also possible that the currently calm situation in Burundi could degenerate, leading to the displacement of large numbers of people. The situation is very fluid, with a worsening tendency.

How could external agencies help? The information here does not take account of any changes that may have occurred since the death of the Burundi President on 6 April. There is little information on the nutrition of most of the displaced population, but it was reported that they were only receiving 30% of food requirements. A nutrition assessment is indicated before requirements for assistance can be specified.

While food supplies in the pipeline may turn out adequate, there is a current shortfall and funds are required for local or regional purchase, until the external food arrives. At the same time, account should be taken of the possible increase in numbers. For refugees from Burundi in Rwanda, a census was planned by UNHCR and the Rwandan Red Cross for all camps in mid–April to try to improve the serious registration problems; this may require assistance both in terms of expertise and funds. For the Burundi refugees in Tanzania, monitoring of those remaining is of high priority. Similarly, for the refugees in Zaire also, information, preferably through survey, is required.

16. Mauritania/Senegal

(see Map 16)

The nutritional and health situation of this population of 60,000 Mauritanians remains stable.

17. Djibouti

(see Map 17)

The nutrition and health situation of the estimated 32,000 Ethiopian and Somali refugees in Djibouti remains stable. Repatriation plans are under way although refugees have not yet started to return.

In January 1994 crude mortality rates were near normal varying between 0.1–0.3/10,000/day. Although the beri–beri out–break (caused by lack of vitamin B1) reported earlier (RNIS #2) is now said to be under control as a result of vitamin (thiamine) treatment and addition of com soy blend to the ration, some cases are still being reported. For example, 142 cases were reported in January 1994. Aour–Aoussa and Assamo camps (estimated population 10,000) had the most cases of beri–beri reported. However, it should be noted that mild cases can be very difficult to diagnose correctly so there may be some over–reporting [UNHCR 18/02/94, WFP 25/03/94].

There have been some anecdotal reports of a newly displaced population in the North who may require assistance, although no details are currently available [ICRC 28/03/94].

While most of the refugee population are probably not currently at risk (category IIc in Table 2), the estimated 10,000 in Aour−Aoussa and Assamo camps are still at high risk due to the existence of beri−beri (category Ia in Table 2).

How could external agencies help? The main priority here, is to ensure that the food pipeline is not disrupted, paying particular attention to availability of micronutrients, either as thiamine supplements, and/or as com soya blend.

18. Zambia

(see Map 18)

While Zambia is host to over 200,000 refugees, only 36,000 of these require food assistance; the remaining 164,000 are self−sufficient. The current assisted population is estimated to be:

		February 1994
Zairian Refugees		18,000
Angola Refugees		17,000
Somali Refugees		1,000
	TOTAL	36,000

As the government of Zambia provides land for resettling refugees [WFP−A 25/03/94], they are not currently considered to be at nutritional risk (category IIc in Table 2).

Southern Iraq

A recent UN report on the situation of human rights in Iraq, submitted by the Special Rapporteur of the Commission on Human Rights [UN−ECOSOC 25/02/94] states that "Since his last report to the General Assembly, the Special Rapporteur has received a continuous flow of information concerning the deteriorating food and health situation in the country from a number of both nongovernmental and intergovernmental organizations."..."particularly the most vulnerable, are bearing heavy and painful consequences as mortality and morbidity rates rise...". The Special Rapporteur goes on to note that in the Southern pan of the country Government prohibitions and restrictions effectively deny the marsh dwellers access to food and health care, and "the general food and health situation has been further aggravated by the Government's draining of the marshes, which constitute the foundation of the local economy, support the traditional way of life and used to provide the main sources of protein (from fish and water buffalo) for the local population." Thus, aside from the military activity, the population is suffering both from little or no access to food and medicine distribution, and a declining source of livelihood − "water has become stagnant and polluted and has caused the death of large numbers of fish and water buffalo, i.e. the main sources of nutrition and income for the local population". The flow of refugees crossing the border into Iran has recently been "on average, 30 to 40 refugees each week" reported to be less than during 1993. Even the original population of the marshes is not known, but is variously reported as around quarter of a million people. The numbers internally displaced are again unknown, but are certainly in the tens or possibly hundreds of thousands. UNHCR reports that the number of Marsh Arabs assisted by the Government, UNHCR, and WFP in Iran is around 7,000. More than 600,000 refugees from all parts of Iraq are known to be in Iran, of which 110,000 are receiving assistance from UNHCR.

The Amar Appear (an international NGO) reports [Amar 19/04/94) that it is working with local NGOs to assist with food and medical care at Himmet (the border crossing) and in refugee camps, including some 20,000

squatters: of one group (some 10,000) displaced inside the marshes, the children are described as starving, many with dysentery, with negligible shelter with no firm ground under foot. Medical reports from displaced and refugee populations emphasize the high incidence of respiratory diseases, with the cold weather.

Other reports speak of renewed fighting during March causing increased internal displacement and destruction of villages. Refugees arriving on the border are described as suffering from severe malnutrition, and from exposure to unprecedented swarms of mosquitoes, perhaps due to ecological change [ICA 18/04/94].

List of Sources

***Listing of Sources for April 1994 RNIS* Report**		
Org*	**Date**	**Title of Report**
AICF	10.12.93	Enquete Nutritionelle Anthropometrique – District de l'Ombadja Province au Cunene, Angola
AICF	11.04.94	Resultats Provisoires des Enquetes Realisees a Saga I & Saga II
AICF	15.04.94	Nutritional Survey in Mogadishu, Somalia
AMAR Appeal	19.04.94	
FAO/WFP	1.04.94	Crop & Supply Assessment Mission to Burundi
ICA	18.03.94	Faxed Update on Situation of the Marshland Arabs
ICRC	28.03.94	Conversation
IFRC	28.03.94	Fax on IFRC Activity in Afghanistan and Kenya
MSF–B	1.12.93	Nutritional Survey, Gode Displaced People Camp, Ogaden
MSF–B	1.01.94	Report on the Nutritional Activities MSF–Belgium in Greater Liberia
MSF–B	21.01.94	Medico–Nutritional Activities MSF–Belgium Nov–Dec 1993
MSF–B	1.02.94	Monthly Activity Report Gode, Ogaden, Ethiopia (February 1994)
MSF–B	18.03.94	Enquete Nutritionelle – Kanage, Prefecture de Butare
MSF–B	25.03.94	Enquete Nutritionelle – Kankuba, Prefecture de Butare
MSF–B–A	1.01.94	Monthly Activity Report, Gode, Ethiopia (January)
MSF–B–A	1.02.94	Rapport Mensuel d'Activites MSF – Mwene–Ditu Fevrier 1994
MSF–B–B	1.12.93	Sitrep – December 1992 MSF/3 Kenya Mission
MSF–B–B	Jan.94	Sitrep – January 1994 MSF/B Kenya Mission
MSF–B–B	1.02.94	Enquete Anthropometrique Province de Ruyigi Burundi
MSF–B–C	Jan.94	Enquete Nutritionelle Mwene Ditu Janvier 1994
MSF–B–C	1.02.94	Sitrep February 1994 – MSFB Kenya Mission
MSF–CH	1.03.94	Situation Report – Pachara Reception Centre for Sudanese Refugees
MSF–CIS	1.12.93	Monthly Bulletin (Mozambique)
MSF–CIS	1.01.94	Monthly Bulletin (January)
MSF–H	29.03.94	Fax with Survey Results in Liberia, Rwanda, S Sudan, Angola, Uganda
SCF	13.04.94	Info on Ethiopia. Sudan, Angola

SCF	18.04.94	Conversation
UNDHA	Dec.93	Angola Appeal
UNECOSOC	25.02.94	Report on the Situation of Human Rights in Iraq
UNHCR	11.02.94	Mission Report Koboko Refugee programme 1−11 Feb. 1994
UNHCR	18.02.94	Draft Report for Djibouti Food Assessment Mission
UNHCR	28.02.94	Sitrep #3 (Tanzania)
UNHCR	203.94	Sitrep #12 (Rwanda)
UNHCR	10,03.94	Mission Report to Koboko Refugee Programme
UNHCR	14.03.94	Sitrep #4 (Tanzania)
UNHCR	21.03.94	Cable from Kigali. Rwanda
UNHCR	22.03.94	Conversation
UNHCR	24.03.94	Sitrep #14 (Rwanda)
UNHCR	2803.94	Cable from Bujumbura, Burundi
UNHCR	2903.94	Report on Emergency Relief for Burundi Refugees
UNHCR−A	2403.94	Conversation
UNHCR−B	24.03.94	Conversation
UNICEF	15.03.94	Conversation
UNICEF	22.03.94	Fax on UNICEF Activity in Sudan
WFP _	10.02.94	Weekly Report
WFP	11.02.94	Weekly Report
WFP	18.02.94	Weekly Report
WFP	23.02.94	1194 Emergency Resourcing Situation
WFP	28.02.94	Weekly Report
WFP	7.03.94	Weekly Report
WFP	11.03.94	Weekly Report
WFP	13.03.94	Faxed Update
WFP	18.03.94	Weekly Report
WFP	25.03.94	Fax Update on Africa
WFP	28.03.94	Weekly Report
WFP	13.04.94	Faxed Information on RNIS #4
WFP	15.04.94	Conversation
WFP−A	25.03.94	Press Release − Zambia
WV	1.12.93	S. Sudan: Monthly Report, December, 1993
WV	1 01.94	S. Sudan: Monthly Report, January, 1994
WV	31.03.94	Hearth info on WV Somalia
AICF	Action International Contre la Faim	

AMAR Appeal	For Iraq
FAO	Food & Agricultural Organization of the United Nations
ICA	Iraqi Civilian Aid
ICRC	International Committee of Red Cross
IFRC	International Federation of Red Cross
MSF−B	Médecins Sans Frontières − Belgium
MSF−CH	Médecins Sans Frontières − Switzerland
MSF−CIS	Médecins Sans Frontières − Celula Inter−Seccoes
MSF−H	Médecins Sans Frontières − Holland
SCF	Save the Children Fund
UNDHA	United Nations Departement of Humanitarian Affairs
UNECOSOC	United Nations Economic Security Counsil
UNHCR	United Nation's High Commission on Refugees
UNICEF	United Nation's Children Fund
WFP	World Food Programme
WV	World Vision

Table 1:	***Camps and Displaced Populations in Crisis (as of April 1994)***			
Note:	***Situations are included when there is some data; those not included for lack of data are not necessarily better***			
	Population (date of report)	**% Wasting <80% wt/ht**	**Mortality/10000/day (factor x normal)**	**Other Data**
Liberia Region				
Upper Margibi	80.000 (1/94)	4.5%	1.4−1.7(4−5)	Under five mortality: 3.7−5.6/10.000/day (4−5 x normal).
Ethiopia				
Gode	35.0000/94)	30.5% (12/93)	0.9(3)	Under five mortality: 0.9/10.000/day (approx. normal).
				Incidences at clinic were Vit A Def: 0.6/1,000/month Scurvy: 12/1,000/n
Angola				
Melanje	240.000(2/94)	11.2%	1.4 1.7(4−5)	Heavily depedent on outside food supplies
S. Sudan				
Chotbura, Upper Nile	(1/94)	24.3%		6.4% severe wasting
Obel−2, Malakal	(2/94)	30.3%		6.7% severe wasting

Waat	17.000(12/93)	17.4%	3.3(11)	Under–five mortality: 9.7/10,000/day (10 x normal)
Uganda				
Pachara Reception	2.000 (3/94)	23.9%	2.4(9)	Water availability: 4l/person/day
Koboko	70.000 (3/94)	11.6%	0.7(2)	This includes 20,000 new arrivals Iron S. Sudan
Shaba, Zaire				
Mwene Dilu (Displaced)	65,000 (1/94)	19.5%	3(10)	Water availability: 8l/person/day.
Burundi Region				
Kagina, Rwanda	15,000 (3/94)	25.4%	0.7 (2)	Under five mortality: 1l/10,000/day (approx. normal)
Rugogwe, Rwanda	10,500 (3/94)	16.7%	1.1(4)	Under–five mortality: 2.3/10,000/day (2 x normal)

Table 2	:	***Information Available on Total Refugee/Displaced Populations (as of March/April 1994)***
I	:	*Those reported on with high prevalences of wasting and/or micronutrient disease and sharply elevated mortality (at least 3x normal)*
IIa	:	*At high risk. Limited data available, population likely to contain pockets or malnutrition*
IIb	:	*At moderate risk, may not be data available. Population may contain pockets or malnutrition*
IIc	:	*Probably not currently in critical situation, not known to be at particular risk*
III	:	*Population known to exist. but condition unknown*

	I	***IIa***	***IIb***	***IIc***	***III***	***Total***	***Comments***	***Total From Feb. Report***
1. Liberia/Sierra Leone/	350'000	347'000	2'015'000	.		2'712'000	Column I Includes Upper Margibi, Bong, Grand Bassa Counties	2'900'000
Guinea/Cote d'Ivoire							Column Ia includes inaccessible areas	
2. Ethiopia	35'000			144'000		179'000	35.000 In the Ogaden still in crisis	245'000
			1'700'000			1'700'000		1'753'000

3. E. Central&W. Sudan							Majority of food aid dep. in Darfur. Kordofan Vulnerable due to drought	
4. Kenya				272'000		272'000	Decrease due to repatriation	352'000
5. Southern Somalia				274'000		274'000	WFP Emergency Resource Allocation Number for 1994	1'440'000
6. Mozambicans				1'850'000		1'850'000	some unknown number should go in IIb	1'866'000
7. Rwanda (id)		1'500'000	572'500			2'072'500	Newly returned from Uganda at risk	570000
8. Angola (id/wa)	240'000		2'960'000			3'200'000	WFP Emerg Resource Allocation Number for 1994	3'200'000
9. Southern Sudan (id/wa)	17'000	483'000	1'500'000			2'000'000	17.000 in Waat known to be in crisis, rest of 500.000 displaced at high risk	1'970'000
10. Uganda	2'000	20'000	50'000	126'500		198'500	Pachara at high risk. New arrivals at Koboko at risk	204'350
11. Shaba, Zaire (id)	65000		140'000	41'000		246'000	Unknown number (several hundred thousand) returned home In Kasai and in desperate need of food	290'000
12. Togolese Refugees				235'000	156'000	391'000	Ethnic fighting caused displacement	235'000

							of 150.000. 6.000 fled to Togo	
13. Central African Republic				11'000		11'000	Some endemic goitre	11'000
14. Zaire (r)				85'000		85'000	Reduction In number due to Integration of Angolan & Sudanese refugees	426'600
15. Burundi Region	60'000	786'000	60'000			906'000	Tanz Ref in crisis, unstable situation for refugees in Rwanda	914'000
16. Mauritania/Senegal				60'000		60'000	No reported change from RNIS #3	60'000
17. Djibouti			13'000	19'000		32'000	No reported change from RNIS #3	32'000
18. Zambia				36'000		36'000	Zalrean, Angolan, Somall refugees	
Total	769'000	3'136'000	9'010'500	3'117'500	156'000	16'189'000		16'468'950

*estimated additional displaced, as of April 19

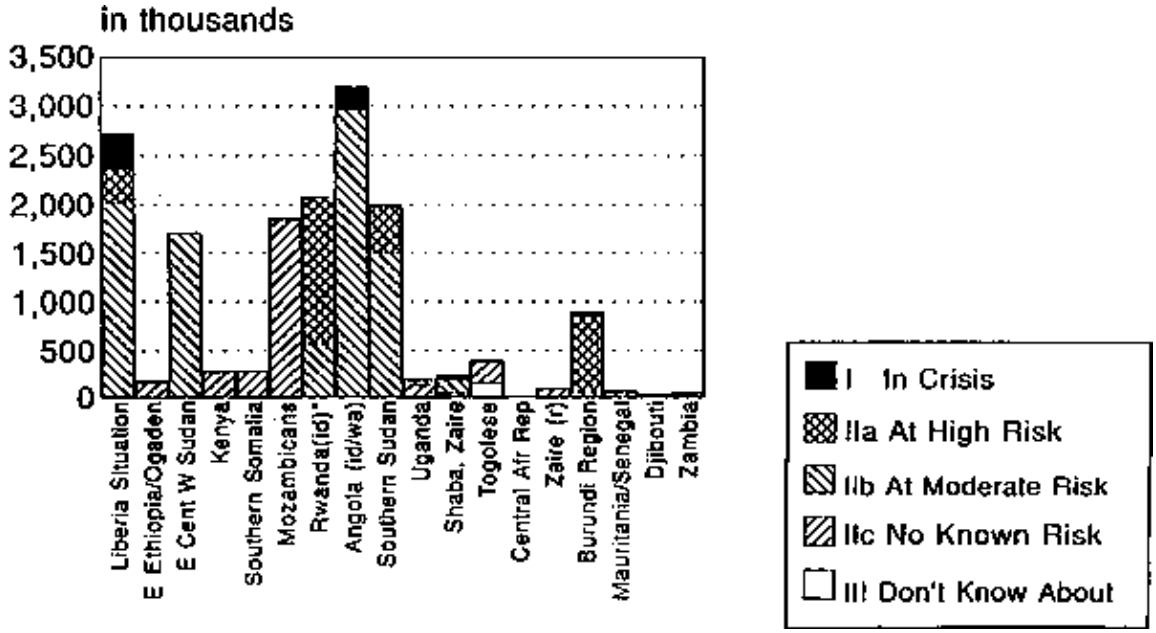


Figure 1. **Refugee and Displaced Populations – Selected Areas (March/April 1994)**

*includes estimated 1,500,000 displaced as of 19 April

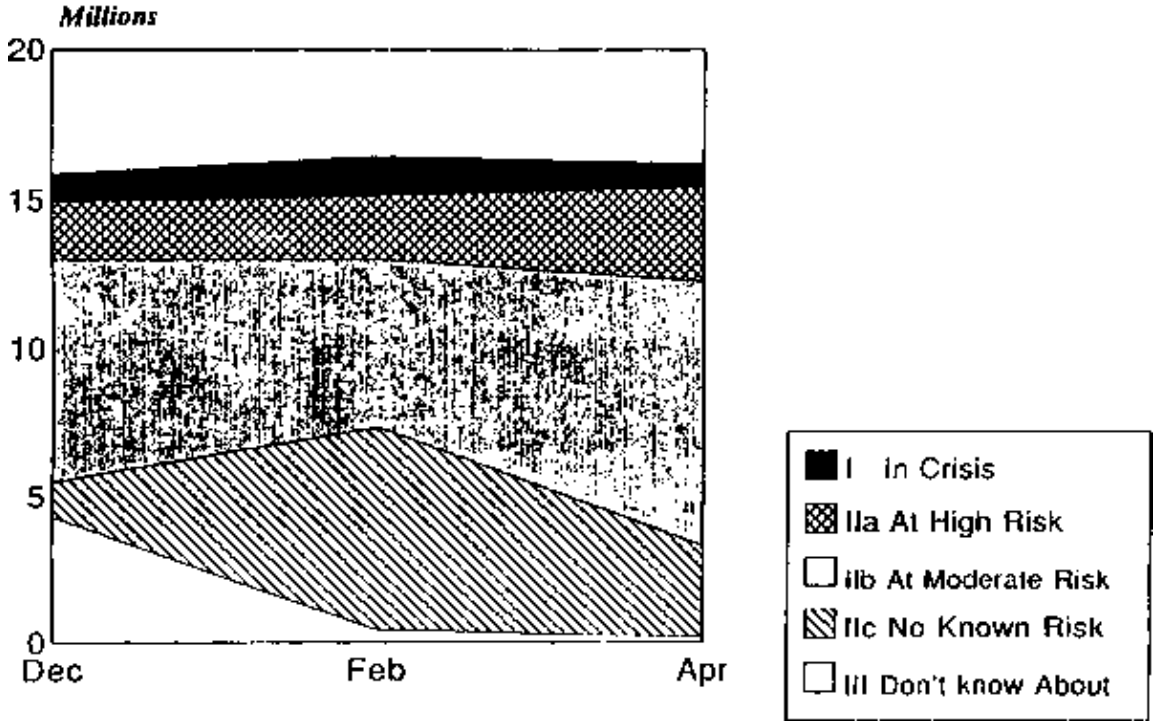
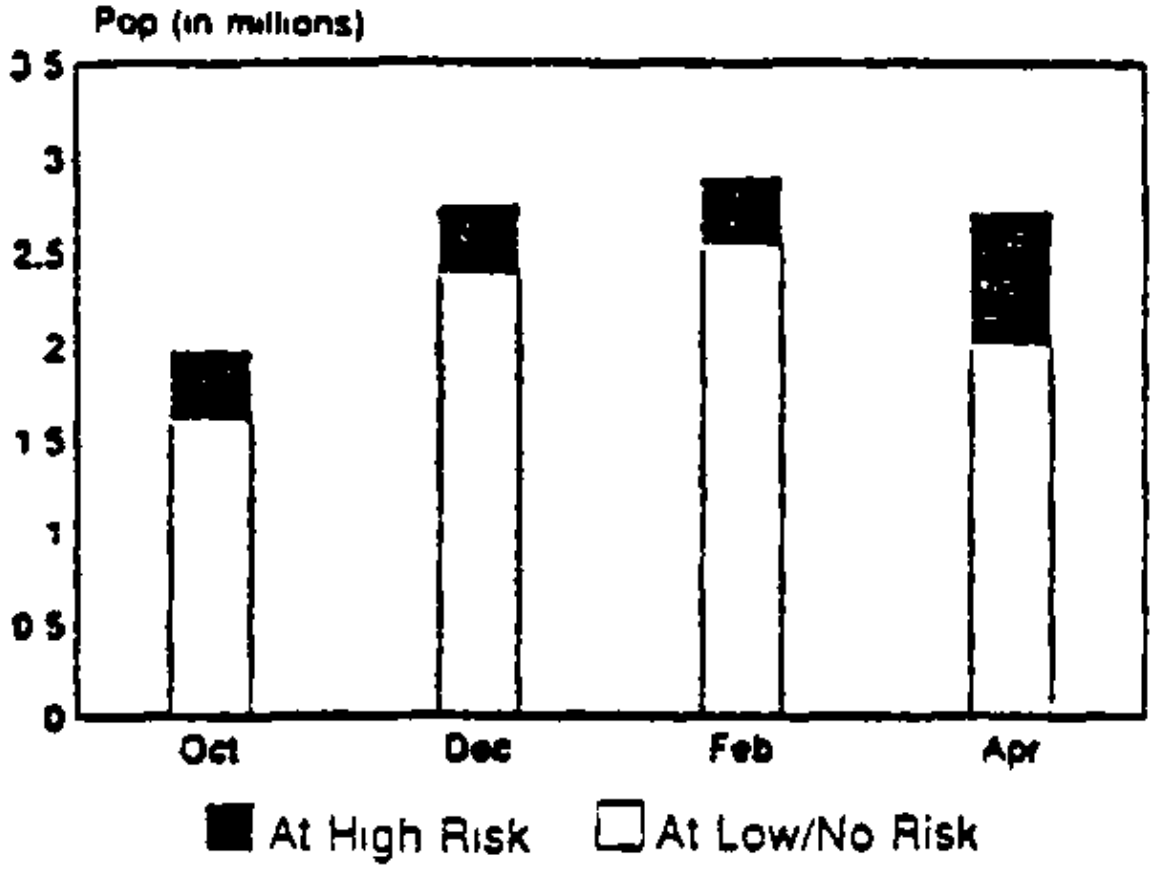
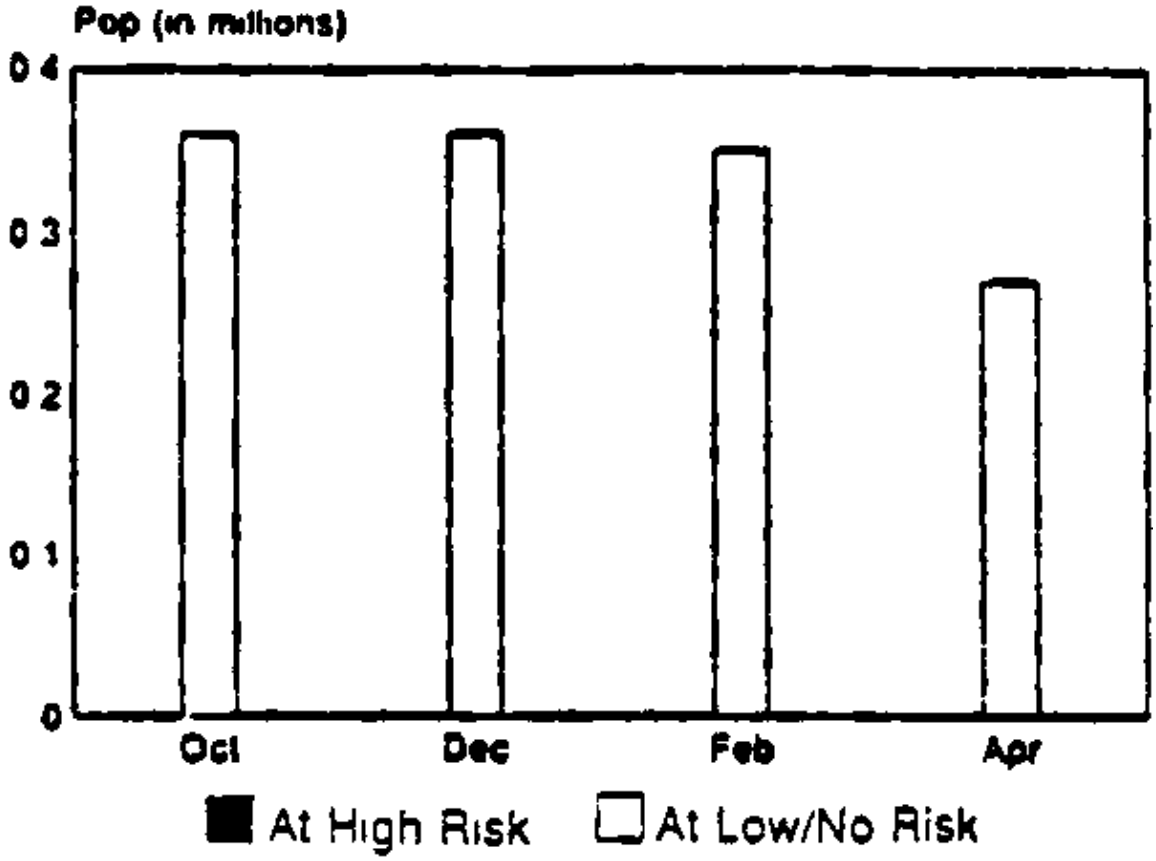


Figure 2. **Trends in Total Refugee/Displaced Populations and Risk Categories – Africa: December 1993–April 1994**

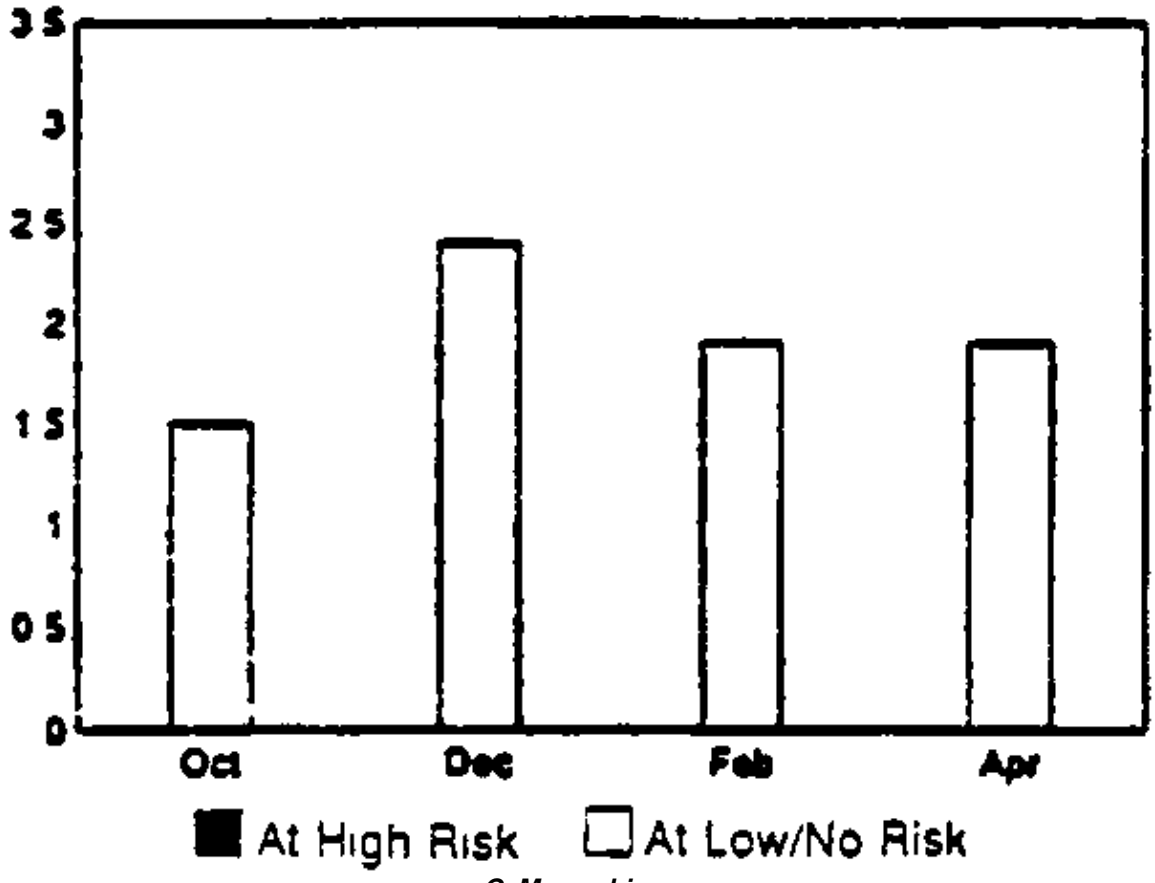
Trends in Population Estimates and Risk Categories in Six Countries



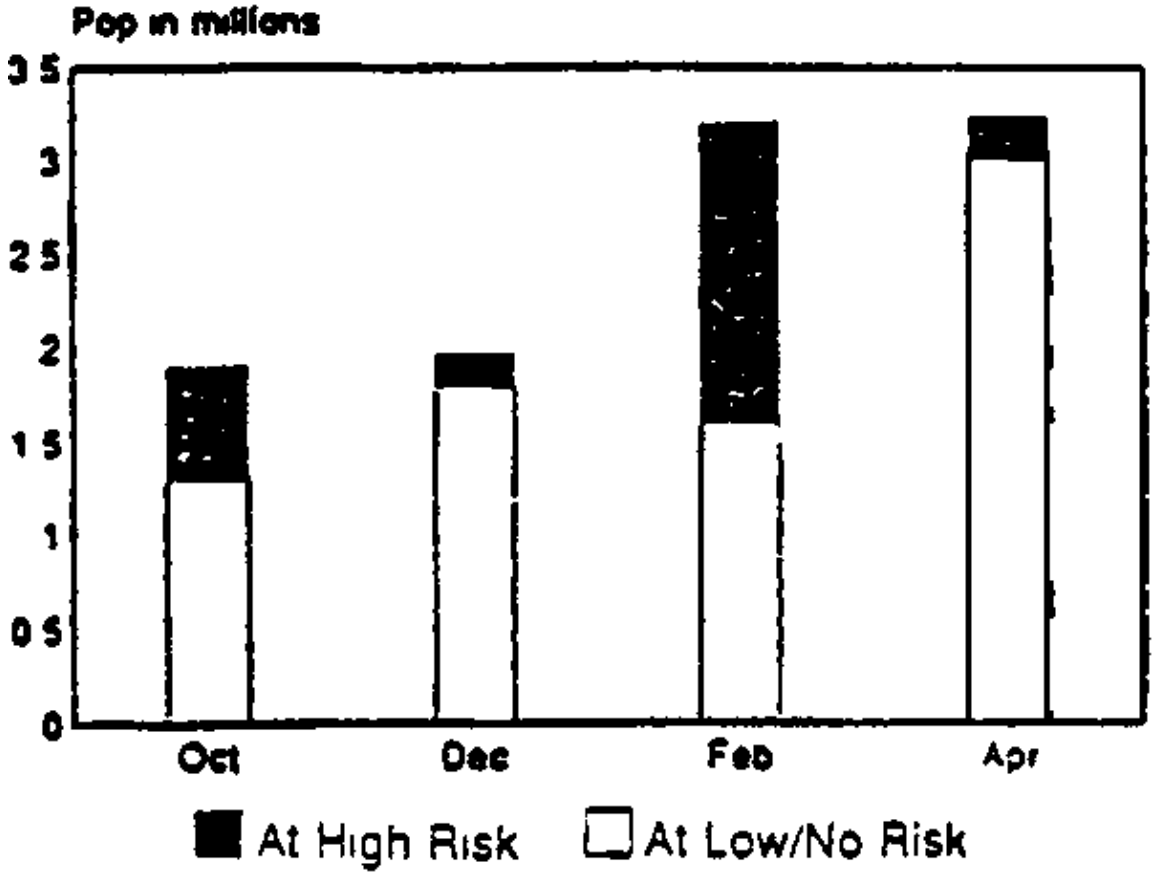
A. Liberia



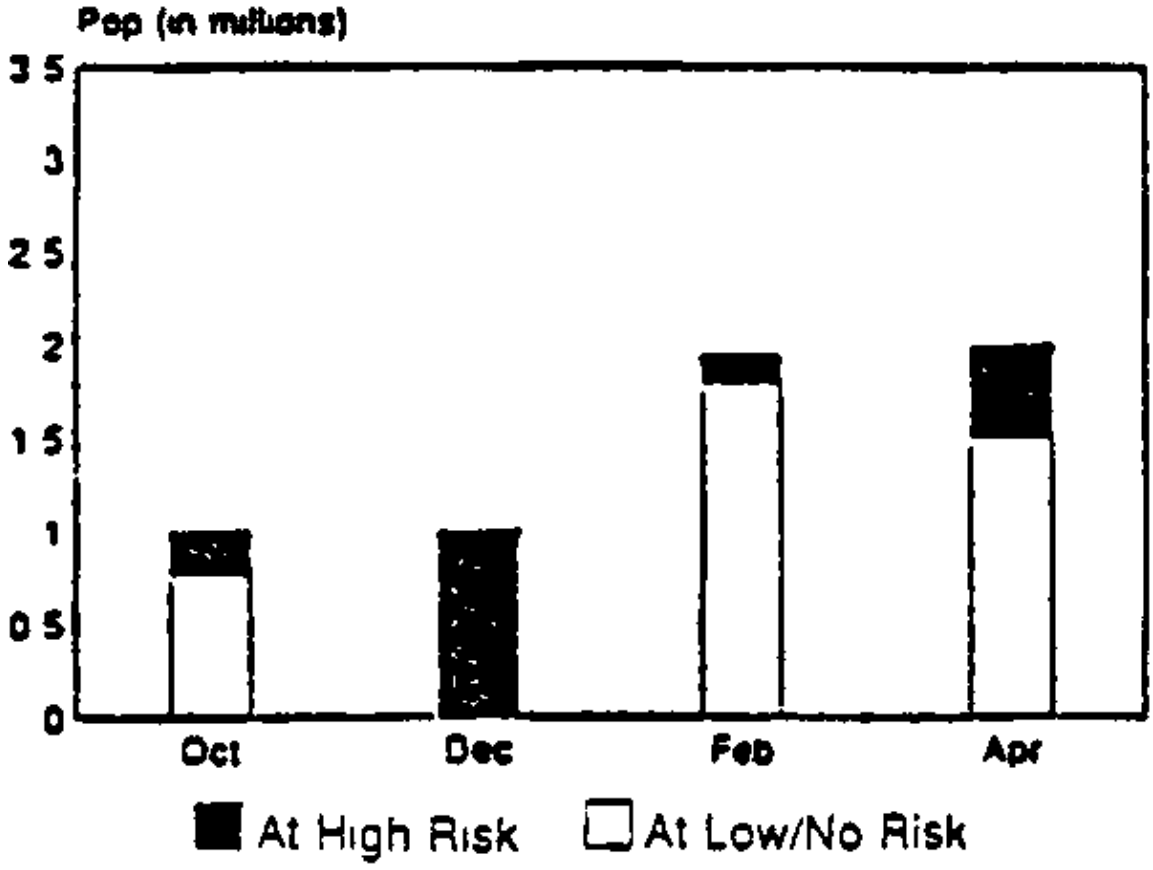
B. Kenya



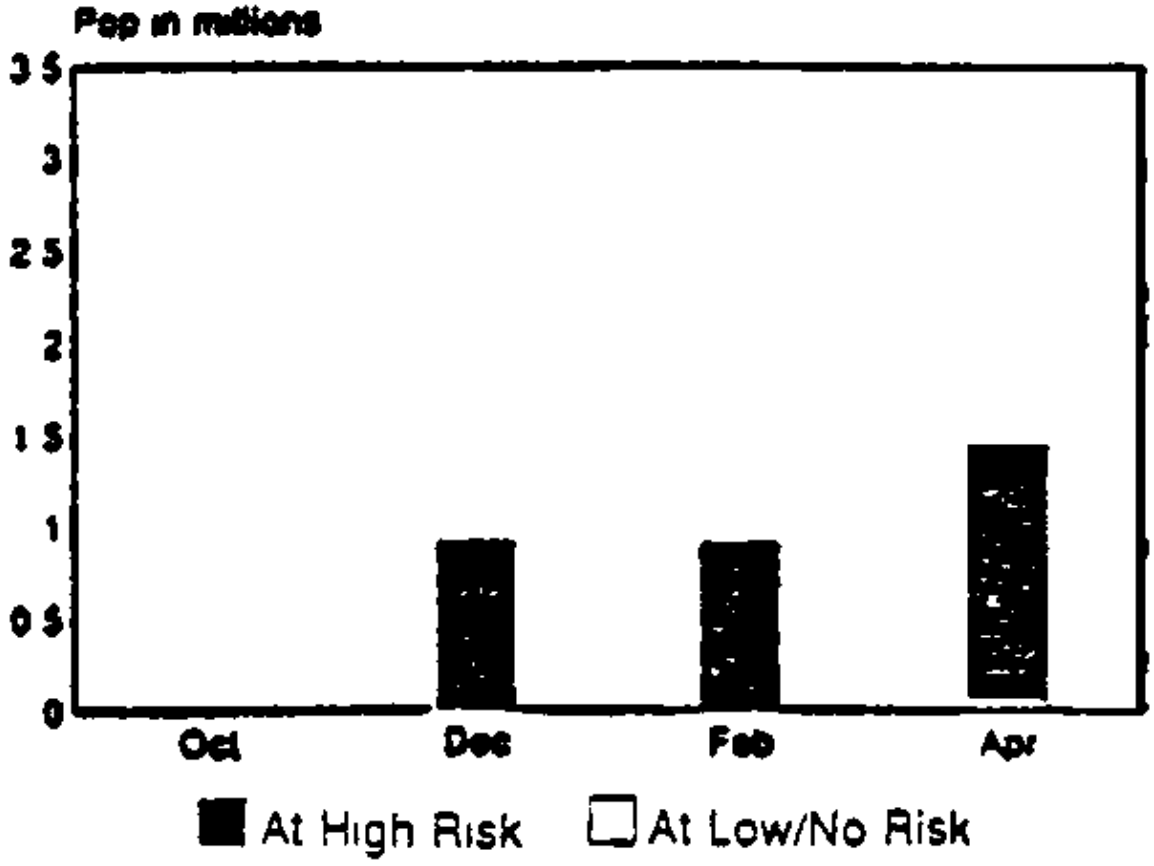
C. Mozambique



D. Angola



E. Southern Sudan



F. Burundi

Note: Shaded Background Indicates a Different Scale Used

Annex 1. Surveys Quoted

Results of Surveys Quoted In April Report						
	Survey Conducted by	***Date***	***% Wasted****	***% Severely Wasted****	***Mortality (/10.000/day)***	***Other data***
1. Liberia Region						
a. Margibi, Bong, Grand Bassa	MSF–H**	Jan.94	4.5%	1.5%	1.4–1.7	Under–five mortality rate: 3.7–5.6/10.000/day
2. Ethiopia						
a. Gode 1&2	MSF–B	1 Feb.94			0.9	Under–five mortality rate: 0.9/10,000/day
b. Gode 1&2 and Bohelagare	MSF–B	Jan.94			0.8	Under–five mortality rate: 0.7/10,000/day
c. Gode 1 & 2	MSF–B	17 Dec.93	30.5%	6.8%		
3. East, Central, West Sudan						
a. Kordofan (provinces)	UNICEF	Jan.94	7.1–14.6%	0.0–4.5%		

b. Kordofan (camps)	UNICEF	Jan.94	1.1–26.0%	0.0–5.6%		
4. Kenya						
a. Hagadera Camp	MSF–B	Jan.94			0.4	Under–five mortality rate: 1.3/10,000/day
b. Marafa Refugee Camp	IFRC	Jan.94	7.1%	0.0%		
5. Somalia						
a. Mogadishu	AICF	Apr.94	8.1–8.9%	1.3–2.1%		
6. Mozambique						
a. Mecula District	MSF–CIS	Dec.93	13.1%			
7. Rwanda						
a. Outside DMZ	MSF–H	Jan 94	1.2%(<–2SD/oed)	0.4% (<–3SD/oed)	0.3	Under–five mortality rate: 0.8/10.000/day
8. Angola						
a. Melanje	MSF–H	1 Feb.94	11.2%(<–2SD/oed)	2.2% (<–3SD/oed)	1.0	Under–five mortality rate: 1.7/10,000/day
b. Ombadja, Cunene	AICF	10 Dec.94	4.8%(<–2SD/oed)	1.1% (<–3SD/oed)		
9. S. Sudan						
a. Chotbura, Upper Nile	WV	Jan.94	24.3%	6.4%		
b. Obel–2 Camp, Malakal	UNICEF	Feb.94	30.3%	6.7%		2/3 of malnourished were female children
c. Woof	MSF–H	Dec 93	17.4%(<–2SD/oed)	2.6% (<–3SD/oed)	3.3	Under–five mortality rate: 9.7/10,000/day
10. Uganda						
a: Pachara Reception Centre	MSF–CH	1 Mar.94	2390.0%	740.0%	2.4	Water: 4l/caput/day
b. Koboko Camp	UNHCR	11 Feb.94			0.6	Under–five mortality rate: 1.8/10,000/day
c. Koboko Camp	MSF–H	1 Mar.94	11.6%(<80%)	2.1% (<70%)	0.7	Under–five mortality rate: 1.7/10,000/day
11. Shaba Region, Zaire						
a. Mwene Ditu (residents)	MSF–B	1 Jan.94	10.0%	4.1%		
	MSF–B		19.5%	6.6%		

Mwene Ditu (displaced)		1 Jan.94				
15. Burundi Region						
a. Ruyigi, Burundi	MSF–B	17 Feb.94	10.7%	2.2%		Wasting levels include 0.4% oedema
b. Rwanda	UNHCR	24 Mar 94			0.8	Under–five mortality rate: 1.6/10,000/day
c. Kagina, Rwanda	MSF–H	1 Jan.94	25.4% (<–2SD/oed)	10.8% (<–3SD/oed)	0.7	Under–five mortality rate: 1.1/10,000/day
d. Rugogwe, Rwanda	MSF–H	1 Mar.94	16.7% (<–2SD/oed)	6.1% (<–3SD/oed)	1.1	Under–five mortality rate: 2.3/10.000/day
e. Ngoma, Rwanda	MSF–H	1 Mar.94	7.6% (<–2SD/oed)	2.0% (<– 3 SD/oed)	0.6	Under–five mortality rate: 0.7/10,000/day
f. Kanage, Rwanda	MSF–B	18 Mar.94	5.0% (<–SD)	0% (<–3SD)		0.4% oedema measured separately
g. Kankube, Rwanda	MSF–B	25 Mar.94	4.0% (<–2SD)	0.6% (<–3SD)		0.3% oedema measured separately
h. Saga I & Saga II	AICF	1 Mar.94	3.7 – 5.8%(<–2SD)	0.3–1.5(<–3SD)		Oedema varied from 0–1.3%
i. Tanzania	UNHCR	14 Mar.94			0.5–2.2	Under–five mortality rate: 0.7–7.4/10,000/day
17. Djibouti	UNHCR	Jan.94			0.2	

* 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

** Survey also quoted in February RNIS report

NOTES

1. Liberia Region

a. Survey conducted by MSF–Holland in January. 1994 in Upper Margibi, Lower Bong and Grand Bassa counties. Wasting was defined as –2 SD and/or oedema and severe wasting was defined as –3 SD and/or oedema.

2. Ethiopia

a. Information from Monthly Activity Report, MSF–Belgium. No further details available.

b. Monthly report from the Ogaden (Gode Camps 1&2 and Bohelagare). This information is complied by GOAL and MSF–Belgium.

c. Nutritional survey conducted by MSF–Belgium on 17 December, 1993. Total number of children between 65–110 cm (approximation for 6mos–6yrs old) was 909. A random duster sampling method was used. Global malnutrition rate of 30.5% using 80% wt/ht and kwashiorkor, and 6.8% were less than 70% wt/ht or oedema.

3. East, Central, West Sudan

a. and b. This information comes from the third round of the Kordofan state nutrition survey, completed at the end of January. A cluster sampling method was used and wt/ht was used to determine levels of wasting.

4. Kenya

a. Survey in Hagadera Camp conducted by MSF−Belgium (January 1994). No further details available.

b. Survey in Marafa Camp conducted by IFRC on 28 January, 1994. A total of 745 children (6mos−110 cm) were measured; wasting was defined as 70% wt/ht (7.1%) and severe wasting was 80% wt/ht (0%).

5. Somalia

a. Survey done by AICF in Mogadishu in April 1994. This was a random, cluster survey, dividing Mogadishu into two large areas for results purposes. (Few displaced live in the north while the majority of the displaced live in the south.) Cut off for wasting was <−2 Z and/or oedema and for severe wasting was <−3 Z scores and/or oedema.

6. Mozambique

a. Information from MSF−CIS from December. No further details are available.

7. Rwanda

a. Survey on nine displaced camps outside the DMZ in January, 1994 conducted by MSF−Holland. Wasting was defined as −2 SD and/or oedema and severe wasting was defined as −3SD and/or oedema.

8. Angola

a. Survey in February conducted by MSF−Holland. Wasting was defined as −2 SD and/or oedema and severe wasting was defined as −3 SD and/or oedema.

b. Survey conducted by AICF on 10 December, 1993. A cluster sample on children 6−59 months old was used, for a sample size of 806 children. Wasting was defined as −2 SD or oedema, and severe wasting was −3 SD or oedema.

9. Southern Sudan

a. This survey was carried out by World Vision on 13 January, 1994 on 251 children. Wasting levels (24.3%) were based on 80% wt/ht, and severe wasting (6.4%) was based on 70% wt/ht.

b. This survey was carried out on 5 February 1994 in Obel−2 Camp by UNICEF. It used a duster sample method, measuring children under five years old. Wt/ht was used to determine the levels of wasting.

c. Survey conducted in December, 1993 by MSF−Holland. Wasting was defined as −2 SD and/or oedema and severe wasting was −3 SD and/or oedema.

10. Uganda

a. This information comes from a MSF−Switzerland situation report for 1 March 1994. The survey was conducted on 120 children 6 mos−5 yrs old. Wasting was defined as 80% wt/ht and severe wasting as 70% wt/ht.

b. This information comes from a UNHCR mission report from 1−11 February 1994. No survey details are available.

c. Survey conducted by MSF−Holland from March. 1994. Wasting was defined as 80% wt/ht and severe wasting was 70% wt/ht.

11. Shaba Region, Zaire

a. Nutritional survey conducted in Mwene Ditu by MSF−Belgium. This was a cluster survey on children 6−59 months (or 60−115 cm) and the sample size was 1887. Wasting was determined using wt/ht 80% or oedema

and severe wasting was defined as 70% wt/ht or oedema.

15. Burundi Region

a. This nutritional survey was carried out by MSF−Belgium in the province of Ruyigi in Burundi during February 1994. Children 65−110 cms tall (approximately 6−59 months) for a sample size of 540. A duster sample was used. Cut−offs for wasting were −2z scores and severe wasting was −3z scores. Oedema was calculated separately.

b. This information is from a UNHCR situation report on 24 March 1994.

c.−e. Surveys conducted by MSF−Holland in March, 1994, Wasting was defined as −2 SD and/or oedema and severe wasting −3 SD and/or oedema.

f. Survey conducted by MSF−Belgium 17−18 March 1994 in Kanage, Prefecture of Butare. This was a survey including children 6−59 months old for a sample size of 239. Wasting was defined as − 2 SD and severe wasting was − 3SD. Oedema was measured separately.

g. Survey conducted by MSF−Belgium in Kankuba Camp, Prefecture of Butare 24−25 March. 1994. A sample size of 346 children aged 6−59 months was used. Wasting was defined as −2SD and severe wasting was − 3SD. Oedema was measured separately.

h. Nutritional surveys earned out by AICF on children 6−59 months old. Wasting cut off was<−2 SD and severe wasting was **<−3** SD. Sample sizes were 270 (Saga I) and 314 (Saga II).

i. This information is from a UNHCR situation report on 14 March 1994. No further details are available.

16. Djibouti

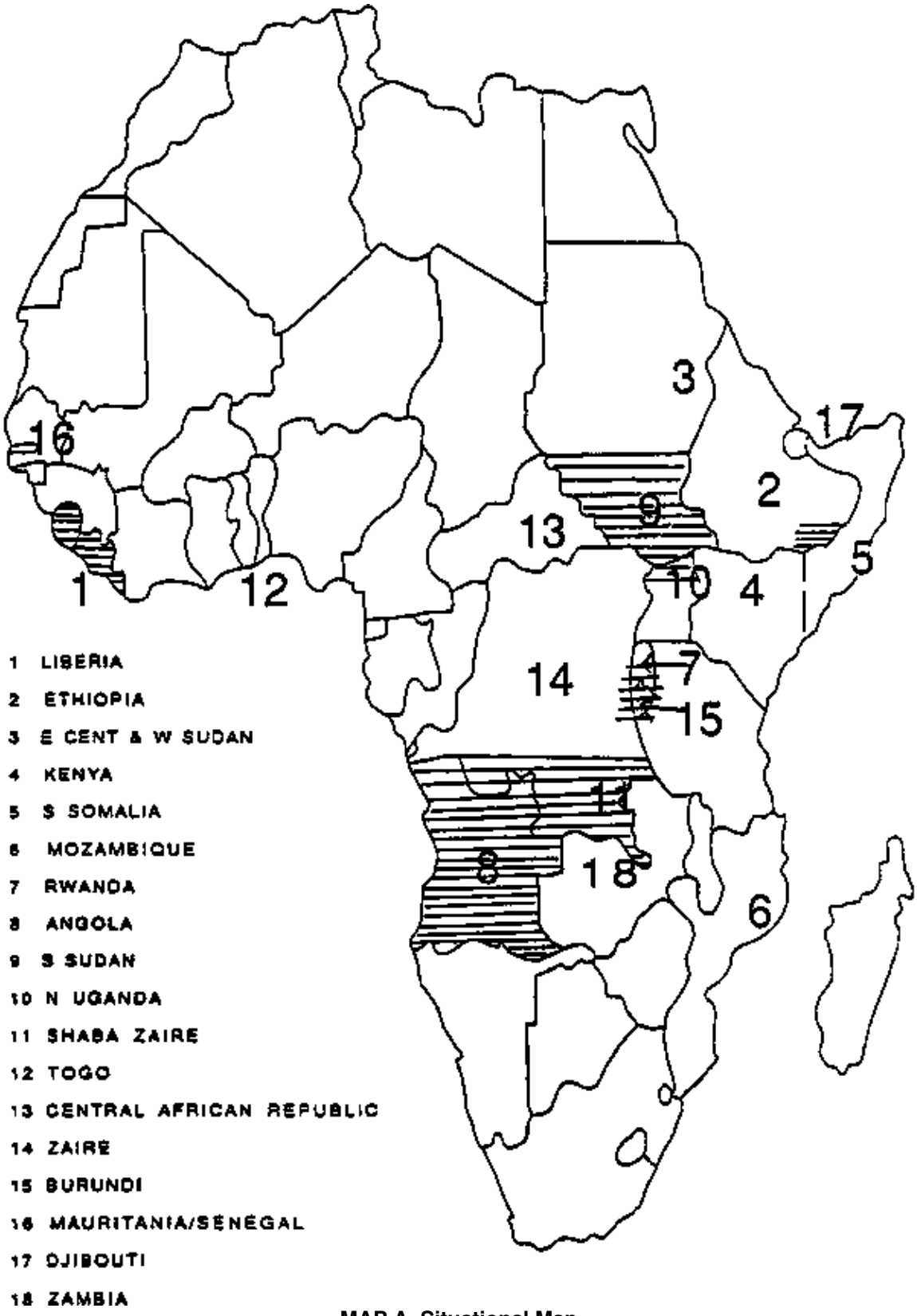
a. This information is from a draft of a UNHCR trip report.

Annex 2. Seasonality in Sub−Saharan Africa*

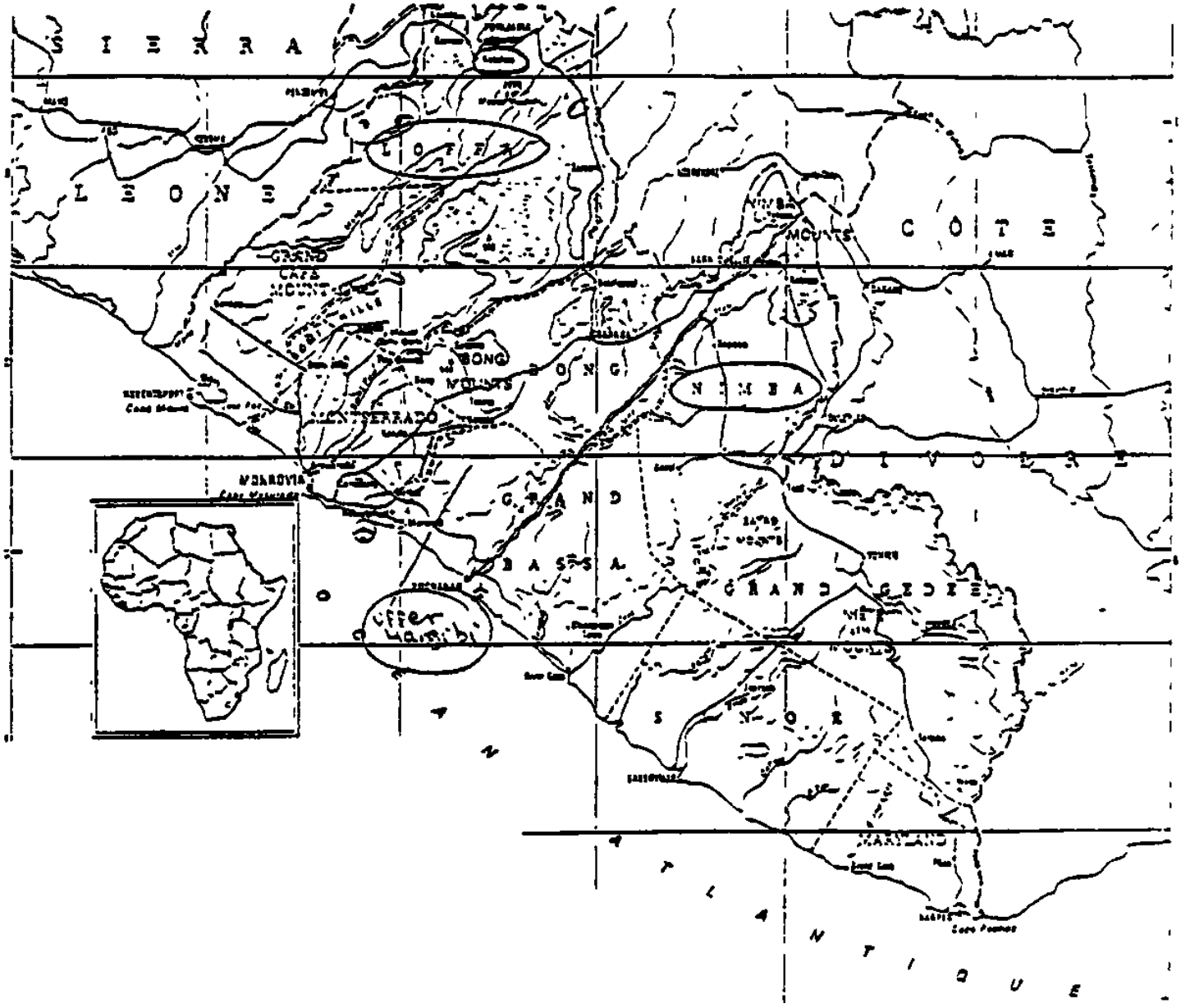
Country	***Climate/Rainy Season/Harvest***
Angola	Coastal area desert, SW semi−arid, rest of country: rams Sept−April
Burundi	Rains Feb−May and Sept−Nov
CAR	Rains March−Nov
Djibouti	Arid Climate
Ethiopia	N coast, lowlands in S and E: semi−arid, rest rainy climate. Harvest in November
Kenya	N−E is semi−arid to arid, Central and SW rains: March−May and Nov−Dec
Liberia	Rains March−Nov
Mozambique	Coast is semi−arid, rest wet−dry. Harvest May
Rwanda	Rains Feb−May and Sept−Nov
Sierra Leone	Rains March−Oct.
Somalia	South is semi−arid, rest and. Harvest Aug−Sept
Sudan	Rains May−Oct
Togo	Two rainy seasons in S, one in N. Harvest August
Uganda	Rains Mar−Oct

Zaire	Tropical climate. Harvest in N: November; in S January

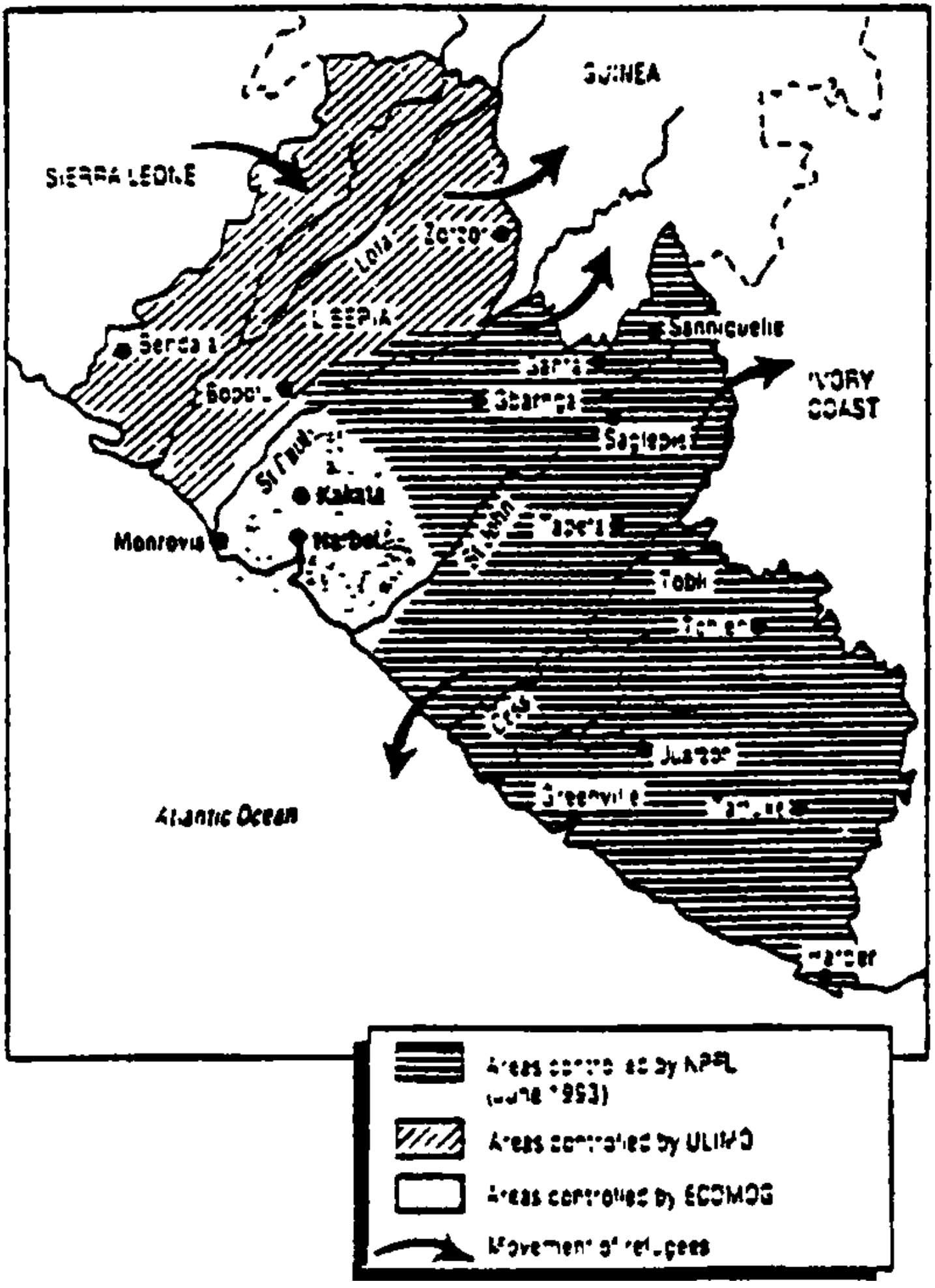
Source: FAO, "Food Supply Situation and Crop Prospects in Sub–Saharan Africa", Special Report: No.4/5, Dec 1990.



MAP A. Situational Map

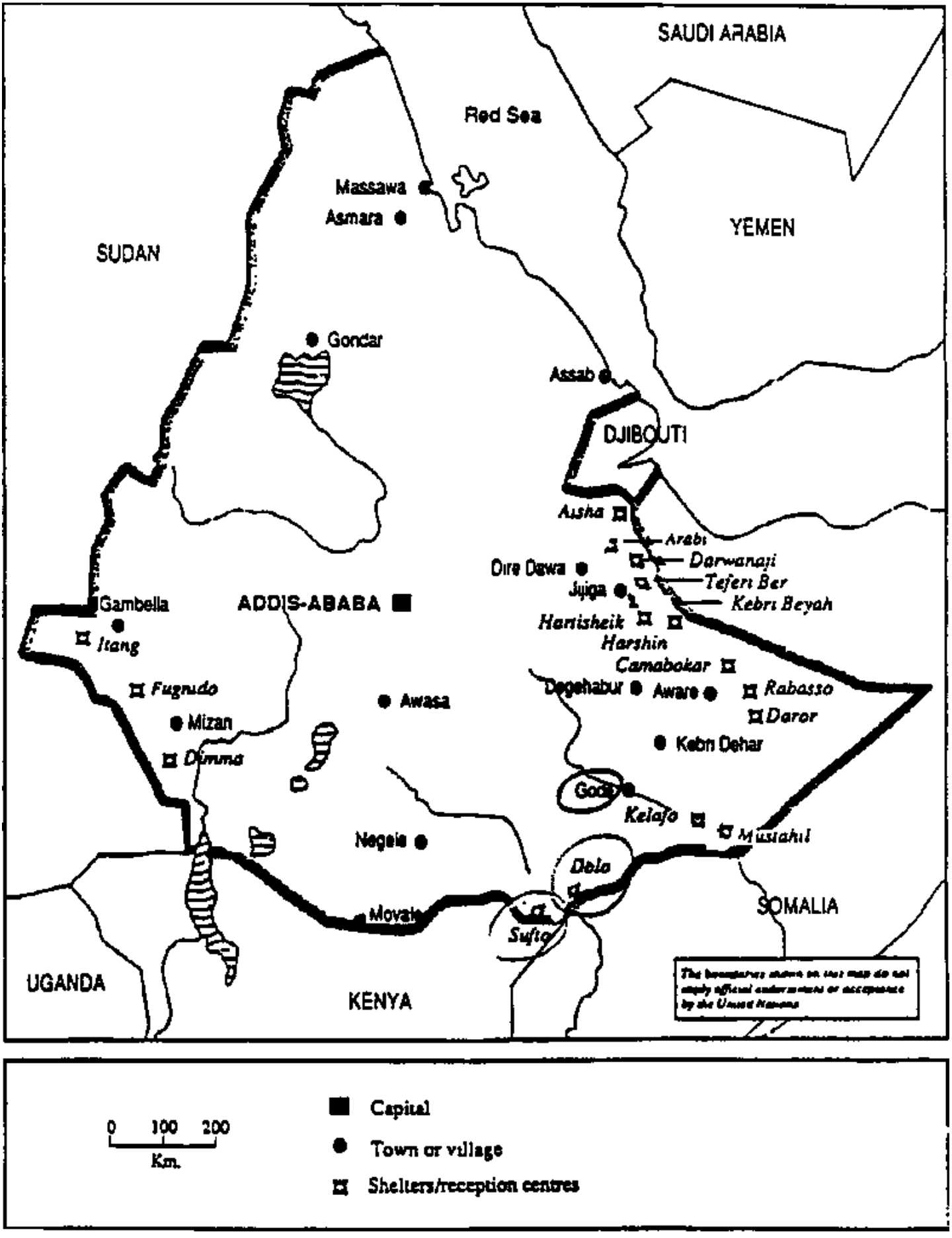


MAP 1A. Liberia

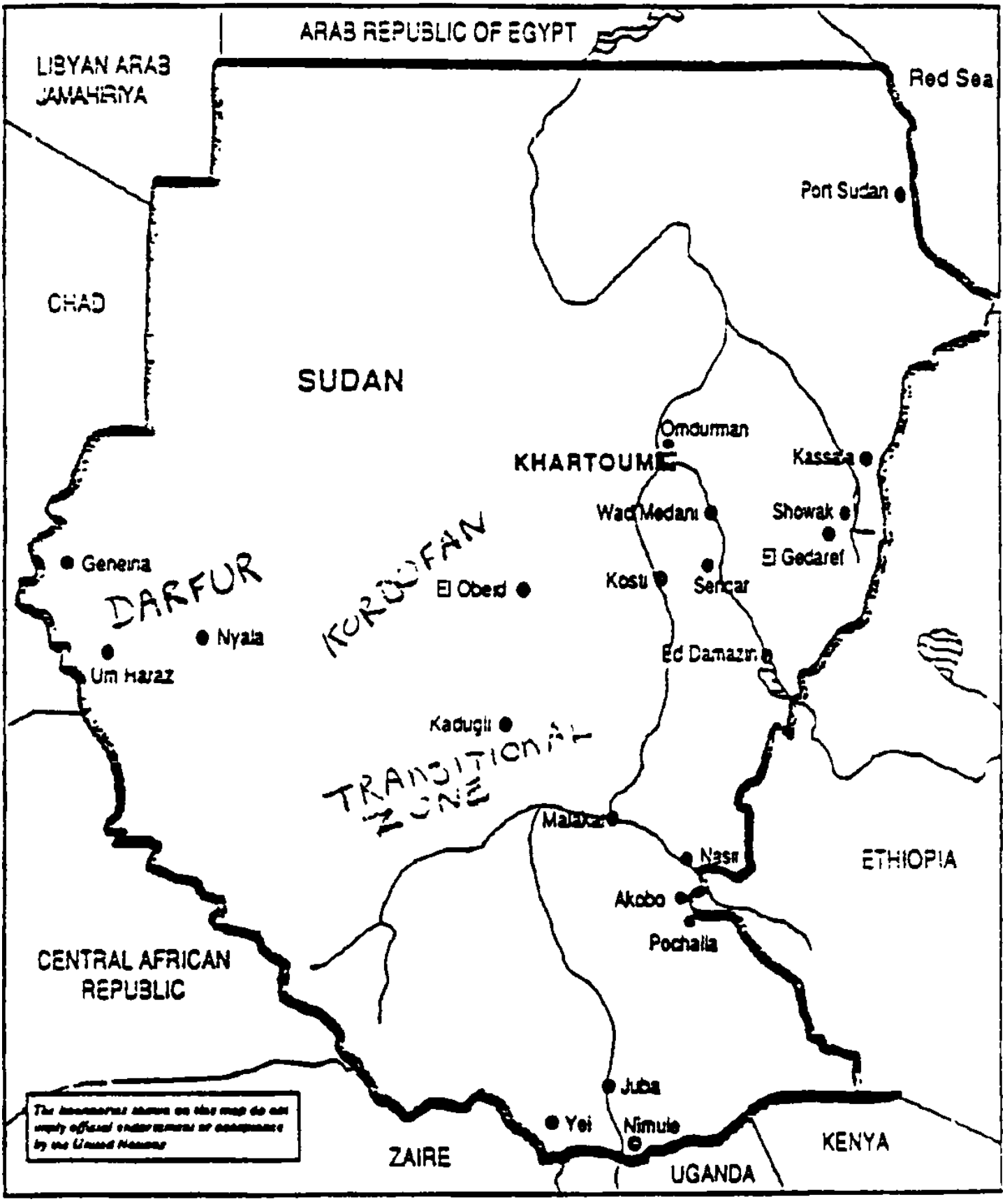

GUINEA
SIERRA LEONE
IVORY COAST
Monrovia
Atlantic Ocean

MAP 1B. Liberia

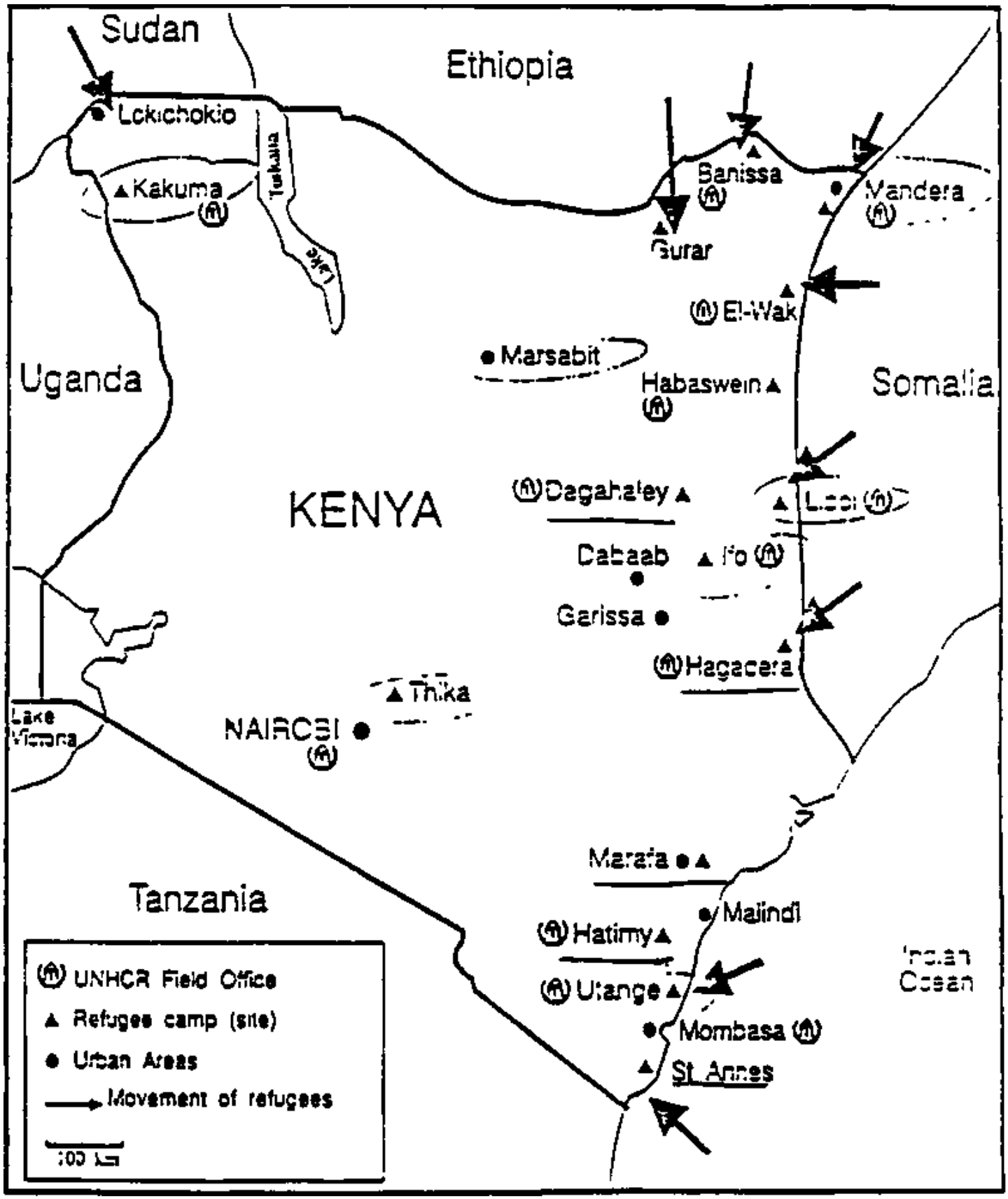
Source: "Life, Death and Aid", MSF, 1993.
Reproduced with permission from MSF–UK and Routledge.



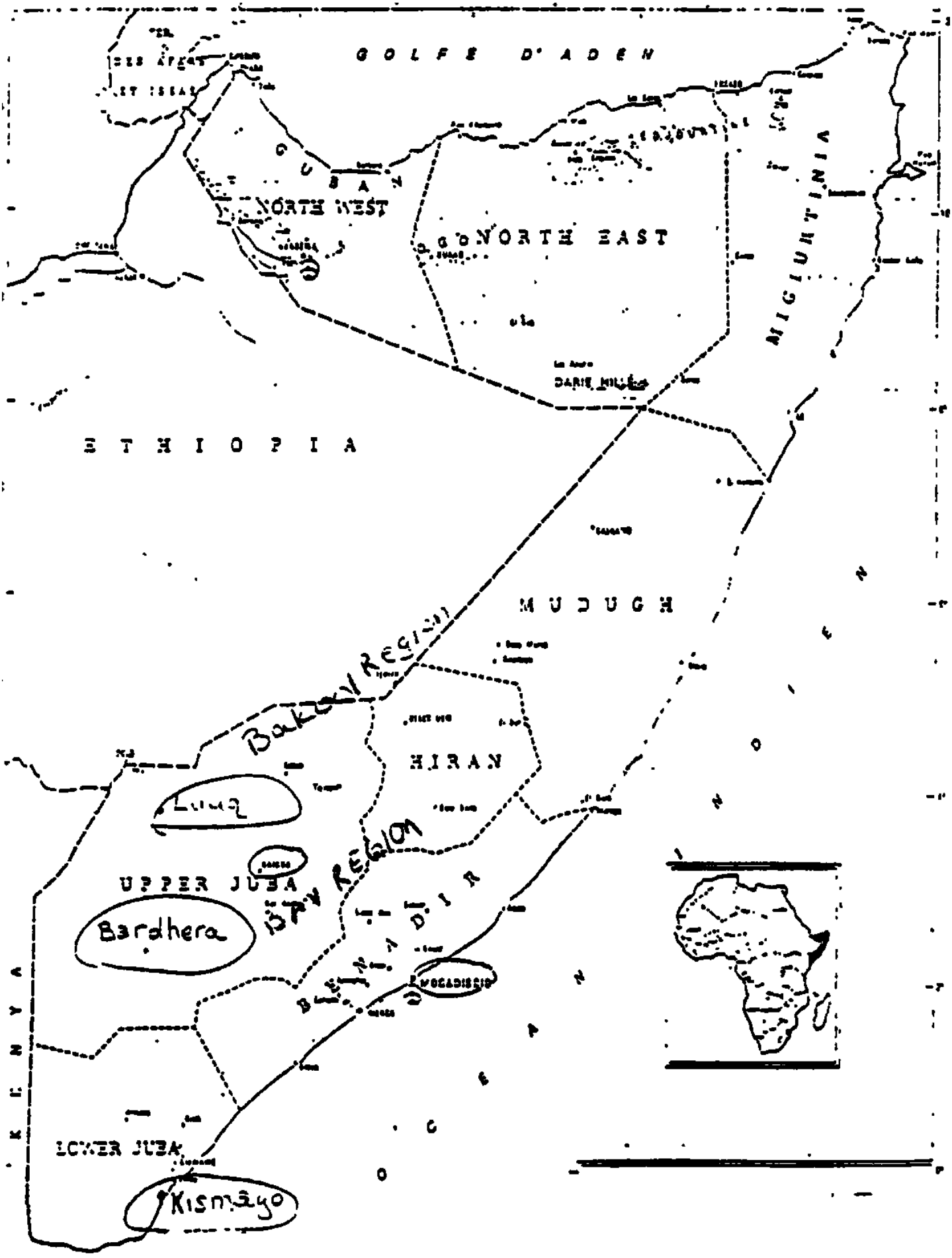
MAP 2. Ethiopia


ARAB REPUBLIC OF EGYPT
LIBYAN ARAB JAMAHIRIYA
Red Sea
Port Sudan
CHAD
SUDAN
Omdurman
KHARTOUM
Kassala
Wad Medani
Showak
El Gedaref
Geneina
DARFUR
KORDOFAN
El Obeid
Kosti
Sencar
Nyala
Um Haraz
Ed Damazin
Kadugli
TRANSITIONAL ZONE
Malakal
Nasir
ETHIOPIA
Akobo
Pochalla
CENTRAL AFRICAN REPUBLIC
Juba
Yei
Nimule
KENYA
ZAIRE
UGANDA
The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations
0 100 200
Km.
Capital
Town or village

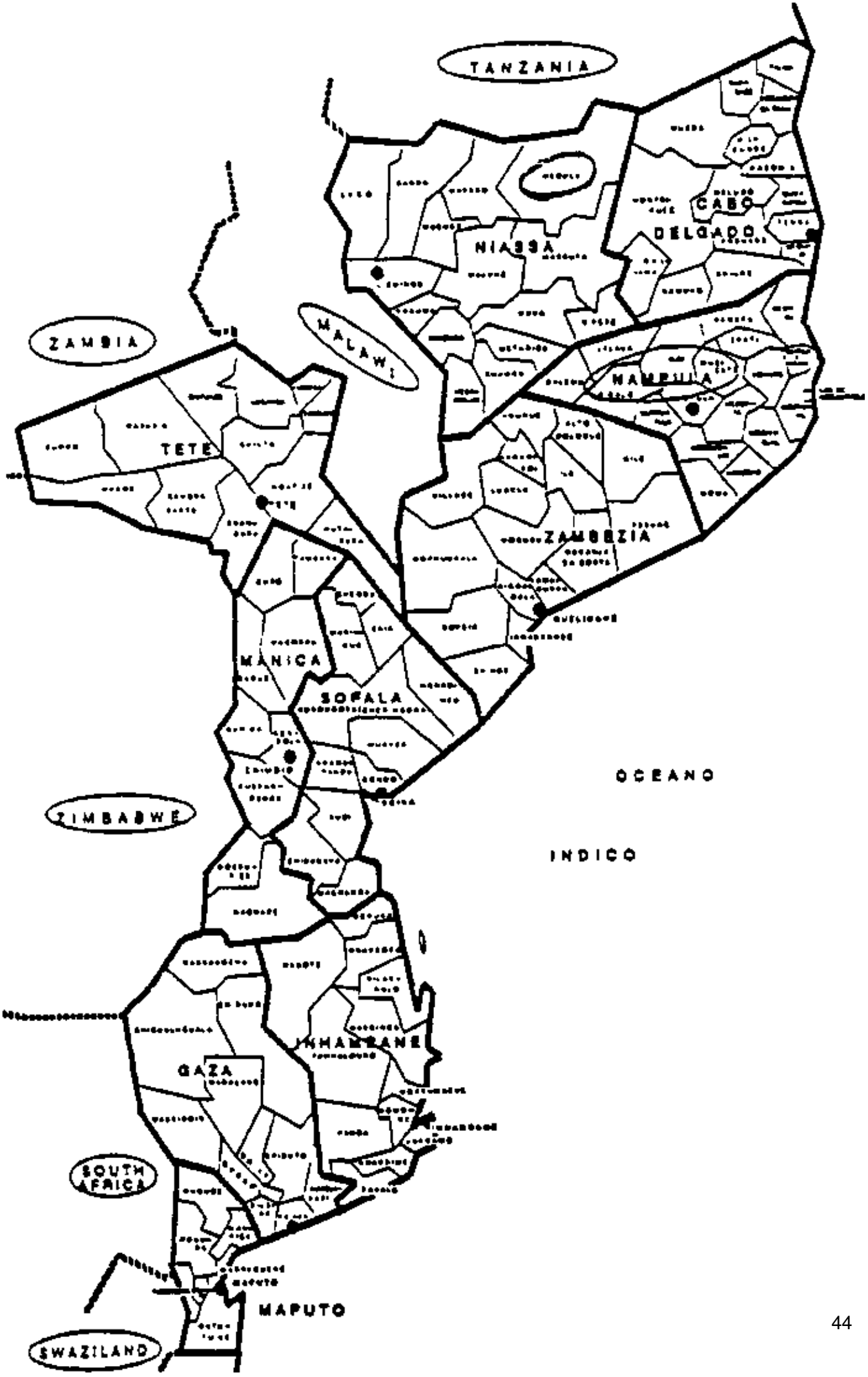
MAP 3. Sudan



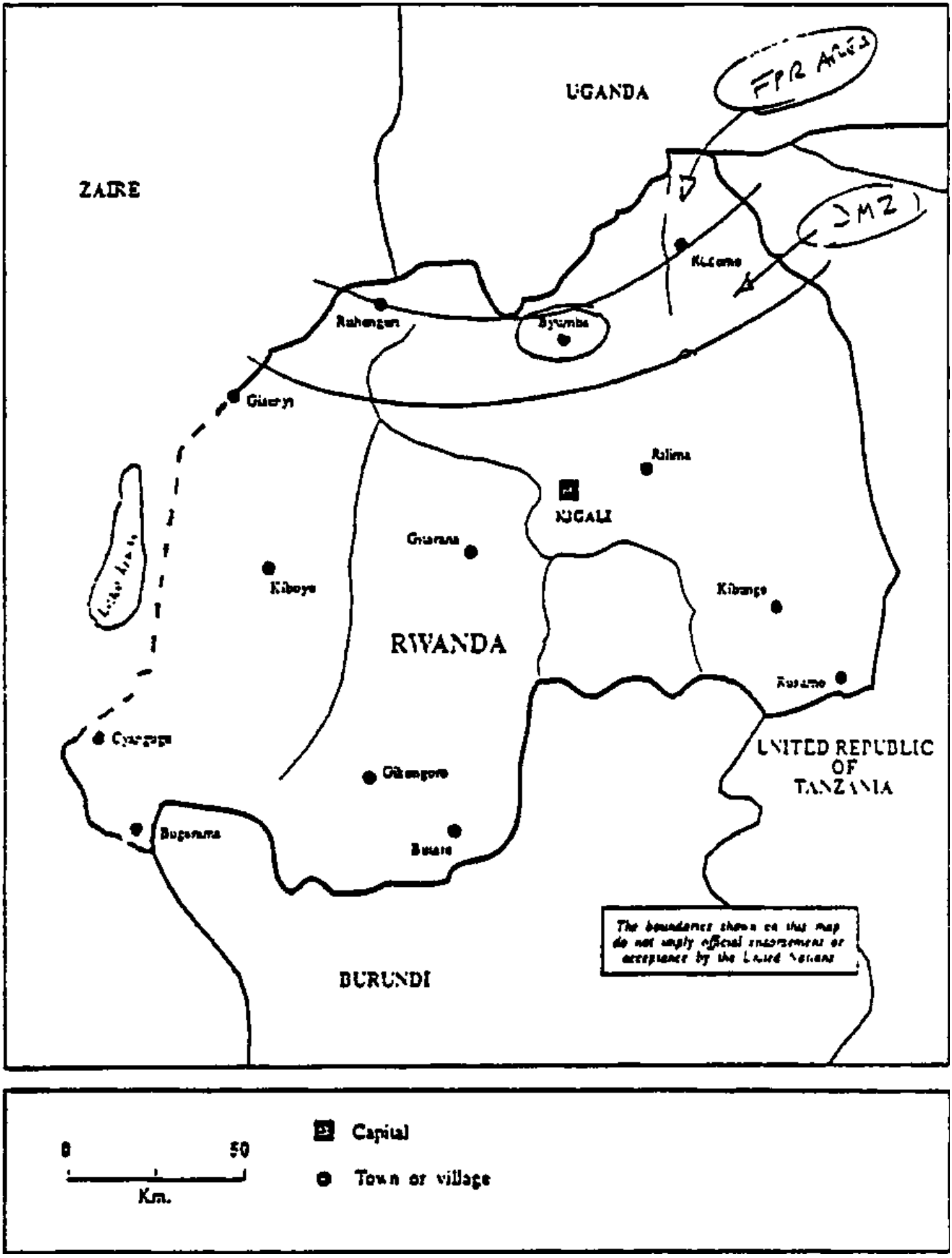
MAP 4. Kenya



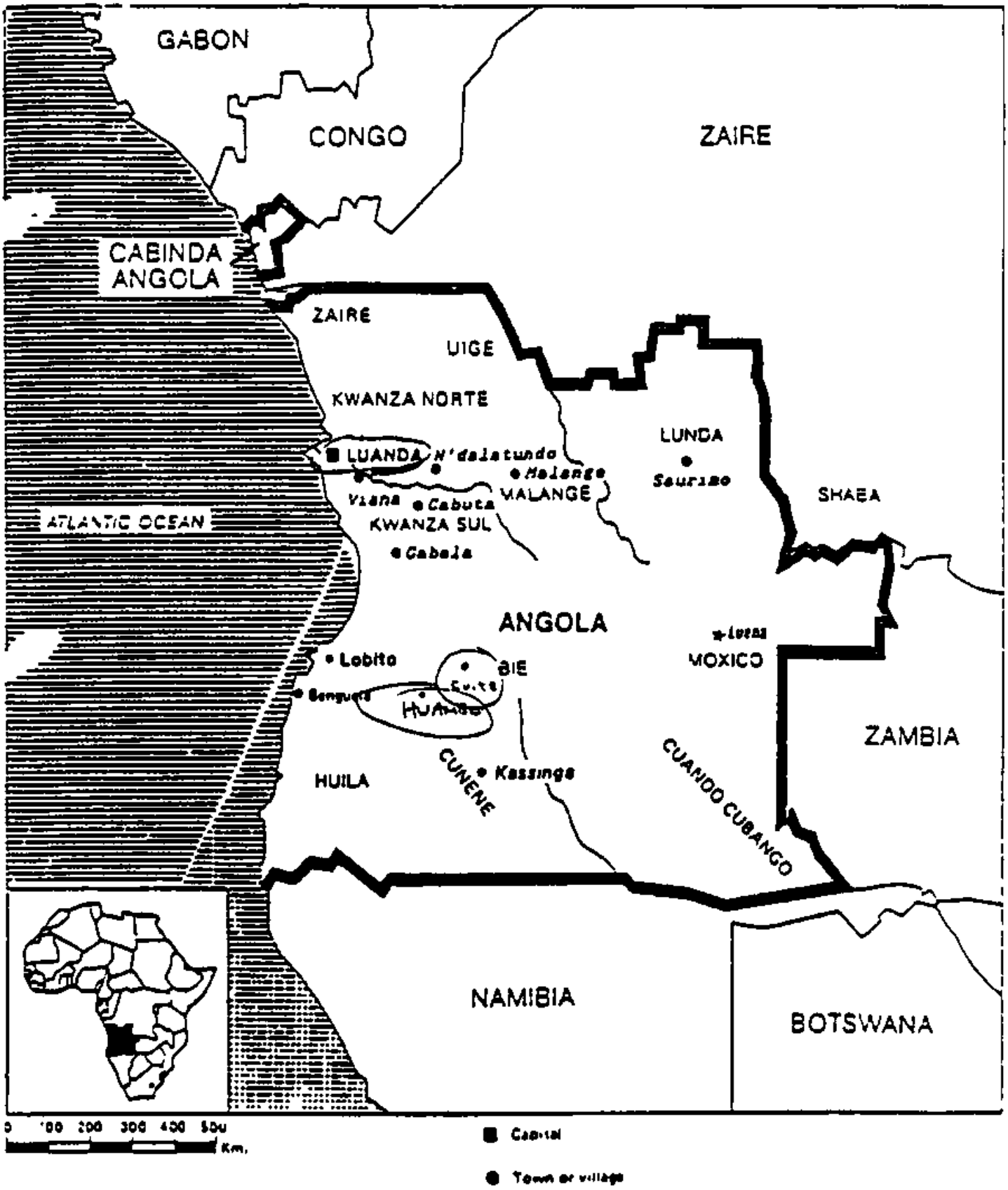
MAP 5. Somalia


TANZANIA
NIASSA
CABO
DELGADO
ZAMBIA
MALAWI
NAMPULA
TETE
ZAMBEZIA
MANICA
SOFALA
OCEANO
INDICO
ZIMBABWE
INHAMBANE
GAZA
SOUTH
AFRICA
MAPUTO
SWAZILAND

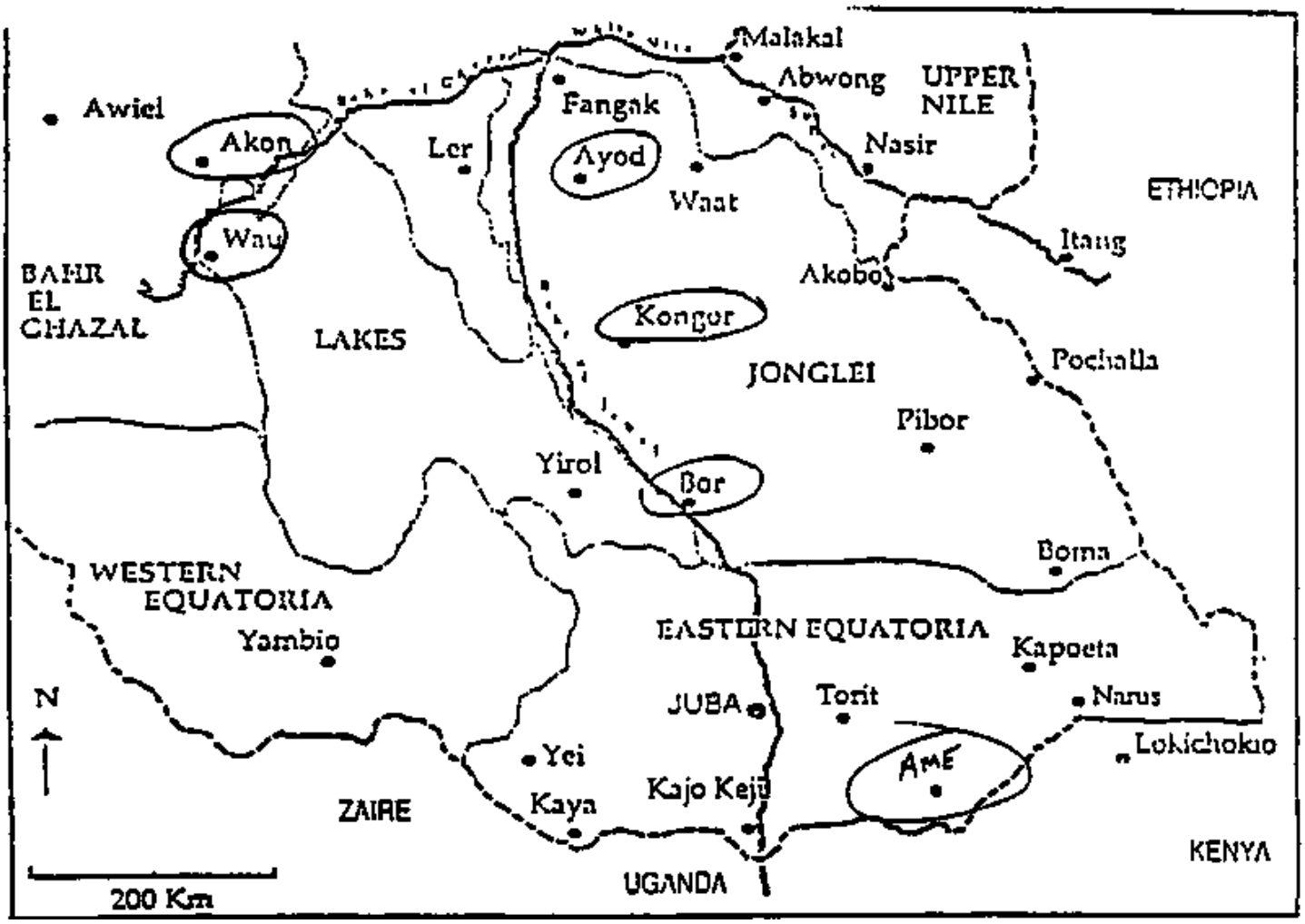
MAP 6. Mozambique


UGANDA
ZAIRE
RWANDA
BURUNDI
UNITED REPUBLIC OF TANZANIA
Ruhengeri
Byumba
Kibuye
Gisenyi
Gitarama
Kigali
Kibungo
Cyangugu
Gikongoro
Butare
Capital
Town or village
0
50
Km.

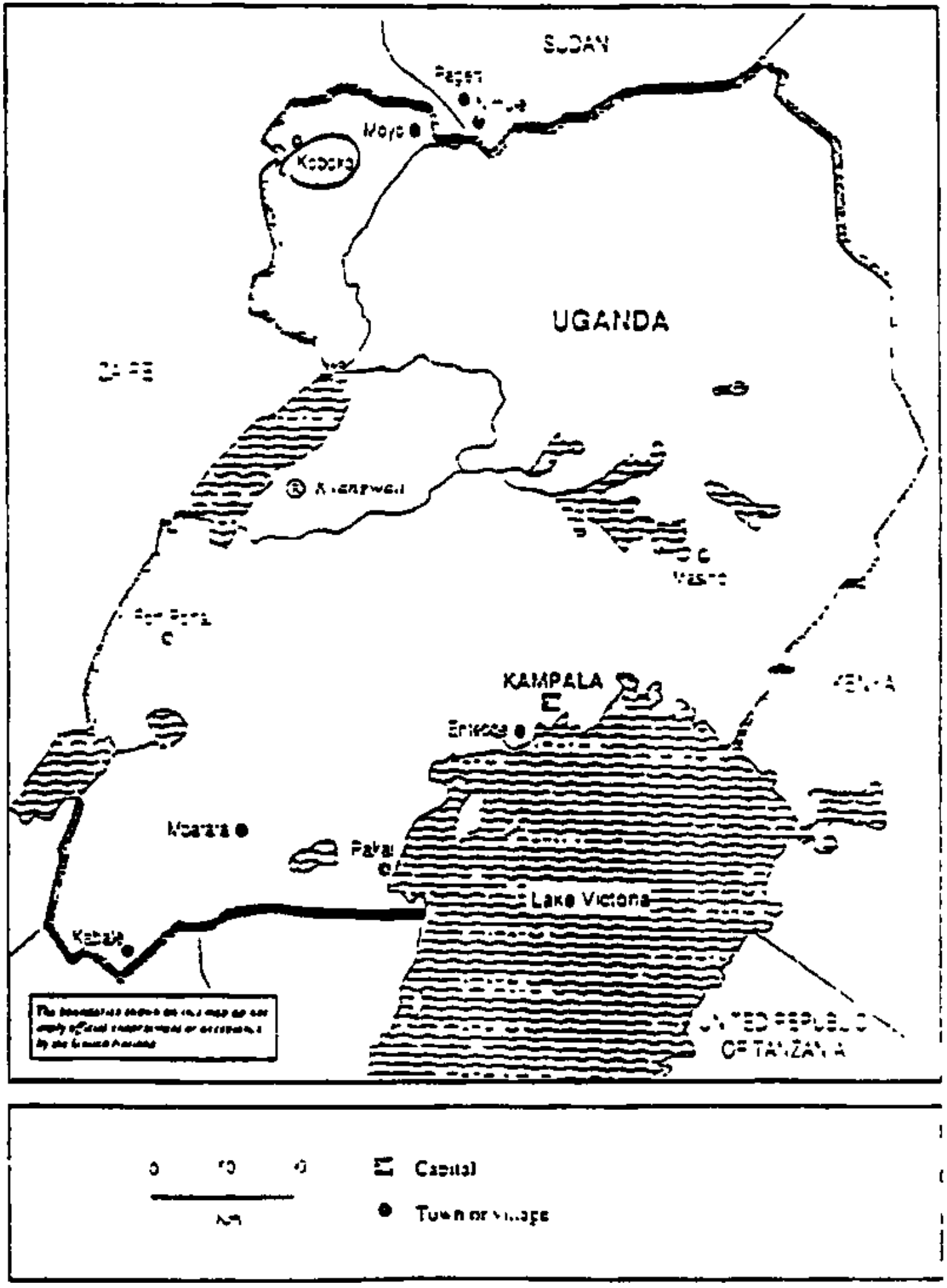
MAP 7. Rwanda


GABON
CONGO
ZAIRE
CABINDA
ANGOLA
ZAIRE
UIGE
KWANZA NORTE
LUANDA
N'dalatundo
Malange
LUNDA
Saurimo
MALANGE
SHAEA
Viana
Cabuta
KWANZA SUL
Cabala
ATLANTIC OCEAN
ANGOLA
Lobito
Benguela
BIE
MOXICO
ZAMBIA
HUILA
CUNENE
Kassinge
CUANDO CUBANGO
NAMIBIA
BOTSWANA
Km.
Capital
Town or village

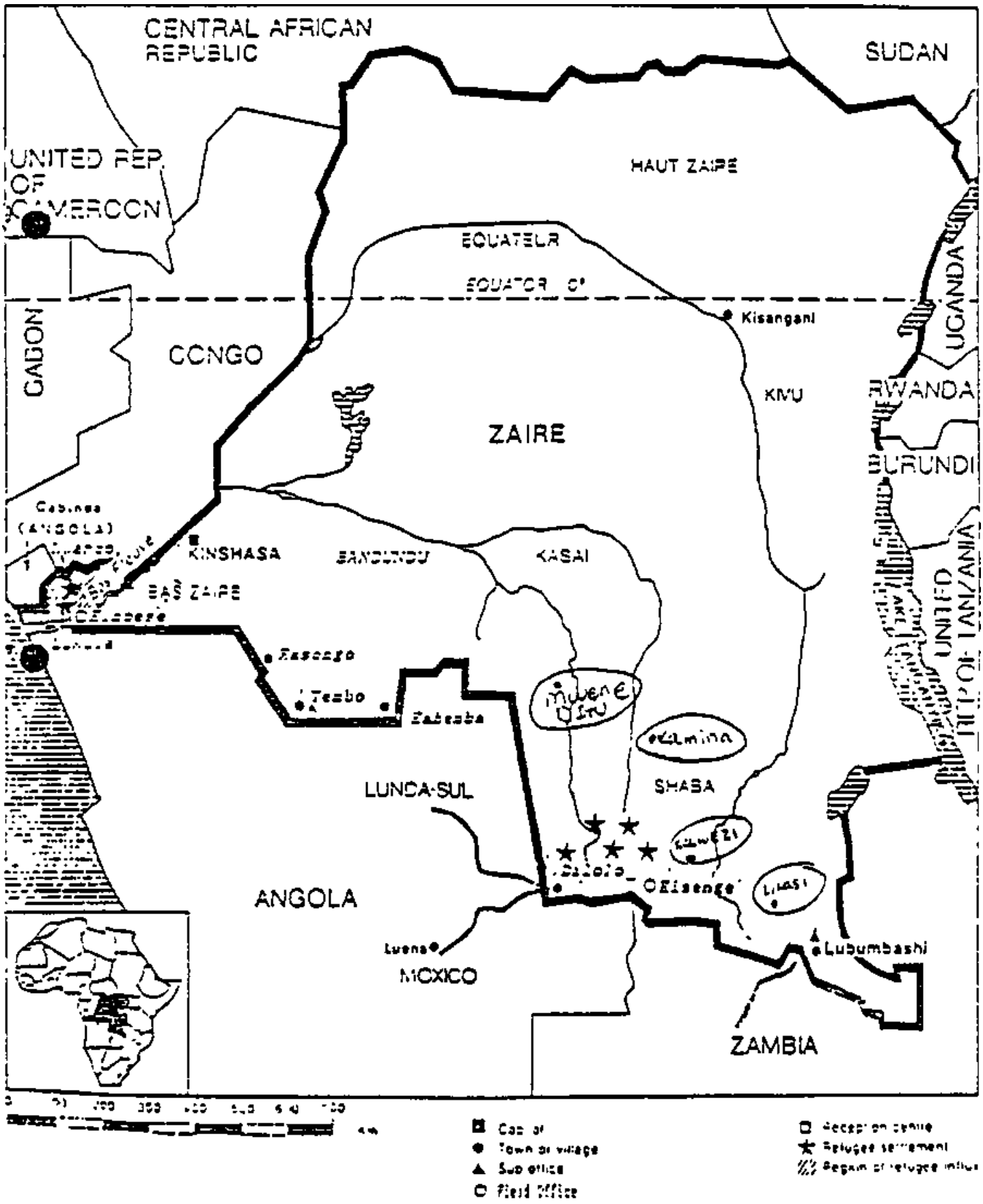
MAP 8. Angola



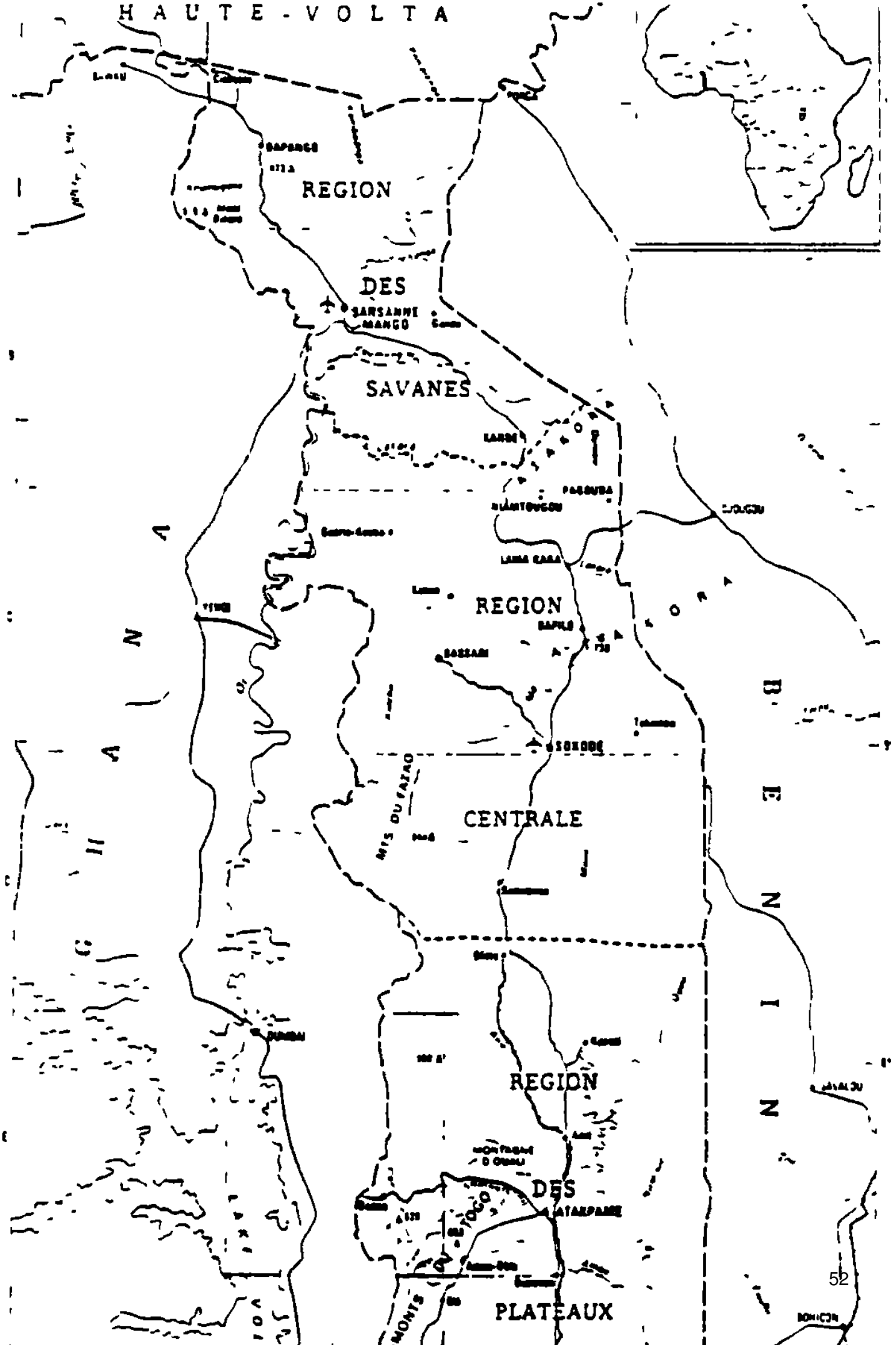
MAP 9. Southern Sudan


SUDAN
Moyo
Kabale
UGANDA
KAMPALA
Entebbe
Masaka
Lake Victoria
Capital
Town or village

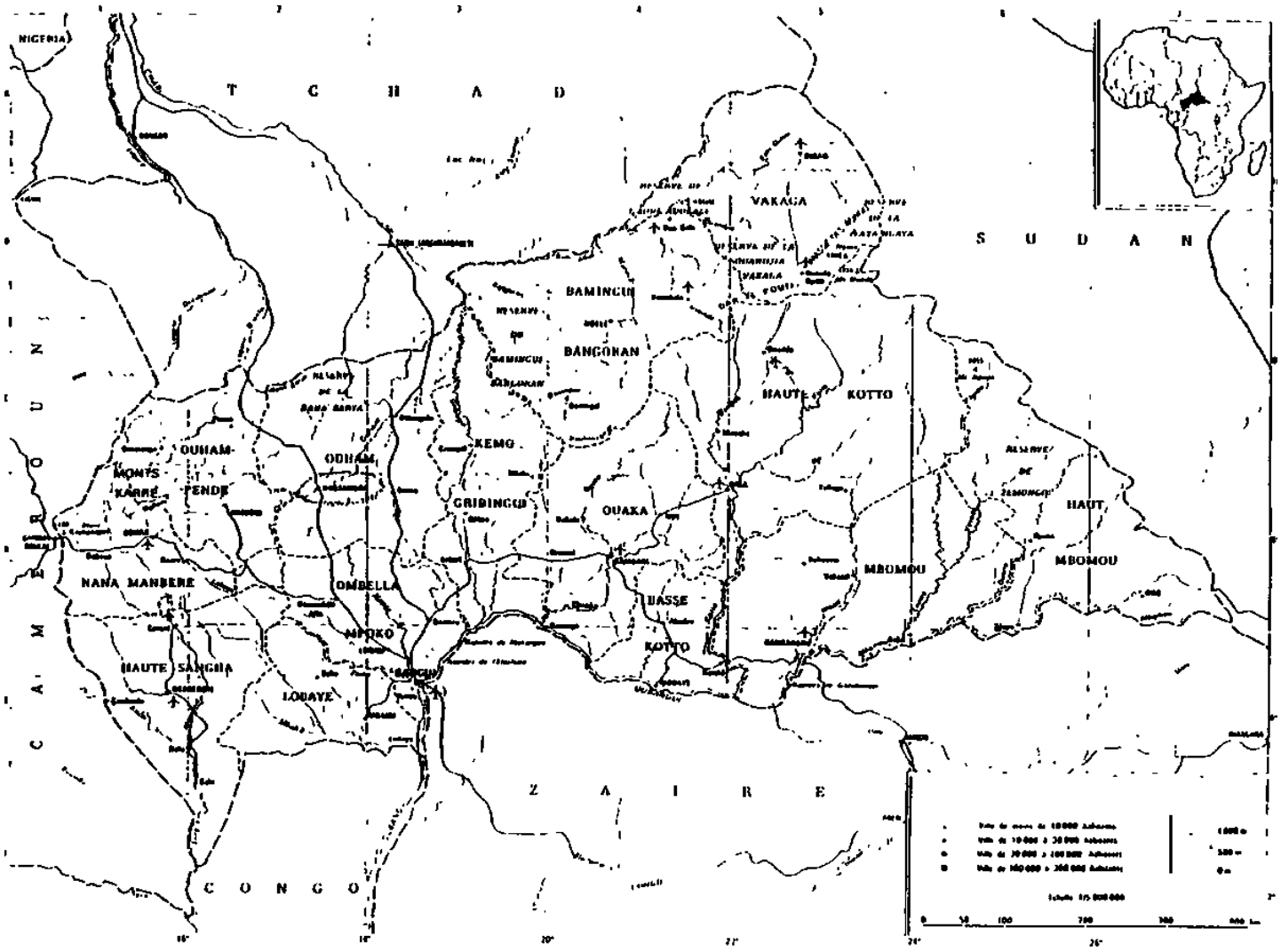
MAP 10. Uganda



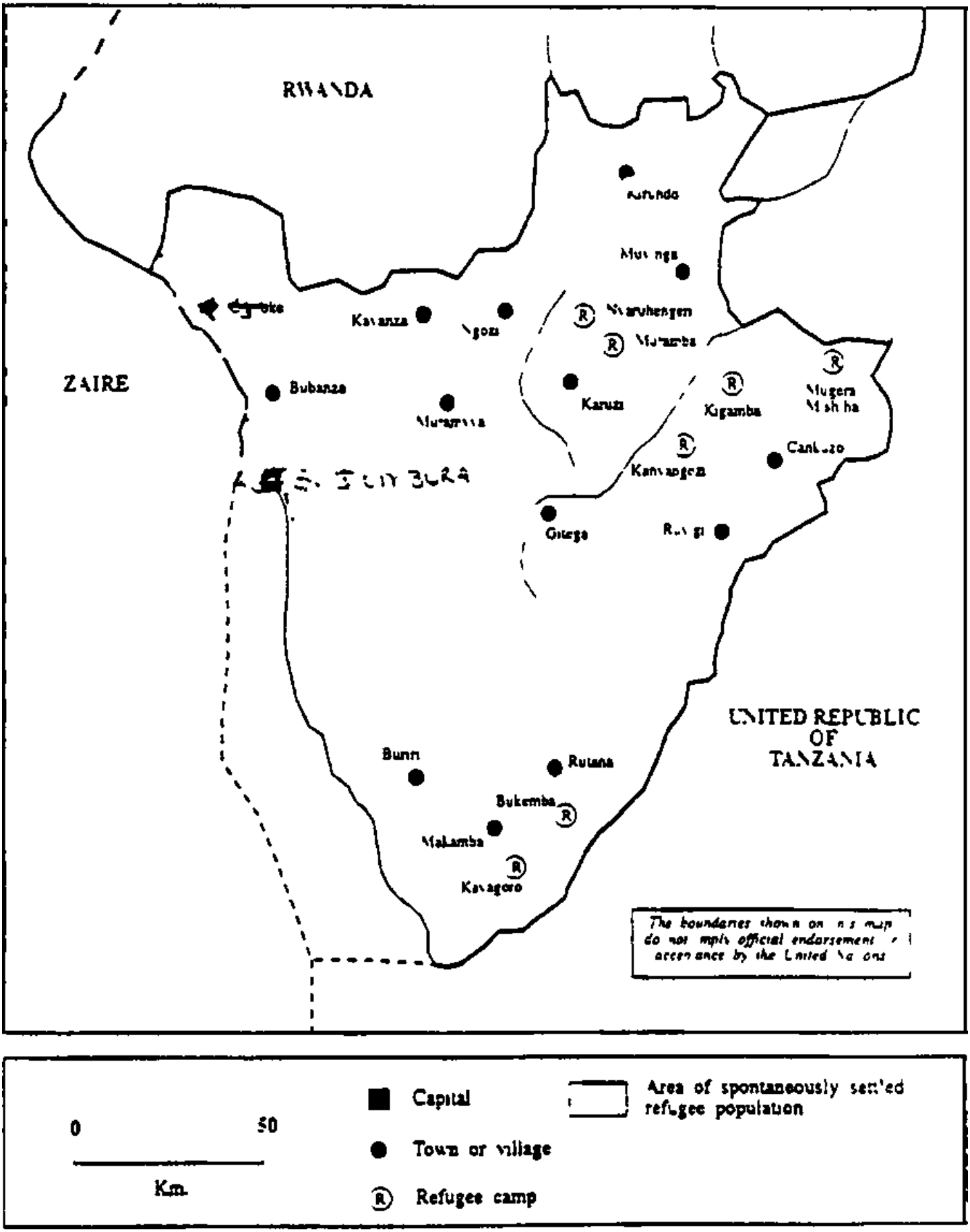
MAP 11. Zaire


HAUTE-VOLTA
REGION
DES
SAVANES
REGION
CENTRALE
REGION
DES
PLATEAUX

MAP 12. Togo



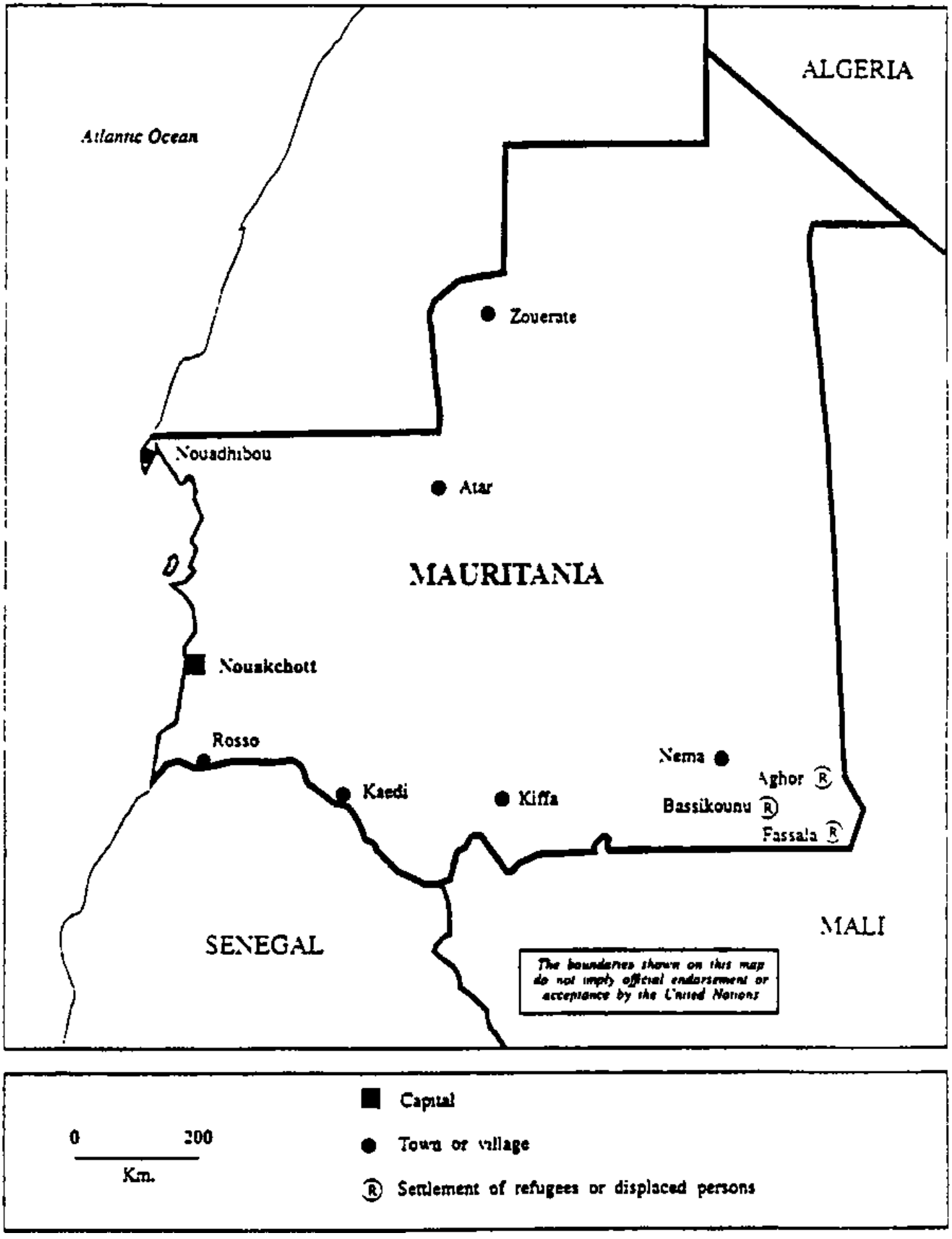
MAP 13. Central African Republic



MAP 15. Burundi

BURUNDI

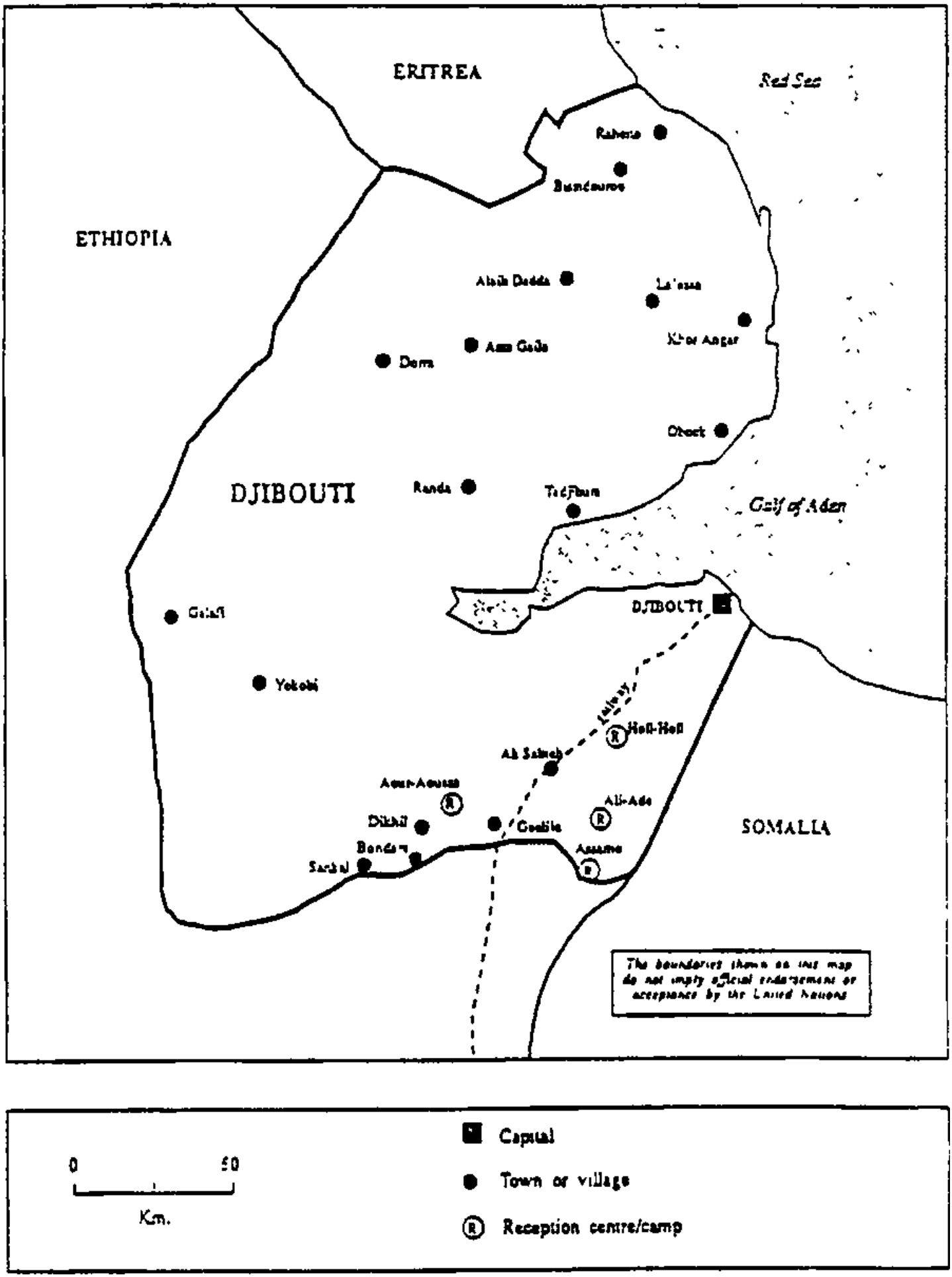
Area	27.834 sq. Km.
Estimated population	5.780.000(1992}
Population density	207.66 per sq. km. (approx.)
Rainy season	December – March



MAP 16. Mauritania/Senegal

MAURITANIA

Area	1.030,700 sq. km.
Estimated population	2.140.000 (1992)
Population density	2.08 per sq. km. (approx.)
Rainy season	July – September



MAP 17. Djibouti

DJIBOUTI

Area	21.783 sq. km.
Estimated population	470.000 (1992)
Population density	21.6 per sq. km. (approx.)

MAP 18. Zambia