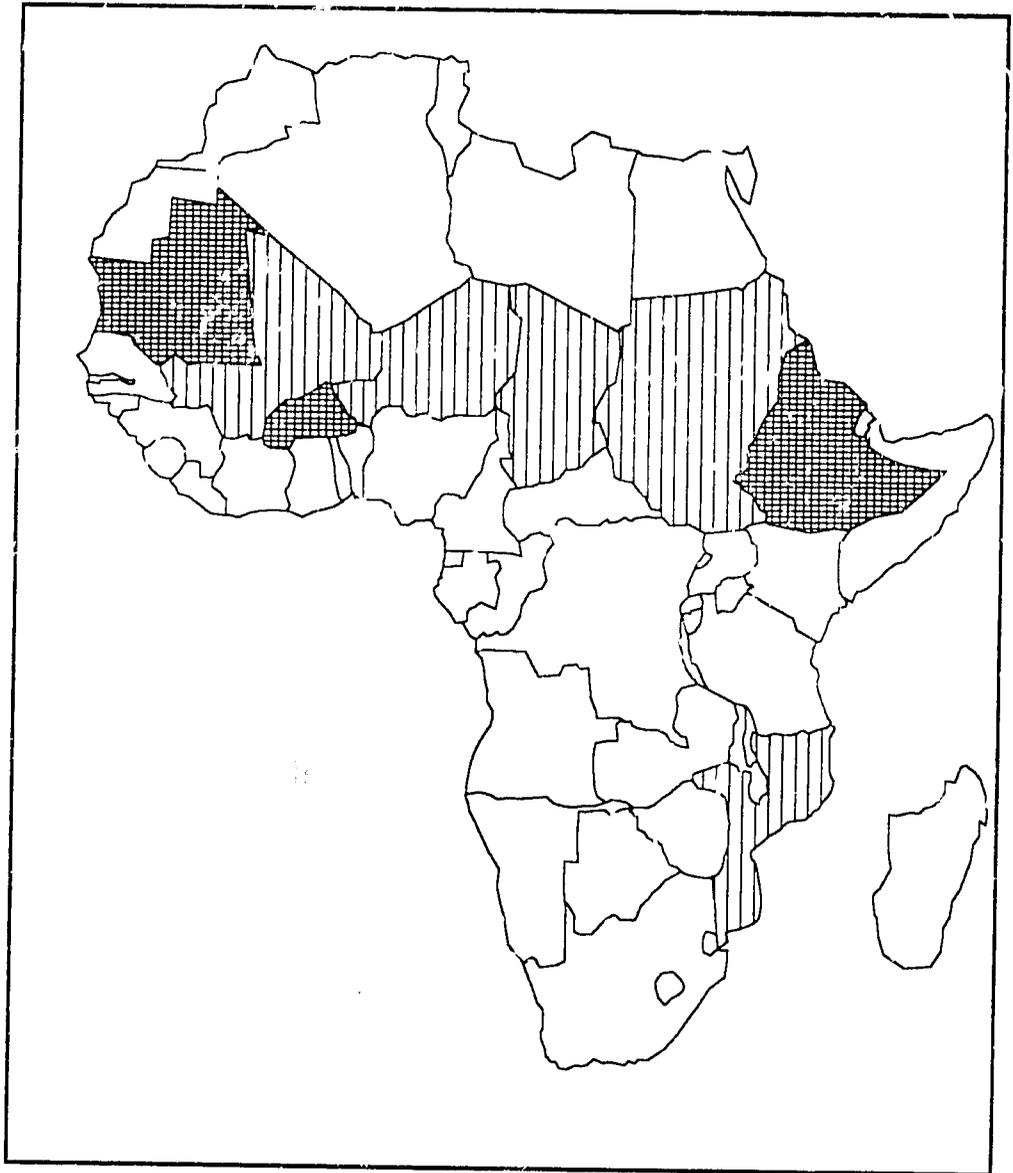


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FEWS Country Reports

BURKINA, ETHIOPIA, and MAURITANIA



Africa Bureau
U.S. Agency
for International
Development

FAMINE EARLY WARNING SYSTEM

This is the nineteenth in a series of monthly reports issued by the Famine Early Warning System (FEWS). Burkina, Ethiopia and Mauritania will be combined in one report until the crop cycle begins again in the Spring. This report is designed to provide decisionmakers with current information and analysis on existing and potential nutrition emergency situations. Each situation identified is described in terms of geographical extent and the number of people involved, or at-risk, and the proximate causes insofar as they have been discerned.

Use of the term "at-risk" to identify vulnerable populations is problematic since no generally agreed upon definition exists. Yet, it is necessary to identify or "target" populations in-need or "at-risk" in order to determine appropriate forms and levels of intervention. Thus for the present, until a better usage can be found, FEWS reports will employ the term "at-risk" to mean...

...those persons lacking sufficient food, or resources to acquire sufficient food, to avert a nutritional crisis (i.e., a progressive deterioration in their health or nutritional condition below the status quo), and who, as a result, require specific intervention to avoid a life-threatening situation.

Perhaps of most importance to decisionmakers, the FEWS effort highlights the process underlying the deteriorating situation, hopefully with enough specificity and forewarning to permit alternative intervention strategies to be examined and implemented. Food assistance strategies are key to famine avoidance. However, other types of intervention can be of major importance both in the short-term and in the long run, including medical, transport, storage, economic development policy change, etc.

Where possible, estimates of food needs are included in the FEWS reports. It is important to understand, however, that no direct relation exists between numbers of persons at-risk and the quantity of food assistance needed. This is because famines are the culmination of slow-onset disaster processes which can be complex in the extreme.

The food needs of individual populations at-risk depend upon when in the disaster process identification is made and the extent of the cumulative impact on the individuals concerned. Further, the amount of food assistance required, whether from internal or external sources, depends upon a host of considerations. Thus the estimates of food needs presented periodically in FEWS reports should not be interpreted to mean food aid needs, e.g., as under PL480 or other donor programs.

FEWS depends on a variety of US Government agencies, private voluntary organizations (PVO's), international relief agencies, foreign press and host government reports as sources of information used in the country reports. In particular, a debt of gratitude is owed to many individuals within various offices of the U.S. Agency for International Development (USAID) who routinely provide valuable information: the offices of Food For Peace and Voluntary Assistance (FFP/FVA) and the Office of Foreign Disaster Assistance (OFDA). Additional useful information is also provided by the Centre Agrhyet in Niamey, the National Oceanic and Atmospheric Administration's National Environmental Satellite, Data, and Information Service (NOAA/NESDIS), the National Aeronautic and Space Administration (NASA), the UN Food and Agriculture Organization (FAO) Global Information and Early Warning System (GIEWS), the World Food Program, and other U.N. agencies.

FEWS is operated by AID's Office of Technical Resources in the Bureau for Africa (AFR/TR) in cooperation with numerous U.S. Government and other organizations. The FEWS Country Reports are working documents of AFR/TR and should not be construed as official pronouncements of the U.S. Agency for International Development.

Famine Early Warning System Country Reports

Burkina

Ethiopia

Mauritania

Prepared for the
Africa Bureau of the
U.S. Agency for
International Development

Prepared by
Price, Williams & Associates, Inc.
January 1988

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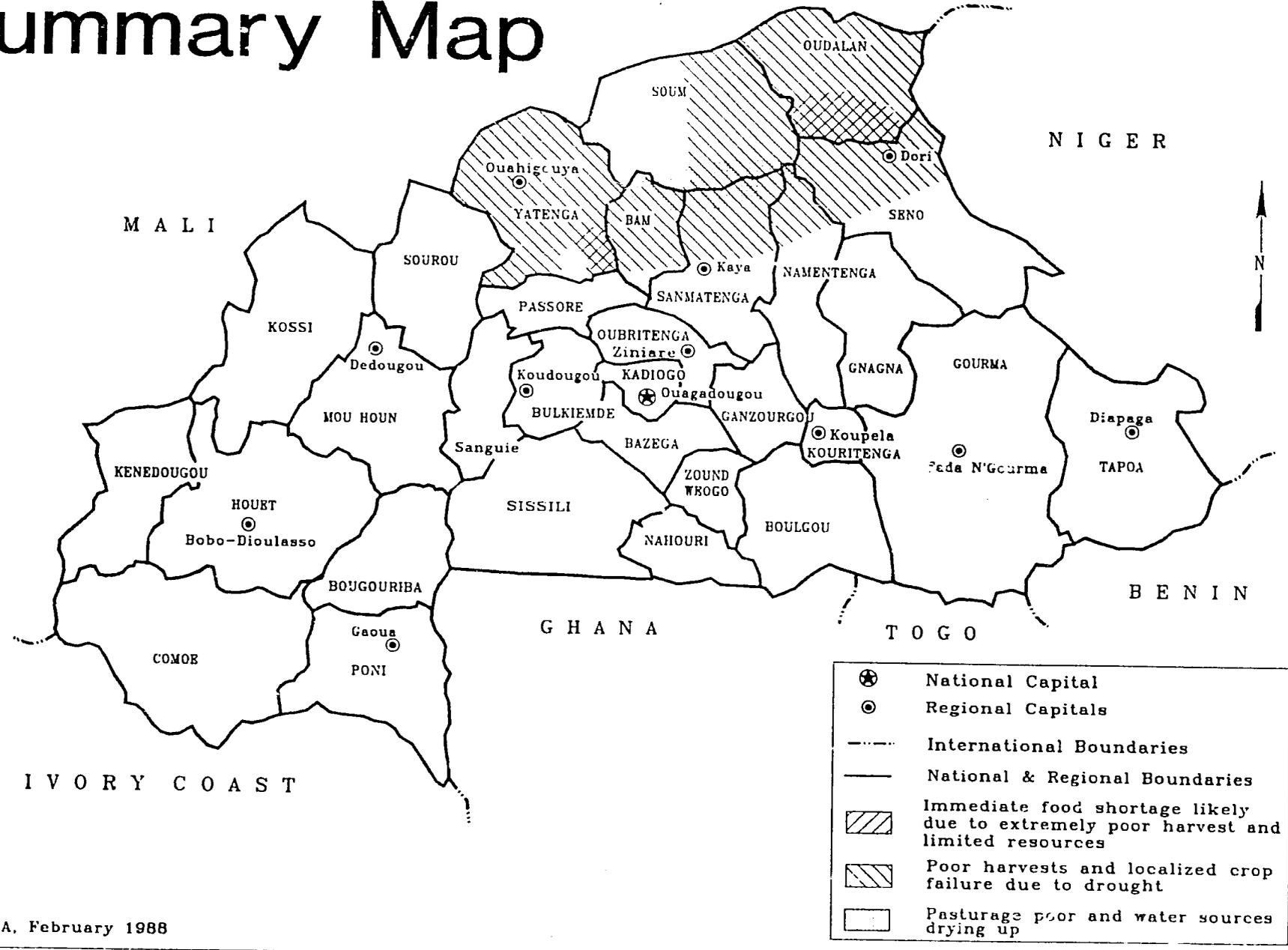
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OVERVIEW

According to the government of **Burkina**, 200,000 people in the north are currently destitute and an additional 1.5 million people may experience food shortages later in the year. Donor aid (16,000 metric tons) plus government stocks in the north should be adequate to meet the immediate needs of the destitute population. The government of **Ethiopia** is reevaluating its estimate of 5.2 million people at risk in 1988; the estimate may increase by one million people. Impediments to inland food aid distribution in Eritrea and Tigray have caused recent deliveries to fall well below established goals. In the absence of further steps to remedy the present situation, the food supply outlook for coming months in these regions grows increasingly dismal. In **Mauritania**, five specific populations, including approximately 110,000 people, have been identified as vulnerable to food crises during 1988. The recent harvest plus commercial and food aid imports should be adequate to meet these needs, but targeting will be necessary to ensure that the vulnerable populations receive sufficient amounts.

Summary Map



BURKINA

Summary

Burkina's 1987 harvest met less than 55% of cereal requirements for the estimated 1.75 million people in the northern provinces (see Map 1). According to the Systeme d'Alerte Precoce, purchasing power there is weak and on-farm stocks are unsubstantial. The Government of Burkina (GOB) reported that the situation in the north is not "catastrophic," but is critical, with an estimated 200,000 people currently destitute and another 1.5 million people at risk of food shortages later in the year. The international donor community has responded to the immediate problem of destitute people by requesting 16,000 metric tons (MT) of food aid imports to reconstitute village cereal banks in the north. These cereals would be sold at affordable prices or distributed for free. In addition to the requested food aid, the GOB National Office of Cereals (OFNACER) currently holds approximately 68,000 MT of cereals, of which 36,945 MT are National Security Stocks. OFNACER stocks in the vulnerable northern provinces total 13,230 MT, of which 2,525 MT are National Security Stocks. Donor aid plus OFNACER stocks in the north should be adequate for the destitute population.

Post-Harvest Review

The GOB estimates that the 1987 harvest plus stocks, imports and food aid fall 158,000 MT short of national cereal needs. This estimate assumes that on-farm stocks and private commercial stocks are nil. USAID/Burkina estimates that these two stock categories total 330,000 MT, which, when added to the 1987 harvest plus imports and food aid, leaves a national surplus of 194,000 MT. However, according to USAID/Burkina, most of the on-farm stocks are found in surplus areas and will probably not be available to deficit regions in the north (see FEWS Report 18).

Request for Emergency Assistance

At a meeting with the international donor community on January 22, the Government of Burkina requested 50,000 MT of food assistance for an estimated 1.5 million people at risk of food shortages and 200,000 people currently "destitute." In response to this request, donors are seeking authorization to import 16,000 MT of cereal for distribution in the north. It is possible that 7,000 MT will be supplied from the Federal Republic of Germany Security Stock held by OFNACER, 3,000 MT may be provided through local purchase of cereals by the Catholic Relief Service, and 6,000 MT might be imported by other donors. USAID/Burkina has recommended that the United States Government (USG) supply 6,000 MT of PL 480 Title II emergency food aid. According to USAID/Burkina, donors hope that the GOB can redistribute cereals from surplus areas to alleviate some of the expected need in the north.

The GOB also requested donors to assist OFNACER in purchasing up to 50,000 MT of cereals under its regular buying campaign. Donors suggested that the GOB convene a meeting to discuss this in the very near future, as a successful buying campaign could help alleviate deficits in the north.

Populations At Risk of Food Shortages Later in 1988

In the provinces mentioned as vulnerable to cereal shortages (Oudalan, Bam, Namentenga, Seno, Yatenga, Sanmatenga, and eastern Soum), the total population is approximately 1.75 million. Even if per capita consumption declined from normal levels¹ to as low as 167 kg/year, cereal requirements for the period February 1 - September 30 would exceed the estimated cereals currently remaining from the 1987 harvest by 146,600 MT (See Table 1.). It is unlikely that any significant food stocks exist in these chronic food deficit areas where, between 1981 and 1987, cereal production met less than 76% of cereal requirements (Oudalan 31%, Seno 48%, Yatenga and Soum 49%, Namentenga 54%, Bam 74%, and Sanmatenga 76%). Other local resources, however, can help to overcome the cereal shortfall. Some income is derived from the gold mines and many people have animal herds. Additionally, as shown on Map 2, OFNACER stocks can mitigate the expected shortages. The 13,230 MT of OFNACER stocks in Dori, Kaya, and Ouahigouya could be delivered to these areas. This suggests that serious cereal shortages could be staved off beyond March (at which time the cereal stocks remaining from this year's harvest would be exhausted), but probably not beyond June, unless additional assistance is provided to the area.

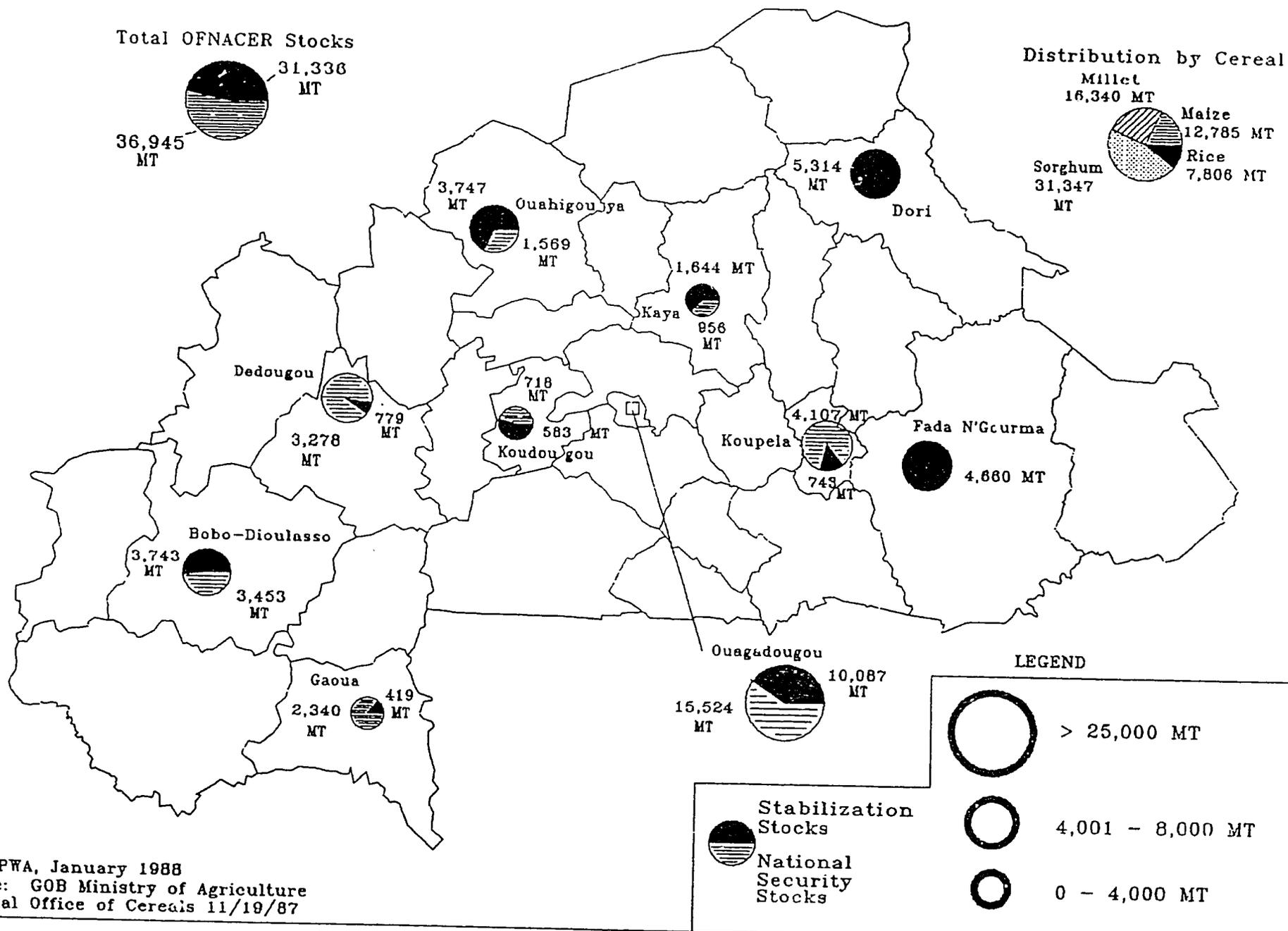
Table 1: Status of Cereal Stocks From 1987 Harvest in Provinces Vulnerable to Food Shortages

Province	(1) Population	(2) 1987 Net Cereal Production	(3) Remaining Cereals as of 1/31/88	(4) Cereals Required From 2/01/88 to 9/30/88	(5) Month Remaining Cereals May Be Exhausted
Oudalan	112,290	4,557	--	12,464	Already Exhausted
Yatenga	546,546	48,055	17,667	60,667	April
Seno	244,351	20,312	6,726	27,123	March
Namentenga	204,887	15,328	3,936	22,742	March
Sanmatenga	382,934	38,776	17,485	42,506	May
Bam	168,566	11,456	2,083	18,711	February
eastern Soum	93,600	5,283	79	10,390	February
Total	1,753,174	143,767	47,976	194,603	March

- 1) Population, projected to March 1988 is derived from the GOB Institute of Statistics and Demography, December 1985 Census.
- 2) Source: GOB Ministry of Agriculture
- 3) Net cereal production minus pro-rated consumption estimated at 167 kg/person/year.
- 4) Pro-rated at a per capita consumption rate of 167 kg/year.
- 5) Does not include income from any other sources (e.g., seasonal labor, animal herds, etc.) or outside assistance, and assumes that on-farm stocks are exhausted.

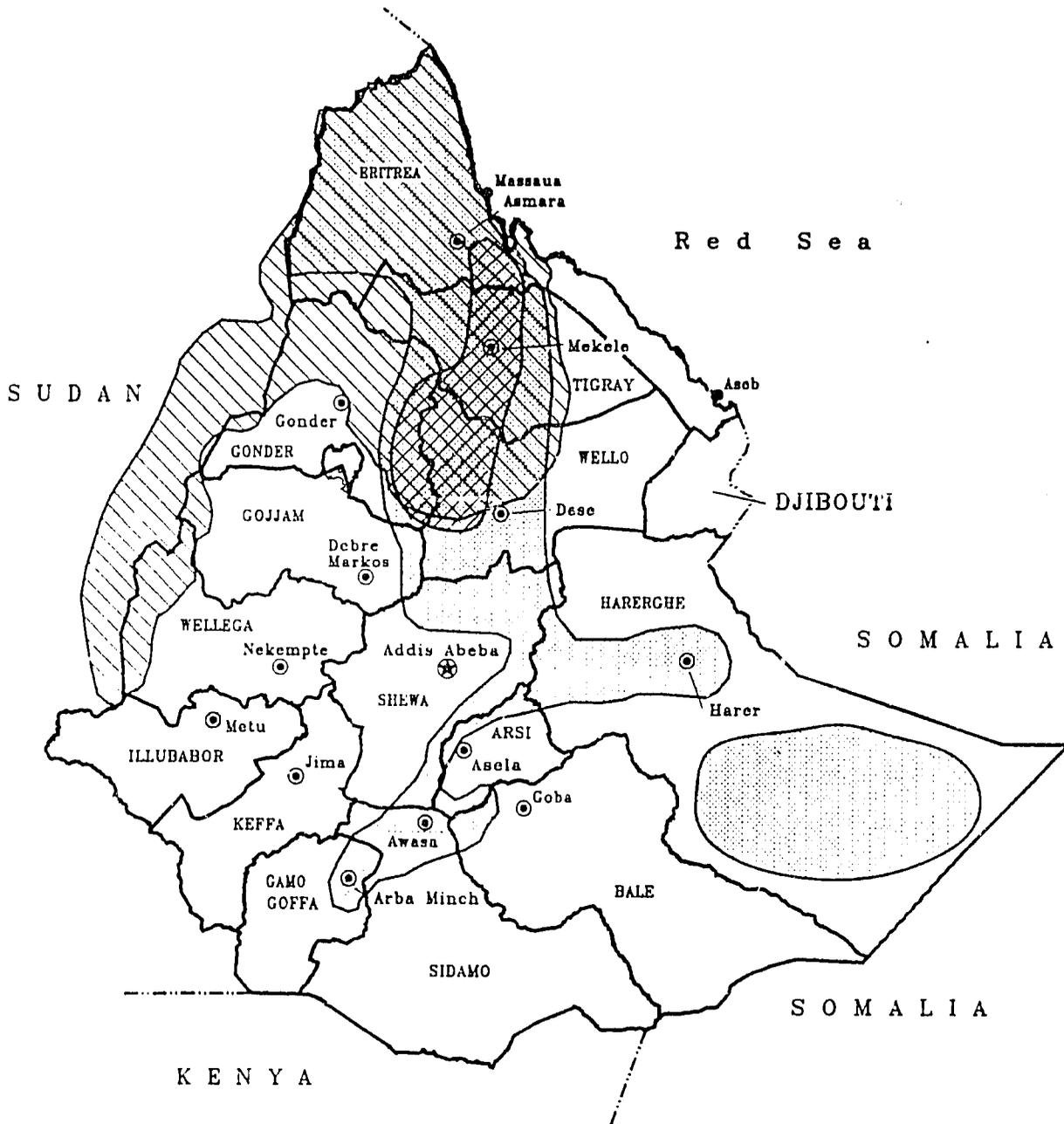
¹According to USAID/Burkina, per capita consumption is 192 kg/year.

Location of OFNACER Stocks



FEWS/PWA, January 1988
 Source: GOB Ministry of Agriculture
 National Office of Cereals 11/19/87

Summary Map



⊗	National Capital
⊙	Regional Capitals
---	International Boundaries
—	National & Regional Boundaries
▨	Immediate and serious food shortages
▩	Insecurity complicates emergency relief operations
□	Food shortages late in 1988

FEWS/PWA, February 1988

Summary

During the last three months, the in-country food aid distribution system (described by one donor as a "hand-to-mouth" operation) has just managed to stay ahead of food needs in Eritrea and Tigray. The Government of the Democratic People's Republic of Ethiopia (GDPRE) and most donors agree that the numbers of people requiring emergency assistance are almost certain to increase each month. Even if the GDPRE and donors are able to ship sufficient emergency food aid into Ethiopia, it is unlikely that enough food can be delivered to key inland distribution points to meet the specified needs in coming months.

Food Need Trends

Based on a World Food Program/Emergency Preparedness and Prevention Group survey of donors, the number of beneficiaries in both Eritrea and Tigray during November and December is estimated to total approximately 1,600,000. When compared with the amount of food distributed during those same months (approximately 10,230 MT and 17,863 MT, respectively), these rough estimates indicate that beneficiaries received an average of 10.3 kilograms of relief food in November and 11.3 in December, well below the Ethiopian Relief and Rehabilitation Commission (RRC) target of 15 kgs per person per month. These rations were, in many cases, supplemented by family food reserves that will be rapidly exhausted. Current estimates of the total amount of food aid required for only Eritrea and Tigray (beginning in March 1988) range from 36,000 MT to 55,000 MT per month, or well above current delivery rates.

The RRC is in the process of re-evaluating the number of people that it judges will be at risk in 1988, based upon experiences during the last three months of emergency distributions. Indications suggest this estimate may increase by as much as one million people over the previous estimate of 5,214,000. A rise in the estimated population at-risk in Tigray will account for most of the increase.

Donor Response

Donor pledges had risen to approximately 640,000 MT as of January 29, 1988 (the RRC estimated a 1988 emergency food requirement of 1,046,719 MT in November 1987). If one adds the 1987 carry-over stocks, and 1988 arrivals of 1987 pledges of emergency food to the confirmed and unconfirmed 1988 pledges, an uncovered emergency food aid deficit of 366,061 MT remains. (If the recent pledge of 250,000 MT by the U.S.S.R. is confirmed, this shortfall would, of course, be drastically reduced.)

Deliveries of Food Aid

Even if enough emergency food aid to meet all 1988 needs were somehow delivered to the three major ports serving Ethiopia, it is unlikely that it could be distributed to its intended beneficiaries in time to prevent suffering and dislocation. Although emergency pledges do not yet match needs, port storage facilities are already reaching capacity. Both Massawa and Asseb are reported to be experiencing problems off-loading imported food as fast as it arrives.

Massawa could surpass its storage capacity early in February. Donor pledges and deliveries of new trucks are proceeding, but the current number of trucks is insufficient to meet requirements. With the January 13th attack on a convoy still fresh in mind, the GDPRE insists on "protecting" convoys by arbitrarily closing main roads, further slowing the delivery of relief supplies over the road. The airlift is already at capacity, delivering approximately 12,000 MT per month to Tigray.

El Nino and Ethiopian Rains in 1988

Advances in meteorology may eventually help forecast rain in Ethiopia, but not in time to help predict the amount of rain to be received during the upcoming short rainy season. The El Nino/Southern Oscillation (ENSO), a recurring pattern of sea-surface warming and atmospheric pressure anomalies in the Pacific Ocean, has been shown to be related ("teleconnected") to weather events in a number of other areas in the world. Taking part of its name from its characteristic appearance near Christmastime (birth of the Christ Child, or El Nino), the typical ENSO lasts a little over a year, and reoccurs generally every two to seven years. Prior to, and during an ENSO event, warm tropical waters, winds, storms, and atmospheric pressure zones move from their usual geographic locations. When this happens, some normally dry areas in the world receive abnormally high amounts of rain, and some wet areas receive much less rain than usual.

In Africa, the relationship between the ENSO and rainfall appears to be strongest in two core areas: southeastern Africa (Mozambique, Zimbabwe, Zambia, Botswana, and parts of Angola, Madagascar, and South Africa) and eastern equatorial Africa (Kenya, Uganda, Burundi, Rwanda, and Tanzania). In southeastern Africa, the ENSO event generally precedes a poor November-to-May rainy season, while in eastern equatorial Africa, higher than normal rains may occur during that same period. The relationship between the ENSO and weather in these regions is strong enough that the presence of an El Nino/Southern Oscillation pattern provides weather forecasters with some new information about the probability of season-long weather trends for these parts of Africa. Nevertheless, the linkage is not strong enough, and not well-enough understood, to allow one to generate short-term, or individual rain station forecasts. Additionally, ENSO events sometimes do not, inexplicably, significantly influence the weather patterns in this part of the world.

The linkage between the El Nino/Southern Oscillation pattern and weather events outside of the core areas in southeastern and eastern equatorial Africa is not as apparent. An ENSO linkage with southwestern Ethiopia has been suggested in recent meteorological studies, but the sparsity of historical rainfall data has not permitted a detailed examination of its strength. Work in progress in the Ethiopian National Meteorological Services Organization (NMSO) may partially change this situation, and it appears that an unpublished study of ENSO-related weather events formed the basis for an NMSO forecast of the 1987 rainy seasons in Ethiopia.

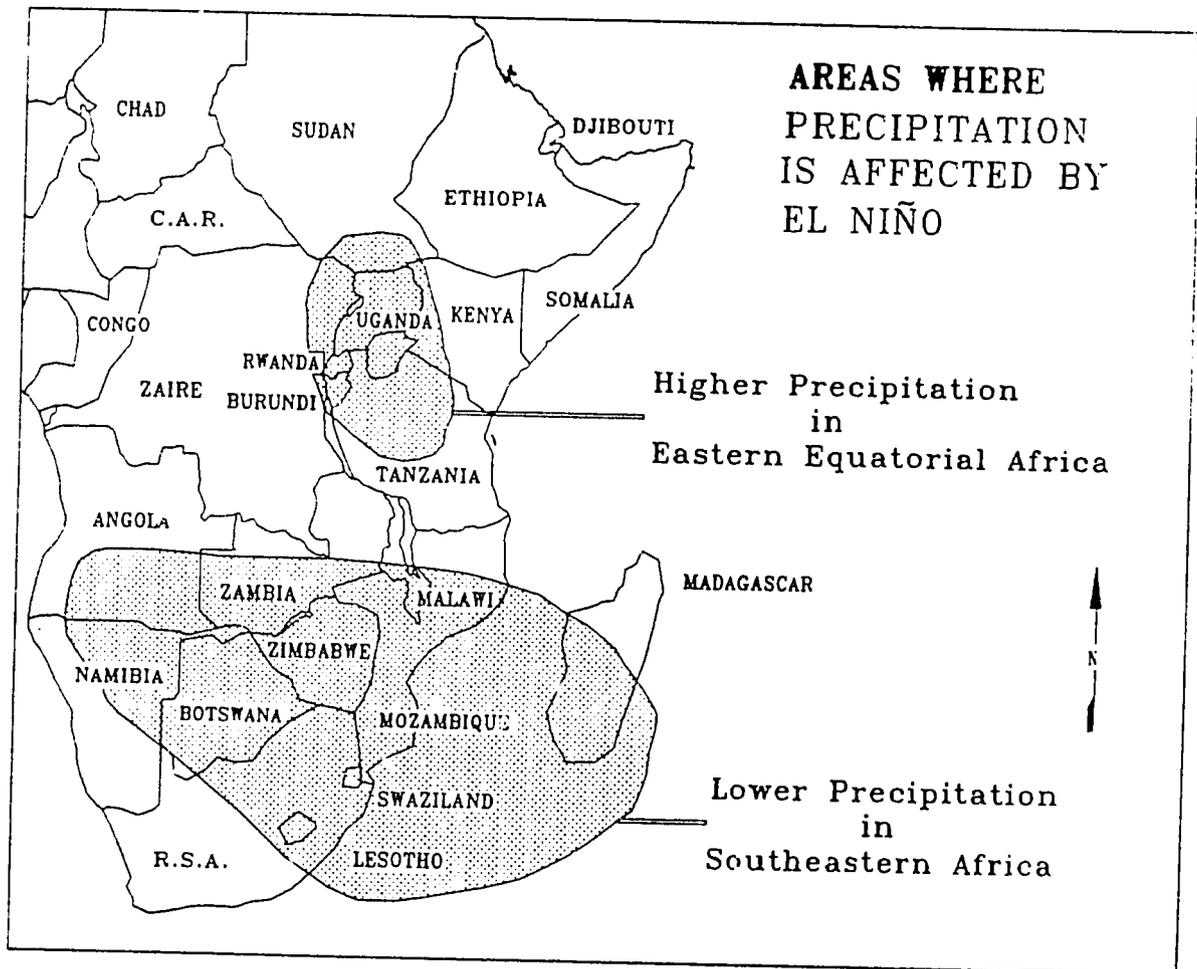
Unless the NMSO work proves otherwise, the El Nino/Southern Oscillation will provide little help in forecasting the likely outcomes of either of the two major 1988 Ethiopian rainy seasons for three reasons: (1) there is still only a superficial understanding of how the ENSO event actually generates changes in the

precipitation of the affected areas, (2) the teleconnection between the ENSO and Ethiopian weather is not as clear as elsewhere in Eastern Africa, and (3) the current El Nino/Southern Oscillation (which began in late summer and early Fall of 1986, and has continued through mid-January 1988) has displayed a number of variations in its usual behavior that make it very difficult to interpret for potential impact on 1988 rains in Ethiopia.

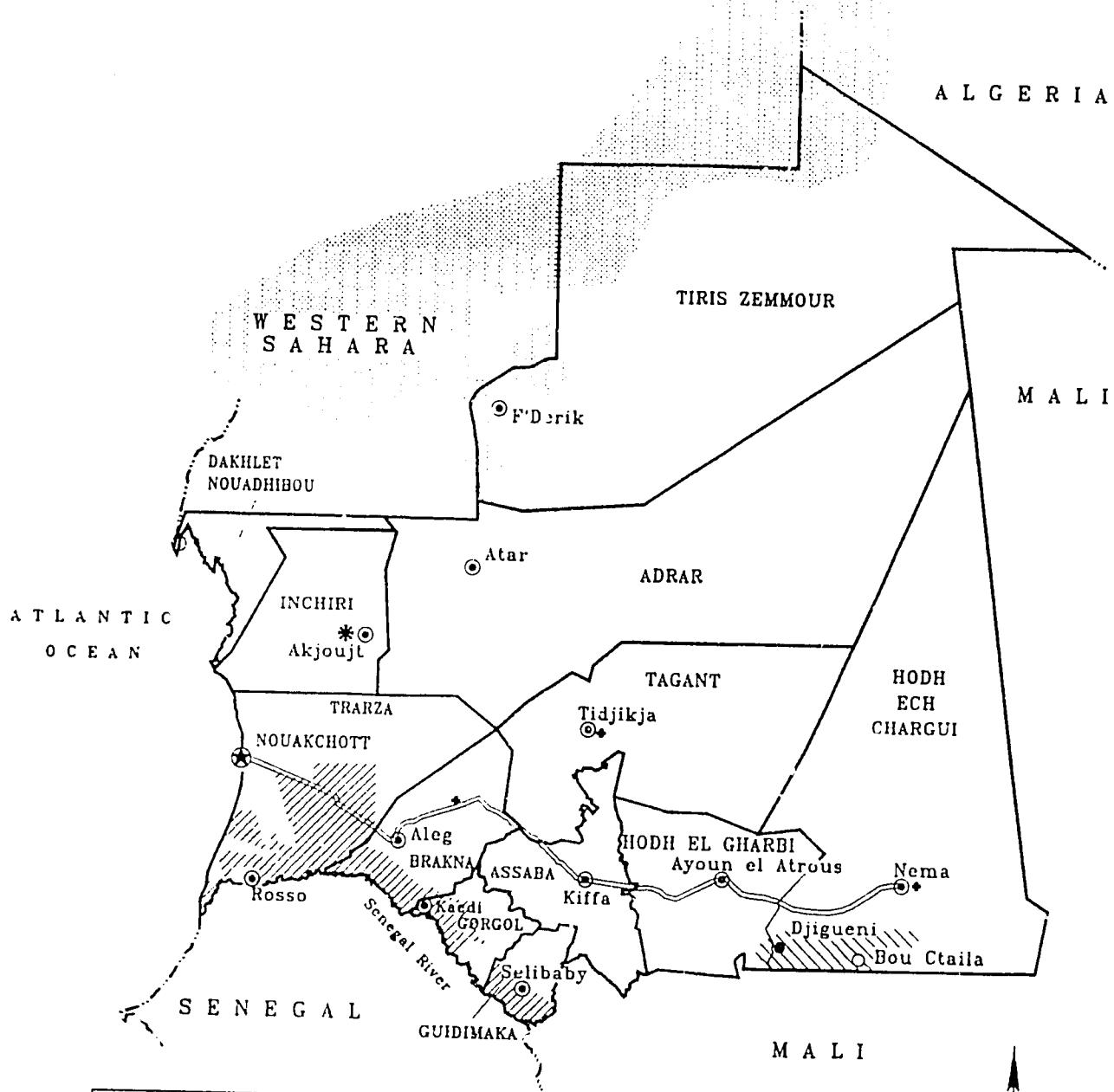
Conclusions and Consequences

The outlook for coming months is very pessimistic. Even if sufficient emergency food were made available, timely distributions to those who need it would be difficult to assure. Only massive new commitments for new truck deliveries and GDPRE adherence to an "open roads" policy could measurably improve, although not completely resolve, the current problems. If the Spring "belg" rainy season brings poor rains, large parts of Wello and Shewa Regions could require food aid beyond the amount now programmed. The coming months will almost certainly see a rise in the number of people (5,214,000) requiring assistance in Eritrea, Tigray, Wello, Harerghe and Shewa, and increasing problems in meeting their needs.

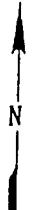
Map 4: Ethiopia



Summary Map



⊗	National Capital
⊙	Regional Capital
●	Department Seat
○	Arrondissement Seat
---	International Boundaries
—	National & Provincial Boundaries
—	Road
▨ *	Areas of highest vulnerability
▨ ♦	Vulnerable areas
□	Potential pasture



MAURITANIA

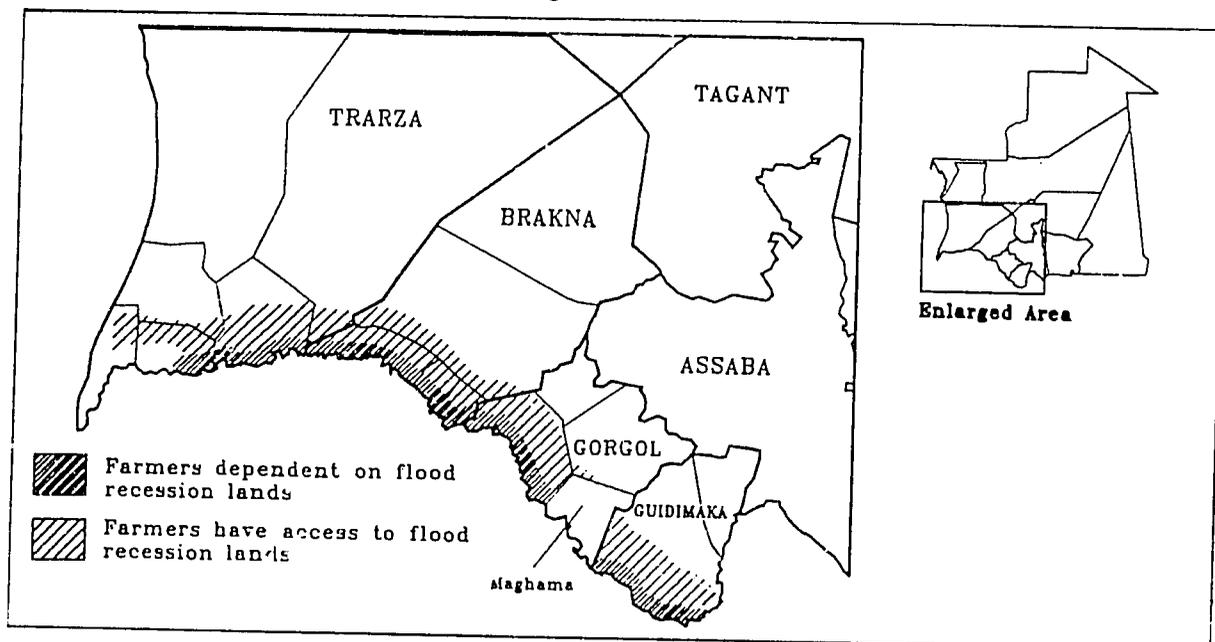
Summary

FEWS/Mauritania has identified and quantified four specific populations vulnerable to food crisis during the coming year. By degree of severity, these populations are: 60,000 flood recession agriculturalists along the Senegal River; the 11,290 inhabitants of Akjoujt Town, Inchiri Region; 28,000 people in southwestern Hodh ech Chargui Region; and about 10,000 children formerly enrolled at recently closed CRS¹ feeding centers. A fifth population that already exhibits signs of food crisis is the villagers in southern Trarza Region, where more than 10 percent of the children are severely malnourished. With this year's estimated cereal harvest of 107,000 MT, in-country stock of 92,100 MT, and estimated commercial and food aid imports of 155,900 MT, there will be sufficient food available to meet the country's food needs. Targeting of food aid will be necessary, however, to address the food needs of vulnerable populations. A joint CSA/FAO/FEWS/UNDP/USAID/WFP mission to assess the food security situation was carried out during January. Pastoralists began moving their camel herds into Tiris Zemmour Region in December, where pasture conditions are favorable for the first time since 1958.

Senegal River Flood Recession Agriculture

The Senegal River failed to flood downstream of Kaedi during the 1987 growing season. While pump-fed irrigation was possible, flood recession agriculture² was effectively prevented. Flood recession agriculture is the prime source of cereals for approximately 60,000 villagers living within 10 kilometers of the

Map 6: Mauritania, Flood Recession Agriculture



¹ Acronyms used in this report include AID (US Agency for International Development), CRS (Catholic Relief Services), GIRM (Government of the Islamic Republic of Mauritania), CSA (GIRM Food Security Commission), FAO (UN Food and Agriculture Organization), FEWS (AID's Famine Early Warning System), PVO (Private Voluntary Organization), UNDP (United Nations Development Program), and USAID (AID's Mauritania Mission).

² In flood recession agriculture, crops are planted in soil left moist by receding river levels.

Senegal River. These people do not grow irrigated crops, and it is not clear whether their incomes are sufficient to purchase irrigated crops grown by others. While the situation could be somewhat alleviated by on-farm stocks left from last year's reasonably good harvest and remittances from off-season labor in Senegal, Nouakchott, and nearby towns, food aid in excess of the amount usually distributed will probably be required in this area.

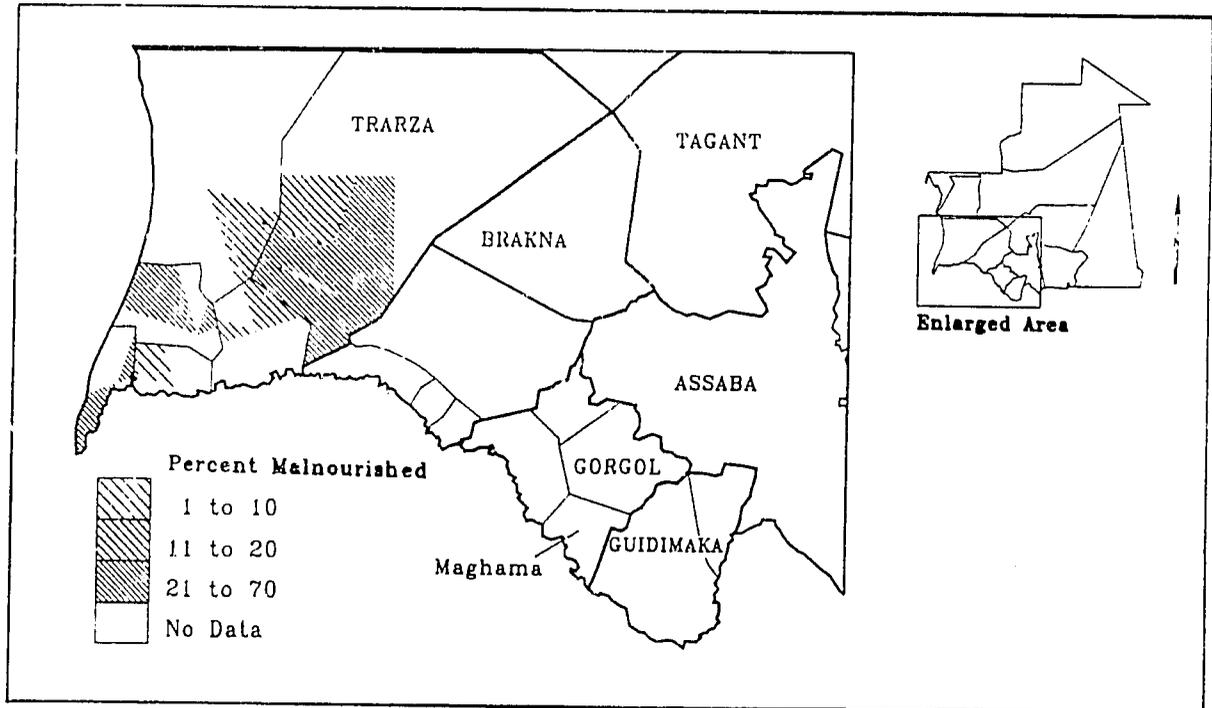
Villagers living as far as 40 kilometers from the Senegal River have access to flood recession lands (Map 6). People in these more distant areas may have other sources of food or income than just flood recession agriculture, yet they should still be monitored through the next rainy season to assure that they have sufficient access to food to prevent a nutritional crisis.

Villagers along the Senegal River west of Rosso depend mainly on irrigated crops, and so were not as affected by the lack of flooding. A second area buffered from the lack of flood recession crops is Maghama Department, Gorgol Region, where there was enough rainfall to allow a rainfed harvest.

Nutrition

Nutrition surveys carried out during September and October of 1987 discovered high rates of malnutrition¹ in 55 out of 62 villages surveyed in Trarza Region. Food aid was distributed in Trarza Region during October 1987, but the 55 villages, as well as villages in areas of Trarza that were not surveyed, will require further monitoring to assure that the amount of aid distributed was sufficient.

Map 7: Mauritania, Nutrition



¹"High rate" is defined here as "10% or more of the children measured are malnourished," which is the threshold used for food aid intervention in many Sahelian countries. In the case of the Trarza surveys, more than 20% of the children were malnourished in 39 (63%) of the 62 villages surveyed.

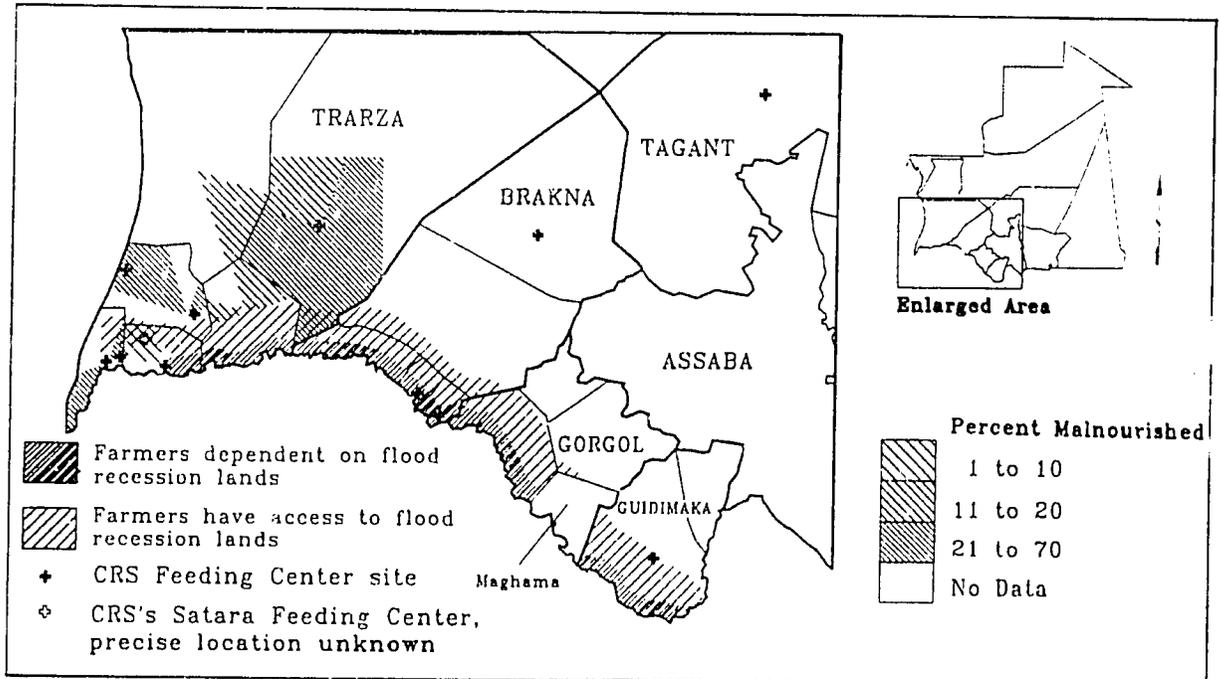
The rate of severe malnutrition among children enrolled at the Catholic Relief Services (CRS) feeding center in Akjoujt Town has increased fairly consistently over the past two years, signalling deteriorating nutrition among the town's children (although the actual level of malnutrition in the town cannot be determined from this information). Akjoujt Town has been economically depressed over much of this same period; a major source of income in the area was a copper mine that has been closed for over a year. While there was a generous distribution of food aid here during 1987 (given by Saudi Arabia), the aid appears to have had little effect on the nutritional status of the children enrolled at the CRS feeding center, which closed in November 1987. This town requires monitoring to determine if further, targeted food aid is needed.

CRS has ended its nutrition program of seven years duration in Mauritania, closing five centers in Nouakchott and 14 feeding centers in the rest of the country (those shown on Map 8 plus centers at Nema and Akjoujt). The feeding center program treated seriously malnourished children between six months and five years of age. The DOULOS Community (a United States PVO) is picking up the five centers in Nouakchott, but approximately 10,000 malnourished children have lost a source of supplemental food.

Pest Damage

During the Fall, grasshoppers caused severe localized crop damage in the area of Djigueni and Bou Ctala in southwestern Hodh ech Chargui Region (Map 5). While losses were important, this area had a very good harvest in 1986. On-farm stocks and remittances from off-season labor in Mali and nearby towns should prevent a food emergency in this area, but the people here will require monitoring during the next growing season. About 28,000 people were affected by crop loss in 1987.

Map 8: Southwestern Mauritania



Conclusions

Of the vulnerable areas outlined above, southwestern Mauritania is at the highest risk of food crisis. There, high rates of malnutrition signal an area that is already stressed, and the failure of flood recession agriculture places further environmental stress on the population. The closing of long-standing feeding centers removes a source of aid on which some populations had probably come to depend. This area was among those visited by the GIRM/multi-donor mission to assess food security, and so will probably be targeted for increased aid.

On-farm stocks and the availability of off-season labor lighten the stress caused by crop loss in the Djigueni-Bou Ctala area (southwestern Hodh ech Chargui Region). The degree of nutritional stress in Akjoujt Town, although increasing, is an unknown quantity. Further study is required to understand the situation there.