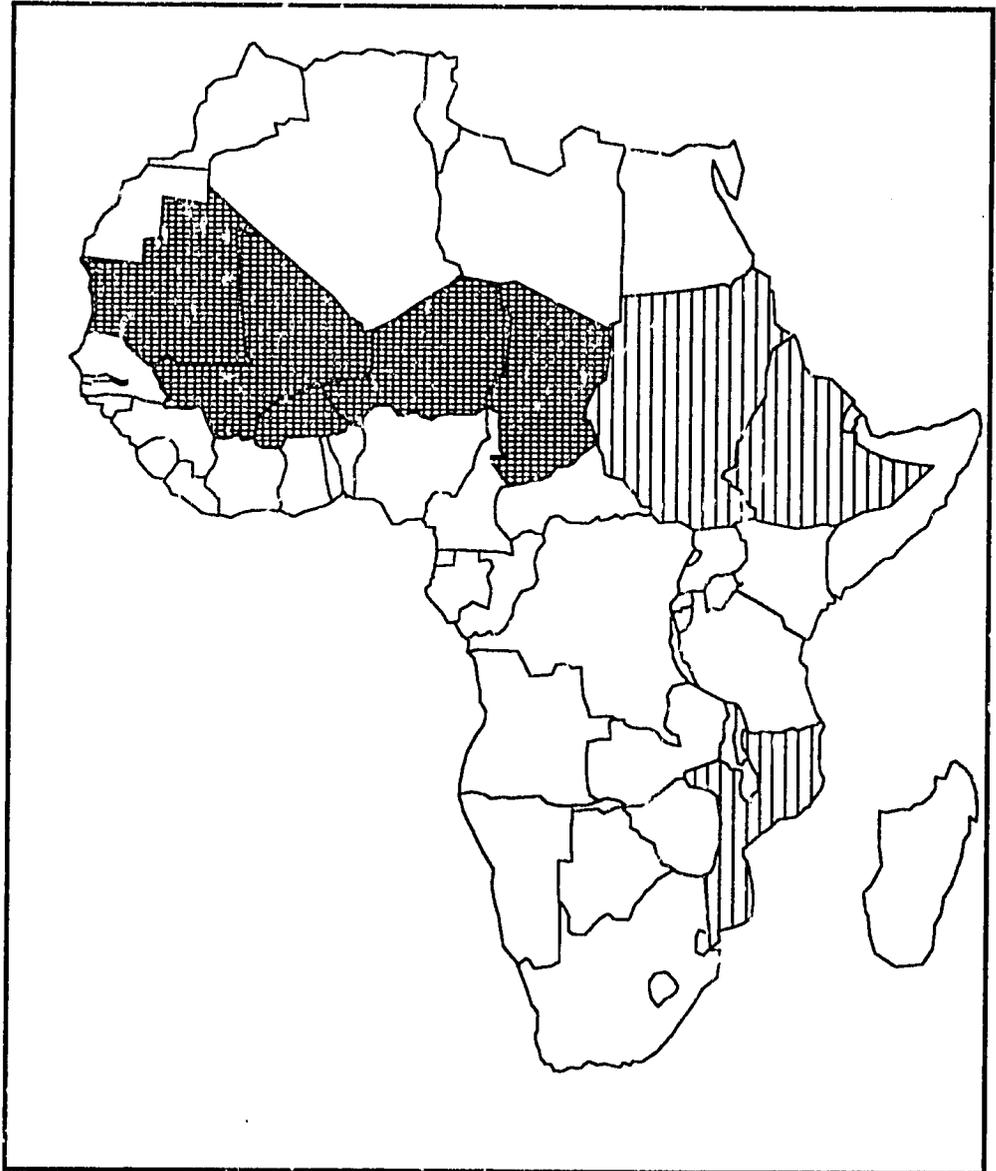


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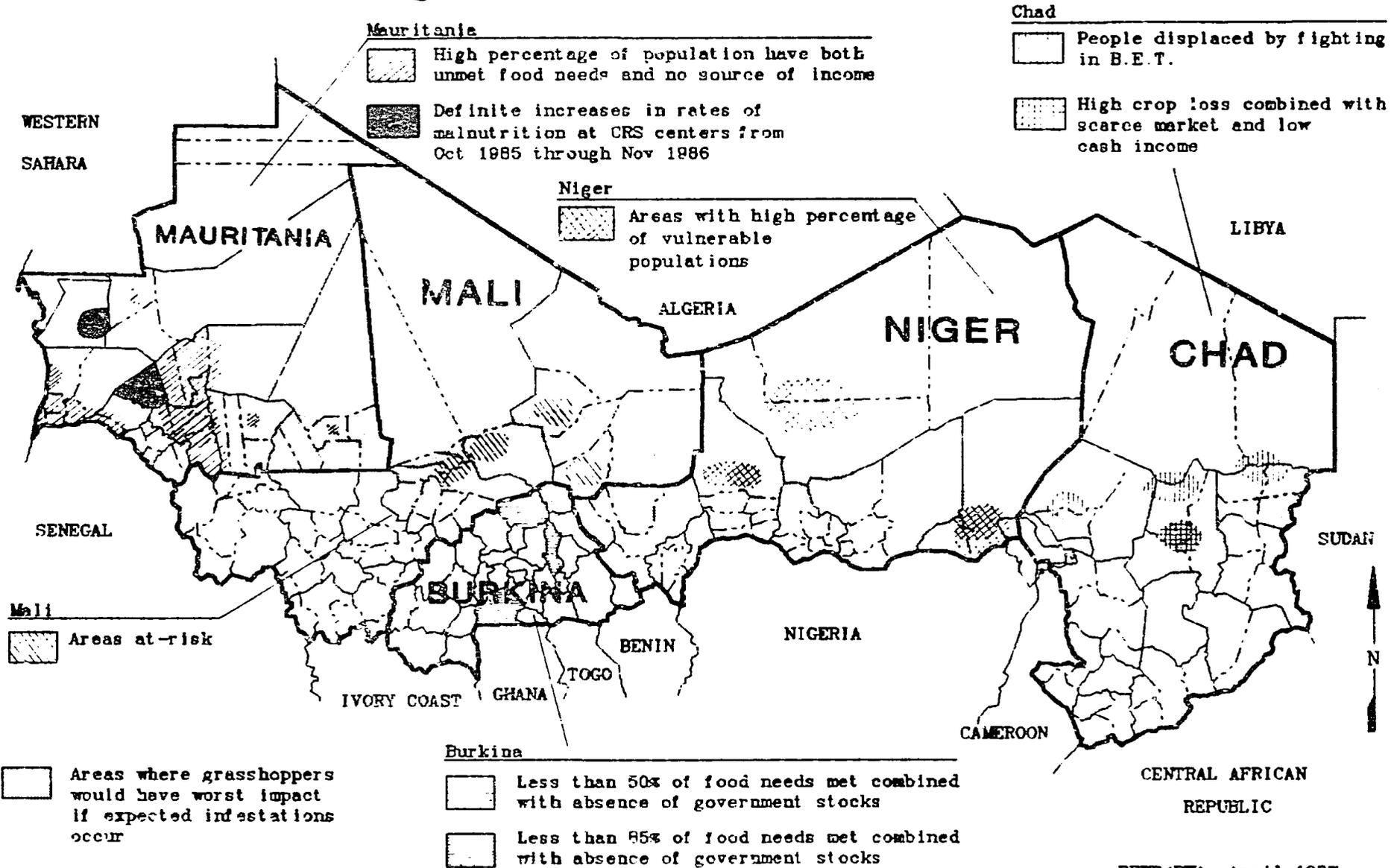
# FEWS Country Report

## BURKINA, CHAD, MALI, MAURITANIA, and NIGER



Africa Bureau  
U.S. Agency  
for International  
Development

# Summary Map



FEWS/PWA. April 1987

BURKINA

CHAD

MALI

MAURITANIA

NIGER

Populations Under Duress

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

Prepared by  
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April 1987

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## INTRODUCTION

This is the tenth in a series of monthly country reports issued by the Famine Early Warning System (FEWS). Burkina, Chad, Mali, Mauritania, and Niger will be combined in one report until the crop cycle begins again in the spring. These reports are designed to provide decisionmakers with current information and analysis on existing and potential nutritional emergency situations. Each situation identified is described in terms of geographical extent, the number of people involved, or at-risk, and the proximate causes insofar as they have been discerned. Information sources are cited in the text. Information has, whenever possible, been presented in the form of quantified data. When quantified data do not exist, qualitative data are used.

Use of the term "at-risk" to identify vulnerable populations is problematical 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, 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 process underlying the deteriorating situation is highlighted by the FEWS effort, hopefully with enough specificity and forewarning to permit alternative intervention strategies to be examined and implemented. Food assistance strategies are key to famine avoidance. Other types of intervention, however, 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 *a priori* relationship exists between numbers of persons at-risk and the quantity of food assistance that may be needed. This is because famines are the culmination of slow-onset disaster processes which can be extremely complex.

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

FEWS does not collect primary data. Rather, it receives information from various domestic U.S. and international agencies and private voluntary organizations, and from government agencies in the countries under study via in-country FEWS Public Health Advisors. The information is then examined, compiled and analyzed for its predictive potential. Without the ongoing cooperation of all these organizations, FEWS could not function.

In particular, this report owes a debt to various offices of the US Agency for International Development (AID), USAID/Ouagadougou, USAID/N'Djamena, USAID/Bamako, USAID/Nouakchott, and USAID/Niamey; the Government of Burkina (GOB) Ministry of Agriculture and National Cereal Marketing Board (OFNACER); the Government of Chad (GOC) Ministry of Food Security and Displaced Persons (MSAPS), and the multi-agency Food Aid Action Committee (CASAD); the Government of the Republic of Mali (GRM) Committee for Aid to the Victims of the Drought (CNAVS) Systeme d'Alerte Precoce (SAP, Early Warning System); the Government of the Islamic Republic of Mauritania (GIRM) Commission for Food Security (CSA); the Government of Niger (GON) Office of Food Products (OPV); UNICEF and the UN Food and Agriculture Organization (FAO); the European Agency for Development and Health (AEDES); and Catholic Relief Services (CRS), Doctors Without Borders (MSF), World Vision (WV), CARE, and OXFAM.

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FEWS is operated by AID's Office of Technical Resources in the Bureau for Africa in cooperation with numerous USG and other organizations.

## SUMMARY

While **Burkina** as a whole has sufficient production and stocks in-country to meet its people's needs, there are still areas which lack sufficient food grains. In particular, Soum, Sissili, Oudalan, and Namentenga Provinces\* lack both sufficient harvest and government stocks to meet provincial needs. In **Chad**, the number of people confirmed to require food assistance this spring remains 13,000. Further assessments of previously identified potentially at-risk populations in two areas have shown the local economy to be strong enough for traditional coping mechanisms to be effective. There is no new word on the 5,000 refugees due to return to Chad from Maiduguri, Nigeria, but there has been a marked increase in the flow of refugees from Sudan. This will put pressure on Chad's new UNHCR office to open its east Chad office quickly. The number of people displaced by the fighting in B.E.T. Prefecture is growing, but so far the relief supplies in place are more than enough to meet their needs. The situation in **Mali**, in terms of population at-risk, has not changed over the past two months. People continue to leave some parts of Gao and Tombouctou Region in search of work and more certain food supplies in Gao Town. Food aid distribution has begun in Gao Region. At least 37 percent of **Mauritania's** population have neither cereal crops nor cash income with which to purchase foods. These people will have to depend on non-cereal foods, stocks of food from previous years (if any), and food aid through this next growing season. In **Niger**, there has been no recent change in the number of people identified as at-risk by the Government of Niger (approximately 715,000 people, 10.3% of the population). Trends in millet prices support other indicators that suggest that no major food supply problems currently exist in Niger.

## Issues

- In **Mauritania**, a disquieting increase in child malnutrition rates has been seen at some feeding centers (through November 1986). If the increasing rates of malnutrition have continued through the harvest season, especially where rates of child malnutrition are already high (e.g., Brakna Region), these areas will require additional attention from the government and the donor community.
- Rat infestations are reported in **Chad** and **Mali**. These pests cause at least as much damage to crops as

\* The administrative units in Burkina are Provinces, Departments, and Arrondissements; in Chad, Prefectures, Sub-prefectures, and Cantons; in Mali, Regions, Cercles, and Arrondissements; in Mauritania, Regions, Departments, and Arrondissements; and in Niger, Departments and Arrondissements.

grasshoppers, starting at the beginning of the growing season. The problems of rat control should not be overlooked in the attention paid to grasshopper and locust control.

### **Key Events**

- The rainy season will begin during April in the southernmost areas of **Chad and Burkina**.
- Plans for grasshopper control are close to completion in each country. For control campaigns to begin on time, the necessary commodities must already have been ordered, and should arrive during April.

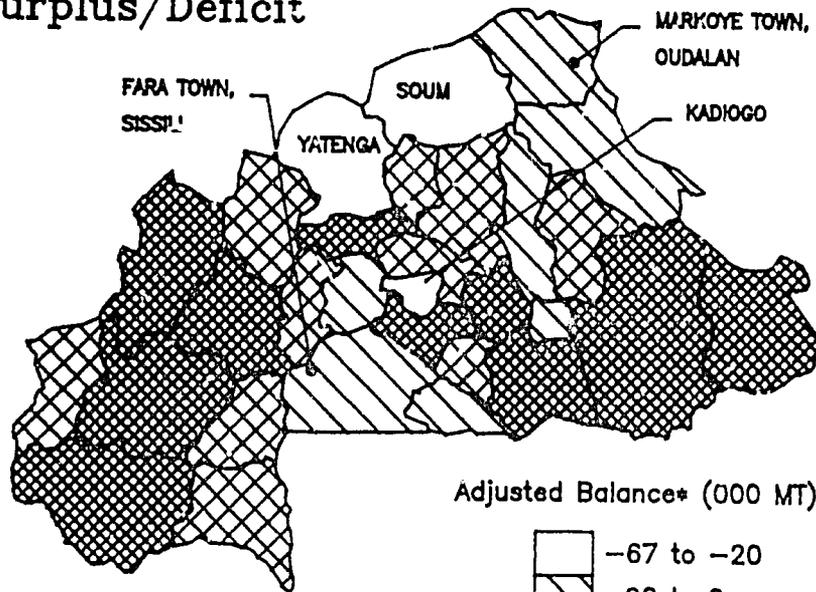
### **BURKINA Cereal Production**

The 1986 harvest, coupled with current OFNACER stocks, meets 105.4% of Burkina's food needs. The distribution of the cereals harvest and OFNACER stocks, however, is not uniform across all provinces. Burkina's immediate concern will therefore be to distribute cereals from surplus to deficit areas. In particular, Soum, Oudalan, Namentenga, and Sissili Provinces, which have significant food deficits (see FEWS Report 9 for a detailed accounting), do not have any pre-positioned OFNACER stocks (Map 2, Table 1).

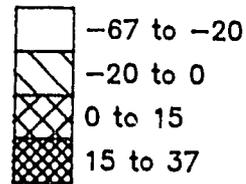
Soum Province, with a deficit of 20,300 metric tons (MT), and Oudalan Province, with a deficit of 11,400 MT, are more vulnerable than Namentenga and Sissili Provinces. Both have very poor local production and no neighboring provinces with surpluses. The scarcity of grain is shown by prices for millet and white sorghum (in Markoye Town, Oudalan Province), between November 1 and January 9, which were twice as high as in 25 other provinces. In contrast, prices for these grains in Sissili Province (Fara Town), surrounded by provinces with cereal surpluses, were among the lowest in Burkina. Namentenga Province, bordering on Sanmatenga and Kouritenga Provinces, does not have access to the latter provinces' overflow OFNACER stocks, as the stocks are necessary for satisfying those provinces' own needs. Food to supply Namentenga Province could possibly be purchased and moved from nearby Gourma Province, which is experiencing an overall grain surplus. Even if the food deficit in Sissili and Namentenga were reduced through normal market channels, people with few resources would still need assistance.

Burkina will have to move large amounts of food to shift its surplus grains into deficit areas. The main problem is one of inadequate funds for distribution and inadequate storage facilities both to maintain supplies and

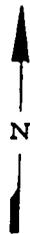
### Food Surplus/Deficit



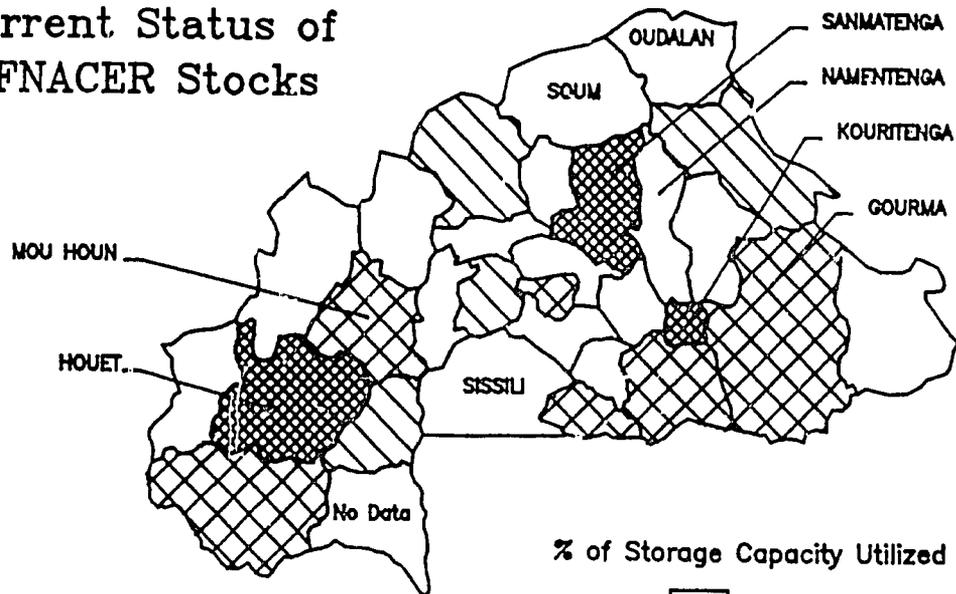
Adjusted Balance\* (000 MT)



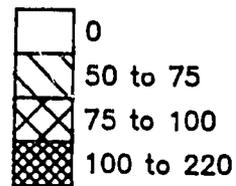
\* Adjusted balance is the cereal balance plus OFNACER stocks



### Current Status of OFNACER Stocks



% of Storage Capacity Utilized



Source: Stocks - OFNACER;  
 Food Surplus/Deficit - GOB MINAG; OFNACER;  
 GOB census pro-rated FEWS/PWA, February 1987—  
 see FEWS report 9

FEWS/PWA, March 1987

**Table 1: Burkina, Production and OFNACER Stocks**

Province	1986			OFNACER Storage Capacity (000 MT)	% Of Needs Met
	Estimated Net Cereal Production <sup>1</sup> (1000 MT)	Cereal Balance <sup>2</sup> (000 MT)	OFNACER Stocks <sup>3</sup> (000 MT)		
Bam	38.5	5.8	0.0	3.6	117.6%
Bazega	79.7	17.4	0.0	0.1	127.8%
Bougouriba	48.2	3.4	3.0	4.6	114.4%
Boulgou	96.5	14.9	2.6	3.4	121.4%
Bulkiemde	64.7	-7.6	2.2	3.3	92.5%
Comoe	64.3	13.4	1.9	2.0	130.0%
Ganzourgou	56.5	16.7	0.0	0.4	141.9%
Gnagna	51.0	4.3	0.0	0.9	109.1%
Gourma	91.2	31.1	5.5	6.3	160.9%
Houet	132.6	11.0	11.5	6.8	118.5%
Kadiogo	8.2	-90.7	23.8	24.4	32.4%
Kenedougou	40.4	12.1	0.0	0.5	142.7%
Kossi	84.9	17.2	0.0	0.4	125.5%
Kouritenga	31.3	-8.5	2.8	1.8	85.6%
Mou Houn	75.6	16.5	10.2	10.4	145.1%
Nahouri	16.9	-4.4	1.3	1.7	85.5%
Namentenga	32.7	-6.9	0.0	1.3	82.7%
Oubritenga	60.8	0.4	0.0	0.1	100.7%
Oudalan	10.2	-11.4	0.0	2.2	47.3%
Passore	65.8	21.3	0.0	0.7	147.8%
Poni	49.8	2.8	4.6	-	115.7%
Sanguie	47.9	4.6	0.0	0.4	110.6%
Sanmatenga	73.6	-0.5	3.2	2.9	103.7%
Seno	25.0	-22.3	3.2	4.8	59.6%
Sissili	41.7	-9.3	0.0	0.3	81.8%
Soum	19.1	-20.3	0.0	4.2	48.5%
Sourou	56.3	1.5	0.0	0.3	102.8%
Tapoa	53.9	21.4	0.0	0.7	165.9%
Yatenga	77.2	-29.2	6.3	9.7	78.4%
Zoundweogo	32.0	0.5	0.0	0.6	101.7%
<b>Totals</b>	<b>1,625.4</b>	<b>4.9</b>	<b>82.1</b>	<b>98.3</b>	<b>105.4%</b>

(1) Milling and waste losses for all cereals is 15% of gross production. Estimated gross production from GOB Ministry of Agriculture December 31, 1986 Report.

(2) Consumption of 192 Kg/Person/Year for 365 days as per USAID Mission estimate.

(3) OFNACER figures estimated by GOB in September and November of 1986.

to stabilize prices. OFNACER currently has an 82,100 MT cereals stock and a total storage capacity of 98,300 MT.

OFNACER was capable of absorbing much of the surplus this year, however, its ability to do so again if faced with another bumper crop is in doubt. OFNACER would be faced with the decision to purchase more than it can store (which in the absence of exports would result in spoilage), or relinquish its price stabilizing role. Falling cereal prices could result in reduced production. If production were to fall, Burkina would become more vulnerable to sporadic, untimely rains and less able to meet the food needs of its population. OFNACER's potential inability to stabilize prices would threaten Burkina's ability to withstand the periodic droughts it is likely to face. In order for OFNACER to work effectively, it will have to either expand its storage facilities or find export markets.

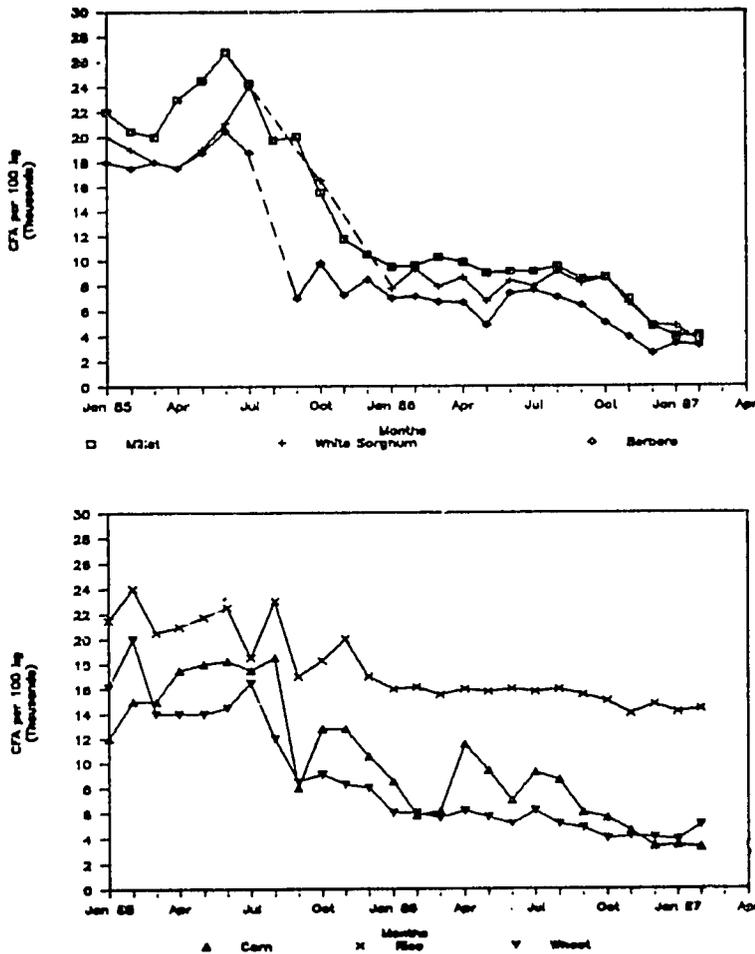
### **Grasshoppers**

The threat of a severe grasshopper infestation in Burkina this year is high. This year's prediction is based on last year's infestation and the optimal conditions that were present last year. No egg pod surveys for targeting control areas have been conducted to date, nor are any such surveys planned. Considering the area targeted for treatment by the international community, many donors appear to concur with the October PRIFAS prediction of a large threat. A total of 450,000 hectares have been targeted for treatment as compared to the total of 248,200 hectares actually treated in 1986; this plan calls for treatment of a greater area than was treated in any other sub-saharan country last year, except for Mali and Senegal. The implementation of the treatment program and the amount of rains during May and June will determine the degree of the immediate threat.

## CHAD

The assessment of populations at risk of nutritional crises in Chad has not changed significantly over the last month (Map 3). The number of people confirmed as requiring food aid until the next harvest (in September and October) remains 13,000 (the population of Ouled Rachid Canton). A recent survey by the European Agency

**Figure 1: Chad, Staple Grain Prices in N'Djamena, January 1985 - February 1987**



for Health and Development's Chad team (AEDES/Chad) in two Batha Prefecture cantons near Ouled Rachid Canton, but closer to Ati Town (Map 3), showed that conditions of poor harvest and the coping strategy of multiple small income-generating activities, similar to those previously found in Ouled Rachid, prevail. The survey showed, however, that where the larger Ati market was accessible to people in these cantons, the small income-generating ventures were succeeding, so that people did not feel compelled to sell their animals for survival. While such areas as this might require some food-aid before the next harvest, this situation is not now urgent.

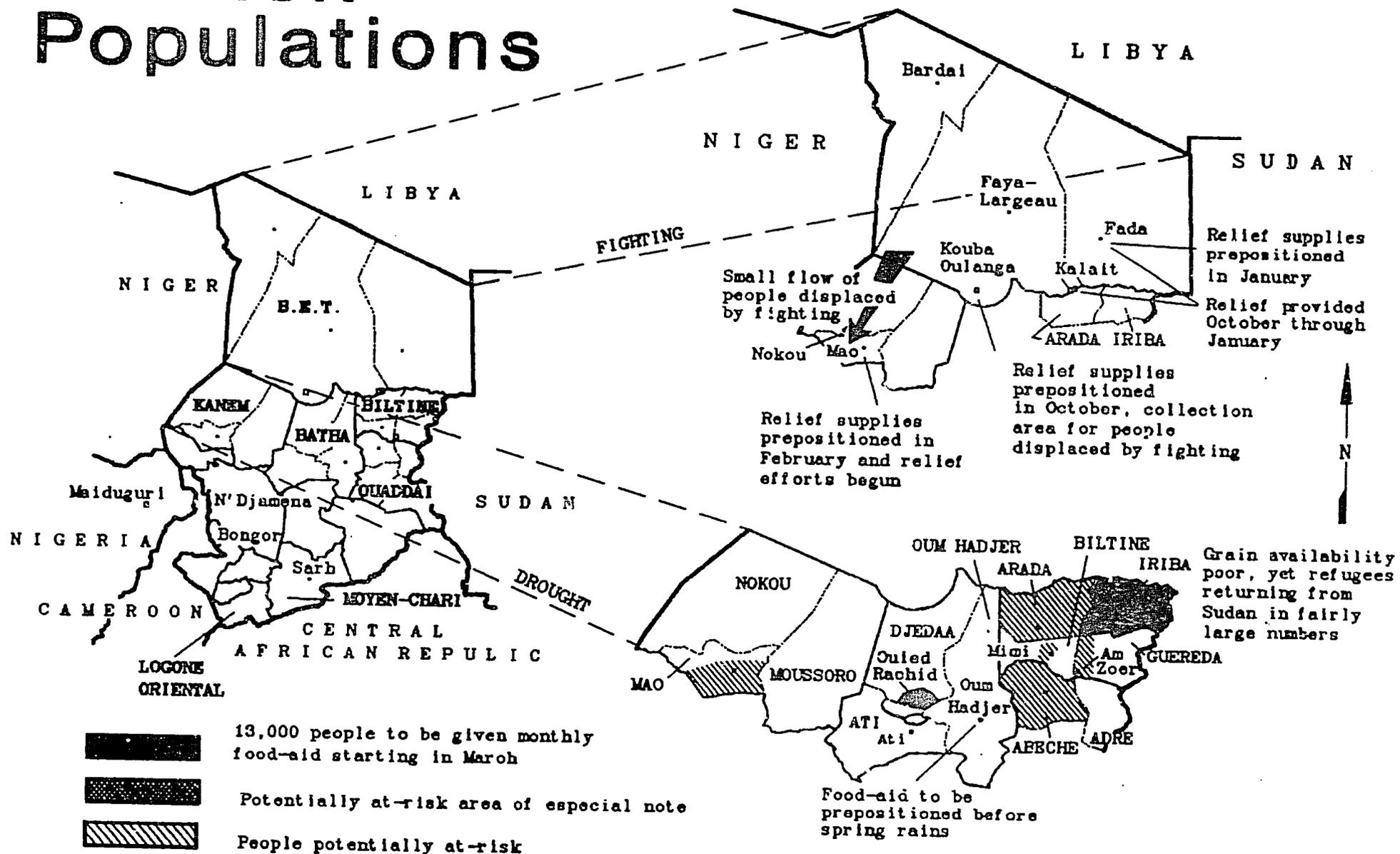
Staple grain prices in N'Djamena have been falling steadily since June and July of 1985 (Figure 1). This pattern reflects the tremendous improvement in agriculture since the drought of 1983 and 1984, and may be as valid a surrogate indicator of the strength of local production as the estimate of the net national grains harvest.

Because N'Djamena is the economic center of Chad and the major port of entry for commercial and donor food commodities, the trends in the N'Djamena market are not highly sensitive to difficulties experienced in areas removed from the main transportation network.

## Refugees

There were reports in late February of refugees returning to Iriba Prefecture from Sudan in increasing numbers -- figures cited range from 1,900 to 4,000 people, as opposed to previous monthly averages of 50 to 100 families (250 to 500 people). Iriba Prefecture is one of the areas where isolated villages have experienced crop

# At-Risk Populations



Source: Mission Cable, February 18, 1987  
FEWS/PWA, March 1987

failure, so this sudden increase is surprising. Refugees may be returning to areas within Iriba Prefecture that are doing well, or they may be motivated by some factor within Sudan. The AEDS/Chad team has been surveying the prefecture, but their report is not in, so that it is not known whether the coping mechanisms of cottage industry, small animal husbandry, and gathering of wild grains (as found in Batha Prefecture, above) are successful in this area. This increase in the rate of return of refugees will put pressure on the newly formed UN High Commission on Refugees (UNHCR) office in N'Djamena to quickly open its Abeche office (in Ouaddai Prefecture) in order to respond to the needs of these refugees for resettlement.

### **Displaced People**

In response to the fighting in Borkou-Ennedi-Tibesti Prefecture (B.E.T.), non-combatants have moved south to the prefecture border area between B.E.T. and the rest of Chad (Map 3). Estimates of the number of people displaced range from about 4,000 to 10,000. The situation is in flux, as some of the displaced people may temporarily return to their home territories as fighting in an area dies down. The number of people who will require long-term relief is probably closer to the lower estimate. It appears that the multi-agency Food Aid Action Committee (CASAD) has the situation well in hand, with relief supplies pre-positioned in strategic locations (Map 3).

The total population of B.E.T. Prefecture is estimated at 34,000 people. If all of these people should find themselves suddenly destitute (an unlikely event), they would require less than 2,500 MT of food grain aid to carry them through to the harvest in September. This is well within the capacity of the current Chadian grain surplus (after accounting for harvest, stock on hand, donor pledges, and possible commercial imports). The donor community, however, might be called on to provide transport for the supplies to the affected areas.

## **MALI**

There has been no change over the past two months in the number of people identified as being at-risk in Mali. Bourem and Ansongo Cercles, in Gao Region, with a combined population of 106,000 people, continue to be identified as at-risk. Displaced people continue to arrive at Gao Town (from Gao Region) and Douentza Town, Mopti Region (from Tombouctou Region). Whether the arrivals will increase as the year progresses may depend on the food distribution available in the towns. Preliminary food aid has been distributed in Bourem and Menaka Cercles, Gao Region. Further distribution is planned (Table 2).

### **Displaced People**

Some of the recent arrivals in Gao Town are actually "permanently" displaced people returning from their temporary harvest of wild grain. The precarious food situation prevailing in parts of the Region, and work opportunities in the Town, account for most of the recent arrivals -- especially those from Bourem, Ansongo, and Gourma-Rharous Cercles.

In a December 1986 survey of displaced people in Douentza Town, OXFAM found that over 50% of the 4,000 people surveyed were Touareg who had lost all their cattle and who were in search of seasonal labor. Some 44% of those surveyed claimed they arrived in the town as early as 1973. This means that the population displaced during 1973 remained so during the 1984-1985 drought. Another significant finding was that 22% of the families were headed by women. (The husbands had either died or had left the country.) This high percentage indicates a high degree of vulnerability, owing to a lack of means of production and a lack of mobility. Many of the children attending the feeding centers in the town come from single parent families. The prospects of these households becoming self-sufficient look remote. In many cases, the families are forced to rely upon aid from outside (Food-For-Work projects, etc).

### **Health and Nutrition**

The overall health and nutrition situation remains stable. New benchmark nutritional status data should become available soon. Several nutritional surveys were carried out by UNICEF in February in Dire Cercle, Tombouctou Region, and Bourem Cercle, Gao Region. The Government of the Republic of Mali (GRM) Committee for Aid to the Victims of the Drought (CNAVS) Early Warning System (SAP) medical team is carrying out a nutritional survey in two *arrondissements* of Gourma-Rharous Cercle, Tombouctou Region. UNICEF continues to run 30 feeding centers in Dire Cercle for 1,385 children and mothers, five centers in Bourem Cercle for 1,229 children and women, and eight centers in Mopti Town for 226 children.

As of September 1986, Doctors Without Borders (MSF) is supporting 52 feeding centers for 2,300 children in Tombouctou Region.

### Food Flows/Needs

After SAP's post-harvest recommendations, the CNAVS distributed 500 MT of cereals in Bourem Cercle and 150 MT in Menaka Cercle, both in Gao Region. Reports from the field, however, indicate that these distributions -- carried out in the central arrondissements only -- may not have reached needy populations in more isolated areas. If this is the case, the distributions may lead to a concentration of displaced people around the towns. The SAP Technical Group has emphasized the need for the CNAVS to have a rigorous plan of distribution for future interventions. Toward that end, the multi-donor committee of the CNAVS has estimated the amount of cereals necessary for free distribution of 3-month rations in 1987 (Table 2). Map 4 shows the percentage of the cercle population that the rations will feed.

**Table 2: Mali, Free Food Distribution Plan for 1987**

Region	Cercle	Quantity (MT)	Number of Rations*
Kayes	Nioro	300	7,186
	Diema	250	5,988
	Yelimane	300	7,186
Koulikoro	Nara	1,500	35,928
Segou	Niono	300	7,186
Mopti	Douentza	400	9,581
	Youvarou	800	19,162
	Tombouctou	600	14,371
Tombouctou	Dire	500	11,976
	Goundam	300	7,186
	Gourma-Rnalous	500	11,976
	Gao	Ansongo	2,000
Gao	Bourem	1,800	43,114
	Kidal	100	2,395
<b>Total</b>		<b>9,650</b>	<b>231,138</b>

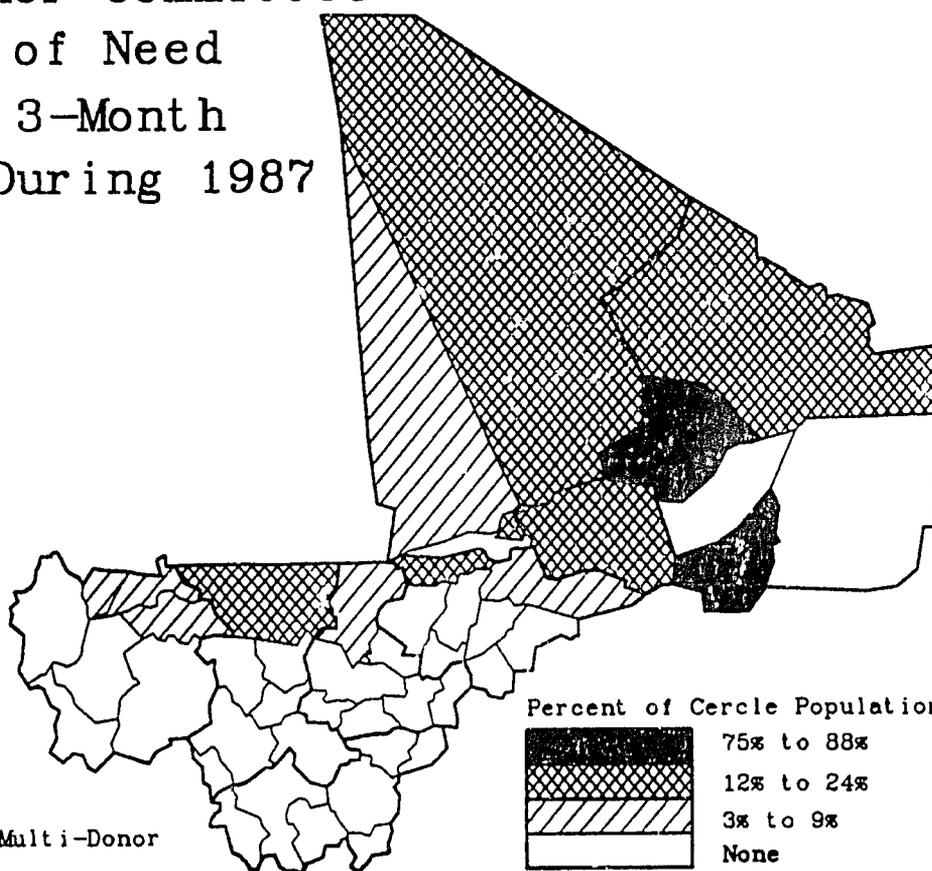
**Source: GRM CNAVS Multi-Donor Committee**

\*The number of rations was calculated using the GRM annual per capita ration of 167 kg of cereals.

The multi-donor committee also estimates that an extra 6,000 MT are needed for feeding centers and Food-For-Work projects throughout the country. The distribution and targeting of food aid will be based on the results of current nutritional surveys. These surveys are to be ongoing, to evaluate whether or not distribution in an area should continue.

M.P. 4: MALI

Multi-Donor Committee  
 Estimate of Need  
 for Free 3-Month  
 Rations During 1987



Source: GRM CNAVS Multi-Donor  
 Committee  
 FEWS/PWA, March 1987

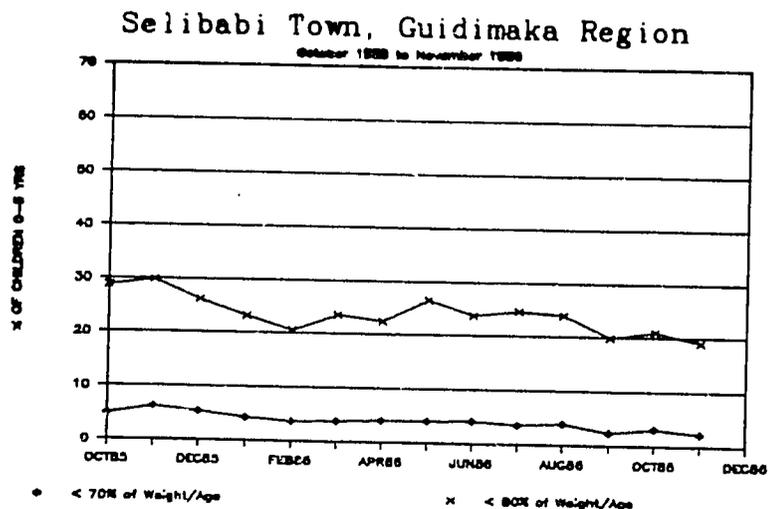
## MAURITANIA

While Mauritania had one of the best cereals harvests in decades, it appears that 65 percent of Mauritania's population will not be fed by the local harvest, and 37 percent of the population will also not have the income with which to purchase food. Although the balance of needs and resources (including imports and food aid) show a surplus at the national level, little information is available on food supplies at the local level. Rates of malnutrition are declining in Assaba and Guidimaka Regions, but there has been a definite increase from October 1985 through November 1986 in rates of malnutrition seen at Catholic Relief Services (CRS) feeding centers in Nouakchott, and in Brakna and Inchiri Regions. A late summer nutrition survey of Brakna Region by Doctors Without Borders (MSF), showing 16 percent of children to be malnourished, adds gravity to the statistically significant increase in malnutrition rates seen at the CRS feeding centers. If this trend of increasing malnutrition has continued through the harvest season, Brakna Region, if not also Inchiri Region and Nouakchott, will require assistance in addition to that already planned.

### Nutrition

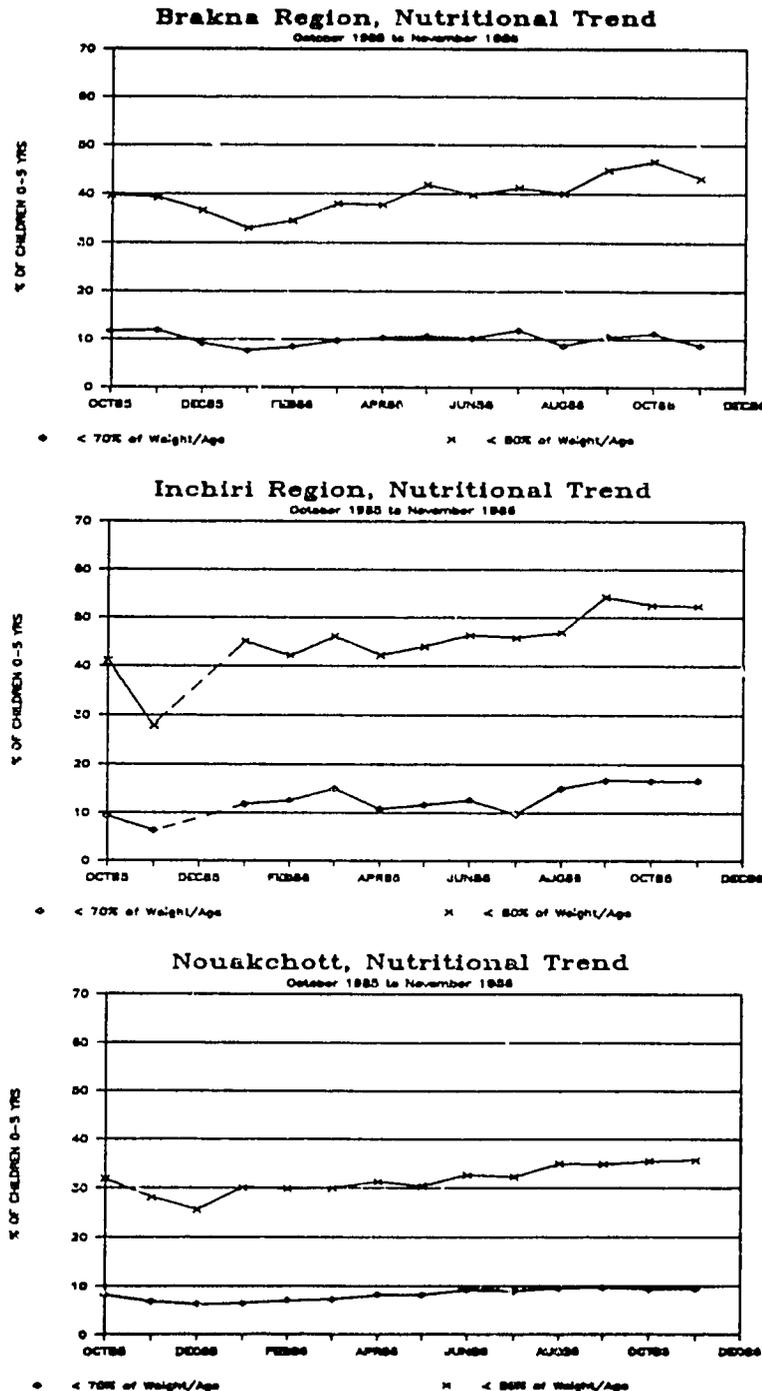
There are currently three streams of nutrition data arriving from Mauritania: service records and nutrition surveys from World Vision (WV) in Assaba Region; nutrition surveys from MSF in Brakna Region and Hodh ech Chargui Region; and monthly service records of new and carry-over participants from CRS feeding centers in Nouakchott and seven Regions. World Vision's surveys show the malnutrition rates in Assaba Region to have steadily decreased from February 1985 to January 1987. The CRS data show a decline in malnutrition rates only among the children fed at Selibabi Town, Guidimaka Region (Figure 2).

Figure 2: CRS/Mauritania, Decreasing Malnutrition in Guidimaka Region



Records from the CRS feeding centers at Tidjikja Town (Tagant Region), Nema Town (Hodh ech Chargui), and at least seven towns in Trarza Region do not show any change in malnutrition rates. The CRS feeding center at Nema Town shows the highest malnutrition rates among all CRS centers (consistently more than three-fifths of the children seen at the center have been severely malnourished and more than one-fifth of the children seen have been acutely malnourished<sup>9</sup>).

Figure 3: CRS/Mauritania, Increasing Rates of Malnutrition



In contrast to the Nema feeding center data (through November 1986), a survey carried out by MSF in Nema Department (but not in Nema Town) in October 1986 found only 6% of children under the age of five to be severely malnourished. This implies that most of the malnourished children in that area are in Nema Town, or are brought to the CRS feeding center, rather than being maintained in the villages. Thus it is appropriate that the nutrition intervention has been placed in Nema Town, although it would require a nutrition survey in Nema Town itself to determine whether Nema Town is experiencing high rates of child malnutrition.

There has been a statistically significant increase in rates of malnutrition seen over the period from October 1985 through November 1986 at CRS feeding centers in Brakna Region, Inchiri Region (Akjoujt Town), and Nouakchott (Figure 3). In Brakna Region, the increasing malnutrition rate is seen only among severely malnourished children. The rate of acute malnutrition in that area is neither increasing nor decreasing, implying perhaps that a decreased access to food is found among families that were formerly "comfortable," but not among families that have been im-

<sup>9</sup> CRS uses a weight for age standard for judging nutritional status, while MSF uses a weight for height standard. A child is severely malnourished when it weighs less than 80% of the standard, and is acutely malnourished when weighing less than 70% of the standard.

poverished since October 1985 or earlier. In Nouakchott and Inchiri Region, however, the rates of both severe and acute malnutrition seen at the CRS centers are increasing. Of the three areas, Inchiri Region is seeing the greatest rate of increase both in severe malnutrition and acute malnutrition. Until the nutrition status underlying these trends is known for Nouakchott and Inchiri Region, however, little more can be said. In Brakna Region, MSF found that close to one-sixth of the children it surveyed in that Region during August and September of 1986 were severely malnourished. With the general population of under-five children in Brakna already this malnourished, the trend of increasing malnutrition seen at the CRS clinics signals a seriously deteriorating nutrition situation.

It is not yet known whether this deteriorating trend continued through the harvest season or was stopped by the unusually good (for Mauritania) 1986 harvest. If the trend has continued, this area should be marked for possible interventions in addition to any already planned for 1987. Information should also be sought as to the general nutritional status of children in Nouakchott and Akjoujt Town, Inchiri Region, so that the significance of the increasing malnutrition rates seen at CRS feeding centers in these areas can be determined.

**People Lacking  
Full Food Security**

Independent estimates of people at-risk in Mauritania have been scarce. Using the FEWS working definition for "people at-risk" -- those people who require some intervention (usually food-aid) in order to stay alive, or not fall into extreme under-nourishment -- it would appear that 100% of the population was at-risk in July 1985, in that all Mauritanian families received food-aid. In late 1985, 91% of the population (1.6 million people) were said to be affected by drought, and 50% (800,000) were said to be seriously affected. Since then, CARE and the Government of the Islamic Republic of Mauritania (GIRM) Commission for Food Security (CSA) have depended on village officials (of the GIRM Structure for the Education of the Masses, SEM) for estimates of the number of people who are needy and therefore require food aid. It is not possible to assess just how severe the situation is in an area, because these officials have been given rather vague definitions of "needy."

An objective assessment of the number of people at-risk, based on a food balance approach, would require data on consumption needs and the total amount of food available at the lowest administrative level, whether available through local harvest, reserves from previous harvests, animal husbandry, government and donor agency distribu-

tions, or the local market. Unfortunately, data from these lower levels are not available for Mauritania. What is available is a national estimate of annual per capita cereals consumption based on the total cereal consumption estimate for 1986, regional cereal production estimates, departmental population estimates, and very rough regional estimates of the percent of people earning or receiving cash income. From these estimates, it appears that 1,195,000 people (65% of the population) will not be fed by local cereal harvests, and of those, 673,000 people (37% of Mauritania's population) will also not have the income with which to purchase food (Table 3, Map 5\*). Any foods other than cereals that people might grow or gather are not included in this analysis. Also missing from the calculation are any already planned food aid distributions at the local level and any "on-farm" stocks remaining from previous years. A final caveat is that the FAO harvest estimates, made in October of 1986, do not fully capture the current flood recession harvest. Indications are that the final net harvest will be larger than the FAO estimate, but to what extent is not known.

\* On Map 5, Gorgol Region appears blank in both upper and lower frames. In the upper frame, there are indeed no people in Gorgol Region whose 1987 food needs will be unmet by the local harvest, as Gorgol Region has produced over 200% of the food necessary to feed its population. In the lower frame, the one dot that represents the 151 people identified by the GIRM Commission for Food Security (CSA) as needy is not visible. The weighted distribution within regions was obtained by multiplying the percent of the region population for the attribute by the department population. This was done in an attempt to show that the distribution of people lacking food security is not uniform within regions (or even within departments).

**Table 3: Mauritania, Estimate of Population Lacking Food Security**

Region	Est 1987 Population	Est 1986 Net Cereal Harvest	Population Unfed by Region Harvest <sup>1</sup>	Population Lacking Full Food Security <sup>2</sup>	% Region Pop Lacking Full Food Security
Adrar	82,134	-	82,134	53,387	65.0
Assaba	200,519	5,966	152,015	98,810	49.3
Brakna	182,904	9,344	106,937	69,509	38.0
Dakhlet Nouadhibou	30,517	-	30,517	3,052	10.0
Gorgol	132,207	33,420	-	151 <sup>3</sup>	0.1
Guidimaka	62,485	5,754	15,705	10,208	16.3
Hodh ech Chargui	224,156	18,316	75,245	48,910	21.8
Hodh el Gharbi	151,949	7,748	88,957	57,822	38.1
Inchiri	13,641	-	13,641	8,867	65.0
Nouakchott	344,224	-	344,224	143,106	41.6
Tagant	116,560	2,473	96,454	62,695	53.8
Tiris Zemmour	21,036	-	21,036	7,621	36.2
Trarza	265,454	11,979	168,064	109,242	41.2
<b>Total</b>	<b>1,827,786</b>	<b>95,000</b>	<b>1,194,929</b>	<b>673,380</b>	<b>36.8</b>

Source: FAO (Net Harvest); FEWS/Mauritania (Population, per capita Consumption, Estimate of Purchasing Power)

(1) Based on per capita consumption of 123 kg, calculated from estimates of total 1986 cereal consumption and total 1986 population.

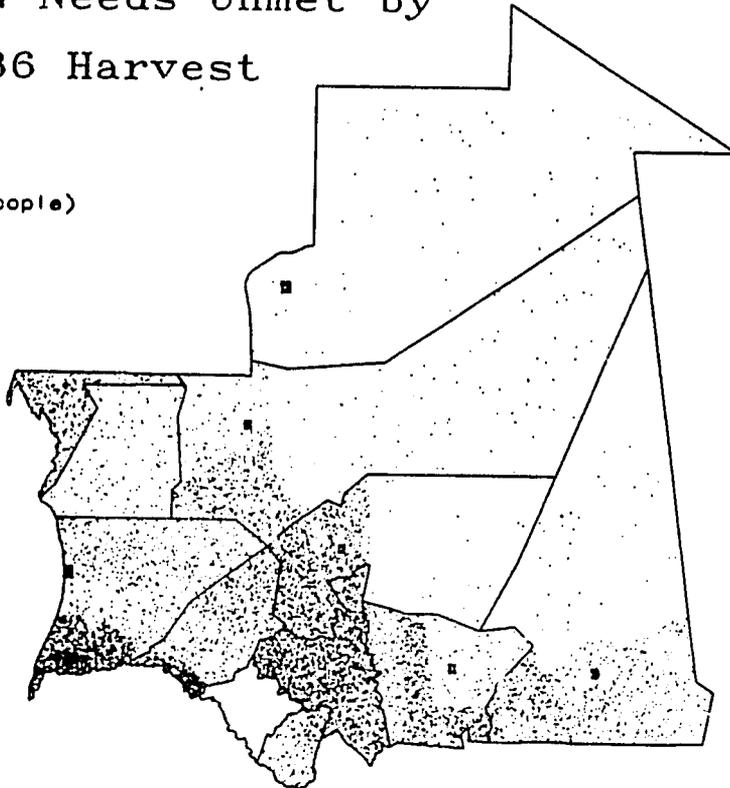
(2) Region's percentage of people with no income multiplied by the number of people unfed by the local harvest. The "no income" estimate is based on the following: in rural regions, 35% of the population will have a cash income or receive family assistance sufficient to meet household food needs; in the industrial departments of Dakhlet Nouadhibou and Tiris Zemmour Regions, 90% of the population will have a sufficient source of income; and in Nouakchott, 100% of the population in Tavarakzeina Department and 66% of the population in the rest of the city will have enough income to purchase food.

(3) Even though Gorgol Region grew more than 200% of the cereals needed by its people, the GIRM Commission for Food Security (CSA) reports that 151 people in the region require food aid assistance.

MAP 5: MAURITANIA

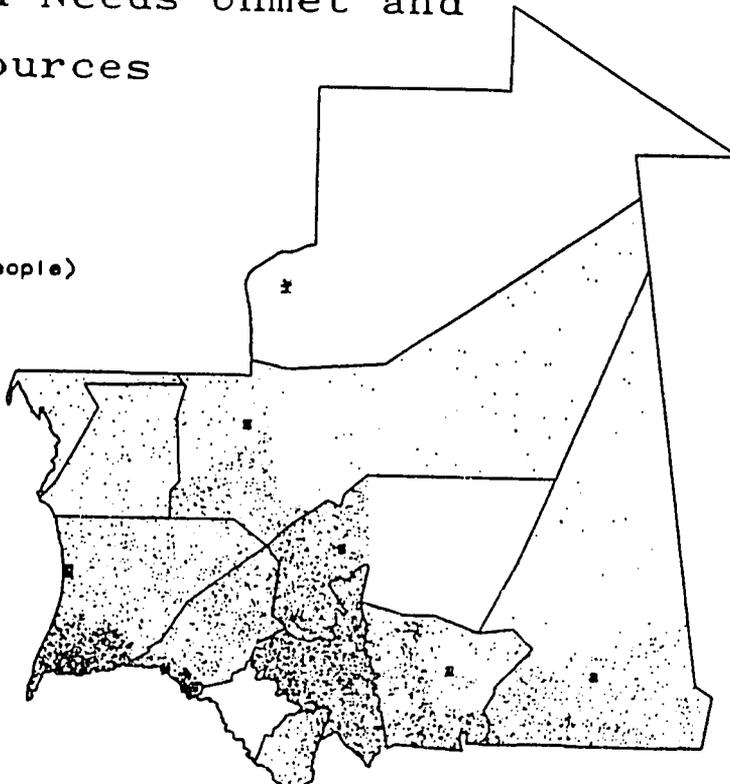
Population Estimate:  
1987 Food Needs Unmet by  
Local 1986 Harvest

(each dot = 100 people)



Population Estimate:  
1987 Food Needs Unmet and  
Income Sources  
Lacking

(each dot = 100 people)



Source: FAO, FEWS/Mauritania  
FEWS/PWA, March 1987

**NIGER**

The status of populations at-risk in Niger remains similar to that of last month. Approximately 715,000 people are so identified by the Government of Niger. New price data continue to support a generally positive view regarding the availability of food. The prices of agricultural products were generally stable through December and January and continue to be relatively low compared to those of the previous eight years. Locally higher prices in specific areas are not abnormal. A rapid nutritional assessment, conducted in Ouallam Arrondissement in February, reinforces the general site-specific pattern of severe malnutrition in the country. A sample of 900 children under the age of five displayed a normal range of weight for height percentages for the arrondissement as a whole, with slightly higher severe malnutrition rates noted in the transitional zone between primarily farming areas to the south, and pastoral areas to the north.

**Prices**

Agricultural commodity prices, particularly for the important staples millet and sorghum, continue at the extremely low levels found since the post-1985 harvest period. In many places, millet prices are as low as they have ever been in the eight years for which good price data is available. They tend to confirm other indicators that suggest that there are currently no major food supply problems in Niger.

Figure 4: Niger, Millet Price Trends, 1978-86

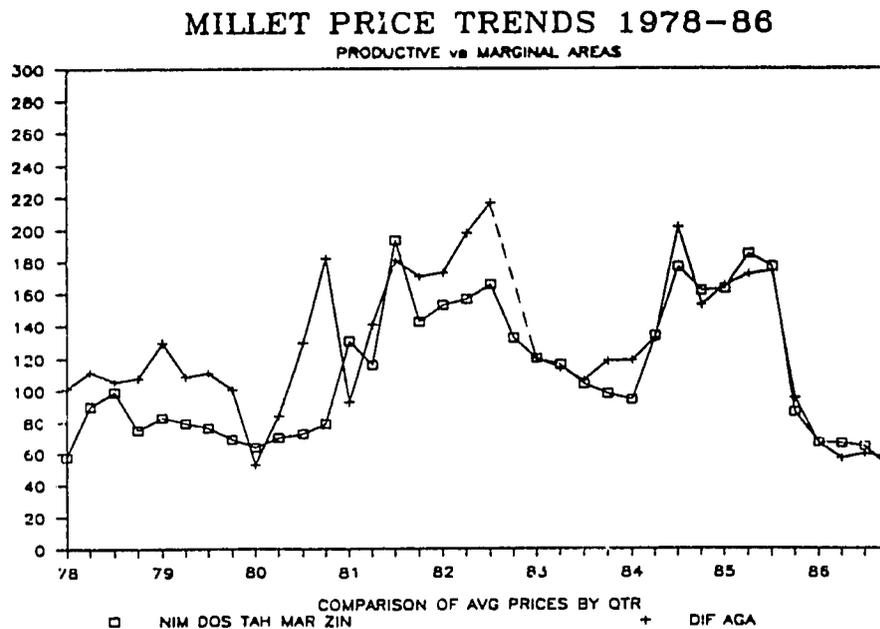
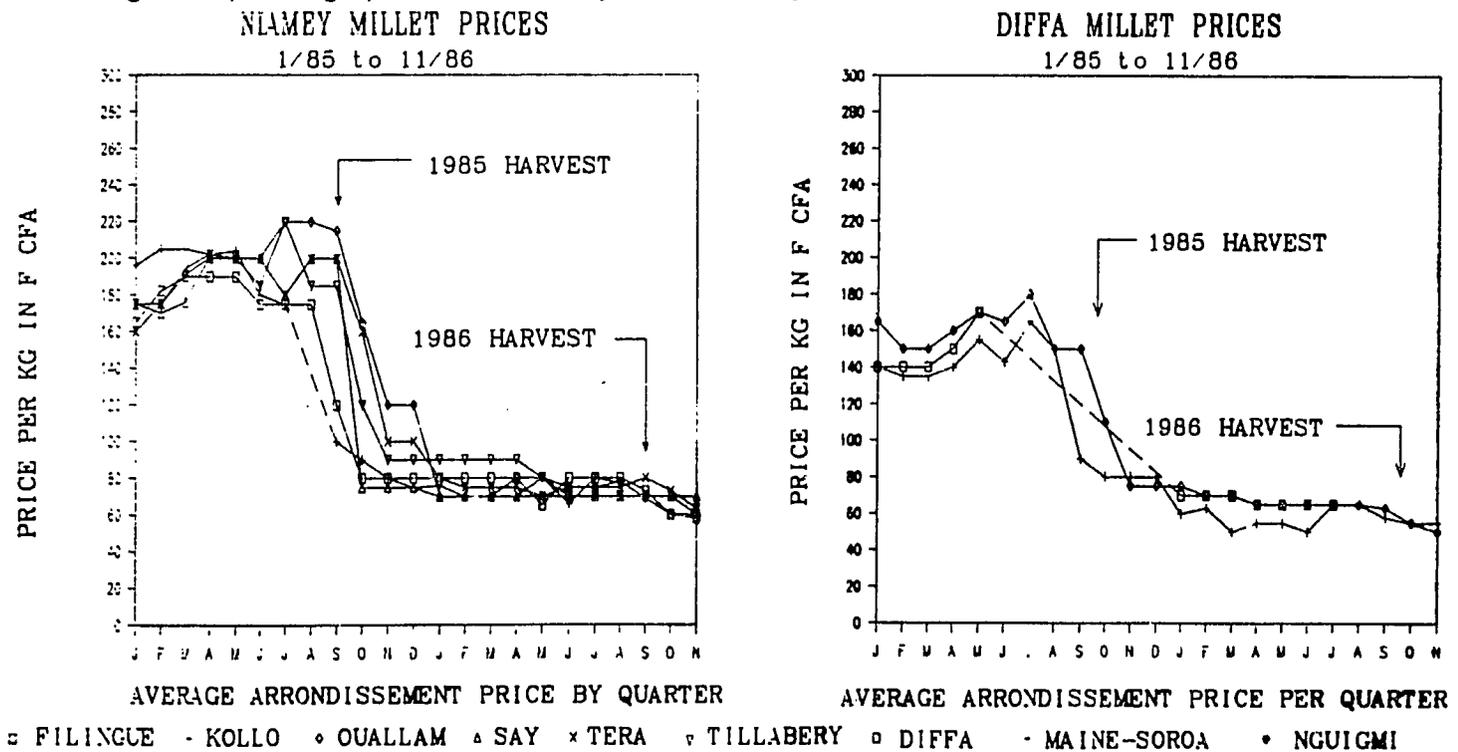


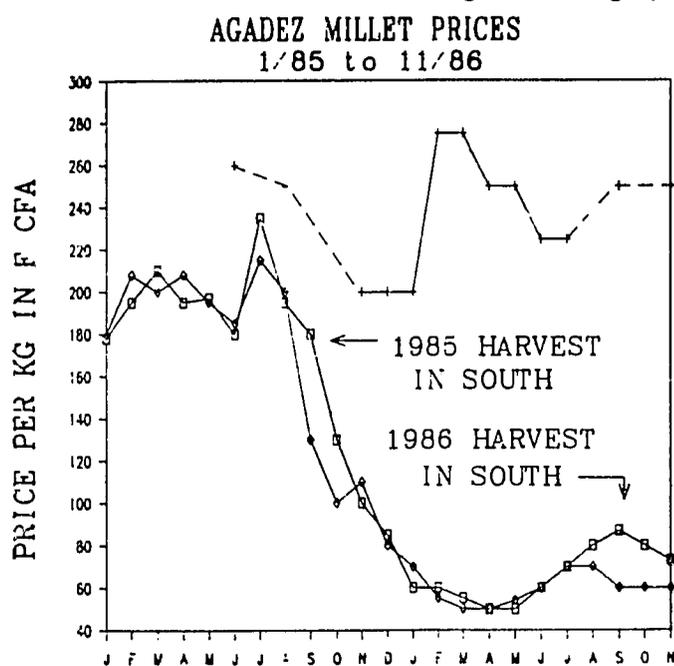
Figure 4 compares the millet price trend of the relatively productive departments of Niamey, Dosso, Tahoua, Maradi, and Zinder, with that of the two departments which are consistently deficit production areas, Diffa and Agadez. Despite the differing price levels, the same general patterns of price increases and decreases can be seen in the quarterly fluctuations of prices for both groups (government programs designed to moderate prices in the earlier years of this sample are certainly a factor in these patterns, although much less so in recent years). The trend of millet prices in the last two years (1985-1986) is strikingly clear and uniform across the departments. The record 1985 harvest effectively undermined the very high agricultural prices of 1984, which were due to the very poor harvest that year. The very good harvest of 1986 continued to depress prices, and early indications of 1987's first quarter average prices show relatively stable levels being maintained.

On an arrondissement level, price data from 1985 and 1986 show the same striking drop, and indicate that intra-departmental variations among arrondissement prices are relatively restrained. Figures 5, 6, and 7 display arrondissement millet prices for the two deficit departments, as well as for Niamey Department, which has experienced recent drought problems in its northern arrondissements.

Figures 5, 6: Niger, Millet Prices by Selected Department



**Figure 7: Niger, Millet Prices in Agadez**



AVERAGE ARRONDISSEMENT PRICE BY QUARTER  
 □ ARLIT    △ BILMA    ○ TCHIROZERINE

An obvious price anomaly is noted in Figure 7 (Agadez Department) where the Bilma price is much higher and not reflective of trends in the other two arrondissements. This price, however, is relatively normal for that isolated and lightly-populated area, and should not currently be a factor of concern. Otherwise, the trends for the arrondissements are all strongly downward, and are similar in each department shown here.

Map 6 displays the geographic distribution of three broad millet price levels. Recalling that the northern areas of Niger are not grain-producing areas, one would expect to see what is shown -- relatively higher prices. Bilma arrondissement is notable for its extremely small habitable area, its

small population, and its relative isolation. The poor rains and harvests of 1985 and 1986 are certainly a factor in the relatively high prices shown for Diffa and Maine-Soroa Arrondissements in the East. Tera, Tillabery, Ouallam, Kollo and Filingue are all areas which experienced drought-related stress and average to less-than-average harvests in 1986. Their millet prices may also be subject to the same upward price pressure exerted by the capital city's high-level of demand as are Say and Birni N'Gaoure, neither of which experienced particularly poor harvests in the last two years.

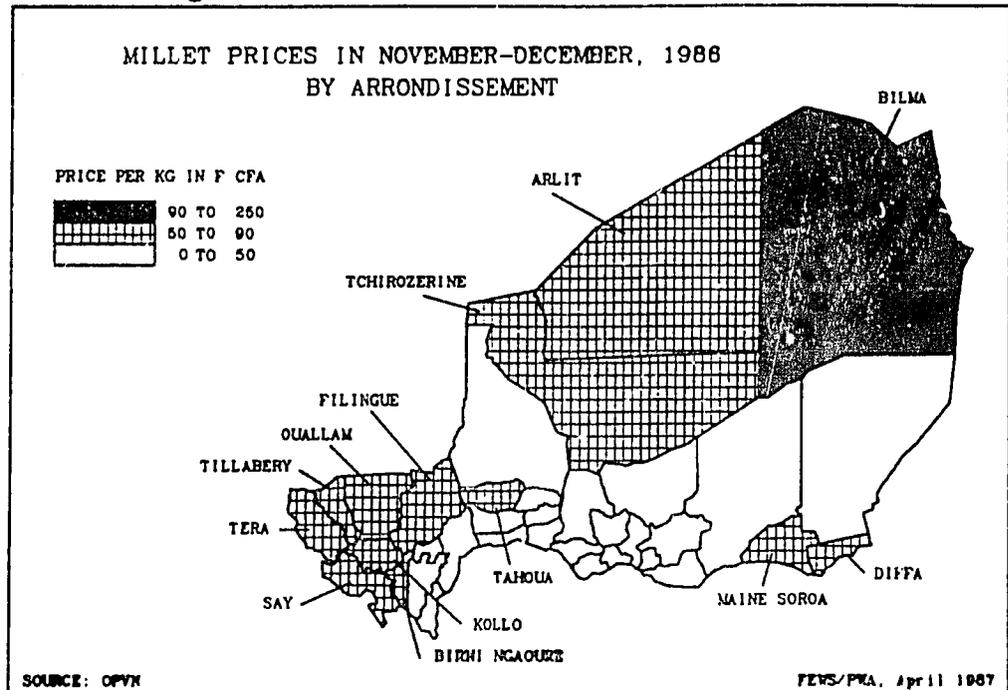
**Nutrition**

A rapid nutritional assessment of children under five years of age was carried out in Ouallam Arrondissement in February by a team composed of personnel from the Ministry of Public Health, FEWS/Niger, and Tulane University. Noting two consecutive years of poor agricultural production, and anomalous variations in the number of persons enumerated by the Ministry of Agriculture as "at-risk", the team surveyed 900 children in three zones (North, Central, and South) of the arrondissement. Map 7 shows the location of each of the zones.

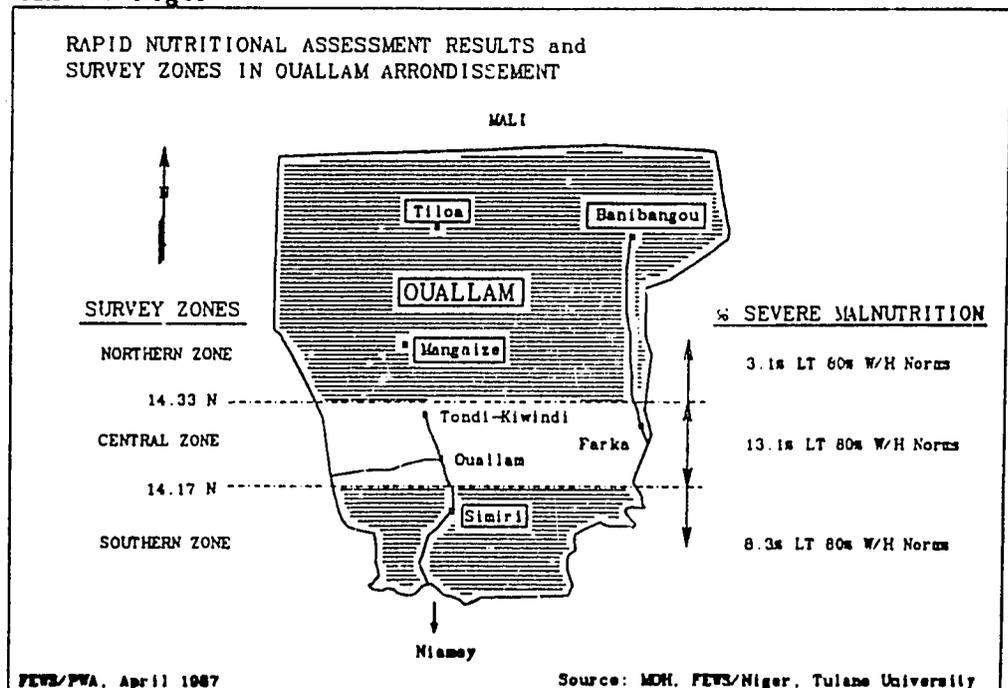
The team found that, for the arrondissement overall, 8.3% of the children fell below 80% of the standard weight given height. This level is not particularly alarming

for this area. The sub-arrondissement variation in percentages ranges from 3.1% in the North, to 13.1% in the center, and 8.3% in the South. The 13.1% rate in the center may indicate the need for some targeted interventions, as well as for continued monitoring of the area.

MAP 6: Niger



MAP 7: Niger



The unusual distribution of the malnutrition levels in this arrondissement, the lowest in the North, the highest in the center, and a level that falls between these two in the South, could simply be a reflection of factors in this micro-environment. It might also be a part of a general pattern that could be found in a band across Niger at this general latitude.

Ouallam lies astride a transitional zone between the largely farming areas to the South, and the primarily pastoral areas to the North. It is a difficult zone for farmers to successfully exploit. The agricultural potential is severely limited due to the low and variable rainfall of the area, and the farmers working these areas do not generally have the livestock required to make up the food production that the environment takes away from their crops. Particularly for this year, when season-long locally poor rainfall harmed crops and late-season heavy rainfall greened pastures, one would expect the lot of children of farmers in this central area to be worse than that of children of pastoralist families, and of farming families further south. This is what the results of this survey seem to show.

# PROVINCES

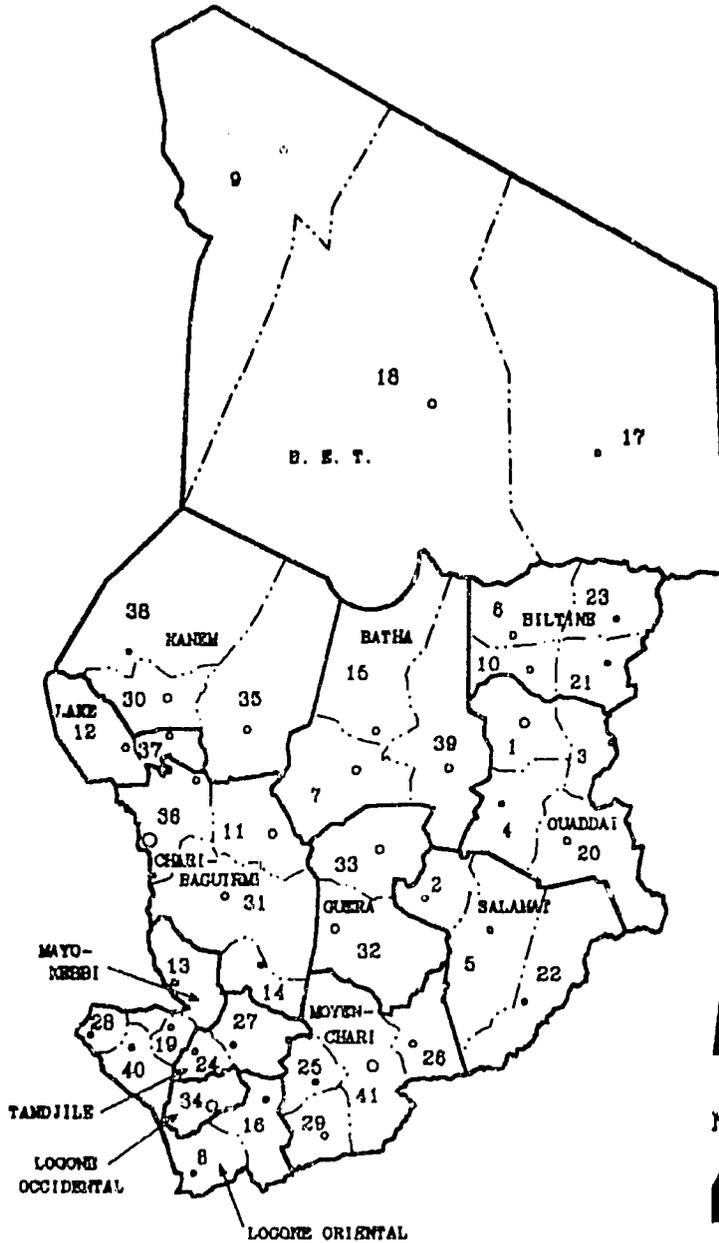


FEWS/PWA, February 1987

# Administrative Units

(Prefectures & Sub-prefectures)

<u>Sub-prf</u>		<u>PRF</u>
1.	Abeche	OUA
2.	Abou Deia	SAL
3.	Adre	OUA
4.	Am Dam	OUA
5.	Am Timan	SAL
6.	Arada	BIL
7.	Ati	BAT
8.	Baibokoum	LOR
9.	Bardai	BET
10.	Biltine	BIL
11.	Bokoro	ChB
12.	Bol	LAK
13.	Bongor	MK
14.	Boussou	ChB
15.	Djedaa	BAT
16.	Doba	LOR
17.	Fada	BET
18.	Faya-Largeau	BET
19.	Gounou	MK
20.	Goz Beida	OUA
21.	Guereda	BIL
22.	Haraze	SAL
23.	Iriba	BIL
24.	Kelo	TAN
25.	Koumra	MCh
26.	Kyabe	MCh
27.	Lai	TAN
29.	Moissala	MCh
30.	Mao	FAN
31.	Massenya	ChB
32.	Melfi	GUE
33.	Mongo	GUE
34.	Moundou	LOc
35.	Moussoro	KAN
36.	N'Djamena/ Massakory	ChB
37.	N'Gouri	LAK
38.	Nokou	KAN
39.	Oum Hadjer	BAT
40.	Pala	MK
41.	Sarh	MCh

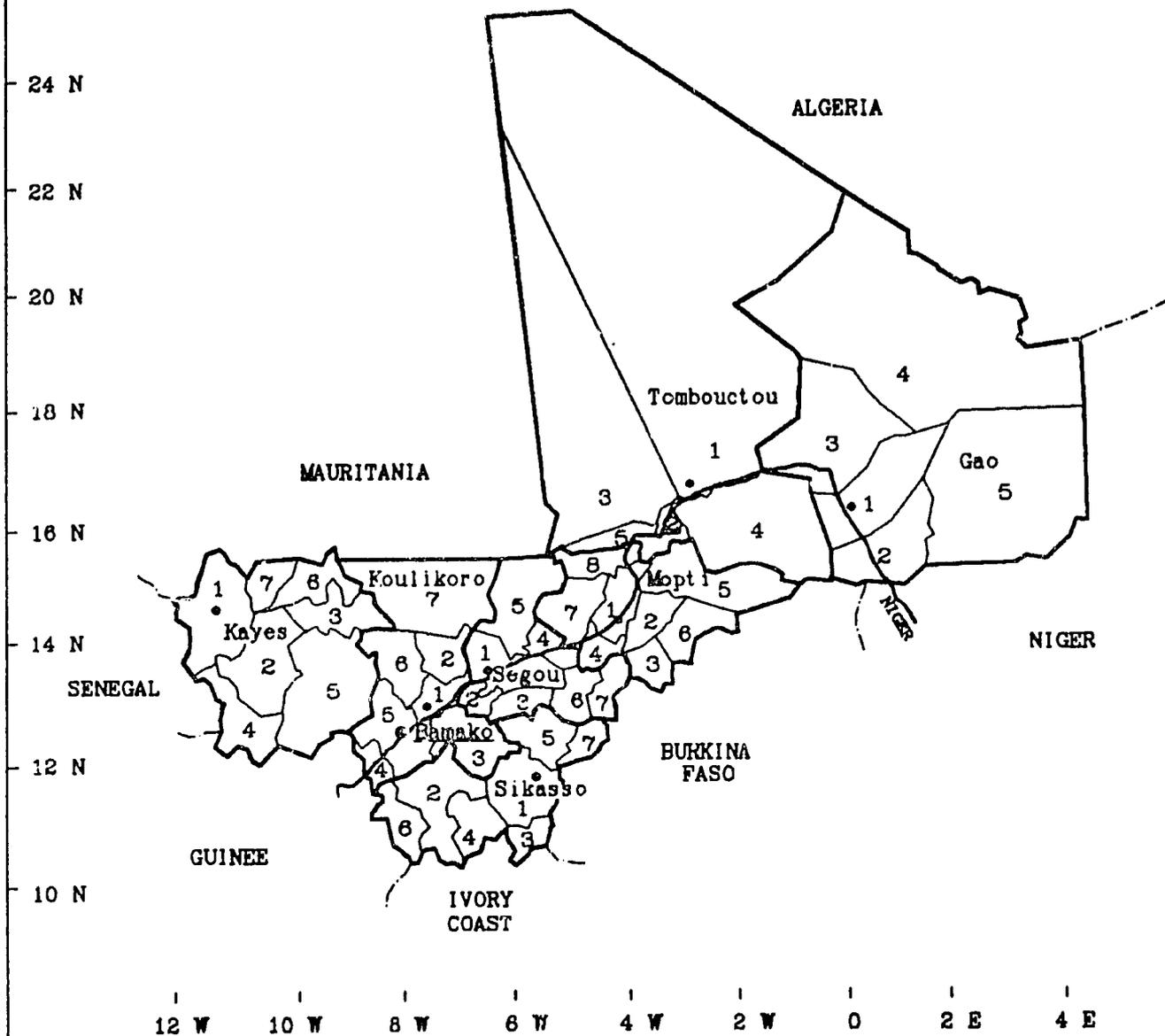


- Main Town in Sub-prefecture
- Prefectures
- Sub-prefectures

Source: 1969 Map in Eng.; Two Undated Maps in Fr.;  
Map Authors Unknown

FEWS/PWA, February 1987

# Administrative Units: Regions & Cercles



**REGIONS and CERCLES**

**KAYES**

- 1. Kayes
- 2. Bafoulabe
- 3. Diema
- 4. Kenieba
- 5. Kita
- 6. Nioro
- 7. Yelimane

**SIKASSO**

- 1. Sikasso
- 2. Bougouni
- 3. Kaliolo
- 4. Kolondieba
- 5. Koutiala
- 6. Yanfolila
- 7. Yorosso

**MOPTI**

- 1. Mopti
- 2. Bandiagara
- 3. Bankass
- 4. Djenne
- 5. Douentza
- 6. Koro
- 7. Tenenkou
- 8. Youvarou

**GAO**

- 1. Gao
- 2. Ansongo
- 3. Bourem
- 4. Kidal
- 5. Menaka

**KOULIKORO**

- 1. Koulikoro
- 2. Banamba
- 3. Dioila
- 4. Kangaba
- 5. Kati
- 6. Kolokani
- 7. Nara

**SEGOU**

- 1. Segou
- 2. Haraoueli
- 3. Bla
- 4. Macina
- 5. Niono
- 6. San
- 7. Tominian

**TOMBOUCTOU**

- 1. Tombouctou
- 2. Dire
- 3. Goundam
- 4. Gourma-Rharous
- 5. Niafunke

Other Int'l Boundaries

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Region Boundary

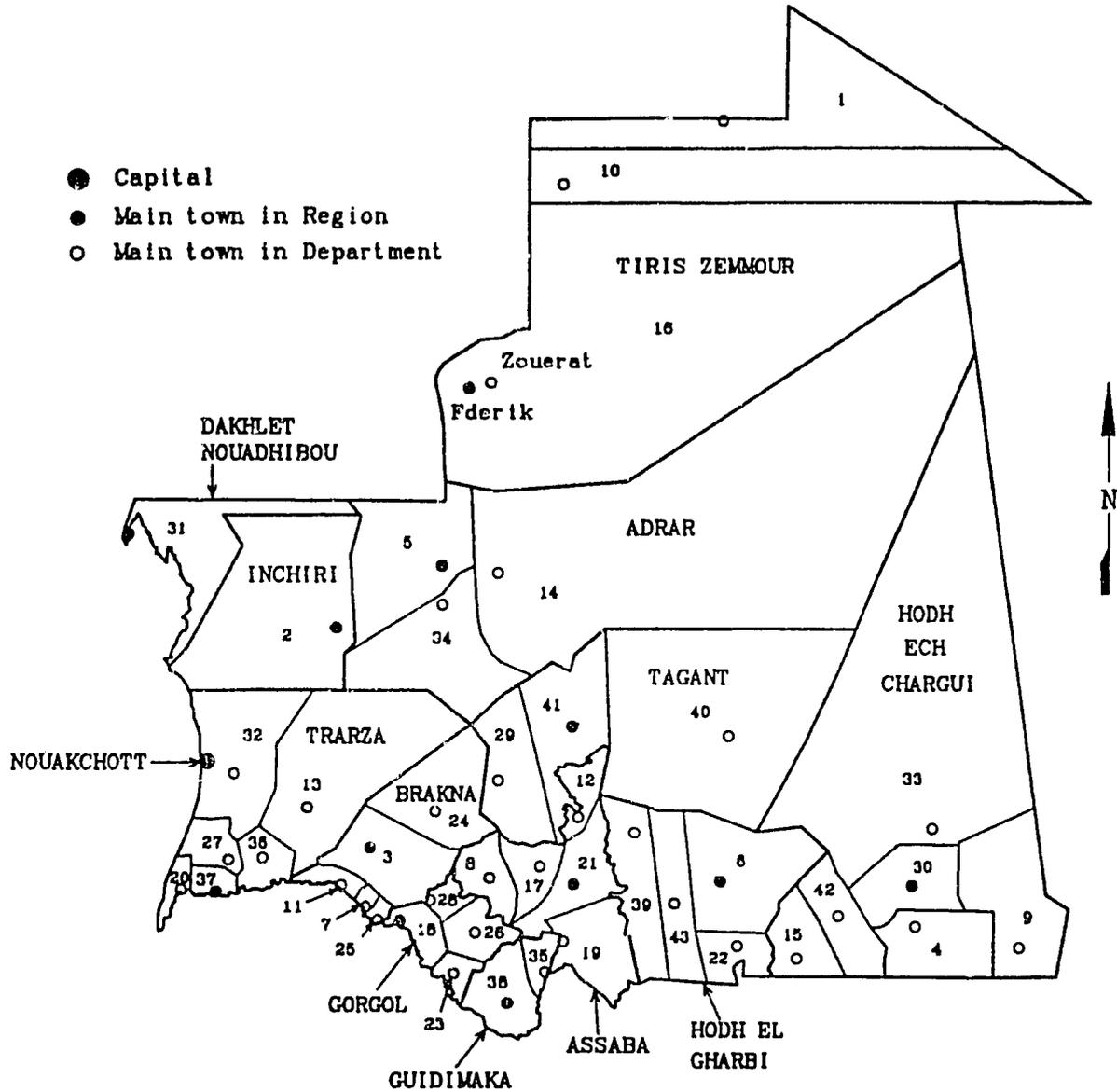
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Cercle Boundary

● National Capital  
• Regional Capital

200 km

# Departments (Preliminary)



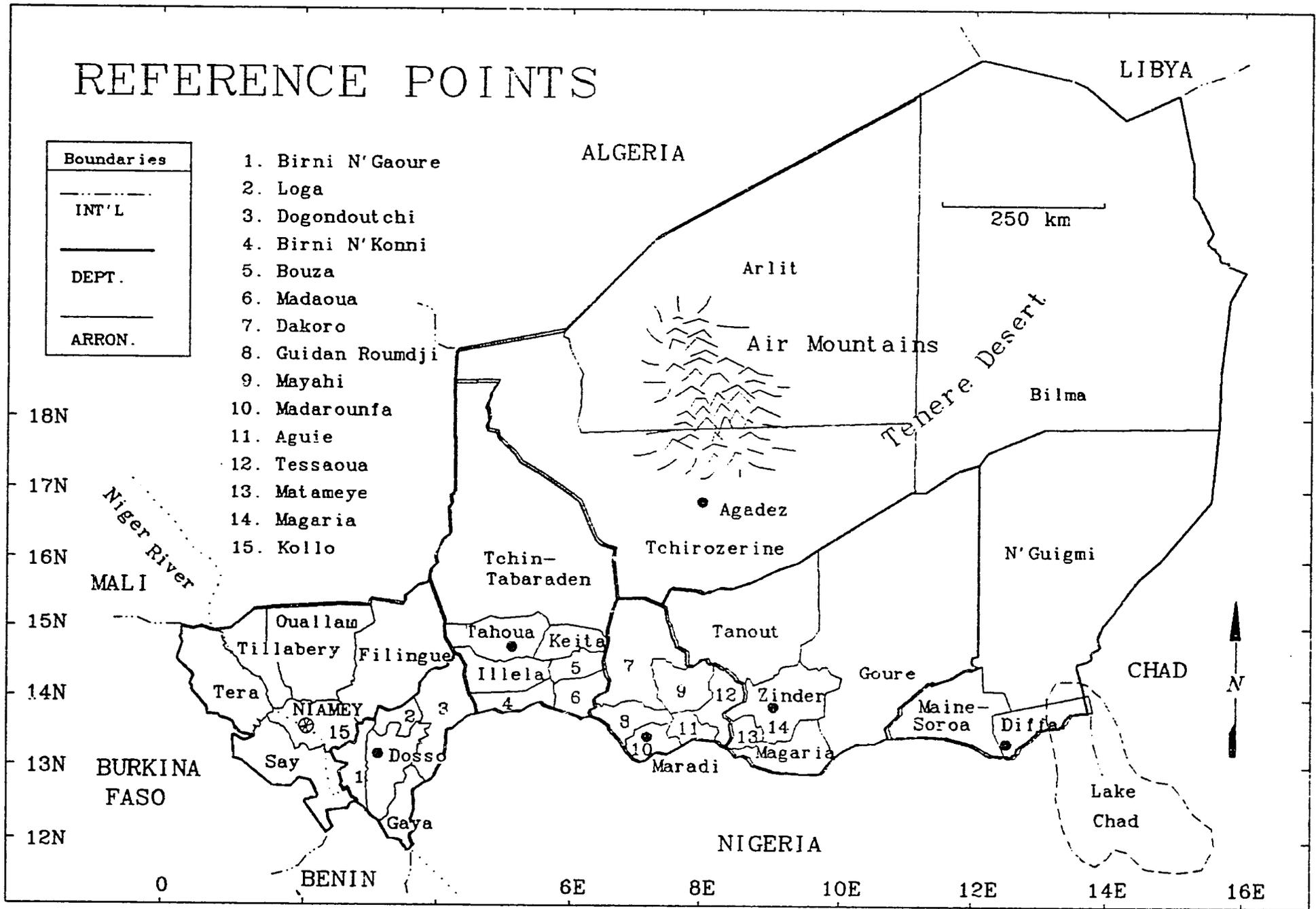
1. Ala Ben Tili	TZ	16. Fderik/Zouerat	TZ	30. Nema	HC
2. Akjoujt	IN	17. Guerou	AS	31. Nouadhibou	DN
3. Aleg	BR	18. Kaedi	GO	32. Ouad Naga	TR
4. Amourj	HC	19. Kankossa	AS	33. Qualata	HC
5. Atar	AD	20. Keur Massene	TR	34. Oujett	AD
6. Ayoun el Atrous	HC	21. Kiffa	AS	35. Ould Yenge	GU
7. Bababe	BR	22. Kobenni	HC	36. Rkiz	TR
8. Barkewol el Ahlod	AS	23. Maghama	GO	37. Rosso	TR
9. Bassikounou	HC	24. Magta Lahjar	BR	38. Selibabi	GU
10. Bir Mogrein	TZ	25. M'Bagne	BR	39. Tamchekket	HC
11. Boghe	BR	26. Mbout	GO	40. Tichit	TA
12. Boundeid	AS	27. Mederdra	TR	41. Tidjikja	TA
13. Boutilimit	TR	28. Monguel	GO	42. Timbedgha	HC
14. Chinguetti	AD	29. Moudjeria	TA	43. Tintane	HC
15. Djiguani	HC				

Source: FEWS/Mauritania 1986; IGN 1980  
 FEWS/PWA Nov. 1986

# REFERENCE POINTS

Boundaries
INT'L
DEPT.
ARRON.

1. Birni N'Gaoure
2. Loga
3. Dogondoutchi
4. Birni N'Konni
5. Bouza
6. Madaoua
7. Dakoro
8. Guidan Roundji
9. Mayahi
10. Madarounfa
11. Aguié
12. Tessaoua
13. Matameye
14. Magaria
15. Kollo



FEWS/PWA 11/86

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