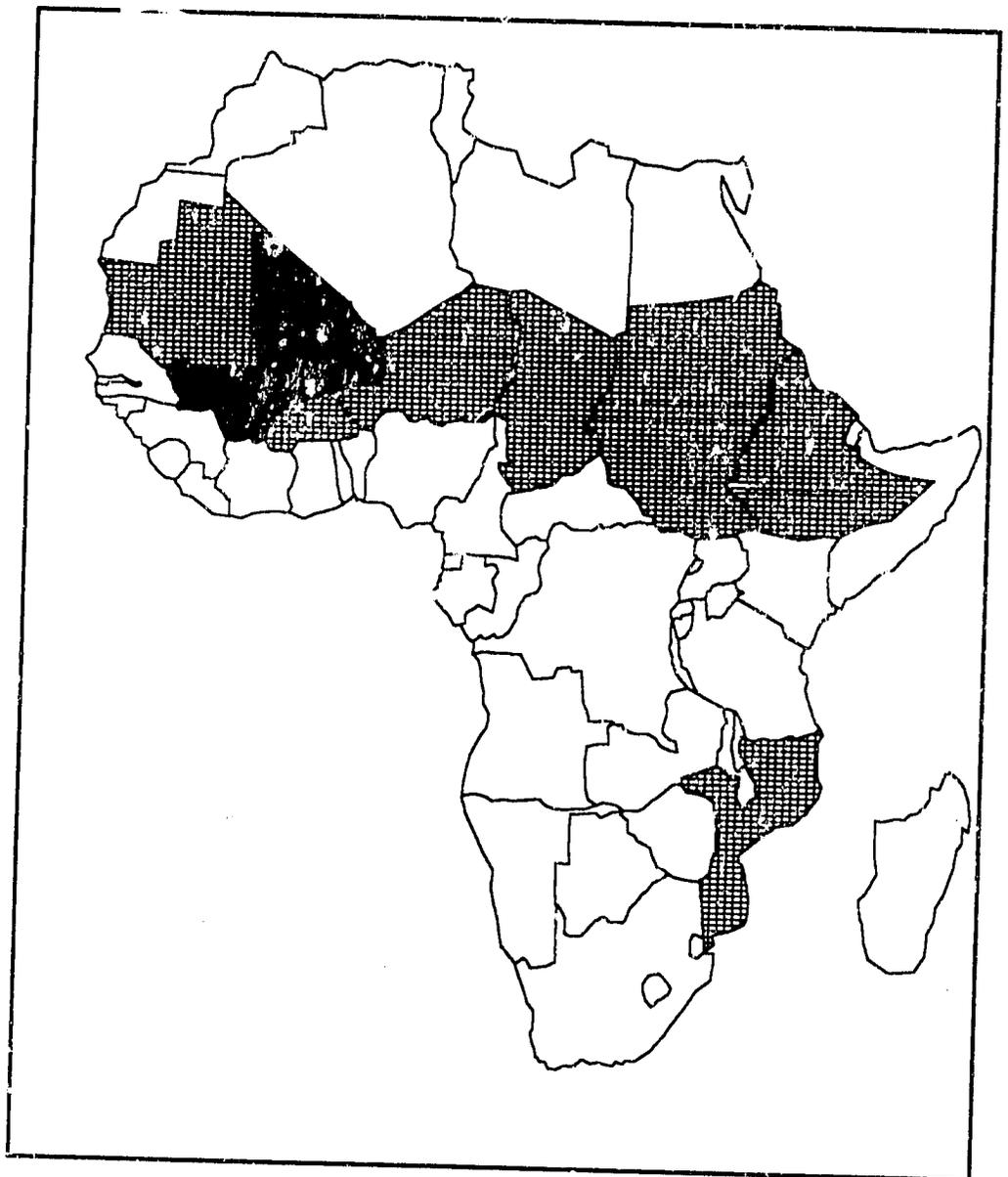


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FEWS Country Report

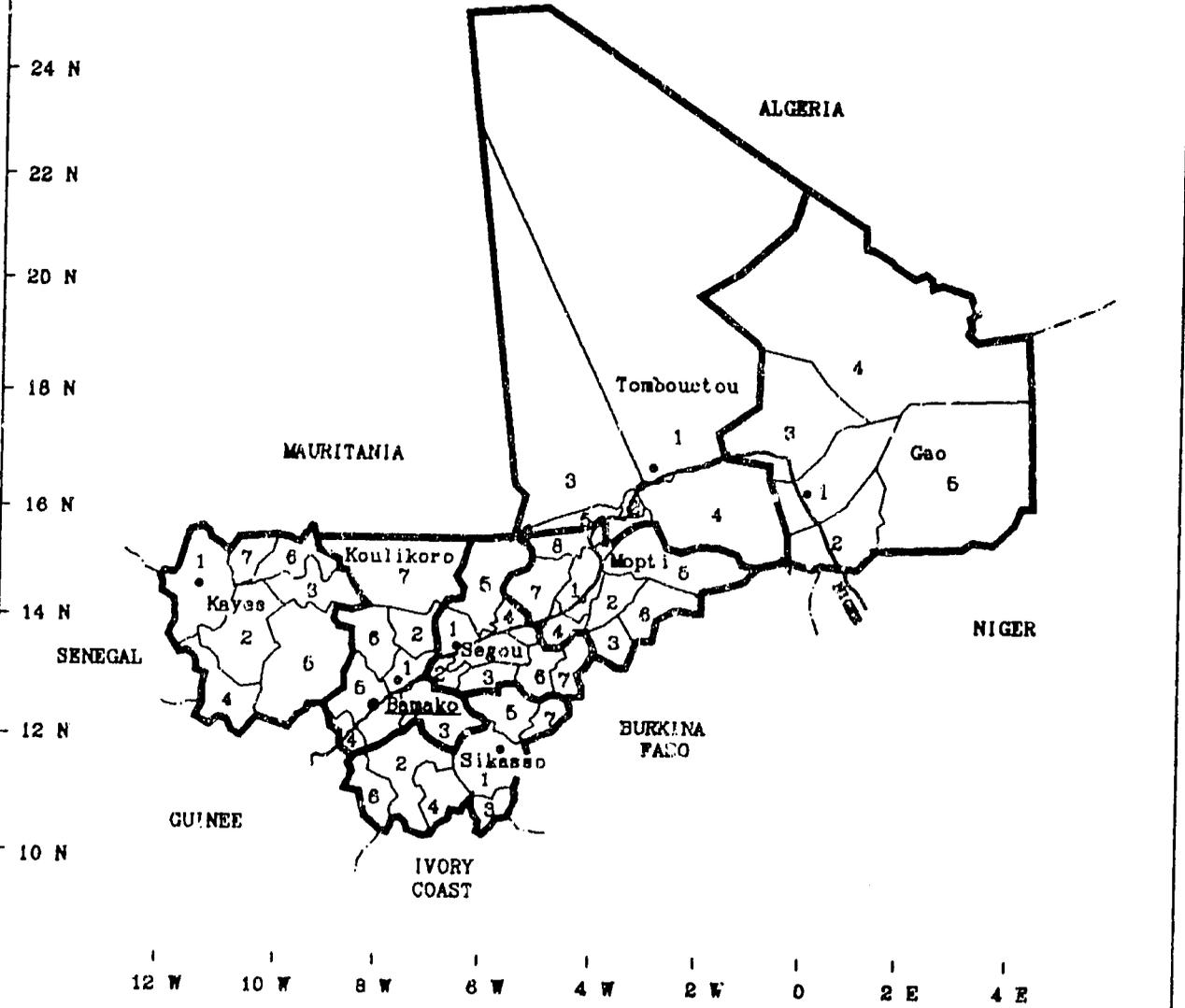
MALI



Africa Bureau
U.S. Agency
for International
Development

MAP 1: MALI

Administrative Units: Regions & Cercles



REGIONS and CERCLES

KAYES

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

KOULIKORO

1. Koulikoro
2. Banamba
3. Dioula
4. Kaygaba
6. Kati
8. Kolokani
7. Nara

SIKASSO

1. Sikasso
2. Bougouni
3. Kadiolo
4. Kolondieba
6. Koutiala
8. Yanfolila
7. Yorosso

SEGOU

1. Segou
2. Baraoueli
3. Bla
4. Macina
6. Niono
8. San
7. Tominian

MOPTI

1. Mopti
2. Bandiagara
3. Bankass
4. Djenna
6. Douentza
8. Koro
7. Tenenkou
8. Youvarou

TOMBOUCTOU

1. Tombouctou
2. Dira
3. Goundam
4. Gourma-Rharous
6. Niayunka

GAO

1. Gao
2. Ansongo
3. Bourem
4. Kidal
6. Menaka

Other Int'l Boundaries

Region Boundary

Cercle Boundary

• National Capital

• Regional Capital

200 km

Famine Early Warning System Country Report

MALI

Still on Course

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

Prepared by
Price, Williams & Associates, Inc.
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SUMMARY

Rains continue, as in recent years, to be less than the long-term "average" amount, but appear, nevertheless, to be sufficient for good agricultural growth in all but the northern and eastern regions of Mali. Significant rainfall deficits exist in most of Mopti, Tombouctou, and Gao regions. These regions are not normally self-sufficient in food production, and it is unlikely that the 1987 agricultural harvest will improve this condition. Dryness around Bougouni Cercle (Sikasso Region) may result in a decrease in yields there. Grasshopper problems have largely been less widespread and less severe than they were last year at the same time. Other famine-related indicators appear to show a stable situation in most of the country.

Issues: Early reports from the Ministry of Agriculture indicate that, despite the depressive effect of low grain prices on farmer planting decisions, the area under grain production this year is roughly equal to that of last year.

CROP CONDITION INDICATORS

Rainfall Reports: In general, cumulative rainfall throughout the months of May and June did not equal the thirty year average. Notable exceptions during this period included the Segou and San areas (Segou Region), where cumulative May and June rainfall was reported at 108% and 130% of the thirty year norm, respectively. Figure 1 displays rainfall totals from all reporting stations during the period June 20 to July 20.

Consistently below normal rainfall was recorded in the Mopti, Tombouctou, and Gao Regions during the same period, and the cumulative deficits in most of those areas are relatively severe. Bougouni also experienced very poor rainfall until the second decade of July, and has received less than 50% of the "normal" amount of expected rainfall.

Satellite Imagery: Satellite imagery¹ up to July 20, 1987, generally reinforces the picture inferred from the rainfall totals being reported; that is, generally good vegetative conditions in the West, Center and South of the country, and continued slow development in the East and North.

Recent Vegetative Trends - A comparison of imagery (see Figure 2) from July 11-20, 1987, with the ten days preceding that period (July 1-10), shows that recent change in the vegetative vigor in Mali is largely positive. Scattered areas of decline in vigor are noted around Sikasso

¹ The Normalized Difference Vegetation Index (NDVI) is derived from NOAA AVHRR GAC data. The photosynthetic capacity, or vegetative vigor displayed by these images is generally believed to be indicative of the condition of vegetation on the ground, and, at least inferentially, of the growing conditions for crops and pastures. These relationships are, however, only indirect and still the subject of continuing research.

Figure 1: Percentage of Normal Rainfall Received

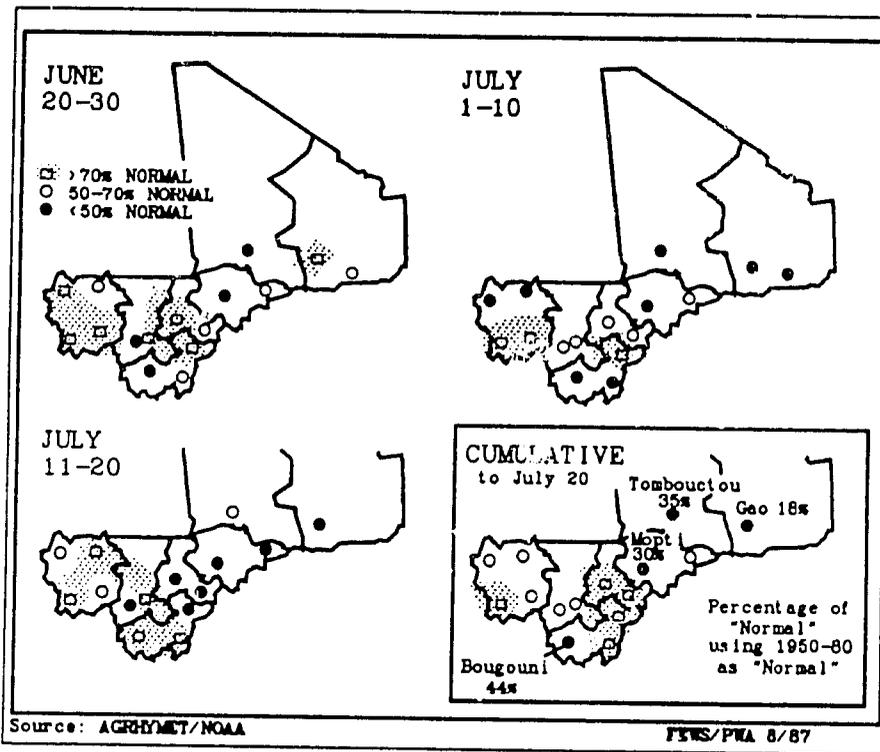
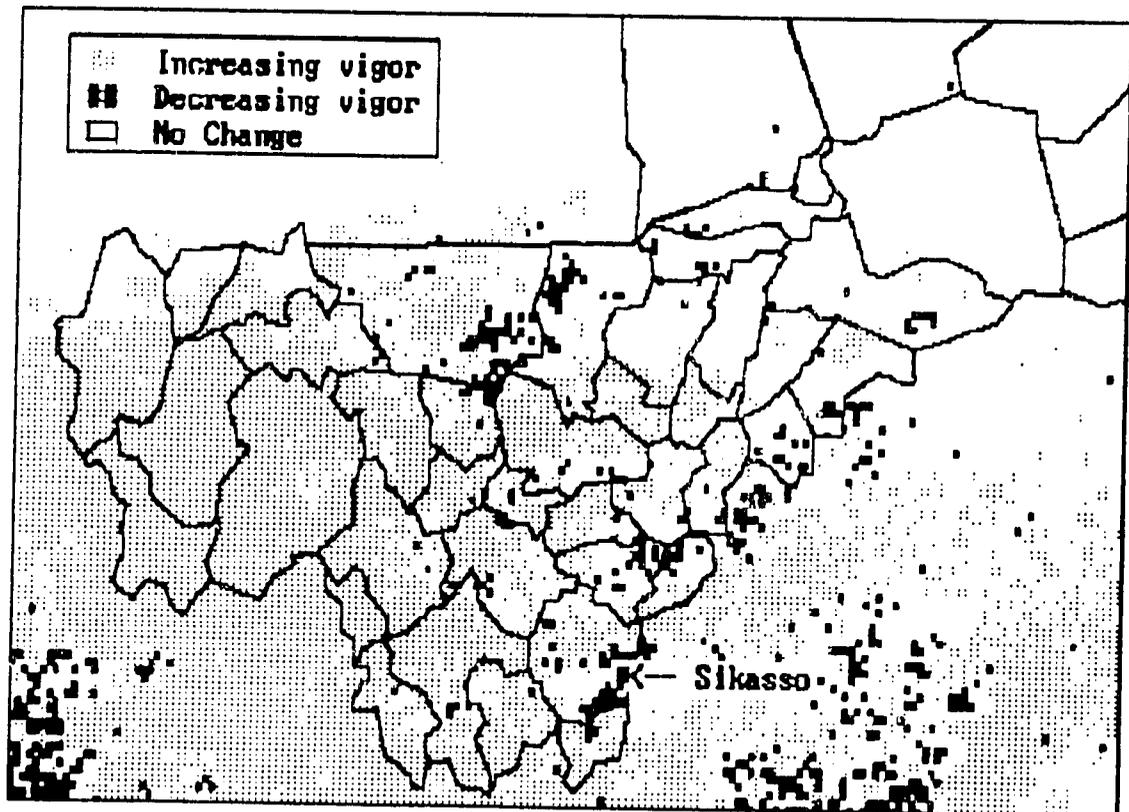


Figure 2: Recent Vegetative Trends



and elsewhere, but the positive trend is clearly visible. This is not, however, true in the eastern and northern parts of the country, where no change in recent vigor is noted.

Seasonal Vegetative Trend - Figure 3 compares the state of vegetation in early May with that of July 11-20, and indicates those areas where a "green-up" (growth of new vegetation) has occurred as a result of the rainy season. It shows that rainfall has not been sufficient to cause a detectable green-up in most parts of Mopti, Tombouctou, and Gao Regions, and in the northern zones of Kayes, Yelimane, and Nioro Cercles.

Inter-Annual Trends - A comparison of current imagery with that of a similar period in 1986 (see Figure 4), might show a somewhat disturbing picture if one remembers that 1986 was generally a good year for rains and grain production. Figure 4 displays the large number of areas in which there is currently less vegetative vigor than last year; these are particularly notable in the prime agricultural areas of Sikasso Region in the south, through Bougouni, Sikasso, and Koutiala Cercles, as well as in other cercles (Bafoulabe, Kayes, Koulikoro, and Baraoueli) scattered throughout the country. There are a few areas with greater vegetative vigor than in 1986 (particularly in Nara, Segou, and Macina).

Figure 3: Seasonal Vegetative Trend

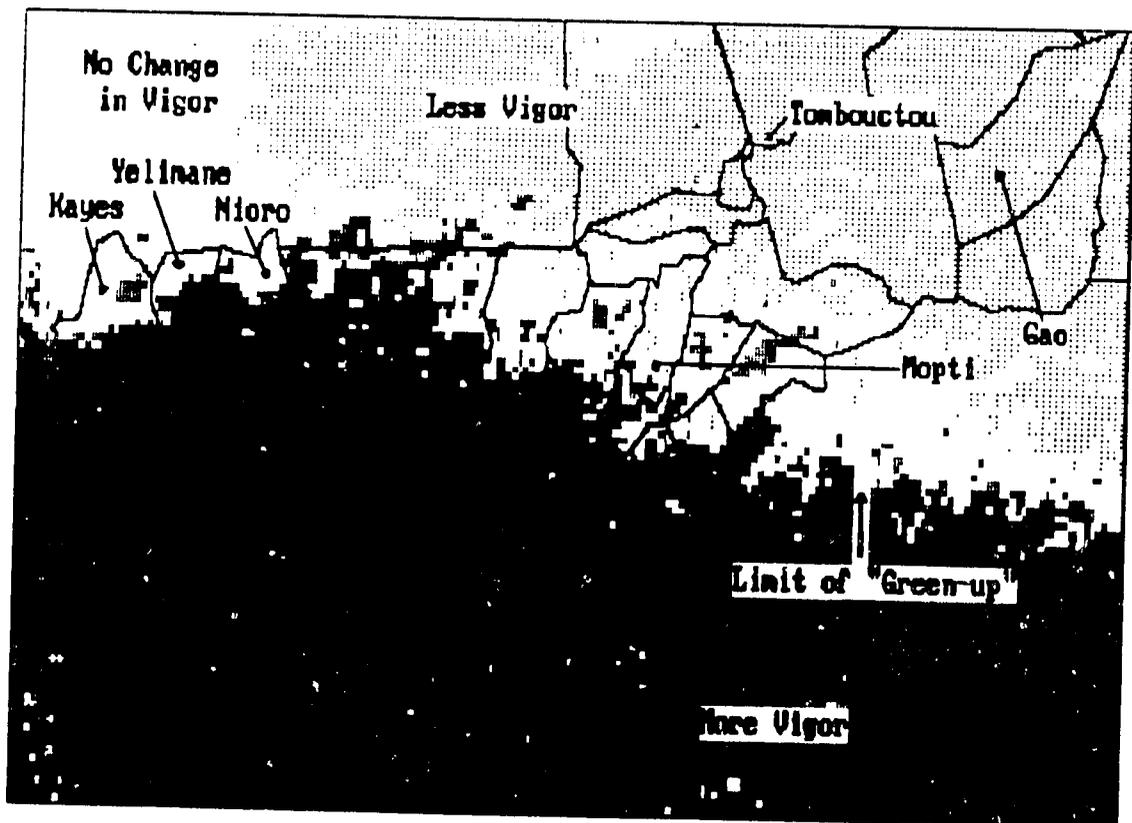


Figure 5: Historic NDVI Values

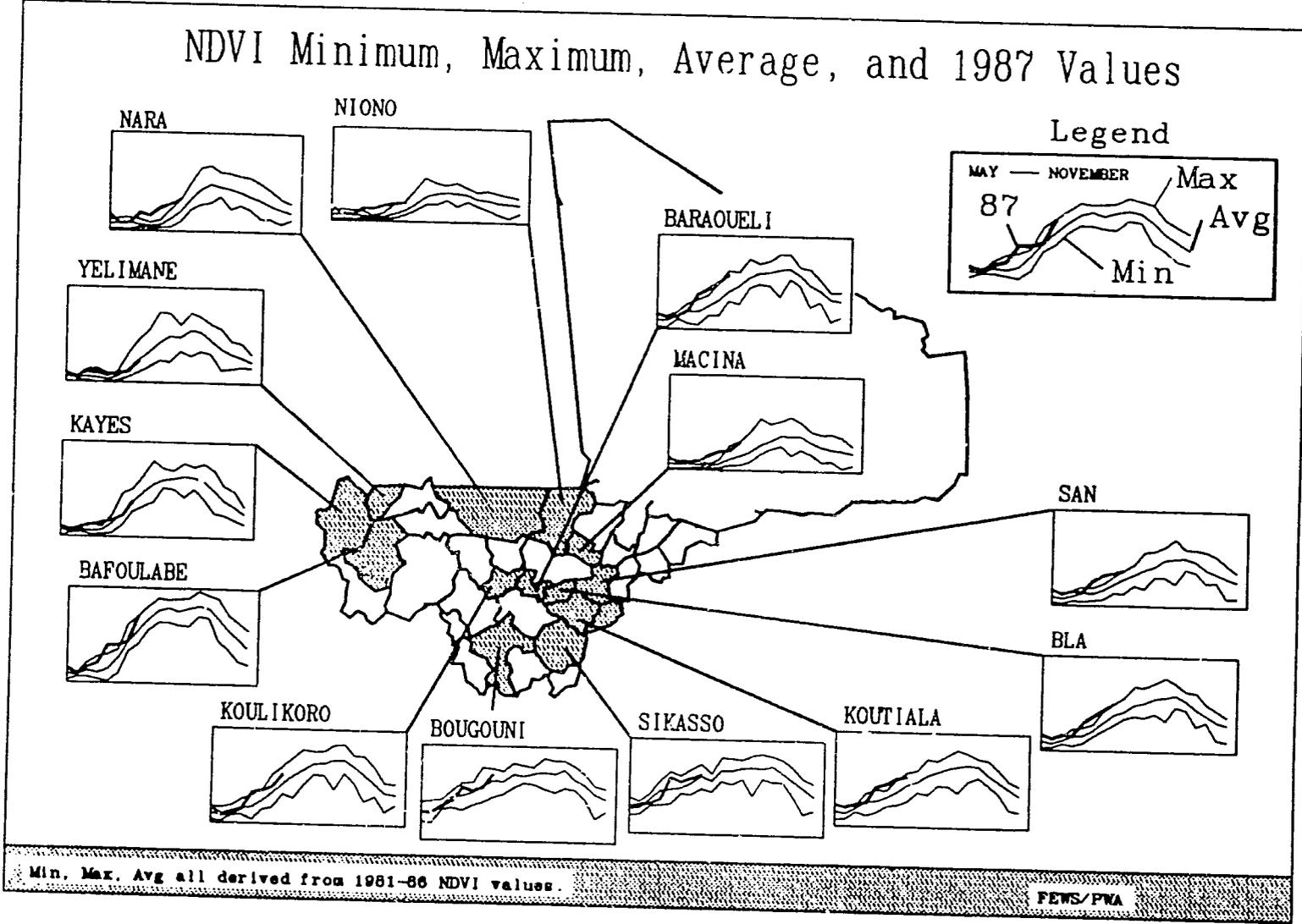
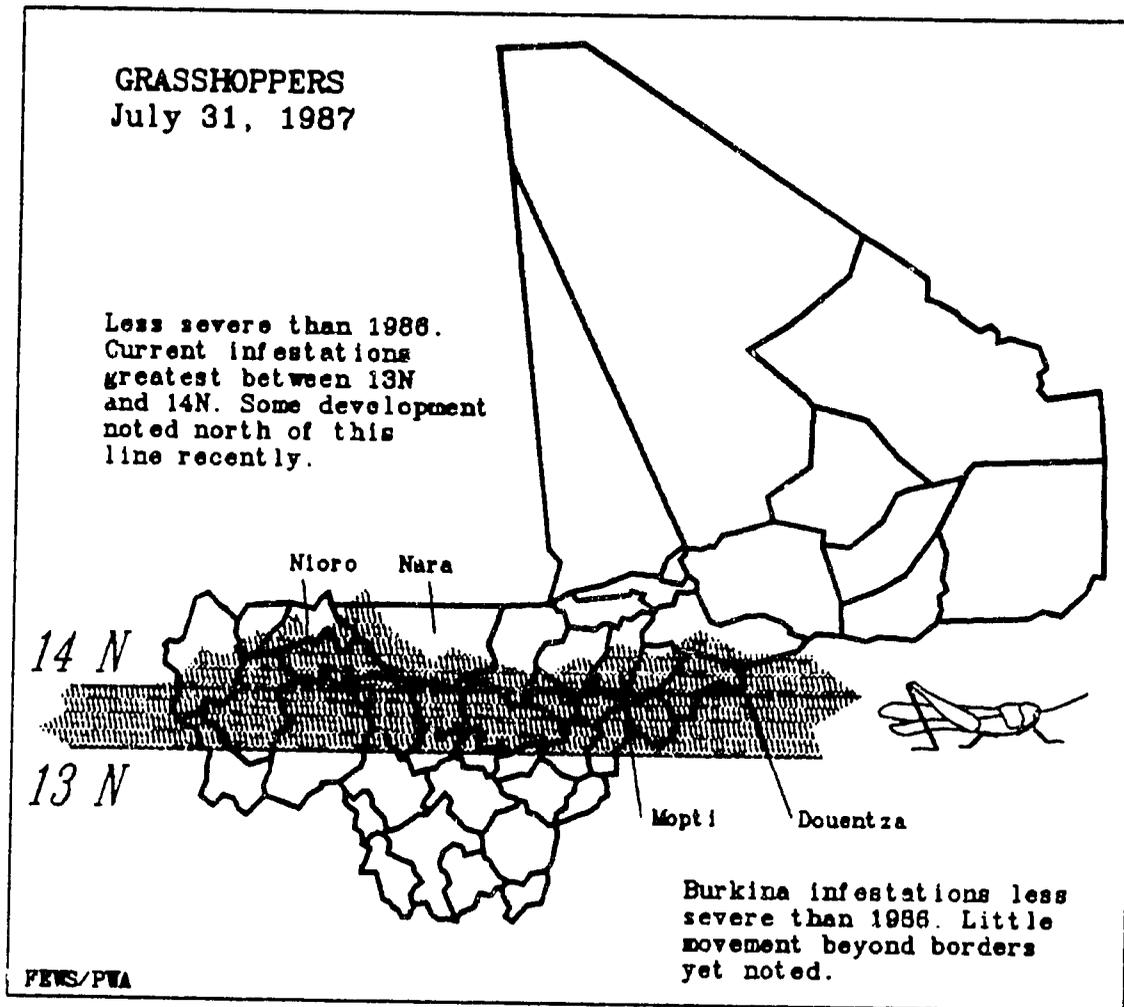


Figure 6: Approximate Grasshopper Locations



The mixing of first and second generations, and the relative stagnation of movement of adults, could presage considerable damage to crops if control measures were not undertaken. Reports from USAID/Bamako indicate, however, that the control campaign is almost a month ahead of schedule as compared to last year, except in Nioro Cercle. Supplies of pesticides appear to be sufficient in-country, but the movement of these stocks to some outlying areas may yet be a problem. Rats, mice, and birds have been serious problems in scattered cercles of the country, but have been the object of only local control measures, when some control action did, indeed, occur.

Conclusions about crop conditions - Other reports, both official and non-official support the inferences one might draw from the indicators examined above, that as of July 20, 1987,:

- conditions for crops appear to be generally good in most of the west, central, and southern areas of the country,

- conditions for rainfed crops and pastures appear to be close to the norm (not generally good) in most of Mopti, Tombouctou, and Gao Regions, in the northern half of Kayes Cercle, and in much of Yelimane and Nioro Cercles,
- despite the large rainfall deficit in Bougouni, the 193 mm that were received probably allowed some crop development to continue, and crop losses due to drought may be only light and temporary,
- grasshopper damage to young crops has been significant in only a few small areas; the control campaign appears to be prepared to deal with any outbreaks which occur.

OTHER INDICATORS

FEWS/Mali reports that, as of June, market prices for grain and livestock remain generally stable, or show normal pre-harvest rises. No abnormal migrations of people have been noted, and the number of displaced persons in Gao appears to be diminishing. This might reflect an optimism (misplaced, if judging by current conditions in the east and north) on the part of some displaced families about being able to return home and plant a crop, or it may just reflect a slow migration away from the town and to the coast or other areas further south. It is yet unlikely that many of these displaced people will be able to return to pastoralism.

Previously identified nutritional problems remain among the displaced populations located around Niono Cercle, in Bourem Cercle, where families with malnourished children will receive free food supplements from mid-June to the end of September, and in Douentza and Gourma-Rharous Cercles, where some populations are subsisting exclusively on "famine foods". A survey of the Balle Arrondissement (Nara Cercle) by the Systeme d'Alerte Precoce (SAP) in June, found that over 50% of the families had no food stocks, and were either buying or borrowing their daily grain. It also appears that the percentage of severely malnourished children may be significantly increasing there. The Systeme d'Alerte Precoce has recommended an immediate distribution of 360 tons of grain in the area. Another SAP survey in N'Tillit (Ansongo Cercle) found families rapidly selling their animals to buy grain. SAP feels, as a result, that this area should continue to be watched.

This is the fourteenth in a series of monthly reports on Mali issued by the Famine Early Warning System (FEWS). It 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 US 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). The contributions of the Systeme d'Alerte Precoce/Mali and the National Drought Committee (CNAVS) to this report are substantial and highly appreciated. Additional useful information is also provided by the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautic and Space Administration (NASA), AGRHYMET/Niamey, the UN Food and Agriculture Organization (FAO) Global Information and Early Warning System (GIEWS), the World Food Programme, and other U.N. agencies.

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