



FEWS Special Report

FEWS Sahel 1999/2000 Current Vulnerability Assessment

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Despite a late season start in certain parts of the 5 Sahelian countries covered by FEWS (Mauritania, Mali, Burkina Faso, Niger, and Chad), the 1999 rainy season (May to October) was exceptionally favorable for crops and pastures. Although flooding and pest attacks caused severe damage to crops in localized areas, the impact on national crop production was minor. In some areas, flooding and heavy rains increased the area for recessional production. Burkina Faso, Mali and Mauritania achieved record production this year, while Chad and Niger had average to above-average cereal harvests. In all but Chad, the national cereal balance for the 1999/2000 consumption year (November to October) is positive, after taking into account projected net imports.

In expectation of the good harvests, cereal prices began their seasonal decline earlier than usual. Post-harvest millet prices – a good barometer of traditional cereal prices in general – were well below average (1995-98) at most reporting markets covered by the various national market information systems (SIMs).

Most Sahelians have improved food access as a result of the good cereal and cash crop harvests, low cereal prices, generally excellent pasture and watering conditions for livestock, high river and water table levels for off-season garden and crop production and high livestock-to-cereal terms of trade.

However, each country has problem zones where this year's crop and pasture production was poor and other sources of income are not sufficient to bridge the gap between home food production and consumption needs until the October 2000 rainfed harvest. In most of these cases, households have suffered successive years of poor production and have depleted their assets. Based on the 1999/2000 FEWS current vulnerability assessments (CVAs), approximately 49,000 people reside in extremely food-insecure areas, 1.6 million in highly food-insecure areas, and 3.8 million in moderately food-insecure areas (figure 1 and FEWS categories of food insecurity box).

Mauritania

Abundant and well-distributed rains during the 1999 rainy season in south-central and southeastern Mauritania (Hodh Ech Chargui, Hodh El Gharbi, Guidimaka, Tagant and eastern Assaba Wilayas) yielded excellent rainfed harvests and pastures and provided favorable growing conditions for *bas-*

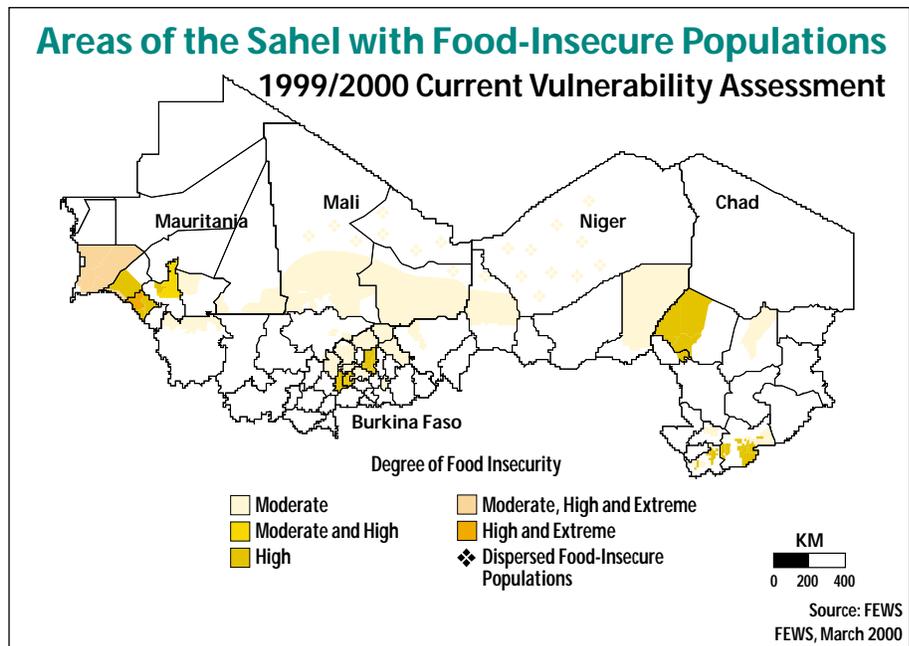
fonds (lowland recessional) crops. In the west (Brakna, Gorgol, Trarza and western Assaba Wilayas), rains were irregular and inadequate for rainfed crop and pasture development. Heavy rains in August and September and flooding on the Senegal River destroyed irrigated crops.

Despite lower production in some areas, the Ministry of Rural Development and the Environment estimates national cereal production at a record 198,100 MT. The gross cereal balance for 1999/2000 shows a deficit of over 278,300 MT compared to a deficit of nearly 311,300 MT in 1998/99. Adding estimated net imports yields a net surplus of almost 3,900 MT. The cereal balance is based on preliminary cereal production estimates released in October that do not take adequate account of

heavy pest damage to recessional crops in recent months.

The FEWS 1999/2000 CVA of rural population groups in Mauritania shows that most pastoralists and agropastoralists are food secure for the second consecutive year as a result of rich pasture conditions in the center and east and good animal health. Likewise, food security conditions are good for the majority of farmers in the center and east following an excellent rainfed harvest and the good outlook for *bas-fonds* crops in most areas.

FEWS analysis identifies extremely food-insecure populations in parts of Brakna, Gorgol and Trarza Wilayas (figure 2). Affected pastoralists in Trarza Wilaya rely almost exclusively on livestock products for direct consumption and to finance food



Country	Extremely Food Insecure		Highly Food Insecure		Moderately Food Insecure	
	Population in Affected Areas	Percentage of National Population	Population in Affected Areas	Percentage of National Population	Population in Affected Areas	Percentage of National Population
Mauritania	49	2	86	3	52	2
Mali	0	0	0	0	292	3
Burkina Faso	0	0	1,219	11	2,664	15
Niger	0	0	0	0	699	7
Chad	0	0	302	4	109	2
Total	49		1,607		3,816	

Note: Tables in this report show the entire population of affected socioeconomic groups at the given administrative level unless otherwise noted. This does not imply that the entire population of those groups is food insecure (see FEWS categories of food insecurity box).

Source: FEWS
FEWS, March 2000

Figure 1

Populations in Food-Insecure Areas in Mauritania in 1999/2000

Wilaya Moughataa	Population (thousands)		
	Extremely Food Insecure	Highly Food Insecure	Moderately Food Insecure
Assaba			
Barkèol, Boumdeid, Guèrou, Kiffa	0	11	5
Brakna			
Aleg, Bababé, Boghé, Magta- Lahjar, M'Bagne	18	40	21
Gorgol			
Kaedi, M'Bout, Monguel	10	21	0
Hodh Ech Chargui			
Amourj, Bassikounou Djiguenni	0	0	15
Hodh El Gharbi			
Tamchekett (Affolé)	0	0	3
Trarza			
Boutilimit, Mederdra, Oquad Naga, R'Kiz Rosso	21	14	8
Total	49	86	52

Note: Level of analysis—Moughataa—3rd level administrative unit
**Source: FEWS/Mauritania
 FEWS, March 2000**

Figure 2

purchases. Pasture conditions in Trarza are so poor that animal herds have been moved out of the area, leaving sedentary household members without their main source of food access for most of the year. Affected farmers in the Senegal River Valley of all 3 Wilayas lost their rainfed crops due to drought or excess moisture, their irrigated crops to flooding and their recessional crops to pests. Some farmers in flood-affected areas have already received assistance from WFP and the Government's Food Security Commission (CSA), but not all those affected have received assistance. In some cases, quantities distributed were inadequate because they were based on the earlier optimistic outlook for recessional crops. Many of these households are experiencing their third or fourth consecutive year of poor cereal production.

FEWS analysis identifies highly food-insecure populations in parts of Assaba, Brakna, Gorgol and Trarza Wilayas. Poor pasture and watering conditions are forcing the affected pastoralists to graze herds far from homesteads. As early as April, the herds will have to be moved out of the area entirely, depriving sedentary family members of their main source of food access. The affected farmers normally obtain most of their food access from rainfed crop production and this year's production was poor. Although these farmers enjoyed a good season last year, they were highly food insecure in 1998 and 1996. For the second consecutive year, the agropastoralists in Boghé Moughataa (Brakna Wilaya) lost most of their crop harvest and have depleted their very modest animal herds to purchase food.

FEWS analysis identifies moderately food-insecure populations in parts of Assaba, Brakna, Hodh

Ech Chargui, Hodh El Gharbi and Trarza Wilayas. The affected pastoralists will have adequate access to food for most of the year because available crop residues will allow herds to remain close to settlements. Once the herds depart, households should be able to intensify coping activities, including reliance on wild foods. Farming and agropastoralist households in the west had poor rainfed production and lost irrigated crops to flooding. They shifted resources to take advantage of good *walo* (river recessional) or *bas-fonds* growing conditions, but they had to intensify coping activities to meet food needs between October/December (when rainfed or irrigated crops are normally harvested) and March/April (when *walo* harvesting begins). Given extensive pest damage to *walo* crops, they will continue to experience hardship but should be able to meet their food needs. Farm households in the southeast had excellent rainfed harvests, but in certain areas excess water limited the area planted to *bas-fonds* crops. Without the full contribution of *bas-fonds* crops, farmers will have to intensify coping activities. Their proximity to Mali, where harvests were good, will ensure adequate market food supplies.

Mali

Despite a late start to the 1999 rainy season in certain parts of the agricultural zone and isolated cases of flooding, Mali posted its second consecutive year of record national cereal production. Estimated gross cereal production of almost 3 million MT is 16 percent higher than last year and 28 percent higher than the 1994/95-1998/99 average. The national cereal balance shows a gross surplus of 228,000 MT (before counting net imports) and a net surplus of 255,500 MT. Cereal prices, which remained relatively low throughout 1999, are likely to be even lower in 2000, given the good cereal harvests in the region that will limit exterior demand for Malian cereals.

The FEWS 1999/2000 CVA considered the capacity of farmers, agropastoralists, pastoralists, fishing households and the urban poor to gain access to available food supplies.

For dryland farmers and agropastoralists in the Sudanian and Sahelian agropastoral zones, rainfed cereal production was above average in all Regions. Despite a fall in cotton production compared to the previous 2 years, production remained well above the 1994/95-1998/99 average. Although production data for non-cereal crops are not available, field observations indicate above-average production of these important food and cash crops (cowpeas, groundnuts, Bambara nuts and sweet potatoes). The generally good crop harvests, combined with income from livestock sales, remittances, off-season gardening and seasonal wage labor will leave dryland farmers and agropastoralists food secure.

Rice farmers in the Niger River Valley and those near other important rivers and dams have experienced their fifth consecutive year of record rice production. Harvest period rice-to-millet terms of trade, a good barometer of relative household purchasing power, are high. Rice-farming households are considered food secure.

Pasture conditions and water availability are the best in recent memory in the pastoral zone of northern Mali (Gao, Kidal and Tombouctou Regions and northern Kayes, Koulikoro and Mopti Regions). Increased civil security in recent years has facilitated food flows from surplus zones to the deficit pastoral zones. Harvest period livestock-to-cereal terms of trade are the highest in the past 5 years. Despite these improved conditions, many pastoralists and agropastoralists in this zone have only recently returned, following the intense period of civil insecurity in the early 1990s. Many have benefited from UNHCR resettlement assistance but are still struggling to make ends meet. In northern Kayes Region, civil insecurity continues to disrupt livelihoods. Given the tenuous situation, pastoralists and agropastoralists across the northern pastoral zone are considered moderately food insecure (figure 3).

Fishing populations have experienced 3 consecutive years of good fish catches. The quantities of fish off-loaded at the port of Mopti in February were almost double those of last year. The good economic outlook across Mali is bolstering demand for fish as households with extra income seek to diversify their diets. Fishing households have adequate income to secure their food needs and are considered food secure.

Urban populations make up 27 percent of the total population in Mali. Urban poverty levels have

Populations in Food-Insecure Areas in Mali in 1999/2000

Region	Circle	Population (thousands)
		Moderately Food Insecure
Gao	Ansongo	41
	Bourem	19
	Gao	33
Kayes	Menaka	41
	Kayes	13
	Nioro	24
Mopti	Yellimané	21
	Bankass	3
	Koro	5
Tombouctou	Abeibara	5
	Goundam	25
	Gourma-Rharous	14
	Kidal	12
	Niafunké	10
	Tessalit	10
Tin Essako	5	
Tombouctou	13	
Total		292

Note: Level of analysis—Arrondissement—4th level administrative unit
**Source: FEWS/Mali
 FEWS, March 2000**

Figure 3

decreased over the past 2 to 3 years. With low cereal prices expected in 2000, urban populations will enjoy increased market access to cereals and are considered food secure.

For the second consecutive year, no populations in Mali need emergency food assistance. Moderately food-insecure pastoralist and agropastoralist populations in the northern pastoral zones would benefit from continued micro-development programs. Continued efforts to reduce civil insecurity are also necessary to facilitate economic recovery.

Burkina Faso

The 1999 rainy season was favorable for crop and pasture production across much of Burkina Faso. Estimated gross national cereal production of almost 2.7 million MT is a new record, exceeding last year's level by 2 percent and the 1994/95-1998/99 average by 13 percent. National availability from production and stocks exceed needs by more than 200,000 MT. When projected net imports are added, the final cereal balance for 1999/2000 shows a net surplus of over 440,000 MT. The surplus should keep cereal prices at low levels for a second consecutive year.

The FEWS 1999/2000 CVA considered the capacity of farmers, agropastoralists, pastoralists and the urban poor to gain access to available food supplies. Two consecutive years of relatively good food and cash crop production have bolstered household food access from own production for most farmers and agropastoralists. Excellent pasture conditions have increased herd productivity, and high livestock-to-cereal terms of trade are facilitating easy market access for agropastoralists and pastoralists. Farmers in important cotton-producing Provinces saw their income from cotton decline from the high levels of the past 2 years because of lower cotton

FEWS Categories of Food Insecurity

In Current Vulnerability Assessments, FEWS classifies areas or specific socio-economic groups within areas as food secure or food insecure. In food-secure areas, an average household can maintain normal seasonal consumption patterns during the given consumption period using income derived from strategies that do not compromise future food security. In food-insecure areas, this is not the case.

To assist decision-makers in prioritizing emergency food allocations within and between countries, FEWS classifies food insecure populations using the following operational definitions:

- Moderately food-insecure populations can meet their consumption needs during the given consumption period only by intensifying their normal coping strategies. These households are vulnerable to any subsequent shock, either in the given or subsequent consumption period.
- Highly food-insecure populations will not be able to meet their consumption needs during the given con-

sumption period. They will be forced to reduce consumption and dispose of their productive assets, thereby undermining their future food security.

- Extremely food-insecure populations are now, or will soon be, unable to meet their consumption needs. They have already exhausted their strategies for acquiring food and are currently destitute.

Although the CVA assigns a food security status to each socio-economic group at the administrative level that constitutes the unit of analysis, it cannot quantify the number of food-insecure people. Rather, the CVA applies a food security classification to an "average" member of the area or group, the entire population of which can be counted. The larger the area and the more heterogeneous the group, the more likely it is that food security levels will vary among households within the group. Detailed food needs assessments are required to identify the precise numbers of affected people and appropriate interventions.

prices and production; however, these Provinces are generally surplus in cereal production, and this year is no exception. Low food prices in 1999 have eased food access of the urban poor, and expected low prices this year should bolster their purchasing power. All of these factors have contributed to improved food access for most rural and urban populations, leaving average households food secure in 19 of Burkina's 30 Provinces.

However, in the central Provinces of Boulikemdé, Sanguié and Sanmatenga, below-average cereal production over the past 2 to 3 years has reduced farm households' main source of food access. Contributions to income from livestock and cash crops are limited except in Sanmatenga, where cowpeas are an important cash crop. In 1998/99, Sanguié was considered highly food insecure and Boulikemdé and Sanmatenga moderately food insecure. Low cereal prices over the course of 1999 helped households acquire food from the market, but they drew heavily on assets and intensified secondary income activities to finance the purchases. This year's poor production has only heightened their food insecurity (figure 4).

In another 8 Provinces in the north and center (Kouritenga, Oubritenga, Oudalan, Passoré, Séno, Soum, Sourou and Yatenga) estimated cereal production was below average (except for Passoré) and insufficient to cover province-level consumption needs. In Passoré, estimated production is above average, but field reports suggest that the estimates are overly optimistic. All of these provinces were found to be moderately food insecure in 1998/99. The Provinces of Oudalan, Séno and Soum suffered the largest production shortfalls relative to average this year: -26, -33, and -24 percent, respectively.

However, most households in these Provinces are agropastoralists and can take advantage of good pastures and favorable livestock-to-cereal terms of trade to compensate for lost crop production. In Kouritenga, Oubritenga, Passoré, Sourou and Yatenga Provinces, farm households have limited alternative sources of income. They have depleted assets and relied heavily on coping activities over the past couple of years. However, expected low cereal prices are likely to make market food supplies relatively affordable, and favorable conditions for off-season gardening will provide income and food. Farmers and agropastoralists in all 8 Provinces are considered moderately food insecure.

Currently, no specific interventions have been planned to respond to food needs in the highly food-insecure Provinces of Boulikemdé, Sanguié and Sanmatenga. However, the Government is encouraging populations in these localities to take advantage of water availability to intensify livestock and off-season gardening and cropping activities.

Niger

Despite a late start to the 1999 rainfed agricultural season, higher-than-average and well-distributed rainfall in August and September resulted in a national cereal harvest of 2.8 million MT, surpassed only by the 1998/99 record harvest. Domestic cereal availability from production and stocks falls short of covering consumption requirements by about 78,000 MT. With planned net imports of 195,000 MT and pledged food-aid imports of approximately 13,000 MT, the national food balance presents a net surplus of 130,000 MT. This is only the second time in the last decade that Niger has had a positive food balance for 2 consecutive years. Cereal prices should therefore remain low.

Populations in Food-Insecure Areas of Burkina Faso in 1999/2000

Province	Population (thousands)	
	Highly Food Insecure	Moderately Food Insecure
Boulikemdé	463	0
Kouritenga	0	276
Oubritenga	0	336
Oudalan	0	152
Passoré	0	267
Sanguié	275	0
Sanmatenga	481	0
Séno	0	335
Soum	0	269
Sourou	0	387
Yatenga	0	642
Total	1,219	2,664

Note 1: Level of analysis—Province—2nd level administrative unit

Note 2: Because the level of analysis in the Burkina Faso CVA is the Province, the population numbers in food-insecure areas are generally higher than those in other FEWS Sahel countries where CVAs were carried out using data from lower-level administrative units.

Source: FEWS/Burkina Faso
FEWS, March 2000

Figure 4

Populations in Food-Insecure Areas of Niger in 1999/2000

Department	Arrondissement/City	Population (thousands)	
		Moderately Food Insecure	Food Insecure
Agadez	Agadez City	29	
	Arlit	35	
	Tchirozerine	71	
Diffa	Diffa Town	6	
	N'Guigmi	10	
Dosso	Dosso Town	13	
Maradi	Maradi City	58	
Niamey	Niamey City	136	
Tahoua	Tchintabaraden/Abalak	61	
	Tahoua Town	24	
Tillabéry	Tillabéry	195	
Zinder	Zinder City	61	
Total		699	

Note: Level of analysis—Arrondissement—3rd level administrative unit

Sources: FEWS/Niger
FEWS, March 2000

Figure 5

The FEWS 1999/2000 CVA considered the capacity of farmers and agropastoralists, pastoralists and the urban poor to gain access to available food supplies.

Pastoralists derive most of their income from sales of animals and dairy products, through which they purchase food and satisfy other needs. This year, in all 7 Departments, availability of range grasses and agricultural by-products exceeds that needed to support current livestock levels. Well-filled seasonal ponds will allow maximum use of available pasture. Relatively high livestock-to-cereal terms of trade mean that pastoralists will have to sell fewer animals to purchase food, permitting them to build herd sizes. Thus pastoralists are considered food secure.

Farmers and agropastoralists obtain most of their food directly from crop production and a smaller portion indirectly from market purchases. They finance food purchases through remittances, the sale of livestock and livestock products, cash crops (particularly cowpeas), off-season market gardening products, firewood, charcoal and artisanal products. This year's excellent cereal harvest, an above-average cowpea harvest and favorable conditions for off-season gardening and irrigated and recessionary cultivation have left most farmers and agropastoralists food secure (figure 5).

However, farmers and agropastoralists in the arrondissements of Arlit and Tchirozerine (Agadez Department), Abalak and Tchintabaraden (Tahoua Department), Tillabéry (Tillabéry Department), and N'Guigmi (Diffa Department) are moderately food insecure. In all of these arrondissements, this year's cereal production was below the 1994/95-1998/99 average. Despite favorable bio-physical conditions for off-season production, high costs of fuel for irrigation pumps and of inputs are limiting production. In Agadez and Diffa Departments, civil insecurity raises food and transportation costs and limits

economic activity. Average households will only be able to meet their food needs through intensification of secondary income activities that will cause hardships in the months ahead but will not compromise future food security.

Urban populations represent 16 percent of Niger's total population. They derive their income from salaried jobs, commerce, occasional wage labor and artisanal activities. Civil servants have not received their salaries for months and have accumulated over 12 months of salary arrears over the past couple of years. In Niamey, where civil servant salaries indirectly support up to half the city's population of 600,000, the impact of unpaid salaries is felt throughout the economy of the capital city. Residents of the other major urban centers, Maradi and Zinder (each with over 100,000 inhabitants) and Tahoua and Agadez (each with over 50,000 inhabitants), rely less heavily on government salaries, but have suffered similar declines in urban welfare because of the steady decline in the Nigerien economy. Although 2 successive good rainfed harvests have lowered food prices, many urban households have had to draw on assets and intensify coping activities to make ends meet. The poorest urban households are considered moderately food insecure.

In moderately food-insecure rural arrondissements, food-for-work programs to rehabilitate wells, plant trees and attenuate desertification could help populations that have exhausted their resources over the last few years.

Chad

Chad's 1999 rainy season was characterized by poor rainfall distribution at the beginning, with improved rainfall starting in early July. Heavy rains in July and August resulted in extensive flood damage in parts of the Sudanian zone and reduced yields of dune millet in parts of the Sahelian zone. Also, in the north of the Sahelian zone, relatively dry conditions in September and October favored crop pest proliferation, and the pest damage to crops lowered yields. Outside the flood- and pest-affected areas, yields were high. The overall result was better-than-average production (+9 percent) but lower production than last year (-15 percent), which was a record year. Pasture and surface water are plentiful south of the Saharan zone. River levels are high, favoring fish production and off-season gardening.

Given net gross national cereal production of 928,100 MT, estimated cereal consumption needs of 1.18 million MT, net stocks of almost 50,000 MT, and projected imports of over 76,000 MT, the national cereal deficit is estimated at approximately 123,000 MT. Even in years of excellent production, like 1998/99, Chad registers an overall cereal deficit. This year's deficit is substantially larger than last year's

(28,900 MT), but only half the level of 1997/98, when it was about 240,000 MT. Given this level of overall availability, cereal prices are unlikely to remain at the very low levels of 1999 but are likely to increase within normal seasonal bounds except in areas that experienced significant production shortfalls.

The 1999/2000 CVA indicates that all pastoralists and most farmers in the Sahelian zone will be food secure during the 2000 hungry period (June to September). However, because of the poor rainfed millet production in Kanem Prefecture, farmers in Mao, Nokou, Rig-Rig and N'Gouri Subprefectures are considered highly food insecure (figure 6).

Considering the overall good level of production in the Sudanian zone, Sudanian farmers outside of flood-affected areas will be food secure during the coming hungry period. However, because of the heavy food and cash crop losses in flood-affected areas, Sudanian farmers in parts of Logone Oriental, Mayo-Kébbi, Moyen-Chari, and Tandjilé Prefectures are either moderately or highly food insecure. Populations in some of these areas are already experiencing difficulty meeting their food needs.

Food access conditions for the highly food insecure will be rendered even more difficult by the fact that food availability in rural areas of the Sudanian zone may be limited, in spite of the relatively good food harvest. This is because farmers sold a large part of their food at harvest time to traders who have transported the food out of the rural areas to urban centers where purchasing power is stronger.

Populations in Food-Insecure Areas of Chad in 1999/2000

Prefecture	Subprefecture	Population (thousands)		
		Highly Food Insecure	Moderately Food Insecure	
Batha	Djedaa	0	5	
	Kanem	Mao	92	0
		Nokou	35	0
Lac	Rig Rig	10	0	
	Ngouri	10	0	
Logone Oriental	Bebedjia	19	11	
	Bessao	8	21	
Mayo-Kébbi	Doba Rural	20	8	
	Laramanye	0	18	
	Lere	3	0	
Moyen-Chari	Bedjondo	48	0	
	Koumra	15	0	
	Kyabé	2	21	
	Maro	4	0	
	Sarh Rural	36	0	
Tandjilé	Lai	0	25	
Total		302	109	

Note 1: Level of analysis—Canton—4th level administrative unit

Note 2: For Logone Oriental, Mayo-Kébbi, Moyen-Chari, and Tandjilé Prefectures, detailed flood damage information at the village level was available for certain cantons. In these cases, only the flood-affected population of the canton is enumerated as highly food insecure. In other flood-affected cantons, where detailed lists of villages were not available, 10 percent of the canton population is arbitrarily enumerated as highly food insecure.

Source: FEWS/Chad
FEWS, March 2000

Figure 6