

### Summary

The dry season is in full effect in the Sahelian Zone. The rain front (ITCZ) has retreated considerably southward since the end of October.

The most important activity since the beginning of November is the threshing of cereals (millet and sorghum) in the areas of good production. The long cycle crops that are generally grown in the Sudanian Zone are at the stage of maturity-harvest.

The off-season crops ? *berbéré* (or recessional sorghum), vegetables, and wheat and rice from irrigated fields ? are developing normally in sites suitable for their cultivation.

Cereal prices increased in mid-November compared to prices in October, even in the Sudanian Zone where they were close to normal during October.

According to projections of the 2000/01 season by the joint CILSS/FAO and Directorate of Agricultural Statistics mission, total gross cereal production is estimated at 890,000 MT, a decline of 28% below last year's level of 1,229,800 MT and 16% below the five-year average (1995/96 - 1999/2000). The provisional deficit is estimated around 365,000 MT.

The food security stock has not changed. At 1,350 MT, it is at one of its lowest levels.

## 1. Agroclimatic Conditions

### 1.1. Weather Conditions

The Inter-Tropical Convergence Zone (ITCZ) fluctuated between 8° N and 9° N during the first dekad (10-day period) of November. Rainfall was insignificant or non-existent in the southern, Sudanian zone of the country where rains normally end later in November.

Water points in some areas may not fill up, posing problems later for livestock as certain water points will dry up earlier than usual.

### 1.2. Status of Rainfed Crops

Farmers harvest early-planted cereal crops almost everywhere in the Sahelian as well as the Sudanian Zones by mid-November. Long-cycle crops in the Sudanian Zone are generally at a "waxy-maturity" stage. Late-planted, long-cycle crops there may not reach full maturity unless it rains a few more times.

### 1.3. Crops in the Lake Department

Farmers cultivate in Chad's Lake Department during two periods. Rainfed agriculture extends from June to September and mainly concerns millet and maize production in irrigated polders near the inlets of Lake Chad.

Lake Department is very important for off-season crops, especially wheat and maize. Maize is sown in August and harvested in November while wheat is sown in August but harvested one month later, in December. Farmers also grow vegetables for the N'djamena market.

There are two kinds of irrigated polders: traditional and modern. In modern polders irrigation is practiced on a large scale and farmers are supervised by technical extension staff of the Lake Development Agency (SODELAC).

Table 1 shows rainfall during the 2000 season in several locations around the Lake.

<b>Table 1. Rainfall during the 2000 Agricultural Season around Lake Chad</b>						
Station	1998		1999		2000	
	Quantity in mm	Number of days	Quantity in mm	Number Of days	Quantity in mm	Number of days
Bol	324.8	21	441.7	29	240.9	17
Doum-Doum	381.1	21	481.0	28	385.9	23
N'Gouri	375.5	28	428.2	34	230.4	24
Liwa	301.0	21	421.0	21	219.6	19

Source: SODELAC

These figures confirm that rainfall in 2000 in all four stations was below rainfall last year and the year before, except in Doum Doum where rainfall in 2000 was equivalent to the rainfall in 1998. Crops this year, generally everywhere, did not reach maturity due to insufficient moisture.

Table 2 sketches the main figures for finger millet for the 2000 season in several locations around the Lake.

<b>Table 2. Finger Millet Production in the 2000 Agricultural Season around Lake Chad</b>						
Service or Agency	Area (ha)		Forecast Production, MT	Yield MT/ha	Actual Production, MT	Shortfall MT
	Cultivated	Harvest-able				
Bol	15,859	5,300	6,343.6	0.25	1,325.00	5,018.60
Doum	21,436	5,733	12,862.0	0.30	385.86	12,476.14
N'Gouri	43,087	497.05	14,799.0	0.34	169.00	14,630.00
Liwa	3,200	3,100	775.0	0.025	77.50	697.50
Total	83,582	14,630.05	34,779.6	0.915	1,957.36	32,822.24

Source: SODELAC

Finger millet grown in the dunes recorded a significant production shortfall (the difference between forecast and actual production), especially at N'Gouri and Liwa where the production

was very low. This big decrease in the production is explained by poorly distributed rainfall and localized dry spells or by pests, such as birds, Spanish flies and stemborers.

#### **1.4. Off-Season Crop Conditions**

The *berbéré* crop (flood recession sorghum) is sown in August, replanted in September as seedlings and harvested in November or December. This crop, cultivated in flooded areas, grows generally well, especially south of N'Djamena and in the production areas in the Sudanian zone.

In the Sahelian zone, because of low rainfall during 2000, little *berbéré* is being cultivated, or none at all in several production areas.

Other off-season crops are cultivated in the following production areas:

- Tomatoes, onion, garlic in the wadis of Ouaddai;
- Wheat, maize in the polders of Lake Chad; and
- Rice in the irrigated perimeters along the Chari and Logone Rivers.

#### **1.5 Conditions in the Cotton Area**

The lack of motivation of cotton-growing farmers has created a debate concerning the future of the cotton parastatal company, *Coton-Tchad*, between the company and the Government of Chad. This lack of farmer motivation can be explained by three major reasons:

- High fertilizer prices, according to farmers, and the decreasing cotton purchase price which dropped from 170 to 150 CFA francs during the 1998/99 season and from 170 to 165 CFA francs for the 2000/01 season.
- After the harvest, the cotton is not sold rapidly whereas farmers need money right away for their priority needs,
- Transport costs per cotton bale, considered high by *Coton Tchad* (75 CFA francs per kilometer-ton using independent truckers and 60 CFA francs per kilometer-ton using the National Union of Truckers).

Cotton is sown in May-June and harvested in October or early November. Last year's production was 182,000 MT, but this season's production is estimated at only 140,000 MT. This decline of 42,000 MT is relatively large and represents a loss of about 7 billion CFA francs for the company and the Government of Chad, according to the National Board for Rural Development.

#### **1.6. Other Off-Season Activities: Gum Arabic**

The most common varieties known in Chad are Senegalese acacia (called *Kitir* in local Arabic) and Seyal acacia (called *Talha*).

Gum arabic is Chad's third export product, after cotton and cattle. Production areas are in the Chari Barguimi and the geographic area of Ouaddai. The area of Dourbali could produce 13,800 MT, that is, more than 80% of all the gum exported from Chad, according to information from the French Association of Volunteers for Progress.

On the global market, the American Company Cola-Cola is the first consumer of gum arabic gum from Chad. According to the General Secretary of the Association of Gum Arabic

Producers of Chad, (ATPGA) more than 500,000 jobs are created every season in the subsector and gum arabic exports generate annual revenues of about 3 billion CFA francs for Chad.

Gum arabic production could contribute enormously to the alleviation of poverty and to food security if the sector were promoted by the government and development partners.

### 1.7. Animal Health

According to information from livestock services, more than 300 dromadary camels died in the Dar-Sila Department in former Ouaddai prefecture. These camels died from a combination of two diseases (cowdriosis and pasteurellosis), contrary to information that they had died from poisoning. A team of researchers visited the area and took samples that were analyzed in the laboratory at Farcha. This analysis confirmed the presence of the two diseases that killed the camels.

The relative loss to herder households depends on how many camels each household owned, how many remain, the number and mix of other animals owned and possible food reserves on hand. The loss of market value alone is high. One camel costs between 300,000 and 500,000 CFA francs or more.

### 1.8. Water Levels

Table 3 compares water levels at various locations.

Table 3. Comparison of Water Levels in cm					
Station	Location	10/31/1998	10/31/1999	10/31/2000	11/3/2000
N'Djamena TP	Logone and Chari Rivers	731	670	536	528
Chagoua	Chari R.	771	714	570	563
Sarh	Chari R.	548	586	467	457
N'Gueli	Logone R.	723	677	540	
Bol	Lake Chad	243	245	209	

Source: DREM (Direction des Ressources en Eau et de la Météorologie)

Data from different stations show that water levels in 1998 were higher than those in 1999 and 2000 at the end of October for the last three years. The same goes for Chagoua and N'Gueli. The water level in the stations of Sarh and Bol were virtually unchanged in 1998 and 1999.

By now, all stations have already reached their maximum heights for the season but remain well under the figures of 1998 and 1999. Between October 31 and November 3, water levels declined steadily at N'Djamena TP, Chagoua and Sarh stations.

Lower water levels meant that water did not reach as many polders adjacent to the two rivers or Lake Chad, another explanation for lower production of millet in Lake areas (Table 2). Fishing is poorer in years of lower water tables.

## 2. Market Conditions

The prices of finger millet per *coro* (2.5 kg) in the major markets from July to mid-November are found in Table 4.

Table 4. Comparison of Finger Millet Prices: CFA Francs per Coro (2.5 kg)						
Markets	Zone	July 2000	August	September	October	Mid-November
N'Djamena	Sahelian	300	350	400	400	500
Moundou	Sudanian	250	225	225	250	350
Sarh	Sudanian	175	250	250	300	425
Abéché	Sahelian	390	445	550	525	550
Mongo	Sahelian	350	375	425	400	450
Am-Timan	Sahelian	425	525	525	550	600

Source: Market Information System (SIM)

Prices of finger millet, the principal cereal in Chad, recorded an increase between the end of October and mid-November, most noticeably in N'Djamena, Moundou and Sarh.

Prices of sorghum also increased, as seen in Table 5. Only the market of Mongo recorded a slight decrease between the end of October and mid-November.

Table 5. Comparison of Sorghum Prices: CFA Francs per Coro (2.5 kg)						
Markets	Zone	July 2000	August	September	October	Mid-November
N'Djamena	Sahelian	225	250	325	325	400
Moundou	Sudanian	200	175	200	225	300
Sarh	Sudanian	125	200	225	250	250
Abéché	Sahelian	250	250	475	375	450
Mongo	Sahelian	200	225	275	400	350
Am-Timan	Sahelian	100	95	170	250	250

Source: Market Information System (SIM)

The sharp price increases for these two cereals can be explained by tight supplies. On one hand, farmers who had a fair production are reluctant to sell their newly harvested crops, anticipating difficulties in finding food and undue price increases in the coming months. On the other hand, as agricultural production is below normal, cereal traders are also speculating that prices will increase so they hope to gain a tidy profit later by withholding supplies now. One should note that cereal availability and accessibility are below normal, especially on the markets of Biltine (Biltine Department), Abéché (Ouaddaï Department), Mao (Kanem Department) and Oum Hadjer (Batha Est Department).

## 3. Food Situation

On November 16, the Ministry of Foreign Affairs of Chad appealed to the international community for financial assistance to help people in areas most affected by the production decline of the 2000/01 season. The Ministry based its appeal on information from various teams

in the field, the Directorate of Agricultural Statistics (DSA), the Early Warning and Food Security Information System (SISAAR) and specialists from FAO/CILSS.

The Ministry estimated that 1 million people are in need of 15,000 MT of food and that the production deficit is around 365,000 MT. The areas the most affected are:

- In the Sahelian Zone: the areas of Biltine, Kanem, northern Western Batha Department, northern Ouaddai, northern Guéra, eastern Chari Barguimi and the continental part of the Lake.
- In the Sudanian Zone: the agricultural areas where pockets of food insecurity were reported, in Mayo Boneye, Kabia, Bahr Koh, Tandjilé, Mayo Dala and Eastern Logone Departments.

#### **4. Food Security Reserve**

As mentioned in the previous report, the food security reserve is insufficient, if not virtually empty. It is at its lowest level in recent times: 1,350 MT of sorghum distributed among a few warehouses of the National Cereal Board (ONC). The normal level of the food security reserve should be 25,000 MT.

The French Fund for Food Assistance has planned to buy 1,600 MT of cereals for the reserve.