SAHEL WEATHER AND CROP SITUATION REPORT

Report No. 4, 13 September 2002

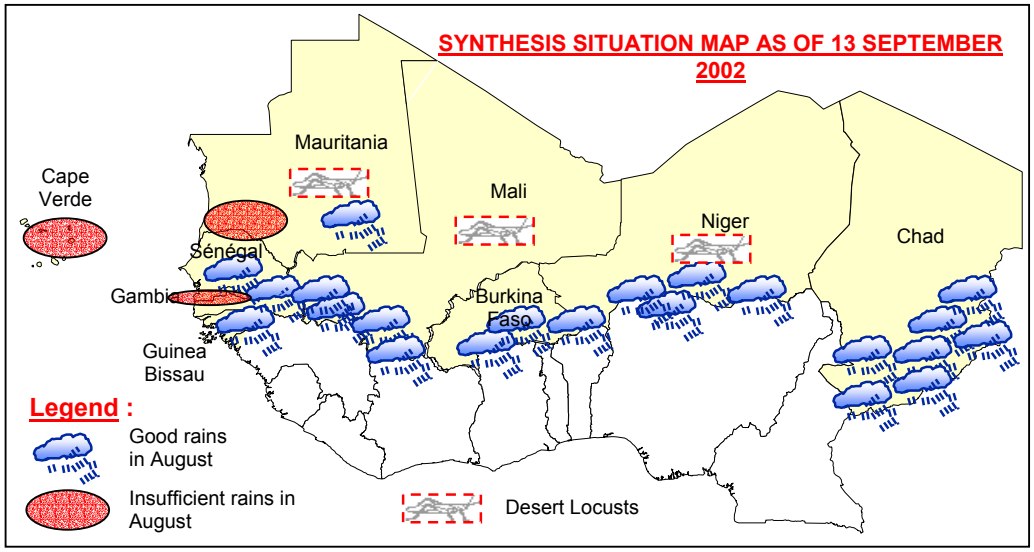
GROWING CONDITIONS IMPROVED IN WESTERN PARTS OF THE SAHEL BUT OVERALL CROP PROSPECTS REMAIN UNFAVOURABLE.

SUMMARY

Following the dry spell in July which severely affected growing crops and raised serious concerns over the food supply outlook in the western part of the Sahel, precipitation resumed during the first dekad of August in most parts of **The Gambia**, **Guinea Bissau**, **Mauritania** and **Senegal.** However, an FAO mission which visited Senegal and The Gambia in late August/early September anticipated declines in this year's cereal production due to reduced yield potential and localised crop failures. In Mauritania, most "dieri" (rainfed) crops failed. In **Cape Verde** recently planted maize also failed in parts, following irregular rains in August. Mauritania and The Gambia have declared national disasters and appealed for emergency food aid. Although crop production is forecast to drop this year in the western part of the Sahel, the extent of the decline will depend on the rainfall pattern through October.

In the eastern and the central parts of the Sahel, weather conditions have been much more favourable with widespread and quite regular rains over most of **Burkina Faso, Chad, Mali** and **Niger.** Crops are generally growing satisfactorily and overall crop prospects are favourable.

Pastures are regenerating gradually. Grasshoppers are reported in Chad, Mali, Niger and Senegal, while army worm infestations are reported in Chad and Mali. The desert locusts situation remains calm but small numbers of adults are reported in Mauritania and Niger. Small-scale breeding is expected to occur in Mauritania and parts of northern Mali, Niger and perhaps in eastern Chad.



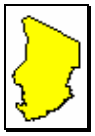
SITUATION BY COUNTRY

BURKINA FASO: Reflecting regular and well-distributed rains since July, crops are developing satisfactorily. Following erratic and below average rains until late June, which necessitated replantings in most regions and shortened the growing season, precipitation has improved significantly since July with regular and better distribution. Reflecting these favourable growing conditions, coarse grains are developing satisfactorily. However, due to the erratic start of the rainy season, stages of development vary greatly in the regions and are generally late compared to normal years. In the east, cereals are generally emerging, while in the west and centre they are in the elongation/flowering and heading stages. In the north they are in the tillering/elongation stages. Due to the delayed rains and initial dry conditions, rains will need to continue to October to allow crops to reach full maturity.

The pest situation is reported to be calm.

CAPE VERDE: Plantings of maize are suffering from water stress on most producing islands. Following first rains in early August on Santiago, Fogo, Santo Antao and S. Nicolau islands, the weather became dry on all islands except Fogo during the second dekad of August. Precipitation resumed on Santiago island during the third dekad, while the weather remained dry on Santo Antao and Nicolau islands until early September. The dry weather conditions affected recently planted maize which failed in parts.

Following the 2001 reduced harvest, 46 tonnes of bean seeds and 67 tonnes of maize seeds were distributed under an FAO emergency project. The Government also distributed seeds.



CHAD: Overall crop prospects are favourable reflecting generally regular and widespread rains. After irregular and below average rains in May and June, precipitation improved in early July and remained widespread and regular through August, although decreasing somewhat in late August. Reflecting these favourable growing conditions, coarse grains are developing satisfactorily. Millet and sorghum are heading in the Sudanian zone and tillering in the Sahelian zone. Pastures are generally adequate in both the Sudanian and Sahelian zones.

Grasshopper attacks are reported on millet in Abéché, Abougoudam, Mabrone, Massakory and Mongo regions while army worms infestations are reported in Abéché and Guéra regions. No desert locust activity is reported.

THE GAMBIA: Growing conditions improved in August but overall crop prospects remain unfavourable. Following above-normal precipitation in mid-June, which allowed planting operations, rains decreased during the last dekad and mostly dry weather prevailed until early August. Some germination failures were experienced and some fields were replanted. Most of the crops suffered temporary wilting but others were permanently affected. On 23 August, the Government declared 2002/03 a year of crop failure and food shortages. However, rainfall has resumed since the end of the first dekad of August and the situation has improved substantially. An FAO Mission which visited the country on 6-7 September, verified that crops affected by the lack of rains in July have been recovering, particularly the important millet crop. However, the impact of the dry spell on crops varies greatly according to areas. Overall, the Mission anticipated a general reduction in yield potential and a decline in this year's cereal output. The final outcome of the season will depend on the rainfall pattern through October.

GUINEA-BISSAU: Improved rains in August benefited rice and coarse grains development. After substantial rains in mid June, precipitation decreased in July, delaying transplanting of rice from seedbeds to swamp areas. Precipitation resumed in early August and became particularly abundant in late August and early September, allowing transplanting of rice to continue. Crops are developing satisfactorily.

MALI: Harvest prospects are generally favourable reflecting improved growing conditions in July and August. Following irregular and below average rains in May and June, precipitation improved in early July and remained widespread and regular until early September, although decreasing in mid-August in the south and west. Reflecting this improvement, crops are growing satisfactorily and no crop stress is reported. Millet, sorghum and rainfed rice are generally in the tillering/elongation stages while maize is in the elongation/flowering stages.

Pastures are generally adequate. Grain-eating birds are reported in several regions, notably in Dioro. Grasshoper infestations are reported , notably in the pastures of the Sahelian zone. Army worms and rodents are also reported in a few places. The desert locust situation is reported to be calm but scattered adults are likely to be present in the north with small-scale breeding expected, but the situation remains below threatening levels

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MAURITANIA: Most rainfed crops failed following dry weather in July. Following first significant early rains in June, which permitted early planting of coarse grains, dry weather occurred in July. As a result, most "dieri" (rainfed) crop plantings failed. Rainfall resumed in early August in the southern and south-eastern regions, allowing replantings but the weather was still relatively dry until early September in the western Brakna and Traza region. On 1 September the Government declared a national disaster and appealed for emergency food aid. Dieri production represents about one-third of total cereal production in a normal year.

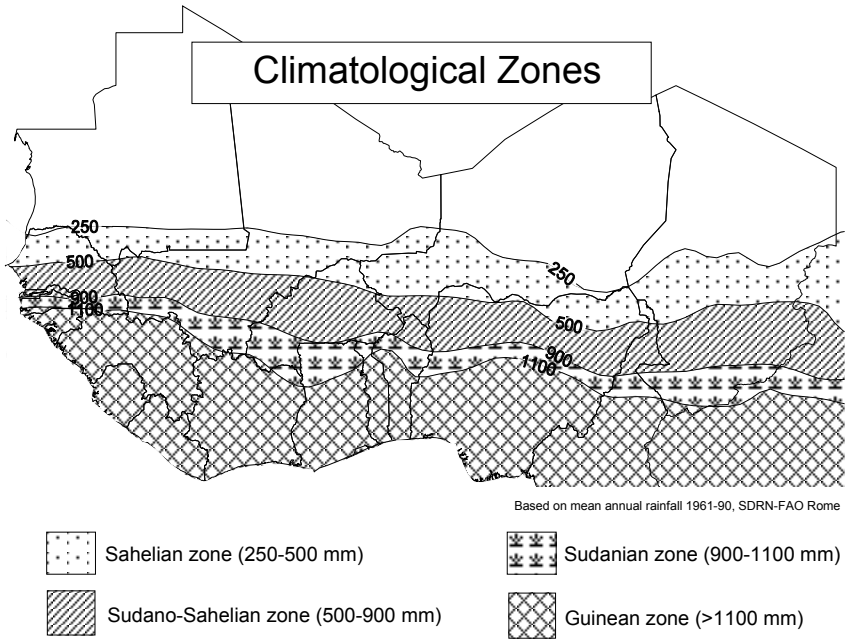
Pastures are now growing satisfactorily in the south and south-east. Aerial and ground treatments against grain-eating birds are underway in Trarza Department where pest control teams had treated 2 911 hectares as of 20 August. Isolated adult desert locusts have been reported in the south and the centre. It is forecast that small-scale breeding will occur, causing a slight increase in the numbers of locusts in these regions.

NIGER: Crops prospects are generally favourable reflecting adequate growing conditions since late July. Following above normal rains in late July, rains decreased somewhat in early August, notably in the extreme south. They improved significantly during the second dekad and remained widespread in late August. Crops are developing satisfactorily in most agricultural zones. Stages of crop development vary between elongation/flowering/heading.

Pastures are abundant reflecting good rains in the pastoral zones. Grasshopper and other insect infestations are reported in several departments. The desert locust situation is reported to be calm but scattered adults are present and are expected to breed on a small-scale in Tamesna and perhaps in western Air. However, no significant developments are likely.

SENEGAL: Substantial rains from 10 August improved crop growing conditions, following a dry spell in July/early August, but overall crop prospects are unfavourable. Following substantial rains in May and June, the weather became almost completely dry from the second dekad of July through the first dekad of August. This dry spell severely stressed crops which failed in many areas. Precipitation resumed on 10 August and remains widespread and well distributed. Some of the crops that suffered temporary wilting have been recovering. However, the dry spell has extended the lean period and this, combined with the reduced millet and sorghum production in the 2001 growing season, has led to a sharp rise in cereal prices in most markets, making access to food difficult for many households especially in rural areas. To assist the affected rural population, the Government has released CFA 15 billion (US$ 23 million) for food assistance and has begun food distributions. An FAO mission which visited the country in late August/early September anticipated a decline in cereal production, notably in the centre and north. However, the extent of the decline will depend on the rainfall pattern through October.

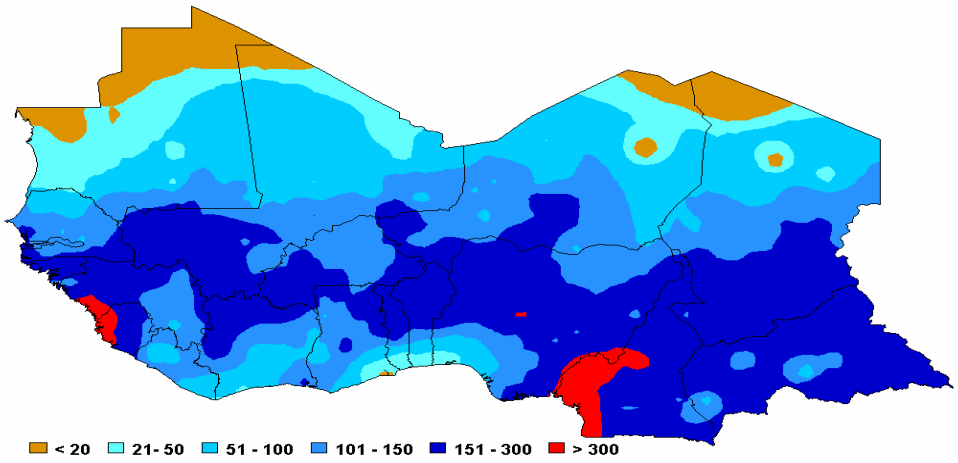
The following map provides reference to the different climatological zones of the Sahel as defined in the box on page 5



TOTAL RAINFALL AND CROP YIELD FORECAST MAPS

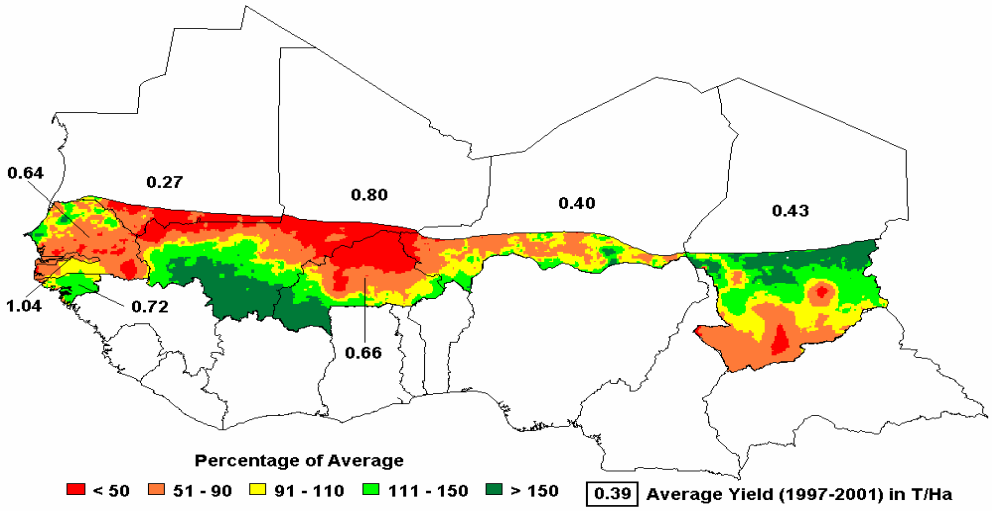
The first map indicates the total rainfall amount from 1st to 31st August. Data is extracted from FAO field reports and the RainFall Estimate (RFE) Satellite Imagery as produced by NOAA/USGS/FEWS/USAID project. The RFE images are obtained by interpolating various parameters recorded on the ground and obtained through remote sensing measurements such as: rainfall, relative humidity, wind speed, elevation, cold cloud temperatures.

WEST AFRICA - Cropping Season 2002
Total rainfall (mm) from 1st to 31st August



The map below shows the forecasted yield of millet for the Sahelian countries for the 2002 cropping season, as a percentage of the average yield of the last five years (1997-2001). The map is obtained by applying to each country a yield function which relates, in a statistical way for the period 1982 to 2001, the output parameters from the FAO crop specific water balance model to the crop yield. For 2002, the water balance model is using average rainfall from 1st September to the end of the crop cycle

WEST AFRICA - Cropping Season 2002
Millet Yield Forecast as at 31st August



Data source: NOAA, FAO - Prepared by: FAO/SDRN, Agrometeorology Group

*This is the fourth **GIEWS report on the 2002 season on weather and crop conditions in the Sahelian countries of western Africa**. Geographical coverage of these reports includes the nine CILSS (Permanent Inter-State Committee for*

Drought Control in the Sahel) member states: Burkina Faso, Cape Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger and Senegal. Reports are issued each month from June to November. The final report for 2002 with the first production estimates will be issued in late-November

These reports are prepared with data from, and in close collaboration with, FAO Representatives, the Agro-Meteorology Group and the Environmental Monitoring Group (SDRN), the Emergency Centre for Locust Operations (ECLO), the Emergency Operations Service (TCEO), the World Food Programme (WFP), as well as various Non-Governmental Organizations (NGO's). In this report, satellite imagery provided by FAO/ARTEMIS, field data on rainfall, FAO agro-meteorological crop monitoring field reports and information provided by FAO Representatives up to ***31 August*** *have been utilized. The satellite images of the first dekad of September has also been utilized for final updating.*

In these reports, reference will be made to four different ***eco-climatic zones*** *based on the average annual precipitation and agricultural features, i.e. Sahelian zone, Sudano-Sahelian zone, Sudanian zone and Guinean zone. They are shown in the map on page 3 and described below:*

Sahelian zone*: Where average annual precipitation ranges between 250 and 500 mm. This zone is at the limit of perennial vegetation. In parts where precipitation is less than 350 mm, only pastures and occasional short-cycle drought-resistant cereal crops are grown; all cropping in this zone is subject to high risk.*

Sudano-Sahelian zone*: Where average annual precipitation ranges from 500 to 900 mm. In those parts of this zone where precipitation is less than 700 mm, mostly crops with a short growing cycle of 90 days are generally cultivated predominantly sorghum and millet.*

Sudanian zone*: Where average annual precipitation ranges from 900 to 1 100 mm. In this zone, most cereal crops have a growing cycle of 120 days or more. Most cereals, notably maize, root and cash crops are grown in this zone.*

Guinean zone*: Where average annual precipitation exceeds 1 100 mm. Guinea-Bissau and a small area of southern Burkina Faso belong to this zone, more suited to root crop cultivation.*

Reference will also be made to the ***Intertropical Convergence Zone (ITCZ)****, also known by its trace on the earth's surface, called the* ***Intertropical Front****. The ITCZ is a quasi-permanent zone between two air masses separating the northern and southern hemisphere trade winds. The ITCZ moves north and south of the equator and usually reaches its most northernly position in July. Its position defines the northern limits of possible precipitation in the Sahel; rain-bearing clouds are generally situated 150-200 km south of the Intertropical Front.*

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