SAHEL WEATHER AND CROP SITUATION REPORT

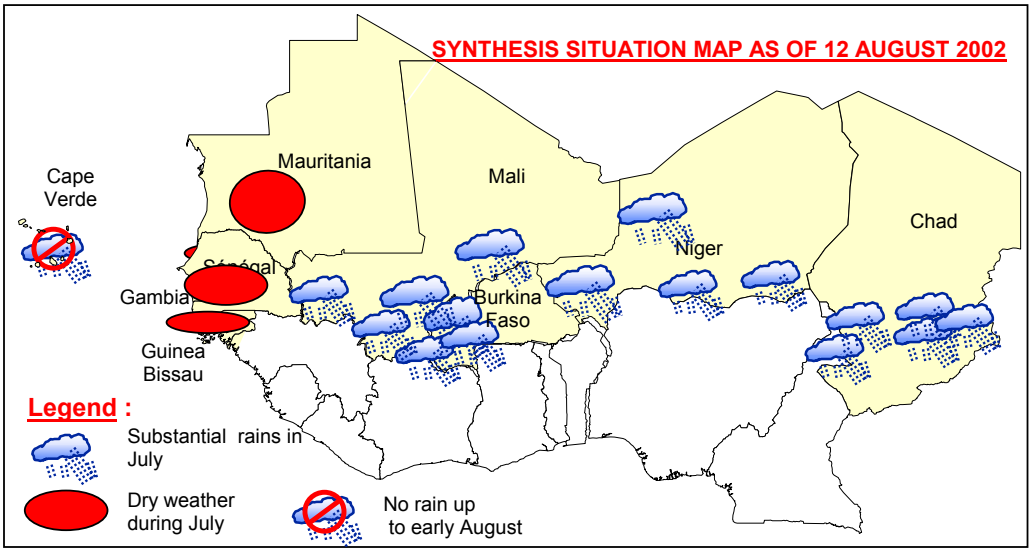
Report No. 3, 12 August 2002

CROPS PROSPECTS DETERIORATED IN WESTERN PARTS OF THE SAHEL DUE TO EXTENDED DRY WEATHER CONDITIONS

SUMMARY

Extended dry weather conditions over most parts of **The Gambia**, **Guinea Bissau**, **Mauritania** and **Senegal** have damaged crop prospects and raised serious concerns over the food supply outlook. Following the first rains in June, a dry spell through late June and July has seriously affected growing crops. Re-plantings were carried-out in several areas and overall yield potential was seriously compromised. In **Cape Verde**, prospects for the maize crop, normally planted from July, are not favourable due to delayed onset of rains. A recovery in crop prospects will heavily depend on the performance of rainfall in August. By contrast, crop growing conditions have improved in central and eastern parts of the Sahel with increased and better distributed rainfall in most agricultural regions of **Burkina Faso**, **Chad**, **Mali** and **Niger**. However, substantial replantings were necessary.

Pastures are regenerating gradually in the central and the eastern parts of the Sahel. Grasshoppers are reported in Chad, Mali, Niger and Senegal, while army worms infestations are reported in Chad and Mali. Grain-eating birds are also present in Mali, Mauritania, Niger and Senegal. The Desert Locusts situation is calm but small-scale breeding is expected in southern Mauritania, northern Mali and Niger as the rains increase in these areas.



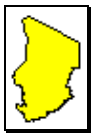
SITUATION BY COUNTRY

BURKINA FASO: Growing conditions improved in July following irregular rains in May and June. Rainfall was generally erratic and below average until late June, when the Government officially declared 14 provinces (out of 45) water-deficient. However rains increased significantly in July over the entire country, particularly in the north. With this improvement, millet and sorghum crops, which are generally emerging/tillering, have recovered and are developing quite satisfactorily. However, reflecting the erratic installation of the rainy season, stages of development vary greatly in the regions and plantings and replantings are still underway in several localities of the northern, eastern and central plateau regions. Due to the delayed rains and the earlier drier conditions, rainfall in August will be decisive for the output of the season.

No pest activity is reported.

CAPE VERDE: The start of the rainy season is delayed. The weather remained mostly dry until early August on all islands. This situation may seriously affect crop production as planting of maize normally starts in July. Land preparation and early dry plantings are underway on most producing islands, notably on Santiago island.

Following the 2001 reduced harvest, 45 830 kilograms of bean seeds and 67 000 kilograms of maize seeds have been distributed with the assistance of an FAO emergency project. The Government also organized seeds distribution.



CHAD: Growing conditions improved in July following irregular rains in May and June. Following the first rains in mid March in the extreme south and in mid April in the south-west, precipitation progressed northwards in the Sahelian zone in June. Rainfall was generally irregular and below average in May and June but improved in early July and remained abundant and quite regular in late July. However cumulative rainfall as of late July was generally below average in most meteorological stations due to earlier drier conditions. Millet and sorghum are generally emerging/tillering in the Sudanian zone, while plantings and replantings are still underway in the Sahelian zone.

Pastures are regenerating in the Sudanian zone but remain poor in the Sahelian zone. Grasshoper infestations are reported on millet and sorghum in Guéra and Baguirmi regions, while army worms infestations are reported in a few areas of the Sudanian zone.

THE GAMBIA: A long dry spell in July severely affected recently planted crops. Following above normal precipitation in mid-June which permitted the start of plantings, rains decreased during the last dekad and the weather remained mostly dry until early August. This dry spell may have affected recently planted crops and delayed transplanting of rice.

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GUINEA-BISSAU: Crops have been stressed due to decreasing rains in July. After mostly dry weather until early June, substantial rains in mid June permitted land preparation and planting to start. However precipitation significantly decreased in July. Recently planted coarse grains are reportedly suffering water stress in several areas and transplanting of rice from seedbeds to swamp areas has been delayed.

The Locusts situation is calm in general, except in the Gabu region in the east where a few individuals are reported.

MALI: Following erratic rains in May and June, precipitation improved in most regions in July. Following the first significant rains in the extreme south in April, precipitation progressed northwards but remained erratic in most regions until late June when growing conditions improved considerably in the central, eastern and northern regions. Floods are reported in the northern locality of Goundan (Tombouctou) and the capital Bamako. In Goundan, 90 mm of rainfall fell in late July during a seven-hour downpour while in Bamako, 81 mm of rain fell during a nine-hour downpour in early August. By contrast, rainfall decreased during the last dekad of July in the western region of Kayes where planted coarse grains are reportedly suffering water stress. Due to the earlier drier weather, cumulative rainfall as of late July was below the same period last year and below average in most meteorological stations. Plantings and replantings are still underway. Crops are generally emerging but early planted maize, millet and sorghum are tillering/elongating. Rice is emerging or being transplanted in the "office du Niger"and the "office de développement rural de Sélingué".

Pastures are generally growing well but remain poor in the northern part of Kayes and Koulikoro. Grasshopper infestations and the presence of grain-eating birds have been reported. No Desert Locusts were reported but low numbers of adults are probably present in a few areas of southeastern regions.

MAURITANIA: Reduced precipitation in July severely affected crops planted following early rains in June. The first significant rains received in June in Gorgol, Guidimakha, Hodh El Gharbi and Assaba permitted an early planting of coarse grains. However, precipitation decreased considerably and mostly dry weather persisted in July. Cumulative rainfall as of late July was below average in most meteorological stations. As a result, most rainfed crops plantings failed. Replantings are necessary but seed shortages are likely following the 2001 reduced harvest.

Aerial and ground treatments against grain-eating birds are continuing in Trarza departement where pest control teams have treated 2 897 hectares as of 30 July. No Desert Locust activity has been reported. However, low numbers of adults are likely to be present in the summer breeding areas of the two Hodhs where small-scale breeding could be in progress.

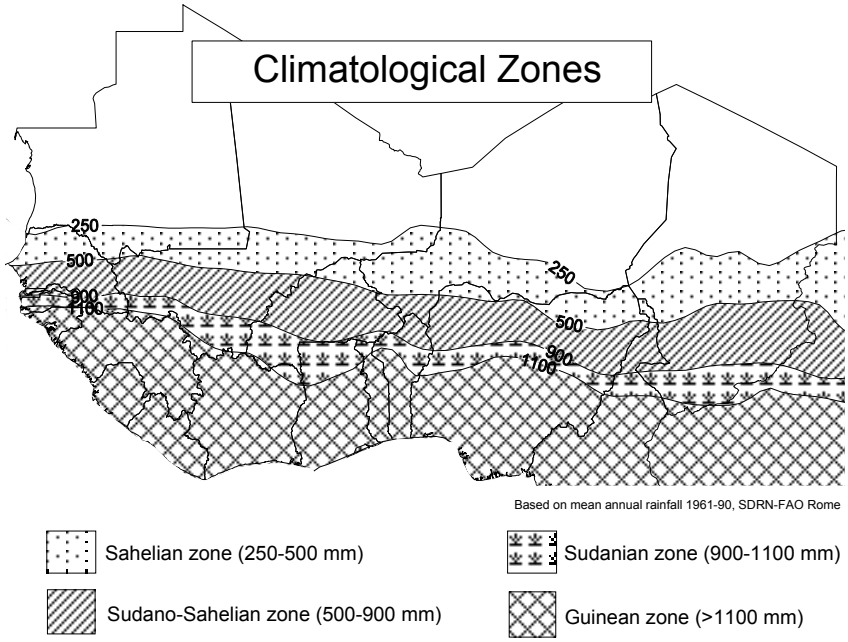
NIGER: Growing conditions improved in late July following below-normal and irregular rains from late June. After the first rains in the south in mid-May, precipitation covered the centre in early June. In late June and early July, precipitation generally remained irregular and below normal. The dry spell has stressed crops and recently planted crops have failed in several villages, necessitating replantings. However the last dekad registered abundant rains over most producing areas which will benefit crops stressed by earlier drier conditions. Flooding is even reported in Zinder department. Millet and sorghum are generally emerging/tillering, but plantings and replantings are still underway in several villages.

Pastures are regenerating. Grasshopper infestations have been reported in Dosso, Maradi, Tahoua and Zinder departments. Insect attacks are also reported in Dosso and Tahoua, while grain-eating birds have been seen in Diffa. The Desert Locust situation is reported to be calm.

SENEGAL: Mostly dry weather in July severely affected recently planted crops. Following substantial early rains in the south-east in mid-May, precipitation covered the rest of the country in June. However, rains were erratic in most regions, decreased significantly in early July and the weather remained almost dry until the end of the month. Cumulative rainfall as of late July was below the same period last year and below average almost everywhere. The dry spell has resulted in crop failure in several regions, necessitating replantings and earlier planted crops are suffering water stress. Moreover, a sharp rise in cereal prices on all markets across the country has been reported, which makes access to food difficult. In early August, the "Conseil national de concertation et de cooperation des ruraux"a grouping of about 20 farmers organizations launched an appeal to the Government to help the rural population "threatened by the drought and the famine".

Grain eating birds are reported on off-season rice in the Senegal River valley. Grasshoper infestations are also reported in the centre, while army worms are present in the centre and the south.

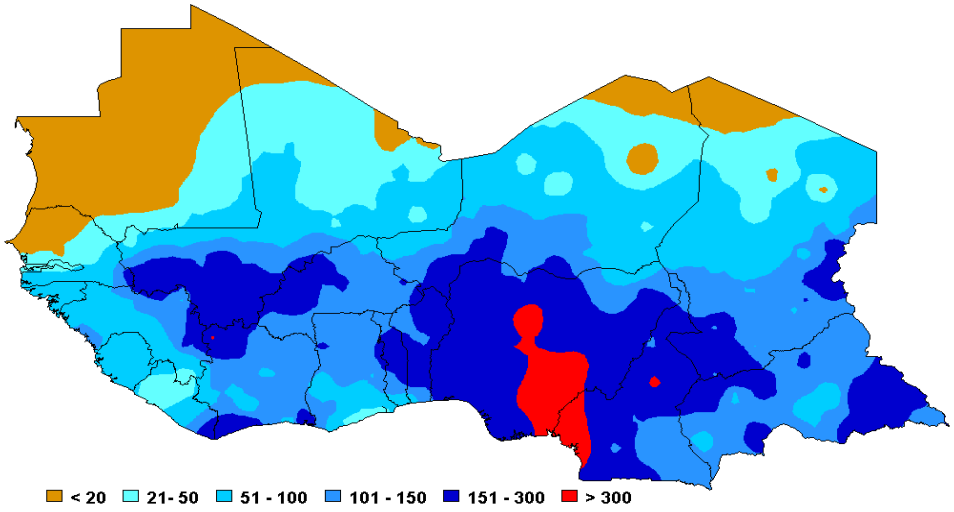
The following map provides reference to the different climatological zones of the Sahel as defined in the box on page 5



TOTAL RAINFALL AND PLANTING OPPORTUNITY MAPS

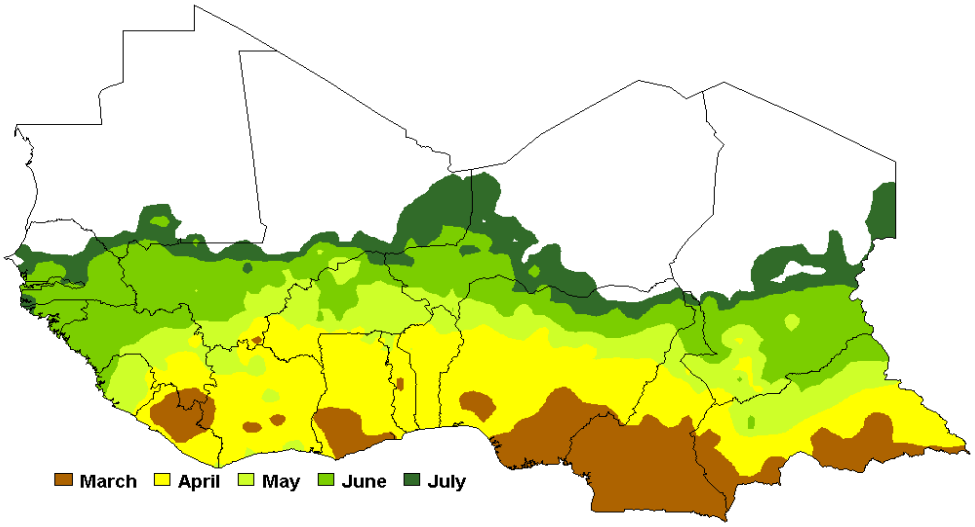
The first map indicates the total rainfall amount from 1st to 31st July. Data is extracted from FAO field reports and the RainFall Estimate (RFE) Satellite Imagery as produced by NOAA/USGS/FEWS/USAID project. The RFE images are obtained by interpolating various parameters recorded on the ground and obtained 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 July



The map below shows the estimated planting time (opportunity) as defined by the dekad (10-day) satisfying the following requisites: during the first dekad, 25 mm of rainfall should be measured and a total rainfall of at least 20 mm should be recorded during the two next dekads. Data used for this analysis are from FAO field reports and RFE imagery.

WEST AFRICA - Cropping Season 2002
Planting opportunities from 11 March to 20 July



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

*This is the third **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 July** have been utilized. The satellite images of the first dekad of August 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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