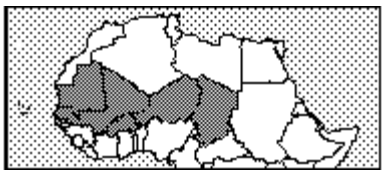


SAHEL WEATHER AND CROP SITUATION REPORT

Report No.2, 11 July 2001

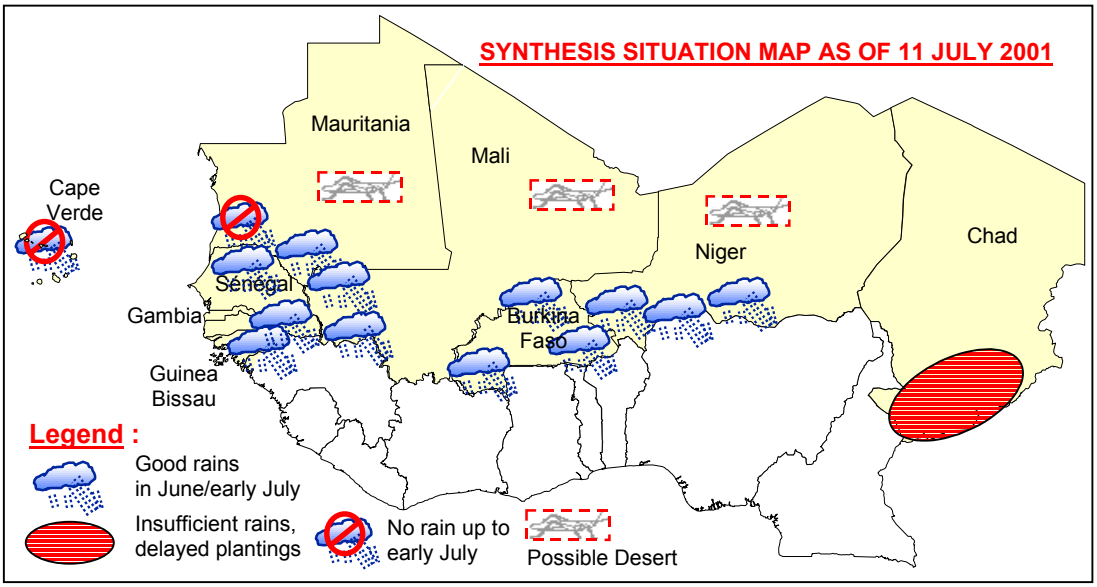
THE RAINY SEASON IS NOW WELL ESTABLISHED IN THE SAHEL, EXCEPT IN CHAD

SUMMARY

The rainy season started in early April in the extreme south of **Chad**, in mid-April in southern **Burkina Faso** and **Mali**, in May in **Niger**, in early June in **Guinea Bissau**, the south-east of **Senegal** and the east of **The Gambia** and in late June in southern **Mauritania**. In late June, rains covered the whole of Senegal and The Gambia. Rains are expected to start shortly in **Cape Verde**. This corresponds to the normal pattern in the Sahel, except for Niger where the onset was somewhat earlier than usual. Satellite imagery for the first dekad of July indicates that above normal rains have been received in Guinea Bissau, The Gambia, southern Mauritania, western Mali and most parts of Burkina Faso, Niger and Senegal,. Precipitation was less abundant in central and southern Mali and below normal in central Chad.

Plantings are in progress following the onset of the rains. Crops are generally emerging satisfactorily in Burkina Faso, Mali, Niger and Senegal. Erratic rains in Chad are likely to cause water stress on recently planted coarse grains or necessitate replantings.

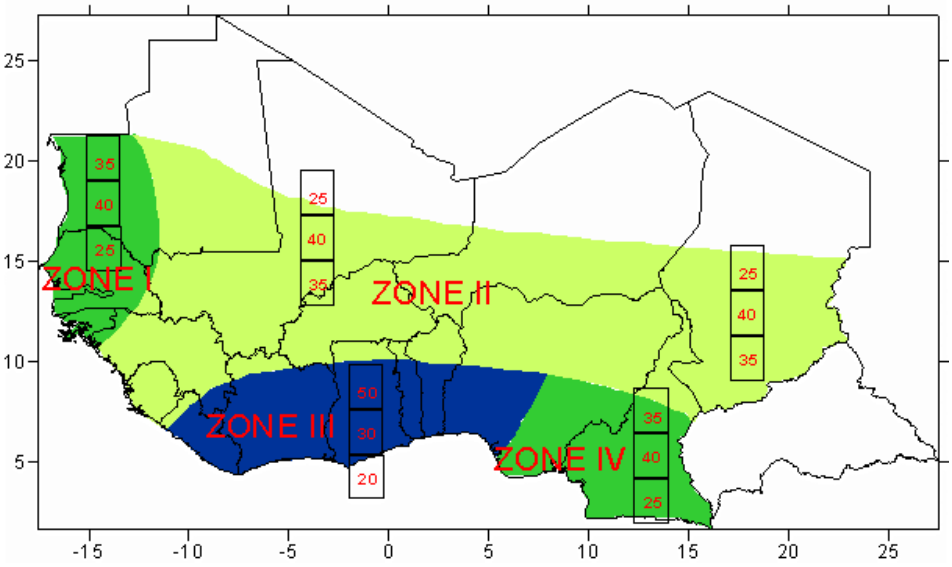
Pastures are starting to regenerate. The pest situation is mostly calm. Ecological conditions have become favourable for Desert Locust breeding from south-eastern Mauritania to Tamesna in Niger but as locust numbers are extremely low, it will take a long time to build up to significant levels.



SEASONAL WEATHER FORECAST

On 24 May in Niamey, the ACMAD (African Centre of Meteorological Applications for Development) organised the Fourth Forum on Seasonal Climate Prediction (PRESAO) to assess expected rainfall for the period July-September 2001 over West Africa. The Sahelian region receives about 80 percent of its annual precipitation during this period. The Forum made a seasonal weather forecast based on atmospheric models together with physically based statistical models. The model estimates the probability of this year's total rainfall falling in one of three categories (above normal, below normal and near normal) defined using the recorded rainfall in the 1961-90 period.

Seasonal rainfall outlook for West Africa
July-August-September 2001



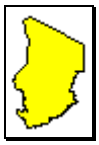
For the region bordering the Atlantic Ocean, stretching from the west of Guinea Bissau to Mauritania (Zone I on the map) probabilities are higher for "near-normal" conditions to "above-normal. In Guinea Conakry, Mali, Burkina Faso, Niger, Chad, the north of Nigeria and Cameroon (Zone II), there are dominating probabilities to have near-normal conditions and a tendency for dry conditions. For the countries along the Gulf of Guinea (Cote d'Ivoire, Ghana, Togo, Benin, and the south-west of Nigeria, Zone III on the map), probabilities are higher for "above-normal" rainfall. Lastly, in the eastern Gulf of Guinea, (south-east of Nigeria, southern and central Cameroon, Zone IV), there are dominant probabilities for "near-normal" to "above-normal" conditions.

SITUATION BY COUNTRY

BURKINA FASO: Well below normal rains in mid-June in the south and the centre were compensated by improved precipitation in late June/early July. Rains progressed northwards in May and reached the extreme north in June. Satellite imagery indicates that precipitation remained well below normal or even ceased during the second dekad of June in the south and the centre. However, rains improved significantly during the third dekad and became abundant countrywide in early July. Rice and millet crops are tillering and weeding is underway in the south and west. Plantings are continuing in the north.

Pastures are regenerating in the west and the centre-east. No pest activity is reported.

CAPE VERDE: Seasonably dry conditions prevail. Planting of maize normally starts in July with the onset of the rains on the main islands. Following an above average harvest in 2000, the availability of seeds should be adequate.



CHAD: The start of the rainy was somewhat erratic in the south. Following above normal first rains in early April in the extreme south, rainfall progressed in the south-west in late April/early May while no rains were registered in the south-east. During the second dekad of May, precipitation improved in the south, in the Sudanian zone, but decreased significantly during the third dekad. Precipitation remained limited but widespread during the first two dekads of June. By contrast, rains were above normal during the last dekad but they decreased in the Sahelian zone in early July. Plantings of coarse grains may have suffered water stress or been delayed in the south (see map on page 5). Plantings are underway in the Sahelian zone.

Pastures are starting to regenerate. The pest situation remains mostly calm.

THE GAMBIA: The rainy season is now well established. The first rains were registered during the first dekad of June and permitted land preparation and first early plantings. The weather remained mostly dry during the second dekad but rains covered the entire country during the third dekad and became abundant in early July. Plantings are well underway.

Following a record harvest in 2000, cereals seed availability is adequate.

GUINEA-BISSAU: Abundant rains in early and late June benefited plantings and crop development. First rains were recorded in mid-May in the east but precipitation became abundant countrywide only in early June. Rains decreased during the second dekad but resumed and were well above average over the entire country during the third dekad and in early July. Coarse grains are emerging/tillering in the east and the north. Land preparation and plantings of rainfed rice are underway. Transplanting of swamp rice from seedbeds will take place in July/August after desalination of swamp rice fields.

The pest situation is calm but localised insect attacks have been reported in the south.

MALI: Adequate rains so far benefited plantings and crop development. Following first rains in the extreme south in mid-April, precipitation progressed northwards in May and remained generally widespread and regular in June, being more abundant during the third dekad. Precipitation became abundant in the west in early July. Plantings of millet and sorghum are well underway; crops are emerging in the south.

Pastures are good in the south and regenerating further north. The pest situation is calm.

MAURITANIA: First rains were received in late June in the extreme south. Limited and localised rains were recorded on 22^{th,} 24-26th and 29th of June in Gorgol, Guidimakha, Hodh El Gharbi and Trarza. They permitted land preparation and planting to start. Satellite imagery indicates that rains were abundant in early July in the south and south-east. Dry plantings may already have started in some areas in the the south-west.

The pest situation is calm.

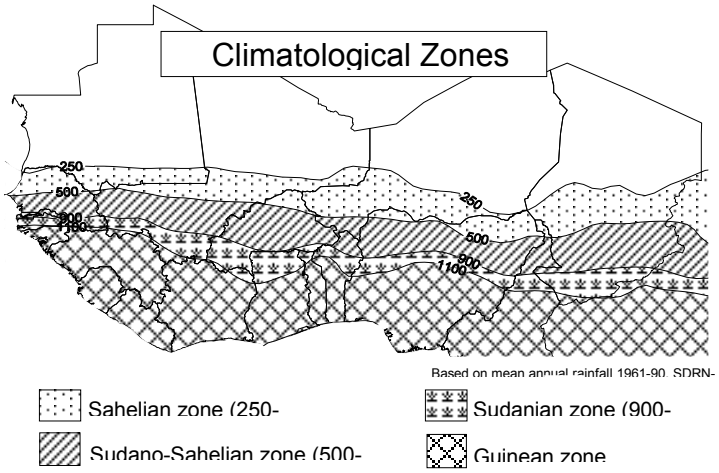
NIGER: The rainy season is now well established. The first rains came earlier than usual**,** during the first two dekads of May, allowing land preparation and first plantings to start. Rainfall decreased in late May and early June but picked up in mid-June and covered all the producing areas by late June/early July. It is estimated that about 53 percent of the villages had finished planting by 20 June, instead of 44 percent last year. Crops are emerging and already tillering/elongating in Tahoua and Zinder departments.

The pest situation is mostly calm. However, grasshoppers and caterpillar attacks have been reported and localised treatments have been undertaken.

SENEGAL: Good rains in late June permitted widespread plantings. Following limited rains in the extreme south-east in May, precipitation improved significantly in the south in early June. Rainfall decreased during the second dekad of June but improved and progressed northwards during the third dekad. Rains were often above normal during the first dekad of July. Cumulative rainfall is generally above normal in the south and centre-south. Land preparation and plantings of coarse grains are well underway.

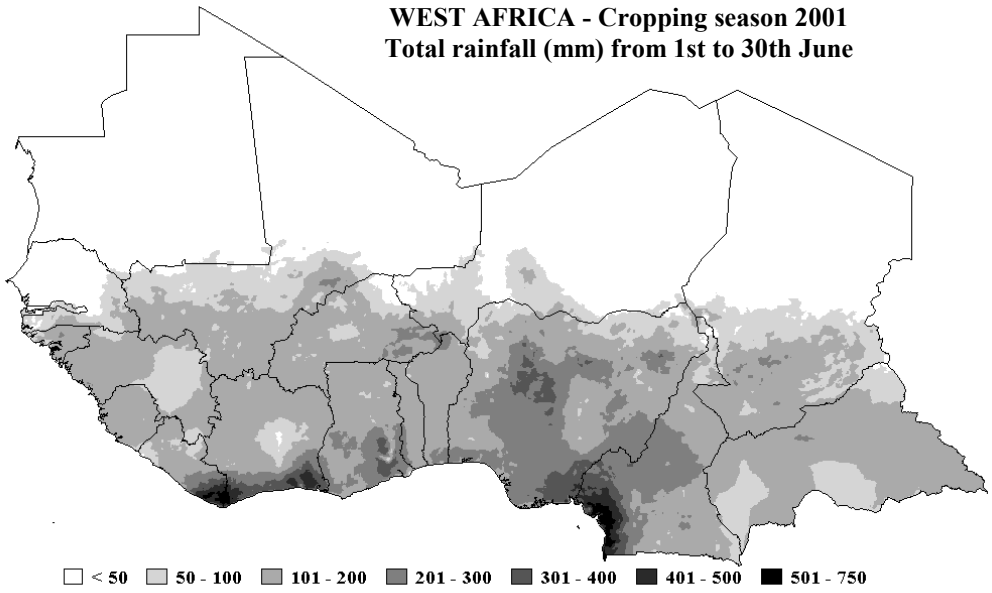
No significant pest activity has been reported.

The following map provides reference to the different climatological zones of the Sahel as defined in the box on page 6

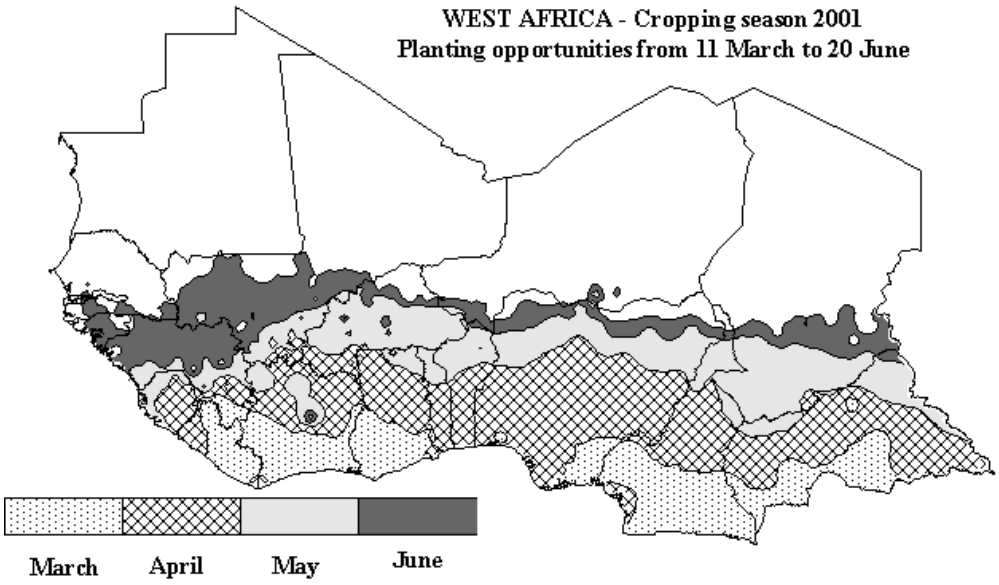


TOTAL RAINFALL AND PLANTING OPPORTUNITY MAPS

The first map indicates the total rainfall amount from 1st to 30th June. 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.



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.



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

*This is the **second GIEWS report of the 2001 season on weather and crop conditions in the Sahelian countries of western Africa**. Geographical coverage of these reports include 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 will be issued each month from June to November. The final report for 2001 with the first production estimates will be issued in late-November*

*These reports are prepared with data from, and in close collaboration with, out-posted FAO Representatives, the Agro-Meteorology Group and the Environmental Monitoring Group (SDRN), the Emergency Centre for Locust Operations (ECLO), the Special Relief Operations Service (TCOR), 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 **30 June** have been utilized. The satellite images of the first dekad of July 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 4 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 northerly 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.*

Please note that this report is available on the **Internet World Wide Web** at the following address: HTTP://WWW.FAO.ORG/GIEWS/ then click on "English" and "Sahel Weather and Crop Situation Reports".

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