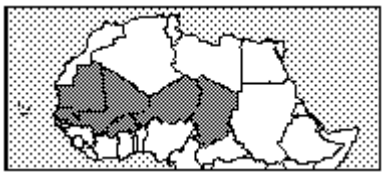


SAHEL WEATHER AND CROP SITUATION 1999

Report No.1 - 16 June 1999

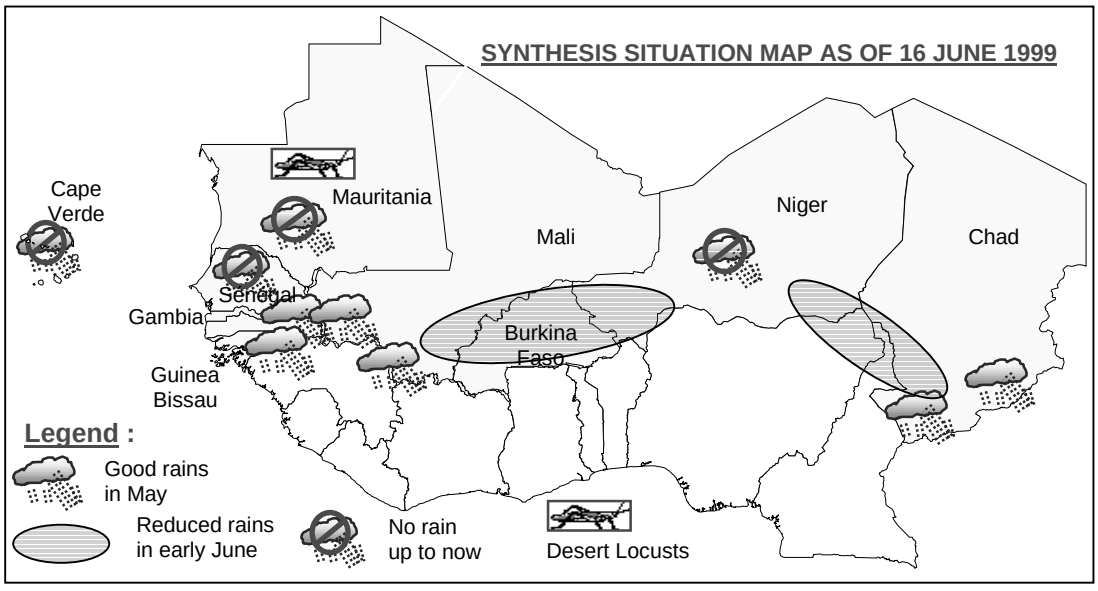
THE RAINY SEASON HAS STARTED UNDER GENERALLY FAVOURABLE CONDITIONS BUT REDUCED RAINS IN EARLY JUNE ARE THREATENING RECENTLY PLANTED CROPS IN THE CENTRE AND THE EAST OF THE SAHEL

SUMMARY

The rainy season started generally on time or even early in southern **Senegal**. However, following generally above normal rains in early to mid-May, the rains decreased significantly in early June in the centre and the east of the Sahel. By contrast, in the west, they progressed northwards over Senegal, **The Gambia** and **Guinea Bissau**. The rainy season started in April in the extreme south of **Mali** and progressed northwards in May. In **Burkina Faso**, rains started in mid-April, became widespread and were generally above normal over the south and the centre up to mid-May, but they decreased significantly in early June. Precipitation was widespread over southern **Niger** and **Chad** in May but decreased in early June. Elsewhere, in **Cape Verde**, northern parts of Senegal and **Mauritania**, seasonably dry conditions prevail. The last Meteosat satellite image for the first few days of the second dekad of June confirms the rainfall pattern.

Land preparation and plantings are in progress following the onset of the rains. Crops are emerging satisfactorily in Burkina Faso, southern Chad and Mali but reduced rains in early June are threatening recently planted crops, notably in Burkina Faso.

Grain-eating birds are reported in Chad, Mali and Niger. Control measures are underway. Rodents also appeared following plantings in Niger. Isolated Desert Locusts have been reported in Mauritania; low numbers are expected in the summer breeding areas of the Sahel once seasonal rains commence. No significant developments are expected.



RECENT MEETINGS ON MONITORING THE GROWING SEASON IN THE SAHEL

Two meetings have been held in Dakar to prepare the monitoring of 1999 growing season in the Sahel.

From 7 to 9 June, the ACMAD (African Centre of Meteorological Applications for Development) and the Agrhymet Centre of CILSS hosted the Second Forum on Seasonal Climate Prediction (PRESAO) to formulate guidance on the expected rainfall for the period July-September 1999 over West Africa, Sudan and Ethiopia. The Sahelian region receives about 80 percent of its annual precipitation in the months July-September. The Forum reviewed the likely impact on the region's climate of La Niña event (1998-99), which is forecast to develop during the coming months, and of the warmer than normal tropical South Atlantic sea surface temperature. A seasonal weather forecast has been made 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.

For the central and eastern Sahelian region, extending from Mali eastward, there is an increased probability this year of near normal to above normal rainfall totals. In contrast, for the western Sahelian region covering most parts of Mauritania, Senegal and extending southward to Guinea, the probability of near normal to below normal conditions is increased. For the region extending from Sierra Leone to Central Nigeria, there is an increased probability of the above normal rainfall category occurring. Further east in south-eastern Nigeria and southern Cameroon, the most likely rainfall category this year is near normal

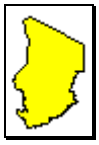
From 10 to 12 June, the CILSS (Comité inter-Etats de Lutte contre la Sécheresse au Sahel) hosted a regional technical meeting to review the current situation at the start of the rainy season in the Sahel. After the presentation of the final production figures and updated cereal balance sheets, the participants reviewed on-going assistance programs and discussed the monitoring of 1999 growing season. A regional meeting is scheduled around mid-September to undertake a pre-assessment of 1999 crop outlook before the usual FAO/CILSS Crop Assessment Missions in October. An additional session permitted presentation and discussion of the final report of a working group on information systems on food security in the Sahel (SISAS) and further activities on the subject.

SITUATION BY COUNTRY

BURKINA FASO: The rainy season started with generally above normal rains but precipitation reduced significantly in early June. First rains were registered in April in the south-west and the south-east. They progressed northwards in May over almost the entire country and were generally above normal except during the third dekad. In early June, precipitation decreased significantly over the entire country and weather remained dry in the centre and the north. Planting of millet and sorghum is now well underway. Land preparation is underway in the north. Crops are emerging satisfactorily in the south and the west. However, improved rains are needed during the second dekad of June to avoid crop failure.

No pest activity is reported. Seed availability is generally adequate following the 1998 record harvest.

CAPE VERDE: Seasonably dry conditions prevail. Planting of maize normally starts in July with the onset of the rains on the main islands. Due to poor maize harvests in recent years, some problems of seed availability are likely in some areas.



CHAD: The growing season has started on time in the Sudanian zone. Following first sporadic rains in mid-March and in April in the extreme south, the rainy season really started in May in the south. Rains progressed northwards through late May but decreased somewhat in early June. Planting of coarse grains is underway in the south, in the Sudanian zone. Land preparation is about to start in the Sahelian zone.

No Desert Locusts activity is reported. Army worm infestations are reported on recently planted millet and sorghum crops in Tandjilé and the two Logone. Grain-eating birds are also reported in off-season rice fields in Chari-Baguirmi.

THE GAMBIA:. Rains started in early June in the west and the centre. Significant rains over the east and the centre permitted wet plantings. Elsewhere, seasonably dry conditions prevail. Planting is expected to start in the weeks ahead with the onset of the rains. As a result of 1998 reduced harvest in some areas, localized seed availability problems are likely.

GUINEA-BISSAU: The first significant rains in the east and south came in mid-May. After some sporadic showers in late April in the south-east, rains actually started in mid-May over all parts of the country except the north-west. They decreased in late May but resumed in early June. Land preparation for coarse grains is underway in the east and north. Planting of rice in seedbeds has also started. Transplanting will start in July/August after desalination of swamp rice fields with more rains. Seed availability problems are likely, following the 1998 reduced harvest due to civil strife.

MALI: The growing season has started in the south. The first significant rains fell in the extreme south in mid or late April. They progressed northwards but decreased in late May. In early June, rains improved in the west. Land preparation is underway and first planting of millet and sorghum has started in the south. Pastures have started to regenerate in Sikasso, southern Kayes and Koulikoro regions. Seed availability is adequate following the 1998 record crop.

A large population of grain eating birds covering about 200 hectares was reported in early May in Bakélé (Ténenkou region). Control operations have been undertaken over 150 hectares. The birds moved to the Office du Niger area in mid-May, where treatments are underway. Isolated Desert Locusts may be present in a few areas in the Adrar des Iforas. Small scale breeding could occur once the seasonal rains commence.

MAURITANIA: Seasonably dry conditions prevail, although some limited rains were registered in mid-May or early June in the centre-south, notably in eastern Gorgol and at Selibaby. Dry plantings are underway in the extreme south-east, in Amourj and Bassiknou departments. Pastures are scarce in several regions, notably in Brakna and Trarza.

During May, isolated Desert Locusts were reported in a few places north of Zouerate and between Akjoujt and Atar at mid month. No significant developments are likely.

NIGER: First rains in late May permitted planting to start in most areas. The first rains started latter than in 1998 but covered most producing zones, allowing planting to start everywhere except in Niamey area and in Agadez department. It is estimated that about 15 percent of the villages had done their plantings as of late May. Dry plantings are also underway countrywide. Seed availability is adequate following the 1998 record crop.

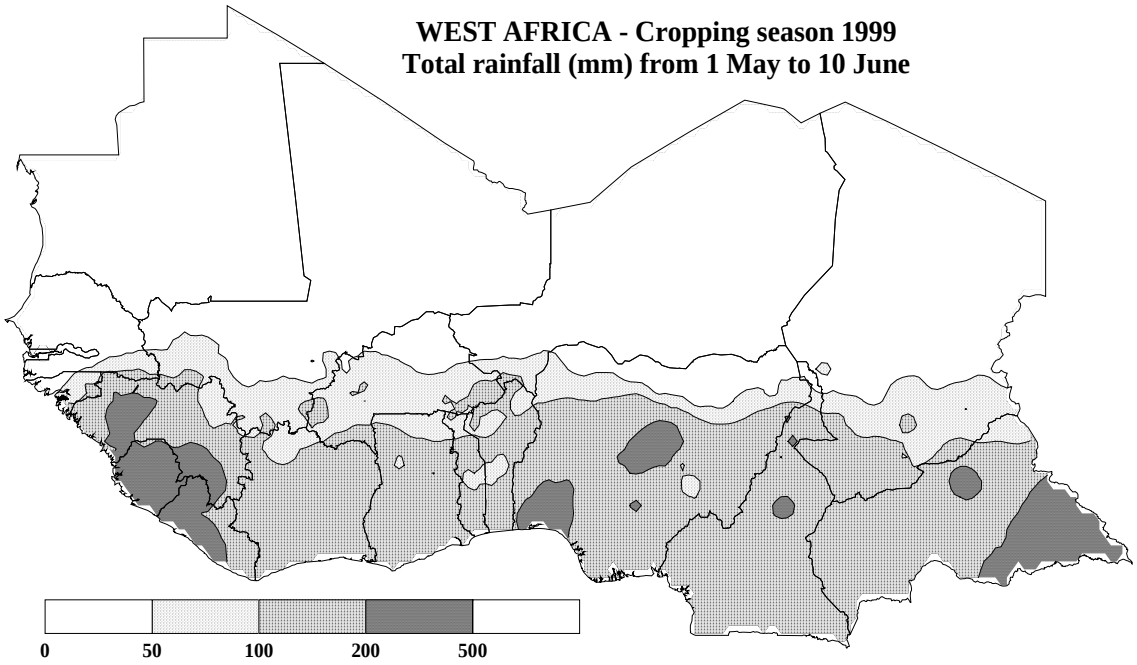
Rodents were reported following plantings in Kélanam (Maïné arrondissement), northern Dakoro, Mayahi and Tessaoua (Maradi department), Abalak (Tahoua departement) and Gouré (Zinder department). Grasshoppers have also been reported in northern Diffa department and grain-eating birds in N'Guigmi arrondissement. Isolated Desert Locusts may be present in a few areas in Tamesna. Small scale breeding could occur once the seasonal rains commence.

SENEGAL: Rains started early in the south-east. Substantial early rains were registered in the south-east in mid-May. In early June, above normal rains covered the south and centre-east of the country. Plantings of coarse grains are well underway in the south while land preparation is starting in the centre. Seed availability problems are likely in some areas following localized 1998 reduced harvest.

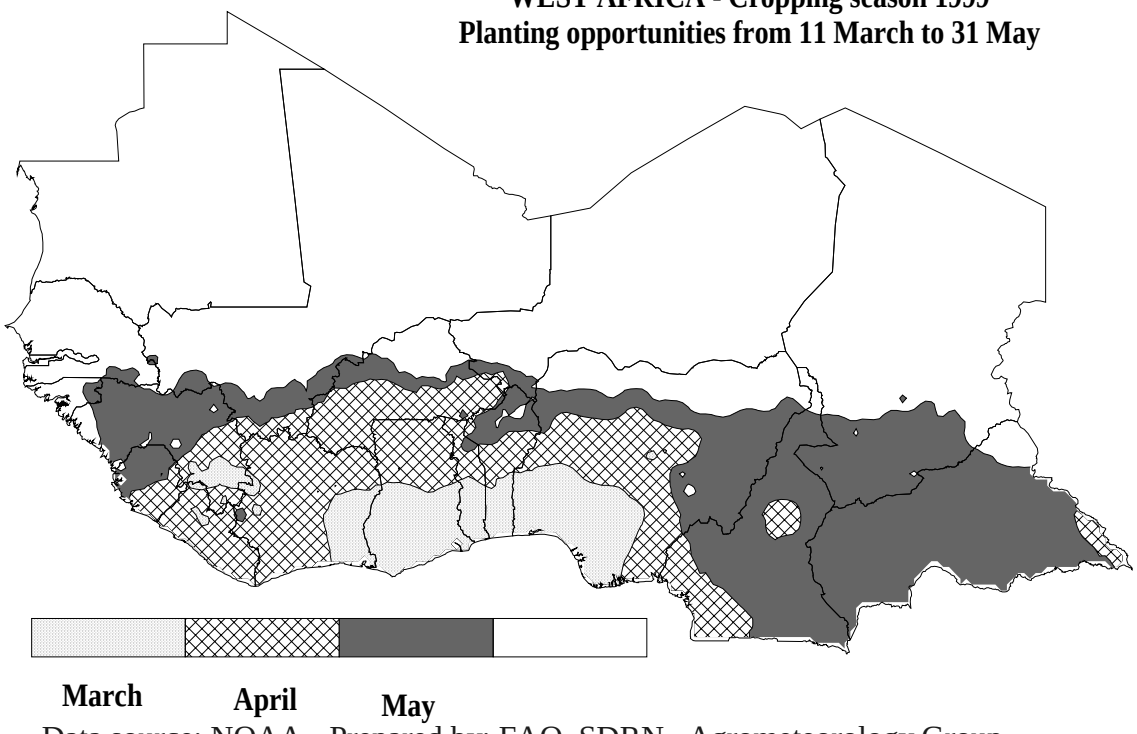
No significant pest activity has been reported.

TOTAL RAINFALL AND PLANTING OPPORTUNITY MAPS

The first map indicates the total rainfall amount from 1st May to 10th 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 **first GIEWS report of the 1999 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 1999 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, FAO/ARTEMIS rainfall estimates, field data on rainfall, FAO agro-meteorological crop monitoring field reports and information provided by FAO Representatives up to 30 May have been utilized. The satellite images of the first dekad of June 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.*

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