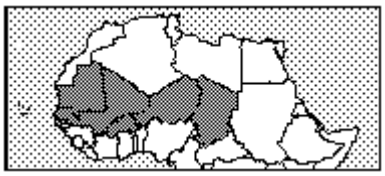


SAHEL WEATHER AND CROP SITUATION REPORT

Report No.3, 11 August 2000

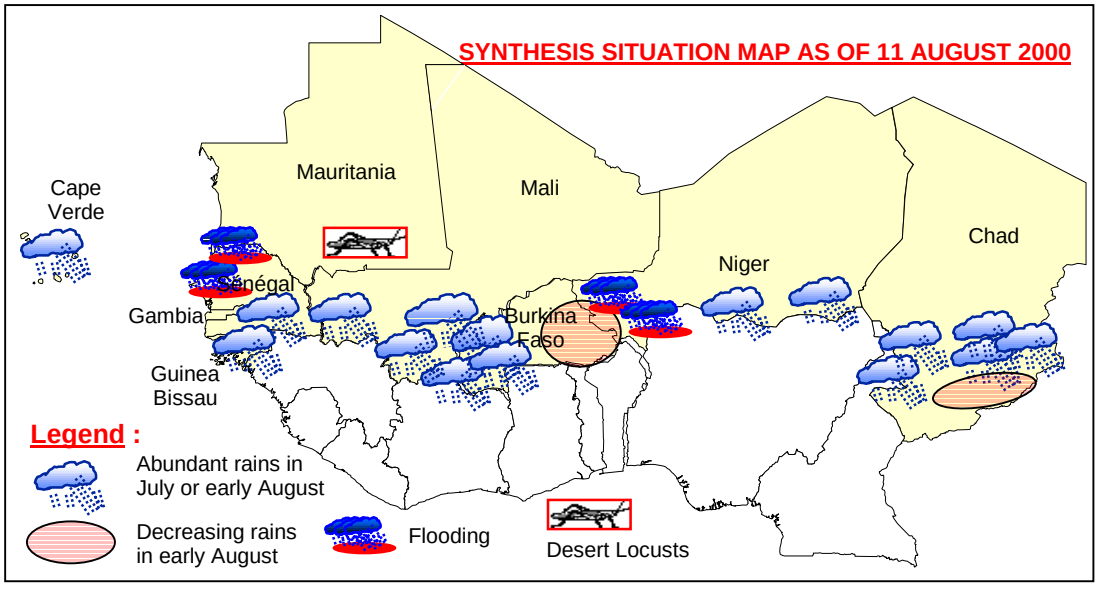
GENERALLY ABUNDANT RAINS IN JULY BENEFITED CROP AND PASTURE DEVELOPMENT

SUMMARY

Rains have been generally widespread and abundant over the main agricultural zones of the Sahel in July. They have been particularly abundant in early and mid-July over **Mali** and **Niger**, in late July/early August over **Senegal**, **The Gambia** and southern/western **Mauritania**, and during the entire month of July in **Chad**. Precipitation was more limited in **Burkina Faso** but improved significantly over the western half of the country in early August. Rainfall was abundant in **Guinea-Bissau**. Significant rains were registered on all the islands of **Cape Verde** in late July. Flooding was reported following heavy rains in mid July in Niger, in late July/early August in northern Senegal and Mauritania and in early August in northern Burkina Faso. Satellite images for the first dekad of August shows that cloud coverage remains present over all the agricultural zones of the Sahel. Precipitation has been particularly abundant over southern Mali and the Sahelian zone of Chad, but more limited over western and eastern Niger and southern Chad.

Following these good rains, plant water needs have generally been covered and crops are developing satisfactorily. Recently planted millet and sorghum crops are emerging satisfactorily in northern Senegal, Mauritania, Niger, northern Burkina Faso, Mali and Chad. Elsewhere, crops are growing normally, except in eastern Burkina Faso where more rains are needed to prevent water stress.

Pastures are regenerating well througout the pastoral zones of the Sahel. The pest situation is mostly calm despite reports of grasshopper attacks in Chad, Guinea Bissau, Mali, Niger and Senegal. A few Desert Locusts have also been reported in Mauritania, near Aioun El Atrouss. A small scale breeding may be in progress in southern Mauritania, north-eastern Mali and northern Niger where there was good rainfall in July. These areas require regular monitoring in the coming months.

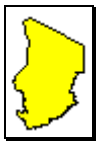


SITUATION BY COUNTRY

BURKINA FASO: Widespread and regular rains benefited crop development. Following abundant rains in mid June, precipitation decreased in late June and remained generally below normal but well distributed and regular in early and mid-July. Rains improved significantly during the last dekad of July and became particularly abundant in early August in the south and the west. Flooding has been reported following heavy rains and the collapse of a dam in Bani department, 200 km north of Ouagadougou. Cumulative rainfall as of late July was generally below average but recent strong rains may reverse the situation in the western part of the country. Crops are growing satisfactorily. They are generally in the elongation stage in the south and south-west, tillering in the west and emerging/tillering in the north and north-east. Improved rains are needed in the east to prevent water stress.

Pastures have regenerated countrywide and water reserves are well replenished. Limited pest activity is reported (mainly worms).

CAPE VERDE: Significant rains were registered in late July on all islands. Following scattered limited rains in late June in the highlands of Santiago island, the first significant rains were registered on 21, 22, 27 and 28 July over the entire country but notably on the highlands of the agricultural islands. These rains permitted germination of dry plantings of maize which had been undertaken earlier in the month as well as the start of wet plantings.



CHAD: Abundant rains in July provided good soil moisture reserves. Following the northward progression of the rains in May/June, precipitation remained well distributed and often above average in July, notably during the third dekad of the month. Heavy rains continued in early August in the Sahelian and Sudano-Sahelian zones but they decreased in the Sudanian zone. These good rains benefited crop development. Coarse grain crops are growing satisfactorily both in the Sahelian and Sudanian zones. Off-season maize is being harvested in Bol area in the Lake Chad zone. Soil moisture was reported sufficient to cover crop water needs during the first dekad of August even if there was no rain.

Pastures are abundant both in the Sahelian and Sudanian zones. Grasshopper attacks have been reported in Batha and Ouaddaï. Grain eating birds caused some damage to millet and maize in Bol area. Rodents are also reported in several areas. No Desert Locusts activity is reported.

THE GAMBIA: Abundant rains in July benefited crop development. Following the arrival of the rains countrywide in mid-June, precipitation remained widespread and above average in late June and July, becoming even excessive in some areas. Reflecting these good rains, coarse grains and upland rice crops are developing satisfactorily, while transplanting of rice is underway or about to start.

GUINEA-BISSAU: Crop development benefited from abundant rains since plantings. Following first rains in mid-April in the east and the south, rains covered the entire country in June. Precipitation became particularly abundant in early and mid-July. Rains decreased in the east in late July but resumed in early August. These good rains benefited development of coarse grains in the east and the north and permitted the desalination of swamp rice fields where transplanting from seedbeds is now underway.

Pastures are abundant. The pest situation remains calm. Some grasshoppers have been reported in humid zones.

MALI: Crops are developing satisfactorily reflecting widespread and regular rains. Following generally well distributed and regular rains, crops are growing satisfactorily and no crop stress is reported. Millet and sorghum are generally in the tillering/elongation stages, maize is in the elongation/flowering stages and rainfed rice is emerging/tillering. Irrigated rice is now being transplanted in the Office du Niger zone and the Baguineda area while field preparation is continuing in the Office Mopti and Ségou irrigated areas. Planted areas are reported to be equal or higher than last year except for maize in the CMDT zone (in Bougouni, Fana and Sikasso areas).

Pastures are generally good. Grasshopper attacks were reported in late July in the Sahelian zone and in Séno area but there is no significant damage to crops. Grain eating birds are reported in the Office du Niger and treatments have been undertaken. Low numbers of Desert Locusts may be present in the Adrar des Iforas. Small scale breeding is likely to occur in areas of recent rainfall.

MAURITANIA: Widespread rains in late July permitted plantings in all the agricultural zones. Following first rains in early June in the two Hodhs and Guidimakha, precipitation improved significantly during the third dekad of June and the first dekad of July. Precipitation decreased in mid-July but improved in late July. Rains remained generally widespread in early August in the south and the west. Heavy rains have been registered in the Senegal River valley in early August and flooding is reported in Nouakchott. Following these good rains, plantings are well underway in all the agricultural zones.

Pastures are regenerating in the centre and the south east. Treatments against grain eating birds have been undertaken on 700 hectares in Gorgol and Trarza. Isolated Desert Locust adults were observed on 10 July at two locations near Aioun El Atrouss. Routine surveys have not yet started and no other locust activity was reported in July. Low numbers of adults are expected to be present and to breed in parts of southern Tagant, Brakna, Assaba and the two Hodhs, which received rains. Scattered hoppers which may consequently appear will be difficult to detect. No activity is likely in the north due to dry conditions.

NIGER: Crops are developing satisfactorily. Following widespread and regular rains in July, almost all the villages have now done their plantings. Cumulative rainfall as of late July is above average in southern Diffa, Dosso, Tillabery and Zinder departments. However, precipitation decreased in early August. Millet and sorghum are generally tillering. They are emerging in the east, in Diffa and Zinder departments, where they were planted later. Floods from heavy rains in mid-July were reported in Dosso department, notably in Boboye area, in Maradi department in the centre, as well as in Fillingué arrondissement in the west. Several millet and sorghum fields have been affected.

Infestations of grasshoppers are reported in various areas, notably in Diffa department where about 2000 hectares have been treated. The scattered Desert Locusts populations previously reported in the Aïr mountains may have bred in areas where rainfall occurred in June and July. Low numbers of adults may appear.

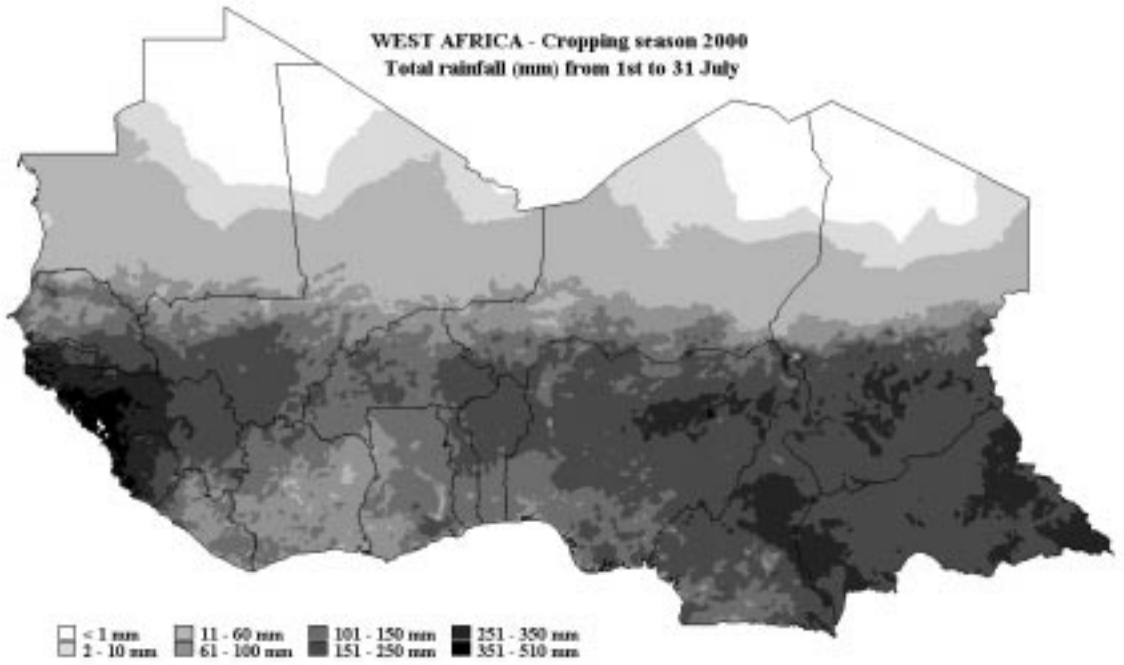
SENEGAL: Abundant rains in late July and early August benefited crop development but caused floods in the Senegal river valley. Following generally widespread and above average rains in early July, precipitation ceased or decreased significantly over the northern half of the country during the second dekad of July. Rains resumed during the third dekad and became particularly

abundant in the centre and the north, notably during the night 30 July/1st August. Strong rains exceeding 100 mm caused flooding in Dakar, Louga and Saint Louis areas. Cumulative rainfall is above normal in half of the meteorological stations. Coarse grains benefited from these abundant rainfall in the centre and the north. They are developing satisfactorily in the south where rice is now being transplanted from seedbeds.

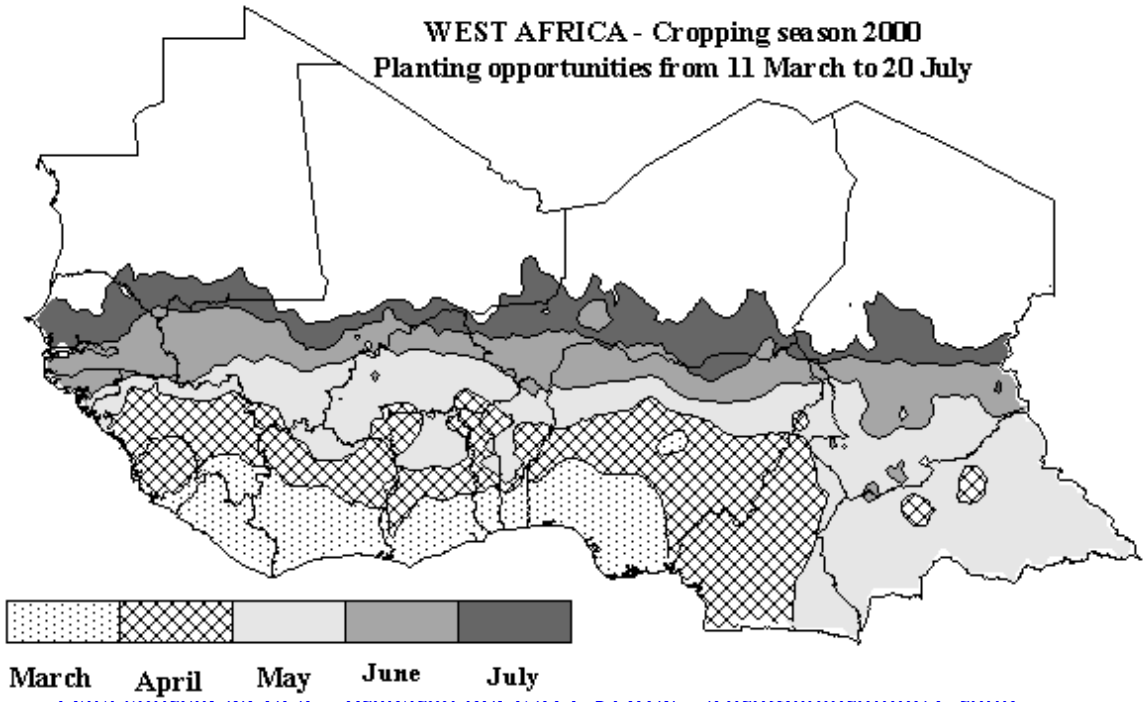
Pastures are regenerating. Grasshopper attacks have been reported in Diourbel, Kaolack, Louga, Saint Louis and Thiès regions. Grain eating birds are reported in Dagana area, in the Senegal river valley. Surveys and treatments have been undertaken.

TOTAL RAINFALL AND PLANTING OPPORTUNITY MAPS

The first map indicates the total rainfall amount from 1st to 31th July. Data is extracted from FAO field reports and the RainFall Estimate (RFE) Satellite Imagery as produced by the 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 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 **third GIEWS report of the 2000 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 2000 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 **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 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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