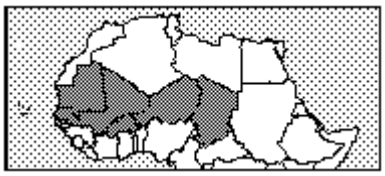


SAHEL WEATHER AND CROP SITUATION 1999

Report No.2 - 12 July 1999

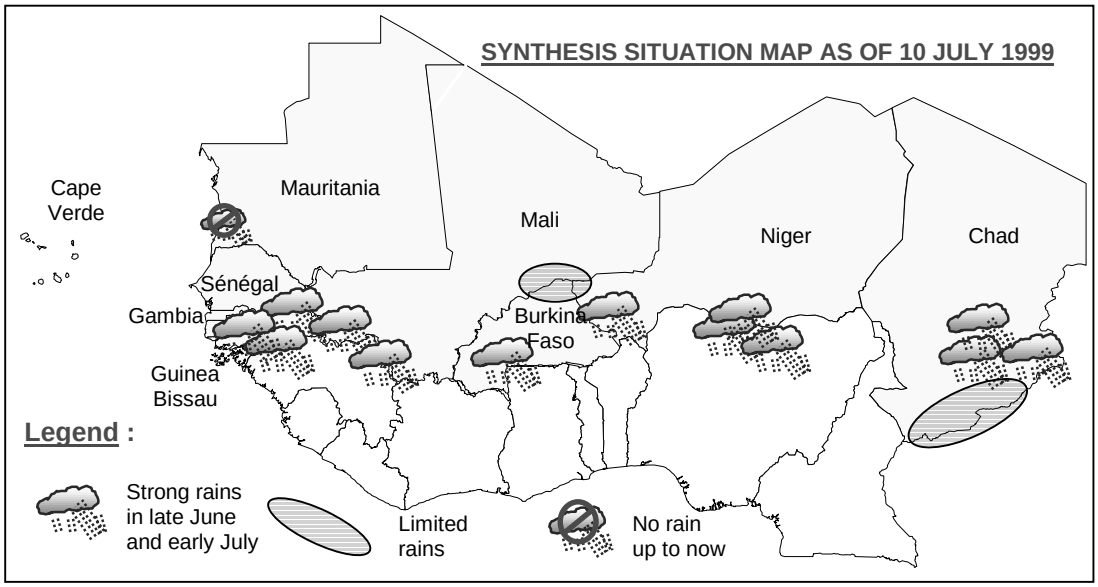
WIDESPREAD AND ABOVE NORMAL RAINS IN LATE JUNE AND EARLY JULY COMPENSATED FOR REDUCED PRECIPITATION IN EARLY AND MID-JUNE

SUMMARY

Rising concerns over reduced precipitation in early or mid-June, particularly in **Burkina Faso** and **Niger** have eased with abundant rains over most producing areas of the Sahel since late June. Rains have now started in western **Gambia**, northern **Senegal**, southern **Mauritania,** central and northern **Mali,** eastern Niger and the Sahelian zone of **Chad** where plantings have started. Further south, above normal rains benefitted recently planted crops and compensated for the below average rains of early to mid-June. In **Guinea Bissau**, they helped desalination of swamp rice fields where rice seedlings, now in seedbeds, will be transplanted. In **Cape Verde**, seasonably dry conditions prevail. Satellite imagery indicates that during the first dekad of July, precitation remained normal to above normal throughout the Sahel except in the south of Chad.

The dry spell of early to mid-June in Burkina Faso and Niger delayed plantings and necessitated replantings in some areas. This might reduce production if rains do not continue late in the season.

Grasshoppers are reported in Chad, the Gambia and Niger. Grain-eating birds are reported in Mali and Niger. Control measures are underway. Rodent attacks to crops are also reported in Niger. The Desert Locust situation remained calm during June. Low numbers of adults are expected to appear in the summer breeding areas of the Sahel but no significant developments are expected.

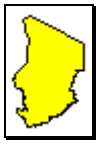


SITUATION BY COUNTRY

BURKINA FASO: Improved rains in late June and early July compensated for the very limited precipitation of early June. Following first rains in April in the south-west and the south-east and over the centre and centre-north in May, precipitation decreased significantly in early June over the entire country. Rainfall recovered somewhat during the second dekad of June and became widespread, regular and above normal during the third dekad, notably in the centre and the north. These good rains continued during the first dekad of July over the entire country, except the extreme north were they were more limited and permitted widespread sowing of millet and sorghum in the centre and the north. Crops are emerging satisfactorily in the south and west where, following dry spell in early June, replantings were undertaken late for long cycle varieties (140-150 days) used in these regions. Rains will be needed late in the season.

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

CAPE VERDE: First rains have been registered in early July on Santiago and Fogo islands. However, these early rains remained insufficiant to allow widespread plantings of maize. Due to poor maize harvests in recent years, seed availability is likely to be a problem in some areas.



CHAD: Growing conditions improved following above normal rains in late June and early July. Following first sporadic rains in mid-March and April in the extreme south, the rainy season really started in May in the south. Rains progressed northwards through late May but decreased in early June, remaining below normal during the first two dekads of June. Precipitation resumed in late June and above normal rainfall has been received during the third dekad of June. During the first dekad of July, satellite imagery indicates that precitation remained generally above normal in the Sahelian zone but below normal in the south, in the Sudanian zone. Planting of coarse grains is underway in the Sahelian zone, while in the Sudanian zone crops are emerging but may suffer water stress if rains do not resume soon..

Pastures are regenerating following recent rains. Grasshopper infestations are reported in Guéra, Salamat and Tandjilé regions. They caused damage to emerging sorghum in Bitkine and Mongo areas in Guéra region. Army worm infestations reported in May in the Sudanian zone have decreased. No Desert Locust activity is reported.

THE GAMBIA:. The rainy season is now well established countrywide. Rains started in early June in the east and the centre and in late June in the west where they were above normal. They remained widespread and well above normal during the first dekad of July. Plantings are underway in the west and crops are emerging satisfactorily in the east and the centre. Grasshopper attacks have been reported in the centre.

GUINEA-BISSAU: Following reduced rains in mid-June, precipitation became widespread and abundant in late June and early July. The growing season started in mid-May over most parts of the country. Rains decreased in late May, picked up in early June but remained well below normal in mid-June. By contrast, they were above normal in late June and early July,

permitting widespread plantings of coarse grains and the desalination of swamp rice fields where the rice seedlings, now in seedbeds, will be transplanted in July/August.

MALI: Abundant rains in early July benefitted crop development. Rains started in April in the extreme south and progressed northwards in May and June. They became widespread and abundant in the west in late June and over most producing areas in early July. Plantings are well underway and pastures are regenerating. Seed availability is adequate following the 1998 record harvest.

Control operations against grain eating birds have been undertaken in the Office du Niger area. Isolated Desert Locusts may be present in a few areas in the Adrar des Iforas.

MAURITANIA: Widespread rains in early July permitted plantings to start in the south. The weather was mostly dry up to late June. Widespread and above normal rains covered the south and the south-east in early July where they permitted land preparation and wet plantings to start. The good rains will also favour regeneration of pastures.

Low numbers of solitary Desert Locusts adults are likely to appear in central and southern areas where they will eventually lay eggs once the seasonal rains commence. No significant developments are likely.

NIGER: Following mostly dry weather in early to mid June, substantial rains in late June and early July covered most of the agricultural zone. Plantings started in late May following first showers over most producing zones. However, the weather remained mostly dry during the first two dekads of June. Rains became widespread and above normal over the western and central producing areas but remained limited in the east during the third dekad of June. They started in the east in early July. Plantings and replantings are underway with satisfactory seed availability following 1998 record harvest.

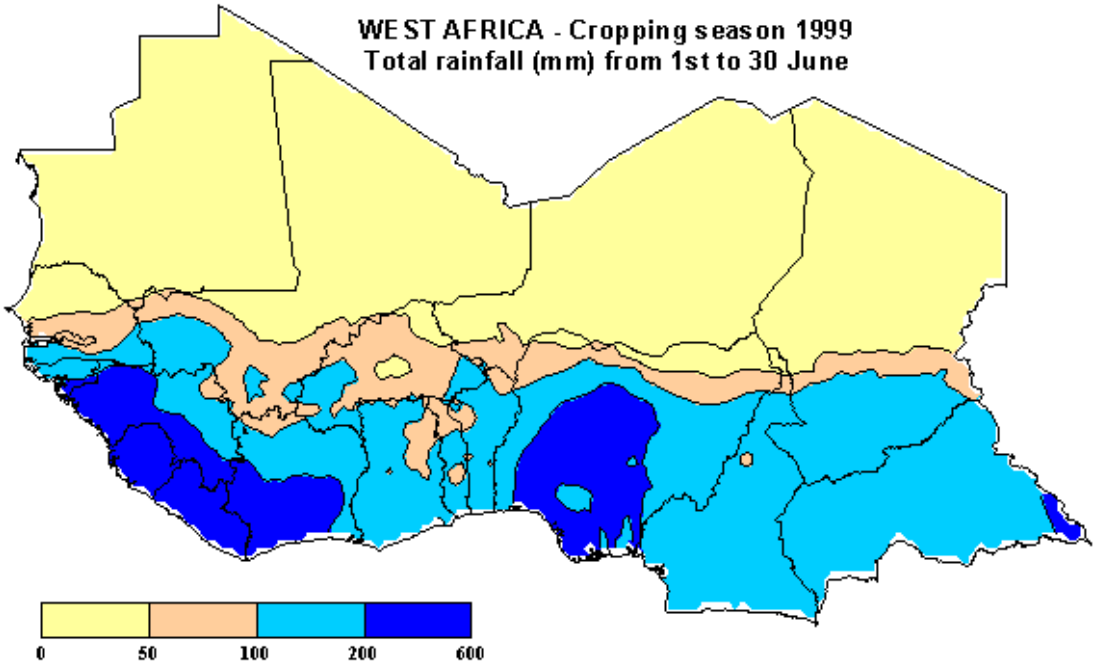
Rodents are reported to be attacking recent sowings in Tahoua and Zinder departments. Grasshoppers have also been seen in Diffa and Tillabery departments but crop damage is negligible. Grain eating birds are also reported in Diffa department. Unconfirmed reports suggest that isolated Desert Locusts were present in eastern Aïr and Irhazer during the first dekad of June. Small scale breeding could occur once the seasonal rains commence in Aïr and Tamesna.

SENEGAL: Generally above normal rains permitted widespread plantings in the south and the centre. Following substantial early rains in the south-east in mid-May, rains progressed northwards in June and were above last year's level and generally above normal. The weather remained dry up to late June in the north where rains started in early July, permitting plantings to start. Plantings of coarse grains are now well underway in the centre, while crops are emerging satisfactorily in the south and the east.

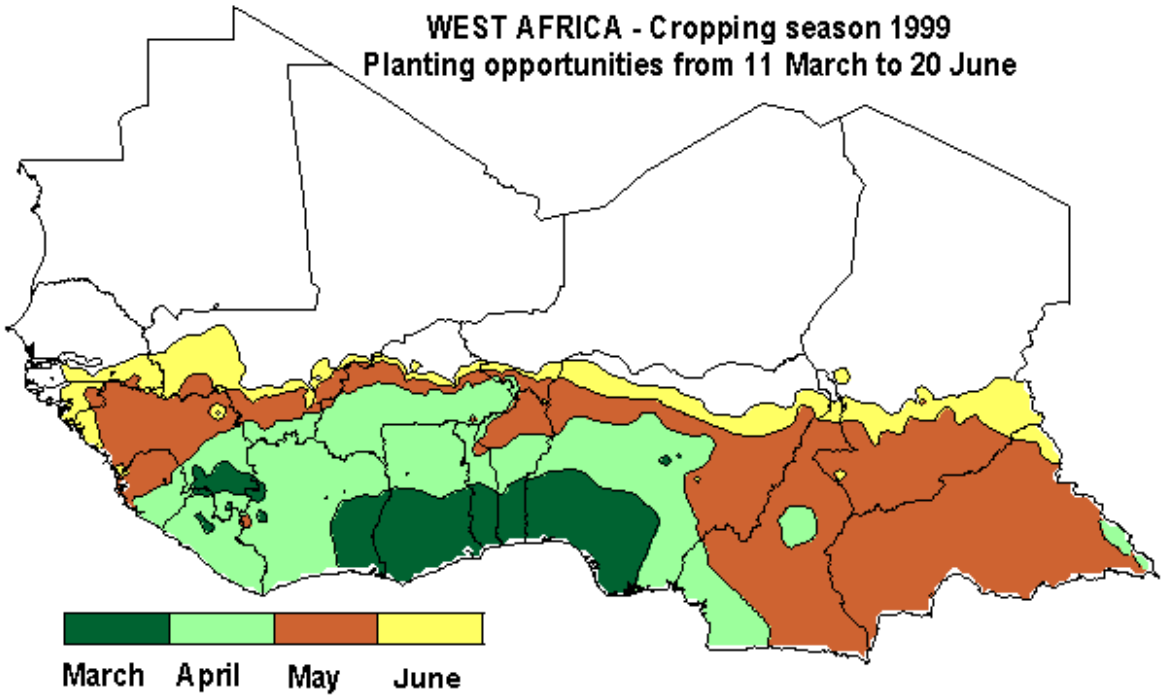
Pastures have started to regenerate in the centre. No pest activity has been reported. The government has distributed 73 273 tonnes of phosphate fertilizers at farmers level in the framework of its programme "phosphatage de fond".

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 date (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 next two dekads. Data used for this analysis are from FAO field reports and RFE imagery.



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

*This is the **second 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 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 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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