SAHEL WEATHER AND CROP SITUATION REPORT

Report No. 5, 10 October 2002

UNCERTAIN HARVEST PROSPECTS IN THE WEST OF THE SAHEL, MIXED PROSPECTS IN THE CENTRE AND THE EAST

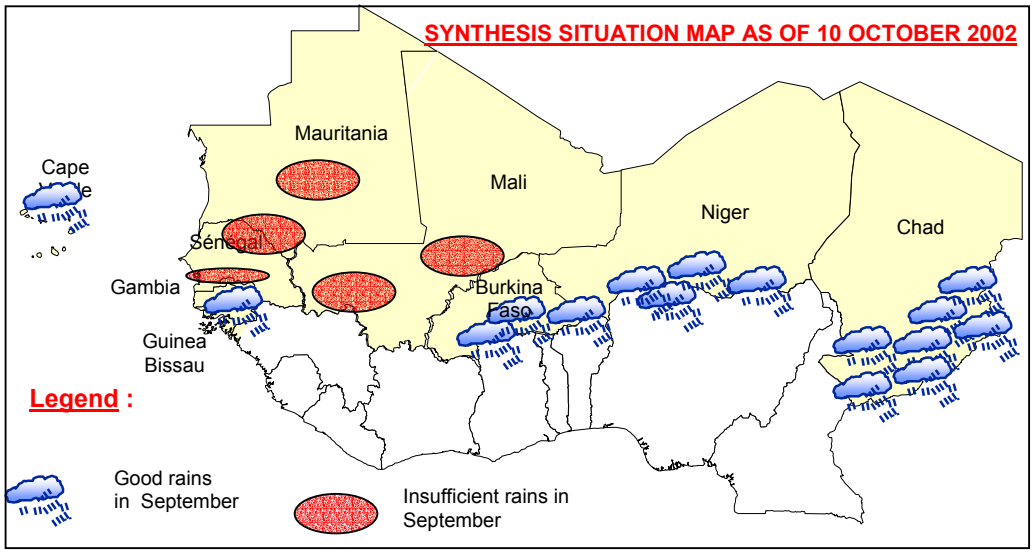
SUMMARY

Improved crop prospects, following the resumption of rainfall during the first dekad of August after a dry spell in July which severely affected crops in the western part of the Sahel have been dampened in **The Gambia** and **Senegal** by poor rains in late September. In these two countries, satellite imagery shows that rainfall decreased significantly during the second dekad and dry weather prevailed at the end of the month. In **Mauritania,** prospects for rainfed crops are very poor, while prospects for crops in low-lying areas, below dams and under flood recession, although more favourable, are still uncertain and will depend on rainfall pattern in October. By contrast, in **Guinea Bissau** and **Cape Verde,** crop prospects have improved following widespread and quite regular rains in September. Maize crops which suffered water stress have been recovering in Cape Verde and transplanting of rice is underway in Guinea Bissau.

In the centre of the Sahel, crop prospects, which were uncertain in **Mali** due to the delayed onset of the rains and localised floodings in late July/early August, have worsened due to poor rains in September, with mostly dry weather at the end of the month. By contrast, growing conditions have been much more favourable with widespread and regular rains over most of **Burkina Faso, Chad,** and **Niger.** Crops are generally growing satisfactorily.

Grasshoppers are reported in Chad, Mali, Niger and Senegal, while army worm infestations are reported in Burkina-Faso, Chad and Mali. The desert locust situation remains calm.

A series of joint FAO/CILSS Crop Assessment Missions are scheduled from 7 to 26 October in each country to estimate with national services the 2002 cereal production. In Cape Verde, The Gambia, Mauritania and Senegal, the Missions will be jointly with CILSS and WFP for a full assessment of the food situation as these countries have been the most affected by drought.



SITUATION BY COUNTRY

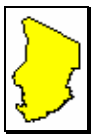
BURKINA FASO: Reflecting adequate rains in August and September, a normal overall harvest is in prospect. Following erratic and below average rains until late June, which necessitated replantings in most regions and shortened the growing season, precipitation improved significantly in July and August. It remained generally adequate during the first two dekads of September, except in the north. However, satellite imagery shows that rainfall decreased in most regions in late September. Due to the erratic start of the rainy season, stages of crop development vary greatly in the regions and are generally late compared to normal years. In the south and west, cereals are generally maturing, while in the north they are in the heading stage. Overall, a normal harvest is anticipated. In the north, however, yield potential might be reduced by the poor rains of September.

In the north, 1 474.5 hectares of crops have been infected by army worms, 1 142.5 hectares of which have been treated.

A joint FAO/CILSS Crop Assessment Mission is scheduled from 14 to 21 October to estimate the 2002 cereal production.

CAPE VERDE: Crop prospects improved following increased rains in September. Following mostly dry weather conditions on most producing islands in August, precipitation increased significantly on Santa Antao and Sao Nicolau islands during the first dekad of September, where above normal rains were registered. During the second and the third dekads, widespread rains were received on all producing islands. Maize crops which suffered water stress, notably in the semi-arid zones, have been recovering, improving harvest prospects.

A joint FAO/CILSS/WFP Crop and Food Supply Assessment Mission is scheduled from 21 to 26 October to estimate the 2002 cereal production and assess the overall food supply situation.



CHAD: Overall crop prospects are favourable reflecting generally regular and widespread rains. Precipitation was generally abundant, regular and well distributed in September, although decreasing somewhat during the second dekad in the Soudanian zone. Stages of crop development vary among regions according to the planting dates but crops are developing satisfactorily and overall harvest prospects are favourable.

Pastures are abundant following widespread rains since July. The desert locusts situation is reported to be calm. Grasshopper attacks are reported on millet and sorghum in Biltine, Salamat, Lac, and the two Batha regions while army worms infestations are reported on millet in Abéché and the two Batha regions.

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THE GAMBIA: Crop prospects adversely affected by poor rainfall in September. Following mostly dry weather in July which caused germination failures and affected crops in several areas, rainfall resumed at the end of the first dekad of August, allowing replantings and start of recovery of affected crops. An FAO Mission which visited the country on 6-7 September anticipated a general reduction in yield potential and a decline in this year's cereal output, the final outcome of the season depending on the rainfall pattern through October. However, satellite imagery shows that rainfall decreased significantly during the second dekad of September, with mostly dry weather prevailing at the end of the month, notably in the east. The poor rainfall pattern has resulted in bleak harvest prospects.

A joint FAO/CILSS/WFP Crop and Food Supply Assessment Mission is scheduled from 21 to 26 October to estimate the 2002 cereal production and assess the overall food supply situation.

GUINEA-BISSAU: Improved rains in August and September benefited rice and coarse grains development. After substantial rains in mid June, precipitation decreased in July, delaying transplanting of rice from seedbeds to swamp areas. Precipitation resumed in early August and remained widespread and quite regular in August and September, allowing transplanting of rice to continue. However, in the region of Cacheu, along the northern border with Senegal, the amount of rainfall was reported to be still insufficient to facilitate rice seedlings transplanting, although millet, sorghum and other upland crops are recovering well from water stress during the month of July. Most farmers have already harvested early maturity varieties of maize, which has improved food availability.

A joint FAO/CILSS Crop Assessment Mission is scheduled from 21 to 26 October to estimate the 2002 cereal production

MALI: Harvest prospects deteriorated following poor rains in September. Following irregular and below average rains in May and June, precipitation improved in early July and remained widespread and regular until late August. However, it decreased significantly in September, with mostly dry weather at the end of the month. Crop conditions are reported to be poor in several areas of Kayes, Koulikoro, Ségou, Mopti, Tombouctou and Gao regions. As a result, crop prospects which were already uncertain due to the delayed onset of the rains and localised floodings in late July/early August, have deteriorated considerably.

Grain-eating birds are reported in several regions where treatments are underway. Grasshopper infestations are reported in Kayes and Koulikoro regions while army worms infestations are reported in Mopti. The desert locust situation is reported to be calm.

A joint FAO/CILSS Crop Assessment Mission is scheduled from 7 to 14 October to estimate the 2002 cereal production.

MAURITANIA: Prospects for rainfed ("dieri") crops are very poor due to dry weather in July while prospects for recession and irrigated crops are still uncertain. The dry weather which occurred in July after the first rains in June severely affected "dieri" (rainfed) crop, which represents about one third of total cereal production in a normal year. Rainfall resumed in early August in the southern and south-eastern regions, allowing replantings. In the western Brakna and Traza regions, where first significant rains were registered only during the first dekad of September, plantings are still underway. Due to reduced yield potential and planted areas, harvest prospects for rainfed ("dieri") crops are very poor. Prospects for production in low-lying areas, below dams and for recession crops, although more favourable, are still uncertain, and will depend on rainfall pattern in October.

The food situation in the country remains very serious. Some 750 000 of Mauritania's 2.7 million people are already affected by food shortages, with malnutrition now taking on alarming proportions according to WFP. A joint FAO/CILSS/WFP Crop and Food Supply Assessment Mission is scheduled from 21 to 26 October, to estimate the 2002 cereal production and assess the overall food supply situation.

NIGER: Growing conditions remained favourable in September. Good rains from late July through August remained widespread over the main producing areas in September. Crops are reaching maturity or developing satisfactorily in most agricultural zones. Harvesting has started in most regions, improving cereal supply and reducing prices on markets.

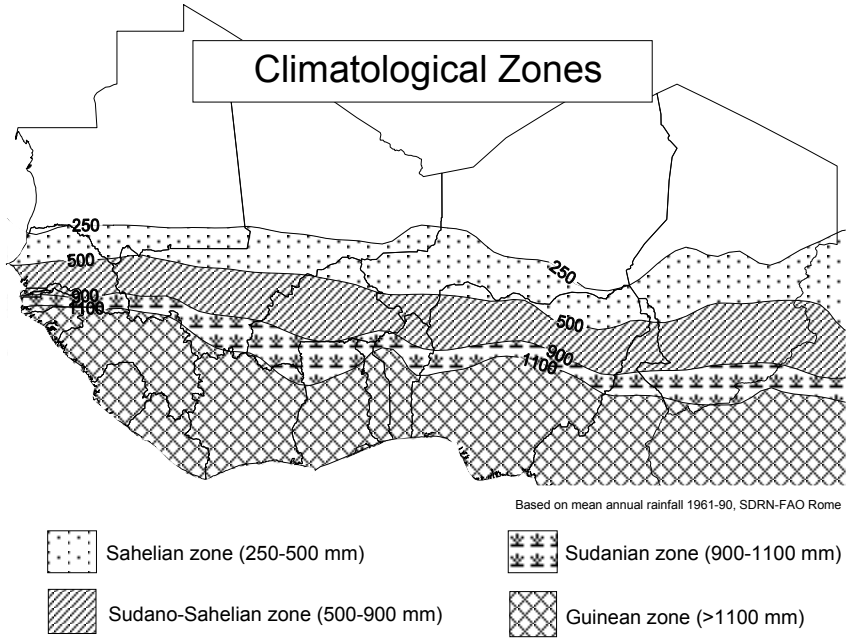
Pastures are abundant reflecting good rains in the pastoral zones. Grasshopper infestations are reported in most regions.

SENEGAL: Substantial rains from early August improved crop growing conditions, following a dry spell in July/early August, but overall crop prospects remain uncertain. Following the dry spell of July which severely stressed crops and caused crop failure in many areas, precipitation resumed in early August and remained widespread and well distributed until the first dekad of September. Some of the crops that suffered temporary wilting started to recover. Earlier planted cereal crops were generally maturing in the east, south and centre. Maize and souna millet are being harvested in Tamba, Kolda and Kaolack regions. However, satellite imagery shows that rainfall decreased significantly during the second dekad of September, with mostly dry weather prevailing at the end of the month. The poor rainfall has dampened improved crop prospects in early August, resulting in uncertain harvest prospects.

Pastures have generated. The pest situation is calm in the south and the east, but grasshoppers and grain eating birds are reported in the centre while cantharids are reported in the north.

A joint FAO/CILSS/WFP Crop and Food Supply Assessment Mission is scheduled from 14 to 21 October to estimate the 2002 cereal production and assess the overall food supply situation.

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

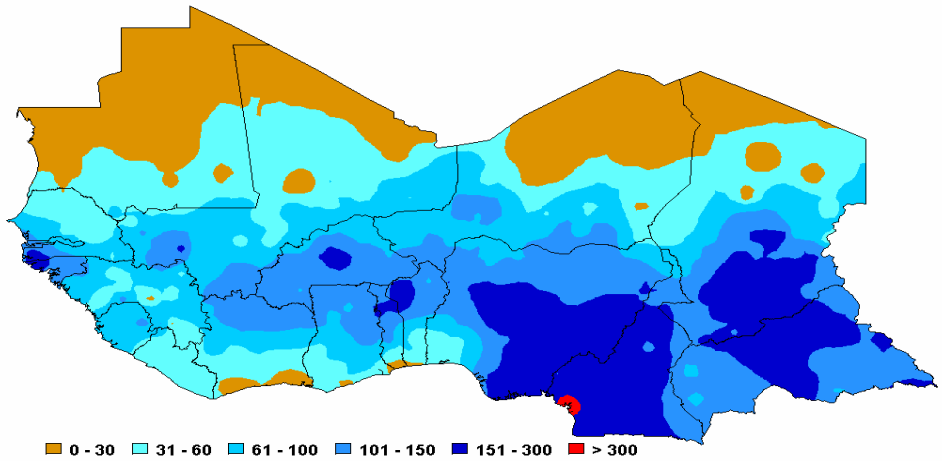


TOTAL RAINFALL AND CROP YIELD FORECAST MAPS

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

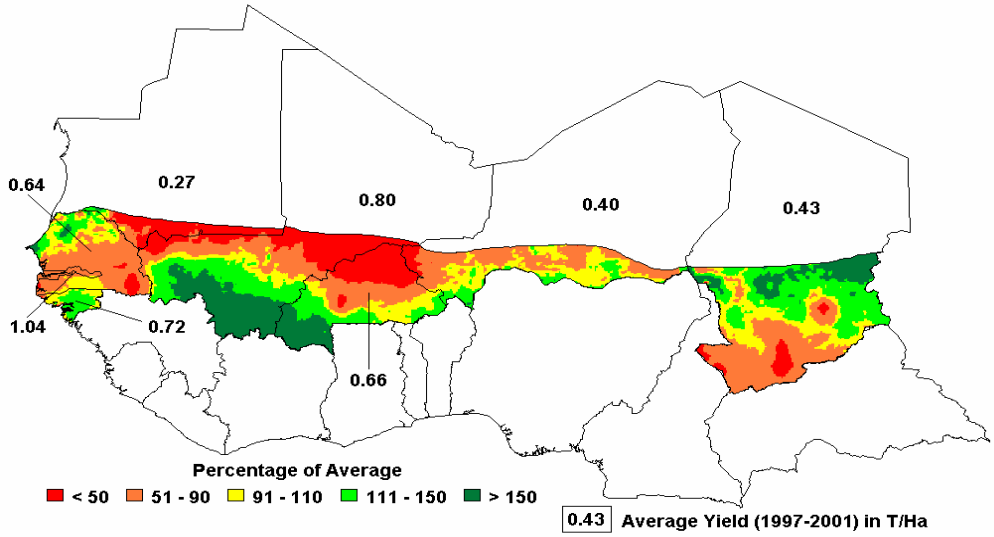
Total rainfall (mm) from 1st to 30th September



The map below shows the forecasted yield of millet for the Sahelian countries for the 2002 cropping season, as a percentage of the average yield of the last five years (1997-2001). The map is obtained by applying to each country a yield function which relates, in a statistical way for the period 1982 to 2001, the output parameters from the FAO crop specific water balance model to the crop yield. For 2002, the water balance model is using average rainfall from 1st October to the end of the crop cycle.

WEST AFRICA - Cropping Season 2002

Millet Yield Forecast as at 30th September



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

*This is the fifth **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 ***30 September*** *have been utilized. The satellite images of the first dekad of October 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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