



# Southern Sudan

## Agrometeorology Update



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**Collaborating Government of Southern Sudan Institutions**  
 1. Ministry of Agriculture and Forestry. 2. Ministry of Animal Resources and Fisheries 3. Ministry of Health. 4. Southern Sudan Commission for Census, Statistics and Evaluation. 5. Southern Sudan Relief and Rehabilitation Commission

### INTRODUCTION.

The Agrometeorology Update is a report that will be produced regularly (monthly) to report on the progress of the agricultural season. The Update looks at the rainfall performance and its impact on crop and livestock production including rangeland. The performance of the agricultural season has implications on the food security situation of households that have an agricultural based livelihood. The report makes extensive use of satellite imagery particularly Normalised Difference Vegetation Index (NDVI).

and vulnerable host communities. All input distribution is expected to be complete by 10 June 2008. Details of input distributions are reported in state activities.

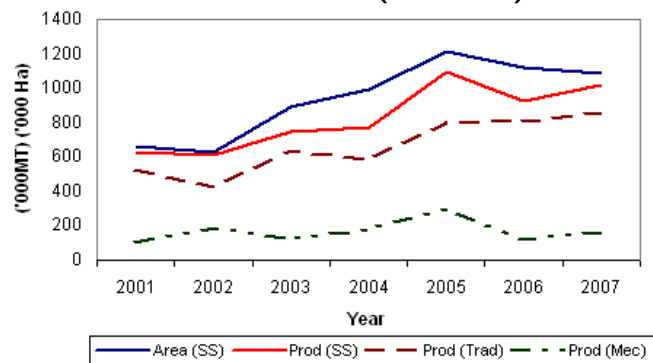
### AGRICULTURAL INPUT SITUATION

FAO is working very closely with about 40 Implementing Partners to ensure timely distribution of inputs and other related technical support. The distributions include 1,210 MT of seeds and about 314,000 pieces of hand tools, for 92,500 households in the 10 States. Households are being provided with an average of between 10 - 16 Kg (depending on need) of assorted seeds and 3 or 4 common hand tools. So far, the distributions to beneficiaries in the areas where rains have commenced are almost 80% complete. The input distribution percentage varies across Southern Sudan due to logistical challenges. Across Southern Sudan, total input distribution has so far been able to reach 63,788 returnee households

### AGRICULTURAL PRODUCTION

Cereal production has been steadily increasing from 2002 to 2007 (Figure 1). The traditional sector cereal production increased by about 40% over the 5 year period. The production increase could be attributed to relative stability in terms of security. However, production from the mechanized farming sector has been stable (Figure 1). Therefore, there is need to continue supporting traditional farmers with inputs and other facilities. The analysis also indicates that traditional farmers contribute 80 percent of total cereal production in Southern Sudan. In view of the soaring prices, it will be prudent to increase production in order to reduce the prices locally and this entail polices targeted at both traditional and mechanized farming sectors.

**Figure 1. Time Series of Area & Cereal Production in Southern Sudan (2001-2007)**



Source: FAO

### SEASONAL RAINFALL PERFORMANCE

May- June marks the onset of the rainy season in Southern Sudan. So far the rains have commenced with substantial amounts being received in most parts of Southern Sudan. Cumulatively, Northern Bahr El Ghazal, Western Equatoria, Central Equatoria and counties in Lakes State bordering Western Equatoria have received amounts ranging between 200 and 300mm. In comparison to long-term average rainfall, Northern and Western Bahr El Ghazal, parts of Warrap, Unity, Upper Nile and eastern parts of Central Equatoria have received more than average rainfall ranging between 30-60mm (Figure 2). Less than average rainfall of about 120mm has been observed in southern parts of Jonglei and most parts of Eastern Equatoria

State.

A joint effort of the Government of Southern Sudan with United Nation Organizations and International Non-Governmental Organizations



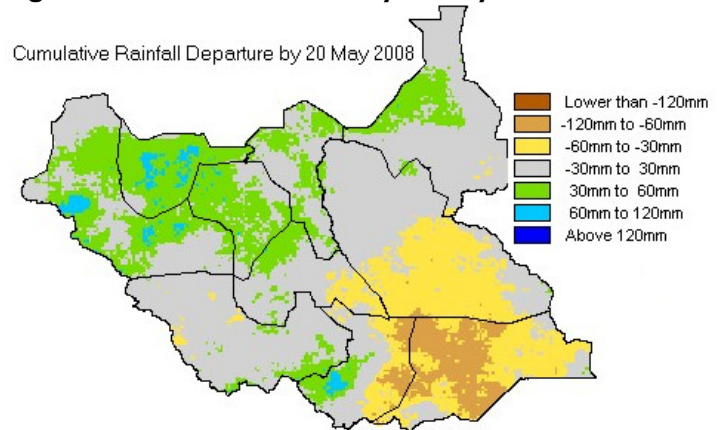
SIFSIA is a programme funded by the European Commission to build capacity in food security in Southern Sudan

For more information/comments, please contact: Michael Roberto Kenyi [mrkenyi@yahoo.co.uk](mailto:mrkenyi@yahoo.co.uk) or [Denis.Poggio@fao.org](mailto:Denis.Poggio@fao.org) / [Elijah.Mukhala@fao.org](mailto:Elijah.Mukhala@fao.org)

Reports indicate that the farmers have already started land preparation in areas where the rainfall started early and planting has taken place. Reports also indicate that FAO implementing partners and GOSS have distributed seeds and tools to many locations. However, some localities are still receiving seed and tools in May which will still help in increasing production and food security for communities in agricultural based livelihood zones.

**Satellite Imagery:** The satellite imagery Normalised Difference Vegetation Index (NDVI) is used to obtain an overall picture of the progress of the agricultural season. It is a measure of the greenness of the vegetation. This is then compared to crops under cultivation as they all respond to the moisture content in the soil which is increased as a result of rainfall.

**Figure 2. Cumulative rainfall by 20 May 2008**



Source: FAO

### AGRICULTURAL ACTIVITIES BY STATE

Farmers including returnees are carrying out two activities concurrently: that of constructing shelter for the family and that of land preparation. The majority of the farmers have planted maize, sorghum, groundnuts and beans. The crops are reported to be at vegetative stages. Most livestock have returned to their wet season grazing areas. Pasture conditions in these areas have continued to improve (figure 4 & 5) although the rainfall (Figure 2) has not been sufficient and this has resulted in significant improvement in the health and body condition of animals. However, there is fear of increase of certain disease especially CBPP which normally has a higher incidence during the wet season.

**Northern Bahr El Ghazal State:** Reports indicate that the agricultural season has commenced with some rainfall received (figure 3) and farmers have started land preparation. It is expected that they will start planting by the end of May or early June 2008. The early planted crop (mainly sorghum) is reported to be at vegetative stage and the performance is good, with no cases of pests and diseases reported except for the worries of striga infestation later. The fishing activities have declined further due to low water levels in the rivers. The supply of fresh fish in the market has declined compared to the previous months. Livestock situation in the rest of the state is normal except for cases of common endemic diseases such as Haemorrhagic septicaemia reported in Aweil East County. However, the livestock situation has further improved with increased availability of pasture (Figure 5) and water.

**Unity State:** The state has received above normal rainfall in many parts. Land preparation is almost completed in rural areas. Planting of some long maturing varieties of sorghum and maize has commenced. Seeds have already been received in the state and distribution of these seeds and tools is in progress to the counties of the state where most beneficiaries/ returnees were settled including IDPs as well as the vulnerable resident communities. For the IDPs, acquisition of land has not been a problem. However, the adverse impact of conflict in Abyei could cause challenges for farmers to access their lands in the

**Eastern Equatoria State:** The season is progressing well although there has been less than normal rainfall received so far.

western part of Unity state. Fishing activities seemed to be the normal exercise being carried out throughout the seasons.

**Lakes State:** The rainy season has commenced and the state has received above normal rainfall in some parts (Figure 2). Farmers in most parts of the state are currently involved in land clearance and preparation. Seeds have been delivered to the community by FAO implementing partners and these include *maize*, *groundnuts*, *sesame*, and *cowpeas*. The tools delivered included *hoes*, *pangas*, *sickles* and *Malodas*. There was not much disease incidence reported in May 2008 except for an out break of black quarter in the first week of May in Awerial County. With the onset of rain, cattle have started moving from the low lands (toich) to upland (gok) and others from some parts of Western Equatoria where pastoralists had gone searching for pastures. Pasture and water are getting readily available with the onset of rain and livestock are anticipated to cover short distance in search of water and pasture. Fishing activities in the state are still confined to areas where levels of water are still favourable.

**Jonglei State:** The season is progressing well in the State. The rainfall season has commenced and so far the State has received much less rainfall than it normally would receive. However, the pasture condition has improved significantly with the onset of rainfall. About 1200 households have benefited from inputs (seeds and tools)

distributed by FAO implementing partners and State Ministry of Agriculture and Animal Resources. The seeds were distributed in payams in Bor County.

**Warrap State:** The rainfall season has commenced in the state and reports indicate that the rains are well distributed, however there are fears that some areas may be completely cut off as the rainy season advances. Seeds and tools have been distributed in the counties of the greater Tonj. However, challenges are expected in Twic. Twic county received the highest number of returnees from the North and the number has doubled due to the influx of displaced communities from Abyei. However, distribution plan will have to increase to take into account IDPs once the working statistics are established. In most parts of the counties with relative stability, farmers are already busy cultivating around their homes and farm lands and are mostly sowing sorghum. It is important that the IDPs are settled as soon as possible and allocated some piece of land so that they could start cultivation. If this is not addressed as soon as possible, it will be a cause for food insecurity in the coming year.

**Central Equatoria State:** The state has received more than normal rainfall in the western parts (Lainya & Yei) and lower than normal rainfall in the eastern parts (Kajo-Keji) (Figure 2). In terms of inputs, FAO and its partners have distributed seeds and tools in the four counties of Yei, Morobo, Kajo Keji and Lainya respectively. The distribution process is continuing in Juba and Terekaka counties. The seeds for distribution include Maize, Sorghum and cowpeas while the tools distributed include hoes, pangas and sickles. In total this season 24,800 pcs of agricultural hand tools were distributed to the returnees, IDPs, vulnerable households of the host communities. FAO Implementing partners have distributed agricultural inputs in the counties. Land preparation and planting has commenced and reports indicate

that crops are at various stages. The Crop performance this season so far seems generally good.

**Upper Nile:** In comparison to other states, the state has not received a substantial amount of rainfall (Figure 3) However, farmers are now engaged in land preparation for the season since planting is supposed to be around May/June. The targeting for Upper Nile state for inputs has been identified to be around 8,000 households from the returnees and the vulnerable flood affected host communities, plus other 2,000 households in northern Upper Nile through Mercy Corps. The general livestock situation has improved very much during the month. No reports of disease outbreaks have been received.

**Western Equatoria State:** The rainy season has commenced and the state has received a lot of rainfall (200-300mm) compared to other states (Figure 3). The high rainfall is also observed through the greenness of the vegetation through NDVI (Figure 5). Reports indicate that crops are performing well. Western Equatoria state is the highest cereal producing state in Southern Sudan. The threat of armed groups along the DRC-CAR borders is however scaring off many farmers from cultivating.

**Western Bahr Ghazal State:** The southern part has received a substantial amount of rainfall (Figure 3) adequate for crop establishment in comparison to the 2007 agricultural season. In addition to land preparation, some farmers have already started planting of local long duration sorghum varieties, white and black sesame and groundnuts (three seeded variety, Mani pinta and Sodari). The production of fish in May 2008 has however decreased in comparison to that of April 2008. The reduction in the fishing activities are attributed to the low volume of water in the Jur River and the fishermen taking a break in order to engage in agricultural activities. Cattle deaths were reported in Kobri Ngab area of Jur River County due to unknown disease; the symptoms include abortion in cows, weaknesses and sudden death among the very old animals.

Figure 3. Cumulative rainfall Departure by 20 May 2008

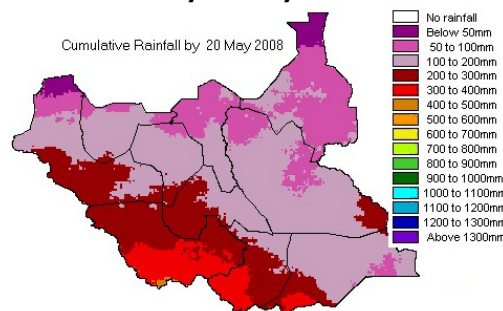


Figure 4. NDVI Difference from Average by 20 May 2008

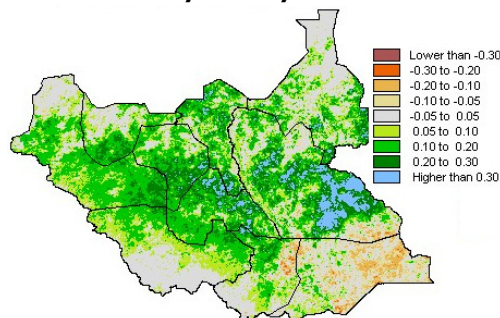
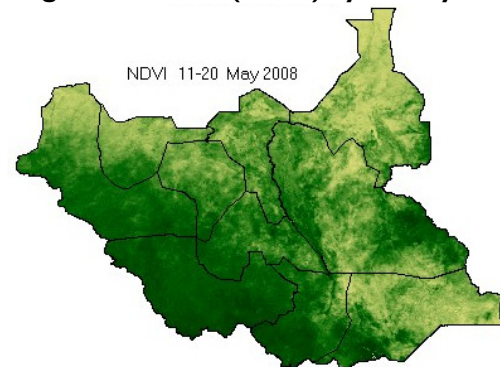


Figure 5. Normalized Difference Vegetation Index (NDVI) by 20 May 2008



Source: FAO