

Rainfall and situation update for May 2018

1. Background

South Sudan's agriculture is almost entirely dependent on rainfall and hence the variability of rainfall in terms of amount and distribution is usually the major factor in determining crop production. The country's diverse ecology provides a growing season ranging from 280 to 300 days per annum in the south western parts (the Greenbelt) to 130-150 days per annum in the northern states. The bi-modal areas cover much of Greater Equatoria Region (Western, Central and parts of Eastern Equatoria states), while the rest of the country has a uni-modal rainfall regime. Normally, rainfall increases in a northeast to southwest direction culminating in the Greenbelt along the border with the Central African Republic, the Democratic Republic of the Congo and Uganda. In low-lying areas, flooding and water-logging is a common occurrence, while many areas, especially those towards the northern border with the Sudan and in the southeast corner of the country are susceptible to prolonged dry periods.

2. Rainfall situation

The rain which started in March 2018 over most of the southern bi-modal areas (Green Belt) of South Sudan has continued with short breaks in April and intermittent showers that allowed the growing of early planted crops. The rainfall situation in April was unreliable in some areas causing a slight delay in planting. However the May rainfall was average to above average in many areas of the Green Belt, creating favourable conditions for continuation of planting and recovery of stressed crops. The NDVI graphs for the former states of Central, Eastern and Western Equatoria confirm the above average vegetation conditions (Figure 1).

In most areas of the Greater Bahr el Ghazal the first rains appeared in March and continued with short dry spells and intermittent showers in April, enough for the growth of pastures for animals but not adequate for planting crops. The effective rains for crops started around mid-May and allowed farmers to resume planting in many parts of the region.

In general, the amount of rainfall is considered as average to above average in many areas of the country so far.

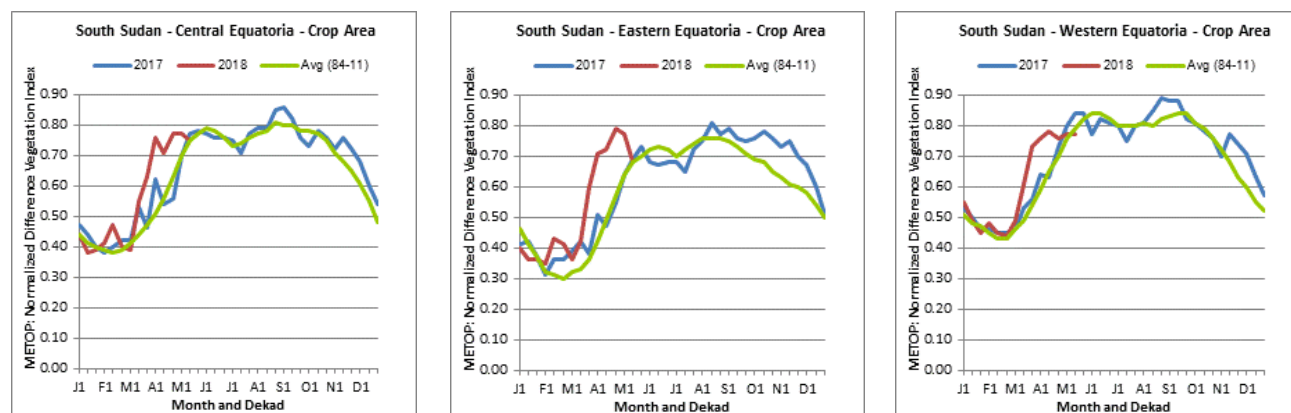


Figure 1 - Normalized Difference Vegetation Index (NDVI) for Central, Eastern and Western Equatoria



3. Agricultural significance

In Western Equatoria where the first planting has already taken place, the amount of rainfall was generally average over most of the counties. However, the relatively drier conditions of April have created favourable conditions for Fall Armyworm (FAW) infestation of maize in some areas of the Greenbelt. The damage caused by FAW ranges from serious around Yambio (former Western Equatoria) to mild around Yei in Central Equatoria. The growth stage of maize crops in the Green belt is variable, ranging from germination (some farmers are still planting) to seedling/vegetative and flowering stages. On the other hand, green maize consumption has already started among farmers who planted earlier in the season, particularly in low lying areas such as Magwi in Eastern Equatoria, and fresh maize is available in the market.

Figure 2 shows Agricultural Stress Index (ASI) during the third dekad of May 2018. The ASI shows the percent of cropped area affected by drought, which is almost insignificant during the current cropping season (May 2018). Planting in the central parts of the country, especially in Greater Bahr el Ghazal started around mid-May and is still going on, whereas areas including Northern Bahr el Ghazal, Upper Nile and Unity are just entering the planting season.

Generally, in May 2018 there were adequate rains over most parts of the country, creating favourable conditions for planting seeds and good performance of growing crops. The mean Vegetation Health Index (VHI) for the first season shows a better vegetation health condition during the third dekad of May 2018 (Figure 3). The mean VHI is a good indicator of drought and the vast majority of cropping areas in the central and southern parts of South Sudan have shown good VHI compared to the northern parts of the country which are still off-season with planting expected to start in June.

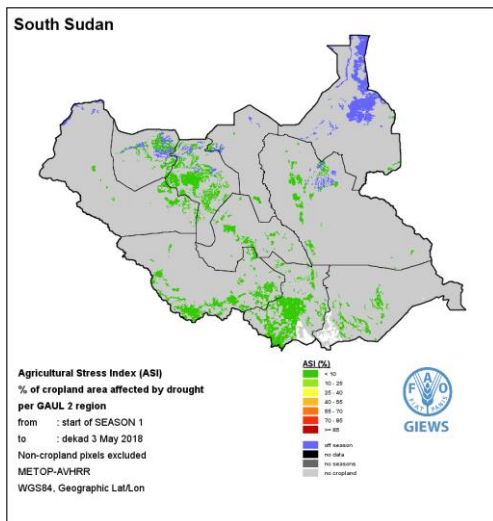


Figure 2 - Agricultural Stress Index (ASI) during 3rd dekad of May 2018

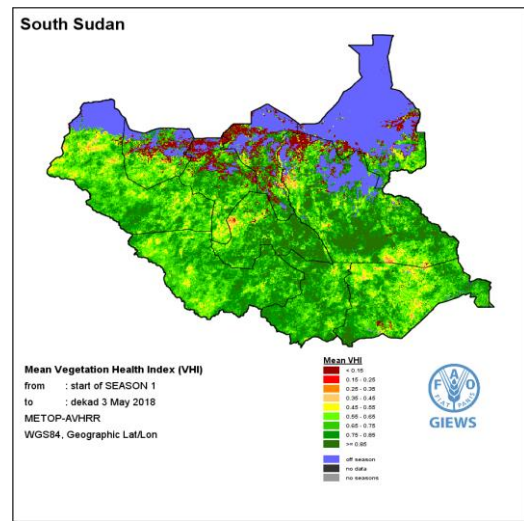


Figure 3 - Mean Vegetation Health Index for 3rd dekad of May 2018 (1st season)

4. June to September predictions

The Greater Horn of Africa Climate Outlook Forum (GHACOF 49) report indicates that all areas of South Sudan (Zone I) are predicted to have an increased likelihood of above normal to normal rainfall with sporadic dry spells occurring in some parts of this zone during June to September period (Figure 4). This will favour crop and livestock production over most parts of the country.

The anticipated above normal rainfall in the coming months is likely to destroy the larvae of Fall Armyworm, thus decreasing the destruction of maize and sorghum crops by the FAW. Moreover, in areas with bi-modal rainfall, such

rains will favour the second cropping season, which starts in July/August. However, some parts of South Sudan are expected to experience high amount of rainfall which might lead to localized flooding and the associated impacts.

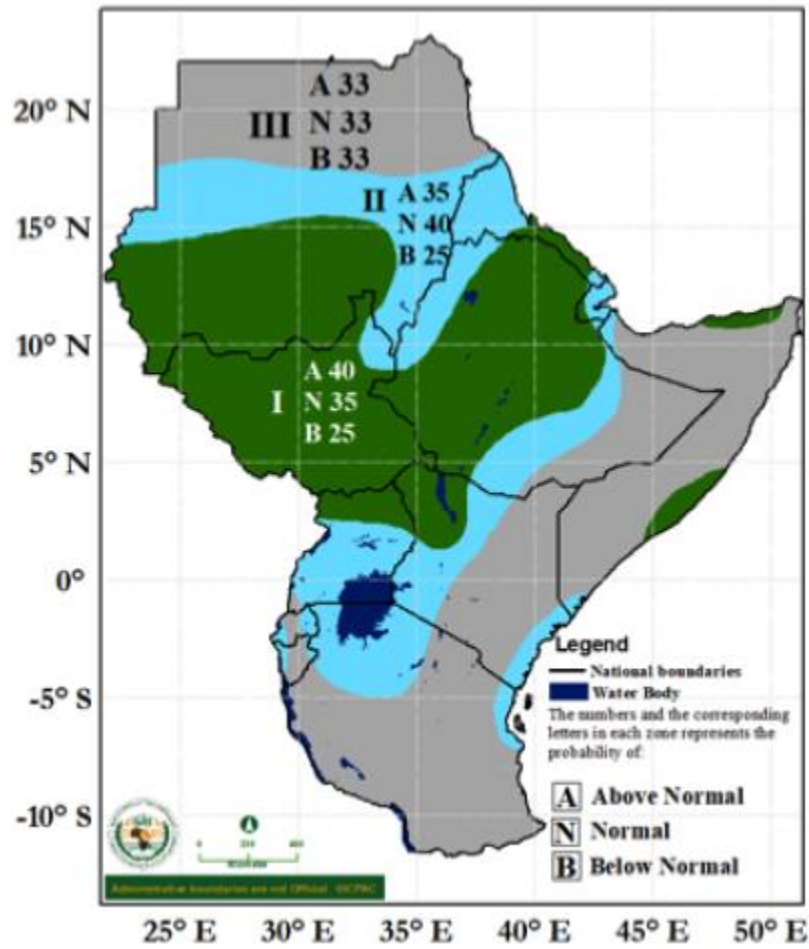


Figure 4 - GHACOF 49 Consensus Rainfall Outlook for the June to September 2018 season

Zone I: Increased likelihood of above normal.

Zone II: Increased likelihood of near normal to above normal rainfall.