



# South Sudan

## Agrometeorology Update



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Produced by Food Security Technical Secretariat (FSTS), National Bureau of Statistic (NBS) in collaboration with Government of South Sudan institutions:  
1. Ministry of Agriculture and Forestry. 2. Ministry of Animal Resources and Fisheries 3. Ministry of Health. 4. Ministry of Humanitarian and Disaster Management and South Sudan Relief and Rehabilitation Commission

### HIGHLIGHT:

- Near normal to above normal rainfall is expected during May 2012.....
- Vegetation performance ranges from average to below average and is expected to improve.....
- Seasonal progress is in mixed trend and expected to improve.....

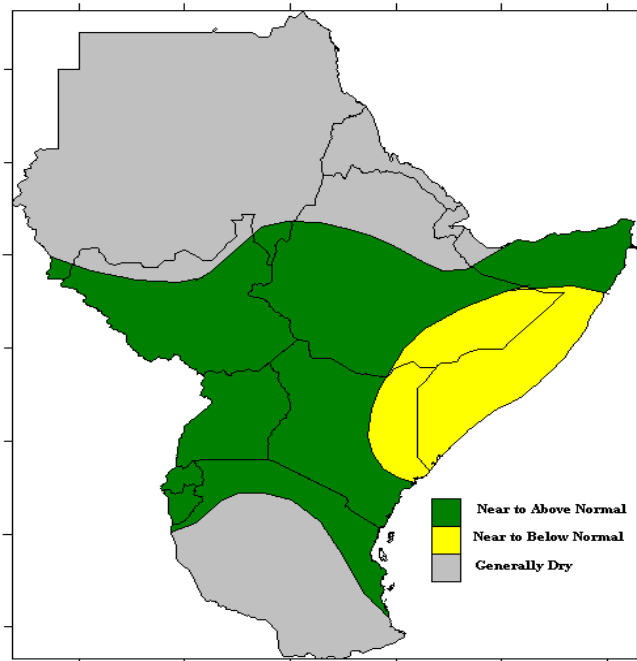
With reference to IGAD Climate Prediction and Applications Centre (ICPAC) monthly bulletin April 2012, the climate outlook indicates likelihood of normal to above normal rainfall over South Sudan during May 2012 except for the border areas between Sudan and South Sudan. This has implication of good prospect for high agricultural production as the season has started well. Occurrence of crop diseases outbreak inflicted by weather parameters and flooding of homesteads in flood prone areas of South Sudan is also expected.

April marked the full commencement of rainfall for short cropping season in Western, Central, parts of Eastern Equatoria and north-western part of Western Bahr El Ghazal state. Considering satellite rainfall estimate for April, in the first dekad most areas observed rainfall amount less than 10 mm except for the green belt zone that observed rainfall between the ranges of 10-25mm. Rainfall performance improved in the second and third dekad of April 2012 except areas bordering Sudan which had observed less than 10mm rainfall over the month. The rainfall satellite images indicate that most areas received rainfall amount between 25-50mm and also 75-100mm. Based on ICPAC monthly forecast for May 2012,

rainfall is expected to improve and move gradually from south and south-western of the country to north and north-eastern States of South Sudan. When comparing the cumulative rainfall performance and the long term average, South Sudan appeared to be performing from normal to above normal and only few scattered spots which have observed below average rainfall performance and water stresses is expected to be severe.

### April to May 2012 South Sudan Rainfall Forecast

Figure 1: GHA Climate Outlook for May 2012



Source: IGAD Climate Prediction & Application Centre (ICPAC) April 2012

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



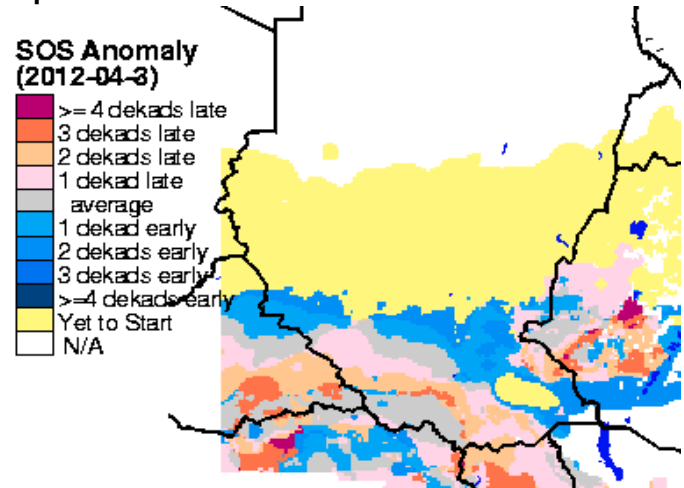
SIFSIA is a programme funded by the European Commission to build capacity in food security in South Sudan

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## Start of the Season Anomaly

The onset of seasonal rainfall in South Sudan has been in mixed trend. Generally rainfall has started in Greater Equatoria and most parts of Western Barh el Ghazal, Lakes and Warrap. States like Jonglei, Unity and Upper Nile had received some showers in the last dekad of April and first dekad of May; however, dry period is still enduring with high temperature being reported in the States bordering Sudan. Nevertheless, the analysis of rainfall onset anomaly indicates that the early onset of rainfall range between 1 to 2 dekad while late onset had delayed by 2 to 3 dekad in some areas. However, the onset of rainfall in South Sudan has generally been average, and delay of rainfall varies significantly across the Country. For instance, most areas in eastern and northern parts of South Sudan observed early onset even though the number of the dekads differ from one location to another location except Pibor and parts of Kapoeta Counties where seasonal rainfall is yet to start. Rainfall is expected to commence soon and improve the on-going land preparation.

Figure 2: Start of the Season Anomaly third dekad April 2012



Source: USAID FEWS NET

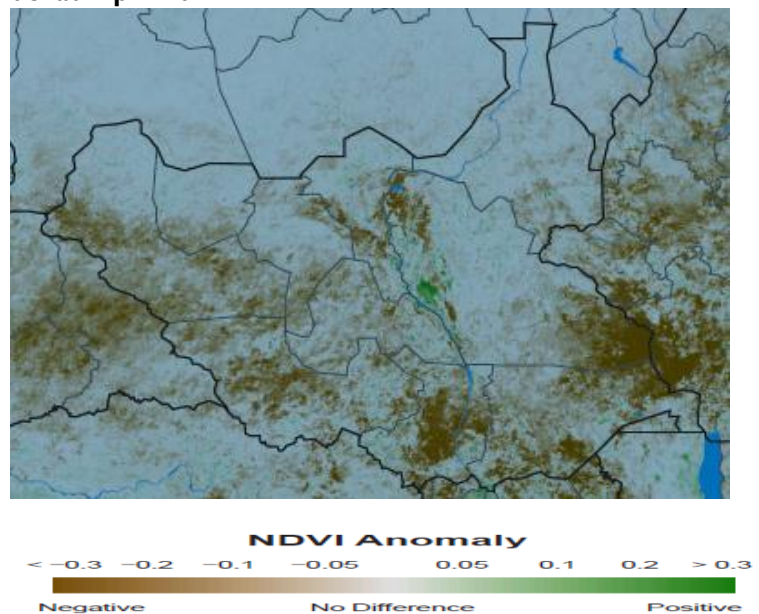
## South Sudan Vegetation development analysis

**Satellite Imagery:** The satellite imagery Normalized Difference Vegetation Index (NDVI) is used to obtain an overall picture of the progress of the agricultural season.

The April 2012 image of normalised difference vegetation index (NDVI) indicates that the vegetation started initializing with most areas performing between average to below average while most parts of Eastern, Western Equatoria and Western Bahr El Ghazal have been reported to range between average and above average.

Vegetation performance is expected to improve given the favourable May rainfall forecast. Improvement of pasture and water is also anticipated to improve livestock production and livelihood of pastoralists. Pastoralists are also expected to return back home when the rain fully commence and this will reduce conflicts among agro-pastoralists over resources (water points and grazing land).

Figure 3: Normalised Difference Vegetation Index third dekad April 2012



Source; USAID/FEWSNet, 2012

## Prepositioning of Agricultural production input in South Sudan

Figure 4 a: Seed Pre-positioning

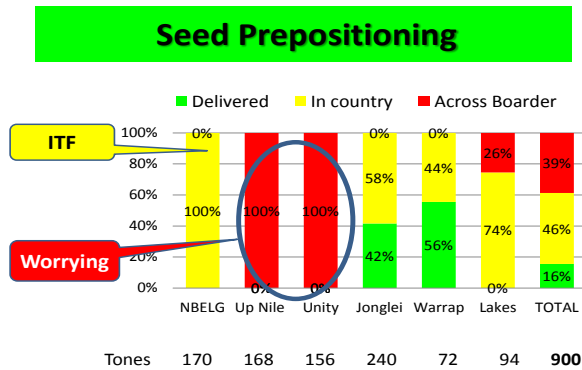
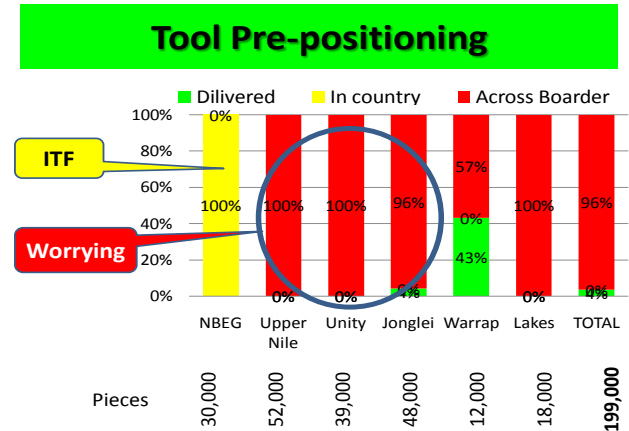


Figure 4b: Tool Pre-positioning



Source : Agriculture Sub-cluster, April 2012

Since agricultural season has started and about to start in some States, pre-positioning for seeds and tools distribution is under way. However, the status of seeds pre-positioning in Upper Nile and Unity is worrying because the seeds have been purchased but still across the border and there is a fear that seeds will arrive late to the beneficiary after planting has started. However, in Lakes and Northern Bahr el Ghazal States, seeds have arrived in the intended location/state but not yet delivered to beneficiaries or farmers. Seeds were distributed to famers in some locations in Jonglei and Warrap state while others are yet to be delivered to beneficiaries/farmers. Tool pre-positioning is also perturbing in Greater Upper Nile (Unity, Upper Nile and Jonglei) and parts of Greater Bahr el Ghazal (Lakes and parts of Warrap) state, as tools are still across the border (see Fig. 4b). Tools intended for these states have not yet arrived in the Country but tools for NBG have been reported to be within the Country but not delivered. Report also indicates that there are some locations in Jonglei and Warrap where tools have been delivered to farmers.

According to the agriculture sub cluster report, the delay is due to late release of funds (Feb-March) from donors and this has substantially influenced early logistical arrangements. Report also indicates that unfolding security situation at the borderline States would affect timely delivery of farm inputs. Late distribution of farm inputs is foreseen to affect timely planting, prospect of 2013 agricultural production and household food security of subsistent farmers especially newly integrated households (IDPs and returnee). The report has, however recommended release of funds by the donors (preferably between October and November) and clear update on the current security situation to the stakeholders or partners.

### SUMMARY OF AGRICULTURE SEASON BY STATE

**Eastern Equatoria State:** Vegetation performance range between averages to below average. Rainfall performance also ranged between averages to below average with slight improvement in the last dekad of April. Vegetation condition is expected to improve given the expected improvement in rainfall during May 2012. Onset of rains has been delayed by 1-2 dekads in the western part of the state as compared to eastern parts of the state which had received some showers early. However, satellite images indicate that rains are yet to

start in Greater Kapoeta. Land preparation is on-going in areas where rainfall has not commenced while planting have started some areas where rains had started.

**Warrap State:** The onset of the season rainfall has been delayed by 2-3 dekads in some Counties while few spotted had experience normal to early rainfall onset (Fig. 2). Generally rainfall performance in much of the Counties ranges between average to above average and is expected to improve. Vegetation cover ranges

between below average to average; vegetation development is expected to improve given the available moisture in the soil. Land preparation is ongoing and planting is anticipated to commence as soon as the rains have fully started. Reports indicate that partners planned to preposition 72 tonnes of seeds and about 56% has been delivered while 44% in the Country is yet to be delivered to the respective locations. In addition, 43% of the tools have been delivered while 57% have reported to be at along the border. In summary, a total of 1200 pieces of tools are expected to be delivered to state and distribute to farmers as soon as they arrive (Fig. 4a & 4b).

**Central Equatoria State:** Rainfall have commenced in most Counties even though it delayed by 1-2 dekad. The amount of rainfall observed has been reported to range between normal to above normal. As the result, the vegetation development has performed well given the significant amount of rains received in first dekad of May and expected to improve further given the favourable rainfall forecast during May 2012. The current vegetation condition ranges from normal to below normal. Ongoing agricultural activities include land clearance or preparation, and planting has started in some Counties. Early planted crops mainly maize and groundnut were reported to be at emergency stages.

**Upper Nile State:** Pagaak, Maiwut and Nasir County have witness excessive rainfall in the third dekad of April and first dekad of May, however, other parts of the state are still experiencing dry condition and rains are likely to start in the last dekad of May and early June. Land preparation has been completed in the eastern parts of the started where rains had started early while it is ongoing in the western and northern parts of the state. Production inputs pre-positioning is worrying because all the seeds and tools have not yet arrived in the Country, and only 168 tonnes of seeds and 52,000 pieces of tools are expected to be delivered.

**Northern Bahr el Ghazal State:** The season has not yet started especially in the Counties along the border with Sudan while the entire States is likely to experience average to early onset of rainfall in 2012 agricultural season. The agricultural inputs have not yet been delivered to intended beneficiaries but preparations to distribute them are under way. About 70 tonnes of seeds and 30,000 tools are in the Country but yet to be delivered. Reports indicates that parts of Northern Bahr el Ghazal has been categorized as security level 4 and the planned seed fairs by UN FAO for seven locations is likely to be affected hence seeds distribution will not be feasible. As the result, about 3500 beneficiaries will be

affected. Land preparation is ongoing with bush clearing to open land and planting is to commence as soon as the rainfall starts.

**Western Bahr el Ghazal State:** Rainfall has started and it is expected to improve. Land preparation has been completed and planting has started in Raja and parts of Jur River County. Vegetation development is improving though it performed from average to below average.

**Jonglei State:** About 42% of the expected 240 tonnes of seeds have been delivered and the remains which are in the Country are yet to be delivered. However 96% of 48,000 pieces of tools are still across the border and only 4% has been delivered. The Rain has started in some areas and vegetation conditions have been reported to range between averages to below average. The projected season was expected to start early in the state but some areas in the eastern and south western parts of the State witnessed late onset of rain by one dekad.

**Unity State:** Counties like Mayom and Mayerndit have witnessed some rains in the second dekad of May and rain is expected to commence fully in early June. However, analysis of rainfall onset anomaly indicates rains delayed for 1-2 dekad. The amount of rainfall received ranges between averages to above average with slight increment in early May. Land preparation has started with bush clearing and planting is likely to start soon as the intensity of rainfall strengthens. Vegetation cover ranges between average to below average with few spot of below average especially areas along the Nile. The expected input pre-positioning is worrying as 156 tonnes of seeds and 39,000 tools are still across the border. This will possibly affect early planting of the main crops in the areas.

**Lakes State:** Vegetation condition is poor with most Counties performing below average. Mixed trends of rainfall onset have been observed, and the performance ranges between average to above average. Land preparation is ongoing and planting expected to start as soon as the rains improve. Most seeds are in the Country but yet to be delivered. However, tools are still across the border.

**Western Equatoria State:** Rainfall commenced fully and performance ranges from average to above average. The vegetation cover and condition in most parts of the state have improved, except some few spots were performing below average. Planting for short lean cropping season has completed and most crops are at vegetative stages.