

# SOUTH SUDAN CROP WATCH BULLETIN

March - June 2020





This report is a collaborative effort between the Food and Agriculture Organization of the United Nations (FAO), the Ministry of Agriculture and Food Security and the National Bureau of Statistics of the Republic of South Sudan.

**Disclaimer:** The authors would like to acknowledge the technical difficulties in conducting this analysis within a highly complex context. This report provides a first step in understanding the status of food crops in South Sudan. The information and views set out in this working paper are those of the authors and do not necessarily reflect the official opinion of FAO.

#### **HIGHLIGHTS**

- The bimodal areas of Greater Equatoria Region received early rains that were average to above average, while most of the unimodal areas across the country, including Greater Bahr el Ghazal region, received late rains. However, the rainfall over most of Greater Upper Nile (GUN) region started early. Generally, the amount of rainfall across most of the country has been average with a normal distribution.
- The area planted with crops has increased in most areas due to the relative stability across the country, and voluntary return of refugees and internally displaced persons to their villages to cultivate their farms. Moreover, farmers who were previously confined to farming around their homesteads were able to access far fields because of the improved security
  - situation. The COVID-19 induced lockdown and closure of schools have also contributed to the availability of more labour by pupils and students who assisted their parents in farming activities and hence planting of more land.
- There were a few reports of dry spells and flooding in the country, with the short dry spells in some pocket areas causing only limited effect on crops, while the flooding resulted in the displacement of population, loss of assets and affected some crops.
- Majority of farmers used a combination of seeds distributed by FAO and its partners, their own saved seeds, as well as those purchased from the market. To cultivate their land, most farmers used
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- hand tools that were distributed to them or purchased from local markets, followed by ox-ploughs and then tractor hire services that were too costly for most small-scale farmers.
- Pest and disease infestations were generally within the normal range. The Fall Armyworm (FAW) and desert locust presence have not caused any significant damage to crops. The impact of desert locusts in Eastern Equatoria was reported to be mild on both early planted crops and pastures.
- The overall performance of crops so far has been good in the Greater Equatoria region where harvesting of the first season crops is expected to take place in July and August. However, situations may change rapidly depending on the rainfall conditions in the coming weeks and months as well as the impact of COVID-19, and crop pests and diseases.
- Livestock body conditions in most states is normal, due to the good rainfall and availability of pastures. However, widespread cattle raiding in some states has resulted in increased conflict. There were no reports of serious livestock diseases or outbreaks so far.

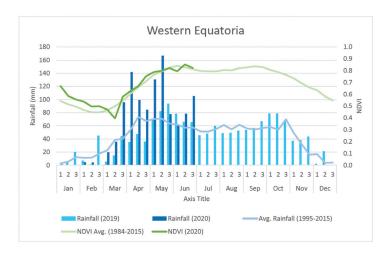
#### 1. INTRODUCTION

This Crop Watch bulletin provides a general outlook of rainfall and crop performance in South Sudan covering the period between March and June 2020. The results are based on crop monitoring reports from County Crop Monitoring Committees (CCMCs) based in the states; telephone interviews with key informants from the State Ministries of Agriculture and Forestry; remote-sensing products, including the Normalized Difference Vegetation Index (NDVI); and satellite-based rainfall estimates and data from locally installed rain gauges. Other sources such as the Vegetation Health Index (VHI) and FAO's Agricultural Stress Index (ASI) are also used. The analysis examines rainfall and crop performance in bimodal and unimodal areas of South Sudan during the period under review. Despite the accuracy of this analysis, the performance of crops may change rapidly within a short time depending on the rainfall situation across the country. Lack of a long-term series of rainfall data as well as problems faced accessing information in most of the conflict-affected areas and lockdown measures due to the COVID-19 pandemic that affected the usual planting assessment missions conducted by taskforces across the country are some of the constraints faced in the production of this report.

## 2. RAINFALL AND CROP PERFORMANCE IN GREATER EQUATORIA

## 2.1 WESTERN EQUATORIA STATE

Rain showers started in the third dekad of March 2020 in most cropping areas of the state, which is considered as normal and the overall amount was considered average by most farmers. However, there were short dry spells of 10 to 15 days long in some areas, causing no significant effect on the performance of growing crops. Several types of crops are grown in the State, including maize, sorghum, groundnuts, rice, cassava, millet, cowpeas, pigeon peas, sweet potatoes and vegetables.



**Figure 1** – Estimated precipitation and vegetation index anomalies in Western Equatoria State

Land preparation and clearance for the first cropping season started in January and continued up to end of April in most places, while cultivation was accomplished from March to May 2020. Most farmers use their own local seeds saved from the previous year's harvest and others purchased from the market. Internally displaced persons (IDPs), returnees, vulnerable groups and farmers' groups received seeds from NGOs and partners supported by FAO in addition to kinship assistance. In Yambio County, farmers have planted more groundnuts than maize in the first planting season, while most farmers in Maridi and Ibba planted more maize and vegetables, with plans to plant groundnuts and sorghum in the second season.

Pests and diseases were reported to be within the

normal range, with minimal damage to crops. However, the invasive weed known locally as babchiro has continued to cause problems to the farming communities due to its expansion and occupation of farmlands. Cases of Fall Armyworm (FAW) infestations were reported in most of the counties, but with mild damage to maize. Other common pests including snails, millipedes, squirrels, monkeys, porcupines, bush rats, wild pigs, local birds and stem borers were also reported, with only mild effect to crops.

In general, the performance of crops has been good due to the good amount and distribution of rainfall in most areas, hence better production of the first season crops is anticipated in the State.

## 2.2 CENTRAL EQUATORIA STATE

Central Equatoria experiences both bimodal and unimodal rainfall patterns, and the onset of rains in these areas was delayed by about three to four weeks with effective rains established from mid-May across the State. The amount of rainfall is considered average with fair distribution, and no reports of dry spells.

The main crops planted across the State in the first season are maize, sorghum, groundnuts, cassava and vegetables, among others. As of June 2020, maize and sorghum crops are still in the vegetative stage, while groundnuts are in the vegetative and flowering stages depending on the time of planting. The average area planted for maize has increased and is estimated at 0.75 ha compared to 0.56

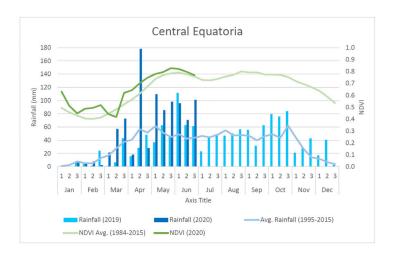


Figure 2 – Estimated precipitation and vegetation index anomalies in Central Equatoria State

ha in the previous year, while area for groundnuts has also increased and is estimated at 0.56 ha, compared to 0.46 ha in the previous year. In general, farmers estimated a slight increase in planted area this year, mainly due to the formation of the Revitalized Transitional Government of National Unity in February 2020 and the presence of more family labour by students due to closure of schools during the ongoing COVID-19 pandemic lockdown.

The farmers planted their crops in May and June, and they mostly used own saved seeds, market purchase and seeds provided by FAO and it's NGO partners. Hand tools were mainly obtained from the market and some were provided by NGOs and FAO partners. Land access around homestead areas was reported to be normal, but far fields in some parts of Yei, Lainya, Lobonok and Kajo Keji were not accessible due to insecurity. The area cultivated was reported to have slightly increased compared to the first season of last year due to improvement in security situation in most areas, following the gains in the formation of the Revitalized Transitional Government of National Unity. The increase in cultivated area is also attributed to the spontaneous refugee returnees coming from the neighbouring countries of Uganda and Democratic Republic of Congo (DRC). Moreover,



additional labour support to parents by students who remained at home due to school closures and lockdowns following the COVID-19 pandemic has contributed to the cultivation of more land.

The common pests mentioned by most farmers include, but are not limited to, snails, FAW, squirrels, termites, monkeys, wild foxes and diseases that include cassava mosaic virus and groundnuts rosette virus. While there are no control measures taken by the farmers, the overall effect of these pests and diseases on the crops was reported as mild. There were no reports of a desert locust invasion in Central Equatoria, however in March 2020 large swarms of locust flew over the capital city of Juba but never landed.

Most of the livestock in Central Equatoria are found in Terekeka County. Their body condition was reported to be good. The body condition score (BCS) for shoats ranged from 3 to 4 while the BCS for cattle was 2 to 3. Due to the good rainfall, water and pasture are available across the State for the livestock.

Migratory cattle from Jonglei still pose a threat to many agricultural areas in Central Equatoria. The areas that experience such challenges include Lokiliri, Lirya, Lobonok and Mangalla in Juba County, as well as parts of Kajo Keji and Lainya counties. As the season progresses, there is likelihood of potential conflict between the cattle keepers and farmers in these areas.

The prospects for the first season look good across the State due to some increase in planted area and favourable rains. The production in the State is likely to be slightly higher than that of the previous year. However, the recent insecurity in Lainya, Yei, Morobo and Kajo Keji may affect the cultural practices especially weeding and this may affect production, if not quickly contained.

## 2.3 EASTERN EQUATORIA STATE

The rainfall over most of Eastern Equatoria started normally in April, while the rains in some areas such as Torit County started earlier, during the third dekad of March 2020. The amount is considered average and evenly distributed in the western half of Eastern Equatoria, including Torit, Lafon, Magwi and Ikotos counties.

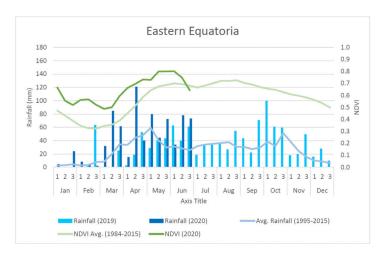


Figure 3 – Estimated precipitation and vegetation index anomalies in Eastern Equatoria State

Land preparation was done manually by a majority of the farmers, with tractors being scarce and belonging to a few progressive farmers. Fuel cost is the same as that of the previous year where a litre of diesel costs 270 South Sudanese pounds (SSP). The hire rate for a tractor remained similar to that of last year standing at SSP 10 000 per feddan. Planting of sorghum, maize, groundnuts, sesame and cassava started in May 2020. The average cultivated area has slightly increased due to relative stability and the encouraging rainfall of this year.

In the Kapoeta area, including Kapoeta East, Kapoeta North, Kapoeta South and Budi counties, the rainfall started normally in March and the amount was described as average with normal distribution. However, a short

dry spell was reported in May with minimal impact on crops. The crops grown in Kapoeta are maize, sorghum, groundnuts, millet, cassava, sweet potatoes and soya beans. Sorghum is planted on a larger scale compared to maize, millet and cassava. Planting started in the second week of March due to the normal onset of rain. The main sources of seed are farmers' own saved seeds, market purchase and distributions by FAO and its NGO partners.

Labour availability has increased a lot this year, which has resulted in the opening up of many new farms. There is also higher use ox-plough and tractors, thus contributing to cultivation of more land this year. However, some of the constraints reported by farmers in most counties include inadequacy of distributed seeds, shortage of tools such as slashers for land clearance, limited availability of tractors and the high cost of hiring ox-ploughs and tractors, making it unaffordable for small farmers.

A desert locust invasion was reported in Magwi, Lopa/Lafon and Torit counties of the State. However, the level of damage was minimal, since the locust invasion took place at the time of land preparation and before planting took place in most of the areas that were invaded. In areas where crops are planted, there are few reported cases of FAW, termites, rodents, groundnut rosette virus, and cassava mosaic virus, all with mild damage to growing crops and seedlings. On the other hand, there are no reports of livestock disease outbreaks, except the normal presence of some common endemic diseases.

#### 3. RAINFALL AND CROP PERFORMANCE IN GREATER BAHR EL GHAZAL

## **3.1 WARRAP STATE**

Rainfall in most counties of the State started in May, with the amount of rainfall considered average and no weather-related extreme events reported as of June 2020.

Planting started in late May across Warrap and is expected to continue up to late June depending on the prevailing weather conditions. Planted area is anticipated to be less this year mainly due to insecurity caused by intercommunal conflict that

has displaced some farming households, thus preventing them from cultivating their land. The situation is further aggravated by the COVID-19 pandemic lockdown that is restricting movement of partners who provide the badly needed agricultural inputs.

The primary source of seeds is from own saved seeds, market purchase and distributions of some seeds and tools (hoes and malodas) from NGOs and FAO partners. Market prices of sorghum were reported at SSP 400 per kg compared to SSP 300 in the previous year. Groundnuts were selling at SSP 300 per kg compared to SSP 250 in the previous year in May, while sesame was sold at SSP 400 per kg compared to SSP 300 in the previous year.

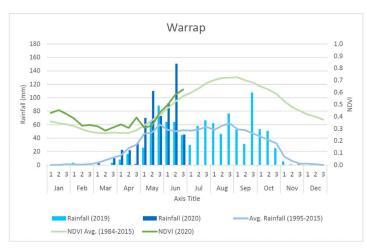


Figure 4 – Estimated precipitation and vegetation index anomalies in Warrap State

FAO through implementing partners provided sorghum,

cowpeas, assorted vegetable seeds and fishing kits in the following locations: Tonj North, Gogrial west and Twic. In addition to hand tools, farmers used ox-ploughs and hired tractor services.

Farm casual labourers are paid SSP 400 per 100 square metres, while ox-ploughs are hired at SSP 15 000 per 0.42 ha (feddan) or SSP 6 000 per day. Private tractor hire service charges SSP 10 000-14 000 per 0.42 ha, without fuel which costs an extra SSP 6 000 per 20 litres of diesel. Unlike private tractors, the hire rate for government tractors was 5 000 SSP per 0.42 ha. Most crops in the fields are emerging and some planting is still ongoing in June.

It is still too early to observe crop diseases at this stage of growth. However, the usual pests do exist including squirrels in fields with groundnut seedlings and local birds affecting sorghum and groundnut seedlings.

There is no mention of dry spells or flooding up to this moment (June). However, the most common shock reported was cattle raiding. Twic County has experienced routine cattle raiding by the neighbouring tribes especially of Ajakuac, Turali and Aweng. Other areas affected by cattle raiding are Gogrial East, Tonj North and Tonj East. Intracommunal conflict is rampant in Tonj East and Tonj South counties, however the conflict in Tonj East has subsided. Hunger is looming in Warrap currently because of food shortages attributed to household level food stock exhaustion and high food prices at the markets. This is because of low production caused by last year's crop damage by floods. The COVID-19 pandemic lockdown of states also negatively impacted on food supply from Sudan and the neighbouring states, thus triggering the price hike. The local markets are moderately supplied with food stocks that came in before the lockdown.

The closure of airports restricted the delivery of humanitarian assistance or agricultural inputs to Warrap thus increasing vulnerability. However, food assistance distribution using prepositioned supplies has just started but with low coverage that is focusing on the most vulnerable areas.

## 3.2 WESTERN BAHR EL GHAZAL STATE

Rainfall started in May across the State although some areas received few showers in mid-April. The amount of rainfall is considered as average and is slightly higher than that of the previous year. There are no reports of extreme events as far as rainfall is concerned and there were no significant dry spells to date (June).

Planting started in May over most areas and is continuing up to June. Majority of the farmers used their own saved seeds supplemented by market purchase and distributions from FAO and its NGO partners who are currently distributing seeds in all three counties of Western Bahr el Ghazal.

There is an increase in the number of farmers and the area cultivated this year due to relative stability in the State brought about by the peace agreement signed between the Government and the rebel groups in the area. As a result, areas which were

not accessible by farmers due to insecurity in the previous year have now become accessible. There is an increase in the prices of seeds this year, for instance a Malua of unshelled groundnuts (short variety) costed SSP 350 compared to SSP 250 last year.

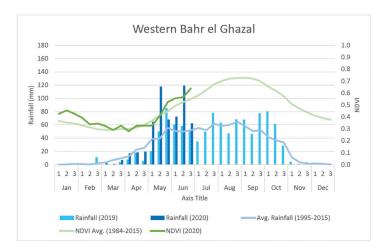


Figure 5 – Estimated precipitation and vegetation index anomalies in Western Bahr El Ghazal State

All government tractors in the State are not operational due to lack of spare parts. There are only ten functional private tractors and the hire rate is SSP 10 000 compared to SSP 5 000 last year, excluding fuel. In areas such as Marial Bai in Wau County and Alur in Jur River County, where ox-ploughs are commonly used, the number of functional ox-ploughs has decreased this year. This is attributed to scarcity and high cost of the ploughs and spare parts, especially the unavailability of shear which is the most important part of the plough. A plough this year costs about SSP 50 000 which is not affordable by most farmers compared to SSP 35 000 in 2019.

Currently, there are no pests reported in the State as they usually appear once the season has progressed and also in the late planted fields.

Most of the households have depleted their food stocks and they are completely dependent on market purchases and only a handful of them have groundnut stocks ranging from one-two bags of 50 kg each.

Generally, crop performance across the state is good. If the current rainfall trend continues in the remaining period of the season and good cultural practices are accomplished by the farmers, production is expected to be better than that of last year.

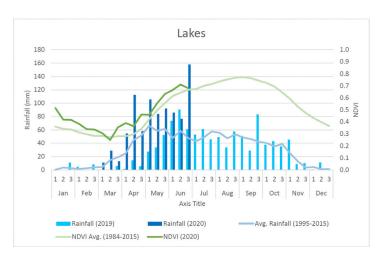
In Raja County there is an increase in the number of migratory livestock in the area brought by Ambororo herders and this led to a decrease in the prices of livestock. For instance, the average price of one bull is about SSP 40 000 compared to SSP 80 000 last year, while shoat price on average is about SSP 20 000 per head, compared to SSP 25 000 last year. This is negatively impacting on the purchasing power of households that are reliant on selling livestock for their income.

No livestock disease outbreak has been reported in the State so far. There was vaccination carried out by the veterinary department and the Bangladesh contingent of UNMISS in March against the normal endemic occurring diseases.

#### **3.3 LAKES STATE**

The rains started early from the first to third week of March 2020. The amount of rainfall in most areas was reported as average, but poorly distributed in some areas. Rumbek Centre, Rumbek North and Awerial counties received good rains, while Cueibet, Rumbek East, Yirol East and Yirol West counties reported poor rains.

The crops grown in Lakes have not changed over the last five years and they include sorghum, sesame, groundnuts, cow peas, sweet potatoes, cassava and green grams. Planting of sorghum, groundnuts, sesame and millet started earlier this year due to an early onset of rains. Planting of early maturing sorghum variety and green grams resumed in June, after two weeks of interruption caused by dry conditions in the preceding weeks of the same month.



**Figure 6 –** Estimated precipitation and vegetation index anomalies in Lakes State

Most farmers in Lakes have adequate access to agricultural lands that are both nearby and far from their residences. The average area planted for sorghum, groundnuts, millet, sesame, cow peas, green grams and vegetables is the same as that of last year. There are no changes seen in the cropping patterns across the State.

Agricultural inputs in Lakes are scarce, especially ox ploughs and their spare parts. Hence, majority of the farmers used hand tools and ox ploughs for land preparation, while progressive farmers used tractors, despite the high rate of hiring tractors. This year, the tractor hire rate is higher and ranges from SSP 15 000-18 000 per ha, while the rate of ox ploughing ranges from SSP 4 500-6 000 per 0.42 ha, compared to last year's price of SSP 5 000 on average .The cost of fuel is about SSP 300 per litre, which is the same as that of last year. The main source of seeds are own saved seeds, nevertheless, FAO, NGOs and markets were secondary sources.

The main pests and diseases are desert locust remnants in Rumbek Centre and FAW in some cereal fields. No control measures are being used and there is no significant damage to crops yet. However, farmers fear that maize is likely to be damaged by FAW as the season progresses.

The main challenges faced by farmers this year all over the State are insecurity, inadequate inputs such as seeds, spare parts for ox ploughs and tractors, and pests and diseases. The lockdown due to the COVID-19 pandemic has also decreased the movement of personnel who provide extension services to farmers.

#### 3.4 NORTHERN BAHR EL GHAZAL STATE

Rainfall in Northern Bahr el Ghazal started in May and was considered late by two to three weeks, except in Aweil Centre, which received early rains in March. The amount of rainfall was reported to be below average in all the five counties.

Access to agricultural land in both nearby and far fields remained normal in NBeG. The average area cultivated per household is estimated at 1.0 to 1.5 feddan and since planting is still going on, the area cultivated is expected to increase by the end of the planting season.

Generally, hand tools sourced from the market were used, with some acquired from distributions carried out by FAO and its NGO partners. Various seeds that include groundnuts, maize, sorghum and vegetable kits were also provided to farmer groups and individual farmers. However, there is no extension support being provided to farmers due to lack of mobility and incentive for extension agents, and frequent delay in payment of wages by the Government.

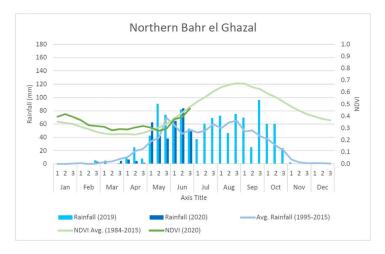


Figure 7 – Estimated precipitation and vegetation index anomalies in Northern Bahr El Ghazal State

Land preparation started since March in most of the areas in Northern Bahr el Ghazal, followed by planting in May for areas that received early rains, such as Aweil Centre (Aroyo). Land preparation together with planting is still ongoing.

There are about 18 private tractors that are functional across the State and at least one functional Government-owned tractor in Aweil Centre. Hire rates for government tractors is about SSP 7 000 per feddan, while the rate for private tractors is higher with cost of SSP 10 000-12 000 per feddan in addition to 20 litres of fuel that costs SSP 6 000. The cost of fuel this year is slightly lower than that of last year. For instance, the price for one litre in 2019 was SSP 5 000 compared to SSP 3 000 of last year. Labour cost for hand digging is about SSP 5 000 per feddan, including

food, while the cost of donkey plough is about SSP 18 000-20 000 per feddan. Partners like World Vision and SEDES gave out 24 donkey ploughs to Aweil Centre - Aroyo and Aweil East while VSF gave 20 ox-ploughs to Aweil South.

There is an increase in the use of organic fertilizers (cattle manure) by farmers paying cattle owners to allow their cattle stay in their field for about two weeks at the cost of one bull, and food and beer during their stay. Non-organic fertilizers are expensive and commonly used by vegetable producers. For instance a 50 kg bag of Urea and TSP fertilizers cost SSP 22 000 this year, compared to SSP 10 000 in the previous year.

Labour is available and relatively cheaper than the previous year because of serious economic difficulties as a result of the COVID-19 lockdown where there are limited work opportunities.

No cases of pests and diseases have been reported yet, as it is only the beginning of the season. There is no report of desert locust invasion across the State.

Most households have depleted their cereal stocks and currently depend on market purchase. Sorghum is available in the market from previous local production and those imported from Sudan, however prices have gone up compared to the previous year. Currently a 90 kg bag of sorghum costs SSP 21 000-22 000 compared to SSP 13 000-15 000 in the previous year.

## 4. RAINFALL AND CROP PERFORMANCE IN GREATER UPPER NILE

#### **4.1 JONGLEI STATE**

The rainfall in Bor South started late in May compared to late April in the previous year. The amount was said to be average with normal distribution. Land preparation started in March and continued through April with planting commencing immediately at the onset of the rains, and expected to continue throughout June. The average planted area has slightly increased from 1.5 to 2 feddan due to the positive impact of the formation of the Revitalized Government of National Unity, which encouraged voluntary returning of some farmers to cultivate their land; additionally, the high food prices resulting from inflation has encouraged farmers to cultivate more land. In the first week of June there was heavy rainfall which created waterlogged conditions and submerged the seeds and emerging seedlings of sorghum and groundnuts in low lying areas, leading to replanting in the following week.

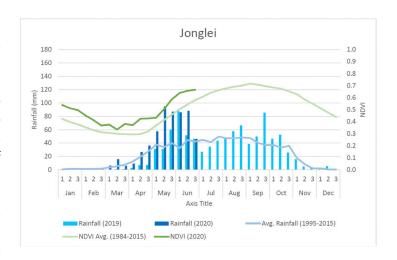


Figure 8 – Estimated precipitation and vegetation index anomalies in Jonglei State

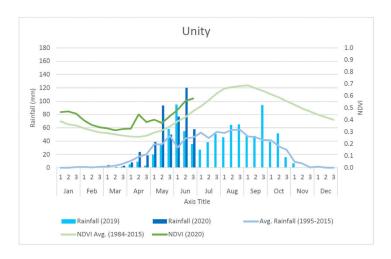
In the first dekad of June, overflowing of the River Nile flooded significant areas in Bor town. The areas that suffered most included Achiengdiir and Malou A and B. Most residents in these areas had to relocate to higher grounds in schools and churches. Flooding usually occurs between August and October and is caused by rainfall; however, this year the floods arrived earlier than normal and were caused by a combination of the waters from the River Nile and rainfall. The few farms close to the River Nile, where crops were found in their early vegetative stages, were affected by these floods.

There are no reports of serious pests to date including FAW on maize crops, but it is still too early given that crops are at establishing and early vegetative stages. However, rats, caterpillars and birds were reported as having caused mild damage.

The average to above-average rains received in May in Bor contributed to improved availability of water and pasture for livestock. There are no reports of livestock disease outbreaks, except for the occurrence of lumpy skin disease and foot-and-mouth disease (FMD), which are within the normal range.

#### **4.2 UNITY STATE**

The rainfall over most cropping areas of Unity started early, at the end of April and the amount is said to be above average. The excessive rainfall across the State is raising fears of flooding in lowland areas. Planting of maize, sorghum, groundnuts and soya beans started in May and continued in June. Such early planting of crops is made possible due to the early start of favourable rains. However, there were reports of replanting by a few farmers, caused by poor seeds purchased from the market that didn't germinate. Early planted maize and sorghum in Panyijar, Pariang and Abiemnhom are at vegetative stages, including the maize planted in Rubkona, Leer, Mayendit, Koch and Mayom. As planting is still ongoing, there is likelihood of disruption of the cultural practices by the excessive rains.



**Figure 9 –** Estimated precipitation and vegetation index anomalies in Unity State

Following the formation of the Revitalized Transitional Government of National Unity, many farming households have moved out of the Protection of Civilian (POC) sites to cultivate crops. This coupled with good rains and increased availability of labour from students who are not going to school due to COVID-19, has contributed to an increase in the area planted this year.

Most farmers used their own seeds saved from the previous year as well as those from market purchases. FAO partners and NGOs have also provided seeds and tools. In the absence of tractors or ox ploughs in the area, farmers used simple hand tools, particularly malodas and hoes for digging and other cultural practices.



There were no reported cases of FAW or desert locust invasion in the State. However, the usual pests like birds, rats and foxes are reported but with mild effect on growing crops.

The interventions required to improve crop production in the State could include early and timely provision of inputs and strengthening the extension services in order to provide technical support to farmers. The fragile security situation created by cattle raiding continues to be a major constraint.

Livestock health and body conditions across the State

were reported to be normal due to adequate pasture and water availability in most places. There were no outbreaks of diseases, except the usual endemic diseases including contagious bovine pleuropneumonia (CBPP), East Coast fever (ECF), black quarter (BQ) and haemorrhagic septicaemia (HS) for cattle, and peste des petits ruminante (PPR) and contagious caprine pleuropneumonia (CCPP) for shoats, and Newcastle disease for poultry.

## **4.3 UPPER NILE STATE**

In Baliet, the rain started in early May which is slightly earlier than the previous year, which started at the end of May. Land preparation was done in April and planting of maize commenced immediately after the first rains in May. The distribution of rains was reported to be good with average to above average amount in some areas. Sorghum planting is still ongoing to the end of the month. Maize crop is at the vegetative stage, while sorghum is at emergence and early vegetative stages. There is no dry spell experienced in the County according to the County Director.

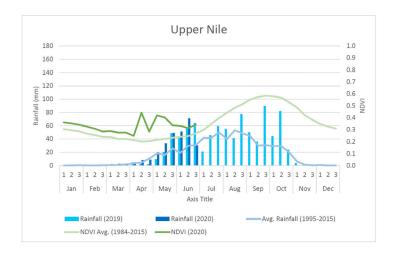


Figure 10 – Estimated precipitation and vegetation index anomalies in Upper Nile State

The farmers generally used their own saved seeds, supplemented by market purchase and kinship support, which is highly practiced in the area. Most farmers used the same hand tools of last year, while some farmers bought their tools from the market. Government tractors are not operational due to lack of spare parts; however, there is one functional private tractor, providing service at a very high price, which is unaffordable for most farmers.

There were no reports of disease and pest outbreaks, but birds, rats, bush rats and guinea fowls are the usual pests that are causing mild damage to crops.

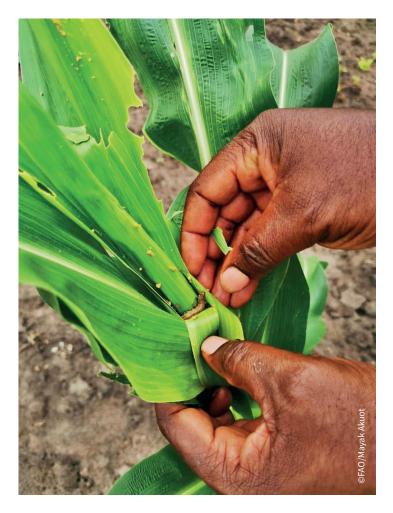
Pasture and water are available because of better rains that are like those of the previous year. Reports indicate that there has been no disease outbreak for livestock, and

this has contributed to good body conditions for shoats, which scored 4 on average, and cattle, which scored 3 on average according to PET (Pictorial Evaluation Tool) scores.

In Renk and Melut, the rains started at the end of May and were considered late compared to the previous year. The rainfall distribution was normal, and the amount was average. The crops planted include sorghum, maize, millet, groundnuts and sweet potatoes. Currently land preparation is still ongoing, and planting will start towards the end June and will continue through July especially for sorghum and sesame because of the delayed rains.

The areas cultivated will be determined after cultivation towards the end of July and the beginning of August. But with the delay of rains and the crises created by the COVID-19 pandemic that curtailed movement between South Sudan and Sudan, it is expected that the area planted will likely be lower compared to last year. As a mechanized area, tractors are mostly used, and tractor hire at the beginning of the season is similar to that of the previous year where 120 feddans were cultivated at SSP 80 000 and planted at the same cost as cultivation. Fuel is in short supply and spare parts for the tractors that usually come from Sudan are also in short supply due to the lockdown measures in both countries. The cost of one barrel (200 litres) of diesel is like that of the previous year, costing SSP 65 000-70 000, but it is expected to increase as the season progresses. These constraints will result in few farmers involved in farming and therefore the area planted is expected to reduce. Melut, which suffered for the last two years from dry spells, may not be spared either by the shortages of spare parts and fuel mentioned above.

Pests and diseases are yet to appear, even as the crops emerge and reach their vegetative stage. However, there are locusts in Renk that need to be confirmed if they are the desert or migratory locusts. Birds are also present at this early stage of the season leading to fears over crop loss to the farming community.



In Maban, rains started in the second dekad of May, which was considered timely. The amount was rated as average and it triggered planting immediately at the onset of the rains. However, there was a short beak in June that had insignificant effect on growing seedlings. The major crops grown in Maban include maize, sorghum, groundnuts and sesame. This year, however, there is a slight change in the cropping pattern with less maize planted because of last year's floods that wiped out maize and discouraged farmers from planting the crop. In addition, a shortage of maize seed might have contributed to the decrease in planted area. Few NGOs including FAO partners provided seeds in the last week of June, but most able farmers have planted using either own saved seeds or market purchased seeds. Land preparation was done manually using hand tools, including malodas and hoes, due to the absence of tractors. Most farmers purchased their tools from the market, while a few used old tools from last year.

With regards to pests and diseases, there are few reported cases of FAW, while the presence of pigs, goats and sheep is pronounced. Hired labour is available due to lack of employment opportunities in other non-agricultural sectors, as they have been affected by the economic impact of COVID-19. Hence, the agricultural sector is the only option left to employ casual labourers.



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Website

http://www.fao.org/in-action/south-sudan-cross-border-project/en/

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