

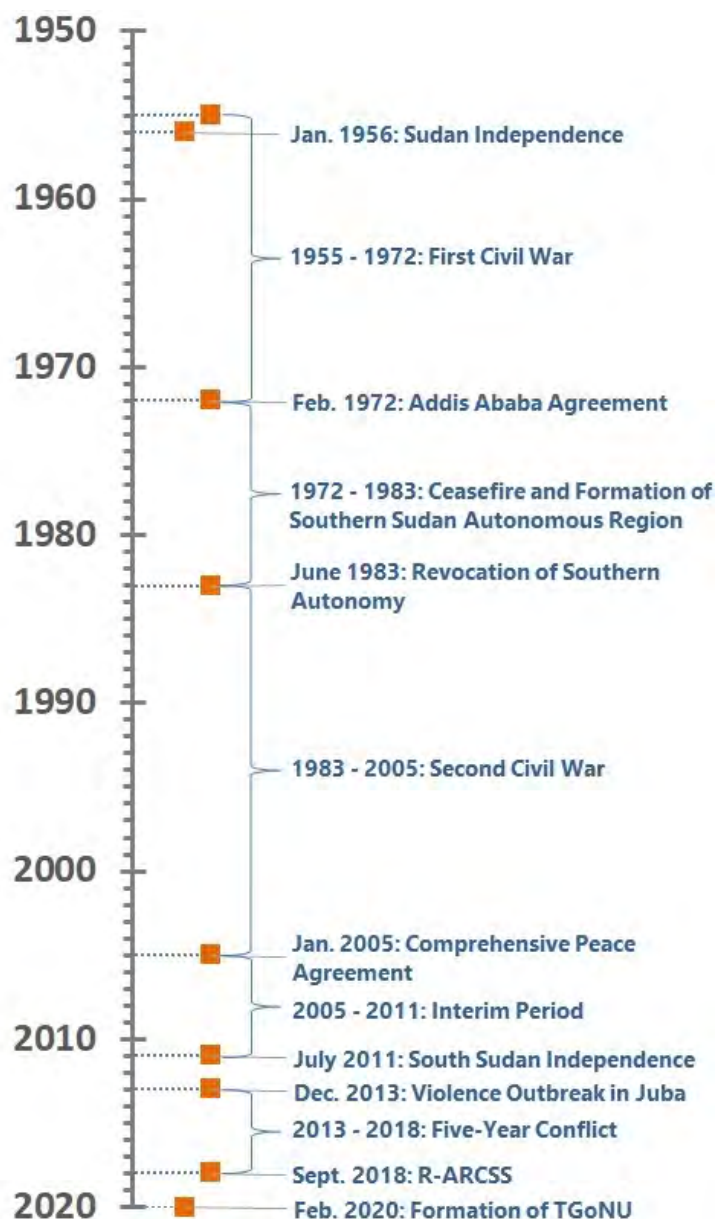
## South Sudan: Conflict and Food Insecurity

Updated April 16, 2020

### Highlights

- In South Sudan, projections indicate that 6.5 million people (56 percent of the population) could face acute food insecurity for the May to July 2020 lean season in the presence of planned humanitarian food assistance.<sup>18</sup> This number could increase due to potential impacts from the COVID-19 pandemic hampering food imports and aid.<sup>48</sup>
- In 2019, the cropping season was only able to meet 63 percent of the projected cereal needs for 2020.<sup>18</sup>
- Since 2016, a prolonged macro-economic crisis continues to impact food insecurity as market prices are high, and the region will depend on markets for food supply during the peak of the 2020 lean season.<sup>38</sup>
- Due to years of conflict, South Sudan is unable to produce enough food products to support its population and currently imports half of its food needs.<sup>13</sup>
- Recent improvements in the security situation since the 2018 peace agreement and the expected positive impact on agricultural production have been overshadowed by localized drought and presence of fall armyworm in early 2019 followed by widespread catastrophic flooding due to heavy seasonal rains.

### South Sudan Conflict Timeline



### Overview

In 2013, two years after South Sudan gained independence, political strife triggered an outbreak of violence in the capital of Juba. The use of ethnic militia groups fueled cultural contention between tribes. It ignited several years of internal conflict, resulting in millions of internally displaced persons and refugees, rampant food insecurity, and severe malnutrition.<sup>4</sup> Although the country is rich in water sources and arable land, it continues to suffer from the residual impacts of the five-year conflict that stifled production and created barriers for development.

Consequently, the population is dependent on imports and food aid and is often susceptible to widespread acute food insecurity. For the May to July 2020 lean season, it is projected that over half of the country will be food insecure due to disrupted livelihoods, high food prices, food production shortages, and flooding. Food security is further threatened in 2020 by a potential increase in desert locust swarm activity; however, the country may benefit from returning refugees driving an increase in planted area and yields and from improvements in traffic flow on the Nile. The COVID-19 pandemic is also likely to impact food insecurity due to disruptions in food aid and commodity imports. The disruptions will increase market prices during the peak of the lean season, during which there is a heavy reliance on market supply of food items as many household stocks have been depleted.<sup>48</sup>

## Background of Conflict

Before 2011, the country of Sudan encompassed both regions of modern Sudan and South Sudan. In 1955, conflict erupted as a result of the southern (primarily Christian) officers' mutiny against the northern (primarily Muslim) elites' dominance of the central government, military, and resources. When Sudan gained independence in 1956,<sup>3</sup> the South Sudan Liberation Movement (SSLM) formed to advocate for the autonomous rule of the southern region, fight against the policies of Islamisation, and prevent northern control of southern resources. Disagreement over these points resulted in two civil wars, which ultimately ended with the Comprehensive Peace Agreement in 2005.<sup>2</sup> This agreement granted South Sudan the right to self-determination for six years and was followed by an independence referendum held at the end of the Interim Period.<sup>11</sup> South Sudan was then granted formal independence from Sudan in 2011.<sup>2</sup>

Soon afterwards, conflict arose within South Sudan in December 2013 when President Kiir accused Vice President Riek Machar of plotting a coup, leading to Machar's removal. The event sparked violence between the Sudan People's Liberation Movement (SPLM) led by president Kiir, and the Sudan People's Liberation Movement in Opposition (SPLM-IO) led by Machar.<sup>4</sup> Due to reliance on ethnic militia groups, civil unrest became ethnically charged between the two dominant ethnic groups: the Dinka in support of President Kiir, and the Nuer in support of Machar. President Kiir and Machar signed a peace agreement in 2015,<sup>5</sup> and Machar was reinstated as vice president; however, this act only intensified unrest from opposing sides, and the deal dissolved in 2016.<sup>3</sup> Several attempts at peace agreements and ceasefires were made but continuously broken.

Officials signed the most recent peace agreement, the Revitalized Agreement on the Resolution of the Conflict in South Sudan (R-ARCSS), in September 2018.<sup>8</sup> On February 22<sup>nd</sup>, 2020, Machar was sworn in as vice president, solidifying the peace deal and announcing the formation of the Transitional Government of National Unity (TGoNU) of the Republic of South Sudan.<sup>24</sup> Since 2018, the security situation has improved substantially, and security incidents halved between 2017 and 2019. As of November 2019, more than 500,000 displaced people returned to their homes,<sup>8</sup> and some farmers returned, resulting in slightly improved markets.<sup>31</sup> However, as of January 2020, 1.47 million persons remain internally displaced,<sup>42</sup> and 2.2 million refugees are residing in neighbouring countries.<sup>20</sup> Returns to the country are gradual as the United Nations High Commissioner for Refugees (UNHCR) "non-return advisory" issued in 2014 is still in place for South Sudan, and there are remaining concerns regarding the lasting nature of peace.<sup>39</sup>

## Background of Agriculture

South Sudan is comprised primarily of tropical forests, grasslands, and swamps, and as indicated in the 2018 Intergovernmental Authority on Development (IGAD) report, 75 percent of lands are suitable for agricultural production.<sup>13</sup> Additionally, according to a 2011 Journal of Applied Meteorology and Climatology publication, South Sudan experiences a single long unimodal rainfall season with uneven peaks, allowing for some regions to farm two or three crop cycles per season depending on rainfall variability.<sup>41</sup>

The country's staple crops are sorghum, maize, millet, and rice, which encompass 48 percent of the total food product consumption. The majority of agricultural production is rain-fed, variations of which can significantly impact yields.<sup>13</sup> The Marial Ajith (northwestern and southern South Sudan) is especially fertile with several rivers and basins.<sup>12</sup> As the country lies entirely within the River Nile Basin, some experts project South Sudan could become the breadbasket of Africa with adequate development and infrastructure<sup>13</sup>; however, as mentioned in the 2012 Food and Agriculture Organization (FAO) report, pre-conflict agricultural production used only four percent of arable land due to absence of agricultural mechanization and animal traction.<sup>40</sup>

The country is heavily dependent on oil exports, which accounted for more than 40 percent of GDP in 2019.<sup>32</sup> In comparison, 80 percent of households live in rural areas with a dependency on agriculture, forestry, and fishing as the primary livelihood.<sup>13</sup> Livestock also makes up a large portion of South Sudan's agricultural production and is an integral part of the country's culture and tradition as well as an economic asset. As depicted in Figure 1, the southern, northwestern, and central-eastern border regions are particularly fertile and depend on crop production as the primary livelihood. The southeastern region has a minor dependence on pastoral activities due to low production output, low rainfall, and one growing season, and the remaining areas depend on a combination of agro-pastoral activities and fishing.<sup>17</sup>

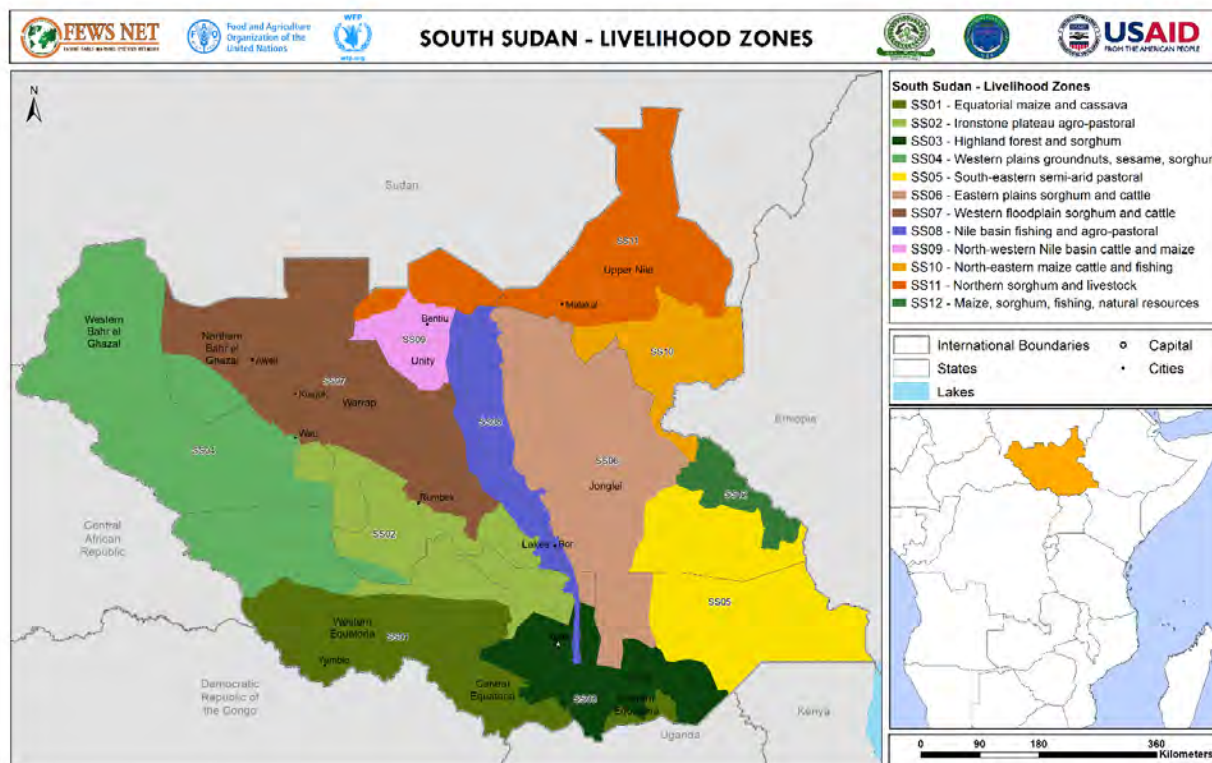


Figure 1. South Sudan livelihood zones and productive regions map. Source #17: Famine Early Warning Systems Network (FEWS NET), November 2018 (<https://fewsn.net/east-africa/south-sudan/livelihood-description/november-2018>)

## Impact of Conflict on Agriculture and Food Insecurity

While South Sudan is rich in arable land and water resources, the residual impacts of conflict prevent the region from producing to its full potential. For instance, the 11-year ceasefire from 1972 to 1983 saw rapid agrarian development, and South Sudan became a net exporter of food resources; however, the second civil war beginning in 1983 destroyed infrastructure, displaced populations, and initiated rapidly declining levels of food security for the country.<sup>2</sup>

According to the 2018 Crop and Food Security Assessment Mission (CFSAM) report, conflict was the major factor influencing national food security during the period of violence from 2013 to 2018.<sup>45</sup> In the initial stages, conflict was more localized and mainly affected the Greater Upper Nile Region (Upper Nile, Unity, and Jonglei). Then in mid-2016, conflict intensified and spread into the major producing regions including Western Equatoria, Central Equatoria, parts of Eastern Equatoria, and Western Bahr el Ghazal.<sup>44</sup> In 2017, Central and Eastern Equatoria experienced a reduction in households engaged in farming activities due to population displacement and exodus to neighbouring countries. Additionally, increased conflict triggered bottlenecks in supply and disruptions to trade routes.<sup>45</sup>

As depicted in Figure 2, these events resulted in a 2017 decrease in net crop production to its lowest point since the conflict began at 14 percent below the previous five-year average. Comparatively, 2017 instances of violent interactions were the highest since the conflict began at 71 percent above the previous five-year average. Additionally, as depicted in Figure 3, the 2017 decline in cereal production led to a 2018 cereal deficit of just under 470,000 tonnes. In 2018, crop production decreased again due to unfavourable weather conditions and pests despite a small increase in planted area, leading to a 2019 cereal deficit of over 518,000 tonnes, the highest since the state's inception in 2011.

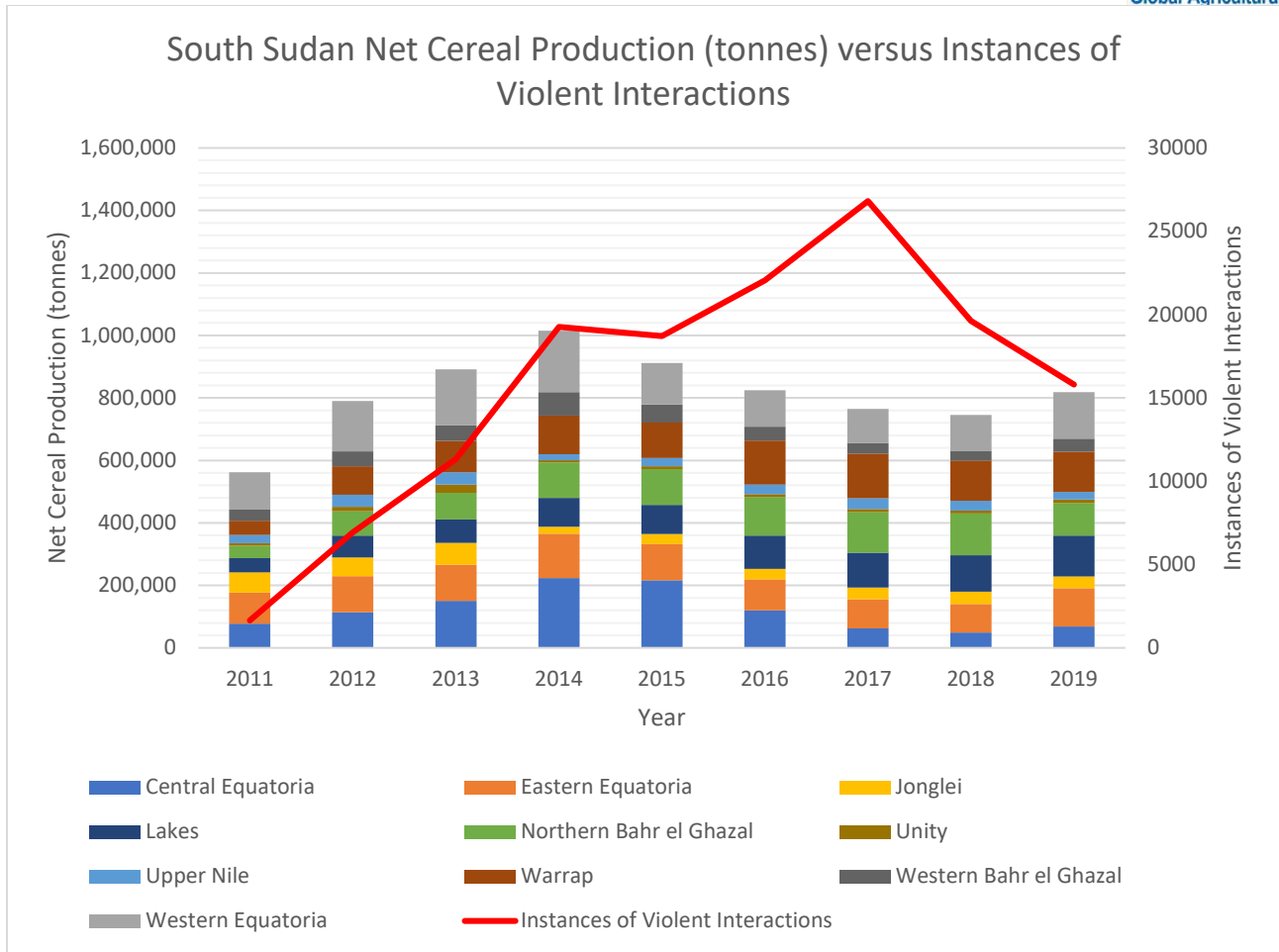


Figure 2: South Sudan cereal production in tonnes compared to instances of violent interactions. This graphic demonstrates an inverse correlation between cereal production and impacts of violence from 2016 to 2019 when conflict spread to major producing areas. Data extrapolated from ACLED data warehouse and the UN FAO/ UN WFP CFSAM South Sudan reports published 2012 – 2019.

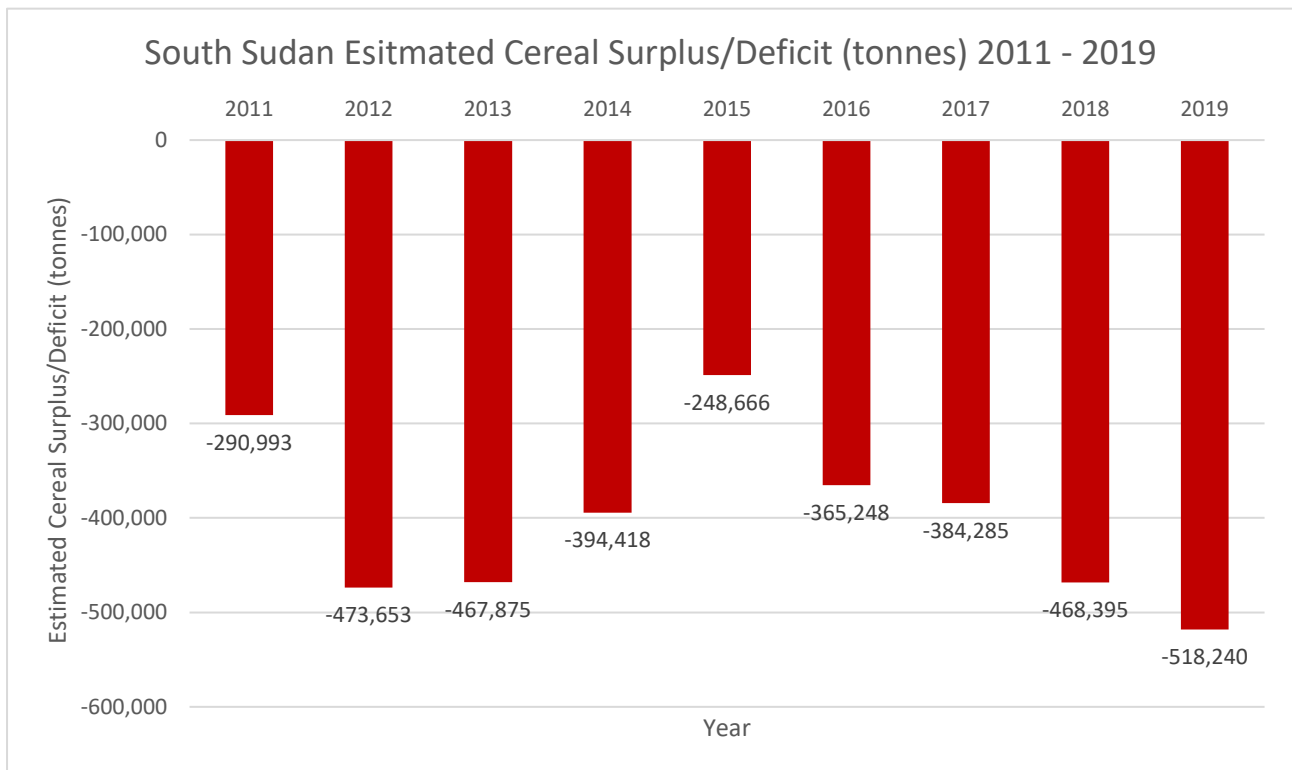


Figure 3: South Sudan estimated cereal surplus/deficit in tonnes per year from 2011 to 2019. This graphic depicts sequential negative cereal balances for South Sudan since the state's inception in 2011. Data extrapolated from the UN FAO/ UN WFP CFSAM South Sudan reports published 2011 – 2019.

Due to years of ongoing conflict, South Sudan is unable to produce enough food products to support its population and currently imports half of its food needs.<sup>13</sup> In 2019, the cropping season was only able to meet 63 percent of the projected cereal needs for 2020.<sup>18</sup> Production is limited for most farmers in South Sudan as they focus on low input/output subsistence farming, and several obstacles relating to former violence continue to deter excess production for market sale<sup>13</sup>:

### Barriers to Market Entry

- *Uncertainty relating to property ownership due to lack of transparent land laws:*<sup>13</sup> Land planning initiatives are essentially non-existent throughout much of South Sudan, so the acquisition process is loosely structured, and land ownership is poorly defined. As a result, court disputes preside over allegations of land grabbing by the military and elite personnel along with conflicting claims to ownership. In many cases, long term land occupants have lost their land to soldiers claiming it by force. Additionally, displaced communities depend on land access for their livelihoods, but there is conflict among the host communities over competing resources. Consequently, displaced populations reside in informal settlements and face eviction and repeated displacement. Those displaced are more susceptible to food insecurity due to livelihood disruption and unreliable access to land. Furthermore, dual allotment of land during the formalization process along with land acquisition by the government for urban development causes uncertainty relating to ownership, thus limiting the production potential of formally disputed land.<sup>21</sup>
- *Conflict limits access to inputs and destroys productive assets:* Road landmines and banditry<sup>30</sup> coupled with poor maintenance of road networks in South Sudan makes transportation slow, expensive, and dangerous and hinders farmers' access to agricultural inputs.<sup>28</sup> As a result, agricultural production is limited due to a lack of agrochemical and seed inputs. The majority of smallholder subsistence farmers do not use fertilizer, herbicides, or pesticides, and limited fertilizer application by farmers can progressively deplete soils and reduce potential yields. Additionally, farmers have limited access to high yielding seeds and save seeds from previous seasons, which limits selection variety and makes crops vulnerable to disease.<sup>13</sup> Reuse of traditional seed varieties for consecutive seasons is reducing their productivity.<sup>27</sup>

### Constraints of Production

- *Lack of irrigation development leaves crops susceptible to rainfall variability.*<sup>13</sup> With an abundance of rivers and basins, South Sudan has potential for irrigated agriculture; however, as irrigation systems are currently limited, crop yield is mainly dependent on seasonal rainfall. Due to a lack of modern irrigation and flood control measures, crops are susceptible to moisture stress in times of drought and flooding in times of heavy rainfall. As a result, if the region receives irregular rainfall, populations are vulnerable to crop failure and food insecurity. Before the second civil war in 1983, there were plans for large scale irrigation development in the southern region of Sudan. Irrigation infrastructure building started in 1979, but was impeded by conflict and today is largely non-functional.<sup>33</sup>
- *Conflict inhibits production of livestock products:* Displacement causes livestock to be moved away from homesteads to cattle camps<sup>18</sup> and prevents livestock from using their typical grazing paths, leading to tension within pastoral communities and between pastoralist and agriculturalists. Additionally, internal conflict instigates persistent cattle raids between the Nuer, Dinka, and Murle tribes, which limits the availability of milk and milk products.<sup>29</sup> Furthermore, shortages of vaccines and medicines for livestock is a significant issue in animal production. The South Sudanese government tends to give vaccine preference to regions that produce livestock for export to countries with more stringent standards.<sup>27</sup>

### Limited Access to Markets

- *Lack of safe and reliable road network:* In South Sudan, road infrastructure development is inadequate due to limited funding for the social sector and rebuilding of infrastructure.<sup>3</sup> As a result, poor road conditions limit access to centres of consumption. Sixty-five percent of the road network lies in arable regions, but 95 percent of that is inaccessible due to poor conditions and the muddying of roads during the rainy season, which lasts half the year. Where roads are accessible, checkpoint fees and double taxation of products limit profitability.<sup>2</sup> Due to poor road infrastructure, trucks must carry smaller loads and travel further distances, leading to higher costs of transportation per unit, which is

then transferred to the buyer.<sup>26</sup> Additionally, the lack of rural connectivity to urban areas hinders farmers' ability to move products to local and regional markets<sup>28</sup> and results in increased imports at high prices. Consequently, the availability of food products is limited and domestic food prices increase.<sup>36</sup>

In South Sudan, limitations of farming due to years of violence stifled the production potential of arable land and caused vast food insecurity. In 2017, a formal declaration of famine occurred in parts of South Sudan with 100,000 people facing starvation as a result of drought and upsurges of violence in 2016 and 2017 and inflation causing spikes in food prices. During the five-year conflict, displacement was a significant driver leading to food insecurity in the country as it disrupted livelihoods and impeded access to other sources of food such as fishing and foraging for wild foods.<sup>18</sup>

Following the 2018 peace agreement, there was some improvement in food security due to return to livelihoods, improved markets, a decrease in trade disruptions, and an increase in humanitarian aid. However, in 2019, the country experienced catastrophic floods,<sup>14</sup> which increased the prevalence of weeds, pests, and diseases in crop fields and caused some crop loss.<sup>27</sup> The heavy rains also limited availability of forage, killed off livestock due to disease and starvation, and contaminated water sources.<sup>18</sup> Conversely, the improved security situation and abundant rains led to an increase in planted area and yield, which partly offset flood-induced losses and led to an increase in 2019 net cereal production ten percent above the 2018 output and four percent below the five-year average.

In May to July of 2019, the country experienced its highest levels of food insecurity as 61 percent of the population faced Integrated Food Security Phase Classification (IPC) *Crisis* levels or worse (Phase 3 or above) of acute food insecurity. Only 52 percent of national cereal needs were met due to a record low 2018 harvest and a late onset of seasonal rains causing delayed 2019 harvests.<sup>47</sup> Additionally, since 2016, the country has been experiencing a prolonged macro-economic crisis with decreased domestic output, hyperinflation, and parallel market exchange rate premiums, resulting in a contraction of GDP and soaring input prices.<sup>38</sup> The instability continues to impact food security as market prices are high, and the population will largely depend on markets for the supply of staple foods as the region is approaching the peak of the lean season.<sup>48</sup>

Furthermore, on February 3<sup>rd</sup> 2020, desert locust swarms crossed the Uganda border into South Sudan.<sup>25</sup> Crop damage has not yet been fully assessed as the locusts arrived when harvest was complete; however, potential new swarms in May and June could pose significant risk to the upcoming main cropping season for which planting began in March.<sup>43</sup> Contrarily, there are other factors that may help to mitigate food insecurity in 2020. For instance, a large portion of refugees returned to the greenbelt areas of Western and Central Equatoria, which drove an increase in planted area in 2018 and 2019. Despite the increase, the cereal deficit widened in 2019 due to poor rains and yields; however, it is expected to decrease in 2020 due to an increase in planted area and yields. Additionally, since the signing of the R-ARCSS, security and traffic flow on the Nile improved, leading to a projected increase in cereal supplies flowing southward from Renk and Melut in 2020.

Despite security improvements, IPC projections indicate that out of a population of 11.7 million, 6.5 million (55 percent) could still face *Crisis* levels or worse (Phase 3 or above) of acute food insecurity for the May to July 2020 lean season in the presence of planned humanitarian food assistance (see Figure 4 on Pg. 7)<sup>18</sup>; however, according to the 2019 CFSAM South Sudan report, the overall cereal deficit for January to December 2020 is estimated at 482,500 tonnes, a seven percent decrease from the 2019 deficit.<sup>46</sup>

The COVID-19 outbreak is likely to further threaten food security in 2020 due to a decrease in available food imports and aid. As South Sudan is largely dependent on food commodity imports from Uganda and Sudan, border closures in these countries will disrupt trade and commodity supply-chains, putting pressure on both domestic and imported food prices.<sup>48</sup> Furthermore, South Sudan is particularly susceptible to supply-chain disruptions from China as it is the world's largest trading nation with significant influence on agriculture and food supply. Trade disruptions and increased prices will decrease the purchasing power of households and force them to turn to cheaper, less nutritious food sources, or forgo meals altogether.<sup>48</sup>

While the country has vast potential to become self-sufficient in terms of agricultural production, the residual impacts of the five-year conflict continue to ravage the region, keeping production levels well below the needs of the population and leading to crisis levels of food insecurity. Agricultural production is limited due to displacement and violence, and it is especially vulnerable to natural drivers of crop conditions that can rapidly deteriorate the already poor food security situation in South Sudan.

Projected Acute Food Insecurity May – July 2020

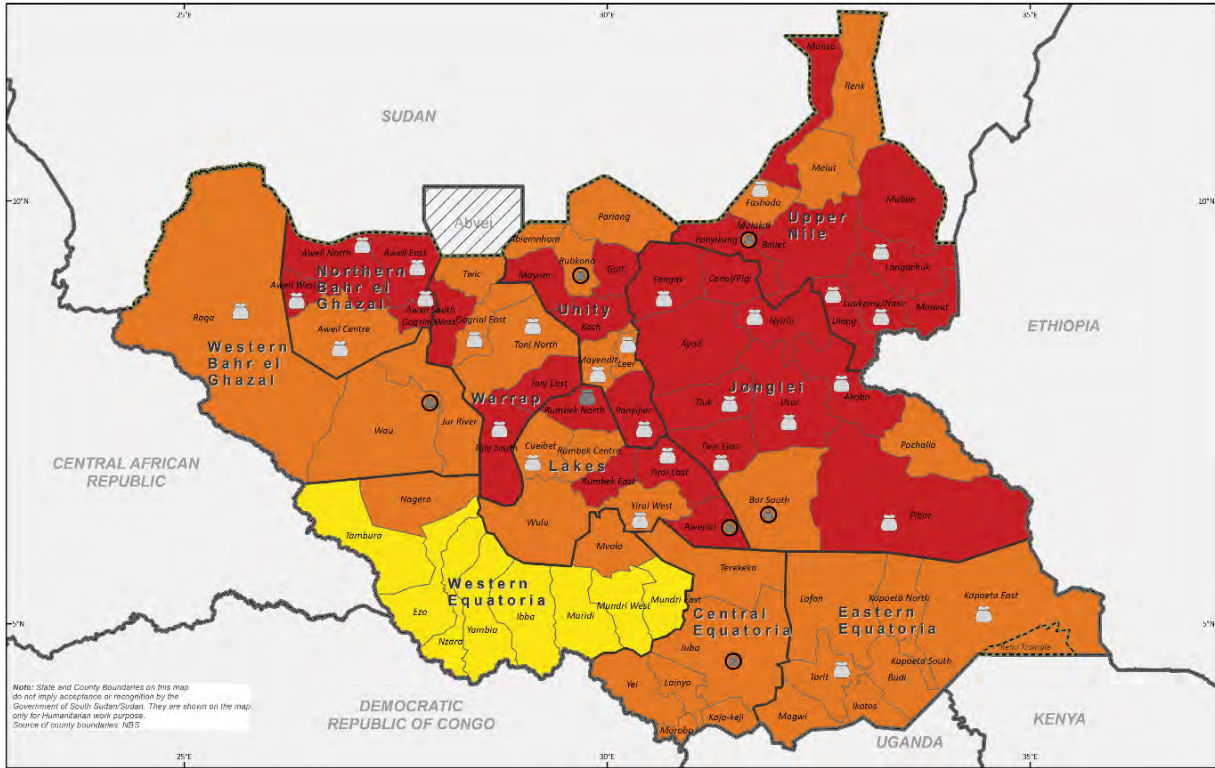


Figure 4: IPC projected classifications of food insecurity for May - July 2020. Source #18: South Sudan IPC Technical Working Group, January 2020 (<http://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1152422/>)

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