In the period May to July 2018, an estimated 7.1 million (63% of the population) would face crisis (IPC Phase 3) or worse acute food insecurity conditions, of which 155,000 are estimated to be in Catastrophe (IPC Phase 5) in the protracted absence of humanitarian assistance.

The rainfall forecast for March, April and May (MAM) 2018 indicates that parts of Greater Equatoria, Jonglei and Upper Nile are likely to experience above normal rainfall and there are therefore high chances of flooding and flash flooding while Greater Kapoeta is likely to experience a dry spell.

Normal to above normal rainfall forecast in Southern part of the country is likely to provide conducive breeding environment for fall army worm (FAW) that could impact negatively the agricultural season of June, July, August and September (JJAS).

Hyper-inflation and high cost of living continue to be major challenge with overall inflation at 125% per cent and food inflation at 112 per cent per annum as at January 2018.

According to latest report from OCHA, 1.9 million people are internally displaced in South Sudan, while 2.4 million live as refugees in foreign countries; this represents an increase of 400,000 refugees and reduction of 100,000 IDPs since this bulletin issue of May-July 2017.

Constrained humanitarian access poses challenges to humanitarian assistance, thus affecting some of the most vulnerable populations.
The Quarterly National Hazard Early Warning Bulletin is produced jointly by the Relief and Rehabilitation Commission (RRC), and the Ministry of Humanitarian Affairs and Disaster Management (MHADM) of the Government of the Republic of South Sudan, with support from the United Nations World Food Programme (WFP).

This update is informed by both secondary and primary data collected during the quarter under review. The data collected and analyzed is guided by agreed and monitored early warning indicators, including food security, population movement and displacements, human diseases and outbreaks, markets and prices, agriculture, weather and climate outlook.

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Publication partners
The hotspot map highlights a very concerning interplay of humanitarian crises and hazards that impact negatively on lives and livelihood of South Sudanese population.

South Sudan continues to face serious and worsening humanitarian situation with a number of challenges as summarized below:

During February to April 2018, some 6.3 million people are estimated to be facing severe food insecurity (Phases 3 or higher of Integrated Food Security Phase Classification, or IPC) with 50,000 people in former Unity likely to be in phase 5 if humanitarian assistance is not scaled up. In the period May-July 2018, the number of severely food insecure (in Phases 3, 4 and 5) is expected to each 7.1 million (63 percent of the total population), with some 155,000 people in 11 counties likely to be in catastrophe (Phase 5) in the protracted absence of humanitarian assistance. Thus, there will be a need for joint close monitoring of these hot spot locations.

The rainfall forecast for March, April and May, with normal to above normal rainfall in most parts of Southern Sudan raises the possibility of water borne diseases as well as crop failure due to water logging, and there is thus a need for flood monitoring and alerts.

The nutrition situation remains very serious, with many counties in former Unity, Greater Bahr el Ghazal, Upper Nile, Jonglei and Eastern Equatoria expected to experience a critical or very critical status during the lean season, as per the IPC acute nutrition analysis.

Furthermore, humanitarian access remains a major challenge in implementing life-saving interventions and critical assessments of the situation in the worst affected areas of the country.
The food security and nutrition situation in South Sudan has been deteriorating in recent years due to outbreak of conflicts, poor production, disruption of markets, rapid rise in prices, diseases and natural disasters such as floods and drought in parts of the country. This is made worse with the ongoing macroeconomic crisis including the rapid depreciation of the South Sudanese Pound, hyper-inflation and the huge surge in food prices.

In January 2018, 48 percent of the population of South Sudan (just over 5.3 million people) was classified in the IPC (Integrated Phase Classification) Phases 3 (Crisis) and 4 (Emergency). These numbers translate into a striking increase of 40 percent when compared with the same time one year ago. During the height of the lean season (May-July 2018), in the absence of humanitarian assistance, 7.1 million people (63.4 percent of the total population) are projected to face crisis or worse food security situation, among which 155,000 people are likely to fall in Phase 5 (Catastrophe). Thus we are likely to face the worst hunger situation in the lean season of 2018.

During May-July period, in the absence of humanitarian assistance, all former States except Eastern Equatoria are projected to have more than 50% of the population in Crisis or above food security situation. Unity and Jongle are the most vulnerable to food insecurity, with populations in crisis, emergency and catastrophe projected to be 77 percent and 76 percent respectively, of the total population. In addition, 155,000 people in Leer, Mayendit, Ayod, Nyirol, Uror, Koch, Panyijiar, Fangak, Pibor, Longochuk, and Wau (greater Baggari sub-area) are likely to fall into Catastrophe (IPC Phase 5).

**POPULATION DISTRIBUTION FOR MAY-JULY 2018**

<table>
<thead>
<tr>
<th>Former States</th>
<th>Mid-2018 Population (NBS)</th>
<th>Phase 1 Minimal</th>
<th>Phase 2 Stressed</th>
<th>Phase 3 Crisis</th>
<th>Phase 4 Emergency</th>
<th>Phase 5 Famine / Catastrophe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Equatoria</td>
<td>1,060,191</td>
<td>60,000</td>
<td>320,000</td>
<td>575,000</td>
<td>105,000</td>
<td>-</td>
</tr>
<tr>
<td>Eastern Equatoria</td>
<td>994,188</td>
<td>200,000</td>
<td>360,000</td>
<td>295,000</td>
<td>140,000</td>
<td>-</td>
</tr>
<tr>
<td>Jonglei</td>
<td>1,744,475</td>
<td>100,000</td>
<td>320,000</td>
<td>640,000</td>
<td>595,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Lakes</td>
<td>1,225,771</td>
<td>185,000</td>
<td>365,000</td>
<td>435,000</td>
<td>240,000</td>
<td>-</td>
</tr>
<tr>
<td>Northern Bahr el Ghazal</td>
<td>1,401,961</td>
<td>75,000</td>
<td>285,000</td>
<td>705,000</td>
<td>335,000</td>
<td>-</td>
</tr>
<tr>
<td>Unity</td>
<td>970,292</td>
<td>45,000</td>
<td>185,000</td>
<td>415,000</td>
<td>275,000</td>
<td>55,000</td>
</tr>
<tr>
<td>Upper Nile</td>
<td>1,055,944</td>
<td>80,000</td>
<td>250,000</td>
<td>440,000</td>
<td>285,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Warrap</td>
<td>1,390,598</td>
<td>145,000</td>
<td>400,000</td>
<td>565,000</td>
<td>280,000</td>
<td>-</td>
</tr>
<tr>
<td>Western Bahr el Ghazal</td>
<td>542,050</td>
<td>75,000</td>
<td>140,000</td>
<td>235,000</td>
<td>90,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Western Equatoria</td>
<td>760,463</td>
<td>150,000</td>
<td>340,000</td>
<td>210,000</td>
<td>60,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,145,932</strong></td>
<td><strong>1,115,000</strong></td>
<td><strong>2,965,000</strong></td>
<td><strong>4,515,000</strong></td>
<td><strong>2,405,000</strong></td>
<td><strong>155,000</strong></td>
</tr>
</tbody>
</table>

**Note:** The South Sudan IPC Technical Working Group estimates South Sudan’s mid-2018 population at 11,145,932 following the deduction of refugee populations and application of a 3% natural growth factor for 2018. The populations facing severe food insecurity have been calculated in the absence of humanitarian assistance. (Source: NBS)
OUTLOOK: In the absence of all forms of humanitarian assistance from May-July 2018, an estimated 7.1 million (63% of the population) would be in Crisis (IPC Phase 3) or worse acute food insecurity, of which 155,000 are estimated to be in Catastrophe (IPC Phase 5).
The July 2016 and continuing fighting between Government and Opposition forces, and between different factions of the opposition in the country has forced thousands of people to flee their homes. Majority of new displacements occurred in parts of Northern Jonglei including Yuai, Pultruk, Payai, Kuer-Nyuon, Pieri, Waat, and Walgak in Uror, Nyiro and Akobo Counties. While in former Central Equatoria, clashes between opposition factions in Mukaya County of Yei River State resulted in hundreds of people being displaced. In Mundri East, thousands of civilians flee their homes as Government troops advanced to Kediba in Mundri East. Additionally, in the month of February 2018, over 30,000 people were displaced from Bor County to Terekeka.

Map showing population displacement and refugees: **Source:** OCHA, March 2018

**OUTLOOK:** More displacements expected in parts of Greater Mundri, former Central Equatoria, Greater Upper Nile, and Bhar El-Ghazal due to escalating conflicts.
Human Disease and Outbreaks

The northern part of South Sudan according to March -April- May (MAM) climate outlook is likely to be prone to malaria, Typhoid, Hepatitis A and E while the areas of Central, Western and Eastern Equatoria states which are projected to have Above normal to Normal Rainfall are susceptible to record increase of malaria cases, Rift Valley Fever (RVF) and Cholera cases. In addition, Ministry of Health in conjunction with WHO reported 34 suspected meningitis cases including 15 deaths (44%) in Iyire and Imurok Payams of Torit county as of 1 March 2018. Forecasted normal to above normal rainfall is likely to further increase seasonal trends of water-borne diseases in Jonglei and Greater Equatoria

OUTLOOK: Though Cholera has been contained, with start of rain, it is likely to reappear and malaria cases and other waterborne diseases are expected to continue and further increase during MAM rain season.

Agriculture, Fall Armyworm & Livestock

Net cereal production in 2017 is estimated at 764107 tonnes, an overall 7.5 per cent decrease compared to 2016 and ; it is also 14 per cent below the average of the previous five years, showing the smallest output since the start of the conflict in December 2013. Reduced cereal production is as a result of persisting insecurity/conflict that has caused population displacement and forced them to abandon their fields, outbreak of Fall Armyworm which has caused some considerable damage to crops across counties Based on the CFSAM estimates for a projected population of about 11.4 million, cereal import of 482,000 tonnes is required; 26 per cent above the deficit estimated for 2017 and for the 2018 marketing year (Jan-December) is forecasted.

According to the December 2017 Food Security and Nutrition Monitoring System (FSNMs); livestock herd has been dwindling due to various factors, which include but are not limited to lack of livestock vaccination, livestock diseases, lack of pasture and water. The hardest hit former States are Eastern Equatoria, Jonglei and Warrap. In the former States of Eastern Equatoria, Jonglei, Lakes, Western Bahr el Ghazal, Warrap, Central Equatoria, and Unity, over 30% of households who owned livestock reported large decreases of livestock herds over a period of a year. Herd decrease of 30% and above in a year is considered large change:

Source: FSNMs Round 21
The poor performance of the 2017 cropping season is due to the combination of reduced number of farming households and lower than average area planted per household as a result of the increased intensity and scale of the conflict. The most significant reductions of harvested area occurred in Central Equatoria (-48 percent) and Western Bahr el Ghazal (-28 percent). Such a high cereal deficit is one of the contributors to high levels of food insecurity and acute malnutrition in the country.

Overall, as per the CFSAM report, livestock conditions were generally good due to adequate pasture and water availability following favourable seasonal rains. However widespread insecurity continued to have a negative impact on livestock rearing activities. The results from the FSNMS survey conducted in December 2017 show that livestock ownership has reduced significantly compared to the same time the previous year. According to Ministry of Livestock and Fisheries, Fish supply, to household in 2017 has reduced significantly below the pre-crisis period due to insecurity along the waterways, loss of fishing equipment and overexploitation in some areas which led to the exhaustion of fish stocks.
The South Sudanese Pound (SSP) has continued to depreciate. In February 2018, the average exchange rate of US Dollar to SSP stood at 220 in the parallel market and 133 in the official market rate, compared to SSP 190 and SSP 127 respectively in December 2017. The inflation continues to remain very high even though there has been some easing in the situation recently. According to the National Bureau of Statistics (NBS), general year on year inflation rate dropped from 362 percent in June 2017 to 125 percent in January 2018 percent and food inflation rate dropped from 358 per cent in June 2017 to 112.5 percent in January 2018. More than 70 per cent of the monitored markets in February 2018 have witnessed mixed price behaviours (stability or decrease) for main staple cereals, while it increased in other markets. Compared to December 2017, sorghum price has decreased by 12 to 20 per cent in Konyokonyo, Bor, Bentiu and Yida, while stable price was observed in markets of Kapoeta South, Torit, Wau and Rumbek. Of note, price of sorghum increased in Wunrok (67 per cent), Aweil (62 per cent) and Mingkaman (11 per cent).

Market access is further constrained by disruption in trade routes which directly affect commodity flows. Minimal/no trade activity occur in routes connecting Tombura to Wau, Yei to Maridi, Maridi to Mundri while some minimum/reduced trade disruptions take place in most of the roads of the country. Disruptions are mainly as a result of conflict. In Koch, Nasser, Nyal, Walgak Pagak, Kediba counties there are not functional markets.
OUTLOOK: With the depletion of the stock from the recent harvest and as the lean season approaches, the prices of staple food is likely to increase further. Given the continued macroeconomic crisis and the lack of income, most households are likely to be highly vulnerable to food insecurity.

Weather and Climate Information

The forecasted rainfall performance of the MAM (March April & May) 2018 rainfall according to South Sudan Meteorological Department is expected to have mixed implications for food security, livestock production and productivity, water, and health in different parts of the country.

Southern South Sudan is forecasted to receive increased likelihood of above normal. The locations in the South of the country are likely to experience flooding and landslides, and that might lead to destruction of planted crops due to water logging. Water borne diseases such as malaria, Rift Valley Fever (RVF) and Cholera are likely to increase, Greater Equatoria, Jonglei and parts of Upper Nile States.

Counties in northern South Sudan (Manyo, Renk, Malakal, Pariang, Abiemnhom, Twic, greater Aweil) are forecasted to receive normal to above normal rains. Flooding is expected in lowlands and washing away of planted seeds (smaller seeds like sesame and millet) might occur. Increased incidences of pest and diseases affecting crops could be a source of concern for the communities.

According to the weather forecast for the MAM 2018 period, cold nights and mornings likely to be experienced in former States of Western and Central Equatoria, most part of greater Bhar El Ghazal, while Eastern Equatoria, Jonglei, Unity and Some part of Upper Nile is projected to have increased likelihood of below normal (cooler) to normal average temperatures. Thus, the cold and chilly conditions over those areas might have a negative impact on the normal growth and development of perennial crops as well as on the overall livestock efficiency and productivity. Consensus Rainfall Outlook for MAM 2018 sets rainfall onset date at 20 April (Source: South Sudan Met Department). The probabilities for normal, above normal and below normal rainfall ranges between 25-40%; with a 40 per cent higher chance of above normal rainfall in the Southern part of the country.
OUTLOOK: Flood conditions likely to affect settlements and agriculture along the bank of river Nile, Bhar el Ghazal, Jur and Yei river due to predicted above normal rainfall

Recommendations

The following recommendations have been made based on the analysis of the current situation and the outlook for the next quarter:

- Relief and Rehabilitation Commission (RRC) should provide life-saving humanitarian assistance to populations affected by severe food insecurity and malnutrition, particularly those in crisis or worse food security situations as per most recent IPC update of February 2018.
- Government and armed opposition should continue to provide unfettered access to the humanitarian organizations to all parts of the country.
- Ministry of Agriculture and Food Security should establish an effective system for timely detection and intervention for crop diseases such as Fall Army Worm (FAW) infestation.
- Ministry of Agriculture should implement timely prepositioning of agriculture inputs (seeds and tools) is recommended to enable farmers to take advantage of favourable weather conditions in the South-Western and North-Eastern/Western parts of the country.
- For zones that are forecasted to receive above normal rainfall, it is therefore advisable to take the following actions: Create awareness on risks to the vulnerable population, Closing open river banks/dykes and strengthening weak ones, Effective reservoir management, Rainwater harvesting.
- For the areas that are likely to have outbreak of diseases, coordination of actors for vector surveillance and vaccination of animals is key to avoid an upsurge of diseases such as trypanosomiasis, blackquarter, foot and mouth etc.
- Ministry of Health to distribute malaria prophylaxis, nets, spray in small portion of some of the state, Distribution of cholera vaccines to individuals, Anti-malarials should be distributed to all health facilities in the country.
- Ministry of Agriculture and Food Security to ensure continuous crop monitoring in order to provide early warnings and timely intervention.
- Government to embrace good economic practices and diversify the economy in order to arrest hyperinflation.
- Ministry of Humanitarian Affairs and Disaster Management & RRC to establish and embrace people-centred integrated early warning systems.