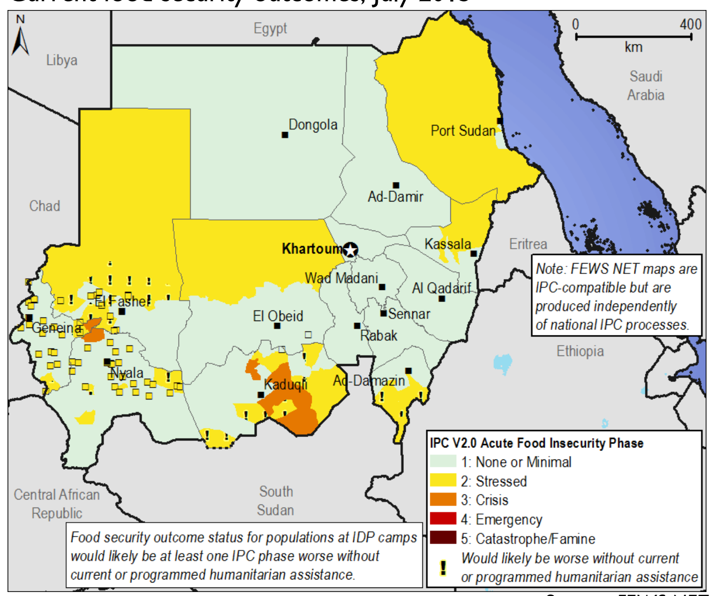
Sudan Food Security Outlook — July to December 2015

Below-average rainfall delays main season planting across most of Sudan

KEY MESSAGES

- Cumulative seasonal rainfall has been below-average across most of Sudan's main agricultural production areas with May to July rainfall totals ranging between 25 and 50 percent of normal in some areas. Poor rainfall performance has delayed planting in many rainfed cropping zones and vegetation conditions are currently below-average across much of the Darfur region, in the eastern surplus-producing areas of Sinar, Gadaref, and Kassala states, and in localized areas of North and South Kordofan.
- The IGAD Climate Prediction and Application Centre (ICPAC) and the Sudan Meteorological Authorities (SMA) forecast average to below-average rainfall through September across Sudan, particularly in the main rainfed surplus production areas of Kassala, Gadaref, SInar, Blue Nile, White Nile, Gazeira, and Khartoum, and normal to above-normal rains in Darfur and Kordofan, the second most important rainfed production region in Sudan.
- Levels of acute food insecurity have decreased this year compared to last year due to the effects of 2014/15 surplus production on food availability, market supply, and prices. Food security is expected to deteriorate from August to September as the lean season peaks, and improve from October to December as harvests increase food availability.

Current food security outcomes, July 2015



Source: *FEWS NET*

This map represents *acute* food insecurity outcomes relevant for emergency decision-making. It does not necessarily reflect *chronic* food insecurity. Visit www.fews.net/IPC for more on this scale.

SEASONAL CALENDAR FOR A TYPICAL YEAR

Source: *FEWS NET*

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NATIONAL OVERVIEW

Current Situation

As of July 2015, an estimated 4 million people in Sudan face Stressed (IPC Phase 2) and Crisis (IPC Phase 3) acute food insecurity. Most of these populations are in conflict-affected areas of Darfur, South Kordofan, West Kordofan, and Blue Nile states, with additional pockets of Stressed (IPC Phase 2) populations in drought- prone areas of Red Sea, North Kordofan, North Darfur and Kassala states. About 65 percent of the current food insecure population is in Darfur and 14 percent in South Kordofan. Crisis (IPC Phase 3) acute food insecurity is mainly among internally displaced persons (IDPs) in SPLM-N controlled areas of South Kordofan and IDPs in Darfur displaced in the last six months due to conflict.

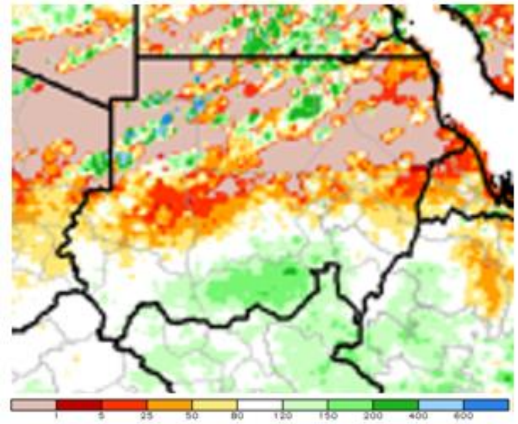
Cumulative seasonal rainfall has been below-average in Sudan's main agricultural production areas, particularly in the East and across parts of Darfur (Figure 1). May to July rainfall was 25 to 50 millimeters (mm) below average across parts of Darfur and North Kordofan, and 100 to 200 mm below average along the eastern border, particularly in Kassala and Gadaref states (Figure 2).

Below-average rainfall has disrupted land preparation and delayed planting in most rainfed cropping zones. Poor rainfall performance, in addition to recent fuel shortages in some parts of the country, have disrupted land preparation, resulting in significant delays in planting in rainfed cropping zones. Vegetation conditions, as indicated by the Normalized Difference Vegetation Index (NDVI), are currently below-average across much of the Darfur region, in the eastern surplus-producing areas of Sinar, Gadaref, and Kassala states; and in localized areas of North and South Kordorfan (Figure 3). This is likely due to a combination of moisture deficits and resulting delays in planting in these areas.

Ongoing political and inter-communal conflict in Darfur and Blue Nile continues to cause displacement and disrupt livelihoods. Fighting between Sudan Armed Forces (SAF) and the Sudan People's Liberation Movement–North (SPLM-N) in Wad Abok Locality, Blue Nile State, displaced 24,500 people in June, mainly to towns in Bau and Altadamon localities, according to findings of an inter-agency assessment in Bau. In Darfur, fighting between the Rezeighat and Habania tribes since the mid-July in Sunta locality, South Darfur, and heightened tensions between Zayadia and Berti tribes in North Darfur have disrupted planting in these areas.

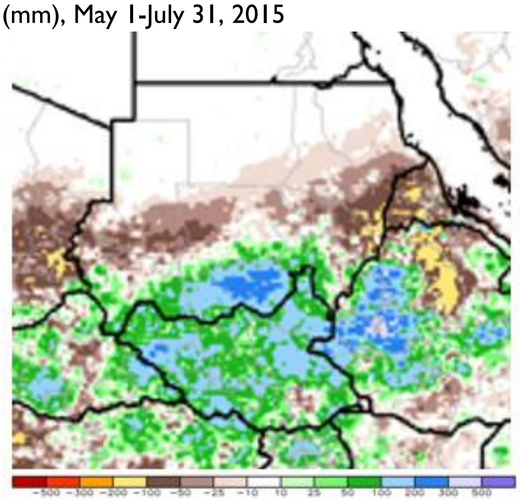
Humanitarian assistance delivery to conflict-affected areas of Darfur improved in June/early July due to increased access. WFP conducted food aid distributions in Mellit (North Darfur), Abu Kairnka (East Darfur), and West Jabal Marra (Central Darfur) localities in June. In late June/early July, the ICRC distributed 1,772 metric tons (MTs) of food assistance and 716 MTs of seeds to 237,500 beneficiaries in Jabal Marra.

Figure 1. Percent of normal rainfall (%), May 1-July 31, 2015



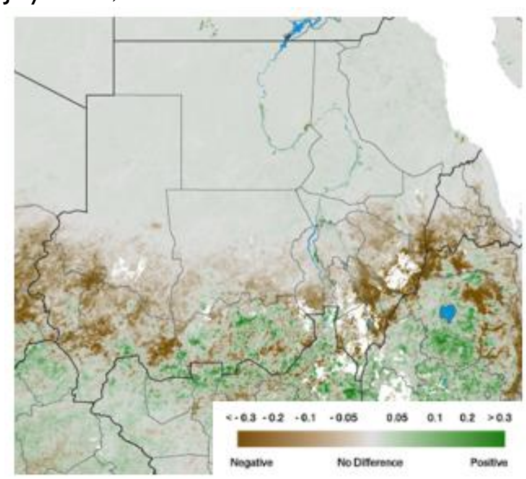
Source: *FEWS NET/NOAA*

Figure 2. Total rainfall anomaly in millimeters (mm), May 1-July 31, 2015



Source: *FEWS NET/NOAA*

Figure 3. Normalized Difference Vegetation Index (NDVI) anomaly from 2001-2010 mean, July 21-31, 2015



Source: *FEWS NET/USGS*

Sorghum and millet prices remained unseasonably stable or declined in June due to above-average market and household-level grain availability. However, cereal prices remain above the five-year average. Cereal prices typically begin to increase as availability declines and demand increases with the start of the lean season in June. However, large 2014/15 production surpluses have maintained supply levels, keeping prices low. Sorghum prices in the main source market of Gadaref declined by 11 percent in June (Figure 4). On average, June sorghum and millet prices declined by roughly 20 percent compared to last year, but were 40 and 70 percent above the five-year average, respectively.

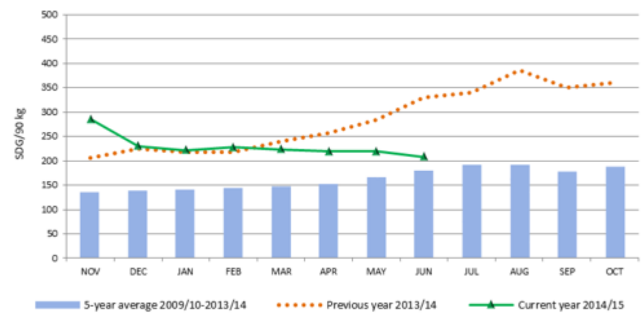
The Government of Sudan (GoS) reduced subsidies for wheat imports in June by raising the exchange rate for imported wheat from 2.9 to 4 SDG per 1 USD. This decision was likely influenced by declining wheat and fuel prices on the international market. However, this change is not yet reflected in retail bread prices in Sudan. On average, wheat prices in June were 15 percent above June 2014 levels, and 75 percent above the five-year average.

Sorghum to daily wage labor terms of trade (ToT) declined seasonably or remained stable between May and June. Sorghum to daily wage labor ToT declined in markets where sorghum prices increased. For example, ToT declined by 16 percent between May and June in Zalingi, Central Darfur, but remained relatively stable in Gadaref due to sorghum and daily wage price stability (Figure 5).

National inflation continued a downward trend, decreasing by 60 percent compared to June 2014. According to the Central Bureau of Statistics, the rate of inflation declined by 7 percent from May to June, from 19.8 percent in May, and to 18.4 percent in June. Inflation has declined by 23 percent since January 2015.

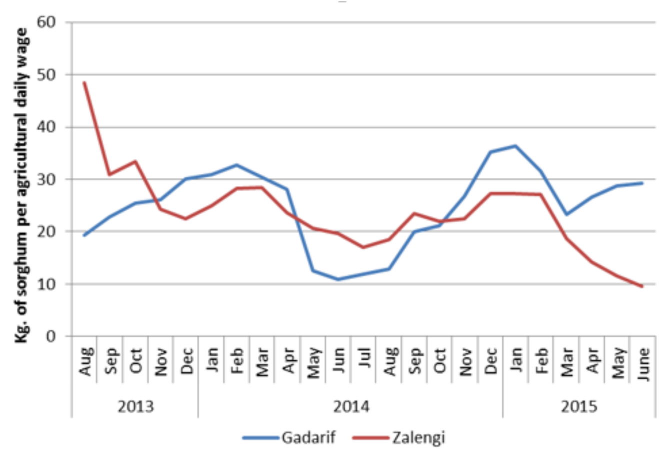
Escalating conflict in Upper Nile and Unity states of South Sudan led to an influx of South Sudanese refugees to White Nile, South Kordofan, West Kordofan and Khartoum states. According to UNHCR, over 38,000 refugees arrived in Sudan during the month of June, the largest number of arrivals in one month since the conflict began in December 2013. New refugees cited violence, insecurity, and lack of food in South Sudan as the main reasons for displacement. According to an interagency assessment of South Sudanese refugees in Kharsana, West Kordofan, conducted in June, most new arrivals reported complete loss of assets, including cattle. As of late July, the South Sudanese refugee population reached 198,000 since the conflict began. Currently, about half of South Sudanese refugees have received some form of humanitarian assistance.

Figure 4. Sorghum prices in Gadaref market from January to June 2015, compared to last year and the five-year average



Source: FEWS NET/FAMIS

Figure 5: Sorghum to daily wage labor terms of trade in Gadaref and Zalingi markets, August 2013 to June 2015



Source: FEWS NET/FAMIS

Assumptions

From July to December 2015, the projected food security outcomes are based on the following national key assumptions:

- **Rainfall is expected to remain below average across main surplus production areas of central and eastern Sudan.** Rainfall performance has been below average across most of Sudan's main agricultural production areas. The IGAD Climate Prediction and Application Centre (ICPAC) forecasted average to below average rainfall across most of Sudan during the June to September period. The Sudan Meteorological Authorities (SMA) provided more detailed forecasts for the four main agricultural regions of Sudan, with normal to below-normal rainfall in main rainfed surplus production areas of Kassala, Gadaref, SInar, Blue Nile, White Nile, Gazeira, and Khartoum , and normal to above-normal rainfall in Darfur and Kordofan, the second most important rainfed production region in Sudan (Figure 6).

- **Reduced area planted is expected in rainfed production areas due to poor early-season rainfall performance and expectations of below-average rains through September**. FEWS NET assumes a decline in overall area planted compared to last year and the five-year average.

- **2015/16 production is likely to be below-average, due to a combination of reduced area planted and below-average main season rainfall performance in traditional rainfed production zones**. Harvesting is likely to be begin later than normal in many areas due to delayed planting.

Figure 6: SMA rainfall forecast for Sudan, June to September 2015

Region	States per region	Importance for rainfed production	June-September rainfall forecast
Region I	River Nile, Northern	Low	Normal
Region II	Red Sea	Low	Normal
Region III	Kassala, Gadaref, SInar, Blue Nile, White Nile, Gazeira, Khartoum	High	Normal to below-normal
Region IV	Darfur, Kordofan	Medium/ high	Normal to above-normal

Source: Adapted from the SMA June to September 2015 rainfall forecast

- **Reduced seasonal availability of pasture and water resources is likely to impact livestock body conditions and disrupt seasonal livestock migration, particularly in Darfur and North Kordofan**. The drier-than-normal vegetation conditions observed in July across much of Darfur and parts of Kordofan are likely to persist, reducing access to grazing land for livestock.

- **Sporadic hostilities between SAF and armed opposition groups in Darfur, South Kordofan and Blue Nile state are likely to continue, but decrease in intensity from July to September due to reduced mobility during the peak rainy season.** Increased competition over pasture and water resources is likely to cause resource-based conflict between pastoralist and agricultural communities, particularly in Darfur. Despite expectations that conflict will decline in the coming months, FEWS NET assumes that the total number of IDPs displaced over the course of 2015 will reach 250,000 to 300,000 people by the end of the year.

- **FEWS NET assumes that most IDPs in conflict-affected areas will not access their farms for cultivation this year.** Reduced access to seasonal agricultural labor—the main source of income for the poor during the scenario period—is also expected among IDPs and resident communities, in areas where conflict is ongoing. Millet and sorghum prices are expected to rise from July to September, in line with seasonal trends. Although cereal prices remained atypically stable or declined through June due to continued adequate supply levels and low demand from last season's surplus production, traders are likely to respond to poor early season rainfall performance by holding on to tradable stocks. The resulting reduction in market supply is likely to drive prices upward. FEWS NET assumes millet and sorghum prices will increase by 10 to 15 percent over the course of the July to September period.

- **Sorghum exports are likely to remain low due to the high price of domestic sorghum on international markets**. Although sorghum prices continued to decline through June, current sorghum prices remain far above the export parity prices on the international market and with neighboring Ethiopia, but lower than in markets in South Sudan. Thus, Sudan sorghum is competitive for export to South Sudan, but not to Ethiopia or on the international market. However, high levels of insecurity in South Sudan have discouraged trade there.

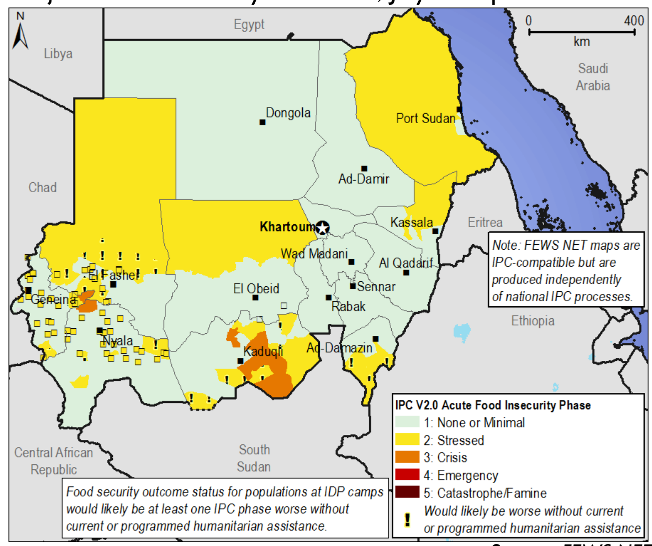
- **Cereal to daily wage labor ToT is expected to remain stable from July to September and begin to increase seasonally in October**. FEWS NET assumes the seasonal increase in labor wages will keep pace with the projected 10 to 15 percent increase in staple food prices during the scenario period.

- **Population inflow from South Sudan is expected to continue, mainly to White Nile, South Kordofan and West Kordofan states due to ongoing conflict and widespread food insecurity in the Greater Upper Nile region of South Sudan**. FEWS NET estimates an additional 30,000 to 50,000 refugees will arrive in Sudan in the coming six months. The size of the South Sudanese refugee population is likewise expected to reach 230,000 to 250,000, the majority of which will require emergency food assistance.

Most Likely Food Security Outcomes

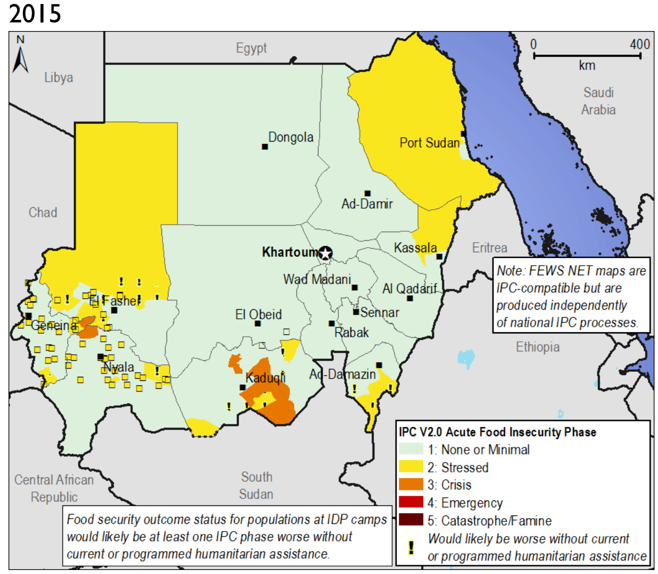
Last season's surplus production has sustained above-average market supply levels and household food stocks for longer than normal, resulting in improved availability and access to food compared to a typical year. However, poor households are expected to increase reliance on markets for food as household stocks decline in the coming months, as the lean season progresses. Although staple food prices are lower than last year, current price levels remain well above-average. Most households will be able to meet food needs, but high food prices will reduce the ability of many poor households to meet essential non-food needs. These households will remain Stressed (IPC Phase 2) in the coming months. Acute food insecurity likely to persist among IDPs in conflict-affected areas of South Kordofan, Blue Nile, and Darfur states due to high market dependency, and limited access to income earning opportunities. Roughly 30 percent of IDPs in Darfur will be able to meet food needs, but only with humanitarian assistance and will remain Stressed (IPC Phase 2!). Crisis (IPC Phase 3) will persist among an estimated 25 to 30 percent of IDPs in SPLM-N controlled areas of South Kordofan, and among newly displaced IDPs in areas of Darfur worst-affected by conflict due to limited access to markets, income, and humanitarian assistance.

Projected food security outcomes, July to September 2015



Source: *FEWS NET*

Projected food security outcomes, October to December, 2015



Source: *FEWS NET*

These maps represent *acute* food insecurity outcomes relevant for emergency decision-making, and do not necessarily reflect *chronic* food insecurity. Visit www.fews.net/IPC for more on this scale.

AREAS OF CONCERN

SPLM-N-controlled areas of South Kordofan State

Current Situation

Conflict between SAF and the SPLM-N continues to be the main driver of food insecurity in South Kordofan, particularly in SPLM-N areas. Conflict escalated and aerial bombardments increased in recent months as the GoS continued its "decisive campaign" to pacify rebels from Darfur and South Kordofan, before the start of the rainy season. Al Buram, Um Dorein, Dalami, Heiban and western parts of Kadugli localities are the areas worst-affected by the recent conflict, resulting in continued population displacement.

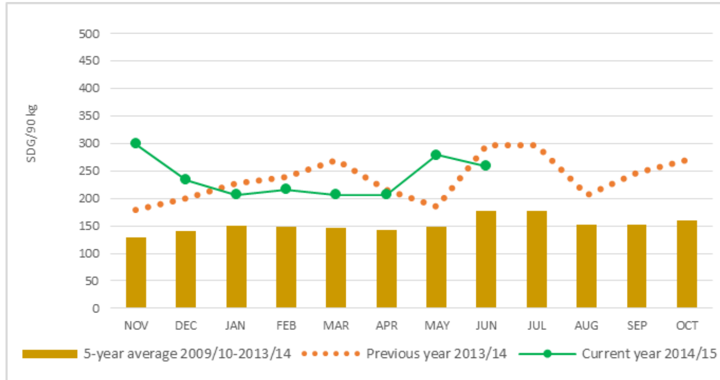
Cultivation in SPLM-N-controlled areas of South Kordofan remains limited by high levels of insecurity, and shortages of agricultural inputs, leading to reduced area planted.

Following a significant increase between April and May, sorghum and millet prices in Kadugli marginally decreased in June (Figure 7). Current cereal price levels in South Kordofan are on average, 15 percent below their respective 2014 levels but remain 45 percent above the five-year average. Available information from SPLM-N controlled areas suggests similar trends, although prices in SPLM-N-controlled areas are reportedly 30 to 40 percent higher than in GoS-controlled areas.

Access to food and income among IDPs and poor households remains restricted by ongoing conflict and insecurity. Restricted population movements in SPLM-N-controlled areas continues to limit access to markets, farmland, and grazing areas. Currently, IDPs and poor host communities rely on collection and sales of forest products (wood, charcoal and wild foods), and limited agricultural labor opportunities within SPLM-N areas, in addition to remittances as main sources of income. Many households have resorted to borrowing to compensate for large income gaps.

As of June 2015, available information from SPLM-N areas suggests that IDPs and poor households in SPLM-N areas have little to no food stocks and cereal supply remains scarce on local markets. Most households have exhausted food stocks or lost remaining stocks to looting by warring parties. Heavy restrictions on trade flows from GOS to SPLM-N-controlled areas cause persistent cereal shortages on markets which are supplied with very small quantities of smuggled food commodities. Most SPLM-N areas remain inaccessible to humanitarian agencies.

Figure 7. Nominal retail sorghum prices in Kadugli in 2015 compared to last year and the 5-year average.



Source: FEWS NET/ FAMIS

Assumptions for South Kordofan

In addition to the national-level assumptions specified earlier, this Outlook makes the following assumptions for SPLM-N controlled areas of South Kordofan State in particular:

- **Although direct fighting between SAF and SPLM-N is expected to ease during rainy season, conflict and insecurity is likely to remain a major threat to lives and livelihoods** in SPLM-N-controlled areas during the second half of 2015.

- **Ongoing conflict in South Kordofan and South Sudan is expected to disrupt access to normal grazing areas within South Kordofan as well as trans-boundary livestock migration to South Sudan.** Resourced-based conflicts will likely increase due to increased competition over limited grazing and water resources in South Kordofan, and in SPLM-N-controlled areas in in particular.

- **Below-average main season harvests are expected, and harvesting will likely begin later than normal due to conflict-related disruptions to agricultural activities, reduced area planted, and expectations of below-average rainfall.** Harassment of farmers by armed militias is common and will likely increase as harvesting begins in November/December, further reducing net production. Overall, 2015/16 production is expected to decline compared to last year.

- **Household access to food is expected to decline significantly from August to September, during peak lean season. Food access will** improve as early maturing crops and wild foods become available starting in October, and increase as the harvest period begins in November/December. Income sources will remain limited from July to December.

- **Populations in SPLM-N areas will remain cut-off from humanitarian** assistance due to ongoing access restrictions to these areas by humanitarian agencies.

Most Likely Food Security Outcomes for SPLM-N-controlled areas of South Kordofan

Food consumption is expected to decline during the August to September peak lean season. FEWS NET estimates that roughly 40 percent of IDPs and poor households are expected to experience **food deficits** during the first half of the scenario period and will face **Crisis (IPC Phase 3)**. Some improvements in food security are expected from October to December as food availability increases during the pre-harvest/harvest period. However, the combination of reduced harvests, persistently high cereal prices, and low household purchasing power will prevent an estimated 20 to 30 percent of IDPs and poor households from meeting basic food needs during this period and **SPLM-N controlled areas** of South Kordofan will remain in Crisis (IPC Phase 3).

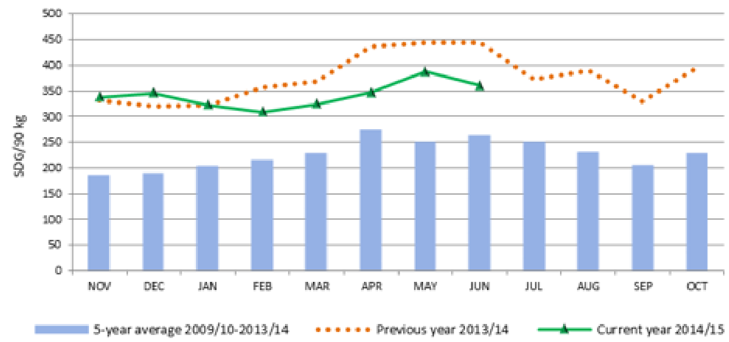
Mellit Locality, North Darfur State

Current Situation

Despite above-average 2014/15 production, North Darfur will have a food balance sheet deficit of 107,000 MTs, 45 percent of annual food requirements. Mellit locality alone likely will run minor food balance sheet deficit of about 1,800 MTs.

Conflict between Zayadia and Berti tribes since March 2015 has displaced over 50,000 people in Mellit locality. Fighting between Berti (sedentary farmers) and Zayadia (pastoral) erupted in March 2015, due to competition over natural resources and cattle raiding in Mellit and Al Kuma localities in North Darfur. Displaced households lost assets including food stocks and livestock, and relied on host communities for food until June/July when most IDPs received food assistance equivalent to two months-worth of full rations (2,100 Kcal per person per day).

Figure 8. Nominal retail sorghum prices in El Fasher, North Darfur state in 2015 compared to last year and the 5-year average.



Sources: FEWS NET/FAMIS

Heightened conflict from March to May disrupted trade flow and reduced supplies of staple foods within North Darfur. Consequently cereal prices steadily increased in EL Fasher, North Darfur's main cereal market, during this period but declined in June following large-scale food aid distributions, and improved road access for trade (Figure 8). June sorghum prices in EL Fasher declined by 22 percent compared to last year but remain 35 percent above the five-year average.

Daily wage labor to sorghum ToT improved by 16 percent between June and July, due to the decline in sorghum prices as wages remained stable. Agricultural labor, brick-making, sale of grass and firewood, remittances, and domestic labor in main urban areas are the main income sources for most of IDPs in North Darfur. Wages remained relatively stable over the past three months.

Assumptions for Mellit locality:

In addition to the national-level assumptions specified earlier, this Outlook makes the following assumptions for newly displaced people in Mellit locality of North Darfur in particular:

- **Despite efforts of the North Darfur State government to promote reconciliation between the Berti and Zayadia tribes, sporadic fighting is likely to continue due to** seasonal cattle migration of Zayadia pastoralists during the cultivation season which will likely trigger resource-based conflict in the area. FEWS NET assumes sporadic clashes between the two tribes will displace an additional 10,000 to 15,000 in the coming six months.

- Income from seasonal agricultural labor will increase due to growing labor demand during the pre-harvest/ harvest period. However, sorghum to daily wage labor ToT are expected to deteriorate from July to September as cereal price increases outpace wage increases.

- **Average to below-average June to September rains likely to result in average to below-average harvest in most parts of North Darfur state.** Main season rains have not yet started in most parts of Mellit, an area typically prone to drought. Late start of season rainfall has already caused major delays in planting, which is normally complete by the end of July. Given the current poor seasonal performance and significant delays to the start of seasonal rainfall, coupled with medium-term forecasts for Sudan, FEWS NET assumes average to below-average harvests in Mellit and other drought-prone areas of Darfur.

- **Most IDPs in Mellit are likely to have access to cultivation, although below typical levels.** Some IDPs are expected to return to relatively secure areas to cultivate, while others are likely to lease small to medium plots of land from relatives or host communities from the same clan. Lower population density in Mellit locality compared to other parts of North Darfur makes accessing land easier for IDPs in Mellit compared to other areas. FEWS NET assumes most IDPs in Mellit will cultivate this season enabling access to own food production starting in October when harvests begin.

Most Likely Food Security Outcomes

Ideally, the above average harvest of 2014/15, would have availed sufficient staple food from own harvest for most of resident communities in Mellit locality. However, the sudden eruption of the conflict between Berti and Zayadia in Mellit since March displaced over 50,000 people following widespread looting and destruction of assets and IDPs depended on kinship and host communities for food. With large-scale food assistance delivery since late June/early July has enabled new IDPs in Mellit locality to meet basic food needs. **These households currently face Stressed (IPC Phase 2!) which is expected to continue through December.**

EVENTS THAT MIGHT CHANGE THE OUTLOOK

Table 1: Possible events over the next six months that could change the most likely scenario.

Area	Event	Impact on food security outcomes
All Sudan	Above-average or average June to October rainfall	FEWS NET has assumed below-average rainfall in many areas of Sudan including: Kassala, Gadaref, SInar, Blue Nile, White Nile, Gazeira, Khartoum, Darfur, and Kordofan states based on seasonal performance through July and medium-term forecasts which suggest an increased likelihood of below-average rainfall in these areas. Should seasonal rainfall performance improve to average or above-average levels, food security outcomes will be better than expected during the October to December period. In this scenario, the majority of poor households would improve to Minimal (IPC Phase 1) by the starting of the harvest in October 2015.
All Sudan	Below-average June to October rainy season that will result to below-average harvest	Below average harvest of 2015/16 agricultural season in Sudan will reduce food availability and access and below average access to seasonal agricultural labor by poor households during the scenario period. The outcome would be above-average increases of staple food prices and below average income from seasonal agricultural labor. This will reduce the purchasing power of poor households during the scenario period and will negatively impact food security conditions of a majority of poor household. Below average rains will likely instigate resources driven tribal conflict in Darfur and West Kordofan.
All Sudan	The effect of 39 percent withdrawal of wheat subsidies reflected in retail bread prices.	Due to the remarkable shift toward wheat-bread consumption in recent years due to wheat subsidies in both rural and urban areas of Sudan, increases in retail bread prices is likely to reduce the ability of poor households to purchase their minimum requirements. Sharp increase of bread prices would likely trigger civil unrest in urban centers.
SPLM-N controlled areas of South Kordofan and rebel held areas in Darfur	Improved access to these areas by humanitarian agencies.	Distribution of food and non-food humanitarian assistance in these areas will improve food security of IDPs and host communities from Crisis (IPC Phase 3) to Stressed (IPC Phase 2!).

Conflict affected areas in Darfur	Improved security situation in Darfur	This is likely to lead to substantial access to cultivation and agricultural wage labour, markets and humanitarian assistance. Food and income sources for IDPs and poor households would be considerably improved and the food security situation become similar to normal.
Conflict affected people in Darfur	Further increase of violence and state of lawlessness across wide areas in Darfur	This will increase level of tribal conflict more than expected and massive displacement of people to existing IDP camps and relatively secure areas of Darfur. This is likely to result in complete failure of livelihoods and coping strategies of new IDPs in Darfur and lead to deterioration in food security situation.

ABOUT SCENARIO DEVELOPMENT

To project food security outcomes over a six-month period, FEWS NET develops a set of assumptions about likely events, their effects, and the probable responses of various actors. FEWS NET analyzes those assumptions in the context of current conditions and local livelihoods to develop scenarios estimating food security outcomes. Typically, FEWS NET reports the most likely scenario. To learn more about this approach to scenario development, visit www.fews.net/scenario_development.