## **SUDAN**

# FOOD INSECURITY LEVELS CONTINUE TO INCREASE DRIVEN BY THE WORSENING MACROECONOMIC SITUATION, POOR HARVEST AND CONFLICT

## IPC ACUTE FOOD INSECURITY ANALYSIS APRIL 2022 - FEBRUARY 2023

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### **Overview**

With significant increases in food and other commodity prices, a reduced harvest, and continued conflict, acute food insecurity in Sudan continues to worsen rapidly. Latest acute food insecurity data indicates that around 9.65 million people across Sudan were highly food insecure and classified in Crisis (IPC Phase 3) or worse from April to May 2022. This includes 2.3 million people in IPC Phase 4 (Emergency) and 7.3 million in IPC Phase 3 (Crisis). The prevalence of the population in IPC Phase 3 and above has moved from 13% (October 2021 – February 2022) to 20% (April-May 2022) to 24% (June-September 2022), driven by a plummeting economy, poor harvests and conflict.

The situation is projected to worsen between June and September, with up to 11.7 million people (an increase of 2 million) likely to be in Crisis or worse (IPC Phase 3 or above). This includes 3.1 million people in IPC Phase 4 (Emergency) and 8.5 million in IPC Phase 3 (Crisis).

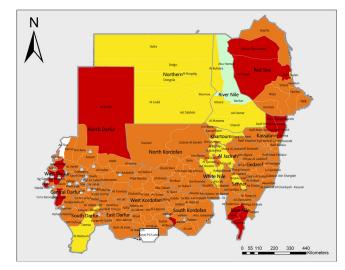
Northern, Western and Central Darfur, Khartoum, Kasala, White Nile host the highest caseload of IPC Phase 3 and Phase 4 during the projection period from June to September 2022. Urgent and timely interventions are needed to prevent these populations from slipping into worse phases.

In terms of trend analysis, the prevalence of the population in IPC Phase 3 or above has moved from 13% (October 2021-February 2022) to 20% (April-May 2022) to 24% (June-September 2022). This represents an increase of around 2 million food insecure people when comparing the same seasons in 2021.

With an additional 2 million people classified in IPC Phase 3 (Crisis) or above, the results reflect a significant increase in the expected magnitude compared to the same period last year (June to September 2021), when 9.8 million people were classified in IPC Phase 3 or above. The states that are projected to have the highest proportion of people in need of urgent action are West Darfur (42%), North Darfur (36%) and Central Darfur (35%).

The most affected groups are internally displaced people (IDPs), returnees, those stranded in conflict areas, refugees from South Sudan, Ethiopia, and other neighbouring countries, and poor groups from agro-pastoral and pastoral communities in rural areas of Western, Eastern and Northern Sudan, whose livelihoods are directly affected by the impact of lean season and macroeconomic crises.

PROJECTED PERIOD (JUNE	- SEPTEMI	BER 2022)
11.7M	Phase 5	0 People in Catastrophe
24% of the analysed population	Phase 4	3,103,000 People in Emergency
People facing high levels of acute food insecurity	Phase 3	8,550,000 People in Crisis
(IPC Phase 3 or above)  IN NEED OF	Phase 2	17,576,000 People in Stressed
URGENT ACTION	Phase 1	18,622,000 People in food security



### **Key for the Map**

### **IPC Acute Food Insecurity**

### Phase Classification

(mapped Phase represents highest severity affecting at least

20% of the population)



3 - Crisis

4 - Emergency 5 - Famine

Areas with inadequate evidence

Area receives significant humanitarian food assistance (accounted for in Phase classification)

> 25% of households meet 25-50% of caloric needs through assistance

> 25% of households meet > 50% of caloric needs through assistance

\*\* Medium

### **Key Drivers**



## Economic decline and inflation

The macro-economic situation in Sudan is worsening. Food prices have nearly tripled compared to 2021 and are projected to be more than 400-500 percent above the five-year average through the beginning of 2023.



### **Conflict induced displacements**

Conflict has forced over 3 million people out of their homes across Sudan. According to OCHA, between January and May 2022, about 84,758 people were displaced due to conflict, with the bulk of the uprooting in West and Central Darfur with similar patterns expected during the projection period. Intercommunal violence in Darfur, Kordofan, and Kassala states is expected to continue through the first projection period.



### The conflict in Ukraine

Domestic production of wheat only covers 15% of Sudan's wheat demand. In 2020, 60 % of the total wheat imported to Sudan came from Russia (55%) and Ukraine (5%). With a 1.7 million metric tonne deficit of wheat and a shortage of foreign currency for imports, there is expected to be a surge in wheat prices.



### **Poor harvest**

The early 2022 harvests were 35% below average, leading to a cereal deficit of 2.5 million metric tonnes. About 64% of the households in the current period reported do not have stocks to carry them over until the end of the lean season. This will likely lead to a more significant proportion of households relying on markets.



## FIRST PROJECTION OVERVIEW (June - September 2022)

### Overview of Key Drivers

In the first projection period (June - September 2022) corresponding to the lean season for most of the areas analyzed, an estimated 11.7 million people (24% of the population) are expected to be facing Crisis or worse outcomes (IPC Phase 3 and above). This includes 3.1 million in IPC Phase 4 (Emergency) and 8.6 million in IPC Phase 3 (Crisis). Of the 187 localities analyzed, 14 are likely in IPC Phase 4 (Emergency), and 138 will be classified in IPC Phase 3(Crisis). The results reflect a significant increase in the expected magnitude, with 2 million more people requiring urgent action to save their lives and livelihood compared to the same period last year (June to September 2021), when 9.8 million people were classified in IPC Phase 3 and above. The states that are projected to have the highest proportion of people in need of urgent action are West Darfur (42%), North Darfur (36%) and Central Darfur (35%). The most affected groups are internally displaced people (IDPs), returnees, those stranded in conflict areas, refugees from South Sudan, Ethiopia, and other neighbouring countries, and poor groups from agropastoral and pastoral communities in rural areas of Western, Eastern and Northern Sudan, whose livelihoods are directly affected by the impact of lean season and macroeconomic crises.

The unprecedented deterioration in conditions compared to previous years is driven by four major drivers: (a) the worsening macro-economic situation that has significantly diminished households' purchasing power, with the year-on-year inflation rates which were at 378.79 % in May 2021 and 192.21 % in May 2022 estimates, and not expected to further decrease; (b) the early onset lean season due to a below-average 2021-2022 harvest (CFSAM); (c) conflict-induced displacements, already at 3.2 million (IDTM) the end of 2021 and with an additional 84,758 people (OCHA) between January and May; and the persistent political instability. These drivers are further compounded by (d) the Ukraine Crisis, considering the high dependency of Sudan on wheat imports from Russia and Ukraine 60% of the total wheat imported).

The significant deterioration compared with the previous analysis is attributed to expectations of an early onset lean season, brought on by a below-average 2021-22 agriculture season, causing a cereal deficit of around 2.5 million metric tons. Moreover, prices are expected to continue the unprecedented upward trends triggered by a macroeconomic crisis, conflict, civil unrest and political instability and exacerbated by the escalated food and energy prices and supply chain failure due to the conflict in Ukraine. Over the projection period, based on FEWS NET's/ FSTS integrated price projections (May 2022), sorghum and millet prices are expected to be over 150-200 percent higher than last year and four to five times above the five-year average during the projection period across most markets in Sudan. According to the CFSVA (March, 2022), 80% of households spend more than three-quarters of their total expenditure on food, and increased prices and greater reliance on markets are expected to increase this proportion significantly.

Purchasing power will slightly improve with the rain season thanks to the increased demand for agricultural labour, but any mitigations are likely to be offset by many aggravating factors.

## **Key Assumptions for the projection period:**

**Economic crisis:** The poor macroeconomic conditions manifested through soaring devaluation of the local currency and soaring inflation rates are expected to continue in the projection period. The Sudanese pound is expected to continually devalue due to foreign exchange shortages, high inflation, and sharply increasing food and non-food prices.

**Poor harvest:** Due to the poor harvest in the 2021/22 production season, and an expected early onset of the lean season, more households depleting their stocks and relying on purchase from markets for food at record high price levels. According to CFSAM, the 2021 harvest was 35% below average, leading to a cereal deficit of 2.5 million metric tonnes.

**Ukraine Crisis:** Due to the below-average harvest, Sudan will likely need to import at least 2.5 million tonnes -mainly wheatfor the 2022 marketing year (January/December) in conjecture of higher than normal glabla food prices. In 2020, 80% of the total wheat imported came from Russia and Ukraine. National imports for Sudan are likely to be further hindered by the conflict in Ukraine, the lack of hard currency reserves in the official banking system, and the continued devaluation of the SDG. Very high wheat prices are likely to increase domestic reliance and demand for sorghum and millet, increasing sorghum and millet prices. The rising cost of fuel and fertilizers is expected to increase further.

**Conflict Induced Displacements:** Intercommoned violence in Darfur, Kordofan, and Kassala states will continue through the first projection period. Conflict in West Darfur and Influx of refugees from South Sudan as well as internal displacement, has affected the stability in certain localities. Conflict and a high number of internally displaced populations and refugees from South Sudan and Ethiopia. According to OCHA, between January and May 84,758 people were displaced due to conflict, with the bulk of the displacement in West and Central Darfur and during the projection period.

**Political instability** will likely persist throughout the period June – September 2022. The implementation of the economic reforms that started earlier last year remained on hold due to the international community's suspension of significant economic support.

Humanitarian Food Assistance: Considering it will be the peak of the lean season, the Humanitarian needs are expected to increase significantly during the first projection period. Based on available resources, Food Security sector partners are expected to assist around 5.3 million people over this period, with the bulk of the assistance concentrated in the Darfur and Kordofan states. Filling the resource gap to cover the entirety of the needs may face significant hurdles, considering competing crises in the horn of Africa, as well as the food consumption gaps created globally as a result of the Ukraine conflict. Moreover, humanitarian access may be challenged during the rainy season with restricted road access, as well as increased conflict in priority areas of the Darfur region.



The poor harvest in 2021/22 will lead to a greater proportion of households relying on markets. According to the CFSVA survey, only 14% of households surveyed had enough stocks to carry them through the lean season (i.e. greater than six months). The resultant increase in market dependence has already seen a significant increase in the expenditure on food, with an average of 80% of households spending more than 75 percent of their total expenditure on food.

Conflict is expected to continue to limit the food security of affected households in the Darfur and Kordofan regions, with the rainy season causing an upsurge in resource-based conflict leading to increased displacements and further restrictions on income and livelihood opportunities. Intercommunal violence in Darfur, Kordofan, and Kassala states has begun to increase again following the post-rainy season surge in violence because of the continued dispute over land and natural resources. Violence is expected to further escalate during the start of the rainy season, decline relatively during the June-October rainy season, and escalate again during the harvest season between November 2022 and January 2023. Nonetheless, violence will continue up to November and during the harvest season is likely to be at higher levels compared to 2021 due to increasing disputes over access to farming lands and competition for scarce natural resources between pastoralists and farmers. Government efforts to reduce violence are likely to be stymied due to the presence of multiple armed groups and factions.

Al Gedaref, Kassala, and Blue Nile states are expected to continue receiving refugees from Tigray Region. Tensions over the Sudan-Ethiopia border are likely to continue with increased military presence. Sporadic attacks by armed militia in eastern Sudan are likely to increase. Displacement/ migration is expected to continue. Sporadic inter-communal clashes are expected to continue in parts of Darfur, Kordofan, and Eastern Sudan. Displaced populations in relatively secure areas are expected to seasonally return to farming in their home areas to cultivate. Intercommunal conflict incidents and sporadic attacks on villages will continue/ increase, coinciding with the seasonal movements of normadic groups to grazing areas in the five Darfur states, the three Kordofan states, Sennar and Kassala states. According to IOM, more than 56,000 people were displaced over the inter-communal conflict in April 2022 in West Darfur, South Darfur, and South Kordofan states (IOM) and a total of 3.03 million people are displaced across the country. The number of refugees in the country is estimated at 1.1 million. The number is expected to increase in the projection period based on assumptions of increased conflict in affected areas, as well as in neighbouring countries.

The above elements are further aggravated by the Ukraine Crisis: Sudan is heavily dependent on wheat imports, with 85% of the country's total wheat requirements coming from imports. Demestic production of wheat only covers 15% of Sudan's wheat deman. In 2020, 60 % of the total wheat imported to Sudan came from Russia (55%) and Ukraine (5%). With a 1.7 million metric tonnes deficit of wheat and a shortage of foreign currency for imports, there is likely to be a huge surge in wheat prices along with prices of other cereals as consumers substitute wheat for other cereals. The rising cost of fuel and fertilizers are likely to increase further. Shocks related to the Russia–Ukraine conflict (notably higher food and oil prices), including the lack of a sustainable hard currency stream and the increased need to import essential food and non-food items, will likely drive further currency depreciation. Continued increases in the prices of food and transportation and the local food basket are expected to negatively impact the purchasing power of poor households and likely drive an increase in the inflation rate.

### **Food Availability**

According to the annual Crop and Food Supply Assessment Mission (CFSAM), total cereal production for the 2021/22 summer and winter seasons is estimated at around 5.1 million metric tons, against a 7.6-million-ton cereal requirement and 36 percent below the five-year average. Following the below-average harvest in the 2021-22 agriculture season would likely leave Sudan with around a 2.5-million-tonne cereal supply gap for the consumption year, January to December 2022. Of particular concern is the deficit in

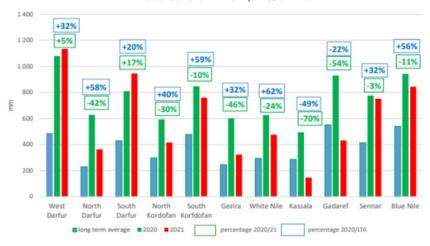
wheat, with the import requirement estimated at 1.7 million tonnes.

The available locally produced cereal will provide around 67 percent of the 7.6 million tons of cereal estimated for annual need. According to 2020 average estimates, 60% of the wheat imported was from Russia and 20% from Ukraine. Alternate supply channels include the United States and Argentina, which would greatly increase transportation costs and thereby increase the price of wheat and bread. The population that will be most affected will be the urban poor, who typically consume bread as a staple

Low production will translate into a lean season that will be harder than in previous years as

Graph 1. Cumulative rainfall comparison in selected sates (mm and percent).

Source: CFSAM 2021, FAO/GIEWS



households will deplete stocks earlier than in a normal year. According to CFSVA results, 80% of households reported having stocks for less than three months (including 64% reporting they had no stocks) and therefore will rely entirely on markets. The demand for purchasing local cereal consumption is expected to increase in most parts of the States due to earlier depletion of food stock at households' level. Most households will rely on purchasing from markets while some pastoral areas are expected to witness slight

Table 1. Cereal Production by sector ('000 tonnes). Source: CFSAM 2021, FAO/GIEWS

		Sorghum			Millet			Wheat	
Sector	Five-year average <sup>1/</sup>	2020/21	2021/22 (forecast)	Five-year average <sup>1/</sup>	2020/21	2021/22 (forecast)	Five-year average <sup>1/</sup>	2020/21	2021/22 (forecast)
Irrigated	686	865	468.80	5	5	0.15	687	693	601.5
Semi-mechanized rainfed	2 363	2 195	1 727.00	111	182	89.00	-		0.0
Traditional rainfed	1 880	2 093	1 332.55	1 491	1 731	811.00	4	2	0.2
Total	4 929	5 153	3 528.40	1 607	1 918	901.00	691	695	601.7

Note: Totals computed from unrounded data

improvement during the rainy season due to improving pastures availability and livestock products.

Based on the NMME (North American Multi-Model Ensemble), WMO (World Meteorological Organization), and C3S forecasts, the June to September 2022 main rainfall season in Sudan is expected to be above average however this will likely translate also in an increased risk of floods. Based on current atypical river water levels, current atypical flood extent, and past occurrences trends, a fourth consecutive year of atypically extensive floods is expected to occur near major river basins in Sudan. There is an increased likelihood of a "20-year return period level" occurring near major river basins in Sudan. Increased likelihood for above normal mean temperature in northern and northeastern Sudan, below normal temperature is expected in the other parts in Sudan. Food availability for pastoral and agropastoral households will improve slightly as the rainy season will see an improvement in livestock products with improved pasture conditions. The expected start of the season indicates a normal start in most regions of Sudan with relatively early onset in the south and southeast of the country due to the prediction of precipitation; it also indicates a relative delay at the beginning of the season in western Sudan (West Kordofan, Central and Southern Darfur states).

### **Food Access**

Macroeconomic situation: Sudan's macroeconomic situation has continued to deteriorate at an increasing pace since October 2021. The implementation of the economic reforms that started earlier last year remained on hold due to the suspension of major economic support by the international community. This economic crisis is expected to continue throughout the year with the persistent lack of a sustainable hard currency stream and the increased need to import essential food and non-food items, which will likely drive further the currency depreciation. In April 2022, the official foreign exchange rate was at SDG 446.35, while the parallel exchange rate was recorded at 570 SDG. A direct consequence of the currency depreciation will be further upward pressure on food prices and transportation costs. Unrelenting increases in the prices of food and transportation and the local food basket are expected to continue impacting the purchasing power of poor households. In the projection period, the inflation rate is expected to remain alarmingly high. The inflation rate reaching record levels in July 2021 at 423% was at 263% as of March 2022 has a knock-on effect on the increasing trend of food prices and other essential services.

Food Prices: On average, 64% of the households in the current period reported do not have stocks to carry them over until the end of the lean season; the dependence on markets will further increase in the first projection period. Price levels, already at extremely high levels, are expected to further increase seasonally and will be significantly above the long-term average, further limiting households' food access. Despite the seasonal supplies, the prices for sorghum and millet remained above average during the post-harvest period, which is expected to increase during the lean season (June to September). Considering that sorghum is considered the main staple food crop in many parts of the country, especially in the east and centre parts of the country. Based on FEWS NET's/ FSTS integrated price projections, sorghum and millet prices are expected to be over 150-200 percent higher than respective last year and four to five times above the five-year average during the projection period across most markets in Sudan. The price of wheat is, however, expected to surge more dramatically. Despite the winter wheat harvest in April 2022, prices will continue to increase rapidly during the peak lean season of June to September 2022. They will remain nearly tripple compared to respective prices in 2021 and more than 400-500 percent above the five-year average through the beginning of 2023. Sudan only produces 15% of its total wheat requirement and rising importation costs and limited supply due to the Ukraine conflict are likely to elevate prices substantially. As poor households substitute their wheat with sorghum and millet, the prices of those commodities are likely to rise too. According to CFSVA estimates, around 82% of households spent more than three-quarters of their total expenditure on food between March and April, indicating extreme levels of economic vulnerability. This proportion is expected to increase in the projection period, with limited stocks from own production and surging food prices. The sharp increase in food prices is likely to affect more dramatically the urban population, which represents around 40 % of the total population in Sudan.

<sup>1/ 2016/17-2020/21</sup> average.

Due to the wide variety of crops, there is no single crop that dominates the national food basket. The sorghum crop is considered to be the main food basket in central and northern regions, while the millet crops represent the main food basket in western regions. Sorghum is the staple food for most people living in Sudan, except for the northern areas (Nahr al-Nil and Northern states) where wheat is more common. Sudan is among the three surplus-producing countries in the region. However, the domestic supply in May 2021/22 is projected to be significantly below average (FEWSNET/ FSTS, April 2022). Moreover, the exports of sorghum from distant production and collection markets in Sudan to South Sudan will likely be hampered by ongoing civil unrest in Sudan: informer cross-border outflow of sorghum to adjacent countries affects both availability and prices of sorghum in the country.

Livestock prices: are expected to follow seasonal trends but at relatively high-level prices compared to average due to high inflation and local currency depreciation. Prices are expected to relatively decrease seasonally during the lean season, June to September, as households will sell additional livestock to fund staple food purchases and build household food stocks in anticipation of the foreseen high cereal prices. The livestock-to-cereal terms-of-trade (TOT), a proxy for pastoral household purchasing power, is expected to seasonally deteriorate between June and September 2022 driven by the anticipated high increases in sorghum prices, while on the contrary, livestock prices are expected to remain relatively stable. Livestock-tocereal TOT is likely to remain 15-20% lower than the respective TOT in 2021, and 25-30 percent below the five-year average.

A slight improvement in purchasing power is however expected with the start of the rainy season, which will increase the income from the

agricultural labor opportunities. Wages are expected to begin seasonally increasing by June with the start of the cultivation season through August end of the weeding practices.

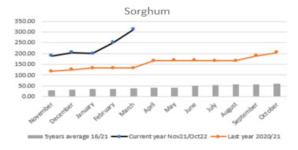
The Sudanese diaspora remittances are a potential mitigation measure that is expected to alleviate poverty, and support food and non-food-related needs, while improving the purchasing power slightly especially fueling the Sudan economy as well. This is due to the large number of people who are migrated to other countries to find good jobs with good income and hence support their relatives in the country. According to UNDP, annual remittances of around US\$3 billion are essential to Sudan's economy and society, empowered by a global diaspora. But, facing COVID-19, this lifeline is expected to fall by at least \$500m in 2020, comes from a diverse range of causes, from logistics to foreign job market contractions. Understanding this lifeline and maximizing its value as a foreign

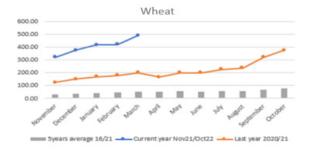
currency and investment source is crucial for a new Sudan. Remittance inflows to GDP (2.3%) in Sudan were reported in 2020, according to the World Bank collection of development indicators, compiled from officially recognized sources.

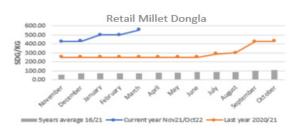
### **Food Utilization**

The community will have difficulty accessing water sources during the start of the lean season (June - September). The forecasted average to above-average rainfall will likely improve the availability of and access to water from August to November, however, expected disease outbreaks and the contamination of water sources may occur during the rainy season. Shortages of water for human consumption, especially in the desert, arid and semi-arid areas of the pastoral and nomadic communities, will expose these populations to diseases and health hazards.

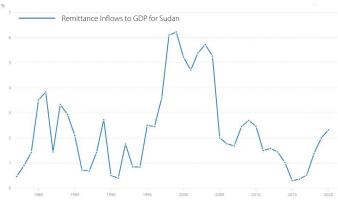
Graph 2. Cereal Prices trends. Source: FEWSNET.







Graph 3. Diaspora Remittance inflow in Sudan. Source: Worldbank.

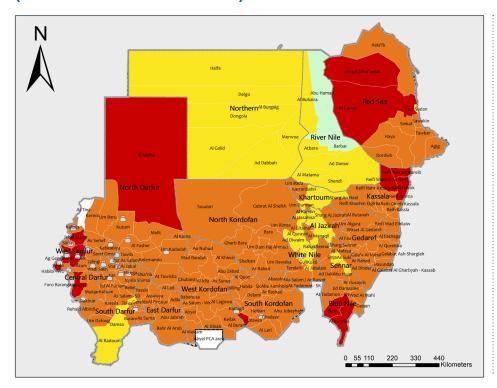


Source: https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS?locations=SD

Additionally, based on the CFSVA survey, most localities (21%) use water from boreholes while the majority use water boozers. Around 54% of the surveyed households reported using traditional pit latrines, while a staggering 26% reported using the bush (Red sea and White Nile have the highest reports of using the Bush). Most households have poor access to inadequate cooking fuel and proper storage facilities. Therefore, It is expected that the children's malnutrition will increase due to poor feeding practices and poor hygiene caused by water scarcity and the long distance to clean water sources in the rural areas.



# FIRST PROJECTION IPC ACUTE FOOD INSECURITY SITUATION (JUNE – SEPTEMBER 2022)



### Key for the Map IPC Acute Food Insecurity Phase Classification

(mapped Phase represents highest severity affecting at least 20% of the population)

1 - Minimal 2 - Stress

3 - Crisis

3 - Clisis

4 - Emergency 5 - Famine

Areas with inadequate evidence

Areas not analysed

Area receives significant humanitarian food assistance (accounted for in Phase classification)

> 25% of households meet 25-50% of caloric needs through assistance

> 25% of households meet > 50%

of caloric needs through assistance

Evidence Level

\*\* Medium

State	Total	Phase 1		Phase 2		Phase 3	;	Phase 4		Phase 5		Phase 3+	
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,687,557	2,222,454	39	2,525,064	44	765,335	13	174,705	3	0	0	940,040	17
Blue Nile	1,344,267	325,100	24	516,469	38	323,190	24	179,508	13	0	0	502,698	37
Central Darfour	1,786,503	478,383	27	689,310	39	419,759	23	199,052	11	0	0	618,810	35
East Darfur	1,139,027	380,264	33	442,220	39	255,999	22	60,544	5	0	0	316,543	28
Gadarif	2,545,604	780,014	31	1,090,446	43	533,715	21	141,429	6	0	0	675,144	27
Kassala	2,811,446	753,757	27	1,284,446	46	457,800	16	315,443	11	0	0	773,243	28
Khartoum	9,146,191	4,888,639	53	2,542,641	28	1,481,683	16	233,228	3	0	0	1,714,911	19
North Darfour	2,467,917	668,350	27	909,274	37	704,499	29	178,643	7	0	0	883,142	36
North Kordofan	2,160,476	637,501	0	855,352	40	475,870	22	191,753	9	0	0	667,623	31
Northern	1,023,194	579,754	57	289,961	28	90,992	9	62,487	6	0	0	153,479	15
Red Sea	1,549,857	379,149	24	739,535	48	304,684	20	126,488	8	0	0	431,172	28
River Nile	1,651,873	949,223	57	489,155	30	148,045	9	65,451	4	0	0	213,496	13
Sinnar	2,170,863	796,867	37	937,430	43	322,072	15	114,494	5	0	0	436,566	20
South Darfour	3,912,372	1,889,778	48	1,160,592	30	647,691	17	214,311	5	0	0	862,001	22
South Kordofan	2,017,962	723,206	36	673,757	33	423,291	21	197,708	10	0	0	620,999	31
West Darfour	1,940,860	466,628	24	657,893	34	478,190	25	338,149	17	0	0	816,339	42
West Kordofan	1,713,462	800,162	47	465,962	27	303,077	18	121,079	7	0	0	424,156	25
White Nile	2,811,999	903,163	32	1,306,131	46	414,079	15	188,626	7	0	0	602,705	21
Grand Total	47,881,430	18,622,392	39	17,575,637	37	8,549,970	18	3,103,098	6	0	0	11,653,068	24

Note: A population in Phase 3+ does not necessarily reflect the full population in need of urgent action. This is because some households may be in Phase 2 or even 1 but only because of receipt of assistance, and thus, they may be in need of continued action. Marginal inconsistencies that may arise in the overall percentages of totals and grand totals are attributable to rounding.



# SECOND PROJECTION IPC ACUTE FOOD INSECURITY SITUATION (OCTOBER 2022 – FEBRUARY 2023)

The situation remains extremely volatile with several highly unpredictable factors, most notably the conflict in Ukraine, the impacts of which can be much more consequential than envisioned in this analysis. Any changes in IPC projection assumptions should trigger an immediate update.

### Overview of Key Drivers

Al Malha in North Darfur, Geneina, Beida, Jabal Moon, and Kereneik in West Darfur, Bendasi in Central Darfur, Al ganab and Jabait-el-ma'aadin in Red Sea state, Reifi homash kureib, Reifi ad dalta, Reifi Telkok in Kassala, and Al Kurmuk, Baw in Blue Nile and Al Buram in South Kordofan state. The food security situation is expected to slightly improve during the second projection period compared to the first projection, where the prevalence of population in IPC Phase 3 and worse is 24% compared to 16% in the second projection period. In the period October 2022 to February 2023, around 1.6 million people are expected to be in Emergency food insecurity (IPC Phase 4), nearly 6.2 million people will be in crisis (IPC Phase 3), and over 17.7 million people are estimated to be Stressed (IPC Phase 2). This marks a slight decrease of magnitude from 8.5 to 6.2 million - 5% of the population analyzed - of people in Crisis (IPC Phase 3) and a slight decrease from 3.1 to 1.5 million - 2.8% of the population analyzed – in Emergency (IPC Phase 4) compared to the situation during the first projection period (June-September 2022). Furthermore, 14 localities are expected to move from IPC Phase 4 (Emergency) to IPC Phase 3 (Crisis) in the second projection period. The improved food supply to the markets from local production will lead to a shift of 2.4 million (5%) of the population to a better phase . The improvement is, however, not significant, considering that 63 localities will still be in IPC phase 3 (Crisis) in the second projection period.

High prices, low purchasing power, intercommunal conflicts, and seasonal floods will remain the key drivers of food insecurity. In this contest, the mitigating factor is constituted by the main harvest happening in this period of analysis, expected to alleviate the compromised access to food and income, driven by own production, in-kind payments for agricultural labour, and in-kind support from relatives compared to the lean season (June to September). Income from agricultural labour and cash crops' sale will also support market purchases of food when staple food prices are expected to seasonally decrease or at least stabilize.

Sudan's macroeconomic situation is expected to continue to deteriorate through the year 2022. The macroeconomic outlook indicates persistent risks of political instability and shocks related to the Russia–Ukraine conflict (notably higher food and oil prices), including lack of a sustainable hard currency stream and the increased need to import essential food and non-food items will likely drive further currency depreciation. Continued increases in the prices of food and transportation and the local food basket are expected to negatively impact the purchasing power of poor households and likely drive an increase in the inflation rate.

### **Key Assumptions for the projection period:**

**Macroeconomic situation:** Sudan's macroeconomic situation is expected to continue to deteriorate through the year 2022 and entering 2023. The persistent lack of a sustainable hard currency stream and the increased need to import essential food and non-food items will likely drive further currency depreciation. Continued increases in the prices of food and transportation and the local food basket are expected to continue affecting the purchasing power of poor households and continue driving drive an increase in the inflation rate.

**Prices:** Prices for sorghum and millet are anticipated to continue to unseasonably increase despite the harvest that will only partly mitigate the upward trend. Locally produced wheat prices are likely to remain more than double compared to respective prices in 2021 and more than 400-500 percent above the five-year average through the beginning of 2023.

**Purchasing power:** Agricultural labour opportunities and wages are expected to decrease seasonally between September and October following the end of the weeding practices before seasonally increasing by the beginning of the 2022/2023 harvest with labour wages.

**Climate Outlook:** Based on the NMME, WMO, and C3S forecasts, Sudan's June to September 2022 primary rainfall season is expected to be above average. However, national imports for Sudan are likely to be further hindered by the conflict in Ukraine, the lack of hard currency reserves in the official banking system, and the continued devaluation of the SDG. Very high wheat prices are likely to increase domestic reliance and demand for sorghum and millet, increasing sorghum and millet prices

**Conflict:** Violence is expected to further escalate during harvest season between November 2022 and January 2023. Nonetheless, violence in the lead up to and during the harvest season is likely to be at higher levels compared to 2021 due to increasing disputes over access to farming lands and competition for scarce natural resources between pastoralists and farmers.

Sudan's economic recovery in 2022 will depend on crucial international financial support. However, with the democratic transition now stalled, international aid will be limited, and minimal economic reform progress will likely persist throughout June – September 2022. Political instability and social tensions are expected to remain high. The current fiscal deficit is projected to narrow to 6.4% of GDP in 2022 and to 3.9% in 2023, reflecting ongoing structural reforms.

**The Humanitarian Food Assistance** in the second projection period was not been factored in due to the absence of funded plans covering the period October 2022 to February 2023.

Intercommoned violence in Darfur, Kordofan, and Kassala states will continue through the second projection period. Regional political tensions remain high due to the dispute around filling the Ethiopian Renaissance Dam (GERD). The inter-tribal conflict/tension is likely to increase during harvest as livestock herders will start the seasonal movements to the summer season grazing areas and are likely to increase clashes along the animal routes. The rate of displacement is expected to decline as some IDPs will try to join the harvest season in their rural areas, while some areas are likely to experience new displacements but with relatively low rates.

Against this negative outlook, and based on the NMME, WMO, and C3S forecasts, the June to September 2022 main rainfall season in Sudan is expected to be above average. Based on current atypical river water levels and atypical flood extent and past occurrences trends, a fourth consecutive year of abnormally extensive floods is expected to occur near major river basins in Sudan. There is an increased likelihood of a "20-year return period level" occurring near major river basins in Sudan.

The most affected groups in the second projection period will remain the Internally Displaced People (IDPs), returnees, people stranded in conflict areas, refugees from South Sudan, Ethiopia, and other neighboring countries, vulnerable groups within agropastoral and pastoral communities in rural areas of Western, Eastern and Northern Sudan and the urban poor, whose livelihoods are directly affected by the impact of price shocks, expected ongoing political unrest and possibly floods.

### **Availability**

Food availability during the second projection period will improve compared to the current and first projection periods. As the second projection coincides with the end of the lean season and the start of harvest, locally produced cereals such as millet and sorghum will be available for household consumption from own production in most of the main producing centers, possible decrease in food prices, improved purchasing power and replenishment of households' food stocks, ease of access for trade as well as humanitarian assistance. Areas expected to be affected by floods might face a shortage of cereals due to the need for replanting and impaired access. Medium loss of food stocks in areas affected by floods will continue contributing to reduced supplies and high demand. Expected delays in harvest due to replanting caused by waterlogging in some states will reduce the availability of households' production in some affected areas during November and December 2022.

### Access

During the second projection period, coinciding with the harvest season (October 2022 to January 2023), prices of sorghum and millet are anticipated to start decreasing seasonally as households' stock and market supply is expected to improve thanks to the new production. Nonetheless, prices are likely to remain high by 100-150% compared to last year and more than five folds compared to the previous five-year average, driven by the ongoing macroeconomic difficulties, conflict, and social unrest in most areas.



Graph 3. Observed and forecast Cereal Prices trends. Source: FEWSNET.

Based on FEWS NET/ FSTS integrated price projections, sorghum and millet prices are expected to be over 150-200 percent higher than respective last year and four to five times above the five-year average already in the first projection period, and likely remaining at very high levels despite a forecasted seasonal stabilization led by the harvest of sorghum and millet in October- November 2022.

The Ukraine conflict is expected to continue impacting negatively on the quantity and price of imported wheat. The shortage or extremely high prices of wheat is likely to manifest its peak during the second projection period until the locally produced wheat is harvested (March- April 2023). While the harvest of millet and sorghum can overall contribute to food security, the imported wheat shortage and its high prices are expected to continue pushing the bread price at extremely high levels, currently approaching 60 SDG per loaf.

Livestock prices are expected to follow seasonal trends but at a higher level compared to the five-year average due to high inflation and local currency depreciation. Livestock prices are expected to start seasonally decreasing from June to September as households sell additional livestock to fund staple food purchases and build household food stocks in anticipation of the expected high cereal



prices. Livestock prices are forecasted to either remain stable or slightly decrease from October 2022 to January 2023 in most markets (FEWSNET) due to the expected seasonally reduced supplies and improved animal body conditions. Overall, livestock prices are likely to remain almost double compared to last year and over 400 percent above the five-year average through 2022.

Agricultural labour opportunities and wages are expected to begin seasonally increasing by October with the start of the cultivation season through August end of the weeding practices. Wages decrease seasonally between September and October following the end of the weeding practices before seasonally increasing by the beginning of the 2022/2023 harvest with labour wages.

The livestock-to-cereal Terms-of-Trade (TOT), is likely to remain 15-20% lower than the respective TOT in 2021, and 25-30 percent below the five-year average this means the situation will remain the same.

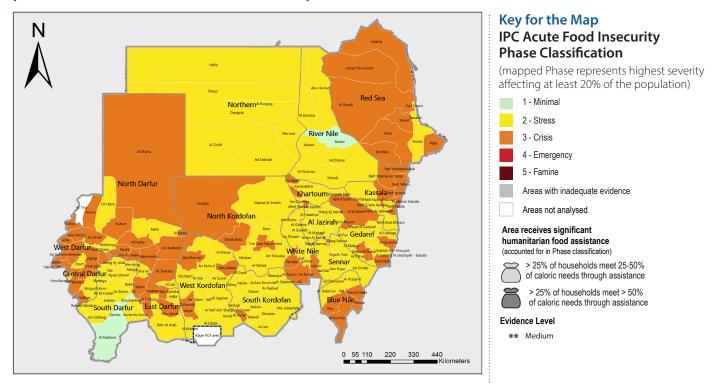
Households' purchasing power will slightly improve during the rainy season. However, the increase in sorghum prices is anticipated to remain above average compared to the last five years due to macroeconomic difficulties, high cost of production, SDG devaluation and the overall high inflation. therefore, prices are likely to reduce seasonally compared to the lean season but will remain above average respective to the harvest season relative to goat prices and labor wages, the rising cost of food and non-food needs, and limited access to income due to reduced economic activity and increased competition for income-earning opportunities are expected to constrain access to income and resulting in low purchasing power for pastoral and daily wage-dependent households. Purchasing power from remittances will increase slightly.

### Utilization

Following the rainy season, the flood-prone areas of Kassala, Gedaref, West Kordofan, Sennar, White Nile Eastern, and Western parts of the country are expected to be negatively impacted by reduced access to clean water. Shortages of water for human consumption, especially in the desert, arid and semi-arid areas of the pastoral and nomadic communities, will expose these communities to diseases and health hazards due to poor hygiene/ sanitation. Other important factors that will affect people's food security and livelihoods are the limited health services and the high cost. There is a noticeable shortage of medicines due to the shortage of hard currency, which will negatively impact the import of drugs and other medicines.



# SECOND PROJECTION IPC ACUTE FOOD INSECURITY SITUATION (OCTOBER 2022 – FEBRUARY 2023)



State	Total	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Phase 3+	
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,687,557	2,573,087	45	2,438,025	43	595,329	10	81,116	1	0	0	676,445	12
Blue Nile	1,344,267	459,887	34	561,171	42	220,423	16	102,786	8	0	0	323,209	24
Central Darfour	1,786,503	725,364	41	666,116	37	301,111	17	85,918	5	0	0	387,029	22
East Darfur	1,139,027	475,419	42	463,609	41	166,027	15	33,973	3	0	0	200,000	18
Gadarif	2,545,604	991,198	39	1,145,522	45	301,874	12	107,010	4	0	0	408,884	16
Kassala	2,811,446	1,043,379	37	1,218,780	43	371,012	13	178,274	6	0	0	549,287	20
Khartoum	9,146,191	5,345,949	58	2,606,664	29	1,111,262	12	82,316	1	0	0	1,193,578	13
North Darfour	2,467,917	827,417	34	1,096,541	44	443,101	18	100,858	4	0	0	543,959	22
North Kordofan	2,160,476	885,588	41	908,672	42	351,837	16	14,378	1	0	0	366,215	17
Northern	1,023,194	446,417	44	423,298	41	90,992	9	62,487	6	0	0	153,479	15
Red Sea	1,549,857	539,787	35	716,915	46	219,390	14	73,766	5	0	0	293,156	19
River Nile	1,651,873	1,001,885	61	482,795	29	105,753	6	61,440	4	0	0	167,193	10
Sinnar	2,170,863	957,806	44	918,154	42	278,732	13	0	0	0	0	278,732	13
South Darfour	3,912,372	2,526,747	65	912,284	23	445,722	11	27,619	1	0	0	473,340	12
South Kordofan	2,017,962	902,448	45	795,337	39	220,637	11	99,540	5	0	0	320,177	16
West Darfour	1,940,860	595,478	31	713,244	37	435,650	22	196,488	10	0	0	632,138	33
West Kordofan	1,713,462	915,041	53	496,287	29	231,134	13	71,000	4	0	0	302,134	18
White Nile	2,811,999	1,159,032	41	1,183,141	42	299,091	11	170,735	6	0	0	469,826	17
Grand Total	47,881,430	22,371,931	47	17,746,553	37	6,189,076	13	1,549,705	3	0	0	7,738,781	16

Note: A population in Phase 3+ does not necessarily reflect the full population in need of urgent action. This is because some households may be in Phase 2 or even 1 but only because of receipt of assistance, and thus, they may be in need of continued action. Marginal inconsistencies that may arise in the overall percentages of totals and grand totals are attributable to rounding.



### FOCUS ON THE IMPACT OF THE UKRAINE CRISIS

The expected impacts of the ongoing crisis in Ukraine and Russia are significant for Sudan, based not only on the relatively high consumption of wheat in the country, but also on the heavy reliance on imports from Russia and Ukraine to meet domestic demand. On average wheat constitutes 20% of the kilocalorie intake in the country (IFPRI). In a typical year, around 85% on average of Sudan's wheat requirement is met through imports, of which around 55% is supplied from Russia and 5% from Ukraine (IFPRI 2020 estimates). The demand for wheat in Sudan has been on the rise, especially in urban areas, which comprise around 35% of Sudan's total population.

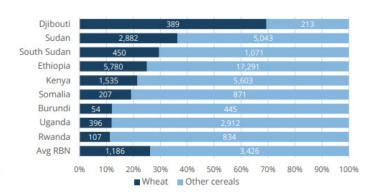
The wheat requirement in Sudan is estimated at 2.1 million metric tonnes, and domestic production in 2021 was estimated at 600,000 metric tonnes (CFSAM), leaving around 1.5 million metric tonnes of unmet needs that will be covered through imports. Strategic reserves of wheat are likely depleted (in June 2021 the government of Sudan estimated that the reserves would last until April 2022)

and the next wheat harvest is not expected until March-April 2023. Although it is too early to assess the alternate routes for wheat imports a potential major supplier is the United States. In the event that the United States is going to be the main source of wheat imports, the cost implications are likely to be substantial.

Consequently, wheat prices will surge, compounding the preexisting price crisis in Sudan, fueled by macroeconomic factors that have led to record inflation levels in the country over the last year. Wheat flour price increased in the local market from 178 SDG/Kg in 2021 to 600 SDG/Kg in Mar 2022 (WFP), a staggering 237% increase. The price projections for wheat show continued increases over the entire IPC analysis period.

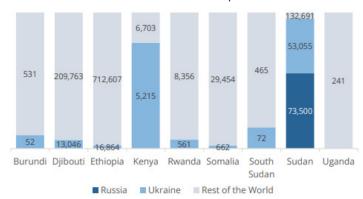
Sorghum, the main cereal staple crop in Sudan, remains an option as a substitute cereal. However, the next Sorghum harvest is not expected until October 2022, and with the below-average 2021 harvest, the country is witnessing an early onset of the lean season. Moreover, Sorghum prices, like wheat, have similarly risen sharply and are expected to continue on the same upward trajectory. With the onset of the harvest, the availability of sorghum will improve in the second projection of the IPC analysis (October 2022-February 2023), however, the increased demand from wheat substitution, as well as from the livestock sector, where poor pasture conditions have led to pastoralists using sorghum as animal feed, this is likely to add continued upward pressure on prices. Additionally, increasing prices of agriculture inputs stemming from the

Graph 5. Wheat demand (tonnes and share on total cereal demand) for 2021 marketing year (January – December). Source: FAO.



Graph 6. Sunflower-seed oil import (tonnes and share), 2020.

Source: ITC TradeMap.



rise in fuel prices, as well as limited supplies of fertilizer, are likely to limit farmers' production capacity and lead to a lower harvest. Lower production levels will also have implications for agriculture wage-labour opportunities, a major source of income in the upcoming lean season (June- September).

Sudan is among the top countries in eastern Africa importing significant quantities of sunflower-seed oil, 95% of the imported sunflower-seed oil in Sudan comes from Russia and Ukraine. Considering the size of sunflower-seed oils imports and the heavy reliance on supplies from Russia and Ukraine, Sudan is likely to be more vulnerable to anticipated conflict-induced trade disruptions once existing stocks are depleted.

The global fuel price increase caused by the crisis is likely to have a spillover effect on all commodities as transportation costs rise rapidly. The implications for inflation in Sudan are likely to be substantial, as the current inflation rates, estimated at 263% for March 2022, are already at unsustainable levels.

The global impacts of the crisis will also have implications for humanitarian funding in the country as donor resources are stretched thin and risk diversion to address the needs in Ukraine, as well as other countries affected by the crisis. As of 5 May, only 21% of the humanitarian response plan has confirmed funding.



## FOCUS ON COMPARISONS WITH THE PREVIOUS YEAR

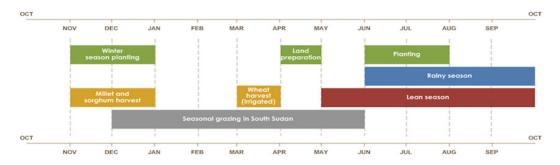
In 2020, at the peak of the Covid-19 pandemic doubling as a key driver, the highest population classified in Phase 3 or worse in the history of IPC in Sudan was recorded. Compared to the analysis conducted in April 2021, this analysis shows an increase in the number of people expected to be facing Crisis or worse outcomes across all analysis periods. In the March to April 2021 analysis, only 7.3 million people (16% of the population) were estimated to be in need of urgent humanitarian action, which increased to 9.6 million people (20%). The results of the current analysis period are similar to those projected for the lean season, June to September, indicating that the combination of unrelenting aggravating factors have pushed conditions in a post-harvest period to the same level as a typical lean season. In the 2022 lean season from June to September 2022, around 11.7 million people (24% of the population) are estimated to be facing high levels of acute food insecurity, which is the highest ever estimate recorded for Sudan, compared with 9.8 million projected to in the same phases over the lean season last year. The proportion of the population expected to face Emergency (IPC Phase 4) level outcomes has increased substantially over this period from 2.7 million (6% of the population) to 3.1 million.

			Su	ıdan				
	2020 A	NALYSIS		2021 ANALYSIS			2022 ANALYSIS	
	Current	Projected	Current	Projected	Projected II	Current	Projected	Projected II
	Including HFA	Including HFA	Including HFA (7M)	Including HFA (9M)	No HFA	Including HFA (3.3M)	Including HFA (5.3M)	No HFA
Analysis Periods	June-Sept 2020	Oct-Dec 2020	Apr-May 2021	Jun-Sep 2021	Oct 2021 – Feb 2022	Apr-May 2022	Jun-Sep 2022	Oct 2022 – Feb 2023
Population analyzed	45,198,109	45,198,109	46,568,824	46,568,824	46,568,824	47,881,430	47,881,430	47,881,430
Population in IPC phase 3 and above (Crisis and worse)	9,578,685	6,380,759	7,298,273	9,769,621	5,956,008	9,647,645	11,653,068	7,738,781
Prevalence of population in IPC phase 3 and above (Crisis and worse)	21%	14%	16%	21%	13	20%	24%	16%
Population in IPC phase 3 (Crisis)	7,410,682	5,657,268	5,457,113	7,072,838	4,631,480	7,325,982	8,549,970	6,189,076
Prevalence of population in IPC phase (Crisis)	16%	13	12%	15%	10	15%	18%	13%
Population in IPC phase 34 (Emergency)	2,168,003	723,491	1,841,160	2,696,783	1,324,529	2,321,662	3,103,098	1,549,705
Prevalence of population in IPC phase 4 (Emergency)	5%	2%	4%	5.80%	2.8	4.8%	6.5%	3.2%

Graph 7. Population in IPC Phase 3 and 4 (Crisis and Emergency), 2019-2023. Source: IPC Sudan.

## BACKGROUND ON THE PERIOD OF ANALYSIS – SEASONALITY IN SUDAN

In Sudan, the seasonality of the climate and production of crops and livestock produce play a crucial role in people's livelihoods and food security. Sudan is endowed with quite different livelihood zones receiving unimodal rainfall; however, it portrays some differences in the seasons due to geographic diversity and variability. The main rainy season for Sudan is between June and September. Despite this difference, the peak lean season in Sudan is considered to be from May to September. Sudan has three main livelihood systems: farming, pastoralism, and agro-pastoralism. Pastoralism dominates in the north, where rainfall totals are low, and the onset of the rains is unreliable; cropping systems are more prevalent in the south, where the rainy season is reliably longer and heavier.





### RECOMMENDATIONS FOR ACTION

Urgent actions are required to save the lives and livelihoods of populations projected in Emergency (IPC Phase 4), as well as protect the livelihoods and reduce food consumption gaps for populations estimated in Crisis (IPC Phase 3) in different localities through the current and two projections periods.

### **Response Priorities**

- Enhance livelihood interventions, building resilience to future shocks through asset creation and Safety Nets programs.
- Enhance different agricultural and rural livelihood activities and providing and services and protect productive assets, especially in areas impacted by flooding, conflict and other shocks.
- Provide full packages of basic services to returnees from displacement areas focusing on security improvements.
- Support Agricultural production of the upcoming main agricultural season will improve food availability during the second projection period.
- Protect protective and livelihood assets through appropriate conflict mitigation and prevention approaches. Develop a mechanism to facilitate seasonal animal movements, reduce farm destruction, and mitigate conflict between farmers and pastoralists.
- Develop a mechanism to facilitate seasonal animal movements, reduce farm destruction and mitigate conflict between farmers and pastoralists (demarcate the animal routes).
- Scale-up prevention of acute malnutrition across the states by improving access to basic services (health and WASH) throughout the projection period, with a special focus on drought, and flood-affected areas.
- Strengthen nutrition monitoring and surveillance nationwide with a special focus in hotspot areas.
- Develop strategies to improve food systems, storage mechanisms and reduce food loss and waste.
- Allocate budget for the food security program and interventions and scale up diversified livelihood program.
- Strengthen and support initiatives addressing crosscutting issues of food security and nutrition of vulnerable groups, including plans to incorporate and implement HD Nexus interventions.
- Promote good nutritional practices at household levels through nutrition-sensitive activities, such as home gardening and educational awareness on food and water safety.
- Strengthen the capacities of national and state-level Technical Working Groups on food security information systems and produce timely information.

### **Situation Monitoring and Update**

The next IPC analysis update of the two projections would occur depending on changes in the projection assumptions and the availability of updated contributing factors data from various sources.

- The IPC TWG and partners are expected to monitor the food security situation in rural and urban areas.
- Strengthen and expand food price monitoring in the major markets of the country.
- Monitor weather forecasts and early warning system communication to flood-prone areas against natural hazards such as droughts and floods.

### **Risk Factors to Monitor**

- **Weather monitoring:** Forecasted heavy rains are likely to resume in August and September and are likely to lead to floods, valley flooding and cause crop destruction, farmers may have to replant again considering the high cost of inputs small scale farmers might not be able to replant.
- **Conflict:** As the conflict is ongoing, displacement and other fallouts need to be monitored as this has the potential to make the food security situation to be worse. There is a possibility to experience looting incidents in some rural roads will remain the main challenge to accessing rural mobile markets.
- **Prices:** as inflation is expected to remain high throughout the projection period, prices of staple food and non-food items are likely to remain high and could be exacerbated by macroeconomic challenges.
- **Humanitarian Assistance:** As people in need will increase in the first projection, the humanitarian need will face some challenges.



### PROCESS AND METHODOLOGY

The Federal Technical Working Group, in collaboration with the IPC Global Support Unit, organized an IPC Level 1 Refresher Training based on IPC Version 3.1 Manual in Sudan prior to the IPC analysis. Due to the current context of travel restrictions and containment, IPC TWG, in collaboration with the IPC Global Support Unit adapted a virtual analysis process, facilitated by experienced food security and nutrition analysts supporting the country team facilitation. Around 105 participants from Government, Donors, UN Agencies (WFP and FAO) and NGOs attended the virtual training and analysis from all the 18 states despite challenges of internet connection. Participating agencies included the Ministry of Agriculture and natural Resources (FSTS), Ministry of production and Economic Resources, Ministry of Health, Ministry of Water Resources, Irrigation & electricity, Central Bureau of Statistics & states Bureaus, Humanitarian Aid commission, Sudan Metrological Authority, WFP, FEWSNET, USAID, FAO, CRS, OCHA, UNHCR, EU, SCI, Plan International, Concern Worldwide, SOS Sahel, WCC, SRC, and OXFAM WFP, FEWS NET, USAID, FAO, CRS, OCHA, UNHCR, EU, SCI, , practical action, ZOA, WR, Muslim Aid, Red Crescent, Save the children, IGAD, NCA, COOPI, Shari, Welt Hunger Hilfe (WHH), SRC, IFAD. The virtual analysis followed by a consolidation workshop for three days (23-25 May 2022).

The analysis was documented using the computer-based software IPC Support System (ISS), due to limited internet connectivity, especially for participants from state level, some states conducted the analysis and documented using an offline worksheet. This facilitated the documentation and convergence of the evidence and the results under the current and two projections. In close collaboration with the National IPC Technical Working group, several groups were put in place and facilitated by national and GSU experts. All available data was shared with all analysts and was also available on a shared online drive (Dropbox) for easy access and use.

### **Sources**

The Hybrid State level IPC AFI analysis was conducted from the 10 May to the 19 May 2022 using the CFSVA data collected by WFP from December 2022 – March 2022 to inform food security outcomes, alongside with data provided by different sources such as the CFSAM (Government, FAO, WFP, FEWS NET, and USAID), FEWSNET (Price monitoring), SMA (rainfall forecast), IOM (displacement), FAO/FSTS (impact of Covid-19 on food security in 18 states), CBS (demographics, exchange rate and inflation), FSTS (Early Warning). The analysis covered three periods: the current period (April –May 2022) based on the data collected during January/March 2022 reflecting the existing factors that lead to food insecurity and the first projected period (July to September 2022) and the second projected period (October 2022 – February 2023)considering the contributing factors, outcome indicator evidences with the projection assumptions factors.

### Limitations of the analysis

The outcomes data from CFSVA used for the analysis majority of the states were collected during the harvest period (January to April), while other states delayed data collection delayed mainly Northern, Sennar, Algzera, River Nile and Khartoum States which were collected in March and April delayed the analysis process. Additionally, there is still limited capacity of internet connection greatly hampered the analysis process. In addition, a periodic power cuts in some state have hampered frequency of meetings, nutrition data was not available (S3m conduct in 2018).

The CFSA outcome data were collected in the harvest season while the analysis covered the period of post-harvest and the start of the lean season (April-May). Most of the outcome data did not reflect the current situation, which negatively impacted by the continuous macroeconomic challenges and below average production. However, the analysis was based on the collected outcome data and converge evidences from different sources on contributing factors. The methodology and analysis of collecting the outcome data needs further review to be contextualized with the analysis (Livelihood change).

## What is the IPC and IPC Acute Food Insecurity?

The IPC is a set of tools and procedures to classify the severity and characteristics of acute food and nutrition crises as well as chronic food insecurity based on international standards. The IPC consists of four mutually reinforcing functions, each with a set of specific protocols (tools and procedures). The core IPC parameters include consensus building, convergence of evidence, accountability, transparency and comparability. The IPC analysis aims at informing emergency response as well as medium and long-term food security policy and programming.

For the IPC, Acute Food Insecurity is defined as any manifestation of food insecurity found in a specified area at a specific point in time of a severity that threatens lives or livelihoods, or both, regardless of the causes, context or duration. It is highly susceptible to change and can occur and manifest in a population within a short amount of time, as a result of sudden changes or shocks that negatively impact on the determinants of food insecurity.

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This analysis has been conducted under the patronage of the Food Security Technical Secretariat. It has benefited from the technical and financial support of the European Union.

Classification of food insecurity and malnutrition was conducted using the IPC protocols, which are developed and implemented worldwide by the IPC Global Partnership - Action Against Hunger, CARE, CILSS, EC-JRC, FAO, FEWSNET, Global Food Security Cluster, Global Nutrition Cluster, IGAD, Oxfam, PROGRESAN-SICA, SADC, Save the Children, UNICEF and WFP.

### **IPC Analysis Partners:**

















































## **DETAILED POPULATION TABLES**

**Current population table (April - May 2022)** 

State	Locality	Total	Phase 1		Phase 2		Phase	3	Phase	4	Phase	5	Area	Phase 3	<b>;</b> +
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al hasahisa	970,023	485,011	50	388,009	40	97,002	10	0	0	0	0	2	97,002	10
	Al kamlin	639,912	351,951	55	223,969	35	63,991	10	0	0	0	0	2	63,991	10
	Al manaqil	876,242	262,872	30	438,121	50	131,436	15	43,812	5	0	0	3	175,248	20
	Al qurashi	531,458	318,874	60	132,864	25	53,145	10	26,572	5	0	0	2	79,717	15
Aj Jazirah	Janub aj jazirah	892,124	401,455	45	356,849	40	89,212	10	44,606	5	0	0	2	133,818	15
Í	Medani al kubra	677,309	270,923	40	338,654	50	67,730	10	0	0	0	0	2	67,730	10
	Sharg aj jazirah	746,084	298,433	40	298,433	40	111,912	15	37,304	5	0	0	3	149,216	20
	Um algura	354,405	177,202	50	106,321	30	53,160	15	17,720	5	0	0	3	70,880	20
	Total	5,687,557	2,566,726	45	2,283,223	40	667,592	12	170,016	3	0	0		837,608	15
	Al kurmuk	190,167	47,542	25	57,050	30	47,542	25	38,033	20	0	0	4	85,575	45
	Ar rusayris	262,779	91,972	35	118,250	45	39,416	15	13,138	5	0	0	3	52,554	20
	At tadamon - bn	133,284	39,985	30	53,313	40	33,321	25	6,664	5	0	0	3	39,985	30
Blue Nile	Baw	185,108	55,532	30	74,043	40	37,021	20	18,510	10	0	0	3	55,531	30
	Ed damazine	315,011	110,253	35	126,004	40	63,002	20	15,750	5	0	0	3	78,752	25
	Geisan	151,076	45,322	30	52,876	35	37,769	25	15,107	10	0	0	3	52,876	35
	Wad al mahi	106,842	26,710	25	58,763	55	16,026	15	5,342	5	0	0	3	21,368	20
	Total	1,344,267	417,319	31	540,302	40	274,099	20	112,548	8	0	0		386,646	28
	Azum	87,389	21,847	25	43,694	50	13,108	15	8,738	10	0	0	3	21,846	25
	Bendasi	120,410	30,102	25	48,164	40	24,082	20	18,061	15	0	0	3	42,143	35
	Gharb jabal marrah	259,368	90,778	35	116,715	45	38,905	15	12,968	5	0	0	3	51,873	20
	Mukjar	156,405	70,382	45	46,921	30	31,281	20	7,820	5	0	0	3	39,101	25
Central Darfur	Shamal jabal marrah	191,218	57,365	30	76,487	40	38,243	20	19,121	10	0	0	3	57,364	30
	Um dukhun	154,586	61,834	40	54,105	35	23,187	15	15,458	10	0	0	3	38,645	25
	Wadi salih	339,183	118,714	35	101,754	30	84,795	25	33,918	10	0	0	3	118,713	35
	Wasat jabal marrah	159,880	63,952	40	55,958	35	23,982	15	15,988	10	0	0	3	39,970	25
	Zalingi	318,064	79,516	25	143,128	45	63,612	20	31,806		0	0	3	95,418	30
	Total	1,786,503	594,493	33	686,930	38	341,199	19	163,882	9	0	0		505,081	28
	Abu jabrah	94,275	37,710	40	32,996	35	18,855	20	4,713	5	0	0	3	23,568	25
	Abu karinka	171,901	68,760	40	60,165	35	34,380	20	8,595	5	0	0	3	42,975	25
	Adila	138,721	55,488	40	62,424	45	13,872	10	6,936	5	0	0	2	20,808	15
	Al firdous	108,484	37,969	35	43,393	40	21,696	20	5,424	5	0	0	3	27,120	25
East Darfur	Assalaya	136,387	54,554	40	54,554	40	20,458	15	6,819	5	0	0	3	27,277	20
	Bahr al arab	189,212	66,224	35	75,684	40	37,842	20	9,460	5	0	0	3	47,302	25
	El daein	148,955	52,134	35	59,582	40	29,791	20	7,448	5	0	0	3	37,239	25
	Shiaria	79,230	27,730	35	35,653	45	11,884	15	3,961	5	0	0	3	15,845	20
	Yassin	71,862	21,558	30	28,744	40	17,965	25	3,593	5	0	0	3	21,558	30
	Total	1,139,027	422,131	37	453,200	40	206,746	18	56,951	5	0	0		263,697	23



State	Locality	Total	Phase 1		Phase 2	2	Phase 3	3	Phase •	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al butanah	146,635	36,659	25	51,322	35	43,991	30	14,664	10	0	0	3	58,655	40
	Al fao	364,499	109,350	30	127,575	35	109,350	30	18,225	5	0	0	3	127,575	35
	Al fashaga	25,036	6,259	25	11,266	45	6,259	25	1,252	5	0	0	3	7,511	30
	Al galabat al gharbyah - kassab	189,484	47,371	25	66,319	35	56,845	30	18,948	10	0	0	3	75,793	40
	Al mafaza	125,488	37,646	30	50,195	40	25,098	20	12,549	10	0	0	3	37,647	30
	Al qureisha	159,392	47,818	30	63,757	40	31,878	20	15,939	10	0	0	3	47,817	30
Gedaref	Ar rahad	279,913	97,970	35	111,965	40	55,983	20	13,996	5	0	0	3	69,979	25
	Basundah	98,498	29,549	30	34,474	35	24,625	25	9,850	10	0	0	3	34,475	35
	Galaa al nahal	136,340	40,902	30	47,719	35	34,085	25	13,634	10	0	0	3	47,719	35
	Galabat ash- shargiah	234,002	70,201	30	81,901	35	58,501	25	23,400	10	0	0	3	81,901	35
	Madeinat al gedaref	555,931	166,779	30	222,372	40	138,983	25	27,797	5	0	0	3	166,780	30
	Wasat al gedaref	230,386	69,116	30	92,154	40	57,597	25	11,519	5	0	0	3	69,116	30
	Total	2,545,604	759,619	30	961,021	38	643,192	25	181,772	7	0	0		824,964	32
	Halfa aj jadeedah	332,798	133,119	40	149,759	45	33,279	10	16,639	5	0	0	2	49,918	15
	Madeinat kassala	468,933	211,019	45	211,019	45	46,893	10	0	0	0	0	2	46,893	10
	Reifi aroma	161,414	40,353	25	72,636	45	24,212	15	24,212	15	0	0	3	48,424	30
	Reifi gharb kassala	124,685	49,874	40	49,874	40	18,702	15	6,234	5	0	0	3	24,936	20
	Reifi hamashkureib	401,009	60,151	15	200,504	50	60,151	15	80,201	20	0	0	4	140,352	35
Kassala	Reifi kassla	242,895	72,868	30	109,302	45	48,579	20	12,144	5	0	0	3	60,723	25
Kassala	Reifi khashm elgirba	155,414	54,394	35	69,936	45	23,312	15	7,770	5	0	0	3	31,082	20
	Reifi nahr atbara	215,062	75,271	35	96,777	45	32,259	15	10,753	5	0	0	3	43,012	20
	Reifi shamal ad delta	144,280	36,070	25	64,926	45	21,642	15	21,642	15	0	0	3	43,284	30
	Reifi telkok	431,938	107,984	25	194,372	45	64,790	15	64,790	15	0	0	3	129,580	30
	Reifi wad elhilaiw	133,018	53,207	40	59,858	45	13,301	10	6,650	5	0	0	2	19,951	15
	Total	2,811,446	894,315	32	1,278,967	45	387,124	14	251,040	9	0	0		638,164	23
	Bahri	1,006,081	704,256	70	251,520	25	50,304	5	0	0	0	0	2	50,304	5
	Jebel awlia	1,646,314	823,157	50	493,894	30	246,947	15	82,315	5	0	0	3	329,262	20
	Karrari	1,280,467	640,233	50	384,140	30	256,093	20	0	0	0	0	3	256,093	20
Khartoum	Khartoum	1,097,543	658,525	60	329,262	30	109,754	10	0	0	0	0	2	109,754	10
	Sharg an neel	1,463,391	951,204	65	439,017	30	73,169	5	0	0	0	0	2	73,169	5
	Um bada	1,737,776	955,776	55	434,444	25	347,555	20	0	0	0	0	3	347,555	20
	Um durman	914,619	548,771	60	274,385	30	91,461	10	0	0	0	0	2	91,461	10
	Total	9,146,191	5,281,925	58	2,606,664	29	1,175,286	13	82,316	1	0	0		1,257,601	14



State	Locality	Total	Phase 1		Phase 2	!	Phase	3	Phase	4	Phase	5	Area	Phase 3	<b>\$</b> +
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al fasher	574,711	201,148	35	229,884	40	114,942	20	28,735	5	0	0	3	143,677	25
	Al koma	26,086	9,130	35	9,130	35	6,521	25	1,304	5	0	0	3	7,825	30
	Al lait	129,595	45,358	35	64,797	50	12,959	10	6,479	5	0	0	2	19,438	15
	Al malha	93,265	13,989	15	27,979	30	37,306	40	13,989	15	0	0	3	51,295	55
	As serief	63,939	15,984	25	22,378	35	19,181	30	6,393	10	0	0	3	25,574	40
	At tawisha	106,536	37,287	35	42,614	40	21,307	20	5,326	5	0	0	3	26,633	25
	Dar as salam	124,138	24,827	20	31,034	25	55,862	45	12,413	10	0	0	3	68,275	55
	Kebkabiya	206,475	82,590	40	61,942	30	51,618	25	10,323	5	0	0	3	61,941	30
North Darfur	Kelemando	72,798	29,119	40	18,199	25	21,839	30	3,639	5	0	0	3	25,478	35
Darrar	Kernoi	104,067	36,423	35	46,830	45	15,610	15	5,203	5	0	0	3	20,813	20
	Kutum	239,415	59,853	25	107,736	45	59,853	25	11,970	5	0	0	3	71,823	30
	Melit	167,690	58,691	35	67,076	40		20	8,384	5	0	0	3	41,922	25
	Saraf omra	162,049	40,512	25	64,819	40	48,614	30	8,102	5	0	0	3	56,716	35
	Tawila	143,030	28,606	20	50,060	35	50,060	35	14,303	10	0	0	3	64,363	45
	Um baru	118,349	29,587	25	59,174	50	23,669	20	5,917	5	0	0	3	29,586	25
	Um kadadah	135,774	33,943	25	54,309	40	40,732	30	6,788	5	0	0	3	47,520	35
	Total	2,467,917	747,054	30	957,968	39	613,617	25	149,278	6	0	0		762,895	31
	Ar rahad (1)	167,200	83,600	50	58,519	35	25,080	15	0	0	0	0	2	25,080	15
	Bara	194,127	87,357	45	77,650	40	19,412	10	9,706	5	0	0	2	29,118	15
	Gebrat al sheikh	244,923	110,215	45	85,723	35	36,738	15	12,246	5	0	0	3	48,984	20
	Gharb bara	188,512	84,830	45	56,553	30	37,702	20	9,425	5	0	0	3	47,127	25
North Kordofan	Sheikan	572,981	229,192	40	257,841	45	57,298	10	28,649	5	0	0	2	85,947	15
nordolan	Soudari	287,567	71,891	25	115,026	40	71,891	25	28,756	10	0	0	3	100,647	35
	Um dam haj ahmed	138,775	41,632	30	62,448	45	27,755	20	6,938	5	0	0	3	34,693	25
	Um rawaba	366,391	146,556	40	164,875	45	36,639	10	18,319	5	0	0	2	54,958	15
	Total	2,160,476	855,276	40	878,640	41	312,518	14	114,042	5	0	0		426,560	19
	Ad dabbah	216,566	151,596	70	43,313	20	10,828	5	10,828	5	0	0	2	21,656	10
	Al burgaig	128,950	90,265	70	25,790	20	6,447	5	6,447	5	0	0	2	12,894	10
	Al golid	117,677	88,257	75	17,651	15	5,883	5	5,883	5	0	0	2	11,766	10
Northern	Delgo	62,195	40,426	65	12,439	20	6,219	10	3,109	5	0	0	2	9,328	15
Hortifelii	Dongola	223,906	134,343	60	55,976	25	22,390	10	11,195	5	0	0	2	33,585	15
	Halfa	47,345	23,672	50	16,570	35	4,734	10	2,367	5	0	0	2	7,101	15
	Merwoe	226,555	147,260	65	45,311	20	11,327	5	22,655	10	0	0	2	33,982	15
	Total	1,023,194	675,823	66	217,052	21	67,832	7	62,487	6	0	0		130,319	13
	Agig	87,779	26,333	30	39,500	45	17,555	20	4,388	5	0	0	3	21,943	25
	Al ganab	131,186	32,796	25	59,033	45	19,677	15	19,677	15	0	0	3	39,354	30
	Dordieb	66,618	16,654	25	29,978	45	9,992	15	9,992	15	0	0	3	19,984	30
	Halaib	29,030	5,806	20	13,063	45	4,354	15	5,806	20	0	0	4	10,160	35
	Haya	325,901	97,770	30	146,655	45	48,885	15	32,590	10	0	0	3	81,475	25
Red Sea	Jubayt elmaaadin	112,463	22,492	20	50,608	45	16,869	15	22,492	20	0	0	4	39,361	35
	Port sudan	320,376	144,169	45	144,169	45	32,037	10	0	0	0	0	2	32,037	10
	Sawakin	93,451	32,707	35	42,052	45	9,345	10	9,345	10	0	0	3	18,690	20
	Sinkat	196,804	59,041	30	78,721	40	29,520	15	29,520	15	0	0	3	59,040	30
	Tawkar	186,249	65,187	35	83,812	45	27,937	15	9,312	5	0	0	3	37,249	20
	Total	1,549,857	502,959	32	687,595	44	216,176	14	143,126	9	0	0		359,303	23



State	Locality	Total	Phase 1		Phase 2	!	Phase	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abu hamad	118,204	100,473	85	11,820	10	5,910	5	0	0	0	0	1	5,910	5
	Ad damar	418,920	230,406	55	125,676	30	41,892	10	20,946	5	0	0	2	62,838	15
	Al buhaira	70,503	52,877	75	10,575	15	3,525	5	3,525	5	0	0	2	7,050	10
River Nile	Al matama	223,930	145,554	65	67,179	30	11,196	5	0	0	0	0	2	11,196	5
Mivel Mile	Atbara	198,421	89,289	45	79,368	40	29,763	15	0	0	0	0	2	29,763	15
	Barbar	224,650	202,185	90	11,232	5	11,232	5	0	0	0	0	1	11,232	5
	Shendi	397,245	258,209	65	119,173	30	19,862	5	0	0	0	0	2	19,862	5
	Total	1,651,873	1,078,995	65	425,025	26	123,382	7	24,471	1	0	0		147,853	8
	Abu hujar	219,932	87,972	40	98,969	45	21,993	10	10,996	5	0	0	2	32,989	15
	Ad dali	119,022	41,657	35	53,559	45	11,902	10	11,902	10	0	0	3	23,804	20
	Ad dinder	323,430	129,372	40	145,543	45	48,514	15	0	0	0	0	2	48,514	15
Sennar	As suki	354,479	159,515	45	141,791	40	35,447	10	0	0	0	0	2	35,447	10
Sennar	Sennar	505,845	177,045	35	151,753	30	151,753	30	25,292	5	0	0	3	177,045	35
	Sharg sennar	388,117	155,246	40	174,652	45	58,217	15	0	0	0	0	2	58,217	15
	Sinja	260,038	104,015	40	117,017	45	39,005	15	0	0	0	0	2	39,005	15
	Total	2,170,863	854,826	39	883,288	41	366,835	17	48,191	2	0	0		415,026	19
	Al radoum	163,821	106,483	65	40,955	25	16,382	10	0	0	0	0	2	16,382	10
	Al wihda	61,695	27,762	45	18,508	30	12,339	20	3,084	5	0	0	3	15,423	25
	As salam - sd	113,554	68,132	60	22,710	20	22,710	20	0	0	0	0	3	22,710	20
	As sunta	156,996	78,498	50	47,098	30	23,549	15	7,849	5	0	0	3	31,398	20
	Beliel	292,229	102,280	35	116,891	40	58,445	20	14,611	5	0	0	3	73,056	25
	Buram	176,931	88,465	50	53,079	30	26,539	15	8,846	5	0	0	3	35,385	20
	Damso	176,931	106,158	60	53,079	30	17,693	10	0	0	0	0	2	17,693	10
	Ed al fursan	260,134	182,093	70	39,020	15	26,013	10	13,006	5	0	0	2	39,019	15
	Gereida	179,174	89,587	50	44,793	25	35,834	20	8,958	5	0	0	3	44,792	25
	Kas	241,032	84,361	35	96,412	40	60,258	25	0	0	0	0	3	60,258	25
South	Kateila	140,180	77,099	55	42,054	30	21,027	15	0	0	0	0	2	21,027	15
Darfur	Kubum	225,530	124,041	55	56,382	25	33,829	15	11,276	5	0	0	3	45,105	20
	Mershing	106,429	53,214	50	15,964	15	31,928	30	5,321	5	0	0	3	37,249	35
	Nitega	122,553	73,531	60	24,510	20	18,382	15	6,127	5	0	0	3	24,509	20
	Nyala janoub	385,503	269,852	70	57,825	15	38,550	10	19,275	5	0	0	2	57,825	15
	Nyala shimal	399,215	279,450	70	59,882	15	39,921	10	19,960	5	0	0	2	59,881	15
	Rehaid albirdi	240,270	144,162	60	60,067	25	24,027	10	12,013	5	0	0	2	36,040	15
	Sharg aj jabal	14,374	4,312	30	5,749	40	3,593	25	718	5	0	0	3	4,311	30
	Shattaya	56,524	22,609	40	19,783	35	11,304	20	2,826	5	0	0	3	14,130	25
	Tulus	322,210	241,657	75	64,442	20	16,110	5	0	0	0	0	2	16,110	5
	Um dafoug	77,087	42,397	55	23,126	30	7,708	10	3,854	5	0	0	2	11,562	15
	Total	3,912,372	2,266,152	58	962,338	25	546,151	14	137,732	4	0	0		683,883	18



State	Locality	Total	Phase 1	l	Phase 2	!	Phase 3	3	Phase	4	Phase !	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abassiya	135,562	74,559	55	33,890	25	20,334	15	6,778	5	0	0	3	27,112	20
	Abu jubayhah	201,992	111,096	55	50,498	25	30,299	15	10,100	5	0	0	3	40,399	20
	Abu kershola	108,869	43,547	40	38,104	35	21,773	20	5,443	5	0	0	3	27,216	25
	Al buram	174,830	69,932	40	52,449	30	34,966	20	17,483	10	0	0	3	52,449	30
	Al leri	43,364	26,018	60	10,841	25	4,336	10	2,168	5	0	0	2	6,504	15
	Al quoz	129,283	58,177	45	45,249	35	19,392	15	6,464	5	0	0	3	25,856	20
	Ar rashad	69,927	31,467	45	20,978	30	10,489	15	6,992	10	0	0	3	17,481	25
	Ar reif ash shargi	67,474	30,363	45	23,615	35	10,121	15	3,373	5	0	0	3	13,494	20
South	At tadamon - sk	87,126	34,850	40	30,494	35	17,425	20	4,356	5	0	0	3	21,781	25
Kordofan	Delami	55,198	27,599	50	16,559	30	8,280	15	2,760	5	0	0	3	11,040	20
	Dilling	231,387	104,124	45	80,985	35	34,708	15	11,569	5	0	0	3	46,277	20
	Ghadeer	57,499	34,499	60	11,500	20	8,625	15	2,875	5	0	0	3	11,500	20
	Habila - sk	75,808	30,323	40	26,533	35	15,162	20	3,790	5	0	0	3	18,952	25
	Heiban	247,789	123,895	50	61,947	25	49,558	20	12,389	5	0	0	3	61,947	25
	Kadugli	158,245	71,210	45	47,473	30	23,736	15	15,824	10	0	0	3	39,560	25
	Talawdi	44,949	20,227	45	15,732	35	6,742	15	2,247	5	0	0	3	8,989	20
	Um durein	128,660	51,464	40	38,598	30	25,732	20	12,866	10	0	0	3	38,598	30
	Total	2,017,962	943,352	47	605,448	30	341,680	17	127,481	6	0	0		469,161	23
	Ag geneina	661,666	231,583	35	264,666	40	132,333	20	33,083	5	0	0	3	165,416	25
	Beida	234,987	58,746	25	82,245	35	58,746	25	35,248	15	0	0	3	93,994	40
	Foro baranga	88,023	39,610	45	30,808	35	13,203	15	4,401	5	0	0	3	17,604	20
	Habila - wd	135,256	67,628	50	33,814	25	27,051	20	6,762	5	0	0	3	33,813	25
West Darfur	Jebel moon	70,226	17,557	25	21,068	30	17,557	25	14,045	20	0	0	4	31,602	45
	Kereneik	499,119	99,824	20	174,692	35	124,780	25	99,824	20	0	0	4	224,604	45
	Kulbus	50,735	25,367	50	15,220	30	7,610	15	2,536	5	0	0	3	10,146	20
	Sirba	200,848	70,296	35	80,339	40	40,169	20	10,042	5	0	0	3	50,211	25
	Total	1,940,860	610,613	31	702,853	36	421,451	22	205,943	11	0	0		627,394	33
	Abu zabad	115,104	51,796	45	40,286	35	23,020	20	0	0	0	0	3	23,020	20
	Abyei	126,485	56,918	45	44,269	35	25,297	20	0	0	0	0	3	25,297	20
	Al dibab	82,200	36,990	45	28,769	35	16,440	20	0	0	0	0	3	16,440	20
	Al idia	147,206	66,242	45	44,161	30	22,080	15	14,720	10	0	0	3	36,800	25
	Al khiwai	93,862	42,237	45	28,158	30	14,079	15	9,386	10	0	0	3	23,465	25
	Al lagowa	102,138	45,962	45	30,641	30	20,427	20	5,106	5	0	0	3	25,533	25
West	Al meiram	54,819	27,409	50	16,445	30	8,222	15	2,740	5	0	0	3	10,962	20
Kordofan	An nuhud	275,921	137,960	50	55,184	20	27,592	10	27,592	10	0	0	3	55,184	20
	As salam - wk	117,074	58,537	50	35,122	30	17,561	15	5,853	5	0	0	3	23,414	20
	As sunut	146,067	73,033	50	36,516	25	21,910	15	14,606	10	0	0	3	36,516	25
	Babanusa	58,668	29,334	50	14,667	25	8,800	15	5,866	10	0	0	3	14,666	25
	Ghubaish	157,885	78,942	50	47,365	30	23,682	15	7,894	5	0	0	3	31,576	20
	Keilak	77,518	38,759	50	23,255	30	11,627	15	3,875	5	0	0	3	15,502	20
	Wad bandah	158,515	63,406	40	55,480	35	23,777	15	15,851	10	0	0	3	39,628	25
	Total	1,713,462	807,530	47	500,325	29	264,520	15	113,496	7	0	0		378,015	22



State	Locality	Total	Phase 1		Phase 2		Phase 3	3	Phase 4	,	Phase	5	Area	Phase 3-	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Ad diwaim	470,853	164,798	35	235,426	50	47,085	10	23,542	5	0	0	2	70,627	15
	Aj jabalain	375,746	131,511	35	150,298	40	56,361	15	37,574	10	0	0	3	93,935	25
	Al gitaina	390,420	156,168	40	175,689	45	39,042	10	19,521	5	0	0	2	58,563	15
	As salam / ar rawat	357,818	107,345	30	143,127	40	71,563	20	35,781	10	0	0	3	107,344	30
White Nile	Guli	413,400	165,360	40	186,030	45	41,340	10	20,670	5	0	0	2	62,010	15
	Kosti	-	-	-	-	-	-	-	-	-	0	0	2	-	-
	Rabak	387,441	154,976	40	174,348	45	38,744	10	19,372	5	0	0	2	58,116	15
	Tendalti	226,959	79,435	35	102,131	45	34,043	15	11,347	5	0	0	3	45,390	20
	Um rimta	189,362	66,276	35	85,212	45	28,404	15	9,468	5	0	0	3	37,872	20
	Total	2,811,999	1,025,872	36	1,252,264	45	356,585	13	177,278	6	0	0		533,863	19
Gran	d Total	47,881,430	21,304,978	44	16,883,102	35	7,325,982	15	2,322,051	5	0	0		9,648,034	20



State	Locality	Total	Phase 1		Phase 2	!	Phase :	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al hasahisa	970,023	388,009	40	436,510	45	97,002	10	48,501.0	5	0	0	2	145,503	15
	Al kamlin	639,912	319,956	50	255,964	40	63,991	10	0	0	0	0	2	63,991	10
	Al manaqil	876,242	394,308	45	350,496	40	131,436	15	0	0	0	0	2	131,436	15
	Al qurashi	531,458	239,156	45	186,010	35	79,718	15	26,572.0	5	0	0	3	106,290	20
Aj Jazirah	Janub aj jazirah	892,124	312,243	35	446,062	50	89,212	10	44,606.0	5	0	0	2	133,818	15
	Medani al kubra	677,309	203,192	30	372,519	55	101,596	15	0	0	0	0	2	101,596	15
	Sharg aj jazirah	746,084	223,825	30	335,737	45	149,216	20	37,304	5	0	0	3	186,520	25
	Um algura	354,405	141,762	40	141,762	40	53,160	15	17,720	5	0	0	3	70,880	20
	Total	5,687,557	2,222,454	39	2,525,064	44	765,335	13	174,705	3	0	0		940,040	16
	Al kurmuk	190,167	38,033	20	57,050	30	57,050	30	38,033	20	0	0	4	95,083	50
	Ar rusayris	262,779	78,833	30	105,111	40	52,555	20	26,277	10	0	0	3	78,832	30
	At tadamon - bn	133,284	33,321	25	59,977	45	26,656	20	13,328	10	0	0	3	39,984	30
Blue Nile	Baw	185,108	37,021	20	46,277	25	64,787	35	37,021	20	0	0	4	101,808	55
5.0.0	Ed damazine	315,011	78,752	25	141,754	45	63,002	20	31,501	10	0	0	3	94,503	30
	Geisan	151,076	37,769	25	52,876	35	37,769	25	22,661	15	0	0	3	60,430	40
	Wad al mahi	106,842	21,368	20	53,421	50	21,368	20	10,684	10	0	0	3	32,052	30
	Total	1,344,267	325,100	24	516,469	38	323,190	24	179,508	13	0	0		502,698	37
	Azum	87,389	17,477	20	39,325	45	17,477	20	13,108	15	0	0	3	30,585	35
	Bendasi	120,410	24,082	20	36,123	30	36,123	30	24,082	20	0	0	4	60,205	50
	Gharb jabal marrah	259,368	77,810	30	116,715	45	51,873	20	12,968	5	0	0	3	64,841	25
	Mukjar	156,405	62,562	40	46,921	30	31,281	20	15,640	10	0	0	3	46,921	30
Central Darfur	Shamal jabal marrah	191,218	38,243	20	86,048	45	47,804	25	19,121	10	0	0	3	66,925	35
	Um dukhun	154,586	61,834	40	46,375	30	30,917	20	15,458	10	0	0	3	46,375	30
	Wadi salih	339,183	84,795	25	118,714	35	84,795	25	50,877	15	0	0	3	135,672	40
	Wasat jabal marrah	159,880	47,964	30	55,958	35	39,970	25	15,988	10	0	0	3	55,958	35
	Zalingi	318,064	63,612	20	143,128	45	79,516	25	31,806	10	0	0	3	111,322	35
	Total	1,786,503	478,383	27	689,310	39	419,759	23	199,052	11	0	0		618,810	34
	Abu jabrah	94,275	28,282	30	37,710	40	23,568	25	4,713	5	0	0	3	28,281	30
	Abu karinka	171,901	60,165	35	60,165	35	42,975	25	8,595	5	0	0	3	51,570	30
	Adila	138,721	48,552	35	55,488	40	27,744	20	6,936	5	0	0	3	34,680	25
	Al firdous	108,484	37,969	35	37,969	35	27,121	25	5,424	5	0	0	3	32,545	30
East Darfur	Assalaya	136,387	54,554	40	47,735	35	27,277	20	6,819	5	0	0	3	34,096	25
Lust Darrur	Bahr al arab	189,212	56,763	30	75,684	40	47,303	25	9,460	5	0	0	3	56,763	30
	El daein	148,955	44,687	30	67,030	45	29,791	20	7,448	5	0	0	3	37,239	25
	Shiaria	79,230	27,730	35	31,692	40	15,846	20	3,961	5	0	0	3	19,807	25
	Yassin	71,862	21,558	30	28,744	40	14,372	20	7,186	10	0	0	3	21,558	30
	Total	1,139,027	380,264	33	442,220	39	255,999	22	60,544	5	0	0		316,543	27



State	Locality	Total	Phase 1		Phase 2	2	Phase 3		Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al butanah	146,635	43,991	30	58,654	40	29,327	20	14,664	10	0	0	3	43,991	30
	Al fao	364,499	127,575	35	145,800	40	72,900	20	18,225	5	0	0	3	91,125	25
	Al fashaga	25,036	7,511	30	11,266	45	5,007	20	1,252	5	0	0	3	6,259	25
	Al galabat al gharbyah - kassab	189,484	56,845	30	85,268	45	37,897	20	9,474	5	0	0	3	47,371	25
	Al mafaza	125,488	37,646	30	56,470	45	25,098	20	6,274	5	0	0	3	31,372	25
	Al qureisha	159,392	47,818	30	63,757	40	39,848	25	7,970	5	0	0	3	47,818	30
Gedaref	Ar rahad	279,913	83,974	30	125,961	45	55,983	20	13,996	5	0	0	3	69,979	25
	Basundah	98,498	34,474	35	34,474	35	24,625	25	4,925	5	0	0	3	29,550	30
	Galaa al nahal	136,340	34,085	25	61,353	45	27,268	20	13,634	10	0	0	3	40,902	30
	Galabat ash- shargiah	234,002	70,201	30	93,601	40	58,501	25	11,700	5	0	0	3	70,201	30
	Madeinat al gedaref	555,931	166,779	30	250,169	45	111,186	20	27,797	5	0	0	3	138,983	25
	Wasat al gedaref	230,386	69,116	30	103,674	45	46,077	20	11,519	5	0	0	3	57,596	25
	Total	2,545,604	780,014	31	1,090,446	43	533,715	21	141,429	6	0	0		675,144	27
	Halfa aj jadeedah	332,798	99,839	30	166,399	50	49,919	15	16,639	5	0	0	3	66,558	20
	Madeinat kassala	468,933	164,126	35	234,466	50	46,893	10	23,446	5	0	0	2	70,339	15
	Reifi aroma	161,414	32,282	20	72,636	45	32,282	20	24,212	15	0	0	3	56,494	35
	Reifi gharb kassala	124,685	43,639	35	49,874	40	24,937	20	6,234	5	0	0	3	31,171	25
	Reifi hamashkureib	401,009	80,201	20	160,403	40	80,201	20	80,201	20	0	0	4	160,402	40
Kassala	Reifi kassla	242,895	60,723	25	121,447	50	36,434	15	24,289	10	0	0	3	60,723	25
Nassaia	Reifi khashm elgirba	155,414	46,624	30	69,936	45	31,082	20	7,770	5	0	0	3	38,852	25
	Reifi nahr atbara	215,062	64,518	30	96,777	45	43,012	20	10,753	5	0	0	3	53,765	25
	Reifi shamal ad delta	144,280	28,856	20	64,926	45	21,642	15	28,856	20	0	0	3	50,498	35
	Reifi telkok	431,938	86,387	20	194,372	45	64,790	15	86,387	20	0	0	3	151,177	35
	Reifi wad elhilaiw	133,018	46,556	35	53,207	40	26,603	20	6,650	5	0	0	3	33,253	25
	Total	2,811,446	753,757	27	1,284,446	46	457,800	16	315,443	11	0	0		773,243	27
	Bahri	1,006,081	653,952	65	251,520	25	100,608	10	0	0	0	0	2	100,608	10
	Jebel awlia	1,646,314	740,841	45	493,894	30	329,262	20	82,315	5	0	0	3	411,577	25
	Karrari	1,280,467	640,233	50	320,116	25	256,093	20	64,023	5	0	0	3	320,116	25
Khartoum	Khartoum	1,097,543	603,648	55	329,262	30	164,631	15	0	0	0	0	2	164,631	15
Aliai touili	Sharg an neel	1,463,391	878,034	60	439,017	30	146,339	10	0	0	0	0	2	146,339	10
	Um bada	1,737,776	868,888	50	434,444	25	347,555	20	86,888	5	0	0	3	434,443	25
	Um durman	914,619	503,040	55	274,385	30	137,192	15	0	0	0	0	2	137,192	15
	Total	9,146,191	4,888,639	53	2,542,641	28	1,481,683	16	233,228	3	0	0		1,714,911	19



State	Locality	Total	Phase 1		Phase 2	!	Phase :	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al fasher	574,711	201,148	35	201,148	35	143,677	25	28,735	5	0	0	3	172,412	30
	Al koma	26,086	9,130	35	7,825	30	7,825	30	1,304	5	0	0	3	9,129	35
	Al lait	129,595	32,398	25	45,358	35	32,398	25	19,439	15	0	0	3	51,837	40
	Al malha	93,265	18,653	20	23,316	25	32,642	35	18,653	20	0	0	4	51,295	55
	As serief	63,939	15,984	25	25,575	40	15,984	25	6,393	10	0	0	3	22,377	35
	At tawisha	106,536	26,634	25	47,941	45	26,634	25	5,326	5	0	0	3	31,960	30
	Dar as salam	124,138	24,827	20	31,034	25	55,862	45	12,413	10	0	0	3	68,275	55
	Kebkabiya	206,475	82,590	40	72,266	35	41,295	20	10,323	5	0	0	3	51,618	25
North Darfur	Kelemando	72,798	18,199	25	21,839	30	25,479	35	7,279	10	0	0	3	32,758	45
	Kernoi	104,067	31,220	30	41,626	40	26,016	25	5,203	5	0	0	3	31,219	30
	Kutum	239,415	47,883	20	107,736	45	71,824	30	11,970	5	0	0	3	83,794	35
	Melit	167,690	41,922	25	75,460	45	41,922	25	8,384	5	0	0	3	50,306	30
	Saraf omra	162,049	32,409	20	64,819	40	48,614	30	16,204	10	0	0	3	64,818	40
	Tawila	143,030	28,606	20	35,757	25	57,212	40	14,303	10	0	0	3	71,515	50
	Um baru	118,349	29,587	25	53,257	45	29,587	25	5,917	5	0	0	3	35,504	30
	Um kadadah	135,774	27,154	20	54,309	40	47,520	35	6,788	5	0	0	3	54,308	40
	Total	2,467,917	668,350	27	909,274	37	704,499	29	178,643	7	0	0		883,142	36
	Ar rahad (1)	167,200	50,160	30	75,240	45	41,800	25	0	0	0	0	3	41,800	25
	Bara	194,127	77,650	40	77,650	40	29,119	15	9,706	5	0	0	3	38,825	20
	Gebrat al sheikh	244,923	97,969	40	85,723	35	48,984	20	12,246	5	0	0	3	61,230	25
N. d	Gharb bara	188,512	37,702	20	84,830	45	47,128	25	18,851	10	0	0	3	65,979	35
North Kordofan	Sheikan	572,981	171,894	30	229,192	40	114,596	20	57,298	10	0	0	3	171,894	30
	Soudari	287,567	57,513	20	100,648	35	86,270	30	43,135	15	0	0	3	129,405	45
	Um dam haj ahmed	138,775	34,693	25	55,510	40	34,693	25	13,877	10	0	0	3	48,570	35
	Um rawaba	366,391	109,917	30	146,556	40	73,278	20	36,639	10	0	0	3	109,917	30
	Total	2,160,476	637,501	30	855,352	40	475,870	22	191,753	9	0	0		667,623	31
	Ad dabbah	216,566	119,111	55	64,969	30	21,656	10	10,828	5	0	0	2	32,484	15
	Al burgaig	128,950	77,370	60	32,237	25	12,895	10	6,447	5	0	0	2	19,342	15
	Al golid	117,677	82,373	70	17,651	15	11,767	10	5,883	5	0	0	2	17,650	15
Northern	Delgo	62,195	34,207	55	18,658	30	6,219	10	3,109	5	0	0	2	9,328	15
	Dongola	223,906	123,148	55	67,171	30	22,390	10	11,195	5	0	0	2	33,585	15
	Halfa	47,345	18,938	40	21,305	45	4,734	10	2,367	5	0	0	2	7,101	15
	Merwoe	226,555	124,605	55	67,966	30	11,327	5	22,655	10	0	0	2	33,982	15
	Total	1,023,194	579,754	57	289,961	28	90,992	9	62,487	6	0	0		153,479	15
	Agig	87,779	17,555	20	43,889	50	17,555	20	8,777	10	0	0	3	26,332	30
	Al ganab	131,186	19,677	15	65,593	50	19,677	15	26,237	20	0	0	4	45,914	35
	Dordieb	66,618	9,992	15	33,309	50	13,323	20	9,992	15	0	0	3	23,315	35
	Halaib	29,030	4,354	15	13,063	45	7,257	25	4,354	15	0	0	3	11,611	40
	Haya	325,901	81,475	25	146,655	45	81,475	25	16,295	5	0	0	3	97,770	30
Red Sea	Jubayt elmaaadin	112,463	16,869	15	56,231	50	16,869	15	22,492	20	0	0	4	39,361	35
	Port sudan	320,376	96,112	30	176,206	55	48,056	15	0	0	0	0	2	48,056	15
	Sawakin	93,451	28,035	30	42,052	45	14,017	15	9,345	10	0	0	3	23,362	25
	Sinkat	196,804	49,201	25	78,721	40	49,201	25	19,680	10	0	0	3	68,881	35
	Tawkar	186,249	55,874	30	83,812	45	37,249	20	9,312	5	0	0	3	46,561	25
	Total	1,549,857	379,149	24	739,535	48	304,684	20	126,488	8	0	0		431,172	28



State	Locality	Total	Phase 1	I	Phase 2	!	Phase :	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abu hamad	118,204	100,473	85	11,820	10	5,910	5	0	0	0	0	1	5,910	5
	Ad damar	418,920	167,568	40	188,514	45	41,892	10	20,946	5	0	0	2	62,838	15
	Al buhaira	70,503	49,352	70	10,575	15	7,050	10	3,525	5	0	0	2	10,575	15
River Nile	Al matama	223,930	123,161	55	67,179	30	22,393	10	11,196	5	0	0	2	33,589	15
MIVEL THIC	Atbara	198,421	79,368	40	89,289	45	19,842	10	9,921	5	0	0	2	29,763	15
	Barbar	224,650	190,952	85	22,465	10	11,232	5	0	0	0	0	1	11,232	5
	Shendi	397,245	238,347	60	99,311	25	39,724	10	19,862	5	0	0	2	59,586	15
	Total	1,651,873	949,223	57	489,155	30	148,045	9	65,451	4	0	0		213,496	13
	Abu hujar	219,932	76,976	35	87,972	40	43,986	20	10,996	5	0	0	3	54,982	25
	Ad dali	119,022	35,706	30	53,559	45	17,853	15	11,902	10	0	0	3	29,755	25
	Ad dinder	323,430	113,200	35	129,372	40	64,686	20	16,171	5	0	0	3	80,857	25
Sennar	As suki	354,479	141,791	40	159,515	45	35,447	10	17,723	5	0	0	2	53,170	15
Sellilai	Sennar	505,845	202,338	40	202,338	40	75,876	15	25,292	5	0	0	3	101,168	20
	Sharg sennar	388,117	135,840	35	174,652	45	58,217	15	19,405	5	0	0	3	77,622	20
	Sinja	260,038	91,013	35	130,019	50	26,003	10	13,001	5	0	0	2	39,004	15
	Total	2,170,863	796,867	37	937,430	43	322,072	15	114,494	5	0	0		436,566	20
	Al radoum	163,821	98,292	60	40,955	25	16,382	10	8,191	5	0	0	2	24,573	15
	Al wihda	61,695	24,678	40	18,508	30	12,339	20	6,169	10	0	0	3	18,508	30
	As salam - sd	113,554	56,777	50	34,066	30	17,033	15	5,677	5	0	0	3	22,710	20
	As sunta	156,996	62,798	40	62,798	40	23,549	15	7,849	5	0	0	3	31,398	20
	Beliel	292,229	87,668	30	131,503	45	43,834	15	29,222	10	0	0	3	73,056	25
	Buram	176,931	61,925	35	70,772	40	26,539	15	17,693	10	0	0	3	44,232	25
	Damso	176,931	88,465	50	70,772	40	17,693	10	0	0	0	0	2	17,693	10
	Ed al fursan	260,134	130,067	50	78,040	30	39,020	15	13,006	5	0	0	3	52,026	20
	Gereida	179,174	89,587	50	35,834	20	35,834	20	17,917	10	0	0	3	53,751	30
	Kas	241,032	72,309	30	96,412	40	60,258	25	12,051	5	0	0	3	72,309	30
South	Kateila	140,180	70,090	50	42,054	30	21,027	15	7,009	5	0	0	3	28,036	20
Darfur	Kubum	225,530	90,212	40	78,935	35	45,106	20	11,276	5	0	0	3	56,382	25
	Mershing	106,429	42,571	40	21,285	20	31,928	30	10,642	10	0	0	3	42,570	40
	Nitega	122,553	67,404	55	30,638	25	18,382	15	6,127	5	0	0	3	24,509	20
	Nyala janoub	385,503	231,301	60	77,100	20	57,825	15	19,275	5	0	0	3	77,100	20
	Nyala shimal	399,215	239,529	60	59,882	15	79,843	20	19,960	5	0	0	3	99,803	25
	Rehaid albirdi	240,270	120,135	50	72,081	30	36,040	15	12,013	5	0	0	3	48,053	20
	Sharg aj jabal	14,374	4,312	30	5,030	35	4,312	30	718	5	0	0	3	5,030	35
	Shattaya	56,524	19,783	35	14,131	25	16,957	30	5,652	10	0	0	3	22,609	40
	Tulus	322,210	193,326	60	96,663	30	32,221	10	0	0	0	0	2	32,221	10
	Um dafoug	77,087	38,543	50	23,126	30	11,563	15	3,854	5	0	0	3	15,417	20
	Total	3,912,372	1,889,778	48	1,160,592	30	647,691	17	214,311	5	0	0		862,001	22



State	Locality	Total	Phase 1	l	Phase 2	2	Phase 3	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abassiya	135,562	54,224	40	40,668	30	27,112	20	13,556	10	0	0	3	40,668	30
	Abu jubayhah	201,992	80,797	40	70,697	35	40,398	20	10,100	5	0	0	3	50,498	25
	Abu kershola	108,869	38,104	35	32,660	30	27,217	25	10,886	10	0	0	3	38,103	35
	Al buram	174,830	52,449	30	43,707	25	43,707	25	34,966	20	0	0	4	78,673	45
	Al leri	43,364	17,346	40	15,177	35	6,505	15	4,336	10	0	0	3	10,841	25
	Al quoz	129,283	51,713	40	45,249	35	25,856	20	6,464	5	0	0	3	32,320	25
	Ar rashad	69,927	20,978	30	24,474	35	17,481	25	6,992	10	0	0	3	24,473	35
	Ar reif ash shargi	67,474	20,242	30	26,989	40	13,494	20	6,747	10	0	0	3	20,241	30
South	At tadamon - sk	87,126	34,850	40	26,138	30	17,425	20	8,713	10	0	0	3	26,138	30
Kordofan	Delami	55,198	22,079	40	19,319	35	11,040	20	2,760	5	0	0	3	13,800	25
	Dilling	231,387	69,416	30	92,555	40	46,277	20	23,139	10	0	0	3	69,416	30
	Ghadeer	57,499	23,000	40	17,250	30	11,500	20	5,750	10	0	0	3	17,250	30
	Habila - sk	75,808	22,742	30	30,323	40	15,162	20	7,581	10	0	0	3	22,743	30
	Heiban	247,789	99,116	40	74,337	30	49,558	20	24,779	10	0	0	3	74,337	30
	Kadugli	158,245	55,385	35	55,385	35	31,649	20	15,824	10	0	0	3	47,473	30
	Talawdi	44,949	15,732	35	20,227	45	6,742	15	2,247	5	0	0	3	8,989	20
	Um durein	128,660	45,031	35	38,598	30	32,165	25	12,866	10	0	0	3	45,031	35
	Total	2,017,962	723,206	36	673,757	33	423,291	21	197,708	10	0	0		620,999	31
	Ag geneina	661,666	165,416	25	198,499	30	165,416	25	132,333	20	0	0	4	297,749	45
	Beida	234,987	58,746	25	82,245	35	46,997	20	46,997	20	0	0	4	93,994	40
	Foro baranga	88,023	26,406	30	35,209	40	17,604	20	8,802	10	0	0	3	26,406	30
	Habila - wd	135,256	54,102	40	40,576	30	27,051	20	13,525	10	0	0	3	40,576	30
West Darfur	Jebel moon	70,226	14,045	20	21,068	30	21,068	30	14,045	20	0	0	4	35,113	50
	Kereneik	499,119	74,868	15	174,692	35	149,736	30	99,824	20	0	0	4	249,560	50
	Kulbus	50,735	22,830	45	15,220	30	10,147	20	2,536	5	0	0	3	12,683	25
	Sirba	200,848	50,212	25	90,381	45	40,169	20	20,084	10	0	0	3	60,253	30
	Total	1,940,860	466,628	24	657,893	34	478,190	25	338,149	17	0	0		816,339	42
	Abu zabad	115,104	46,041	40	40,286	35	17,265	15	11,510	10	0	0	3	28,775	25
	Abyei	126,485	50,594	40	44,269	35	18,972	15	12,648		0	0	3	31,620	25
	Al dibab	82,200	41,100	50	16,440	20	20,550	25	4,110	5	0	0	3	24,660	30
	Al idia	147,206	66,242	45	36,801	25	29,441	20	14,720	10	0	0	3	44,161	30
	Al khiwai	93,862	42,237	45	23,465	25	14,079	15	4,693	5	0	0	3	18,772	20
	Al lagowa	102,138	40,855	40	30,641	30	20,427	20	10,213	10	0	0	3	30,640	30
West	Al meiram	54,819	27,409	50	13,704	25	10,963	20	2,740	5	0	0	3	13,703	25
Kordofan	An nuhud	275,921	124,164	45	82,776	30	41,388	15	13,796	5	0	0	3	55,184	20
	As salam - wk	117,074	70,244	60	23,414	20	17,561	15	5,853	5	0	0	3	23,414	20
	As sunut	146,067	87,640	60	29,213	20	21,910	15	7,303	5	0	0	3	29,213	20
	Babanusa	58,668	26,400	45	14,667	25	11,733	20	5,866	10	0	0	3	17,599	30
	Ghubaish	157,885	78,942	50	39,471	25	31,577	20	7,894	5	0	0	3	39,471	25
	Keilak	77,518	34,883	45	23,255	30	15,503	20	3,875	5	0	0	3	19,378	25
	Wad bandah	158,515	63,406	40	47,554	30	31,703	20	15,851	10	0	0	3	47,554	30
	Total	1,713,462	800,162	47	465,962	27	303,077	18	121,079	7	0	0		424,156	25



State	Locality	Total	Phase 1		Phase 2		Phase 3	3	Phase 4	ļ	Phase	5	Area	Phase 3-	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Ad diwaim	470,853	141,255	30	258,969	55	47,085	10	23,542	5	0	0	2	70,627	15
	Aj jabalain	375,746	112,723	30	150,298	40	75,149	20	37,574	10	0	0	3	112,723	30
	Al gitaina	390,420	136,647	35	195,210	50	39,042	10	19,521	5	0	0	2	58,563	15
	As salam / ar rawat	357,818	107,345	30	125,236	35	89,454	25	35,781	10	0	0	3	125,235	35
White Nile	Guli	413,400	144,690	35	206,700	50	41,340	10	20,670	5	0	0	2	62,010	15
	Kosti	-	-	-	-	-	-	-	-	-	0	0	2	-	-
	Rabak	387,441	135,604	35	193,720	50	38,744	10	19,372	5	0	0	2	58,116	15
	Tendalti	226,959	68,087	30	90,783	40	45,391	20	22,695	10	0	0	3	68,086	30
	Um rimta	189,362	56,808	30	85,212	45	37,872	20	9,468	5	0	0	3	47,340	25
	Total	2,811,999	903,163	32	1,306,131	46	414,079	15	188,626	7	0	0		602,705	22
Gran	d Total	47,881,430	18,622,392	39	17,575,637	37	8,549,970	18	3,103,098	6	0	0		11,653,068	24



State	Locality	Total	Phase 1		Phase 2	2	Phase	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al hasahisa	970,023	436,510	45	436,510	45	97,002	10	0	0	0	0	2	97,002	10
	Al kamlin	639,912	319,956	50	255,964	40	63,991	10	0	0	0	0	2	63,991	10
	Al manaqil	876,242	306,684	35	438,121	50	87,624	10	43,812	5	0	0	2	131,436	15
	Al qurashi	531,458	265,729	50	186,010	35	79,718	15	0	0	0	0	2	79,718	15
Aj Jazirah	Janub aj jazirah	892,124	446,062	50	356,849	40	89,212	10	0	0	0	0	2	89,212	10
.,	Medani al kubra	677,309	304,789	45	304,789	45	67,730	10	0	0	0	0	2	67,730	10
	Sharg aj jazirah	746,084	298,433	40	335,737	45	74,608	10	37,304	5	0	0	2	111,912	15
	Um algura	354,405	194,922	55	124,041	35	35,440	10	0	0	0	0	2	35,440	10
	Total	5,687,557	2,573,087	45	2,438,025	43	595,329	10	81,116	1	0	0		676,445	11
	Al kurmuk	190,167	47,542	25	76,067	40	47,542	25	19,017	10	0	0	3	66,559	35
	Ar rusayris	262,779	118,250	45	105,111	40	26,277	10	13,138	5	0	0	2	39,415	15
	At tadamon - bn	133,284	46,649	35	66,642	50	13,328	10	6,664	5	0	0	2	19,992	15
Blue Nile	Baw	185,108	46,277	25	55,532	30	55,532	30	27,766	15	0	0	2	83,298	45
	Ed damazine	315,011	126,004	40	141,754	45	31,501	10	15,750	5	0	0	2	47,251	15
	Geisan	151,076	37,769	25	67,984	45	30,215	20	15,107	10	0	0	3	45,322	30
	Wad al mahi	106,842	37,394	35	48,078	45	16,026	15	5,342	5	0	0	3	21,368	20
	Total	1,344,267	459,887	34	561,171	42	220,423	16	102,786	8	0	0		323,209	24
	Azum	87,389	26,216	30	48,063	55	8,738	10	4,369	5	0	0	2	13,107	15
	Bendasi	120,410	48,164	40	36,123	30	30,102	25	6,020	5	0	0	3	36,122	30
	Gharb jabal marrah	259,368	116,715	45	103,747	40	38,905	15	0	0	0	0	3	38,905	15
	Mukjar	156,405	70,382	45	54,741	35	23,460	15	7,820	5	0	0	3	31,280	20
Central Darfur	Shamal jabal marrah	191,218	57,365	30	76,487	40	38,243	20	19,121	10	0	0	3	57,364	30
	Um dukhun	154,586	69,563	45	54,105	35	23,187	15	7,729	5	0	0	3	30,916	20
	Wadi salih	339,183	169,591	50	101,754	30	50,877	15	16,959	5	0	0	3	67,836	20
	Wasat jabal marrah	159,880	71,946	45	47,964	30	23,982	15	7,994	5	0	0	3	31,976	20
	Zalingi	318,064				45	63,612	20	15,903	5	0	0	3	79,515	25
	Total	1,786,503	725,364	41	666,116	37	301,111	17	85,918	5	0	0		387,029	22
	Abu jabrah	94,275	37,710	40	37,710	40	14,141	15	4,713	5	0	0	3	18,854	20
	Abu karinka	171,901	68,760	40	68,760	40	34,380	20	0	0	0	0	3	34,380	20
	Adila	138,721	62,424	45	55,488	40	20,808	15	0	0	0	0	2	20,808	15
	Al firdous	108,484	48,817	45	37,969	35	16,272	15	5,424	5	0	0	3	21,696	20
East Darfur	Assalaya	136,387	54,554	40	54,554	40	20,458	15	6,819	5	0	0	3	27,277	20
	Bahr al arab	189,212	75,684	40	85,145	45	18,921	10	9,460	5	0	0	2	28,381	15
	El daein	148,955	67,030	45	59,582	40	22,343	15	0	0	0	0	2	22,343	15
	Shiaria	79,230	31,692	40	35,653	45	7,923	10	3,961	5	0	0	2	11,884	15
	Yassin	71,862	28,744	40	28,744	40	10,779	15	3,593	5	0	0	3	14,372	20
	Total	1,139,027	475,419	42	463,609	41	166,027	15	33,973	3	0	0		200,000	18



State	Locality	Total	Phase 1		Phase 2	2	Phase 3		Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al butanah	146,635	51,322	35	65,986	45	21,995	15	7,332	5	0	0	3	29,327	20
	Al fao	364,499	145,800	40	164,025	45	36,450	10	18,225	5	0	0	2	54,675	15
	Al fashaga	25,036	10,014	40	11,266	45	2,504	10	1,252	5	0	0	2	3,756	15
	Al galabat al gharbyah - kassab	189,484	75,794	40	85,268	45	18,948	10	9,474	5	0	0	2	28,422	15
	Al mafaza	125,488	50,195	40	56,470	45	18,823	15	0	0	0	0	2	18,823	15
	Al qureisha	159,392	55,787	35	71,726	45	23,909	15	7,970	5	0	0	3	31,879	20
Gedaref	Ar rahad	279,913	111,965	40	125,961	45	41,987	15	0	0	0	0	2	41,987	15
	Basundah	98,498	34,474	35	44,324	45	14,775	15	4,925	5	0	0	3	19,700	20
	Galaa al nahal	136,340	47,719	35	61,353	45	20,451	15	6,817	5	0	0	3	27,268	20
	Galabat ash- shargiah	234,002	93,601	40	105,301	45	23,400	10	11,700	5	0	0	2	35,100	15
	Madeinat al gedaref	555,931	222,372	40	250,169	45	55,593	10	27,797	5	0	0	2	83,390	15
	Wasat al gedaref	230,386	92,154	40	103,674	45	23,039	10	11,519	5	0	0	2	34,558	15
	Total	2,545,604	991,198	39	1,145,522	45	301,874	12	107,010	4	0	0		408,884	16
	Halfa aj jadeedah	332,798	149,759	45	149,759	45	33,279	10	0	0	0	0	2	33,279	10
	Madeinat kassala	468,933	187,573	40	234,466	50	46,893	10	0	0	0	0	2	46,893	10
	Reifi aroma	161,414	56,494	35	64,565	40	24,212	15	16,141	10	0	0	3	40,353	25
	Reifi gharb kassala	124,685	56,108	45	49,874	40	18,702	15	0	0	0	0	2	18,702	15
	Reifi hamashkureib	401,009	120,302	30	160,403	40	80,201	20	40,100	10	0	0	3	120,301	30
Kassala	Reifi kassla	242,895	85,013	35	109,302	45	24,289	10	24,289	10	0	0	3	48,578	20
Nassaia	Reifi khashm elgirba	155,414	62,165	40	69,936	45	15,541	10	7,770	5	0	0	2	23,311	15
	Reifi nahr atbara	215,062	86,024	40	96,777	45	21,506	10	10,753	5	0	0	2	32,259	15
	Reifi shamal ad delta	144,280	50,498	35	57,712	40	21,642	15	14,428	10	0	0	3	36,070	25
	Reifi telkok	431,938	129,581	30	172,775	40	64,790	15	64,790	15	0	0	3	129,580	30
	Reifi wad elhilaiw	133,018	59,858	45	53,207	40	19,952	15	0	0	0	0	2	19,952	15
	Total	2,811,446	1,043,379	37	1,218,780	43	371,012	13	178,274	6	0	0		549,287	19
	Bahri	1,006,081	704,256	70	251,520	25	50,304	5	0	0	0	0	2	50,304	5
	Jebel awlia	1,646,314	823,157	50	493,894	30	246,947	15	82,315	5	0	0	3	329,262	20
	Karrari	1,280,467	704,256	55	384,140	30	192,070	15	0	0	0	0	2	192,070	15
Khartoum	Khartoum	1,097,543	658,525	60	329,262	30	109,754	10	0	0	0	0	2	109,754	10
	Sharg an neel	1,463,391	951,204	65	439,017	30	73,169	5	0	0	0	0	2	73,169	5
	Um bada	1,737,776	955,776	55	434,444	25	347,555	20	0	0	0	0	3	347,555	20
	Um durman	914,619	548,771	60	274,385	30	91,461	10	0	0	0	0	2	91,461	10
	Total	9,146,191	5,345,949	58	2,606,664	29	1,111,262	12	82,316	1	0	0		1,193,578	13



State	Locality	Total	Phase 1		Phase 2	2	Phase	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al fasher	574,711	201,148	35	229,884	40	114,942	20	28,735	5	0	0	3	143,677	25
	Al koma	26,086	9,130	35	11,738	45	5,217	20	0	0	0	0	3	5,217	20
	Al lait	129,595	45,358	35	71,277	55	12,959	10	0	0	0	0	2	12,959	10
	Al malha	93,265	23,316	25	37,306	40	27,979	30	4,663	5	0	0	3	32,642	35
	As serief	63,939	22,378	35	28,772	45	12,787	20	0	0	0	0	3	12,787	20
	At tawisha	106,536	37,287	35	47,941	45	15,980	15	5,326	5	0	0	3	21,306	20
	Dar as salam	124,138	55,862	45	37,241	30	24,827	20	6,206	5	0	0	3	31,033	25
	Kebkabiya	206,475	82,590	40	92,913	45	30,971	15	0	0	0	0	2	30,971	15
North Darfur	Kelemando	72,798	18,199	25	32,759	45	18,199	25	3,639	5	0	0	3	21,838	30
24.14.	Kernoi	104,067	36,423	35	46,830	45	15,610	15	5,203	5	0	0	3	20,813	20
	Kutum	239,415	59,853	25	119,707	50	47,883	20	11,970	5	0	0	3	59,853	25
	Melit	167,690	58,691	35	83,845	50	25,153	15	0	0	0	0	2	25,153	15
	Saraf omra	162,049	64,819	40	72,922	45	16,204	10	8,102	5	0	0	2	24,306	15
	Tawila	143,030	42,909	30	57,212	40	28,606	20	14,303	10	0	0	3	42,909	30
	Um baru	118,349	35,504	30	65,091	55	11,834	10	5,917	5	0	0	2	17,751	15
	Um kadadah	135,774	33,943	25	61,098	45	33,943	25	6,788	5	0	0	3	40,731	30
	Total	2,467,917	827,417	34	1,096,541	44	443,101	18	100,858	4	0	0		543,959	22
	Ar rahad (1)	167,200	91,960	55	66,880	40	8,360	5	0	0	0	0	2	8,360	5
	Bara	194,127	97,063	50	77,650	40	19,412	10	0	0	0	0	2	19,412	10
	Gebrat al sheikh	244,923	122,461	50	97,969	40	24,492	10	0	0	0	0	2	24,492	10
NIdla	Gharb bara	188,512	84,830	45	65,979	35	37,702	20	0	0	0	0	3	37,702	20
North Kordofan	Sheikan	572,981	229,192	40	257,841	45	85,947	15	0	0	0	0	2	85,947	15
	Soudari	287,567	71,891	25	115,026	40	86,270	30	14,378	5	0	0	3	100,648	35
	Um dam haj ahmed	138,775	41,632	30	62,448	45	34,693	25	0	0	0	0	3	34,693	25
	Um rawaba	366,391	146,556	40	164,875	45	54,958	15	0	0	0	0	2	54,958	15
	Total	2,160,476	885,588	41	908,672	42	351,837	16	14,378	1	0	0		366,215	17
	Ad dabbah	216,566	86,626	40	97,454	45	21,656	10	10,828	5	0	0	2	32,484	15
	Al burgaig	128,950	64,475	50	45,132	35	12,895	10	6,447	5	0	0	2	19,342	15
	Al golid	117,677	64,722	55	35,303	30	11,767	10	5,883	5	0	0	2	17,650	15
Northern	Delgo	62,195	24,878	40	27,987	45	6,219	10	3,109	5	0	0	2	9,328	15
	Dongola	223,906	89,562	40	100,757	45	22,390	10	11,195	5	0	0	2	33,585	15
	Halfa	47,345	14,203	30	26,039	55	4,734	10	2,367	5	0	0	2	7,101	15
	Merwoe	226,555	101,949	45	90,622	40	11,327	5	22,655	10	0	0	2	33,982	15
	Total	1,023,194	446,417	44	423,298	41	90,992	9	62,487	6	0	0		153,479	15
	Agig	87,779	30,722	35	39,500	45	13,166	15	4,388	5	0	0	3	17,554	20
	Al ganab	131,186	32,796	25	65,593	50	19,677	15	13,118	10	0	0	3	32,795	25
	Dordieb	66,618	16,654	25	33,309	50	9,992	15	6,661	10	0	0	3	16,653	25
	Halaib	29,030	7,257	25	13,063	45	5,806	20	2,903	10	0	0	3	8,709	30
	Haya	325,901	97,770	30	162,950	50	48,885	15	16,295	5	0	0	3	65,180	20
Red Sea	Jubayt elmaaadin	112,463	28,115	25	50,608	45	22,492	20	11,246	10	0	0	3	33,738	30
	Port sudan	320,376	160,188	50	128,150	40	32,037	10	0	0	0	0	2	32,037	10
	Sawakin	93,451	42,052	45	42,052	45	9,345	10	0	0	0	0	2	9,345	10
	Sinkat	196,804	59,041	30	88,561	45	39,360	20	9,840	5	0	0	3	49,200	25
	Tawkar	186,249	65,187	35	93,124	50	18,624	10	9,312	5	0	0	2	27,936	15
	Total	1,549,857	539,787	35	716,915	46	219,390	14	73,766	5	0	0		293,156	19



State	Locality	Total	Phase 1	l	Phase 2	2	Phase	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abu hamad	118,204	94,563	80	11,820	10	5,910	5	5,910	5	0	0	2	11,820	10
	Ad damar	418,920	167,568	40	188,514	45	41,892	10	20,946	5	0	0	2	62,838	15
	Al buhaira	70,503	45,826	65	14,100	20	7,050	10	3,525	5	0	0	2	10,575	15
	Al matama	223,930	145,554	65	55,982	25	11,196	5	11,196	5	0	0	2	22,392	10
River Nile	Atbara	198,421	99,210	50	79,368	40	19,842	10	0	0	0	0	2	19,842	10
	Barbar	224,650	190,952	85	33,697	15	-	0	0	0	0	0	1	0	0
	Shendi	397,245	258,209	65	99,311	25	19,862	5	19,862	5	0	0	2	39,724	10
	Total	1,651,873	1,001,885	61	482,795	29	105,753	6	61,440	4	0	0		167,193	10
	Abu hujar	219,932	98,969	45	87,972	40	32,989	15	0	0	0	0	2	32,989	15
	Ad dali	119,022	47,608	40	53,559	45	17,853	15	0	0	0	0	2	17,853	15
	Ad dinder	323,430	129,372	40	145,543	45	32,343	10	0	0	0	0	2	32,343	10
Sennar	As suki	354,479	194,963	55	124,067	35	35,447	10	0	0	0	0	2	35,447	10
Sellilai	Sennar	505,845	227,630	45	202,338	40	75,876	15	0	0	0	0	2	75,876	15
	Sharg sennar	388,117	155,246	40	174,652	45	58,217	15	0	0	0	0	2	58,217	15
	Sinja	260,038	104,015	40	130,019	50	26,003	10	0	0	0	0	2	26,003	10
	Total	2,170,863	957,806	44	918,154	42	278,732	13	0	0	0	0		278,732	13
	Al radoum	163,821	139,247	85	16,382	10	8,191	5	0	0	0	0	1	8,191	5
	Al wihda	61,695	27,762	45	24,678	40	6,169	10	3,084	5	0	0	2	9,253	15
	As salam - sd	113,554	79,487	70	17,033	15	17,033	15	0	0	0	0	2	17,033	15
	As sunta	156,996	94,197	60	47,098	30	15,699	10	0	0	0	0	2	15,699	10
	Beliel	292,229	160,725	55	87,668	30	43,834	15	0	0	0	0	2	43,834	15
	Buram	176,931	123,851	70	26,539	15	26,539	15	0	0	0	0	2	26,539	15
	Damso	176,931	150,391	85	17,693	10	8,846	5	0	0	0	0	1	8,846	5
	Ed al fursan	260,134	182,093	70	52,026	20	26,013	10	0	0	0	0	2	26,013	10
	Gereida	179,174	107,504	60	53,752	30	17,917	10	0	0	0	0	2	17,917	10
	Kas	241,032	108,464	45	96,412	40	36,154	15	0	0	0	0	2	36,154	15
South	Kateila	140,180	91,117	65	28,036	20	21,027	15	0	0	0	0	2	21,027	15
Darfur	Kubum	225,530	101,488	45	101,488	45	22,553	10	0	0	0	0	2	22,553	10
	Mershing	106,429	53,214	50	37,250	35	15,964	15	0	0	0	0	2	15,964	15
	Nitega	122,553	85,787	70	24,510	20	12,255	10	0	0	0	0	2	12,255	10
	Nyala janoub	385,503	250,576	65	77,100	20	57,825	15	0	0	0	0	2	57,825	15
	Nyala shimal	399,215	259,489	65	79,843	20	39,921	10	19,960	5	0	0	2	59,881	15
	Rehaid albirdi	240,270	156,175	65	48,054	20	36,040	15	0	0	0	0	2	36,040	15
	Sharg aj jabal	14,374	5,749	40	6,468	45	1,437	10	718	5	0	0	2	2,155	15
	Shattaya	56,524	25,435	45	22,609	40	8,478	15	0	0	0	0	2	8,478	15
	Tulus	322,210	273,878	85	32,221	10	16,110	5	0	0	0	0	1	16,110	5
	Um dafoug	77,087	50,106	65	15,417	20	7,708	10	3,854	5	0	0	2	11,562	15
	Total	3,912,372	2,526,747	65	912,284	23	445,722	11	27,619	1	0	0	5	473,340	12



State	Locality	Total	Phase 1	I	Phase 2	2	Phase 3	3	Phase	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abassiya	135,562	61,002	45	54,224	40	13,556	10	6,778	5	0	0	2	20,334	15
	Abu jubayhah	201,992	100,996	50	70,697	35	30,299	15	0	0	0	0	2	30,299	15
	Abu kershola	108,869	48,991	45	43,547	40	10,886	10	5,443	5	0	0	2	16,329	15
	Al buram	174,830	61,190	35	69,932	40	26,224	15	17,483	10	0	0	3	43,707	25
	Al leri	43,364	23,850	55	13,009	30	4,336	10	2,168	5	0	0	2	6,504	15
	Al quoz	129,283	58,177	45	51,713	40	12,928	10	6,464	5	0	0	2	19,392	15
	Ar rashad	69,927	31,467	45	27,970	40	6,992	10	3,496	5	0	0	2	10,488	15
	Ar reif ash shargi	67,474	26,989	40	30,363	45	6,747	10	3,373	5	0	0	2	10,120	15
South	At tadamon - sk	87,126	39,207	45	34,850	40	8,713	10	4,356	5	0	0	2	13,069	15
Kordofan	Delami	55,198	24,839	45	22,079	40	5,520	10	2,760	5	0	0	2	8,280	15
	Dilling	231,387	104,124	45	92,555	40	23,139	10	11,569	5	0	0	2	34,708	15
	Ghadeer	57,499	25,875	45	23,000	40	5,750	10	2,875	5	0	0	2	8,625	15
	Habila - sk	75,808	34,114	45	30,323	40	7,581	10	3,790	5	0	0	2	11,371	15
	Heiban	247,789	99,116	40	111,505	45	24,779	10	12,389	5	0	0	2	37,168	15
	Kadugli	158,245	71,210	45	63,298	40	15,824	10	7,912	5	0	0	2	23,736	15
	Talawdi	44,949	26,969	60	11,237	25	4,494	10	2,247	5	0	0	2	6,741	15
	Um durein	128,660	64,330	50	45,031	35	12,866	10	6,433	5	0	0	2	19,299	15
	Total	2,017,962	902,448	45	795,337	39	220,637	11	99,540	5	0	0		320,177	16
	Ag geneina	661,666	198,499	30	231,583	35	132,333	20	99,249	15	0	0	3	231,582	35
	Beida	234,987	82,245	35	70,496	30	58,746	25	23,498	10	0	0	3	82,244	35
	Foro baranga	88,023	35,209	40	39,610	45	13,203	15	0	0	0	0	2	13,203	15
	Habila - wd	135,256	54,102	40	54,102	40	20,288	15	6,762	5	0	0	3	27,050	20
West Darfur	Jebel moon	70,226	17,557	25	24,579	35	21,068	30	7,023	10	0	0	3	28,091	40
	Kereneik	499,119	124,780	25	174,692	35	149,736	30	49,912	10	0	0	3	199,648	40
	Kulbus	50,735	22,830	45	17,757	35	10,147	20	0	0	0	0	3	10,147	20
	Sirba	200,848	60,254	30	100,424	50	30,127	15	10,042	5	0	0	3	40,169	20
	Total	1,940,860	595,478	31	713,244	37	435,650	22	196,488	10	0	0		632,138	32
	Abu zabad	115,104	63,307	55	28,776	25	17,265	15	5,755	5	0	0	3	23,020	20
	Abyei	126,485	56,918	45	37,945	30	25,297	20	6,324	5	0	0	3	31,621	25
	Al dibab	82,200	45,210	55	24,660	30	12,330	15	7.260	0	0	0	2	12,330	15
	Al Idia	147,206	80,963	55	44,161	30	14,720	10	7,360	5	0	0	2	22,080	15
	Al khiwai	93,862	56,317	60	23,465	25	14,079	15	0	0	0	0	2	14,079	15
	Al lagowa	102,138	56,175	55	30,641	30	10,213	10	5,106	5	0	0	2	15,319	15
West	Al meiram	54,819	30,150	55	16,445	30	5,481	10	2,740	5	0	0	2	8,221	15
Kordofan	An nuhud	275,921	151,756	55	82,776	30	41,388	15	0	0	0	0	2	41,388	15
	As salam - wk	117,074	64,390	55	35,122	30 25	11,707	10	5,853	5	0	0	2	17,560	15
	As sunut Babanusa	146,067	87,640 29,334	60	36,516 17,600		14,606 8,800	10 15	7,303 2,933	5	0	0	2	21,909	15
		58,668		50		30				5		0	3	11,733	20
	Ghubaish Keilak	157,885 77,518	86,836 42,634	55 55	47,365 23,255	30	15,788 7.751	10	7,894 3,875	5 5	0	0	2	23,682 11,626	15 15
	Wad bandah			40	47,554	30	7,751	20	3,875 15,851		0	0	3		
		158,515	63,406				31,703			10			3	47,554	30
	Total	1,713,462	915,041	53	496,287	29	231,134	13	71,000	4	0	0		302,134	17



State	Locality	Total	Phase 1		Phase 2		Phase 3	3	Phase 4		Phase	5	Area	Phase 3-	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Ad diwaim	470,853	188,341	40	211,883	45	47,085	10	23,542	5	0	0	2	70,627	15
	Aj jabalain	375,746	131,511	35	169,085	45	37,574	10	37,574	10	0	0	3	75,148	20
	Al gitaina	390,420	175,689	45	156,168	40	39,042	10	19,521	5	0	0	2	58,563	15
	As salam / ar rawat	357,818	125,236	35	161,018	45	53,672	15	17,890	5	0	0	3	71,562	20
White Nile	Guli	413,400	186,030	45	165,360	40	41,340	10	20,670	5	0	0	2	62,010	15
	Kosti	-	-	-	-	-	-	-	-	-	0	0	2	-	-
	Rabak	387,441	174,348	45	154,976	40	38,744	10	19,372	5	0	0	2	58,116	15
	Tendalti	226,959	102,131	45	79,435	35	22,695	10	22,695	10	0	0	3	45,390	20
	Um rimta	189,362	75,744	40	85,212	45	18,936	10	9,468	5	0	0	2	28,404	15
	Total	2,811,999	1,159,032	41	1,183,141	42	299,091	11	170,735	6	0	0		469,826	17
Gran	d Total	47,881,430	22,371,931	47	17,746,553	37	6,189,076	13	1,549,705	3	0	0		7,738,781	16



# ANNEX: SITUATION OVERVIEW AND KEY DRIVERS CURRENT IPC ACUTE FOOD INSECURITY SITUATION (April 2022 – May 2022)

In the period from April to May 2022, the IPC estimates that 9.6 million people (20% of the population analyzed) were experiencing Crisis or worse levels of food insecurity (IPC Level 3 or above) and need urgent action to save lives, reduce food consumption gaps, restore and protect their livelihood. Around 2.3 million people were facing an Emergency acute food insecurity situation (IPC Phase 4) and around 7.3 million people were facing Crisis acute food insecurity (IPC Phase 3). In the same period, an increase in localized conflicts triggered population displacement, which, combined with the deterioration of the economy, led to higher than usual levels of acute food insecurity. As a result, the highest prevalence of population in IPC Phase 3 and above were registered in North and central Darfur (31% and 28 %), West and East Darfur (32% and 23%) North,west and South Kordofan (20%,23% and 22%); Gedraif, Kassala and Red sea (32%, 23% and 23%), the Blue Nile (29%), Sinnar and White Nile (19% and 19%). Major food insecurity concerns exist in 13 out of the 18 States, while it was 10 states in the previous IPC analysis (June – August 2021). The most severe food insecure localitieswere, namely, Halaib and Jubayt-el-maaadin in Red Sea State, Alkurmuk in Blue Nile state, Refi hamshireib in Kassala state and Kreink and Jabl Moon in West Darfur which was classified in Emergency (IPC Phase 4). There were 128 localities classified in Crisis (IPC Phase 3) and 50 localities classified in Stress (IPC Phase 2), and only two localities classified as Food Secure (IPC Phase 1) in River Nile state.

### **Availability**

Food availability during the current analysis period is compromised by lower production of sorghum and millet, the main staple food for most of the Sudanese people. Production in the previous main cropping season was hampered by some or a combination of the above-mentioned food insecurity drivers. The Crop and Food Supply Assessment Mission report (CFSAM, March 2022) estimated national cereal production in 2021/2022 at 5 million tonnes, 35% below the previous year and 30% less than the five-year, mostly due to a reduction in planted areas and lower yields. Sorghum production is estimated at 3.5 million tonnes, 32% lower than the previous year and 28% less than the five-year average. Millet production was estimated at 0.9 million tones, 53% lower than the previous year and 44% less than the five-year average. Wheat production, which is mainly grown in irrigated sectors in the central and eastern regions of Sudan in addition to Northern and River Nile states, is estimated at 600,000MT, 13% below both previous years and the five-year average, respectively. The CFSAM estimated the importation of 2.25 million MT of wheat and 353,000 MT of sorghum to fill the expected gap between January to December 2021.

The significant decline in total cereal production is due to unfavorable weather conditions: the 2021 rainy season was characterized by an irregular distribution of rain. After an early onset in May and prolonged dry spells in July, torrential rains trigger floods in late July. Crops were affected by dry spells also at the end of the season. In addition, an outbreak of pests and diseases, a shortage of inputs, and challenges related to the irrigation system.

Pasture conditions were assessed to be worse than in the previous year, as erratic season rains constrained the regeneration of rangeland resources. Overgrazing was reported in some areas and a faster-than-normal depletion of the pasture is expected during the dry season, with a negative impact on livestock condition and productivity.

### Accessibility

Food access is a major limiting factor in the current period with continuous macroeconomic challenges, deterioration of local currency, high inflation rates, and hikes in the prices of staple food and essential commodities hampered the ability of many people, particularly the most vulnerable households to access adequate and better-quality food. Sudan's annual inflation rate has decreased to 220.71 in April 2022 compared to 263.16% in March 2022.

Implementation of the partially managed exchange rate by the government during the previous year resulted in a huge devaluation of the Sudanese currency, which reached around 570 SDG/USD in April - May in the parallel market compared to 410 SDG/USD in the same time last year in early March of 2022. This led to a record rise in the prices of goods and services from March to April. Overall, the Sudanese Pound's depreciation over the last year has significantly reduced the government and private sector's ability to import essential requirements and increased prices of imported and locally produced food and non-food items as well as the inputs. The rapid depreciation has resulted in a 60-85 percent drop in household purchasing power, particularly among urban poor households. Urban households are increasing their dependency on support from relatives as well as other coping strategies including begging.

Prices of sorghum and millet, the staple food for most people, have significantly increased all over the country. Sorghum and millet have increased by more than 100% during the harvest period (December – February 2022) compared to the same time last year and over 400% compared to the recent five years average. The major reason for the increase in food prices is attributed to lower production during 2021/2022 agriculture season, high production, and transportation costs, and the continued devaluation of the Sudanese pound.



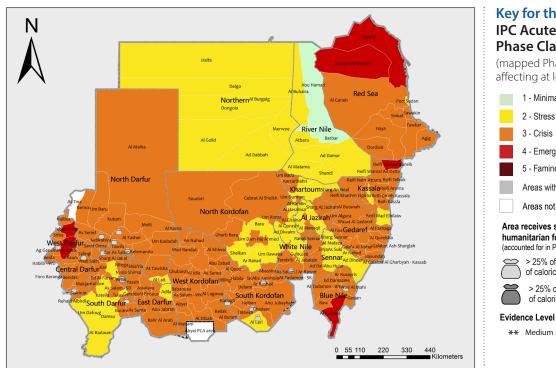
Livestock prices either remained stable or increased by 10-20 percent in April 2022 compared to February across most main markets. The current price trends are attributed to increased supplies to local markets by pastoral and agropastoral groups for income to cover the high costs of food, fodder, and water in addition to the high cost of transportation that reduces local producers' ability to access some main markets. Across the main livestock markets, goat and sheep prices in April 2022 were almost 110-125 percent above last year and almost five times above the five-year average.

Between February and April 2022, the livestock-to-cereal terms-of-trade (TOT), a proxy for pastoral household purchasing power, significantly deteriorated, driven by high increases in sorghum prices, while livestock prices remained relatively stable The April 2022 goats-to-sorghum TOT in El Obied market dropped by 44 percent compared to February and 13 percent compared to March following a 78 percent increase in sorghum prices between February and April, while goat prices have remained at 36,000 SDG/goat since December 2021. The livestock-to-sorghum TOT in April 2022 would be around 140 kg of sorghum per goat, equivalent to around 40 days of kilocalories requirements for a family of six if only sorghum were eaten during this time. However, the TOT is around 15 percent lower than the respective TOT in April 2021 and 25 percent below the five-year average.

### Utilization

Most of the rural population are lacking safe drinking water sources and has limited access to improved sanitation facilities. Most rural people are reliant on the use of wood or charcoal as cooking fuel, in addition to the shortage of gas in some urban areas leads to a shift to wood and charcoal.

## **CURRENT IPC ACUTE FOOD INSECURITY SITUATION (APRIL – MAY 2022)**



### **Key for the Map IPC Acute Food Insecurity Phase Classification**

(mapped Phase represents highest severity affecting at least 20% of the population)

1 - Minimal

3 - Crisis

4 - Emergency

5 - Famine

Areas with inadequate evidence

Areas not analysed

Area receives significant humanitarian food assistance (accounted for in Phase classification)

> 25% of households meet 25-50% of caloric needs through assistance

> 25% of households meet > 50% of caloric needs through assistance

**Evidence Level** 

State	Total	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Phase 3+	
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,687,557	2,566,726	45	2,283,223	40	667,592	12	170,016	3	0	0	837,608	15
Blue Nile	1,344,267	417,319	31	540,302	40	274,099	20	112,548	8	0	0	386,646	29
Central Darfour	1,786,503	594,493	33	686,930	38	341,199	19	163,882	9	0	0	505,081	28
East Darfur	1,139,027	422,131	37	453,200	40	206,746	18	56,951	5	0	0	263,697	23
Gadarif	2,545,604	759,619	30	961,021	38	643,192	25	181,772	7	0	0	824,964	32
Kassala	2,811,446	894,315	32	1,278,967	45	387,124	14	251,040	9	0	0	638,164	23
Khartoum	9,146,191	5,281,925	58	2,606,664	29	1,175,286	13	82,316	0	0	0	1,257,601	14
North Darfour	2,467,917	747,054	30	957,968	39	613,617	25	149,278	6	0	0	762,895	31
North Kordofan	2,160,476	855,276	40	878,640	41	312,518	14	114,042	5	0	0	426,560	20
Northern	1,023,194	675,823	66	217,052	21	67,832	7	62,487	6	0	0	130,319	13
Red Sea	1,549,857	502,959	32	687,595	44	216,176	14	143,126	9	0	0	359,303	23
River Nile	1,651,873	1,078,995	65	425,025	26	123,382	7	24,471	1	0	0	147,853	9
Sinnar	2,170,863	854,826	0	883,288	41	366,835	17	48,191	2	0	0	415,026	19
South Darfour	3,912,372	2,266,152	58	962,338	25	546,151	14	137,732	4	0	0	683,883	17
South Kordofan	2,017,962	943,352	47	605,448	30	341,680	17	127,092	6	0	0	468,772	23
West Darfour	1,940,860	610,613	31	702,853	36	421,451	22	205,943	11	0	0	627,394	32
West Kordofan	1,713,462	807,530	47	500,325	29	264,520	15	113,496	7	0	0	378,015	22
White Nile	2,811,999	1,025,872	36	1,252,264	45	356,585	13	177,278	6	0	0	533,863	19
Grand Total	47,881,430	21,304,978	44	16,883,102	35	7,325,982	15	2,321,662	5	0	0	9,647,645	20

Note: A population in Phase 3+ does not necessarily reflect the full population in need of urgent action. This is because some households may be in Phase 2 or even 1 but only because of receipt of assistance, and thus, they may be in need of continued action. Marginal inconsistencies that may arise in the overall percentages of totals and grand totals are attributable to rounding.