## **SUDAN**

## HIGH LEVELS OF ACUTE FOOD INSECURITY DRIVEN BY CURRENCY DEVALUATION, INFLATION AND LOCALIZED CONFLICTS

## **IPC ACUTE FOOD INSECURITY ANALYSIS APRIL 2021 - FEBRUARY 2022**

**Issued May 2021** 

CURRENT SITUATION AF	PRIL - MAY	2021
7.3M	Phase 5	0 People in Catastrophe
16% of the analysed population	Phase 4	1,841,000 People in Emergency
People facing high levels of acute food	Phase 3	5,457,000 People in Crisis
insecurity (IPC Phase 3 or above)	Phase 2	14,811,000 People in Stressed
IN NEED OF URGENT ACTION	Phase 1	24,460,000 People in food security

FIRST PROJECTION JUNE	E - SEPTEN	MBER 2021
9.8M	Phase 5	0 People in Catastrophe
21% of the analysed population	Phase 4	2,697,000 People in Emergency
People facing high levels of acute food	Phase 3	7,073,000 People in Crisis
insecurity (IPC Phase 3 or above)	Phase 2	16,526,000 People in Stressed
IN NEED OF URGENT ACTION	Phase 1	20,273,000 People in food security

SECOND PROJECTION O	CT 2021 -	FEB 2022
6M	Phase 5	0 People in Catastrophe
13% of the analysed population	Phase 4	1,325,000 People in Emergency
People facing high levels of acute food	Phase 3	4,631,000 People in Crisis
insecurity (IPC Phase 3 or above)	Phase 2	15,008,000 People in Stressed
IN NEED OF URGENT ACTION	Phase 1	25,605,000 People in food security

## **Overview**

Latest data shows that an estimated 7.3 million people in Sudan (16% of the population analyzed) are in high levels of acute food insecurity (IPC Phase 3 or above) between April and May (current period) and require urgent action. Of these, around 5.5 million people are classified in Crisis (IPC Phase 3) while around 1.8 million are critically food insecure classified in Emergency (IPC Phase 4). The most affected localities of Red Sea State (Halaib and Jubayt-el-maaadin) are classified in Emergency (IPC Phase 4). 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 Crisis (IPC Phase 3) or worse are observed in North Darfur (25%), followed by West Darfur (22%), North Kordofan (20%), South Kordofan (20%), Gedarif (19%) and Central, East and South Darfur states, ranging from 17-18%.

During the first projection period (June-September 2021), which will coincide with the peak lean season, it is estimated that around 9.7 million people (21% of the population analyzed) will likely be in Crisis (IPC Phase 3) or worse. Compared to the same period of the June 2020 IPC analysis, there is a 1 percentage point increase in the prevalence of the population in Emergency and a 1 percentage point reduction in those in IPC Phase 3 (Crisis). Although the total population in Crisis and Emergency has remained similar (21%), the severity has increased. There is also a noticeable deterioration (5% of the population analyzed) to worse IPC Phase classifications, mainly attributable to the impacts of the lean season, tribal conflicts, diminished labor opportunities causing low purchasing power, high food prices as well as inflation.

## **Key Drivers**



Above average rains during the June to September 2020 rainy season, coupled by floods during August and September, resulted in significant damage of infrastructure and households' assets.



## **Economic decline and inflation**

Sudan's economy is ailing from the devaluation of the Sudanese pound (SDG), high inflation and soaring food and non-food prices reflected in the high inflation rate recorded during the early months of 2021. This has curtailed household purchasing



## **Conflict induced displacements**

Influx of refugees from conflictaffected South Sudan as well as internal displacement distabilized certain localities (Geneina) and states such as the Darfurs and the Kordofans.

## **CURRENT SITUATION APRIL - MAY 2021**



## FIRST PROJECTION JUNE - SEPTEMBER 2021



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

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



# SECOND PROJECTION OCT 2021 - FEB 2022



Area receives significant humanitarian food assistance



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



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



4 - Emergency 5 - Famine

**Evidence Level** \*\* Medium

Areas with inadequate evidence

Areas not analysed



# **CURRENT SITUATION OVERVIEW (April - May 2021)**

In the current period (April – May 2021), corresponding to pre-lean season, 83 of 186 localities are classified in Crisis (IPC Phase 3), while two localities (Halaib and Jubayt elmaaadin) are classified in Emergency (IPC Phase 4). An estimated 7.3 million people (15.7% of the population analysed) are in Crisis (IPC Phase 3) or worse, with 4% of the population analysed in Emergency (IPC Phase 4), and require urgent action to save lives, reduce food consumption gaps, restore and protect livelihoods. In terms of magnitude, the localities hosting the highest populations in Crisis (IPC Phase 3) or worse are 89, with 143 analysed localities with populations in Emergency (IPC Phase 4). In terms of severity, the 16 localities with the highest percentage of population in Crisis (IPC Phase 3) or worse are: Halaib (45%), Jubayt elmaaadin (40%), Al fasher (30%), Al malha (30%), Kernoi (30%), Melit (30%), Tawila (30%), Um baru (30%) Um kadadah (30%), As sunta (30%), Gereida (30%), Sharg aj jabal (30%), Abu jabrah (30%), Al kurmuk (30%), Baw (30%) and Soudari (30%).

## Most affected groups

The people facing high acute food insecurity are the new and existing internally displaced people (IDPs), returnees, those stranded in conflict areas, refugees from South Sudan and other neighboring countries.

Very poor and poor households are especially vulnerable to an increase in staple food prices because they are heavily dependent on the market for food and their relatively limited purchasing power.

Poor groups in urban and semi-urban centers of the poor/destitute living in Khartoum, Jazeera, White Nile and Red Sea state in addition to other main towns in the country are also affected.

At state level, the highest percentage of populations in IPC Phase 3 (Crisis) or worse is found in North Darfur (25%), West Darfur (22%), North Kordofan (20%), South Kordofan (20%), Red Sea (20%), Gedaref (19%), Blue Nile and central Darfur (18%); South, East and South Darfur states (17%). The highest percentage of populations in IPC Phase 4 (Emergency) are in the following four states: West Darfur (9%), Red Sea (7%), Central Darfur (6%) and Kassala (6%). Of the remaining 104 localities, 99 localities are classified in IPC Phase 2 (Stressed) and three in IPC Phase 1 (Minimal Acute Food Insecurity).

An increase in localized conflicts triggered population displacements, especially in Darfur (Geneina) and Kordofan states, which combined with the deterioration of the economy, led to higher than usual levels of acute food insecurity.

Major acute food insecurity concerns exist in 10 out of the 18 states in terms of caseload and proportion of food insecure populations, while it was only two states in the previous IPC analysis (June – August 2019).

## **Food Availability**

During the current analysis period (April - May 2021), food availability is influenced by 2020/21 seasonal above average production of sorghum and millet, the main staple foods for most Sudanese people. The February 2021 Crop and Food Supply Assessment Mission report (CFSAM) estimated the national sorghum and millet production in 2020/21 at 6.9 million MT, 9% higher than the previous year and 20% above the five-year average.

Wheat production, which is mainly grown in irrigated sectors in the central and eastern regions of Sudan and Northern and River Nile states, is estimated at 689,000 MT, 4% and 21% higher than the previous year and the five-year average, respectively. The CFSAM estimated importation of 2.85 million MT of wheat and 160,000 MT of sorghum to fill the expected gap between January and December 2021.

While an increase may be observed at the national level, several states reported significant variations from the five-year average or last year, both in yield and tonnes harvested. Five states reported an increase in Sorghum crop vs. the five-year average or from last year, while 11 states reported a decrease in sorghum vs. the five-year average or the previous year.

Abundant rainfall and an improved security situation have increased the availability of pasture and water for livestock, increasing the availability of animal products (milk and meat). However, the expansion of cultivated areas at the expense of rangelands and transhumance routes lead to conflicts between farmers and pastoralists in some states. Insecurity in the greater Kordofan region is relatively lower than neighbouring Darfur regions; however, inter-communal conflicts and conflict between pastoralists and farmers have led to crop destruction and livestock loss.

Constraints on agricultural / livestock faced by pastoralists are the loss of rangeland due to the expansion of mechanized farming. The traditional practice of farmers allowing herds to graze crop residues, with animals simultaneously fertilizing the land, is declining, as farmers prefer to sell their residues for cash.

Desert locust impacts in the current period are estimated to be minimal; there have been limited control operations in progress against early instar hopper bands on the Red Sea coast north of Tokar Delta. It is projected that the adult groups and swarms may continue to lay along the Red Sea Coast between Suakin and Tokar, where hatching and band formation will occur in March. There is a risk that some groups and small swarms will move inland to the Atbara River and Nile Valley, which could be supplemented by additional groups and small swarms arriving from the coast of Eritrea.

The intercommunal clashes in areas adjacent to Jabal Marrah affected access to livelihoods and disrupted markets, and forced population displacement.

In some remote areas in eastern and western Sudan, the availability of food commodities in the markets was below average. The food supply chains have been negatively impacted by a scarcity of fuel and high transportation costs. Following fuel subsidy reforms, the price of petrol and diesel prices is part of a series of economic measures. Petrol prices rose by about 23%, and diesel prices increased by more than 8%. The cost of petrol at several stations in the capital Khartoum increased to 150 Sudanese pounds (\$0.4) per liter from 122 pounds, while the price of diesel had risen to 125 pounds from 115 pounds.



## **Food Accessibility**

Implementation of the partially managed exchange rate by the government during the previous years resulted in a considerable devaluation of the Sudanese Pound (SDG), which reach around 390SDG/1US\$ in early February of 2021 (259%). This led to a record rise in the prices of goods and services from February to April. Between February and March, the price of sorghum, millet, and locally produced wheat increased 10 to 20% in most markets, 150-200% above respective prices last year, and 600-650% above the five-year average. Although the adoption of the floating exchange rate in mid-February 2021 by the government stabilized the exchange rate to around 380SDG/1USD, the prices of goods and services remained high despite their relative stability. Overall, the Sudanese Pound's depreciation over the last year has significantly reduced government and private sector ability to import essential requirements and increased prices of imported and locally produced food and non-food items as well as the inputs.

These macroeconomic shocks are concerning due to the already high food expenditure share present in many states. The national average of food expenditure over 75% is 76%. The five states on average with the highest food expenditure share (over 80% with over 75% food expenditure share) are Red Sea (91%), North Kordofan (85%), South Kordofan (82%), Kassala (81%) and Khartoum (81%).

Sorghum and millet prices increased by 5-15% across most markets, and prices remained on average at over 200% higher than January 2020 and over six times higher than the five-year average. The retail price for locally produced wheat increased 10-20% in most main wheat production and consumption markets across the country between January and February 2021. Tightened market supplies from last year's harvest, increased demand due to shortages, high prices of imported wheat and wheat flour, and high transportation costs increased. In addition, prices increased due to the high transport cost as the fuel prices continued to rise due to the removal of subsidy and floating exchange policy adopted by the government during February 2021.

Livestock prices and Terms of Trade (national analysis) for goat and sheep increased 10-15% across most markets between January and February 2021, due to improved animal body conditions following improved access to pasture and water in most pastoral and agro-pastoral areas, along with the depreciation of the Sudanese Pound. However, livestock prices in February 2021 remained 120-150% above respective prices last year and 400-450% above the five-year average. The livestock to cereals Terms of Trade remains relatively stable compared to last year, 20-50% lower than the five-year average across most markets, as food prices continue to increase at greater rates than livestock prices.

COVID-19 related restrictions have had negative impacts on both crop and livestock markets, activities and labor pools. COVID-19 impact on crops have led to: labor shortages in Red Sea, Gedaref, North Darfur, South Darfur and East Darfur; high costs of agricultural labor in Red Sea, Kassala, Gedaref, North Kordofan, South Darfur, Blue Nile and East Darfur; high costs of agricultural inputs in Kassala, Gedaref, North Darfur, North Kordofan, West Kordofan, Blue Nile and East Darfur; lack of transportation services in Red Sea; reduction in cultivated areas in Gedaref; and closure of markets in Northern, Central Darfur, North Darfur and West Kordofan, with minimal impact on South Kordofan.

Impact of COVID-19 on livestock: Fodder shortages were observed in Red Sea State. High prices of fodder in Kassala and Northern states were also registered. Vaccine/drug shortages (Red Sea, Kassala, Gedaref, North Darfur, North Kordofan, Blue Nile) were reported. There were also livestock market closures in Gedaref, South Darfur and East Darfur. A decrease of livestock exports in Gedaref were also observed. Labour shortages were also reported in North Darfur. High prices of inputs were registered in North Darfur, West Kordofan, and Blue Nile. Lack of veterinary services due to COVID-19 related restrictions were experienced in South Darfur. Restriction on movement led to over-grazing in Blue Nile state. Grazing access was constrained from restrictions in East Darfur. Access to food was compounded by COVID-19 for many households, as their purchasing power continually reduced due to the rise in food prices, devaluation of the currency and inflation. Price increases on food items are concerning as food expenditures are already very high, while further increases on non-food items (fuel) will have compounding impacts of agriculture and transportation costs, all affecting availability and prices at markets.

## **Food Utilization**

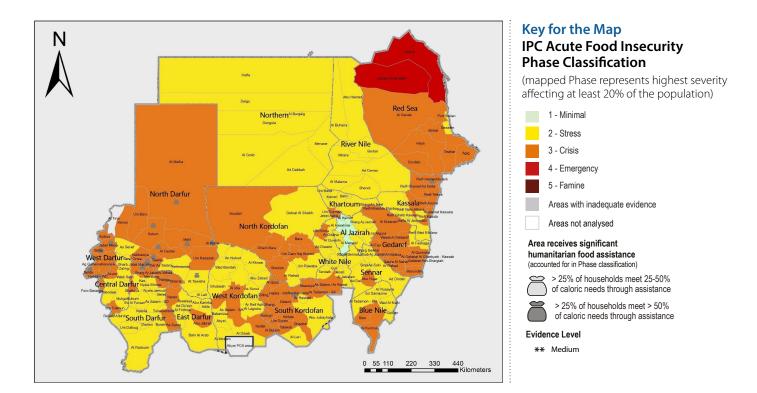
Based on the CFSVA survey, the majority of the rural population is using safe drinking water sources, with around 65% using protected water sources, while the rest use unprotected sources. In terms of sanitation, 19% have limited access to improved sanitation facilities while 56% use traditional and open-pit latrines, with 25% opting for the bush.

Most of the rural people rely on the use of wood or charcoal as cooking fuel and that shortage of gas in some urban areas leads to a shift to wood and charcoal. Additionally, most of the households have reported post-harvest losses primarily due to post-harvest handling losses, nationally an average of 43% experienced losses, with River Nile, Sinnar, Red Sea, East Darfur, and Gezira reporting the average was above 50%.

#### Outcome data

Based on the CFSVA data, the food consumption indicators collected were mainly the Food Consumption Score (FCS), Reduced Coping Strategies and Livelihood Change. Generally, the food consumption indicators were converging to Phase 2 and Phase 3, respectively. The FCS results for the majority of localities were indicative of Phase 1 or 2. Only one locality (Basundah) had 20% having a Poor FCS. Around 58 localities were indicatively in Phase 3 (Borderline), while the remaining 125 localities showed Acceptable (Phase 1 or 2) conditions. The rCSI results from less than 10 localities have an rCSI greater than or equal to 19 (Phase 3 or above), while 44 localities employed moderate coping (indicative of Phase 2) and the rest reported low coping; nationally, the rCSI converges indicatively on Phase 3. The Livelihood change results across the country showed a more severe condition compared to other indicators, around 55 localities are indicative of Phase 4. Nationally, the LCs indicate Phase 3, however, some localities reported high uses of Emergency coping (Al malha, Um kadadah, Hala'ib, Jubayt elma'aadin, Tawkar).

# **CURRENT SITUATION MAP AND POPULATION TABLE (APRIL - MAY 2021)**



State	Total	Phase 1		Phase 2		Phase 3	;	Phase 4		Phase	5	Phase 3-	F
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,495,224	3,736,261	68	1,250,708	23	353,599	6	154,656	3	0	0	508,255	9
Blue Nile	1,311,481	612,709	47	462,498	35	167,760	13	68,514	5	0	0	236,274	18
Central Darfur	1,742,930	568,602	33	854,179	49	215,876	12	104,273	6	0	0	320,149	18
East Darfur	1,111,246	450,225	41	469,662	42	136,490	12	54,869	5	0	0	191,359	17
Gedaref	2,447,698	1,054,166	43	920,847	38	350,300	14	122,385	5	0	0	472,685	19
Kassala	2,729,559	1,286,252	47	988,668	36	298,161	11	156,478	6	0	0	454,639	17
Khartoum	8,836,900	5,500,970	62	2,120,856	24	958,804	11	256,270	3	0	0	1,215,074	14
North Darfur	2,450,763	685,888	28	1,162,799	47	486,123	20	115,953	5	0	0	602,076	25
North Kordofan	2,147,591	1,161,097	54	562,712	26	383,575	18	40,208	2	0	0	423,783	20
Northern	998,238	554,963	56	331,160	33	82,450	8	29,666	3	0	0	112,115	11
Red Sea	1,525,451	607,816	40	605,910	40	211,709	14	100,017	7	0	0	311,725	21
River Nile	1,611,582	1,020,250	63	479,394	30	80,579	5	31,359	2	0	0	111,938	7
Sennar	2,097,452	1,195,973	57	660,547	31	224,557	11	16,375	1	0	0	240,932	12
South Darfur	3,813,230	2,214,078	58	945,085	25	463,724	12	190,344	5	0	0	654,068	17
South Kordofan	1,959,187	869,214	44	703,536	36	303,783	16	82,654	4	0	0	386,437	20
West Darfur	1,893,522	509,092	27	973,449	51	245,743	13	165,237	9	0	0	410,981	22
West Kordofan	1,679,865	1,049,414	62	399,920	24	195,757	12	34,774	2	0	0	230,531	14
White Nile	2,716,906	1,382,684	51	918,969	34	298,124	11	117,128	4	0	0	415,253	15
Grand Total	46,568,825	24,459,653	53	14,810,899	32	5,457,113	12	1,841,160	4	0	0	7,298,273	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.



# FIRST PROJECTION OVERVIEW (June - September 2021)

The first projection period (June - September 2021) corresponds to the main lean season for most of the areas analysed. Seasonal trends and shifts in this period include tribal conflict, low purchasing power and high food prices, and are the main drivers of food insecurity during the first projection. In this period, around 9.8 million people, representing 21 % of the total analysed population (46.5 million), are expected to be in Crisis (IPC Phase 3) or worse, with 6% in Emergency (IPC Phase 4), and require urgent action to save lives, protect livelihoods and reduce food consumption gaps. In the lean season, around 2.7 million people will be in Emergency (IPC Phase 4), with nearly 7.1 million in Crisis (IPC Phase 3) and over 16.5 million people in Stressed (IPC Phase 2). This marks an increase of 29.6% (from 5.5 million to 7.1 million) of people in Crisis (IPC Phase 3) and 46.5% (from 1.8 million to 2.7 million) of people in Emergency (IPC Phase 4), compared to the current analysis period (April -May 2021). During the first projection period, 130 localities are expected to be in Crisis (IPC Phase 3). A total of 51 localities moved between Stressed (IPC Phase 2) and Crisis (IPC Phase 3), while three localities moved between Crisis (IPC Phase 3) and Emergency (IPC Phase 4). The total population in Crisis (IPC Phase 3) or worse is 9.8 million, which is 2% higher than the number of people in high acute food insecurity in the IPC analysis of June - September 2020 (9.6 million).

In addition to seasonality, intercommunal conflict and expected displacements may impact several areas and also cause a deterioration in food security, i.e. Geneina locality in West Darfur. Localities of Hala'ib and Jabet-El-ma'aadin of Red Sea state will remain in Emergency (IPC Phase 4), as in the current, due to the impact of drought on livelihoods and price shocks. There is a slight deterioration of the population in Crisis (IPC Phase 3) or worse in Jubayt elma'aadin by 5%, while Halaib slightly improves by 5%, attributed to assistance and availability of pasture. Localities of Al Buram and Haiban of South Kordofan state will move from Crisis in the current period to Emergency, due to protracted insecurity and poor access of some isolated areas.

Households in this period will increasingly rely on markets to purchase staple food at significantly higher than normal prices. Livestock productivity will be at seasonally low levels during the dry season of May to June. The increase in staple food prices will outpace earnings in cash income from agricultural labor and livestock sales. As the rainy season progresses between June and September, livestock productivity, access to in-kind and cash income from agricultural labour are expected to increase, providing some improvement in household food access. However, staple food prices are expected to increase following the seasonal trend throughout the lean season, further reducing household purchasing power.

The most affected groups are internally displaced people (IDPs), returnees, those stranded in conflict-hit areas, refugees from neighbouring South Sudan, Ethiopia and other countries; 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.

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

The key assumption for the projection period is based on the most likely scenario situation in the country. Sudan has diverse agro-ecology and livelihood systems that require different considerations in establishing the assumptions during the projection period. The rural livelihood systems include pastoralism, agro-pastoralism and crop farmers. Pastoralists are dominantly living in rainfall receiving zones. This will not support any kind of crop, though it allows enough pasture and watering points for livestock herding. Agro-pastoralists are able to grow mainly millet in most years, yet rely very heavily on livestock production to guarantee their survival. Crop production is dominantly rain-fed in many parts of the country that rely on rainfall. Riverside smallholders and medium to high commercial farms cultivate cereals and high-value crops through irrigated cultivation.

# Inflation remaisn high in the short and medium term, but with a progressive macroeconomic stabilization.

Removal of Sudan from the US list of States' Sponsoring Terrorism will facilitate Sudan's access to WB and IMF funding, qualify Sudan for debt relief and eventually stabilize the economy. Unified exchange rate and implementation of the Family Support Program (FSP) are also factors expected to stabilize the economy in the long term. Sorghum and millet prices will increase following the seasonal trend, while prices of imported goods might continue to rise (including imported wheat). Purchasing power will slightly improve with the rainy season, due to increased income from agriculture labor. Livestock prices are expected to follow seasonal trends, though at relatively high prices compared to the average. Fuel (diesel) shortage and high prices are expected to continue across Sudan through September 2021, which will contribute to the high cost of other commodities due to increased transportation and the increase of agricultural inputs and operational costs, especially for the semi-mechanized sub-sector. Purchasing power from remittances from seasonal labor will increase slightly.

## Above average rains with risk of flooding with impact on production.

Above average rains are forecasted during the first projection period, with moderate risk of flooding alongside the River Nile and its tributaries that will affect some States (Blue Nile, Sinnar, Jazeera, Khartoum, River Nile, Northern State, White Nile). No/very limited impact of locusts is expected in the summer breeding areas. Rainfall performance will determine good pasture development favouring good livestock body condition and supply of animal products for selling, exporting and household consumption. Earlier than usual depletion of household food stocks is expected. Increased demand for cereal for local consumption is expected in most parts of Darfur, North Kordofan, Red Sea, parts of West and South Kordofan and Kassala states, due to relatively low production during the previous season and increased shortage of imported wheat and wheat flour. Demand for cereal for local consumption is likely to peak by September, the time in which market supplies will seasonally be at their lowest level.

# Conflict and displacement are expected with security situation fluctuations.

Al Gedaref, Kassala, and Blue Nile states are expected to continue receiving refugees from Tigray Region. Tensions over the Sudan-Ethiopia border is 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. Although a peace deal was reached between the government of Sudan and the Sudan Revolutionary Front, still the security arrangements have not been implemented to bring more stability in the conflict-affected zones and encourage the voluntary return of IDPs throughout the projection period. Sporadic inter-communal clashes are expected to continue in parts of Darfur, Kordofan and Eastern Sudan. IDPs in relatively secured areas are expected to seasonally return for farming in their home areas to cultivate. Intercommunal conflict incidents and sporadic attacks on villages will continue / increase, coinciding with the seasonal movements of nomadic groups to grazing areas in five Darfur states, the three Kordofan states, Sinnar and Kassala states. The recent conflict in Chad, which led to the killing of the Chadian President, is likely to lead to instability and more security incidents in Darfur, especially states bordering Chad.



During the first projection period, household food stocks from the previous season will likely be dwindling and, therefore, insufficient to sustain adequate food consumption throughout the lean season. Food deficient households typically rely on markets for food during this period. Food price projections are likely to remain higher than in previous years and will likely affect food access. The analysis of the first projection period (June to September 2021) is based on the below assumptions.

## Food Availability

The last year's production of sorghum and millet was above the five-year average (+20%), while wheat production was not sufficient to cover the consumption need. Therefore, wheat will also have to be imported. Despite the above-average harvest, earlier sales of crops have led to below-average stocks, and increased demand for local consumption. In general terms, this lean season will be more complex than the previous year, but mainly due to high level of prices (100-150 more than last year and over six times the five-year average). An earlier depletion of food stock is expected at household level as of May, and increased demand for cereal for local consumption is expected in most parts of the States, due to earlier than normal depletion of food stocks.

#### **Food Access**

The first projection period corresponds with the lean season when households are expected to deplete their stocks during which households will increasingly rely on markets to purchase stable food at significantly higher than normal prices. As most households in the current period do not have stocks to carry over till the end of the lean season, the dependence on markets will increase further in the first projection period. Areas under conflict, insecurity and natural hazards like floods, where cereal production levels were significantly below average level, will see most households depleting their stocks before the start of the lean season. Price levels are expected to increase seasonally and will be well above the long-term average, further limiting household food access.

#### **Food Utilization**

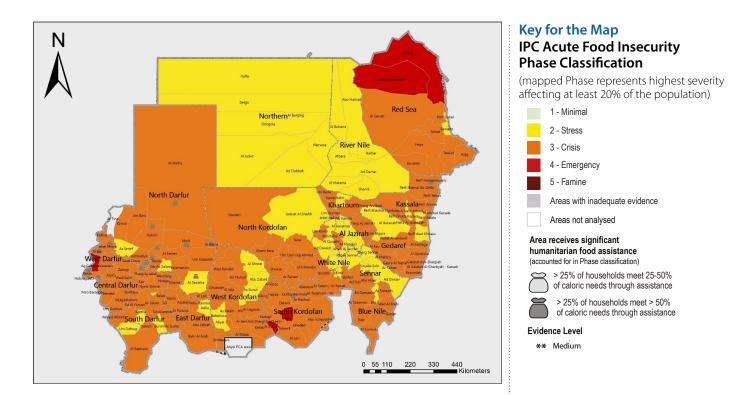
The community will face difficulties accessing water sources during the start of the lean season (May - July). The forecasted average to above average rainfall (August to November) will likely improve the availability of and access to water, however, expected disease outbreaks and the contamination of 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, health hazards, and potential loss of productive assets.

Additionally, most localities have poor access to inadequate cooking fuel and proper storage facilities. Therefore, malnutrition is expected to increase due to poor feeding practices and poor hygiene caused by water scarcity and distance to clean water sources.

## **Humanitarian Food Assistance**

In the current and projection analysis periods, out of 15 localities that received HFA, only 13 localities met the criteria for mapping protocols and received between 25% - 50% or above of their daily caloric requirements. The people targeted by this humanitarian assistance are mainly internally displaced populations (IDPs), vulnerable host families, refugees and returnees. They are centralized in the five states of North Darfur, West Darfur, Central Darfur, Kassala and South Kordofan. Humanitarian assistance has contributed to reducing the impact of COVID-19 on the food security of assisted populations. However, given the current period coincides with Ramadhan, several complementary assistance activities are ongoing across the state and other local agencies such as Zakat Chamber and HAC during the Ramadhan period.

# FIRST PROJECTION MAP AND POPULATION TABLE (JUNE - SEPTEMBER 2021)



State	Total	Phase 1		Phase 2		Phase 3	}	Phase 4		Phase	5	Phase 3+	<b>+</b>
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,495,224	2,906,004	53	1,686,098	31	628,360	11	274,761	5	0	0	903,122	16
Blue Nile	1,311,481	469,335	36	496,592	38	236,274	18	109,280	8	0	0	345,554	26
Central Darfur	1,742,930	422,142	24	898,728	52	261,440	15	160,620	9	0	0	422,060	24
East Darfur	1,111,246	299,613	27	497,248	45	229,070	21	85,315	8	0	0	314,385	29
Gedaref	2,447,698	829,770	34	1,050,415	43	407,418	17	160,095	7	0	0	567,513	24
Kassala	2,729,559	1,050,794	38	1,097,751	40	367,032	13	213,983	8	0	0	581,014	21
Khartoum	8,836,900	4,948,664	56	2,218,062	25	1,276,932	14	393,242	4	0	0	1,670,174	18
North Darfur	2,450,763	632,748	26	1,105,946	45	594,821	24	117,248	5	0	0	712,069	29
North Kordofan	2,147,591	1,015,870	47	605,482	28	407,370	19	118,868	6	0	0	526,239	25
Northern	998,238	488,786	49	366,007	37	110,746	11	32,699	3	0	0	143,445	14
Red Sea	1,525,451	467,137	31	693,539	45	260,159	17	104,616	7	0	0	364,775	24
River Nile	1,611,582	856,765	53	562,300	35	161,158	10	31,359	2	0	0	192,517	12
Sennar	2,097,452	1,038,976	50	750,858	36	291,243	14	16,375	1	0	0	307,618	15
South Darfur	3,813,230	1,703,828	45	1,262,275	33	621,155	16	225,972	6	0	0	847,126	22
South Kordofan	1,959,187	786,662	40	667,163	34	343,674	18	161,688	8	0	0	505,362	26
West Darfur	1,893,522	326,650	17	994,611	53	318,356	17	253,905	13	0	0	572,261	30
West Kordofan	1,679,865	957,321	57	417,677	25	213,103	13	91,764	5	0	0	304,867	18
White Nile	2,716,906	1,072,403	39	1,154,983	43	344,527	13	144,993	5	0	0	489,520	18
Grand Total	46,568,825	20,273,468	44	16,525,736	35	7,072,838	15	2,696,783	6	0	0	9,769,621	21

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.



# **SECOND PROJECTION OVERVIEW (October 2021 - February 2022)**

In the second projection period (October 2021 to February 2022), corresponding with the harvest season, 1.3 million people will be in IPC Phase 4 (Emergency), with 4.6 million people in Crisis (IPC Phase 3) or worse and over 15 million people in Stressed (IPC Phase 2). This marks a decrease of 34.5% (from 7.1 to 4.6 million) of people in IPC Phase 3 (Crisis) and 50.9% (from 2.7 to 1.3 million) of people in IPC Phase 4 (Emergency), compared to the current analysis period (June – September 2021). The localities of Geneina of West Darfur, Hala'ib and Jabait-el-ma'aadin of Red Sea state and Al Buram and Haiban of South Kordofan state are expected to move from Emergency (IPC Phase 4) in the first projection to IPC Phase 3 (Crisis) in the second projection. However, 37 localities will be in Phase 3 in the second projection. The main harvest and post-harvest seasons are expected to significantly improve access to food and income from own production, in-kind payments for agricultural labour, and in-kind support from relatives compared to the lean season (June to September). Likewise, income from agricultural labour and cash crops' sale will support market purchases of food when staple food prices seasonally decrease.

In this period, households are expected to have improved access to food from own production. They will increasingly rely on own production and improved market supplies from the new harvest and the relatively reduced market prices of staple food. The harvest of food and cash crops is expected to improve households' food security (availability and accessibility), of those depending more on their own production. Prices will reduce slightly, wages from labor during the harvest will increase, and increased food supply to the markets of local output will lead to a shift of 10-15% of the population to a better phase.

Intercommunal conflicts, high prices, low purchasing power and seasonal floods will remain the key drivers of food insecurity during the second projection period. Conflict is likely to persist though both the harvest and post-harvest seasons in conflict-prone areas of Sudan. The inter-tribal conflict/tension likely to increase during harvest as livestock herders will start seasonal movement and likely to increase clashes along the animal routes. The rate of displacement is expected to decline but the same number of IDPs, as many IDPs will try to join the harvest season in their rural areas while some areas are likely to experience new displacements but with a medium-low rate.

## Food 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 the harvest, more food will be available for household consumption. This is likely to decrease/stabilize food prices, improved purchasing power and replenishment of households' food stocks, ease of access for trade as well as humanitarian assistance.

Fuel shortages and the high cost of transportation will continue to reduce market supplies to the isolated remote areas.

Areas affected by floods might face a shortage of cereals, created by the need for replanting and impaired access. It is expected that some loss of food stocks in areas affected by floods will continue to contribute to reduced supplies and high demand. Expected delays in the harvest due to replanting caused by waterlogging in some states will reduce the availability of households' own production in some affected areas between November and December 2021.

## **Food Access**

Food access is expected to improve during the second projection period i.e. harvest and post-harvest seasons. Food prices are expected to slightly decline with the beginning of the harvest in October-November but will remain higher than last year's and the five-year averages.

The expected high prices of cereal and non-cereal food items are expected to continue to reduce poor households' access to adequate diversified food through October 2021 when the situation will improve through February 2022.

# **Key Assumptions for the projection period**

# Macroeconomic effects will continue to influence food security.

Prices are anticipated to decrease seasonally during the harvest between October 2021 and February 2022. The stabilization of the economy will continue, further facilitated by the possibility of receiving funds from WB and IMF. Inflation might remain high and prices still above the five-year average, though with progressive stabilization and seasonal decrease of prices, especially for sorghum and millet. Prices of imported goods and fuel might also remain above the five-year average. The government is likely to expand the Family Support Program (FSP), where 80% of the total population (vulnerable households) are planned to receive cash transfers of 5-7 USD per person on a monthly basis.

# Conflict and displacement are expected, with security situation fluctuations.

Al Gedarif, Kassala and Blue Nile states are expected to continue receiving refugees from the Tigray region of Ethiopia. Tensions over this 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 persist. Sporadic tribal clashes are expected to continue in parts of Darfur, Kordofan and eastern Sudan. No major new internal displacements or refugees' influx is expected, besides those from Tigray; the displaced populations are not expected to return. With progressive de-escalation of conflict in Tigray, the influx of refugees is expected to reduce/ stabilize, but there will be limited/no return of refugees to Ethiopia. Intercommunal conflict incidents and sporadic attacks on villages will continue/ increase, coinciding with the seasonal movements of nomadic groups for grazing in crops' residues in five Darfur states, the three Kordofan states and Kassala states. The conflict in Chad is likely to have an impact mainly in bordering states.

# Above average rains with risk of flooding is expected, with impact on production.

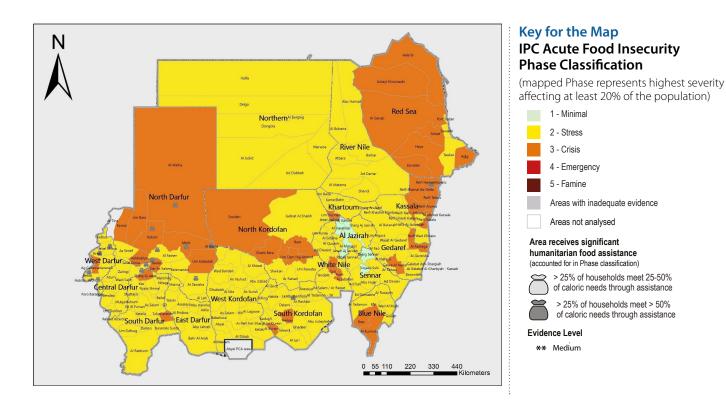
With the exception of the harvest that might be affected by floods (Blue Nile, Jazeera, Khartoum, River Nile, Northern State, While Nile), the millet and sorghum production is expected to be average to above average due to positive weather conditions and limited/no impact of locusts in the summer breeding areas. Households' food stocks will be replenished, and this will reduce dependence on market purchase by farmers. Livestock body conditions will continue to be good, and no drought related transhumance movement is expected. Cash crops' production will also increase households' income.



## **Food 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 is the limited health services in Sudan and their high cost. There is a noticeable shortage of medicines, due to the shortage of hard currency to import drugs.

# SECOND PROJECTION MAP AND POPULATION TABLE (OCT 2021 - FEB 2022)



State	Total	Phase 1		Phase 2		Phase 3		Phase 4		Phase	5	Phase 3+	F
	population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	#people	%
Aj Jazirah	5,495,224	4,068,619	74	1,029,908	19	274,761	5	121,936	2	0	0	396,697	7
Blue Nile	1,311,481	722,009	55	409,998	31	149,454	11	30,020	2	0	0	179,474	13
Central Darfur	1,742,930	730,133	42	798,589	46	174,293	10	39,915	2	0	0	214,208	12
East Darfur	1,111,246	713,163	64	273,732	25	105,833	10	18,518	2	0	0	124,351	12
Gedaref	2,447,698	1,031,565	42	1,041,220	43	245,973	10	128,940	5	0	0	374,913	15
Kassala	2,729,559	1,287,930	47	1,061,531	39	275,583	10	104,516	4	0	0	380,098	14
Khartoum	8,836,900	5,147,494	58	2,288,757	26	1,007,407	11	393,242	4	0	0	1,400,649	15
North Darfur	2,450,763	721,384	29	1,257,496	51	355,930	15	115,953	5	0	0	471,883	20
North Kordofan	2,147,591	1,237,917	58	555,462	26	314,004	15	40,208	2	0	0	354,212	17
Northern	998,238	543,329	54	366,136	37	83,032	8	5,740	1	0	0	88,772	9
Red Sea	1,525,451	659,497	43	628,730	41	209,244	14	27,981	2	0	0	237,224	16
River Nile	1,611,582	921,228	57	574,977	36	115,377	7	0	0	0	0	115,377	7
Sennar	2,097,452	1,347,032	64	601,674	29	148,747	7	0	0	0	0	148,747	7
South Darfur	3,813,230	2,627,684	69	815,347	21	342,190	9	28,010	1	0	0	370,199	10
South Kordofan	1,959,187	943,881	48	720,225	37	259,417	13	35,664	2	0	0	295,081	15
West Darfur	1,893,522	576,308	30	1,017,702	54	182,754	10	116,758	6	0	0	299,513	16
West Kordofan	1,679,865	1,122,131	67	430,019	26	127,715	8	0	0	0	0	127,715	8
White Nile	2,716,906	1,203,817	44	1,136,193	42	259,767	10	117,128	4	0	0	376,896	14
Grand Total	46,568,825	25,605,121	55	15,007,696	32	4,631,480	10	1,324,529	3	0	0	5,956,008	13

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.



## NATIONAL COMPARISONS WITH THE PREVIOUS YEAR

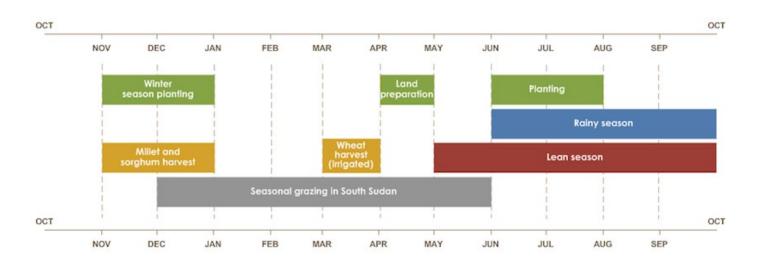
Comparing the lean season periods (June - September), the April 2021 analysis appears to show similar trends to the June 2020 analysis, with both analyses finding around 21% of the rural population in IPC Phase 3 (Crisis) or above. However, it is important to note, that the estimated population in IPC Phase 4 (Emergency) has increased by around 500,000 people. This is due to the fact that the population analysed was 2% higher than in the previous analysis, and that the Humanitarian Food Assistance in the 2020 analysis covered 30 localities, while the one from the April 2021 analysis covered 15 localities. In addition, the recent inter communal fighting in Darfur and other states of Kordofan contributed to displacements that resulted in a larger population Phase 4.

	2020 A	nalysis		2021 Analysis	
	Current with HFA	Projected with HFA	Current with HFA to 7M	Projected with HFA to 9M	Projected 2 with HFA to 6M
Period	June - Sept 2020	Oct - Dec 2020	Apr - May 2021	June - Sept 2021	Oct 2021 - Feb 2022
Population analysed	45,198,109	45,198,109	46,568,824	46,568,824	46,568,824
Magnitude IPC Phase 3+	9,578,685	6,380,759	7,298,273	9,769,621	5956008
Severity IPC Phase 3+	21%	14%	16%	21%	13%
Magnitude IPC Phase 3	7,410,682	5,657,268	5,457,113	7,072,838	4,631,480
Severity IPC Phase 3	16%	13%	12%	15%	10%
Magnitude IPC Phase 4	2,168,003	723,491	1,841,160	2,696,783	1,324,529
Severity IPC Phase 4	5%	2%	4%	5.8%	2.8%

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

In Sudan, seasonality of the climate and production for crop and livestock producing play a crucial role. Sudan is endowed with quite different livelihood zones receiving unimodal rainfall, however, portray some difference 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. There are three main livelihood system in Sudan: farming, pastoralism and agropastoralism. 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.

Based on the seasonality and data availability, the current period of analysis in Sudan coinciding with the pre-lean season period was agreed by the TWG to be April to May, the first projection period from June to September, which is considered as the Peak lean season and the second projection period was from October to February. which is considered as the harvest period.





## RECOMMENDATIONS FOR ACTION

## **Response Priorities**

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

- Strengthen the coverage and capacity of basic services to ensure adequate access to essential services (health, nutrition and other social protection systems), especially in flood affected areas.
- Subsidize agriculture inputs such as seeds and fuel, and improve investments in extension services and support to protect productive assets, especially areas impacted by flooding, conflict or other shocks.
- Scale up diversified livelihood programs for improved self-reliance, resilience building and social protection for all vulnerable communities classified in IPC Phases 2, 3 and 4, with special support for reconstructing and restoring livelihood assets in areas affected by flooding.
- Protect protective and livelihood assets through appropriate conflict mitigation and prevention approaches. Develop a
  mechanism to facilitate seasonal animal movements, reduce destruction on farms and mitigate conflict between farmers and
  pastoralists.
- Reactivate trade and marketing polices and improve infrastructure that allows better trade flows across different parts of the country.
- Develop strategies to improve food systems and reduce food losses and waste.
- Strengthen and support initiatives addressing cross-cutting issues of food security and nutrition of vulnerable groups.
- Promote good nutritional practices at household level through nutrition-sensitive activities, such as home gardening and educational awareness on food and water safety.

## **Situation Monitoring and Update**

The next IPC analysis update of the two projection periods would occur depending on changes of the projection assumptions, risk factors to monitor and availability of updated data from various sources.

- The IPC TWG and partners are expected to monitor the food security situation both 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 on the risk of natural hazards such as droughts and floods.
- Strengthen the capacities of national and state level Technical Working Groups on food security information systems and produce timely information.

## **Risk Factors to Monitor**

- Weather monitoring: Forecasted heavy rains are likely to resume in August and September and likely to lead to floods valley flooding and crop destructions; farmers may have to replant again. Considering the high cost of inputs, small scale farmers might not be able to replant same land again.
- Conflict: As the conflict is ongoing, displacement and other movements need to be monitored as this has the potential to make the food security situation deteriorate. In addition to conflict, criminality i.e. looting incidents in rural roads will continue to restrict access to 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.



## PROCESS AND METHODOLOGY

The Federal TWG in collaboration with the IPC GSU organized an IPC Acute Food Insecurity Level 1 training based on the IPC Version 3.0 Technical Manual in Sudan prior to the IPC analysis. Due to the current context of travel restrictions and containment, the TWG, in collaboration with the IPC Global Support Unit, adapted virtual analysis processes, 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 & state 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.

The virtual IPC AFI analysis was conducted from the 6th to the 15th of April, 2021, using the CFSVA data collected by WFP from December 2020 – March 2021 to inform food security outcomes, alongside with data provided by different sources such as FEWSNET (Price monitoring), Government, FAO, WFP, FEWSNET and USAID (CFSAM report), SME (rainfall forecast), IOM (displacement), FAO/FSTS (impact of COVID-19 on food security in 18 states), CBS (demographics, exchange rate and inflation), FAO (Desert Locust update), FSTS (Early Warning), and FAO (Flood Rapid Assessment). The analysis covered three periods: the current period (April-May 2021) based on the data collected during January/March 2021 reflecting the existing factors that lead to food insecurityy, the first projected period (July to September 2021) and the second projected period (October 2021 to February 2022) considering the contributing factors, and outcome indicator evidences with the projection assumptions factors.

The analysis was documented using the computer-based software IPC Information Support System (ISS). Due to limited internet connectivity especially for participants from state level, the analysis was conducted and documented using an offline worksheet. This facilitated the documentation and convergence of the evidence and the results under the current and two projection periods. 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 available on an online drive for easy access and use.

## Limitations of the analysis

The outcome data from CFSVA used for the analysis of the majority of the states were collected during the harvest period (November to January), while other states delayed data collection, mainly Northern States and Khartoum, that were collected in February and March, delayed the analysis process. Additionally, data provided by CFSVA was representative at locality level for the majority of areas, while in the localities of Heiban, Um Durein, Heiban (South Kordofan), protocols on similar nearby areas were applied according to the IPC Protocols V 3.0. Following discussions on the LCS module and the strategies used in each group, the LCS was recalculated to better incorporate the cultural and contextual strategies. The LC indicators need to be further reviewed and contextualized for the upcoming analysis in order to portray the actual picture at locality level.

In some states, limited capacity in IPC Version 3.0 tools and procedures, coupled with weak internet connection, greatly hampered the analysis process. In addition, periodic power cuts and curfews in some states have reduced the frequency of meetings.

## 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:**



























## **Current population table (April - May 2021)**

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	937,220	796,637	85	93,722	10	46,861	5	0	0	0	0	1	46,861	5
	Al kamlin	618,272	525,531	85	61,827	10	30,913	5	0	0	0	0	1	30,913	5
	Al manaqil	846,611	719,619	85	84,661	10	42,330	5	0	0	0	0	1	42,330	5
	Al qurashi	513,486	282,417	55	154,045	30	51,348	10	25,674	5	0	0	2	77,022	15
Aj Jazirah	Janub aj jazirah	861,956	517,173	60	258,586	30	43,097	5	43,097	5	0	0	2	86,194	10
	Medani al kubra	654,405	327,202	50	261,762	40	32,720	5	32,720	5	0	0	2	65,440	10
	Sharg aj jazirah	720,854	396,469	55	216,256	30	72,085	10	36,042	5	0	0	2	108,127	15
	Um algura	342,420	171,210	50	119,846	35	34,242	10	17,121	5	0	0	2	51,363	15
	Total	5,495,224	3,736,261	68	1,250,708	23	353,599	6	154,656	3	0	0		508,255	9
	Al kurmuk	185,529	64,935	35	64,935	35	37,105	20	18,552	10	0	0	3	55,657	30
	Ar rusayris	256,370	141,003	55	76,911	30	25,637	10	12,818	5	0	0	2	38,455	15
	At tadamon - bn	130,033	58,514	45	52,013	40	13,003	10	6,501	5	0	0	2	19,504	15
Blue Nile	Baw	180,593	63,207	35	63,207	35	36,118	20	18,059	10	0	0	3	54,177	30
	Ed damazine	307,328	184,396	60	92,198	30	30,732	10	0	0	0	0	2	30,732	10
	Geisan	147,392	58,956	40	66,326	45	14,739	10	7,369	5	0	0	2	22,108	15
	Wad al mahi	104,236	41,694	40	46,906	45	10,423	10	5,211	5	0	0	2	15,634	15
	Total	1,311,481	612,709	47	462,498	35	167,760	13	68,514	5	0	0		236,274	18
	Azum	85,258	25,577	30	42,629	50	12,788	15	4,262	5	0	0	3	17,050	20
	Bendasi	117,473	46,989	40	52,862	45	11,747	10	5,873	5	0	0	2	17,620	15
	Gharb jabal marrah	253,042	63,260	25	139,173	55	37,956	15	12,652	5	0	0	3	50,608	20
	Mukjar	152,590	61,036	40	68,665	45	15,259	10	7,629	5	0	0	2	22,888	15
Central Darfur	Shamal jabal marrah	186,554	55,966	30	83,949	45	27,983	15	18,655	10	0	0	3	46,638	25
	Um dukhun	150,816	67,867	45	52,785	35	22,622	15	7,540	5	0	0	3	30,162	20
	Wadi salih	330,910	115,818	35	165,455	50	33,091	10	16,545	5	0	0	2	49,636	15
	Wasat jabal marrah	155,981	38,995	25	77,990	50	23,397	15	15,598	10	0	0	3	38,995	25
	Zalingi	310,306	93,091	30	170,668	55	31,030	10	15,515	5	0	0	2	46,545	15
	Total	1,742,930	568,602	33	854,179	49	215,876	12	104,273	6	0	0		320,149	18
	Abu jabrah	91,976	27,592	30	36,790	40	18,395	20	9,197	10	0	0	3	27,592	30
	Abu karinka	167,708	75,468	45	67,083	40	16,770	10	8,385	5	0	0	2	25,155	15
	Ad duayn	145,322	50,862	35	72,661	50	14,532	10	7,266	5	0	0	2	21,798	15
	Adila	135,338	54,135	40	60,902	45	13,533	10	6,766	5	0	0	2	20,299	15
East Darfur	Al firdous	105,838	47,627	45	42,335	40	15,875	15	0	0	0	0	2	15,875	15
Lust Dariul	Assalaya	133,060	59,877	45	53,224	40	13,306	10	6,653	5	0	0	2	19,959	15
	Bahr al arab	184,597	83,068	45	73,838	40	18,459	10	9,229	5	0	0	2	27,688	15
	Shiaria	77,298	27,054	35	34,784	45	11,594	15	3,864	5	0	0	3	15,458	20
	Yassin	70,109	24,538	35	28,043	40	14,021	20	3,505	5	0	0	3	17,526	25
	Total	1,111,246	450,225	41	469,662	42	136,490	12	54,869	5	0	0		191,359	17



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	140,995	56,398	40	56,398	40	21,149	15	7,049	5	0	0	3	28,198	20
	Al fao	350,480	175,240	50	105,144	30	52,572	15	17,524	5	0	0	3	70,096	20
	Al fashaga	24,073	13,240	55	7,221	30	2,407	10	1,203	5	0	0	2	3,610	15
	Al galabat al gharbyah - kassab	182,196	63,768	35	81,988	45	27,329	15	9,109	5	0	0	3	36,438	20
	Al mafaza	120,662	36,198	30	60,331	50	18,099	15	6,033	5	0	0	3	24,132	20
	Al qureisha	153,262	53,641	35	68,967	45	22,989	15	7,663	5	0	0	3	30,652	20
Gedaref	Ar rahad	269,148	121,117	45	94,202	35	40,372	15	13,457	5	0	0	3	53,829	20
	Basundah	94,710	42,619	45	33,148	35	14,206	15	4,735	5	0	0	3	18,941	20
	Galaa al nahal	131,096	45,883	35	58,993	45	19,664	15	6,554	5	0	0	3	26,218	20
	Galabat ash- shargiah	225,002	101,250	45	78,750	35	33,750	15	11,250	5	0	0	3	45,000	20
	Madeinat al gedaref	534,549	267,274	50	187,092	35	53,454	10	26,727	5	0	0	2	80,181	15
	Wasat al gedaref	221,525	77,533	35	88,610	40	44,305	20	11,076	5	0	0	3	55,381	25
	Total	2,447,698	1,054,166	43	920,847	38	350,300	14	122,385	5	0	0		472,685	19
	Halfa aj jadeedah	323,105	193,863	60	80,776	25	32,310	10	16,155	5	0	0	2	48,465	15
	Madeinat kassala	455,275	295,928	65	113,818	25	45,527	10	0	0	0	0	2	45,527	10
	Reifi aroma	156,713	62,685	40	62,685	40	15,671	10	15,671	10	0	0	3	31,342	20
	Reifi gharb kassala	121,053	72,631	60	42,368	35	6,052	5	0	0	0	0	2	6,052	5
	Reifi hamashkureib	389,329	136,265	35	155,731	40	58,399	15	38,932	10	0	0	3	97,331	25
Kassala	Reifi kassla	235,820	106,119	45	82,537	35	35,373	15	11,791	5	0	0	3	47,164	20
Rassara	Reifi khashm elgirba	150,887	60,355	40	67,899	45	15,089	10	7,544	5	0	0	2	22,633	15
	Reifi nahr atbara	208,798	83,519	40	93,959	45	20,880	10	10,440	5	0	0	2	31,320	15
	Reifi shamal ad delta	140,078	49,027	35	63,035	45	14,008	10	14,008	10	0	0	3	28,016	20
	Reifi telkok	419,357	167,743	40	167,743	40	41,936	10	41,936	10	0	0	3	83,872	20
	Reifi wad elhilaiw	129,144	58,114	45	58,114	45	12,914	10	0	0	0	0	2	12,914	10
	Total	2,729,559	1,286,252	47	988,668	36	298,161	11	156,478	6	0	0		454,639	17
	Bahri	972,059	680,441	70	194,411	20	48,602	5	48,602	5	0	0	2	97,204	10
	Jebel awlia	1,590,642	874,853	55	397,660	25	238,596	15	79,532	5	0	0	3	318,128	20
	Karrari	1,237,166	742,299	60	371,149	30	123,716	10	0	0	0	0	2	123,716	10
Khartoum	Khartoum	1,060,428	636,256	60	318,128	30	106,042	10	0	0	0	0	2	106,042	10
	Sharg an neel	1,413,904	989,732	70	282,780	20	141,390	10	0	0	0	0	2	141,390	10
	Um bada	1,679,011	1,091,357	65	335,802	20	167,901	10	83,950	5	0	0	2	251,851	15
	Um durman	883,690	486,029	55	220,922	25	132,553	15	44,184	5	0	0	3	176,737	20
	Total	8,836,900	5,500,970	62	2,120,856	24	958,804	11	256,270	3	0	0		1,215,074	14



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	%
	Al fasher	570,716	199,750	35	199,750	35	142,679	25	28,535	5	0	0	3	171,214	30
	Al koma	25,905	9,066	35	11,657	45	5,181	20	0	0	0	0	3	5,181	20
	Al lait	128,694	38,608	30	70,781	55	12,869	10	6,434	5	0	0	2	19,303	15
	Al malha	92,617	18,523	20	46,308	50	23,154	25	4,630	5	0	0	3	27,784	30
	As serief	63,495	25,398	40	28,572	45	6,349	10	3,174	5	0	0	2	9,523	15
	At tawisha	105,795	26,448	25	63,477	60	15,869	15	0	0	0	0	2	15,869	15
	Dar as salam	123,275	43,146	35	61,637	50	12,327	10	6,163	5	0	0	2	18,490	15
A1 .1	Kebkabiya	205,040	51,260	25	112,772	55	30,756	15	10,252	5	0	0	3	41,008	20
North Darfur	Kelemando	72,292	18,073	25	43,375	60	7,229	10	3,614	5	0	0	2	10,843	15
	Kernoi	103,344	15,501	15	56,839	55	25,836	25	5,167	5	0	0	3	31,003	30
	Kutum	237,751	71,325	30	106,987	45	47,550	20	11,887	5	0	0	3	59,437	25
	Melit	166,524	41,631	25	74,935	45	41,631	25	8,326	5	0	0	3	49,957	30
	Saraf omra	160,923	48,276	30	88,507	55	16,092	10	8,046	5	0	0	2	24,138	15
	Tawila	142,036	28,407	20	71,018	50	35,509	25	7,101	5	0	0	3	42,610	30
	Um baru	117,526	23,505	20	58,763	50	29,381	25	5,876	5	0	0	3	35,257	30
	Um kadadah	134,830	26,966	20	67,415	50	33,707	25	6,741	5	0	0	3	40,448	30
	Total	2,450,763	685,888	28	1,162,799	47	486,123	20	115,953	5	0	0		602,076	25
	Ar rahad (1)	166,203	83,102	50	58,171	35	24,930	15	0	0	0	0	2	24,930	15
	Bara	192,969	96,484	50	48,242	25	38,593	20	9,648	5	0	0	3	48,241	25
	Gebrat al sheikh	243,462	146,077	60	73,038	30	24,346	10	0	0	0	0	2	24,346	10
NI	Gharb bara	187,388	103,063	55	46,847	25	28,108	15	9,369	5	0	0	3	37,477	20
North Kordofan	Sheikan	569,564	313,260	55	142,391	25	113,912	20	0	0	0	0	3	113,912	20
	Soudari	285,852	142,926	50	57,170	20	71,463	25	14,292	5	0	0	3	85,755	30
	Um dam haj ahmed	137,947	75,870	55	27,589	20	27,589	20	6,897	5	0	0	3	34,486	25
	Um rawaba	364,206	200,313	55	109,261	30	54,630	15	0	0	0	0	2	54,630	15
	Total	2,147,591	1,161,097	54	562,712	26	383,575	18	40,208	2	0	0		423,783	20
	Ad dabbah	211,284	126,770	60	52,821	25	21,128	10	10,564	5	0	0	2	31,692	15
	Al burgaig	125,805	75,483	60	44,031	35	6,290	5	0	0	0	0	2	6,290	5
	Al golid	114,807	63,143	55	40,182	35	5,740	5	5,740	5	0	0	2	11,480	10
Northern	Delgo	60,678	33,372	55	24,271	40	3,033	5	0	0	0	0	2	3,033	5
	Dongola	218,445	109,222	50	87,378	40	21,844	10	0	0	0	0	2	21,844	10
	Halfa	46,190	25,404	55	16,166	35	2,309	5	2,309	5	0	0	2	4,618	10
	Merwoe	221,029	121,565	55	66,308	30	22,102	10	11,051	5	0	0	2	33,153	15
	Total	998,238	554,963	56	331,160	33	82,450	8	29,666	3	0	0		112,115	11
	Agig	86,397	25,919	30	38,878	45	12,959	15	8,639	10	0	0	3	21,598	25
	Al ganab	129,120	45,192	35	58,104	45	12,912	10	12,912	10	0	0	3	25,824	20
	Dordieb	65,569	26,227	40	26,227	40	6,556	10	6,556	10	0	0	3	13,112	20
	Halaib	28,573	5,714	20	10,000	35	7,143	25	5,714	20	0	0	4	12,857	45
	Haya	320,769	128,307	40	128,307	40	48,115	15	16,038	5	0	0	3	64,153	20
Red Sea	Jubayt elmaaadin	110,692	27,673	25	38,742	35	22,138	20	22,138	20	0	0	4	44,276	40
	Port sudan	315,331	189,198	60	94,599	30	31,533	10	0	0	0	0	2	31,533	10
	Sawakin	91,979	36,791	40	41,390	45	13,796	15	0	0	0	0	2	13,796	15
	Sinkat	193,705	67,796	35	87,167	45	29,055	15	9,685	5	0	0	3	38,740	20
	Tawkar	183,316	54,994	30	82,492	45	27,497	15	18,331	10	0	0	3	45,828	25
	Total	1,525,451	607,816	40	605,910	40	211,709	14	100,017	7	0	0		311,725	21



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	%
	Abu hamad	115,321	74,958	65	34,596	30	5,766	5	0	0	0	0	2	5,766	5
	Ad damar	408,702	245,221	60	122,610	30	20,435	5	20,435	5	0	0	2	40,870	10
	Al buhaira	68,783	37,830	55	27,513	40	3,439	5	0	0	0	0	2	3,439	5
River Nile	Al matama	218,468	131,080	60	65,540	30	10,923	5	10,923	5	0	0	2	21,846	10
Kiver Mile	Atbara	193,581	125,827	65	58,074	30	9,679	5	0	0	0	0	2	9,679	5
	Barbar	219,171	153,419	70	54,792	25	10,958	5	0	0	0	0	2	10,958	5
	Shendi	387,556	251,911	65	116,266	30	19,377	5	0	0	0	0	2	19,377	5
	Total	1,611,582	1,020,250	63	479,394	30	80,579	5	31,359	2	0	0		111,938	7
	Abu hujar	212,495	95,622	45	74,373	35	31,874	15	10,624	5	0	0	3	42,498	20
	Ad dali	114,997	45,998	40	51,748	45	11,499	10	5,749	5	0	0	2	17,248	15
	Ad dinder	312,493	124,997	40	140,621	45	46,873	15	0	0	0	0	2	46,873	15
Sennar	As suki	342,492	239,744	70	85,623	25	17,124	5	0	0	0	0	2	17,124	5
Sennar	Sennar	488,739	219,932	45	195,495	40	73,310	15	0	0	0	0	2	73,310	15
	Sharg sennar	374,992	281,244	75	74,998	20	18,749	5	0	0	0	0	2	18,749	5
	Sinja	251,244	188,433	75	37,686	15	25,124	10	0	0	0	0	2	25,124	10
	Total	2,097,452	1,195,973	57	660,547	31	224,557	11	16,375	1	0	0		240,932	12
	Al radoum	159,670	111,769	70	23,950	15	15,967	10	7,983	5	0	0	2	23,950	15
	Al wihda	60,132	33,072	55	15,033	25	9,019	15	3,006	5	0	0	3	12,025	20
	As salam - sd	110,676	49,804	45	44,270	40	11,067	10	5,533	5	0	0	2	16,600	15
	As sunta	153,018	68,858	45	38,254	25	30,603	20	15,301	10	0	0	3	45,904	30
	Beliel	284,824	170,894	60	71,206	25	28,482	10	14,241	5	0	0	2	42,723	15
	Buram	172,447	120,712	70	25,867	15	17,244	10	8,622	5	0	0	2	25,866	15
	Damso	172,447	94,845	55	51,734	30	17,244	10	8,622	5	0	0	2	25,866	15
	Ed al fursan	253,542	177,479	70	38,031	15	25,354	10	12,677	5	0	0	2	38,031	15
	Gereida	174,634	69,853	40	52,390	30	34,926	20	17,463	10	0	0	3	52,389	30
	Kas	234,924	164,446	70	35,238	15	23,492	10	11,746	5	0	0	2	35,238	15
South	Kateila	136,628	75,145	55	40,988	30	13,662	10	6,831	5	0	0	2	20,493	15
Darfur	Kubum	219,815	142,879	65	43,963	20	21,981	10	10,990	5	0	0	2	32,971	15
	Mershing	103,732	51,866	50	25,933	25	20,746	20	5,186	5	0	0	3	25,932	25
	Nitega	119,447	59,723	50	29,861	25	23,889	20	5,972	5	0	0	3	29,861	25
	Nyala janoub	375,734	244,227	65	75,146	20	37,573	10	18,786	5	0	0	2	56,359	15
	Nyala shimal	389,098	194,549	50	136,184	35	58,364	15	0	0	0	0	2	58,364	15
	Rehaid albirdi	234,181	140,508	60	58,545	25	23,418	10	11,709	5	0	0	2	35,127	15
	Sharg aj jabal	14,010	5,604	40	4,203	30	3,502	25	700	5	0	0	3	4,202	30
	Shattaya	55,092	27,546	50	13,773	25	8,263	15	5,509	10	0	0	3	13,772	25
	Tulus	314,045	172,724	55	94,213	30	31,404	10	15,702	5	0	0	2	47,106	15
	Um dafoug	75,134	37,567	50	26,296	35	7,513	10	3,756	5	0	0	2	11,269	15
	Total	3,813,230	2,214,078	58	945,085	25	463,724	12	190,344	5	0	0		654,068	17



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	%
	Abassiya	131,614	59,226	45	46,064	35	19,742	15	6,580	5	0	0	3	26,322	20
	Abu jubayhah	196,109	88,249	45	88,249	45	19,610	10	0	0	0	0	2	19,610	10
	Abu kershola	105,698	42,279	40	42,279	40	15,854	15	5,284	5	0	0	3	21,138	20
	Al buram	169,738	67,895	40	67,895	40	25,460	15	8,486	5	0	0	3	33,946	20
	Al leri	42,101	18,945	45	16,840	40	6,315	15	0	0	0	0	2	6,315	15
	Al quoz	125,517	56,482	45	43,930	35	18,827	15	6,275	5	0	0	3	25,102	20
	Ar rashad	67,890	30,550	45	27,156	40	10,183	15	0	0	0	0	2	10,183	15
	Ar reif ash shargi	65,509	29,479	45	22,928	35	9,826	15	3,275	5	0	0	3	13,101	20
South Kordofan	At tadamon - sk	84,588	42,294	50	25,376	30	12,688	15	4,229	5	0	0	3	16,917	20
	Delami	53,590	26,795	50	16,077	30	8,038	15	2,679	5	0	0	3	10,717	20
	Dilling	224,648	101,091	45	78,626	35	33,697	15	11,232	5	0	0	3	44,929	20
	Ghadeer	55,824	27,912	50	16,747	30	8,373	15	2,791	5	0	0	3	11,164	20
	Habila - sk	73,600	36,800	50	22,080	30	11,040	15	3,680	5	0	0	3	14,720	20
	Heiban	240,572	96,228	40	84,200	35	48,114	20	12,028	5	0	0	3	60,142	25
	Kadugli	153,636	69,136	45	46,090	30	30,727	20	7,681	5	0	0	3	38,408	25
	Talawdi	43,640	19,638	45	15,273	35	6,546	15	2,182	5	0	0	3	8,728	20
	Um durein	124,913	56,210	45	43,719	35	18,736	15	6,245	5	0	0	3	24,981	20
	Total	1,959,187	869,214	44	703,536	36	303,783	16	82,654	4	0	0		386,437	20
	Ag geneina	645,528	129,106	20	355,040	55	96,829	15	64,553	10	0	0	3	161,382	25
	Beida	229,256	57,314	25	126,090	55	22,925	10	22,925	10	0	0	3	45,850	20
	Foro baranga	85,876	21,469	25	47,231	55	12,881	15	4,293	5	0	0	3	17,174	20
	Habila - wd	131,957	46,184	35	59,380	45	19,793	15	6,597	5	0	0	3	26,390	20
West Darfur	Jebel moon	68,513	20,553	30	34,256	50	10,276	15	3,425	5	0	0	3	13,701	20
	Kereneik	486,945	146,083	30	243,472	50	48,694	10	48,694	10	0	0	3	97,388	20
	Kulbus	49,498	19,799	40	19,799	40	4,949	10	4,949	10	0	0	3	9,898	20
	Sirba	195,949	68,582	35	88,177	45	29,392	15	9,797	5	0	0	3	39,189	20
	Total	1,893,522	509,092	27	973,449	51	245,743	13	165,237	9	0	0		410,981	22
	Abu zabad	112,847	73,350	65	28,211	25	11,284	10	0	0	0	0	2	11,284	10
	Abyei	124,005	80,603	65	31,001	25	12,400	10	0	0	0	0	2	12,400	10
	Al dibab	80,588	48,352	60	24,176	30	8,058	10	0	0	0	0	2	8,058	10
	Al idia	144,320	64,944	45	50,512	35	28,864	20	0	0	0	0	3	28,864	20
	Al khiwai	92,022	55,213	60	27,606	30	9,202	10	0	0	0	0	2	9,202	10
	Al lagowa	100,135	70,094	70	20,027	20	10,013	10	0	0	0	0	2	10,013	10
West	Al meiram	53,744	37,620	70	10,748	20	5,374	10	0	0	0	0	2	5,374	10
Kordofan	An nuhud	270,511	175,832	65	54,102	20	27,051	10	13,525	5	0	0	2	40,576	15
	As salam - wk	114,778	74,605	65	17,216	15	17,216	15	5,738	5	0	0	3	22,954	20
	As sunut	143,203	107,402	75	21,480	15	14,320	10	0	0	0	0	2	14,320	10
	Babanusa	57,518	37,386	65	14,379	25	5,751	10	0	0	0	0	2	5,751	10
	Ghubaish	154,789	77,394	50	54,176	35	15,478	10	7,739	5	0	0	2	23,217	15
	Keilak	75,998	45,598	60	15,199	20	15,199	20	0	0	0	0	3	15,199	20
	Wad bandah	155,407	101,014	65	31,081	20	15,540	10	7,770	5	0	0	2	23,310	15
	Total	1,679,865	1,049,414	62	399,920	24	195,757	12	34,774	2	0	0		230,531	14



State	Locality	Total	Phase 1		Phase 2		Phase 3	3	Phase 4	ŀ	Phase	5	Area	Phase 3-	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Ad diwaim	454,930	227,465	50	159,225	35	45,493	10	22,746	5	0	0	2	68,239	15
	Aj jabalain	363,040	181,520	50	127,063	35	36,304	10	18,152	5	0	0	2	54,456	15
	Al gitaina	377,217	207,469	55	113,165	30	37,721	10	18,860	5	0	0	2	56,581	15
	As salam / ar rawat	345,718	138,287	40	138,287	40	51,857	15	17,285	5	0	0	3	69,142	20
White Nile	Guli	399,420	239,652	60	99,855	25	39,942	10	19,971	5	0	0	2	59,913	15
	Kosti	-	-	-	-	-	-	-	-	-	-	-	2	-	-
	Rabak	374,339	187,169	50	149,735	40	37,433	10	0	0	0	0	2	37,433	10
	Tendalti	219,284	109,642	50	76,749	35	21,928	10	10,964	5	0	0	2	32,892	15
	Um rimta	182,958	91,479	50	54,887	30	27,443	15	9,147	5	0	0	3	36,590	20
	Total	2,716,906	1,382,684	51	918,969	34	298,124	11	117,128	4	0	0		415,253	15
Gran	d Total	46,568,825	24,459,653	53	14,810,899	32	5,457,113	12	1,841,160	4	0	0		7,298,273	16



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	937,220	609,193	65	187,444	20	93,722	10	46,861	5	0	0	2	140,583	15
	Al kamlin	618,272	370,963	60	154,568	25	61,827	10	30,913	5	0	0	2	92,740	15
	Al manaqil	846,611	507,966	60	211,652	25	84,661	10	42,330	5	0	0	2	126,991	15
	Al qurashi	513,486	231,068	45	179,720	35	77,022	15	25,674	5	0	0	3	102,696	20
Aj Jazirah	Janub aj jazirah	861,956	430,978	50	301,684	35	86,195	10	43,097	5	0	0	2	129,292	15
	Medani al kubra	654,405	294,482	45	261,762	40	65,440	10	32,720	5	0	0	2	98,160	15
	Sharg aj jazirah	720,854	324,384	45	252,298	35	108,128	15	36,042	5	0	0	3	144,170	20
	Um algura	342,420	136,968	40	136,968	40	51,363	15	17,121	5	0	0	3	68,484	20
	Total	5,495,224	2,906,004	53	1,686,098	31	628,360	11	274,761	5	0	0		903,122	16
	Al kurmuk	185,529	37,105	20	74,211	40	55,658	30	18,552	10	0	0	3	74,210	40
	Ar rusayris	256,370	115,366	45	76,911	30	38,455	15	25,637	10	0	0	3	64,092	25
	At tadamon - bn	130,033	39,010	30	65,017	50	19,505	15	6,502	5	0	0	3	26,007	20
Blue Nile	Baw	180,593	36,118	20	72,237	40	54,177	30	18,059	10	0	0	3	72,236	40
	Ed damazine	307,328	153,664	50	107,564	35	30,732	10	15,366	5	0	0	2	46,098	15
	Geisan	147,392	51,587	35	58,956	40	22,108	15	14,739	10	0	0	3	36,847	25
	Wad al mahi	104,236	36,482	35	41,694	40	15,635	15	10,423	10	0	0	3	26,058	25
	Total	1,311,481	469,335	36	496,592	38	236,274	18	109,280	8	0	0		345,554	26
	Azum	85,258	17,051	20	46,891	55	12,788	15	8,525	10	0	0	3	21,313	25
	Bendasi	117,473	29,368	25	64,610	55	17,620	15	5,873	5	0	0	3	23,493	20
	Gharb jabal marrah	253,042	63,260	25	126,521	50	37,956	15	25,304	10	0	0	3	63,260	25
	Mukjar	152,590	38,147	25	76,295	50	22,888	15	15,259	10	0	0	3	38,147	25
Central Darfur	Shamal jabal marrah	186,554	37,310	20	102,604	55	27,983	15	18,655	10	0	0	3	46,638	25
	Um dukhun	150,816	37,704	25	75,408	50	22,622	15	15,081	10	0	0	3	37,703	25
	Wadi salih	330,910	82,727	25	165,455	50	49,636	15	33,091	10	0	0	3	82,727	25
	Wasat jabal marrah	155,981	38,995	25	85,789	55	23,397	15	7,799	5	0	0	3	31,196	20
	Zalingi	310,306	77,576		155,153	50	46,545	15	31,030	10	0	0	3	77,575	
	Total	1,742,930	422,142	24	898,728	52	261,440	15	160,620	9	0	0		422,060	
	Abu jabrah	91,976	18,395	20	41,389	45	22,994	25	9,197	10	0	0	3	32,191	
	Abu karinka	167,708	41,927	25	75,468	45	41,927	25	8,385	5	0	0	3	50,312	
	Ad duayn	145,322	29,064	20	72,661	50	29,064	20	14,532	10	0	0	3	43,596	30
	Adila	135,338	40,601	30	74,435	55	13,533	10	6,766	5	0	0	2	20,299	15
East Darfur	Al firdous	105,838	31,751	30	47,627	45	21,167	20	5,291	5	0	0	3	26,458	25
	Assalaya	133,060	39,918	30	53,224	40	26,612	20	13,306	10	0	0	3	39,918	
	Bahr al arab	184,597	64,608	35	73,838	40	36,919	20	9,229	5	0	0	3	46,148	25
	Shiaria	77,298	19,324	25	27,054	35	19,324	25	11,594	15	0	0	3	30,918	40
	Yassin	70,109	14,021	20	31,549	45	17,527	25	7,010	10	0	0	3	24,537	35
	Total	1,111,246	299,613	27	497,248	45	229,070	21	85,315	8	0	0		314,385	29



State	Locality	Total	Phase 1		Phase 2	!	Phase 3		Phase 4	4	Phase	5	Area	Phase 3	+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al butanah	140,995	63,447	45	56,398	40	14,099	10	7,049	5	0	0	2	21,148	15
	Al fao	350,480	140,192	40	122,667	35	52,572	15	35,048	10	0	0	3	87,620	25
	Al fashaga	24,073	8,425	35	10,832	45	3,610	15	1,203	5	0	0	3	4,813	20
	Al galabat al gharbyah - kassab	182,196	81,988	45	54,658	30	27,329	15	18,219	10	0	0	3	45,548	25
	Al mafaza	120,662	36,198	30	54,297	45	24,132	20	6,033	5	0	0	3	30,165	25
	Al qureisha	153,262	38,315	25	76,631	50	30,652	20	7,663	5	0	0	3	38,315	25
Gedaref	Ar rahad	269,148	80,744	30	134,574	50	40,372	15	13,457	5	0	0	3	53,829	20
	Basundah	94,710	37,884	40	33,148	35	18,942	20	4,735	5	0	0	3	23,677	25
	Galaa al nahal	131,096	32,774	25	65,548	50	26,219	20	6,554	5	0	0	3	32,773	25
	Galabat ash- shargiah	225,002	56,250	25	112,501	50	45,000	20	11,250	5	0	0	3	56,250	25
	Madeinat al gedaref	534,549	187,092	35	240,547	45	80,182	15	26,727	5	0	0	3	106,909	20
	Wasat al gedaref	221,525	66,457	30	88,610	40	44,305	20	22,152	10	0	0	3	66,457	30
	Total	2,447,698	829,770	34	1,050,415	43	407,418	17	160,095	7	0	0		567,513	24
	Halfa aj jadeedah	323,105	161,552	50	113,086	35	32,310	10	16,155	5	0	0	2	48,465	15
	Madeinat kassala	455,275	250,401	55	136,582	30	45,527	10	22,763	5	0	0	2	68,290	15
	Reifi aroma	156,713	47,013	30	70,520	45	23,506	15	15,671	10	0	0	3	39,177	25
	Reifi gharb kassala	121,053	66,579	55	36,315	30	12,105	10	6,052	5	0	0	2	18,157	15
	Reifi hamashkureib	389,329	97,332	25	175,198	45	77,865	20	38,932	10	0	0	3	116,797	30
Kassala	Reifi kassla	235,820	82,537	35	94,328	40	35,373	15	23,582	10	0	0	3	58,955	25
Nassala	Reifi khashm elgirba	150,887	52,810	35	67,899	45	22,633	15	7,544	5	0	0	3	30,177	20
	Reifi nahr atbara	208,798	73,079	35	93,959	45	20,880	10	20,880	10	0	0	3	41,760	20
	Reifi shamal ad delta	140,078	42,023	30	63,035	45	21,012	15	14,008	10	0	0	3	35,020	25
	Reifi telkok	419,357	125,807	30	188,711	45	62,904	15	41,936	10	0	0	3	104,840	25
	Reifi wad elhilaiw	129,144	51,657	40	58,114	45	12,914	10	6,457	5	0	0	2	19,371	15
	Total	2,729,559	1,050,794	38	1,097,751	40	367,032	13	213,983	8	0	0		581,014	21
	Bahri	972,059	631,838	65	243,014	25	97,205	10	0	0	0	0	2	97,205	10
	Jebel awlia	1,590,642	795,321	50	477,192	30	238,596	15	79,532	5	0	0	3	318,128	20
	Karrari	1,237,166	680,441	55	309,291	25	185,574	15	61,858	5	0	0	3	247,432	20
Khartoum	Khartoum	1,060,428	583,235	55	265,107	25	159,064	15	53,021	5	0	0	3	212,085	20
	Sharg an neel	1,413,904	848,342	60	282,780	20	212,085	15	70,695	5	0	0	3	282,780	20
	Um bada	1,679,011	923,456	55	419,752	25	251,851	15	83,950	5	0	0	3	335,801	20
	Um durman	883,690	486,029	55	220,922	25	132,553	15	44,184	5	0	0	3	176,737	20
	Total	8,836,900	4,948,664	56	2,218,062	25	1,276,932	14	393,242	4	0	0		1,670,174	18



State	Locality	Total	Phase 1	l	Phase 2	!	Phase	3	Phase	4	Phase	5	Area	Phase 3	5+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al fasher	570,716	199,750	35	171,214	30	171,214	30	28,535	5	0	0	3	199,749	35
	Al koma	25,905	9,066	35	10,362	40	5,181	20	1,295	5	0	0	3	6,476	25
	Al lait	128,694	38,608	30	57,912	45	25,738	20	6,434	5	0	0	3	32,172	25
	Al malha	92,617	18,523	20	41,677	45	27,785	30	4,630	5	0	0	3	32,415	35
	As serief	63,495	22,223	35	31,748	50	6,350	10	3,175	5	0	0	2	9,525	15
	At tawisha	105,795	21,159	20	68,767	65	15,869	15	0	0	0	0	2	15,869	15
	Dar as salam	123,275	36,982	30	67,801	55	12,327	10	6,163	5	0	0	2	18,490	15
	Kebkabiya	205,040	41,008	20	112,772	55	41,008	20	10,252	5	0	0	3	51,260	25
North Darfur	Kelemando	72,292	18,073	25	36,146	50	14,458	20	3,614	5	0	0	3	18,072	25
2	Kernoi	103,344	15,501	15	51,672	50	31,003	30	5,167	5	0	0	3	36,170	35
	Kutum	237,751	59,437	25	106,987	45	59,437	25	11,887	5	0	0	3	71,324	30
	Melit	166,524	33,304	20	83,262	50	41,631	25	8,326	5	0	0	3	49,957	30
	Saraf omra	160,923	40,230	25	88,507	55	24,138	15	8,046	5	0	0	3	32,184	20
	Tawila	142,036	28,407	20	56,814	40	49,712	35	7,101	5	0	0	3	56,813	40
	Um baru	117,526	23,505	20	52,886	45	35,257	30	5,876	5	0	0	3	41,133	35
	Um kadadah	134,830	26,966	20	67,415	50	33,707	25	6,741	5	0	0	3	40,448	30
	Total	2,450,763	632,748	26	1,105,946	45	594,821	24	117,248	5	0	0		712,069	29
	Ar rahad (1)	166,203	74,791	45	58,171	35	24,930	15	8,310	5	0	0	3	33,240	20
	Bara	192,969	86,836	45	48,242	25	48,242	25	9,648	5	0	0	3	57,890	30
	Gebrat al sheikh	243,462	133,904	55	73,038	30	36,519	15	0	0	0	0	2	36,519	15
	Gharb bara	187,388	84,324	45	46,847	25	37,477	20	18,738	10	0	0	3	56,215	30
North Kordofan	Sheikan	569,564	256,303	45	170,869	30	113,912	20	28,478	5	0	0	3	142,390	25
	Soudari	285,852	128,633	45	71,463	25	57,170	20	28,585	10	0	0	3	85,755	30
	Um dam haj ahmed	137,947	68,973	50	27,589	20	34,486	25	6,897	5	0	0	3	41,383	30
	Um rawaba	364,206	182,103	50	109,261	30	54,630	15	18,210	5	0	0	3	72,840	20
	Total	2,147,591	1,015,870	47	605,482	28	407,370	19	118,868	6	0	0		526,239	25
	Ad dabbah	211,284	116,206	55	63,385	30	21,128	10	10,564	5	0	0	2	31,692	15
	Al burgaig	125,805	69,192	55	44,031	35	12,580	10	0	0	0	0	2	12,580	10
	Al golid	114,807	57,403	50	40,182	35	11,480	10	5,740	5	0	0	2	17,220	15
Northern	Delgo	60,678	27,305	45	24,271	40	6,067	10	3,033	5	0	0	2	9,100	15
Hortifelii	Dongola	218,445	87,378	40	98,300	45	32,766	15	0	0	0	0	2	32,766	15
	Halfa	46,190	20,785	45	18,476	40	4,619	10	2,309	5	0	0	2	6,928	15
	Merwoe	221,029	110,514	50	77,360	35	22,102	10	11,051	5	0	0	2	33,153	15
	Total	998,238	488,786	49	366,007	37	110,746	11	32,699	3	0	0		143,445	14
	Agig	86,397	21,599	25	38,878	45	17,279	20	8,639	10	0	0	3	25,918	30
	Al ganab	129,120	32,280	25	64,560	50	19,368	15	12,912	10	0	0	3	32,280	25
	Dordieb	65,569	19,670	30	29,506	45	9,835	15	6,556	10	0	0	3	16,391	25
	Halaib	28,573	7,143	25	10,000	35	5,714	20	5,714	20	0	0	4	11,428	40
	Haya	320,769	80,192	25	160,384	50	64,153	20	16,038	5	0	0	3	80,191	25
Red Sea	Jubayt elmaaadin	110,692	22,138	20	38,742	35	27,673	25	22,138	20	0	0	4	49,811	45
	Port sudan	315,331	157,665	50	126,132	40	31,533	10	0	0	0	0	2	31,533	10
	Sawakin	91,979	32,192	35	45,989	50	9,197	10	4,598	5	0	0	2	13,795	15
	Sinkat	193,705	48,426	25	96,852	50	38,741	20	9,685	5	0	0	3	48,426	25
	Tawkar	183,316	45,829	25	82,492	45	36,663	20	18,331	10	0	0	3	54,994	30
	Total	1,525,451	467,137	31	693,539	45	260,159	17	104,616	7	0	0		364,775	24



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	115,321	57,660	50	46,128	40	11,532	10	0	0	0	0	2	11,532	10
	Ad damar	408,702	204,351	50	143,045	35	40,870	10	20,435	5	0	0	2	61,305	15
	Al buhaira	68,783	34,391	50	27,513	40	6,878	10	0	0	0	0	2	6,878	10
River Nile	Al matama	218,468	109,234	50	76,463	35	21,846	10	10,923	5	0	0	2	32,769	15
RIVEI MILE	Atbara	193,581	106,470	55	67,753	35	19,358	10	0	0	0	0	2	19,358	10
	Barbar	219,171	131,502	60	65,751	30	21,917	10	0	0	0	0	2	21,917	10
	Shendi	387,556	213,155	55	135,644	35	38,755	10	0	0	0	0	2	38,755	10
	Total	1,611,582	856,765	53	562,300	35	161,158	10	31,359	2	0	0		192,517	12
	Abu hujar	212,495	53,123	25	84,998	40	63,748	30	10,624	5	0	0	3	74,372	35
	Ad dali	114,997	40,248	35	45,998	40	22,999	20	5,749	5	0	0	3	28,748	25
	Ad dinder	312,493	124,997	40	140,621	45	46,873	15	0	0	0	0	2	46,873	15
Corre	As suki	342,492	205,495	60	102,748	30	34,249	10	0	0	0	0	2	34,249	10
Sennar	Sennar	488,739	195,495	40	219,932	45	73,310	15	0	0	0	0	2	73,310	15
	Sharg sennar	374,992	243,744	65	93,748	25	37,499	10	0	0	0	0	2	37,499	10
	Sinja	251,244	175,870	70	62,811	25	12,562	5	0	0	0	0	2	12,562	5
	Total	2,097,452	1,038,976	50	750,858	36	291,243	14	16,375	1	0	0		307,618	15
	Al radoum	159,670	79,835	50	47,901	30	23,950	15	7,983	5	0	0	3	31,933	20
	Al wihda	60,132	27,059	45	18,039	30	12,026	20	3,006	5	0	0	3	15,032	25
	As salam - sd	110,676	44,270	40	44,270	40	16,601	15	5,534	5	0	0	3	22,135	20
	As sunta	153,018	53,556	35	61,207	40	30,604	20	7,651	5	0	0	3	38,255	25
	Beliel	284,824	113,929	40	99,688	35	42,723	15	28,482	10	0	0	3	71,205	25
	Buram	172,447	103,468	60	43,111	25	17,244	10	8,622	5	0	0	2	25,866	15
	Damso	172,447	51,734	30	68,978	40	34,489	20	17,244	10	0	0	3	51,733	30
	Ed al fursan	253,542	114,093	45	76,062	30	50,708	20	12,677	5	0	0	3	63,385	25
	Gereida	174,634	61,121	35	69,853	40	34,926	20	8,731	5	0	0	3	43,657	25
	Kas	234,924	105,715	45	70,477	30	35,238	15	23,492	10	0	0	3	58,730	25
South	Kateila	136,628	61,482	45	54,651	40	13,662	10	6,831	5	0	0	2	20,493	15
Darfur	Kubum	219,815	109,907	50	65,944	30	32,972	15	10,990	5	0	0	3	43,962	20
	Mershing	103,732	46,679	45	31,119	30	20,746	20	5,186	5	0	0	3	25,932	25
	Nitega	119,447	41,806	35	47,778	40	23,889	20	5,972	5	0	0	3	29,861	25
	Nyala janoub	375,734	187,867	50	131,506	35	37,573	10	18,786	5	0	0	2	56,359	15
	Nyala shimal	389,098	194,549	50	97,274	25	77,819	20	19,454	5	0	0	3	97,273	25
	Rehaid albirdi	234,181	105,381	45	70,254	30	46,836	20	11,709	5	0	0	3	58,545	25
	Sharg aj jabal	14,010	4,203	30	4,903	35	3,502	25	1,401	10	0	0	3	4,903	35
	Shattaya	55,092	22,036	40	19,282	35	11,018	20	2,754	5	0	0	3	13,772	25
	Tulus	314,045	141,320	45	109,915	35	47,106	15	15,702	5	0	0	3	62,808	20
	Um dafoug	75,134	33,810	45	30,053	40	7,513	10	3,756	5	0	0	2	11,269	15
	Total	3,813,230	1,703,828	45	1,262,275	33	621,155	16	225,972	6	0	0		847,126	22



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	%
	Abassiya	131,614	59,226	45	39,484	30	26,322	20	6,580	5	0	0	3	32,902	25
	Abu jubayhah	196,109	88,249	45	68,638	35	29,416	15	9,805	5	0	0	3	39,221	20
	Abu kershola	105,698	36,994	35	42,279	40	21,139	20	5,284	5	0	0	3	26,423	25
	Al buram	169,738	50,921	30	59,408	35	25,460	15	33,947	20	0	0	4	59,407	35
	Al leri	42,101	18,945	45	14,735	35	6,315	15	2,105	5	0	0	3	8,420	20
	Al quoz	125,517	50,206	40	50,206	40	18,827	15	6,275	5	0	0	3	25,102	20
	Ar rashad	67,890	27,156	40	27,156	40	10,183	15	3,394	5	0	0	3	13,577	20
	Ar reif ash shargi	65,509	29,479	45	22,928	35	9,826	15	3,275	5	0	0	3	13,101	20
South Kordofan	At tadamon - sk	84,588	33,835	40	29,606	35	16,918	20	4,229	5	0	0	3	21,147	25
	Delami	53,590	21,436	40	18,756	35	10,718	20	2,679	5	0	0	3	13,397	25
	Dilling	224,648	89,859	40	78,626	35	44,929	20	11,232	5	0	0	3	56,161	25
	Ghadeer	55,824	27,912	50	16,747	30	8,373	15	2,791	5	0	0	3	11,164	20
	Habila - sk	73,600	33,120	45	22,080	30	14,720	20	3,680	5	0	0	3	18,400	25
	Heiban	240,572	84,200	35	72,171	30	36,085	15	48,114	20	0	0	4	84,199	35
	Kadugli	153,636	61,454	40	53,772	35	30,727	20	7,681	5	0	0	3	38,408	25
	Talawdi	43,640	17,456	40	13,092	30	8,728	20	4,364	10	0	0	3	13,092	30
	Um durein	124,913	56,210	45	37,473	30	24,982	20	6,245	5	0	0	3	31,227	25
	Total	1,959,187	786,662	40	667,163	34	343,674	18	161,688	8	0	0		505,362	26
	Ag geneina	645,528	64,553	10	322,764	50	129,106	20	129,106	20	0	0	4	258,212	40
	Beida	229,256	45,851	20	126,090	55	34,388	15	22,925	10	0	0	3	57,313	25
	Foro baranga	85,876	17,175	20	47,231	55	12,881	15	8,587	10	0	0	3	21,468	25
	Habila - wd	131,957	32,989	25	72,576	55	13,195	10	13,195	10	0	0	3	26,390	20
West Darfur	Jebel moon	68,513	17,128	25	37,682	55	6,851	10	6,851	10	0	0	3	13,702	20
	Kereneik	486,945	97,389	20	243,472	50	97,389	20	48,694	10	0	0	3	146,083	30
	Kulbus	49,498	12,374	25	27,223	55	4,949	10	4,949	10	0	0	3	9,898	20
	Sirba	195,949	39,189	20	117,569	60	19,594	10	19,594	10	0	0	3	39,188	20
	Total	1,893,522	326,650	17	994,611	53	318,356	17	253,905	13	0	0		572,261	30
	Abu zabad	112,847	67,708	60	33,854	30	5,642	5	5,642	5	0	0	2	11,284	10
	Abyei	124,005	74,403	60	37,201	30	6,200	5	6,200	5	0	0	2	12,400	10
	Al dibab	80,588	44,323	55	20,147	25	12,088	15	4,029	5	0	0	3	16,117	20
	Al idia	144,320	57,728	40	50,512	35	28,864	20	7,216	5	0	0	3	36,080	25
	Al khiwai	92,022	55,213	60	23,005	25	9,202	10	4,601	5	0	0	2	13,803	15
	Al lagowa	100,135	55,074	55	25,033	25	15,020	15	5,006	5	0	0	3	20,026	20
West	Al meiram	53,744	32,246	60	10,748	20	8,061	15	2,687	5	0	0	3	10,748	20
Kordofan	An nuhud	270,511	162,306	60	54,102	20	40,576	15	13,525	5	0	0	3	54,101	20
	As salam - wk	114,778	68,867	60	22,956	20	17,217	15	5,739	5	0	0	3	22,956	20
	As sunut Babanusa	143,203 57,518	100,242 34,510	70 60	21,480 14,379	15 25	14,320	10 10	7,160 2,875	5 5	0	0	2	21,480 8,626	15 15
		154,789		45		35	5,751	15			0				
	Ghubaish		69,655		54,176		23,218	15	7,739	5	0	0	3	30,957	20
	Keilak Wad bandah	75,998 155,407	41,798	55	18,999	25 20	11,399	10	3,799 15,540	5 10	0	0	3	15,198	20
		155,407	93,244	60 <b>57</b>	31,081		15,540			10	0		3	31,080	20
	Total	1,679,865	957,321	57	417,677	25	213,103	13	91,764	5	0	0		304,867	18



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	454,930	181,972	40	204,718	45	45,493	10	22,746	5	0	0	2	68,239	15
	Aj jabalain	363,040	145,216	40	145,216	40	54,456	15	18,152	5	0	0	3	72,608	20
	Al gitaina	377,217	132,025	35	188,608	50	37,721	10	18,860	5	0	0	2	56,581	15
	As salam / ar rawat	345,718	121,001	35	138,287	40	69,144	20	17,286	5	0	0	3	86,430	25
White Nile	Guli	399,420	179,739	45	159,768	40	39,942	10	19,971	5	0	0	2	59,913	15
	Kosti	-	-	-	-	-	-	-	-	-	-	-	2	-	-
	Rabak	374,339	149,735	40	168,452	45	37,433	10	18,716	5	0	0	2	56,149	15
	Tendalti	219,284	98,677	45	76,749	35	32,892	15	10,964	5	0	0	3	43,856	20
	Um rimta	182,958	64,035	35	73,183	40	27,443	15	18,295	10	0	0	3	45,738	25
	Total	2,716,906	1,072,403	39	1,154,983	43	344,527	13	144,993	5	0	0		489,520	18
Gran	d Total	46,568,825	20,273,468	44	16,525,736	35	7,072,838	15	2,696,783	6	0	0		9,769,621	21



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	937,220	796,637	85	93,722	10	46,861	5	0	0	0	0	1	46,861	5
	Al kamlin	618,272	525,531	85	61,827	10	30,913	5	0	0	0	0	1	30,913	5
	Al manaqil	846,611	719,619	85	84,661	10	42,330	5	0	0	0	0	1	42,330	5
	Al qurashi	513,486	282,417	55	179,720	35	25,674	5	25,674	5	0	0	2	51,348	10
Aj Jazirah	Janub aj jazirah	861,956	603,369	70	172,391	20	43,097	5	43,097	5	0	0	2	86,194	10
Aj Jaziran	Medani al kubra	654,405	556,244	85	65,440	10	32,720	5	0	0	0	0	1	32,720	5
	Sharg aj jazirah	720,854	396,469	55	252,298	35	36,042	5	36,042	5	0	0	2	72,084	10
	Um algura	342,420	188,331	55	119,846	35	17,121	5	17,121	5	0	0	2	34,242	10
	Total	5,495,224	4,068,619	74	1,029,908	19	274,761	5	121,936	2	0	0		396,697	7
	Al kurmuk	185,529	83,488	45	64,935	35	27,829	15	9,276	5	0	0	3	37,105	20
	Ar rusayris	256,370	153,822	60	76,911	30	25,637	10	0	0	0	0	2	25,637	10
	At tadamon - bn	130,033	71,518	55	39,010	30	13,003	10	6,502	5	0	0	2	19,505	15
Blue Nile	Baw	180,593	72,237	40	72,237	40	27,088	15	9,029	5	0	0	3	36,117	20
	Ed damazine	307,328	215,129	70	61,465	20	30,732	10	0	0	0	0	2	30,732	10
	Geisan	147,392	73,696	50	58,956	40	14,739	10	0	0	0	0	2	14,739	10
	Wad al mahi	104,236	52,118	50	36,482	35	10,423	10	5,211	5	0	0	2	15,634	15
	Total	1,311,481	722,009	55	409,998	31	149,454	11	30,020	2	0	0		179,474	13
	Azum	85,258	29,840	35	42,629	50	8,525	10	4,262	5	0	0	2	12,787	15
	Bendasi	117,473	52,862	45	46,989	40	11,747	10	5,873	5	0	0	2	17,620	15
	Gharb jabal marrah	253,042	88,564	35	126,521	50	25,304	10	12,652	5	0	0	2	37,956	15
	Mukjar	152,590	61,036	40	76,295	50	15,259	10	0	0	0	0	2	15,259	10
Central Darfur	Shamal jabal marrah	186,554	55,966	30	102,604	55	18,655	10	9,327	5	0	0	2	27,982	15
	Um dukhun	150,816	75,408	50	60,326	40	15,081	10	0	0	0	0	2	15,081	10
	Wadi salih	330,910	148,909	45	148,909	45	33,091	10	0	0	0	0	2	33,091	10
	Wasat jabal marrah	155,981	62,392	40	70,191	45	15,598	10	7,799	5	0	0	2	23,397	15
	Zalingi	310,306			124,122	40	31,030	10		0	0		2	31,030	
	Total	1,742,930	730,133	42	798,589	46	174,293	10	39,915	2	0	0		214,208	
	Abu jabrah	91,976	55,185	60	22,994	25	9,197	10	4,598	5	0	0	2	13,795	15
	Abu karinka	167,708	117,395	70	33,541	20	16,770	10	0	0	0	0	2	16,770	10
	Ad duayn	145,322	72,661	50	50,862	35	14,532	10	7,266	5	0	0	2	21,798	15
	Adila	135,338	87,969	65	33,834	25	13,533	10	0	0	0	0	2	13,533	10
East Darfur	Al firdous	105,838	84,670	80	15,875	15	5,291	5	0	0	0	0	2	5,291	5
	Assalaya	133,060	86,489	65	26,612	20	13,306	10	6,653	5	0	0	2	19,959	15
	Bahr al arab	184,597	119,988	65	46,149	25	18,459	10	0	0	0	0	2	18,459	10
	Shiaria	77,298	50,243	65	19,324	25	7,729	10	0	0	0	0	2	7,729	10
	Yassin	70,109	38,559	55	24,538	35	7,010	10	0	0	0	0	2	7,010	10
	Total	1,111,246	713,163	64	273,732	25	105,833	10	18,518	2	0	0		124,351	12



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	140,995	56,398	40	63,447	45	14,099	10	7,049	5	0	0	2	21,148	15
	Al fao	350,480	140,192	40	157,716	45	35,048	10	17,524	5	0	0	2	52,572	15
	Al fashaga	24,073	8,425	35	10,832	45	3,610	15	1,203	5	0	0	3	4,813	20
	Al galabat al gharbyah - kassab	182,196	91,098	50	63,768	35	18,219	10	9,109	5	0	0	2	27,328	15
	Al mafaza	120,662	42,231	35	60,331	50	12,066	10	6,033	5	0	0	2	18,099	15
	Al qureisha	153,262	84,294	55	45,978	30	15,326	10	7,663	5	0	0	2	22,989	15
Gedaref	Ar rahad	269,148	107,659	40	121,117	45	26,915	10	13,457	5	0	0	2	40,372	15
	Basundah	94,710	47,355	50	33,148	35	9,471	10	4,735	5	0	0	2	14,206	15
	Galaa al nahal	131,096	39,328	30	65,548	50	13,109	10	13,109	10	0	0	3	26,218	20
	Galabat ash- shargiah	225,002	90,000	40	101,250	45	22,500	10	11,250	5	0	0	2	33,750	15
	Madeinat al gedaref	534,549	213,819	40	240,547	45	53,454	10	26,727	5	0	0	2	80,181	15
	Wasat al gedaref	221,525	110,762	50	77,533	35	22,152	10	11,076	5	0	0	2	33,228	15
	Total	2,447,698	1,031,565	42	1,041,220	43	245,973	10	128,940	5	0	0		374,913	15
	Halfa aj jadeedah	323,105	193,863	60	113,086	35	16,155	5	0	0	0	0	2	16,155	5
	Madeinat kassala	455,275	273,165	60	159,346	35	22,763	5	0	0	0	0	2	22,763	5
	Reifi aroma	156,713	62,685	40	62,685	40	23,506	15	7,835	5	0	0	3	31,341	20
	Reifi gharb kassala	121,053	72,631	60	42,368	35	6,052	5	0	0	0	0	2	6,052	5
	Reifi hamashkureib	389,329	136,265	35	175,198	45	38,932	10	38,932	10	0	0	3	77,864	20
Kassala	Reifi kassla	235,820	106,119	45	82,537	35	35,373	15	11,791	5	0	0	3	47,164	20
Russulu	Reifi khashm elgirba	150,887	67,899	45	60,355	40	15,089	10	7,544	5	0	0	2	22,633	15
	Reifi nahr atbara	208,798	93,959	45	83,519	40	20,880	10	10,440	5	0	0	2	31,320	15
	Reifi shamal ad delta	140,078	49,027	35	63,035	45	21,012	15	7,004	5	0	0	3	28,016	20
	Reifi telkok	419,357	167,743	40	167,743	40	62,904	15	20,968	5	0	0	3	83,872	20
	Reifi wad elhilaiw	129,144	64,572	50	51,657	40	12,914	10	0	0	0	0	2	12,914	10
	Total	2,729,559	1,287,930	47	1,061,531	39	275,583	10	104,516	4	0	0		380,098	14
	Bahri	972,059	680,441	70	194,411	20	97,205	10	0	0	0	0	2	97,205	10
	Jebel awlia	1,590,642	874,853	55	397,660	25	238,596	15	79,532	5	0	0	3	318,128	20
	Karrari	1,237,166	680,441	55	371,149	30	123,716	10	61,858	5	0	0	2	185,574	15
Khartoum	Khartoum	1,060,428	583,235	55	318,128	30	106,042	10	53,021	5	0	0	2	159,063	15
ar coull	Sharg an neel	1,413,904	919,037	65	282,780	20	141,390	10	70,695	5	0	0	2	212,085	15
	Um bada	1,679,011	923,456	55	503,703	30	167,901	10	83,950	5	0	0	2	251,851	15
	Um durman	883,690	486,029	55	220,922	25	132,553	15	44,184	5	0	0	3	176,737	20
	Total	8,836,900	5,147,494	58	2,288,757	26	1,007,407	11	393,242	4	0	0		1,400,649	15



State	Locality	Total	Phase 1		Phase 2	!	Phase	3	Phase	4	Phase	5	Area	Phase 3	<b>i</b> +
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Al fasher	570,716	199,750	35	285,358	50	57,071	10	28,535	5	0	0	2	85,606	15
	Al koma	25,905	10,362	40	10,362	40	5,181	20	0	0	0	0	3	5,181	20
	Al lait	128,694	45,042	35	64,347	50	12,869	10	6,434	5	0	0	2	19,303	15
	Al malha	92,617	18,523	20	50,939	55	18,523	20	4,630	5	0	0	3	23,153	25
	As serief	63,495	25,398	40	28,573	45	6,350	10	3,175	5	0	0	2	9,525	15
	At tawisha	105,795	26,449	25	63,477	60	15,869	15	0	0	0	0	2	15,869	15
	Dar as salam	123,275	43,146	35	61,637	50	12,327	10	6,163	5	0	0	2	18,490	15
	Kebkabiya	205,040	51,260	25	112,772	55	30,756	15	10,252	5	0	0	3	41,008	20
North Darfur	Kelemando	72,292	18,073	25	43,375	60	7,229	10	3,614	5	0	0	2	10,843	15
	Kernoi	103,344	15,501	15	62,006	60	20,668	20	5,167	5	0	0	3	25,835	25
	Kutum	237,751	71,325	30	106,987	45	47,550	20	11,887	5	0	0	3	59,437	25
	Melit	166,524	41,631	25	83,262	50	33,304	20	8,326	5	0	0	3	41,630	25
	Saraf omra	160,923	56,323	35	80,461	50	16,092	10	8,046	5	0	0	2	24,138	15
	Tawila	142,036	35,509	25	71,018	50	28,407	20	7,101	5	0	0	3	35,508	25
	Um baru	117,526	29,381	25	58,763	50	23,505	20	5,876	5	0	0	3	29,381	25
	Um kadadah	134,830	33,707	25	74,156	55	20,224	15	6,741	5	0	0	3	26,965	20
	Total	2,450,763	721,384	29	1,257,496	51	355,930	15	115,953	5	0	0		471,883	20
	Ar rahad (1)	166,203	91,412	55	58,171	35	16,620	10	0	0	0	0	2	16,620	10
	Bara	192,969	106,132	55	48,242	25	28,945	15	9,648	5	0	0	3	38,593	20
	Gebrat al sheikh	243,462	158,250	65	60,865	25	24,346	10	0	0	0	0	2	24,346	10
NI	Gharb bara	187,388	103,063	55	37,477	20	37,477	20	9,369	5	0	0	3	46,846	25
North Kordofan	Sheikan	569,564	341,738	60	142,391	25	85,434	15	0	0	0	0	2	85,434	15
	Soudari	285,852	142,926	50	71,463	25	57,170	20	14,292	5	0	0	3	71,462	25
	Um dam haj ahmed	137,947	75,870	55	27,589	20	27,589	20	6,897	5	0	0	3	34,486	25
	Um rawaba	364,206	218,523	60	109,261	30	36,420	10	0	0	0	0	2	36,420	10
	Total	2,147,591	1,237,917	58	555,462	26	314,004	15	40,208	2	0	0		354,212	17
	Ad dabbah	211,284	126,770	60	63,385	30	21,128	10	0	0	0	0	2	21,128	10
	Al burgaig	125,805	69,192	55	44,031	35	12,580	10	0	0	0	0	2	12,580	10
	Al golid	114,807	63,143	55	40,182	35	5,740	5	5,740	5	0	0	2	11,480	10
Northern	Delgo	60,678	30,339	50	24,271	40	6,067	10	0	0	0	0	2	6,067	10
	Dongola	218,445	109,222	50	87,378	40	21,844	10	0	0	0	0	2	21,844	10
	Halfa	46,190	23,095	50	18,476	40	4,619	10	0	0	0	0	2	4,619	10
	Merwoe	221,029	121,565	55	88,411	40	11,051	5	0	0	0	0	2	11,051	5
	Total	998,238	543,329	54	366,136	37	83,032	8	5,740	1	0	0		88,772	9
	Agig	86,397	34,558	40	34,558	40	12,959	15	4,319	5	0	0	3	17,278	20
	Al ganab	129,120	51,648	40	51,648	40	19,368	15	6,456	5	0	0	3	25,824	20
	Dordieb	65,569	26,227	40	26,227	40	9,835	15	3,278	5	0	0	3	13,113	20
	Halaib	28,573	8,571	30	12,857	45	4,285	15	2,857	10	0	0	3	7,142	25
	Haya	320,769	112,269	35	144,346	45	64,153	20	0	0	0	0	3	64,153	20
Red Sea	Jubayt elmaaadin	110,692	38,742	35	44,276	40	16,603	15	11,069	10	0	0	3	27,672	25
	Port sudan	315,331	204,965	65	94,599	30	15,766	5	0	0	0	0	2	15,766	5
	Sawakin	91,979	41,390	45	41,390	45	9,197	10	0	0	0	0	2	9,197	10
	Sinkat	193,705	67,796	35	87,167	45	38,741	20	0	0	0	0	3	38,741	20
	Tawkar	183,316	73,326	40	91,658	50	18,331	10	0	0	0	0	2	18,331	10
	Total	1,525,451	659,497	43	628,730	41	209,244	14	27,981	2	0	0		237,224	16



State	Locality	Total	Phase 1		Phase 2	2	Phase	3	Phase	4	Phase	5	Area	Phase 3	3+
		population analysed	#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
	Abu hamad	115,321	69,192	60	40,362	35	5,766	5	0	0	0	0	2	5,766	5
	Ad damar	408,702	224,786	55	143,045	35	40,870	10	0	0	0	0	2	40,870	10
	Al buhaira	68,783	37,830	55	24,074	35	6,878	10	0	0	0	0	2	6,878	10
River Nile	Al matama	218,468	109,234	50	87,387	40	21,846	10	0	0	0	0	2	21,846	10
River Nile	Atbara	193,581	116,149	60	67,753	35	9,679	5	0	0	0	0	2	9,679	5
	Barbar	219,171	131,502	60	76,709	35	10,958	5	0	0	0	0	2	10,958	5
	Shendi	387,556	232,533	60	135,644	35	19,377	5	0	0	0	0	2	19,377	5
	Total	1,611,582	921,228	57	574,977	36	115,377	7	0	0	0	0		115,377	7
	Abu hujar	212,495	116,872	55	74,373	35	21,249	10	0	0	0	0	2	21,249	10
	Ad dali	114,997	57,498	50	45,998	40	11,499	10	0	0	0	0	2	11,499	10
	Ad dinder	312,493	156,246	50	124,997	40	31,249	10	0	0	0	0	2	31,249	10
_	As suki	342,492	239,744	70	85,623	25	17,125	5	0	0	0	0	2	17,125	5
Sennar	Sennar	488,739	244,369	50	195,495	40	48,873	10	0	0	0	0	2	48,873	10
	Sharg sennar	374,992	318,743	85	37,499	10	18,749	5	0	0	0	0	1	18,749	5
	Sinja	251,244	213,557	85	37,686	15	-	0	0	0	0	0	1	-	0
	Total	2,097,452	1,347,032	64	601,674	29	148,747	7	0	0	0	0		148,747	7
	Al radoum	159,670	111,769	70	31,934	20	15,967	10	0	0	0	0	2	15,967	10
	Al wihda	60,132	39,085	65	15,033	25	6,013	10	0	0	0	0	2	6,013	10
	As salam - sd	110,676	71,939	65	27,669	25	11,068	10	0	0	0	0	2	11,068	10
	As sunta	153,018	91,811	60	38,255	25	22,953	15	0	0	0	0	2	22,953	15
	Beliel	284,824	213,618	75	56,964	20	14,241	5	0	0	0	0	2	14,241	5
	Buram	172,447	120,712	70	43,111	25	8,622	5	0	0	0	0	2	8,622	5
	Damso	172,447	112,090	65	34,489	20	25,867	15	0	0	0	0	2	25,867	15
	Ed al fursan	253,542	190,156	75	50,708	20	12,677	5	0	0	0	0	2	12,677	5
	Gereida	174,634	104,780	60	34,926	20	26,195	15	8,731	5	0	0	3	34,926	20
	Kas	234,924	164,446	70	35,238	15	23,492	10	11,746	5	0	0	2	35,238	15
South	Kateila	136,628	88,808	65	27,325	20	13,662	10	6,831	5	0	0	2	20,493	15
Darfur	Kubum	219,815	153,870	70	43,963	20	21,981	10	0	0	0	0	2	21,981	10
	Mershing	103,732	51,866	50	36,306	35	15,559	15	0	0	0	0	2	15,559	15
	Nitega	119,447	77,640	65	29,861	25	11,944	10	0	0	0	0	2	11,944	10
	Nyala janoub	375,734	281,800	75	75,146	20	18,786	5	0	0	0	0	2	18,786	5
	Nyala shimal	389,098	272,368	70	97,274	25	19,454	5	0	0	0	0	2	19,454	5
	Rehaid albirdi	234,181	163,926	70	46,836	20	23,418	10	0	0	0	0	2	23,418	10
	Sharg aj jabal	14,010	7,005	50	4,203	30	2,101	15	700	5	0	0	3	2,801	20
	Shattaya	55,092	41,319	75	8,263	15	5,509	10	0	0	0	0	2	5,509	10
	Tulus	314,045	219,831	70	62,809	20	31,404	10	0	0	0	0	2	31,404	10
	Um dafoug	75,134	48,837	65	15,026	20	11,270	15	0	0	0	0	2	11,270	15
	Total	3,813,230	2,627,684	69	815,347	21	342,190	9	28,010	1	0	0		370,199	10



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	%
	Abassiya	131,614	65,807	50	46,064	35	19,742	15	0	0	0	0	2	19,742	15
	Abu jubayhah	196,109	107,859	55	68,638	35	19,610	10	0	0	0	0	2	19,610	10
	Abu kershola	105,698	52,849	50	36,994	35	10,569	10	5,284	5	0	0	2	15,853	15
	Al buram	169,738	76,382	45	59,408	35	25,460	15	8,486	5	0	0	3	33,946	20
	Al leri	42,101	21,050	50	14,735	35	6,315	15	0	0	0	0	2	6,315	15
	Al quoz	125,517	62,758	50	43,930	35	18,827	15	0	0	0	0	2	18,827	15
	Ar rashad	67,890	33,945	50	27,156	40	6,789	10	0	0	0	0	2	6,789	10
	Ar reif ash shargi	65,509	29,479	45	26,203	40	9,826	15	0	0	0	0	2	9,826	15
South Kordofan	At tadamon - sk	84,588	46,523	55	29,606	35	8,459	10	0	0	0	0	2	8,459	10
	Delami	53,590	26,795	50	21,436	40	5,359	10	0	0	0	0	2	5,359	10
	Dilling	224,648	112,324	50	89,859	40	22,464	10	0	0	0	0	2	22,464	10
	Ghadeer	55,824	27,912	50	19,538	35	8,373	15	0	0	0	0	2	8,373	15
	Habila - sk	73,600	36,800	50	25,760	35	11,040	15	0	0	0	0	2	11,040	15
	Heiban	240,572	96,228	40	84,200	35	48,114	20	12,028	5	0	0	3	60,142	25
	Kadugli	153,636	69,136	45	61,454	40	15,363	10	7,681	5	0	0	2	23,044	15
	Talawdi	43,640	21,820	50	15,273	35	4,364	10	2,182	5	0	0	2	6,546	15
	Um durein	124,913	56,210	45	49,965	40	18,736	15	0	0	0	0	2	18,736	15
	Total	1,959,187	943,881	48	720,225	37	259,417	13	35,664	2	0	0		295,081	15
	Ag geneina	645,528	161,382	25	355,040	55	64,553	10	64,553	10	0	0	3	129,106	20
	Beida	229,256	80,239	35	114,628	50	22,925	10	11,462	5	0	0	2	34,387	15
	Foro baranga	85,876	30,056	35	47,231	55	8,587	10	0	0	0	0	2	8,587	10
	Habila - wd	131,957	46,184	35	72,576	55	6,597	5	6,597	5	0	0	2	13,194	10
West Darfur	Jebel moon	68,513	23,979	35	37,682	55	6,851	10	0	0	0	0	2	6,851	10
	Kereneik	486,945	146,083	30	267,819	55	48,694	10	24,347	5	0	0	2	73,041	15
	Kulbus	49,498	19,799	40	24,749	50	4,949	10	0	0	0	0	2	4,949	10
	Sirba	195,949	68,582	35	97,974	50	19,594	10	9,797	5	0	0	2	29,391	15
	Total	1,893,522	576,308	30	1,017,702	54	182,754	10	116,758	6	0	0		299,513	16
	Abu zabad	112,847	84,635	75	22,569	20	5,642	5	0	0	0	0	2	5,642	5
	Abyei	124,005	80,603	65	37,201	30	6,200	5	0	0	0	0	2	6,200	5
	Al dibab	80,588	52,382	65	24,176	30	4,029	5	0	0	0	0	2	4,029	5
	Al idia	144,320	64,944	45	64,944	45	14,432	10	0	0	0	0	2	14,432	10
	Al khiwai	92,022	55,213	60	32,207	35	4,601	5	0	0	0	0	2	4,601	5
	Al lagowa	100,135	70,094	70	25,033	25	5,006	5	0	0	0	0	2	5,006	5
West	Al meiram	53,744	37,620	70	13,436	25	2,687	5	0	0	0	0	2	2,687	5
Kordofan	An nuhud	270,511	202,883	75	54,102	20	13,525	5	0	0	0	0	2	13,525	5
	As salam - wk	114,778	80,345	70	28,695	25	5,739	5	0	0	0	0	2	5,739	5
	As sunut	143,203	100,242	70	21,480	15	21,480	15	0	0	0	0	2	21,480	15
	Babanusa	57,518	34,510	60	17,255	30	5,751	10	0	0	0	0	2	5,751	10
	Ghubaish	154,789	92,873	60	46,436	30	15,478	10	0	0	0	0	2	15,478	10
	Keilak	75,998	56,998	75	11,399	15	7,599	10	0	0	0	0	2	7,599	10
	Wad bandah	155,407	108,784	70	31,081	20	15,540	10	0	0	0	0	2	15,540	10
	Total	1,679,865	1,122,131	67	430,019	26	127,715	8	0	0	0	0		127,715	8



State	Locality	Total population analysed	Phase 1		Phase 2		Phase 3		Phase 4		Phase 5		Area	Phase 3+	
			#people	%	#people	%	#people	%	#people	%	#people	%	Phase	#people	%
White Nile	Ad diwaim	454,930	181,972	40	227,465	50	22,746	5	22,746	5	0	0	2	45,492	10
	Aj jabalain	363,040	145,216	40	163,368	45	36,304	10	18,152	5	0	0	2	54,456	15
	Al gitaina	377,217	188,608	50	132,025	35	37,721	10	18,860	5	0	0	2	56,581	15
	As salam / ar rawat	345,718	138,287	40	155,573	45	34,572	10	17,286	5	0	0	2	51,858	15
	Guli	399,420	179,739	45	139,797	35	59,913	15	19,971	5	0	0	3	79,884	20
	Kosti	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	Rabak	374,339	187,169	50	149,735	40	37,433	10	0	0	0	0	2	37,433	10
	Tendalti	219,284	109,642	50	76,749	35	21,928	10	10,964	5	0	0	2	32,892	15
	Um rimta	182,958	73,183	40	91,479	50	9,147	5	9,147	5	0	0	2	18,294	10
	Total	2,716,906	1,203,817	44	1,136,193	42	259,767	10	117,128	4	0	0		376,896	14
Grand Total		46,568,825	25,605,121	55	15,007,696	32	4,631,480	10	1,324,529	3	0	0		5,956,008	13