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## From Catastrophe to Famine

Immediate action needed in Sudan to contain mass starvation

The conflict in Sudan has a substantial impact on the country's food system and hinders people's ability to cope with food shortages. As the country shows the worst hunger level ever recorded during the harvest season (from October to February), which is usually a period when food is more available, the severity and scale of hunger in the coming lean season (mid-2024) will be catastrophic. This policy brief argues that rather than the inevitable consequence of war, this food crisis is the result of the generals' deliberate destruction of Sudan's food system and the obstruction of people's coping mechanisms. Based on available data and famine literature, accounts from hunger sufferers, as well as discussions with experts in and on Sudan, this policy brief outlines scenarios that look several months beyond currently available food insecurity forecasts. According to the most likely scenario, seven million people will face catastrophic levels of hunger by June 2024 (IPC5), with mass starvation being the prospect. The window by which to significantly reduce the impact of what is becoming the world's largest hunger crisis in decades is rapidly closing.

Besides increasing diplomatic and economic pressure to stop the war, the EU, its member states, the US, the UK, and Norway, as well as the UN and INGO partners must urgently and massively scale up meaningful assistance by:

- i. Declaring the risk of famine for Sudan;
- ii. Injecting mobile cash directly to local producers, as well as to consumers and local aid providers (Emergency Response Rooms);
- iii. Immediately scaling up food aid and WASH (Water, Sanitation and Hygiene) support.

### Introduction: Sudan's looming famine<sup>1</sup>

The war that erupted ten months ago between the country's regular army, the Sudanese Armed Forces, and the paramilitary Rapid Support

Forces has killed at least 13,000 people<sup>2</sup> and displaced nearly 8 million<sup>3</sup>. As General Abdelfattah al-Burhan (SAF) and General Mohamed Hamdan Dagalo (RSF) signal no

1 The author is indebted to Timmo Gaasbeek, a seasoned food security expert, for his guidance and assiduous work on the models which underpin the scenarios presented in this brief, and to Alex de Waal and Edward Thomas for their critical feedback on an earlier draft. Special thanks go to the many Sudanese trapped inside Sudan or displaced outside Sudan who shared their invaluable observations with me. The brief's content naturally remains the responsibility of the author.

2 A conservative estimate, as the latest report by the UN Panel of Experts has announced that between 10,000 and 15,000 people have been killed in one city in Darfur alone: [Ethnic killings in one Sudan city left up to 15,000 dead, UN report says | Reuters](#).

3 [DTM Sudan - Monthly Displacement Overview \(05\) | Displacement Tracking Matrix \(iom.int\)](#).

intention to cease fighting, civilians bear the brunt of the indiscriminate airstrikes, shelling and increasingly ethnically motivated targeted attacks. Among the 45 million Sudanese still in the country 18 million are facing acute hunger, just after the main harvest.<sup>4</sup> This is equivalent to the entire population of the Netherlands. The World Food Programme's (WFP) country director for Sudan has shared accounts from central Darfur and parts of Khartoum where people have died either from malnutrition or starvation.<sup>5</sup> Those who are trapped in the hotspots of fighting report eating barely one meal a day.<sup>6</sup> Moreover, reports of children dying of starvation are trickling in from refugee camps in Chad.<sup>7</sup>

Sudan's generals have not only produced the worst displacement crisis in the world today.<sup>8</sup> They have also caused the worst hunger level ever recorded during the harvest season in Sudan.<sup>9</sup> This is usually the season when food is more available and affordable than during the remainder of the year. The current food crisis is therefore expected to become much worse in the coming months. Already last year in December, WFP raised the alarm hinting at an impending hunger catastrophe.<sup>10</sup> Still, the UN keeps revising its own predictions upwards, showing that the food crisis is deepening at an alarming pace. Early warning systems lack a protocol for identifying the risk of famine, even when longer-term scenarios, as presented in this policy brief, suggest that the trajectory towards catastrophe is certain and the risk of famine is very high.

Combining available data and famine literature with information obtained from Sudan experts and hunger sufferers inside Sudan, this policy brief summarizes the impact of the war on Sudan's food security. It outlines scenarios of monthly cereal consumption per capita in Sudan throughout 2024 and discusses their implications. The brief presents three complementary recommendations for urgent action to contain the severity and scale of the escalating hunger crisis and advocates an overhaul of the early warning system. Failing to implement these actions without delay would make the international community complicit in immense suffering. **A lack of timely and adequate action by world leaders will contribute to what is becoming the world's largest hunger crisis in decades, and exacerbate the already largest displacement crisis in the world.**

## Background: A protracted hunger crisis

Extreme hunger is not new to Sudan. The country was plagued by a protracted crisis of food insecurity long before the war erupted in April 2023. Decades of exploitative extraction systems, that had persisted under successive governments, resulted in the impoverishment of large parts of the population. Farmers, agricultural workers and miners in the country's peripheries produced the country's main export commodities (gold, sesame, peanuts, gum Arabic and livestock). A large part of the export earnings were used to pay for imported and heavily subsidised wheat for the urban population.<sup>11</sup> This system placed a heavy burden on government revenue, while leaving the population in the peripheries struggling to survive on their subsistence millet and sorghum production.

The secession of South Sudan in 2011, through which Sudan lost most of its oil revenue, led

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- 4 [WFP warns that hunger catastrophe looms in conflict-hit Sudan without urgent food assistance | World Food Programme.](#)
  - 5 [War Pushes Sudan to Brink of First Famine in Decades, WFP Says - Bloomberg.](#)
  - 6 [Hunger in South Kordofan's Dalami as calm returns after fighting - Dabanga Radio TV Online \(dabangasudan.org\).](#)
  - 7 [Sudanese children face starvation in Chad camp - Chad | ReliefWeb.](#)
  - 8 [Sudan: IOM Response | IOM, UN Migration.](#)
  - 9 [IPC Sudan Acute Food Insecurity Oct2023\\_Feb2024\\_Snapshot.pdf \(ipcinfo.org\).](#)
  - 10 ['Hunger catastrophe' looming in war-ravaged Sudan, UN agency warns | UN News.](#)

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- 11 Thomas, E. and M. El Gizouli, 2020. Sudan's Grain Divide: A revolution of bread and sorghum. Rift Valley Institute, Briefing Paper. Feb 2020.

to a deep food crisis<sup>12</sup>. Overall levels of food insecurity rose sharply; by 2014, about 20% of the population could only afford to eat cereals and vegetables, no meat or dairy products.<sup>13</sup> By 2019, Sudan had the highest child malnutrition rate worldwide.<sup>14</sup> This crisis brought hunger to the capital – for the first time in Sudan’s history – and ultimately contributed to al-Bashir’s fall. The short-lived democratic transition that ensued did not change the political economy of food systems and the coup of 2021 reinstated the “hunger-making political market place”<sup>15</sup>. The suspension of international development assistance and the war in Ukraine<sup>16</sup> further deepened Sudan’s hunger crisis. During the harvest season before the current conflict broke out, 16% of the Sudanese population were already enduring crisis (IPC3) or worse than crisis levels of food insecurity<sup>17</sup>.

## Impact of the current conflict on food availability

The fighting that erupted in April 2023 exacerbated both the precarious availability of food and people’s ability to access it.

About two-thirds of the grain consumed in Sudan is grown locally: mostly sorghum and millet, and some wheat<sup>18</sup>. Domestic **production** has been seriously affected by the fighting. Some regions are more severely hit than others. In the main producing areas of Darfur, Kordofan, and Gezira,

insecurity has prevented farmers from cultivating their land.<sup>19</sup> In the case of Darfur, independent investigations have concluded that the very aim of the attacks by the RSF and its allied Arab militia is to clear the land of its non-Arab farming communities and to impede their return.<sup>20</sup> People in displacement camps in Darfur are systematically prevented from leaving the camp to work on their land.<sup>21</sup> Production in this region is therefore expected to be only a fraction of that in previous years.

Gezira State, southeast of the capital, was a key grain producing area for Sudan, with one of the largest irrigation systems in the world. Before the war, the region typically contributed close to half (42%) of Sudan’s total wheat production<sup>22</sup> and was the main area for national grain storage. Since the RSF violently took control in December, farming activity has been constrained.<sup>23</sup>

Forced displacement jeopardizes the hiring of agricultural labour. Moreover, the destruction of large parts of Greater Khartoum has impacted the financial services sector, which explains the difficulty in accessing the credit needed to purchase agricultural inputs, even where they are available.<sup>24</sup> In the mechanized farming areas of the East and the North, farmers can no longer access credit or fuel, on both of which they depend to buy seeds and fertilizers and to have access to agricultural machinery. In the North, farmers report difficulties in finding labour since the SAF intensified its recruitment campaigns.<sup>25</sup> The disruption of pest control services has further affected yields. This was compounded by unfavourable rainfall in parts of the country. An event with possible long-term consequences

12 De Waal, A. (2019). ‘Sudan: A political marketplace framework analysis,’ World Peace Foundation, occasional paper no. 19, August.

13 E. Thomas, 2024. Sudan’s Food-Hunger System, published on [Home | Peaceofsudan: Unraveling Adversity of the War in Sudan](#).

14 WFP [World Food Programme] (2019). ‘Sudan Comprehensive Food Security Assessment 2018: Technical Summary.’ Rome: WFP, p. 7.

15 Thomas, E. and A. de Waal. 2022. Hunger in Sudan’s Political Marketplace. Occasional Paper #32. World Peace Foundation. Conflict Research Programme. April 2022, p. 4.

16 80% of Sudan’s wheat imports depended on Ukraine and Russia. [The Sudan Crisis: Conflict and Food Insecurity - July 2023.pdf \(insecurityinsight.org\)](#).

17 FAO [Food and Agriculture Organisation] (2023). ‘GIEWS Country Brief. The Republic of the Sudan.’ Rome: FAO, p. 2.

18 [SUDAN’S FOOD-HUNGER SYSTEM\\* \(peaceofsudan.space\)](#).

19 [Template Working Paper \(ifpri.org\)](#).

20 Last report by the UN Panel of Experts on Sudan, Jan. 2024. Also: [Sudan: MSF survey uncovers scale and intensity of ethnic violence in West Darfur | MSF UK](#).

21 Exchange via Signal with internally displaced persons from West, Central and South Darfur.

22 [Special Report 2022: FAO Crop and Food Supply Assessment Mission \(CFSAM\) to the Sudan, 20 March 2023 - Sudan | ReliefWeb](#), p. 24.

23 Instances are being reported of farmers in El Gezira who have flooded their fields to prevent the RSF from attaining further territorial gains.

24 Phone interviews with agricultural input wholesalers and distributors in East Sudan.

25 Exchange with farmers in River Nile State via Signal.

is the destruction of Sudan’s gene bank, which is key to the domestic production of improved seeds<sup>26</sup>.

As a result of the fighting and prevailing insecurity, the expected cereal harvest for the 2023–2024 season is much less than average: the FAO has estimated the sorghum and millet harvests to be 24% and 50% lower than in 2022, respectively.<sup>27</sup> The RSF’s violent takeover of large parts of Gezira State, the country’s breadbasket<sup>28</sup>, has affected the winter cultivation of wheat. As the SAF has started its counter-offensive bringing in large arms shipments from Port Sudan, a further escalation of hostilities is likely. What remains of Sudan’s breadbasket is at stake.

Next to the war’s impact on domestic grain production, many agrifood **processing** facilities have stopped functioning. From the first day onwards, the capital has been the theatre of intense fighting (including air strikes and artillery exchanges) and systematic looting. As much of Sudan’s agrifood processing industry was concentrated in Khartoum, most of the factories (including **about three quarters of the country’s wheat flour milling capacity**) have **ceased operating**, although levels of damage are uncertain.<sup>29</sup> Even if peace returns, it will take months before these mills will be operational again and production capacity will be back to the required level.

As a vital element of Sudan’s food processing industry, and a beacon of hope in the country’s fight against child malnutrition, the only factory for ready-to-use therapeutic food (RUTF) has

been destroyed.<sup>30</sup> RUTF is critical for treating severely malnourished children.<sup>31</sup> Imports from elsewhere will substantially increase costs and delivery times.

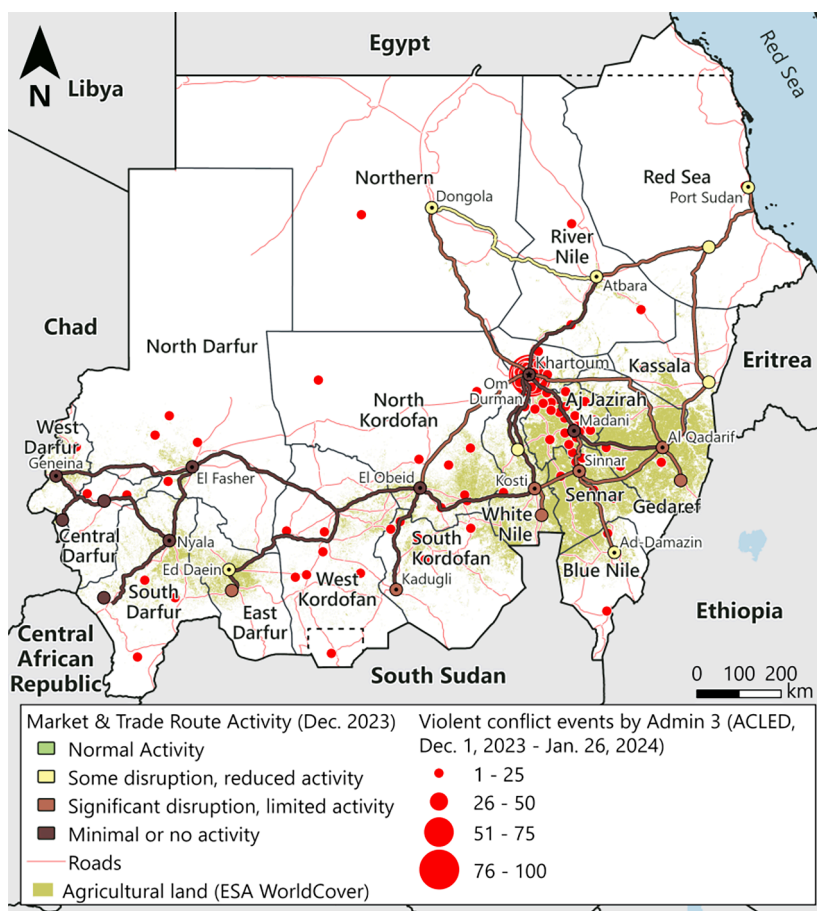
The significant disruption of domestic production increases Sudan’s dependency on **grain imports**. Wheat is the preferred food for Sudan’s urban population.<sup>32</sup> In recent years, wheat imports covered a third of total cereal requirements. Yet, in 2023 official wheat imports reached only half of what is typically imported.<sup>33</sup> Traders quickly adjusted to the disruption caused by the fighting in Khartoum and started to import wheat flour, mostly from Egypt.<sup>34</sup> When Wad Medani fell, further hampering flour distribution West of the Nile, the old trading route from Egypt to El Fasher was swiftly reactivated to supply the Darfur and Kordofan regions with food items, including wheat flour and biscuits. However, prices are extremely high and purchasing power continues to plunge. Recent tensions in the Red Sea have led to an increase in shipping costs that will further drive up wheat prices.<sup>35</sup>

As the generals continue to cause catastrophic levels of food shortages, their war does not spare **food aid** either. In the years before the war, food aid usually only made up about 2% of Sudan’s average cereal consumption.<sup>36</sup> While this seems to be very little, food aid can substantially improve food access for hungry households – both through

26 [Thousand genetic strains face an existential threat to agricultural research in Aljazeera skim – Darfur24 News Website.](#)  
 27 <https://reliefweb.int/report/sudan/sudan-ipc-acute-food-insecurity-analysis-october-2023-february-2024-published-december-12-2023>, p.11. [accessed 28 January 2024].  
 28 [War in Sudan engulfs agricultural heartland amid record levels of hunger : Peoples Dispatch.](#) Before the war, Gezira State produced half of all wheat grown in Sudan.  
 29 [Armed conflict and business operations in Sudan: Survey evidence from agri-food processing firms - IFPRI Publications Repository - IFPRI Knowledge Collections.](#)

30 [The-Sudan-Crisis-Conflict-and-Food-Insecurity-July-2023.pdf \(insecurityinsight.org\).](#)  
 31 In 2022, the Samil factory produced 60% of the RUTF in Sudan, as well as ready-to-use supplementary food provided by the WFP. [The-Sudan-Crisis-Conflict-and-Food-Insecurity-July-2023.pdf \(insecurityinsight.org\).](#)  
 32 Thomas, E. and M. El Gizouli. 2020. Sudan’s Grian Divide. A revolution of bread and sorghum. Rift Valley Institute. Briefing Paper. February 2020.  
 33 [February 1, 2024 \(fews.net\)](#): According to the Ministry of Agriculture, the total official wheat imports in 2023 covered only one-third of the estimated demand due to declining government revenue and shocks to the supply chain. It is worth noting that much of these imports took place before the outbreak of the war, implying that import levels in 2024 are likely to be further reduced.  
 34 According to a well-informed source, in the first months of the war, this influx of wheat flour even led to a surplus and a drop in prices, which kicked out most of the smaller traders.  
 35 Report from a knowledgeable local expert, 25 January 2024.  
 36 <https://www.peaceofsudan.space/post/sudan-s-food-hunger-system>.

Markets and trade route activity map, cropland, and violence events, December-January 2024\*



\* FEWS NET. Sudan Food Security Alert February 1, 2024: Clashes in Sudan's breadbasket threaten national food availability, 2024.

direct targeting, and indirectly by mitigating food prices in the markets. Yet, less than half of the UN's Humanitarian Response Plan for Sudan in 2023 was funded.<sup>37</sup> Meanwhile, containers with food assistance are stuck in Port Sudan due to the authorities' refusal to issue the required permits. Of even more concern, the food that does enter Sudan struggles to reach those in need, and food stocks that were already available in WFP warehouses in Darfur and Wad Medani before the war have been looted by the RSF.<sup>38</sup> To date, WFP has only been able

to reach people in need in the capital on one occasion in the last three months. Only one out of five people who are most in need of food aid has received food aid from WFP since the conflict started in April.<sup>39</sup>

The hostilities are disrupting **logistics and markets** across the country, especially in Greater Khartoum, Darfur, the South, and, more recently, the South East. The RSF's takeover of Wad Medani has affected humanitarian access and logistical connectivity between different parts of the country because the warring parties allow for hardly any food to cross the front lines.

37 [Sudan Humanitarian Response Plan 2023 | Financial Tracking Service \(unocha.org\)](#) WFP faces additional funding constraints in the light of the Red Sea shipping crisis.

38 <https://www.wfp.org/news/wfp-condemns-theft-life-saving-food-warehouse-gezira-state>.

39 [WFP warns that hunger catastrophe looms in conflict-hit Sudan without urgent food assistance | World Food Programme](#).

Unsafe transport routes with non-discerning checkpoints hamper the distribution of food, whether it is locally produced or imported. In addition, conflict in Gezira also led to market disruptions in neighbouring Gedaref state, responsible for almost 20% of national cereal production, which will make it harder for Gedaref to feed cereal-deficit areas. This is terrible news for those trapped in the crossfire, as food mostly reaches those who are in safer regions and who are hence better off.

Overall, the disastrous impact that the war has on grain production, processing, imports and aid has dramatically increased the threat that this war poses to **national food availability**.<sup>40</sup> It has doubled the percentage of people (35%) enduring crisis levels (IPC3) or worse levels of food insecurity by June 2023 (during the annual lean season) as compared to before the war. Despite the recent harvest, this was forecast to further increase to 37% for the period between October 2023 and February 2024.<sup>41</sup> That is the highest percentage of food insecurity immediately after the harvest on record for Sudan. The disruption caused by the fighting in Gezira will likely increase food insecurity further in food deficit areas west of the Nile. As the lean season kicks in fighting continues, food insecurity is likely to further increase sharply in the coming months.

## Impact of the war on people's entitlements to food and coping mechanisms

As Sudan's history has painfully demonstrated, people can go hungry even when there is enough food available in (parts of) the country.<sup>42</sup> The extent to which food shortages affect people's nutritional status hinges on their

entitlements, i.e. their ability to access food through other means such as production, labour and market exchange.<sup>43</sup> It is critical to understand these dynamics of access and distribution and to learn from the coping mechanisms and survival skills people develop. Unless external interventions to alleviate hunger draw on this information and take account of regional differences, they will be ineffective at best and risk making things even worse.<sup>44</sup>

In earlier crises such as the 1984 famine, coping mechanisms helped many people to avoid the worst impact of food shortages. Typical coping mechanisms in Sudan include labour migration, sales of firewood/charcoal, the consumption of 'wild foods', and the sale of livestock.<sup>45</sup> **In the current crisis, however, access to these coping mechanisms is much reduced.**

The fighting between the RSF and SAF has caused the world's largest displacement crisis. As of January 2024, almost 8 million Sudanese have been forcibly displaced. While many of the displaced in East and North Sudan have moved to areas where they may find some work and food, the demand for **agricultural labour** will be very limited until the next planting season (June-July 2024). The disruption of the ongoing winter season in the Gezira irrigation scheme means that the demand for labour for the harvest in March will be much less than usual. This lack of income opportunities will send many households into an economic tailspin between January and June. In addition, due to the massive displacement, the few regions that can offer work are overcrowded with people desperate to work. Wages are likely to slump in the coming months. In the West and the South, where rainfed traditional agriculture prevailed before the war, farmers usually have a greater reliance on unpaid family members to cultivate their land. So even when security still permits farming, very

40 [The Sudan: Rapid assessment on the summer season agricultural performance \(fao.org\)](#)

41 [Sudan: Acute Food Insecurity Situation June 2023 and Projections for July - September 2023 and October 2023 - February 2024 | IPC - Integrated Food Security Phase Classification \(ipcinfo.org\)](#) [accessed 28 January 2024].

42 Gedaref, a city in Eastern Sudan, illustrates this phenomenon: Although it produces one-fifth of Sudan's sorghum, it suffers above-average food insecurity levels.

43 Sen, A. (1981). *Poverty and Famines: An essay on entitlement and deprivation*, Oxford, Clarendon Press.

44 De Waal, A. 1989. *Famine that Kills*. Oxford University Press; [The benefits of famine: a political economy of famine and relief in southwestern Sudan, 1983-1989 - LSE Research Online](#).

45 De Waal, A. 1989. *Famine that Kills*. 1989. Oxford University Press.

few employment opportunities will be available. Recruitment into armed groups and militias may increasingly become one of the very few options to access food.

The combination of population growth and large-scale deforestation since the 1980s means that while the demand for cooking fuel in places of refuge has surged, a much smaller percentage of the population than before will be able to earn an income from **selling fuelwood**.<sup>46</sup> The threat of sexual violence, shockingly ever since a corollary with firewood collection in Darfur, has seen a horrendous increase since the war.<sup>47</sup> However, hunger will inevitably subject women and girls to that threat.

So-called '**wild foods**', mostly fruit from wild trees and seeds from wild grasses, can be an important food source in rural areas in times of need. Their availability is, however, largely limited to the rainy season, and in many cultivated areas the clearing of land means that wild plants are hardly available. In the current situation, wild foods can make a meaningful contribution to the diets of only parts of the population from July onwards, particularly in parts of Darfur and Kordofan. Especially IDPs and urban populations will have very limited access to these wild foods.

The **sale of livestock** has traditionally been an important coping mechanism for those who own livestock. This will likely be so this year as well. However, very few urban residents and displaced people will have any livestock to sell, even if they used to own animals before being forced to leave.

Just like war affects food availability across the country very differently, the violence and displacement also affect people's ability to access food through alternative commodity bundles – i.e. labour, firewood, forest foods,

livestock – distinctly across the country. It is worth noting that the current crisis differs from previous ones in that this time around urban dwellers and IDPs in urban settings will be hit much harder. Their access to livestock and wild fruits will be minimal. The typical urban savings – buildings, vehicles, jewellery – have been systematically targeted and looted by the RSF.

However, some coping mechanisms signify a lifeline for Sudanese across all regions: remittances and community-based support.

Annual **remittances** for Sudan were estimated to be US\$ 3 billion annually for 2018-2019.<sup>48</sup> Although not untroubled by the war and the collapse of Sudan's financial system, diaspora remittances remain a vital assistance for the people. Even if they directly benefit only those with relatives abroad, these financial inflows also keep local markets alive, constituting the demand (or purchasing power) needed to keep goods coming in. With valuables and savings having been looted and people displaced, remittances have an even greater relevance as a coping mechanism than in times of relative peace. Diaspora largely relies on money transfer agencies such as Altras, cryptocurrency, currency exchange traders and *Bankak*, an application of the Bank of Khartoum that facilitates mobile money transfers. Although internet connection is unreliable and patchy in most parts of the country, this app is widely used and accepted inside Sudan including by small shopkeepers and traders instead of cash payments.<sup>49</sup> As such, it constitutes a lifeline for millions of Sudanese.

The other lifeline enabling hungry people to access food is community-based initiatives and, in particular, **Emergency Response Rooms (ERRs)**.<sup>50</sup> Born out of the neighbourhood

46 This may have a spill-over effect in Chad: in the last decade or so, West Darfur was an important source of fuelwood for Eastern Chad. Because large parts of West Darfur are not safe, this may well exacerbate deforestation within Chad.

47 [SILENT WEAPONS, LOUDEST WOUNDS: Addressing the Crisis of Sexual Violence in Sudan - SIHA \(sihanet.org\)](#).

48 [The Potential of Sudanese Diaspora Remittances | United Nations Development Programme \(undp.org\)](#).

49 [Sudan's Crisis: Can Cash Transfers Prevent Starvation and State Collapse? | African Arguments](#).

50 One ERR representative participating in a USIP panel discussion on 30.01.2024 estimated that there are approximately 300 ERRs operating across the country, including in Darfur and Khartoum. [Frontline Civilian Response in Sudan | United States Institute of Peace \(usip.org\)](#).

resistance committees that once led Sudan's revolution, these community-based groups of volunteers have also taken the lead in the humanitarian response. Where international aid cannot reach, they redistribute what is available and deliver food to those who need it most.<sup>51</sup> Yet, their work, and the rescue it offers to millions of civilians, is being threatened by dwindling resources and the constant physical and legal attacks by the warring parties.<sup>52</sup> Despite being the only functional relief delivery system in most of the country, donors are hesitant to channel funds to them.<sup>53</sup> After 30 years of aid manipulation and diversion through the Humanitarian Aid Commission of the former dictator al-Bashir<sup>54</sup>, aid is denied to those civil society groups who risk their lives to keep millions alive.

## Politics of aid and hunger

Like elsewhere, hunger in Sudan is the outcome of a political choice rather than a technical ill or an inevitable consequence of war.<sup>55</sup>

Since the very beginning of this conflict, the two belligerents have shown a reckless disregard for the humanitarian catastrophe they produce with their indiscriminate airstrikes and urban warfare in densely populated neighbourhoods. But that is not all. Their targeted attacks against civilians and the systematic destruction and looting of civilian infrastructure beg the question of to what extent this quickly spreading food crisis is a

deliberate tactic by the generals. And, if it is, what is the intent behind it? According to the ICC, both the SAF and RSF, and their affiliated groups, are believed to have committed genocide, war crimes, and crimes against humanity.<sup>56</sup> Credible accounts from sources on the ground report that several neighbourhoods in Omdurman, the twin city of the capital Khartoum, are under siege causing many people to starve to death.<sup>57</sup> In Darfur, the RSF is reportedly preventing IDPs from leaving their camps to cultivate their land or search for food.<sup>58</sup> Across the country, the ERRs have been banned and their members, as well as aid workers, are being harassed and arrested, further constraining people's access to food.<sup>59</sup>

Food and hunger have undeniably become weapons in this war. **By destroying and looting food infrastructure and preventing people from accessing food, the SAF and RSF may be perpetrating starvation crimes.** What is clear is that both generals show every sign of intensifying the war with reckless disregard for the humanitarian consequences.

## Current early warning system

The current early warning system uses the Integrated Food Security Phase Classification (IPC), which is a tracking tool for hunger that has become the global standard. IPC identifies five phases, the last of which can lead to a famine declaration if a significant part of the population faces extreme deprivation of food and where thresholds for acute malnutrition and mortality are also exceeded.<sup>60</sup>

51 [The New Humanitarian | In Sudan, mutual aid groups face security threats and funding gaps.](#)

52 [Sudan aid workers risk 'kidnap and rape', experts warn | Features | Al Jazeera.](#) In January 2024, the Acting Minister of Federal Governance in Port Sudan issued a [decree](#) banning all Committees of Change and Services in Sudan, targeting all community-led initiatives including the soup kitchens.

53 After months of hesitation, USAID finally channelled one million USD to the ERRs: [Frontline Civilian Response in Sudan | United States Institute of Peace \(usip.org\).](#)

54 [Caught in Transition: food aid in Sudan's changing political economy - CSFSudan \(csf-sudan.org\).](#)

55 A part of the reason why hunger has been chronic in Sudan stems from the inherent link between food and power. In the past, Sudan's production system was designed to exploit the land and labour in the peripheries where hunger would become a regular companion.

56 [World confronts an 'ugly and inescapable truth' in Darfur, says ICC Prosecutor | UN News.](#)

57 [Sudanese Dying of Thirst and Hunger in Omdurman - allAfrica.com.](#) Phone calls with a Omdurman resident.

58 Signal communication with people from South, West and Central Darfur.

59 [Sudan govt cracks down on grassroots service committees in the entire country - Dabanga Radio TV Online \(dabangasudan.org\).](#)

60 Famine is defined as a situation, in which the following criteria are met: starvation (at least 20% of households are in IPC5), extremely critical levels of acute malnutrition (at least 30% of children are acutely malnourished), and widespread mortality (more than 2 persons dying per day for every 10,000, or more than 4 children dying per day for every 10,000).



**Text box 1: Integrated Food Security Phase Classification<sup>60</sup>**

The Integrated Food Security Phase Classification (IPC)

IPC phase	Brief description
phase 1 (minimal)	Enough food
phase 2 (stressed)	Enough food, but unable to afford other expenses without resorting to coping mechanisms
phase 3 (crisis)	High acute malnutrition, or forced to deplete assets / resort to coping strategies to continue to meet food needs
phase 4 (emergency)	Large food consumption gaps, very high acute malnutrition and excess mortality, or extreme coping strategies to meet food needs (including asset liquidation)
phase 5 (catastrophe)	Extreme lack of food after all coping strategies have been used. No food at all on some days.

However, for large-scale hunger crises that require the external mobilisation of resources and food, early warning systems need to provide forecasts with lead times. Warnings need to be given at least six months in advance of the likely start (not the peak) of a famine.

This is because a large-scale response to extreme hunger takes some time: decision makers need to become aware, funds need to be mobilised, and contracts need to be signed. Only then can food be procured, shipped and distributed. It can take up to six months or more for such a response to reach intended beneficiaries at scale. The most recent IPC forecasts for Sudan have had lead times of six months at most. Since Sudan is one among many crises with people in IPC phase 4 there has not been enough response.

The identification of possible IPC level 5 (catastrophe) may increase the urgency and attention. However, the tools used for assessment are retrospective in nature: these are surveys that assess the extent to which people have faced extreme hunger in the past week to month<sup>62</sup>. Similarly, indicators of acute malnutrition and mortality rates (which, together with food access, need to exceed agreed thresholds to trigger a famine declaration) are assessed based on observations.

This means that by the time the alarm is sounded, the situation is already very bad and any aid that is mobilised at that point will only reach affected populations several weeks to months later, by which time many will have died. This kind of early warning will be good for the international news cycle; will be ineffective for those in need of food.

IPC recognises the need for likely scenarios to inform strategic decision-making especially related to contingency planning and early action.<sup>63</sup> The specific situation in Sudan (with one main harvest per year, and a distinct hunger season just before the next harvest) allows for longer-term forecasts that give time for timely action. The following section offers such scenarios to inform strategic decision-making, when there is still time to act and thereby to contain the scale of the calamity.

**Three scenarios for Sudan’s food security (July – Sept. 2024)**

Considering both factors determining food availability and people’s ability to access food, the outlook for the coming months and years is terrifying.

In order to anticipate and visualise the possible impact of the situation on food consumption in the country, three scenarios have been developed for the distribution of per capita cereal consumption on a month by month basis. These are presented in figures 1-3. Because diets in Sudan are heavily dependent on cereals (for the poorest part of the

61 [IPC\\_Guidance\\_Note\\_on\\_Risk\\_of\\_Famine.pdf \(ipcinfor.org\); IPC\\_Brochure\\_Understanding\\_the\\_IPC\\_Scales.pdf \(ipcinfor.org\).](#)

62 IPC Manual 3.1 | IPC - Integrated Food Security Phase Classification (ipcinfor.org), table 27 (p. 37).

63 [IPC\\_Guidance\\_Note\\_on\\_Risk\\_of\\_Famine.pdf \(ipcinfor.org\).](#)

population, cereals likely provide about 80% of their energy intake), access to cereals is a proxy for energy intake. The reduced access to traditional coping mechanisms and the onset of the dry season mean that few alternative sources of energy intake are available to many. This means that in Sudan cereal consumption levels can be used to assess food security prospects up to the next harvest. It also allows for a (albeit tentative) comparison with the categories used in the IPC.

In this analysis, the following per capita cereal consumption levels per month in Sudan will relate to the IPC levels as follows:

IPC phase	Brief description	Cereal consumption (kcal/person/day)
phase 1 (minimal)	Enough food	1,800
phase 2 (stressed)	Enough food, but unable to afford other expenses without resorting to coping mechanisms	1,600
phase 3 (crisis)	High acute malnutrition, or forced to deplete assets / resort to coping strategies to continue to meet food needs	1,400
phase 4 (emergency)	Large food consumption gaps, very high acute malnutrition and excess mortality, or extreme coping strategies to meet food needs (including asset liquidation)	800-1,200
phase 5 (catastrophe)	Extreme lack of food after all coping strategies have been used. No food at all on some days.	600

The scenarios presented below were developed by distributing the total available cereals amongst the population between October 2023 and September 2024, just before the next harvest. This implies that no carry-over stock remains for the following year.<sup>64</sup> The distribution of food depends on several factors:

64 This means that the scenarios are slightly optimistic. It is likely that some traders and better-off farmers will maintain some stock to buffer for 2025, which will further reduce the amount of food available for consumption until September 2024.

- unequal access to food,
- changes to the population (excess mortality, outward migration, and deferred births<sup>65</sup>),
- cereal stocks and harvests,
- wheat imports (by the formal and informal private sectors and by the government), and
- food aid.

It was assumed that people will try to continue maintaining consumption as high as they can until resources run out, which leaves less food for the latter part of the lean season. Assumptions about cereal production, imports, and stocks were checked with several Sudanese and international experts. Assumptions on mortality were based on observations that large-scale famines show mortality rates of just over about 2% of the population, although in extreme cases this can be higher<sup>66</sup>.

Scenario 1 is equivalent to localised catastrophic hunger, while scenario 2 indicates catastrophic hunger in much of the country except for some surplus-producing areas. Scenario 3 shows countrywide famine.

Assumptions for migration were made based on distances to national borders, and the difficulty in reaching borders for a large part of the population. Assumptions for percentages of deferred births<sup>67</sup> were made based on birth rate data from other countries that have faced large-scale famines. These data indicate that deferred births in the first year of a severe crisis are relatively limited (because many of the births in the first year of a crisis are from pre-existing pregnancies), but can be substantially higher in subsequent years.

The scenarios are based on the following assumptions:

65 Net population growth in normal circumstances would be around 2.7%. The total number of 'normal' births and deaths was estimated assuming an average life expectancy of 65 years (source: <https://data.worldbank.org/>).

66 [Famine in the Twentieth Century - Institute of Development Studies \(ids.ac.uk\)](#). Note that mortality was used as an input variable (to estimate the number of mouths to feed); more detailed studies are needed to better estimate the expected mortality.

67 The implication of deferred births is that the population will grow less fast, which has implications for nationwide demand for food over time.

	Excess mortality	Migra-tion	% of births that are deferred	Sorghum produc-tion (MT)	Sorghum stock (MT)	Millet pro-duction (MT)	Wheat pro-duction (MT)	Wheat stocks (MT)	Wheat imports (MT)	Food aid (MT)
1	200,000	300,000	5%	4,000,000	300,000	900,000	300,000	380,000	600,000	250,000
2	500,000	500,000	15%	4,000,000	300,000	900,000	250,000	300,000	500,000	125,000
3	1,000,000	1,000,000	20%	3,500,000	300,000	700,000	200,000	300,000	400,000	0

**i) Scenario 1: localised catastrophic hunger**

It is important to stress that this is the most optimistic scenario. It is based on the FAO’s estimates<sup>68</sup> of the expected sorghum and millet harvests (respectively 24% and 50% less than for 2022) and on the FAO’s Crop and Food Supply Assessment Mission for 2022<sup>69</sup>; cereal stock data from USDA<sup>70</sup> which have produced slightly conservative estimates for wheat production and wheat imports; a slightly generous estimate for food aid; and assumptions of 200,000 excess deaths, 300,000 additional people fleeing Sudan, and the limited impact on births.

This scenario indicates a situation in which the majority of the population will face extreme hunger by July. About 6% of the population look set to face catastrophic hunger, which indicates the possible famine conditions in key hotspots such as Khartoum and Darfur, where food deficits will be largest.

**ii) Scenario 2: catastrophic hunger (and the likelihood of famine) in much of Sudan except for some surplus areas**

This scenario is the most likely scenario. It uses a slightly lower estimate of wheat stocks (because stocks were damaged in the fighting), wheat production (due to disruption in Gezira) and food aid (due to the continued obstruction of access), and assumptions of half a million excess deaths, half a million additional people fleeing Sudan, and 15% fewer births than normal.

This scenario, with limited food aid and moderately optimistic estimates of food production, indicates that about 40% of the population will have access to less than half of the normal energy requirements from June onwards, and about 15% of the population (7 million people) will have access to less than a third of the normal energy requirements (this is roughly equivalent to IPC 5)<sup>71</sup> from May to September. **This means that famine conditions will likely occur in large parts of Sudan, except in limited surplus-producing areas.**

**iii) Scenario 3: likely countrywide famine**

Scenario 3 demonstrates the worst-case but not unlikely trajectory. It uses more conservative estimates of sorghum, millet and wheat production and wheat imports, no food aid, and assumptions of a million excess deaths, a million additional people fleeing Sudan, and 20% fewer births than normal.

In this scenario, without food aid and harvests being lower than estimated in the latest IPC forecast, three quarters of the population will have access to less than half of the daily energy requirements by July, and over 40% of the population (over 18 million people) could be in IPC 5 from May to September. This implies that countrywide famine will likely occur.

These scenarios and the underlying analysis indicate that Sudan’s trajectory towards a catastrophe is certain; the risk of famine is very high.

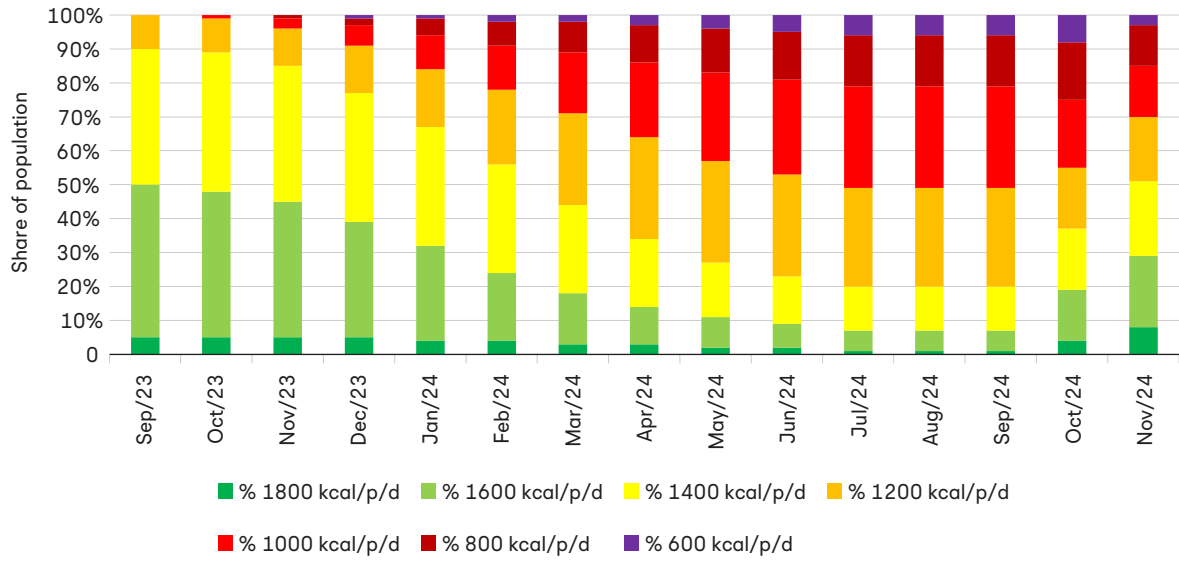
68 [Sudan: IPC Acute Food Insecurity Analysis | October 2023 - February 2024 \(Published on December 12, 2023\) - Sudan | ReliefWeb.](#)

69 [Special Report 2022: FAO Crop and Food Supply Assessment Mission \(CFSAM\) to the Sudan, 20 March 2023 - Sudan | ReliefWeb.](#)

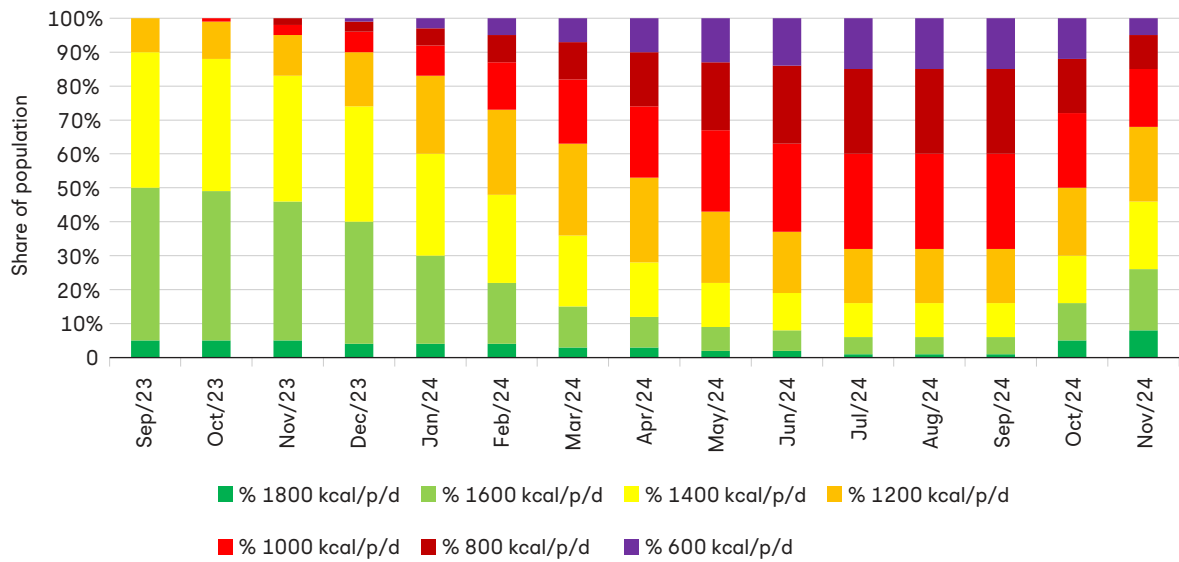
70 [Sudan Agricultural Production Statistics \(indexmundi.com\).](#)

71 This is a rough approximation for people being in IPC phase 5: indicators for IPC phase 5 focus on people not having any food on some days.

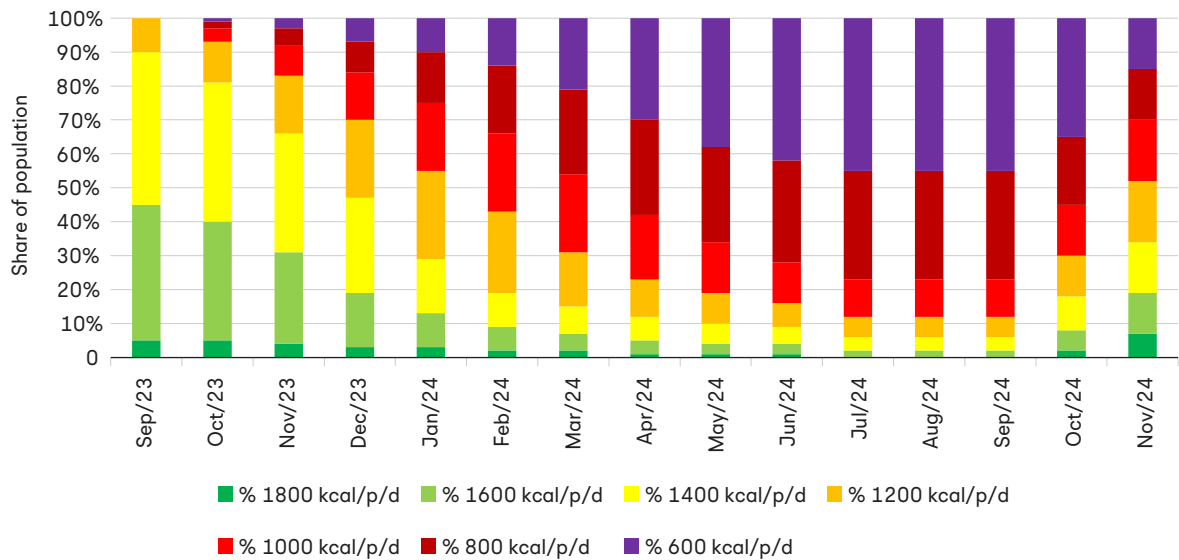
**Figure 1 Share of population (month by month) by per capita cereal energy intake (scenario 1)**



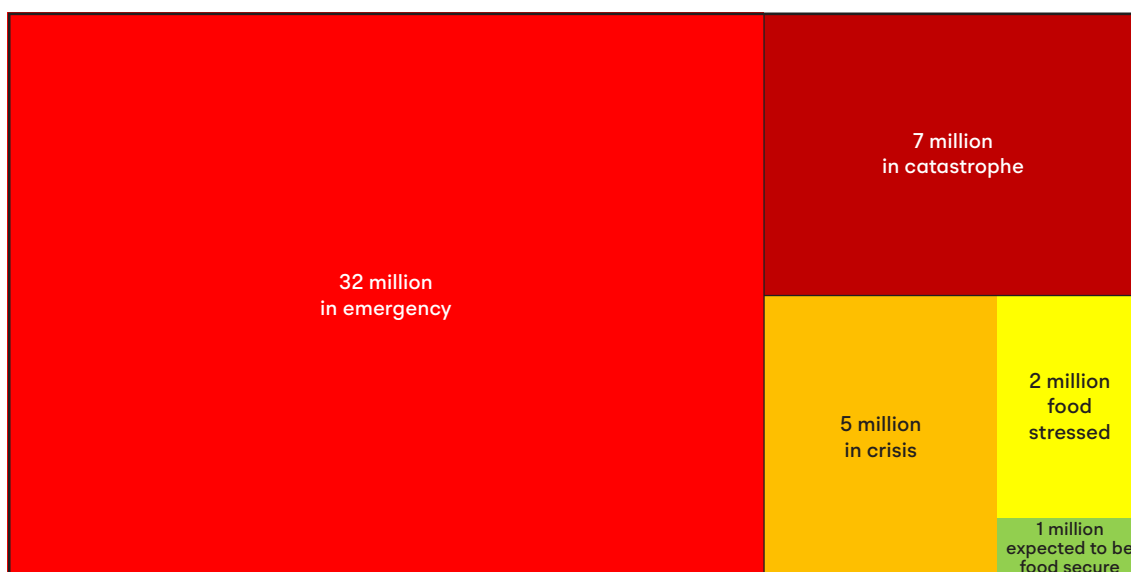
**Figure 2 Share of population (month by month) by per capita cereal energy intake (scenario 2)**



**Figure 3 Share of population (month by month) by per capita cereal energy intake (scenario 3)**



**An estimated 7 million people in Sudan are likely to experience catastrophic levels of hunger by June 2024**



Since IPC 3 concerns households still being able to have a (nearly) normal energy intake while depending on their coping mechanisms, the separation between IPC 3 and IPC 4 in the figures above can be roughly estimated somewhere in the yellow part of the columns. This implies that in all scenarios **about 80% of the population will be in IPC 4 or worse by July** – compared to 10% in Feb. 24, as per the latest IPC update.

In summary, Sudan is likely to be looking at a cereal shortage of about 40% of the normal requirements between October 2023 and September 2024. **The situation is expected to significantly worsen in the coming months**, as food stocks dwindle and access to food will become increasingly limited. The impact of this scarcity will probably be mostly felt in conflict-affected parts of the country that are isolated from trade flows (including much of Darfur), and among urban dwellers and internally displaced people, who have very limited access to agricultural land or livestock and whose belongings and savings have been systematically looted.

**Call for action to contain the looming famine**

Acute hunger is becoming rampant throughout Sudan; if nothing changes for the better, this will plunge millions of Sudanese into famine. The first victims of starvation have already been reported among the many severely malnourished children and elderly from Khartoum, Darfur and the refugee camps in Chad. Famine will continue to spread across Sudan at a growing pace, unless and until concerted, well-informed international efforts are mobilized and brought to scale to contain it. According to the calculations presented in this brief, up to **seven million people will suffer catastrophe levels of food insecurity (IPC level 5) by July 2024**, with an even more worrying outlook for 2025. To contain the scale and severity of the likely famine the following actions must be taken.

- **Escalate diplomatic and economic pressure as part of a strategy to end the war**  
The war being waged by General Abdalfattah al-Burhan and General Mohamed Hamdan Dagalo is the main cause of the rapidly escalating depletion of assets and food insecurity. Putting an end to the war therefore remains the first priority. The US and EU must give this conflict the highest political priority

to increase their pressure on the belligerents but also on those actors in the neighborhood, such as the United Arab Emirates, and beyond that continue to equip and facilitate the materiel of the warring parties.<sup>72</sup> None of the available policy tools and playbooks of international relations has been exhausted. The EU<sup>73</sup>, the UK and the US have announced sanctions targeting RSF and SAF-related entities. What is missing, however, is the broader strategy behind these sanctions to maximise their leverage on the warring parties in combination with other policy tools (international justice, humanitarian access, etc.). More pressure is needed from all Western partners to stop the fighting and allow humanitarian access. Ongoing measures by the generals to disrupt food production and distribution, and to prevent people from accessing food, must be called out and investigated as possible starvation crimes. Those hampering life-saving aid must be held responsible for the famine they cause.

– **Declare the risk of Famine for Sudan**

The scenarios presented in this brief contain reasonable evidence that there is a very high risk that Sudan will experience famine in the coming lean season (July – Sept. 2024), unless decisive international action is taken without delay. In order to provoke such action, the UN and its main donors, the US, the EU, the Netherlands, the UK and Germany amongst others, should declare a risk of famine for Sudan, and take the lead in coordinating an appropriate response.

– **Direct mobile transfers to producers, people in need and their first responders: the Emergency Response Rooms (ERRs)**

Parallel to efforts to stop the war, tried and tested mobile money transfer mechanisms, such as Bankak and Cashy, and mobile credit

must be used to channel financial support directly into all affected regions with a twofold objective. On the one side, financial injections are needed to maintain the still functioning market structures to produce and (re)distribute food. In the regions where agricultural inputs are still available (e.g. the East and the North), input wholesalers, SME distributors and farmers need financial support to continue farming where security still allows for this. Similarly, the ERRs and local volunteers across all regions, but certainly in Greater Khartoum, Darfur and Kordofan, should receive direct financial support in order to be able to continue their lifesaving food assistance if and where they feel safe enough to do so. On the other hand, countrywide mobile cash transfers to the hungry more broadly (as per WFP policy)<sup>74</sup> – in small amounts to as many as possible – is the best way to strengthen people’s coping strategies and to sustain local purchasing power while minimizing the risks of aid diversion.<sup>75</sup> Earlier preparations for the Family Support Programme,<sup>76</sup> a social cash-transfer programme launched under the Transitional Government, could ease that process. Especially where markets still exist and agricultural inputs are needed for farming, cash injections are the most effective way of containing the downward spiral of famine.

– **Massively scale up food aid (incl. RUTF) in combination with WASH interventions**

In addition to countrywide mobile cash transfers, in-kind emergency food aid supplies (including RUTF) and WASH interventions need to be massively scaled up.<sup>77</sup> Despite all of its complexities<sup>78</sup>, food

72 [Clingendael\\_Alert\\_To\\_stop\\_the\\_war\\_in\\_Sudan\\_bankrupt\\_the\\_warlords.pdf](#). The latest report by the UN Panel of Experts confirms the well-documented efforts by the UAE to supply the RSF with arms and fuel via a number of AU member states. [Ethnic killings in one Sudan city left up to 15,000 dead, UN report says | Reuters](#).

73 [Texts adopted - The threat of famine following the spread of conflict in Sudan - Thursday, 18 January 2024 \(europa.eu\)](#).

74 [WFP Cash Policy : Harnessing the Power of Money to Help People Survive and Thrive | World Food Programme](#).

75 [The crisis in Sudan calls for a new model of humanitarian aid \(ft.com\)](#).

76 [Launch of the Sudan Family Support Program - European Union \(europa.eu\)](#).

77 Restoring the water purification facility in Khartoum is an essential measure to counter waterborne diseases.

78 Keen, D. 1994 *The benefits of famine: a political economy of famine and relief in southwestern Sudan, 1983-1989*. Princeton University Press; Jaspars, S. 2018. *Food Aid in Sudan*. ZED Books.

aid will increase the total food availability in the country and can help stabilise prices. If targeting is possible, it will allow for at least some of the hungriest people to escape catastrophic levels of hunger. This requires immediate action: the peak of the lean season will start in May (in about three months), and in June the rains will start, which will hamper logistics on non-paved roads (Sudan has a total road network of 32,425 km, of which only 7,200 km of roads are paved). Food inflows from any feasible entry point (Port Sudan, Egypt, Chad, South Sudan, Ethiopia) must be increased and coupled with high-level diplomatic and economic pressure to ensure access while mitigating ongoing attempts at aid diversion.<sup>79</sup>

At least as important as food aid is access to water, sanitation and hygiene facilities. While hunger weakens people (and especially children), it is often (water-borne) diseases that kill them.<sup>80</sup> Large parts of Sudan depend on deep boreholes for their water supply, and to keep these boreholes operational a functioning supply chain of fuel and spare parts is needed. Along the Nile, there are 'run of the river' schemes that not only need fuel and spare parts, but also chemicals for treatment. Hygiene and sanitation are serious challenges, especially in places where IDPs concentrate. For the last several months, incidents of cholera have been reported.<sup>81</sup> With the onset of the rains in July, diarrhea and other diseases will likely spread further.

## Conclusion

The analysis presented in this brief combines accounts from previous famines in Sudan, available data and longer-term estimates of food availability, knowledge of Sudan's food system, as well as first-hand accounts from people in different parts of Sudan struggling to survive. A careful analysis of the developments over the past months regarding food supply, entitlements and coping strategies points to an impending hunger catastrophe. **The risk of famine is extremely high and demands immediate concerted action.** Washington's and Brussels' failure to act will contribute to what is rapidly becoming the world's largest hunger crisis in decades, and exacerbates the already largest displacement crisis in the world.

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79 [As the Sudan war rages, rival sides have been accused of looting and diverting aid | Humanitarian Crises News | Al Jazeera.](#)

80 De Waal, A. 1989. *Famine that Kills*. Oxford University Press.

81 [Sudan - Sudan: Cholera outbreak Flash Update No. 05 \(as of 24 December 2023\) | Digital Situation Reports \(unocha.org\).](#)

### About the Clingendael Institute

Clingendael – the Netherlands Institute of International Relations – is a leading think tank and academy on international affairs. Through our analyses, training and public debate we aim to inspire and equip governments, businesses, and civil society in order to contribute to a secure, sustainable and just world.

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