National agrifood systems and COVID-19 in the Sudan

Effects, policy responses and long-term implications
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Food and Agriculture Organization of the United Nations

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This country profile covers responses and effects up to February 2021

INTRODUCTION

The COVID-19 pandemic has put significant pressure on health systems all around the world. The drastic measures established to contain its spread are creating serious impediments to economic activity (including agrifood systems) and, consequently, to livelihoods and food security and nutrition.

The COVID-19 outbreak demonstrates both how health and food systems are linked to one another, and how local food systems are linked to global systems. High rates of urbanization and the globalization of trade and travel have contributed to the spread of the virus across countries. Lockdowns and movement restrictions within countries and across borders have disrupted national and local food and agricultural output and input markets and have caused sharp reductions in overall economic activity globally. In poorer countries, disruptions have further exacerbated the fragility of systems (including agrifood systems) and livelihoods.

The Global Report on Food Crises 2021 found that 155 million people in 55 countries and territories are facing acute food insecurity at “crisis” level or higher – a situation that requires urgent action. The report further concluded that over 208 million people were experiencing a “stressed” level of acute food insecurity and bore a high risk of sliding into a “crisis” level if confronted by with additional shocks (FSIN, 2021). The situation is particularly worrisome in light of the evolving nature of the COVID-19 pandemic.

As the situation evolves, the question arises as to how, or whether, food, health and financial and economic systems could become better prepared to prevent similar outbreaks from escalating into a full-blown economic and social crisis.

This report is part of a series of country profiles that describe: (i) policy measures enacted by governments to contain the spread of the virus; (ii) policies and measures to stabilize the functioning of agri-food systems; (iii) potential effects of policies on agri-food systems and vulnerable groups. Finally, the profiles also assess longer-term options for agri-food system policies and investments so as to make them more resilient.
POLICY MEASURES TO CONTAIN COVID-19

Along with the rest of the world, in early 2020, the Republic of the Sudan put into place a range of measures to protect its population from COVID-19 and the short, medium and long-term socio-economic and humanitarian impacts of the pandemic. On 12 March 2020, the Federal Ministry of Health (FMoH) reported the first case of COVID-19 in the Sudan and by 31 of December 2020, 23 316 confirmed cases were reported with 13 524 recovered and 1 468 deaths (see Figure 1) (FMoH, 2020; OCHA, 2020a).

Figure 1. Cumulative number of confirmed COVID-19 cases (March-December 2020)

Source: Sudan Health Observatory, MOH

The pandemic spread throughout the Sudan’s 18 states to varying degrees, with Khartoum State having the largest proportion of infections (78 percent of reported cases) between March and 20 December 2020. Nonetheless, more than 60 percent of all COVID-19 related deaths have occurred outside the national capital, with Khartoum, El Gezira and Gedaref states being the hardest-hit (OCHA, 2020b).

Although relatively few infections have been reported in conflict-prone areas, these areas have had extremely high mortality rates compared to national and global trends. This is due to the limited access to health care, particularly in the Central, North and East Darfur states where 50, 32 and 24 percent of people with COVID-19 infections respectively have died (OCHA, 2020b). Similarly, the state of South Kordofan, which is a conflict-prone area, and the Red Sea state also had relatively high death rates of close to 21 percent and 20 percent respectively, mainly due to limited access to healthcare as well as the high rate of malnutrition in the Red Sea state. It is likely that a number of infections were not diagnosed or reported due to a limited testing capacity, the scarcity of healthcare centres and the remoteness of available healthcare centres.
What major measures have been taken to contain the spread of the virus? How are they evolving?

Suspension of international flights

- All incoming and outbound international commercial passenger flights were suspended from 16 March until 15 May 2020. Only scheduled flights carrying goods and humanitarian supplies were permitted to enter the country (UNCT Sudan, 2020).
- The suspension was extended to 20 May, and further extended to mid-July 2020 with a few exceptions.
- From mid-July to mid-September, Sudanese citizens who were stranded abroad were allowed to return, given adherence to COVID-19 preventive measures and protocols.¹
- Suspension of international flights was completely lifted on 16 of September 2020 and free movement of goods and passengers commenced with all precautionary measures in place.

Suspension of domestic flights

- Domestic passenger flights were suspended from 14 March to 20 May 2020. The suspension was further extended until mid-July.
- The suspension of domestic flights was completely lifted in mid-September, with precautionary measures in place.

Closing land borders and check points

- Land borders and check points with neighbouring countries, such as Egypt, Eritrea, Ethiopia and South Sudan, were closed starting in mid-March. This entailed restricting the movements of individuals and goods at checkpoints, such as Argin, Kassala-Lafaa, Galabat and El Genina in Egypt, Eritrea, Ethiopia, and Chad respectively.
- Some exceptions were made for cargo, food and medicines, including humanitarian cargo trucks, which were allowed to enter to vulnerable areas during mid-March to mid-September (UNCT Sudan, 2020).
- In mid-September, restrictions were removed on movement across land-borders.

Curfews and associated restrictions on movement

- On 14 March 2020, a countrywide curfew was imposed from 7 p.m. to 6 a.m.
- A lockdown was established in Khartoum and North Darfur on 18 April 2020, which allowed people to purchase essential goods only between 6 a.m. and 1 p.m. (UNCT Sudan, 2020).
- A number of blanket orders restricted people from travelling to other states or moving across towns in the same state as well as establishing curfews in towns.
- Anyone permitted to work during the hours of curfew, particularly in the food sector and in medicine, was expected to adhere to COVID-19 public health measures.
- The night curfew in major cities continued until August 2020. However, vehicles carrying food and medicine were provided with permits enabling them to move even during curfew hours. States other than Khartoum state were allowed to decide on curfews and movement restrictions according to their own circumstances.

¹Arrivals from some countries were allowed with a COVID-19 free certificate, a two-week home quarantine before flying or a two-week quarantine upon arrival to the Sudan and a PCR-negative test.
On 8 July, the Government began to relax the lockdown in Khartoum state, requiring only the night curfew from 5 p.m. to 5 a.m. Movement across states and districts was also eased depending on the circumstances of each state.

Although there were variations across states, during the period of mid-March to mid-July 2020, restrictions on movement were limited to the night curfew hours of 5 p.m. to 5 a.m.

Remaining curfews and movement restrictions were lifted in mid-September.

Restrictions on gatherings of individuals

• A ban on large public gatherings and the reduction of staff in workplaces went into effect in mid-March 2020 (5 a.m. to 5 p.m.).

• Friday prayers in mosques and Sunday church services were suspended from mid-April until mid-July 2020.

• Stay-at-home orders were in place from April through 7 July 2020. Exemptions were permitted at certain hours or for accessing essentials such as food, medicine, etc. Nevertheless, most people did not strictly adhere to the stay-at home orders; this was particularly true for people who earn a daily income. In addition, a study of Sudanese attitudes on COVID-19 (Hezima et al., 2020) showed that surveyed residents resist public health practices (often due to cultural norms and traditions), which affected the effectiveness of the restrictions on movement.

• In mid-September, the restrictions on gatherings of individuals were eliminated. In response to the second wave of the pandemic, which began in November 2020, government offices reduced their working staff by 50 to 70 percent.

Closing industries

• The food industry was permitted to operate during the pandemic, given strict adherence to the guidelines provided by the FMoH. Non-food industries (ranging from tourism to cloth manufacturing) were closed from April until July, with permission for few exceptions under strict precautions.

• Some non-food industry entities were allowed to reopen on 9 July 2020 after inspection for compliance with COVID-19 regulations (e.g., regarding masks, non-gathering and physical distancing).

Restrictions on the operation of food outlets (open markets, wholesale markets, etc.)

• In mid-March 2020, the operating hours of food markets were limited from 6 a.m. to 7 p.m. (although these measures were not strictly enforced since most operators are daily earners).

• In April 2020, working hours were further limited: from 6 a.m. to 1 p.m.

• In May and June 2020, food markets were open from 6 a.m. to 5 p.m.

• Retail shops located in residential blocks were permitted longer hours, since most people depend on them for daily basic needs. The retail shops were open from 6 a.m. to 8 p.m.

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2 The Government insisted that people over 60 years and/or suffering from diseases, such as diabetes, hypertension or cancer, stay at home.

3 This included producers of vegetables and fruits, poultry and chicken, dairy products and livestock, as well as related industries for transport, markets and consumers.
In mid-September 2020, the authorities removed all restrictions on the operations for food outlets.

**Closing restaurants and other food distribution outlets**

- All restaurants were closed from late March to July 2020. In August, restrictions were relaxed, and some restaurants began to open. Restrictions on restaurants were fully removed in mid-September 2020.
- The measures were difficult to enforce in the case of street food vendors, who practiced informal selling on a limited scale in remote and peripheral areas.

**Closing schools and universities**

- The closure of schools and universities began in mid-March 2020. Reports showed that more than 8.4 million students in the Sudan were affected by the shutdown (OCHA, 2020b). There are not yet sufficient data available to allow a breakdown of the impacts of the closure on primary, secondary and tertiary schools across the 18 states.
- The closure and reopening of schools varied across states, although little state-specific information is available. In Khartoum state, the decision was made to reopen schools on 23 November 2020; this was extended to the second week of December when a second wave of infections hit mid-November. The delay in reopening some schools was due to secondary as well as primary impacts of COVID-19, including a lack of books, and transportation and a shortage of fuel.

**Implementation of policy measures**

Although government authorities made a great effort to implement COVID-19 restrictions and containment measures, widespread leakages were reported, particularly between towns and along highways. Some economic activities continued amid weak public compliance with curfews and public health containment measures.

Not all measures were applied at the same time across the Sudan’s 18 states, with each state deciding on the appropriate measures for its circumstances.\(^4\) In many states, restrictions on the movement of individuals, intra trade movement between villages and cities were not strictly enforced until April, or even June 2020.

**What major measures have been taken that specifically relate to the operations of the agrifood system?**

The spread of COVID-19 in the Sudan came as farmers were preparing for a new agricultural season in rain-fed agriculture (May-December 2020), and also coincided with the wheat harvest in the irrigated sector (late March and early April 2020). Movement restrictions on small-scale farmers were relaxed in May 2020 in response to a request by the Farmers’ Union stating that the restrictions were blocking their access to production inputs. The government provided exemptions and special permits for farmers to purchase and transport agricultural inputs (e.g., fuel, machinery, labour) from markets to farms and to ease the movement of food to avoid shortages.

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\(^4\) The Government adopted very strict measures to contain the spread of COVID-19, but public response was poor for cultural, social and economic reasons. Nevertheless, a month after lockdown, the measures had already disrupted production, causing an economic slowdown that triggered local recession. Although not yet fully estimated, the losses are significant. The impacts are not restricted to agricultural production, but extend to trade, which led to price hikes.
In areas on the periphery of cities in most states, including Khartoum, restrictive measures were gradually relaxed for the agrifood retail and hospitality sectors starting in July 2020. Although the government requested companies to provide protective gear to agrifood workers, in practice this rarely occurred, as protective masks were either unavailable or very expensive for workers to buy and replace every day.

The government eased restrictions on the movement of individuals in the agrifood sector and/or related activities by giving them temporary licences to move during curfew hours. This continued for almost three months, until 7 July when restrictions on movement were gradually relaxed and finally lifted in mid-September 2020.

**AGRIFOOD POLICY MEASURES TO RESPOND TO THE EFFECTS OF THE CRISIS**

**What major policy measures are in place or anticipated that target the food system directly?**

**Export ban on sorghum**

The government imposed an export ban on sorghum to neighbouring countries, including Ethiopia, Eritrea and South Sudan from April until October 2020 to keep a buffer stock available (UNDP, 2020). This responded to fears that some major wheat-producing countries might reduce their wheat exports to the Sudan, which would create a shortage of cereals in the country.5

**Enforcement of food safety measures**

The Government has strictly enforced existing safety rules and regulations, such as sanitary and phytosanitary (SPS) standards and norms, and has applied the standard health, hygiene and food safety measures to exported as well as imported goods and food items, especially imports from countries where spread of the disease is prominent, such as China, Turkey, Italy, Spain and Egypt.

**Food reserves and bulk purchases by the government**

The total national production of sorghum and millet in the 2019/2020 season was estimated at 5.1 million tonnes, 36 percent below the previous year’s output and 18 percent less than the past five-year average (FAO, 2020b). The decline was mainly due to a reduction in the area planted to cereals, in favour of more remunerative crops (sesame and groundnuts), which was compounded by reduced yields. Tribal clashes in Darfur also blocked access to agricultural land. Extreme weather events, such as dry spells and torrential rains, led to local crop failures and a reduction in harvested area (FAO, 2020b).

The government made bulk purchases of sorghum and wheat from farmers and increased imports to support food distribution and prevent price hikes for cereals, not only as a response to COVID-19, to the persistent economic difficulties plaguing the Sudan prior to the onset of the pandemic. Food prices in the Sudan have tripled over the past year. For example, by October 2020, the price of basic foods, like sorghum, was 240 percent higher than one year previously and more than 680 percent higher than the five-year average (OCHA, 2020c). In November, cereal prices were 250 to 300 percent higher than in the previous year and 550-680 percent higher than the five-year average (FEWSNET, 2020a).6

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5 The Ministry of Industry and Trade banned exports of sorghum starting on 15 April 2020 until further notice. The aim was to increase domestic food stocks.

6 The annual change in the consumer price index (CPI) in the Sudan is variable. From January 2009 to September 2020, the average was 36.04 percent, with a minimum of 6.76 percent in October and a maximum of 212.29 percent in September (The Global Economy, 2020). Adjusting by CPI or by non-agricultural prices to assess real values in order to understand the forces behind the price hikes is constrained by limited data and may require a separate study.
In May 2020, the Ministry of Finance and Economic Planning (MoFEP) signed an agreement with the World Food Programme (WFP) to provide 200,000 tonnes of wheat to the Sudan, with payment in local currency. This aimed to increase the local availability of wheat and to respond to insufficient domestic production (UNDP, 2020).\(^7\) The wheat harvest in 2019/20 was about 696,000 tonnes, more than 17 percent higher than the previous five-year average (FAO, 2020a), and still less than annual demand. The Strategic Grain Reserve also requested companies to import approximately 420,000 tonnes of wheat, 55,000 of which was received in April 2020. Normally, the country imports about 2 million tonnes of wheat and wheat flour each year (FAO, 2020b). However, the fluctuation in production of cereals often exerts a tangible impact on availability and access to food.

**What measures are in place or anticipated that aim to mitigate the effects of the crisis on vulnerable groups?**

**Social protection measures**

While originally planned in the fiscal budget of 2020 as a means to mitigate the impact of subsidy reductions, the Quasi Universal Basic Income programme (QUBI) began in May 2020 when COVID-19 was starting to take its toll. The programme aims to provide cash to 60-80 percent of the poorest households in the Sudan.\(^8\) Taking the pandemic into account, the programme will assist families to cope with the containment measures and effects of the restrictions by providing unconditional cash transfers (about 30 United States dollars (USD) per household per month) to enable the purchase of basic needs such as food, medicine and other necessities.

The QUBI programme was considered a key component of medium-term plans for additional social assistance to cope with the harsh economic situation resulting from price hikes and removal of subsidies on fuel and bread, as well as the effects of the policy and restriction measures during the pandemic. Due to insufficient funds, the programme has not been implemented on a large scale, although some few experimental trial distributions have been made with the limited funding available.\(^9\) However, detailed information on numbers targeted, amount of funds, and geographic distribution is not available.

At the state level, other measures, such as food distribution, have drawn on public resources to support vulnerable groups. This mainly occurred in Darfur and other war-prone areas in West and South Kordofan, especially in camps for refugees and internally-displaced persons (IDPs). In Khartoum state, elderly people were supplied with food by charity non-governmental organizations (NGOs) and the FMoH and the Ministry of Social Welfare (MoSW), but the range, extent and cost of the action are unknown.

**Employment and wages**

In June 2020, the government applied a five-fold average increase to the salaries of all public sector employees to mitigate the escalating prices of goods and services brought on by the containment measures.\(^10\) This might also have been an effort to mitigate the side effects of an

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\(^7\) The 5-year average production of wheat is around 560 thousand metric tonnes.

\(^8\) Estimates of the programme were based on a national household survey from 2009 (NBHS, 2010) and projections were made to accommodate recent developments. There is no current referred classification of poorer households in the Sudan other than the 2010 NBHS and the programme took 60-80 percent of the population based on that projection (interview with an official officer in MoFEP). For more information, see FAO, 2010.

\(^9\) The 2020 fiscal budget capitalized mainly on external assistance by donors. 50 percent of the 8 million budgets was dependent on the receipt of donor funds that is USD 4 billion (in which the QUBI programme funds were included. However, donors (Friends of Sudan) promised to give only 1.8 billion over three years: i.e. USD 600 million per year conditional on attaining peace, democracy and governance reforms.

\(^10\) Data on wages is limited, especially for the private sector, and available information is out of date.
International Monetary Fund (IMF) structural reform and adjustment programme, which called for currency devaluation, and the removal of subsidies on fuel, imported wheat and wheat flour starting in January 2020. Although it was planned prior to the pandemic, the implementation of the salary increment was accelerated because of the effects of COVID-19 on the economy.

The Government considered establishing an emergency unemployment benefit scheme (at the cost of 4.5 billion Sudanese pounds (SDG), around USD 82 million) during April and May 2020. The idea was to support workers laid off due to COVID-19 preventive measures with salary and wage support for three months (UNDP, 2020). There is no evidence that this initiative ever began operations. This was probably due to an unexpected fall in public revenue and lack of support from ‘Sudan’s Friends.’

Fiscal measures

The Government of Sudan announced a number of fiscal measures, including emergency economic funds and assistance to SMEs facilitated through partnerships with financial institutions and investment programmes. A number of deferrals for loan, tax and utility payments were issued, for example. The government requested that banks reconsider the terms of loan repayments by private companies impacted by the pandemic. Fiscal measures also included deferral or discount in the payment of utility expenses for businesses and self-employed workers and reduction and/or deferral of taxes and other social contributions for food and non-food companies, particularly agribusiness SMEs (UNDP, 2020). The loan payment deferrals were probably not implemented due to the non-liquidity of the banks. Indeed, there is no information indicating that any of these measures were applied.

While the Government’s fiscal policies aimed to help entrepreneurs cope with the pandemic, it is worth noting that the Sudan’s banking system was about to go bankrupt due to already suffering from a lack of liquidity; 80 percent of liquidity is outside the banking system, mostly in the form of household savings.

Charity and domestic aid/donations

During the pandemic, both Nafir and Sadaquat were quite common and widely reported. Both depend on voluntary contributions, often provided by rich individuals, charity non-governmental organizations, or local community-based organizations, to support poor and vulnerable people. As an example, some property owners were reported to defer rental payments. Others refused to take money from affected residents, while reduced, suspended or rescheduled rental payments. National NGOs in Kassala in eastern Sudan launched a food distribution project for 3000 vulnerable families in the various localities of the state, after they received a generous gift from a philanthropist (Dabanga, 2020a).

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11 The Government is gradually removing subsidies on fuel and wheat flour, which the IMF estimates to account for over 11 percent of GDP in 2019. Although imported bread wheat continues to be subsidized (USD 365 million per year), fuel subsidies (USD 2.25 billion per year) were replaced by a two price system in the beginning of 2020. Throughout May 2020, a subsidized fuel at a rate of 128 SDG per gallon was available, while the commercial price was 250 SDG per gallon. However, both commercial and subsidized fuel was hard to obtain. In December 2020, fuel was fully commercialized at a price of 544 SDG per gallon although not widely available.

12 The official exchange rate in April and May 2020 was 55 SDG per USD.

13 The term ‘Sudan’s Friends’ was first used during an international conference held in Berlin in June 2020 to describe an effort to assist the government to achieve development, peace and economic recovery. The Friends include Germany, France, the United Kingdom, the Netherlands, Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates. In August 2020, a conference of Sudan’s Friends was held in Riyadh to raise funds.

14 Nafir is a community assistance mechanism, which is famous in Sudanese culture for helping poor and affected groups. It is usually provided voluntarily as services whether in kind and/or cash. Sadaquat is similar to Nafir but it is usually obligatory and takes the form of cash or kind payments known as Zakat. The system is operated by the so-called Zakat Chamber, which collects money from wealthy people to support eight main expenditure items, which include the poor and vulnerable according to Islamic Law. Zakat is usually a percentage of agricultural produce (5 percent for irrigated products and 10 percent for products under rain-fed agriculture. For trade and commerce, Zakat is about 2.5 percent of the total sum a person has earned in trade provided that his trade volume is not less than value of 85 gm of gold (SDG 1'799705 = USD 4761) as of April 2021. This value varies with price of gold.
How is the government funding COVID-19 related measures?

The Sudan already faced financing constraints prior to the outbreak of COVID-19; the pandemic put further pressure on an already tight fiscal position. Nevertheless, the government prepared a Multi-hazard Emergency Health Preparedness Plan, guided by the World Health Organization (WHO), which identified priority actions needed to tackle the crisis (KPMG, 2020). There were, however, scarce public resources available to implement the plan and this, coupled with heavy rains and river flooding in July and August 2020, meant that the government was hard pressed to meet people’s basic needs for bread, medicine and fuel.

According to the preparedness plan, the Sudan needs around USD 120 million to cope with COVID-19-related health care (KPMG, 2020). So far, the domestic private sector has pledged to contribute USD 2 million, the government has reallocated USD 3 million from the current budget and the United Nations and other international partners are expected to donate USD 9 million. The United States Government also announced a donation of USD 8 million, while the European Union announced a support of EUR 70 million.

On 9 April, the Islamic Development Bank reportedly provided USD 35 million to the Sudan, while the World Bank has announced a package of USD 35 million from its headquarters-based trust funds. To mitigate the negative impact of the pandemic on households and enterprises, the government considered boosting social safety net programmes by increasing direct cash transfers, providing unemployment benefits and delivering basic food baskets to poor families at discounted prices. Those measures would cost about USD 1.5 billion over three months. There are also reports from the Ministry of Health that SDG 30 billion (USD 545 million) has been allocated to prevent the collapse of the Sudanese health system and another SDG 20 billion (USD 364 million) to support people affected by the lockdown measures in Khartoum (KPMG, 2020).

Despite these reports, there are no definitive government estimates of how much has been mobilized and spent from public resources. The pandemic has not only diverted attention and resources away from the governmental budget plan, but has also overburdened the health system, further aggravating mortality and morbidity rates due to the unavailability of emergency services. The spending on existing Government priorities from internal resources may be insufficient and thus possibly jeopardize the transitional government’s efforts. This would have potential implications on the overall government plan.

Loans from international financial institutions and other regional/international markets are constrained by the protracted economic sanctions as well as the Sudan’s heavy debt. As a result, external borrowing options are severely limited. Internal borrowing is likely to increase but will be hampered by the scarcity of cash in the banking system. For example, the Government borrowed almost 85 percent of the banking system’s reserves in the six months between January to June 2020 (Dabanga, 2020b), and could not go further without printing money, which would mean hyperinflation, and price escalations. Appeals from the Governor of the Central Bank of Sudan (CBoS) to Arab countries to deposit funds into the Bank of Sudan and other commercial banks repeatedly failed before and during the COVID-19 pandemic. Getting international assistance was coined, with delisting the Sudan from “State Sponsor of Terrorism” (SST) and concurrently strengthening the Sudan as a partner in the international community.

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15 Personal communication with staff from Ministry of Finance and Economic Planning.
16 It has been widely stated in the media that more people have died as a result of the COVID-19 restrictions than have died of the virus.
17 Although Executive Orders revoking certain sanctions were issued by the United States President in 2017, the Congress passed statutes to postpone the orders for political reasons related to ‘normalization’ of relations with Israel (US Treasury, 2017).
What initiatives have been taken by the humanitarian and development community to mitigate the impacts of COVID-19 on food security, nutrition, agriculture, water and sanitation and health?

A COVID-19 Country Preparedness and Response Plan (CPRP) was developed in May 2020 to complement the 2020 Sudan Humanitarian Response Plan (HRP). The scope of the CPRP is limited to public health measures and do not include the broader measures required to mitigate the social and economic consequences of COVID-19. These are addressed in the COVID-19 Addendum to the Humanitarian Response plan, which was released in July 2020.

The CPRP is built around nine pillars: i) country-level coordination; ii) points of entry; iii) surveillance, rapid-response teams, and case investigation; iv) national laboratories; v) case management; vi) risk communication and community engagement; vii) infection prevention and control (IPC); viii) operational support and logistics; and ix) maintaining essential health services and systems.

The HRP COVID-19 addendum addresses both the socioeconomic consequences of COVID-19 and the immediate humanitarian impacts of the pandemic on the most vulnerable people in the priority areas of health, food security and livelihoods; education, water, sanitation and hygiene (WASH); refugees; logistics, gender-based violence (GBV); child protection and shelter. The addendum estimates that circa 9.8 million people are in need of humanitarian assistance (Table 1) however; about 6.7 million people were targeted with assistance through 54 operational partners including national and international NGOs and UN agencies (OCHA, 2020d).

Table 1. HRP COVID-19 addendum priority areas

<table>
<thead>
<tr>
<th>Sector</th>
<th>People in need (millions)</th>
<th>People targeted (million)</th>
<th>Projects</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>8.6</td>
<td>5</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Food security and Livelihoods</td>
<td>8.6</td>
<td>5.9</td>
<td>19</td>
<td>18</td>
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<tr>
<td>Education</td>
<td>2.62</td>
<td>2.1</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Water, sanitation and hygiene</td>
<td>3.5</td>
<td>0.5</td>
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<tr>
<td>Refugees</td>
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<td>0.6</td>
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<tr>
<td>Logistics</td>
<td>1.1</td>
<td>0.9</td>
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<td>34</td>
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<tr>
<td>Gender based violence (GBV)</td>
<td>0.93</td>
<td>0.5</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Child protection</td>
<td>1.77</td>
<td>0.65</td>
<td>9</td>
<td>9</td>
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<tr>
<td>Emergency shelter/non-food items</td>
<td>0.44</td>
<td>0.14</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Nutrition</td>
<td>1.84</td>
<td>0.74</td>
<td>15</td>
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<tr>
<td></td>
<td>1.2</td>
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</tr>
<tr>
<td></td>
<td>1.6</td>
<td>33</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

18 IPC stands for implementation of infection control and prevention (IPC) measures and enhanced outreach activities (for more information, see Sudan Humanitarian Response Plan 2020).
19 Numbers are not cumulative. An individual can belong to several sectors at the same time. For example, a person can need support both the food security and the health sectors and will appear in both estimates under ‘people in need.’ The same applies to the ‘people targeted’ column.
Additional key initiatives undertaken by the humanitarian and development community included studies and assessments of the impacts of COVID-19 on some of the sectors cited in Table 1. For example, in May 2020, FAO in the Sudan produced a briefing paper on the impacts of COVID-19 entitled, *Adverse Impacts of COVID-19 on Food Security in Sudan* (FAO, 2020i). It was presented to the United Nations Country Team (UNCT) Strategic Group in Sudan.20

**How are the humanitarian and development communities funding the COVID-19 response?**

The 2020 Sudan HRP requires USD 1.63 billion for COVID-19 and non-COVID-19 actions. The resource requirement for the non-COVID-19 actions is USD 1.35 billion (56.5 percent of which had been funded as of 6 January 2021). The COVID-19 addendum has a total resource requirement of USD 283.5 million (with 37.4 percent funded as of 6 January 2021) (OCHA, 2020e). Table 2 shows the funding progress for the COVID-19 response by sector.

**Table 2. Funding progress by sector for COVID-19 (as of 6 January 2021)**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Required (million USD)</th>
<th>Funded (million USD)</th>
<th>Coverage (percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>29.1</td>
<td>0.2</td>
<td>0.80%</td>
</tr>
<tr>
<td>Emergency shelter and non-food items</td>
<td>1.6</td>
<td>0</td>
<td>0.00%</td>
</tr>
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<td>Food security and livelihoods</td>
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n/a ** = not available (The table is borrowed from sources as it is and there is no legend)


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20 This was the first report at the UNCT level on COVID-19 adverse impacts in Sudan.
IMMEDIATE EFFECTS OF THE CRISIS ON VULNERABLE PEOPLE AND THE AGRIFOOD SYSTEM

Food security and nutrition: latest data and projections

In its June-September 2020 report, the IPC estimated that more than 9.6 million people in the Sudan were in need of food aid or livelihood assistance, with circa 2.2 million people facing emergency acute food insecurity (IPC Phase 4) and around 7.4 million people facing crisis acute food insecurity (IPC Phase 3) (IPC, 2020). The 9.6 million estimate is 65 percent higher than the 5.8 million people needing food aid or livelihood assistance during the same period in 2019. The June-September 2020 IPC estimate is the highest ever recorded in the history of the IPC in the Sudan, significantly higher than previous IPC records for February-May 2020, when more than 7 million people faced crisis or worse acute food insecurity.

Close to 15.9 million people were estimated to be in stress (IPC Phase 2) during the June to September 2020 period. This is also high compared with previous periods. Most people in the Sudan – 58 percent of household s– cannot afford a basic daily food basket. Over 2.7 million children suffer from acute malnutrition. Medical facilities across the country are non-functional and lack essential drugs (OCHA, 2020f).

The main drivers of this situation are the continuing economic decline and inflation and high food prices due to the pandemic. In addition, the displacement of people due to persistent civil insecurity continues to limit income-earning opportunities; this has been aggravated by the pandemic in the western and southern areas of the Sudan.

Projection for October - December 2020

More than 7 million people are expected to face high levels of acute food insecurity (IPC Phase 3 or above), 26 percent less than in the previous period (IPC, 2020). Nearly 1.3 million people will likely remain in emergency (IPC Phase 4), approximately 6 million people in crisis (IPC Phase 3) and over 17 million people are estimated to be stressed (IPC Phase 2) (IPC, 2020).21 The reduction is likely to result from improved production and greater access to food, with harvests in agricultural areas beginning in late October 2020. Nevertheless, food assistance needs will remain high throughout early 2021 due to political instability/tribal clashes; inflation (resulting in high prices of food commodities and agricultural inputs); flooding during July and August 2020, seriously affected 875 000 people and submerged about 1.4 million hectares of cropland; while 2.4 million people displaced due to flooding (IPC, 2020). The United Nations Office for Coordination of Humanitarian Affairs (OCHA) anticipated that around 2.7 million children in the Sudan will suffer from an episode of wasting during 2020 (OCHA, 2020d).

Potential food crisis hot spots

The Sudan hosts many fragile and conflict-affected states (e.g., Darfur, Blue Nile and South Kordofan besides Red Sea and Kassala states), where – for security reasons – logistical support and the distribution of goods and services have long been difficult. Transport and logistics for supply and distribution had been problematic since 2018 due to a serious lack of fuel. The situation worsened after COVID-19 as fuel prices in the parallel market grew to be many times the official price (1:4).

The scarcity of fuel and massive price increases forced the government to prioritize energy distribution to workers in the agrifood sector during the farming season, which usually starts in

21 This represents an increase of two percentage points (from 6.4 million to 7.1 million) of people in crisis (IPC Phase 3) and emergency (IPC Phase 4) states, compared to the projection made in June for the October-December 2020 period (for more information, see IPC, 2020b).
April or May. However, the logistics of supplying energy to farmers was affected by floods, fuel shortages and restriction measures; this contributed to reducing the overall crop production and food availability.22

**How have the pandemic and associated measures affected agrifood systems?**

**Access to labour, migration (internal and external) and remittances**

Restrictions on the movement of people within the Sudan and across borders reduced the number of internal and external workers – particularly from Ethiopia and South Sudan – seeking labour opportunities in rain-fed farming in the Sudan. Although the effects of the restrictions on labour availability were evident at the beginning of the agricultural season in June and July 2020, the negative impacts will be even greater during the harvest season, in October (for sesame) and late November (for sorghum). The impacts will be particularly felt in Gedaref, Sennar, Kordofan and Blue Nile states, which are expected to face not only increased labour shortages but also higher wage rates, resulting in high harvesting costs, delayed harvests and increased levels of pre- and post-harvest losses (FEWSNET, 2020b).

In addition to its impacts on agriculture, the economic crisis and the lockdown of Khartoum state, which hosts the largest number of migrants, forced workers to return to rural areas even without prospects for employment and this stopped the flow of remittances to their families. Notwithstanding the limited information on real remittances, the reduction in incomes and external remittances from Saudi Arabia and Gulf countries during the shutdown has affected many families in the country. The reduced employment activities in the Gulf States – due to the pandemic restrictions – also led to an unprecedented decline in the flow of remittances by as much as 80 percent between January and April this year (GFNC, 2020).

**Food production/supply chain**

There is as yet little information on the impact of the pandemic on food production and the supply chain since data on the 2020-2021 production season will be assessed after the harvest takes place in December. The Crop and Food Supply Assessment Mission (CFSAM) report will be available in February 2021. Nevertheless, there are indications that COVID-19-related measures may have reduced agricultural production in 2020, either by restricting movements or limiting access to agricultural inputs and labour (or both) (GFNC, 2020). Although the Ministry of Agriculture and Natural Resources (MoANR) announced that the fuel available for the 2020/21 agriculture season was comparable to the previous year, it has been reported that a great deal of fuel has gone to other purposes, such as public transport, running house generators, etc., and some has most likely been smuggled to neighbouring countries.

In spite of efforts by authorities to assist smallholders by relaxing restrictions on their movement and providing licences for fuel, farmers involved in rain-fed farming in Gedaref, Sennar and White Nile states reported that a shortage of fuel and high prices for petrol and diesel affected their production activities.23 It is worth noting that the machinery and input supply chains were also disrupted, causing input prices to escalate and affecting timely land preparation (e.g., ploughing, levelling and sowing) during April to June 2020. Preliminary reports from the MoANR show that the distribution of agricultural inputs and the provision of animal health support services in the

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22 It is not only a question of supply and availability, but also of access and stability of production. The disruption of the fuel chain made farmers search everywhere for fuel, which wasn’t readily available. In addition, the lack of animal husbandry services is far below expectations due to the restrictions on movement. More details on real impact may be available in the 2020 Annual Crop Assessment Mission (ACFSAM 2020), which will be available in February 2021.

23 Personal communications with officials from MoANR and some farmers.
most vulnerable areas was significantly scaled back during the pandemic, including in the rural-urban interface, especially in Khartoum and Gezira states.  

Access to markets

Fuel shortages also affected access to markets, disrupting the supply of food commodities, such as wheat and flour, to consumers. Local taxes and fees increased the cost of food transport still further. In conflict-prone areas, where access to food markets was constrained both by restrictive measures and by security reasons, households probably engaged in various forms of coping strategies, such as selling productive assets, in the absence of humanitarian assistance.

Market and prices

Market information and price determination were uncertain during the pandemic curfews (mid-March to mid-July) as economic conditions were sharply deteriorating in 2019 and the decline continued through to 2020 and 2021. Commodity prices have escalated in recent years due to currency devaluation and political upheaval (see Figure 2). For example, the wholesale prices of sorghum, wheat and millet have been on the rise since 2018, increasing three-to-fourfold. In Khartoum, wholesale prices started to increase in 2018 and skyrocketed in 2020. The increasing inflation rate has also contributed to an increase in production costs, as prices of agricultural inputs continue to rise.

Although prices at the start of each harvesting are usually low, the prices of sorghum and millet reached record high in November 2020. The persistent upward trend in prices is due to various factors: the tight food situation following a well below-average 2019 harvest; a weak currency; reduced market supplies due to COVID-19-related restrictions; fuel shortages and the high prices of agricultural inputs, which inflated already elevated production and transportation costs (FAO, 2020c). Figure 3 shows the drastic variation in prices in November 2020, indicating hyperinflation.

Figure 2. Wholesale cereal prices in the Khartoum wholesale market (2002-2020)

![Wholesale cereal prices in the Khartoum wholesale market (2002-2020)](image)

Colours: Millet (red); sorghum (violet); wheat (blue).

Source: FAO, 2020c

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24 As in other states, there are a number of reasons for poor performance besides the pandemic restrictions, such as insufficient resources, mismanagement, bureaucracy, lack of good governance, lack of know-how, etc.

25 Local governments usually impose additional taxes or fees to cover their expenses, although these are not always legally sanctioned. The debate between federal and state level authorities on the right of local governments to charge such fees continues.

26 When inflation is of three digits (hyperinflation), it is important to have prices deflated by the consumer price index (CPI) to understand whether there is a real change in food prices and the anticipated trend. Needed is, of course a thorough analysis of the real drivers that exert real change in prices, However, the time bound and available data is limited and requires time beyond the scope of the assignment to obtain and analyse.
In April 2020, the official exchange rate was raised from SDG 47 to SDG 55 per USD while the dollar equivalent in the parallel market in the same year doubled, trading for up to SDG 150. Consequently, the prices of all imported food items and other goods, including fuel and wheat, increased three to five times. In October 2020, the USD was traded at SDG 250, leading to hyperinflation of all goods and services. For example, the prices of sorghum and millet rose from SDG 2100-2400 and 2800-3000 per 90 kg sack respectively in December 2019 to SDG 7000 and SDG 11000 per sack in October 2020. With the escalating prices of food commodities and the reduced incomes of vulnerable groups, including the large numbers of internally displaced people and refugees, the humanitarian situation has become extremely serious.

In October 2020, the rate of inflation was high at 230 percent (compared to 66 percent in 2019) and it continues to rise, while competitiveness is weak and fiscal and external imbalances are extremely large. The loss of household income, combined with ever-rising prices of necessities, is certain to increase urban and rural poverty and food insecurity.

The Consumers' Protection Associations and other regulatory bodies have been mostly unable to oversee and regulate market prices as market laws disintegrated and the markets fell into complete disorder.

Trade flows

The fragility of the Sudan’s food security is clear from last year’s trade balance. In 2019, exports amounted to USD 6.1 billion and imports to USD 11.3 billion with a trade deficit of USD 5.2 billion (15.2 percent of the gross domestic product (GDP)) (UNDP, 2020). According to the International Monetary Fund (IMF), the economy contracted by 2.2 percent in 2018, by 2.5 percent in 2019 and is projected to shrink by 7.2 percent in 2020. The COVID-19-related lockdown measures imposed by many countries and global restrictions on transport and movement have reduced crop and livestock exports from the Sudan. The Government of Sudan has also placed a ban on the export of sorghum.

Prior to the pandemic, the country was already suffering from structural trade and fiscal imbalances. Since the COVID-19 outbreak, the problem has rapidly evolved into a severe economic crisis, causing massive disruption to production and food value chains, including trade. Domestic trade – including in agriculture and food – is projected to decline between 21 and 37 percent in 2020 (Kiruga, 2020; IMF, 2020).

Figure 3. Wholesale cereal prices in Khartoum wholesale market in November 2020

Colours: El Gedarif, sorghum - Feterita (red); El Obeida, sorghum – Feterita (violet); Al-Fashir, millet (blue); Nyala, millet (green).

Source: FAO, 2020c
The country’s balance of sorghum and millet for 2020 is predicted to be zero and could easily tip into a deficit. The Sudan’s import requirements for wheat and wheat flour exceed two million tonnes annually, while export revenues from livestock sales have been negatively affected by the ban during pilgrimage and also restrictive measures put in place by Saudi Arabia. Saudi Arabian authorities have exceptionally reduced the number of pilgrims during the pandemic in 2020 from three million people to 1 000. The loss to the Sudan is enormous and could be more than the 50 percent of the amount exported in 2019 (USD 300 million).

The food and beverages industry, which depends on food additives imported from Turkey, the Russian Federation, Ukraine, the Netherlands and Malaysia, was affected by restrictions on the movement of goods from these countries. However, the effect was not significant because most raw materials for food processing are domestic. The non-food industrial sector (such as the basic metal industry), which depends on intermediate goods and other inputs imported from China, was also hit hard during the early months of the pandemic. The overall impact was significant in the non-food sector compared to the food sector where unemployment rate of the former has increased (UNDP, 2020).

Reduced food availability

The 2019 Crop and Food Supply Assessment Mission (CFSAM, 2020) found a deficit of two million tonnes of cereals for 2019/20, in contrast to the year before when the country was able to meet its demand by importing wheat and wheat flour (FAO, 2020b). In the 2020/21 season, cereal availability is expected to be helped by a good rainfall. However significant challenges to food availability and food security will continue, due to the effects of floods and pests such as desert locusts (FAO, 2020d).

Which have been the short-term effects of the COVID-19-related health and economic crises and associated measures on livelihoods, food insecurity and malnutrition, and future prospects?

The COVID-19 pandemic has had wide-reaching effects on the entire nation, particularly on the agrifood system, livelihoods, and food and nutrition security. Together with multiple flooding disasters, this has exacerbated the effects of the ongoing economic crisis, resulting in new and unprecedented social stresses. In conflict prone areas, the impact has been even greater as restrictions, unemployment, and security concerns blocked access to food markets. To cope, households have engaged in different activities such as trading, including bartering, livestock sales, off-farm labour and selling of productive assets. It is clear that the COVID-19 pandemic has increased pressure on an already strained economic and humanitarian situation in the Sudan (OCHA, 2020b).

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27 The 2019 ACFSAM report showed that, the national total production of sorghum and millet in 2019/20 was estimated at 5.1 million tonnes. Sorghum production was forecast at about 4 million tonnes, while millet production is estimated at 1.1 million tonnes, and wheat was forecast at 727 000 tonnes.

28 The majority of the 3 million pilgrims usually slaughter sheep as a sacrifice, and the number comes close to 2-3 million sheep imported from different countries.

29 It is worth noting that subsidized wheat and wheat flour is frequently smuggled to neighbouring countries for price differentials.

30 Crossing the borders from Yemen or south Saudi Arabia to South Sudan or the Sudan, desert locusts usually arrive from mid-May to June and breed during the rainy season in July and August (FAO, 2020e).

31 In rural areas, livestock is sometimes exchanged for cereals, and cash crops like groundnuts and karkadey may be exchanged for food and other non-food items. Bartering is common in areas seriously affected by drought and other natural disasters, where people do not have cash for transaction.
Changes in consumption patterns

Even before the pandemic, people often spent between three to five hours a day in queues at bakeries, banks and or fuel stations. The pandemic has made matters far worse (OCHA, 2020b).

COVID-19-related restrictions have made it difficult or impossible for many people to meet their basic needs as high food price inflation continues to erode the purchasing power of poor families. An average local food basket takes up at least 75 percent of household income (OCHA, 2020b). This further threatens the food security and livelihoods of an already vulnerable population (FAO, 2020f). Food availability during the pandemic was estimated at only 65 percent of actual needs.32

Most households in surplus crop-producing areas of the country (Gedaref, Blue Nile, Sennar, greater Kordofan and Darfur states) were expected to exhaust their own production by late August or September 2020. From October until the early harvest in late November, most poor households practicing grain-fed agriculture would have to depend on markets for to food, despite having below-average purchasing power (IPC, 2020). Food insecurity outcomes are expected to remain high between October 2020 and January 2021 as poor households face increasing food consumption gaps.33

Prices of goods and services have quadrupled since the pandemic began its spread in mid-March, increasing by more than 500 percent compared to the five-year average (IPC, 2020). Even before the pandemic, families sought to meet their daily food requirements by reducing the frequency and number of meals from three to two meals a day and or purchasing low quality food and/or borrowing money from relatives or friends. Unless the situation improves, this negative coping behaviour could persist, even without pandemic restrictions. There have not yet been any studies to assess the behaviour and household level of consumption during the pandemic.

Which groups are most likely to be severely impacted by COVID-19 and associated measures?

Reduced income/income shocks/lost wages/unemployment

Data on market labour, employment and wages are scarce at both state and federal levels, making it difficult to assess how wages were affected by the pandemic. The IMF forecasted a 3-percentage point increase in the unemployment rate to 25 percent in 2020. However, the population affected and expected to temporarily lose their jobs during the pandemic is expected to be greater than the IMF forecasts. This is simply because most of these people were already in a state of disguised unemployment34 or lost their jobs temporarily during the lockdown; this includes self-employed non-farm labourers.

The people that are most likely to be affected by lost wages and unemployment are the vulnerable and newly poor in rural, urban, and suburban areas, who emerged as the result of the economic recession. Information on this group is lacking.35 However, it is clear that the curfews

32 Author’s computations based on information obtained from FAO, 2020b.
33 During the projection update of October-December 2020, an estimated 7.1 million people, representing 16 percent of the total analysed population, are expected to face high levels of acute food insecurity (IPC Phase 3 or above) through December 2020 and be in need of urgent assistance.
34 Disguised unemployment is a kind of unemployment in which there are people who are visibly employed but are actually unemployed. It occurs when people do not have productive full-time employment but are not counted in the official unemployment statistics. This may include: People with sickness/disability benefits (but would be able to do some jobs), People doing part-time work. (Sometimes referred to as ‘underemployment’), People forced to take early retirement and redundancy. (no longer counted as in labour force). Disguised unemployment could also include people doing jobs that are completely unproductive.
35 Special measures are to be instituted to protect employment for vulnerable groups such as youth, women, minorities, and persons with disabilities and avoid negative and harmful coping mechanisms and protect them from abuse (UNDP, 2020).
and movement restrictions forced most people to reduce their working hours, with disproportionate on daily wage labourers.

**Smallholder farmers, fishermen and pastoralists**

Although information is lacking, it is likely that most small-scale farmers, fishermen and pastoralists were affected by the COVID-19 crisis, losing their incomes and unable to access service delivery systems for inputs, such as seeds, fuel, fertilizers. This would have particularly impacted farmers during the period from mid-March until the end of May when they were preparing for the cropping season.

**The elderly**

In Sudan, pensions and welfare benefits for retired seniors are inadequate and have not been adequately attuned to cope with the new salary increment made by the Government in June 2020 for both public and private sector workers. For example, pensions increment for retired persons was only 2 000 SDG (around 40 USD at the official exchange rate) per month, which is less than 1.5 USD a day in official rate in 2020. Elderly people that have no health insurance and insufficient pensions and are at high risk for COVID-19 were extremely vulnerable to the effects of the pandemic.

**Women**

Women in Sudan are very likely to be heavily impacted by the pandemic, especially pregnant and lactating women and their children who are often not able to receive essential healthcare services, particularly in rural and remote areas. The COVID-19 response measures have made it extremely difficult for women and men to maintain their livelihoods and income. In the countryside, women comprise a sizable portion of the agricultural labour force. In urban areas, women are usually employed in COVID-19 sensitive economic sectors, particularly the food industry.

Women’s normal household tasks likely became more onerous during the lockdown when most families were at home. This was in addition to the many jobs women perform in crop production, livestock rearing and small agribusiness enterprises. In addition to the farm labour activities performed by women such as planting, weeding, hoeing, picking, collecting crop residues, harvesting and storing, they usually contribute to collection of wood/crop residues from farms to be used as a major source of fuel for cooking and fetching drinking water in areas where water is scarce. In areas where livestock is dominant, rural woman are usually responsible for keeping livestock as well as milking, milk processing, preparation of ghee, and chicken raising at household level, etc.

Urban centres have seen a growing participation of women in the informal sector, especially in food and beverage sales. This sector was heavily impacted by curfews and restrictions on movements. Most women were already in a state of disguised unemployment or temporarily lost their jobs during the lockdown.

**Disruption to the school feeding programme**

In Sudan, school feeding programmes are a much-needed source of nutritious foods for students and their families. Before the pandemic, these meals were also a strong incentive for parents to send their children to school. WFP is providing take-home rations in lieu of the in-school meals in 11 states out of 18, targeting nearly 1.1 million students enrolled in WFP-supported schools including, for the first time, 180 000 primary school children in Khartoum state (WFP, 2020).
In some states, school closures have blocked feeding programmes supported by WFP and/or UNICEF and this has an impact not only on children’s nutrition status but also on family income.36

Refugees, asylum seekers, slum dwellers and internally displaced persons (IDPs)

The Government of Sudan estimates that there are 1.14 million refugees and asylum-seekers living in the country (OCHA, 2020f; UNHCR, 2020), many of whom are thought to reside in urban areas, often with limited access to assistance and basic services; this includes Syrians and Yemenis,37 who are famous in food making particularly fast food restaurants in Khartoum (OCHA, 2019). Some asylums are directly or indirectly linked to food and agrifood-related activities, as the sector provides them with employment, which have been affected by the pandemic through reduced work hours or shutdowns.

Similarly, slum dwellers often derive their main income from informal daily work found in and around industrial areas or wholesale and retail food markets – the pandemic drastically reduced activity levels in these sectors with a direct impact on the livelihoods and poverty level of this already very vulnerable population.

Over 1.87 million internally displaced persons live in crowded settlements with inadequate water and sanitation services and already facing significant protection challenges in addition to loss of livelihoods and interruption in basic services (OCHA, 2020d). The main drivers include civil unrest in both war-prone areas in Darfur, Blue Nile area and west and south Kordofan and civil strife in South Sudan.

**FOOD FOR REFLECTION: LONG-TERM POLICY IMPLICATIONS**

What are the long-term implications of COVID-19 in terms of managing the food system to prevent a health crisis from becoming a food security and nutrition emergency?

Drivers and structural factors

Many drivers and structural factors that can exacerbate the impact of crises in Sudan include the economy, internal conflicts and social tensions, political transitioning, natural disasters, such as floods, pests and disease outbreaks, gaps in basic services (e.g., health and education) and climate change.

Economic crisis and limited fiscal space

The country is still amidst a nine-year economic crisis that began with the secession of South Sudan in 2011, which entailed the loss of 75 percent of oil revenues. This created a host of economic challenges that derailed growth, reduced the government’s ability to address serious macroeconomic imbalances, particularly inflation and widen fiscal and trade deficits. The economy’s downward spiral has seen GDP falling from USD 66.4 billion in 2011 to USD 33.6 billion by 2019 (UNDP, 2020). COVID-19 has compounded the challenges facing Sudan as an agriculture-based economy. Because of the pandemic, government revenue was down by 37 percent from previous projections, tax revenue was 21 percent less than projected and donor support was 36

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36 School meals are usually free or low cost. When schools were closed, families took on the additional costs of feeding their children at home.

37 Syrian, and Yemeni refugees are considered a ‘brothers and sisters’ by the Government of Sudan and are not required to register with UNHCR and COR (Commission for Refugees) upon arrival. About 16 000 Syrian and Yemeni refugees are registered in Khartoum by UNHCR and COR for assistance purposes, with an additional 80 600 Syrian nationals recorded by immigration authorities entering the country. There are also refugees from DRC, Somalia, and other countries living in Khartoum, of whom about 1 700 are registered or verified for assistance purposes.
percent lower than anticipated in the fiscal budget of December 2019. The economy is projected to shrink by 7.2 percent in 2020, with a trade deficit at 15.2 percent of GDP according to the IMF (Kiruga, 2020).

The structure of the Sudan’s economy predicts a growth in the importance of agriculture, a shrinking importance of extractives, and the relative stability of other sectors (e.g., manufacturing and services) by 2030. However, agriculture is underperforming and has suffered from neglect and underinvestment. Although the share of agriculture in GDP declined from 32 percent in 2011 to 20.2 percent in 2019 (behind the extractive/mining sector at 21 percent) (UNDP, 2020). The Sudan’s agriculture and related service sectors still account for the vast majority of employment with manufacturing providing an almost negligible number of jobs. All signs point to agriculture as a key potential sector for diversification in the medium- to long-term (World Bank, 2015).

To mitigate the economic crisis and set a new pathway for development and growth, an assessment by the African Development Bank (AfDB) proposed new national and sectoral policies on private sector development, diversification, livestock and energy (AfDB, 2016). This would include opening up the economy to foreign investors to strengthen small- and medium-size enterprises (SMEs) and enhancing youth employment through microfinance. Without dramatic transformation, the Sudan’s economy will remain weak (IMF 2012).

Dependence on a single or a few commodities

The Sudan is highly dependent on a few commodities: oil seeds, such as sesame and groundnut, gum arabic, cotton and livestock. Other cash crops include rosella (*Hibiscus sabdariffa*, which is locally known as *karkedey*),

watermelon seeds, and some fruits (e.g., banana and mango). Efforts to diversify and increase exports are slow with many bottlenecks around access to technology and to markets, such as tariff peaks, tariff escalation and non-tariff barriers, as well as limited diversification and a need for capacity building. Most commodities are exported raw or unprocessed, with no value addition.

Conflict and social tensions

The Sudan has been in conflicts for most of its history since independence in 1956. These conflicts arose out of non-inclusive institutions with limited effectiveness and often-disputed legitimacy across the Sudan and have made development problematic (World Bank, 2015). While the defining conflict between the northern and southern regions was largely resolved by the secession of the south to form the Republic of South Sudan in July 2011, tensions remain in the Blue Nile, south and west Kordofan, and Greater Darfur. Several other conflicts with varied historical backgrounds persist in different stages of intensity, stalemate, or resolution.

Frustrations have led to demonstrations, and civil unrest has also been reported in IDP camps in South and West Darfur as the police and armed forces tried to stop the demonstrators in line with COVID-19 protection measures.

Most conflicts in the Sudan originate from competition for land and other resources. For example, conflict at water points (e.g. *hajfers* and other watersheds) and pastureland (locally known as *howakeer*) is common between farmers and pastoralists. Indeed, such conflicts are frequent in

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38 In the agricultural sector, the contribution to the GDP is highest for livestock (about 60 percent), followed by agricultural crops (about 40 percent), while the importance of the forestry and fishing sectors is marginal. For more information see The FAO 2021 annual Crop Assessment Mission to Sudan (ACFSAM (FAO, 2021).

39 The sepals of the rosella are used to make a drink rich in vitamin C.

40 Weak institutions at both national and sub-national levels are unable to resolve most conflicts, often resulting in violence. Violent conflict, especially rebellion against the centre and armed response by the state, is a direct contributor to the extreme poverty in Sudan’s conflict-affected areas (World Bank 2015).

41 A *hajfer* is a water collecting point that provides water for both animals and humans during the rainy season. It is usually 4 metres deep, 100 meters wide and 300 metres long.
the sociopolitical and sociocultural contexts of many tribes in the Sudan, especially in the greater regions of Darfur and Kordofan. In addition, drought-prone states in northern Sudan are subject to desertification and other forms of land degradation, which has direct negative impacts on agriculture, agrifood systems, livelihoods and the incomes of the poor farmers and can incite conflicts over scarce resources such as land and water. These conflicts increase internal displacement and cause a loss of assets and lives. They also jeopardize the delivery of food and health services to areas that are in dire need of humanitarian assistance. Long-term measures for conflict resolution require legislative, economic, social and cultural solutions in which the Government, development partners and communities must play key roles.  

Recurrent natural shocks

From 1999 to 2018, the Sudan was ranked highest in terms of climate change impacts, according to the Global Climate Risk Index 2018. In 2020, flooding caused by heavy rains and the overflow of the River Nile and many seasonal rivers across the Sudan affected more than 875 000 people. Around 155 people died, more than 175 000 houses were destroyed or damaged, and 1.4 million hectares of cropped land were submerged. Most households have been displaced and are living in schools or temporary shelters. They have also lost their key livelihood assets and food stocks (IPC, 2020). The need for a climate-resilient agrifood system, particularly in the context of floods, droughts and rain shortfalls, is among the Government’s most pressing concerns.

Low agricultural productivity

The Sudan’s agriculture is characterized by the low productivity of land and labour, slow diversification into higher-value crops and a poorly developed rural infrastructure. The current speed and pace of agricultural transformation in the Sudan is slow and unable to absorb new technology developments; agriculture receives little investment and legal and institutional frameworks for regulating technologies are inadequate. Improved technologies, particularly new irrigation systems and fertilizer use, are important drivers of agricultural growth but implementation in Sudan lags behind (World Bank, 2015; AfDB, 2018).

Increasing the productivity of agriculture and agro-based industries (and other non-oil mineral subsectors, mainly gold) will require, among other things, heavy capital investment and institutional reform. In this regard, the liberalization of domestic trade, promotion of intraregional trade with neighbouring countries and the maintenance and diversification of export opportunities to major world markets are important steps. As such, the current agricultural policy needs to be revised and a number of policy reforms, such as lowering tariffs and removing other impediments to free trade, are essential. Sudan will need to work with regional organizations, such as the Intergovernmental Authority on Development (IGAD), to

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42 The Sudan-FAO-EU Land Governance Programme Transversal Project (May 2016-November 2020) is a typical example of collaboration between state government ministries, civil society organizations and research institutions. The project seeks to provide legitimate land tenure rights using the VGGT in the context of national food security for conflict-displaced communities, including small-scale rural farmers, pastoralists, and internally displaced persons (IDPs) in the Greater Darfur region of Sudan. The VGGT stands for Voluntary Guidelines on the responsible Governance of Tenure of Land, Fisheries and Forests. In the context of National Food Security and the Framework and Guidelines on Land Policy in Africa (F&G): Versatile tools for improving tenure governance.

43 The Global Climate Risk Index (CRI) 2020 analyses the extent to which countries and regions have been affected by impacts of weather-related events (storms, floods, heat waves, etc.). The most recent data available – for 2018 and from 1999 to 2018 – were taken into account in this analysis. CRI serves as a red flag for existing vulnerabilities that may further increase as extreme events will become more frequent or more severe due to climate change (Eckstein et al., 2020).

44 The AfDB Technologies for African Agricultural Transformation (TAAT) programme, which enabled the Sudan’s wheat production and productivity to double during season 2019/2020, has to continue and cover other crops and regions/states.

45 A simulation model shows that a 2 percent increase in agriculture productivity per year would increase GDP growth by almost one percentage point, from 4.1 in the base scenario to 5 percent by year 2030. In addition, Crop+ would increase household consumption and reduce the headcount poverty rate to 29.4 percent in 2030 compared to 38.4 percent in the base scenario (World Bank, 2015). In this scenario, the term Crop+ indicates Total factor Productivity (TFP) growth for crop agriculture increased by 2 percentage points during the period 2015-2030.
promote trade within and between neighbouring countries and international markets. Other regional trade structures include the Common Market for Eastern and Southern Africa (COMESA) and the Economic Community of West African States (ECOWAS) (Ismail, forthcoming).

Institutional constraints and service delivery

The political and institutional environment is marked by instability, fragmentation, sometimes limited cooperation between government offices and the lack of consensus over the state/regional and federal policies. At times this has contributed to the formulation of conflicting, competing and contradictory state/regional policies, which in turn limits the effectiveness and efficiency of state/regional planning. When compared to the rest of Sub-Saharan Africa (see Table 3), the Sudan’s public institutions are less efficient. Centrally, the Sudan has institutions to enforce compliance and execute core state functions of providing security, commanding fiscal mechanisms and delivering services. However, state presence and its effectiveness diminish outside the capital Khartoum and is contested in many peripheral areas.

Table 3. The Sudan: Country policy and institutional assessment (CPIA) 2018

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sudan</td>
</tr>
<tr>
<td>Economic management</td>
<td>1.8</td>
</tr>
<tr>
<td>Structural policies</td>
<td>2.7</td>
</tr>
<tr>
<td>Policies for social inclusion and equity</td>
<td>2.5</td>
</tr>
<tr>
<td>Gender equality</td>
<td>2.5</td>
</tr>
<tr>
<td>Public sector management and institutions</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Overall CPIA score</strong></td>
<td><strong>2.3</strong></td>
</tr>
</tbody>
</table>

Source: World Bank, 2019

The Sudan’s prospects for proper service delivery are also hampered by its huge external debt, most of which is in arrears and the fact that the Sudan is cut off from much needed official development assistance due to United States sanctions, which were (lifted in December 2020 but are still in effect). The Government debt is close to 160 percent of GDP, having increased by more than 20 percentage points from the previous year (World Bank, 2019). Revenue performance weakened in 2018 and 2019 and declined as a share of GDP. The fall in revenue partly reflected a widespread use of exemptions and low tax compliance. The Sudan is also in arrears with multilateral creditors, including the World Bank, the IMF and the AfDB (World Bank, 2014).

Strengthening the budget planning system, particularly the macro-fiscal planning unit by the Ministry of Finance and Economic Planning (MoFEP) will enhance control over public finances used for health, social protection, and food security. However, any economic reforms and proper planning would be meaningless without digitizing the financial and treasury systems of the Sudan.

Poverty reduction

The most recent official estimates of poverty in the Sudan are based on the 2014/15 National Household Budget and Poverty Survey (NHBPS). At the time, an estimated 36.1 percent of the country’s population fell below the national poverty line (World Bank, 2019). Current poverty and inequality numbers are unclear, but the ongoing economic crisis, exacerbated by COVID-19, is expected to provoke higher poverty rates, inequality, and overall economic deterioration.

Accelerating growth and reducing poverty will require rapid structural transformation along with stronger capacities in human capital and institutions and a greater degree of macroeconomic stability (World Bank, 2019). The Sudan must accelerate its policy and institutional reforms to
foster rapid economic growth and poverty reduction in order to withstand against any pandemic or crisis. In the meantime, social safety nets are a powerful tool for poverty reduction.

Supply chains and biosafety controls

The food supply chains in the Sudan are long and fragile, especially for sorghum and other cereals. Poor roads and storage infrastructure, a lack of large-scale processing and improper handling impede their effectiveness.

A shorter supply chain will have fewer steps that can be disrupted by COVID-19 restrictions and hence will be more efficient and productive. For example, a recent study by FAO showed that the sorghum food supply chain extends from farms to urban markets in Khartoum to cities and towns in the Greater Darfur and Kordofan regions (FAO, 2020g). Shortening the supply chain would not only increase its efficiency but also reduce postharvest losses. Sorghum processing into a wide range of products, will increase the utilization base and enhance marketing efficiency besides ensuring food quality and safety requirements (FAO, 2020g).

Food safety in the Sudan is governed by inadequate and poorly enforced legislation and there is limited capacity to inspect food processing and storage facilities. Although food safety standards and measures including the legislations were considered a priority during the COVID-19 pandemic, it has not been appropriately resourced for implementation. The spread of the pandemic has led to a call for adoption of an effective food safety policy and the allocation of substantial resources to meet the consequences of the disease.

Domestic poultry and meat production and processing are often exposed to new pathogens or antibiotic resistant strains that threaten public health (Eltayb et al., 2012). Rinderpest valley fever (RVF) and bird flu are just two examples of diseases that can be imported with poultry, eggs or meat or result from poor handling of dairy products in remote and rural areas. Street food vendors and illegal slaughterhouses are focal places for imposing hygienic standards (like Hazards Analysis Critical Check Points (HACCP) to ensure consumer safety.

Changes to the food system following the COVID-19 crisis

In 2020, before the pandemic hit, the transitional government coined a new slogan: Put agriculture first to lead the economy. “The aim was to make the Sudan food secure, particularly in cereal grains (sorghum, millet and wheat) and to export cash crops, such as oil seeds, cotton, and gum arabic and livestock products. Currently, the AfDB is supporting initiatives for private sector development by expanding diversification, particularly of non-staples, and increasing dietary diversity in order to strengthen the resilience of the food system to any future pandemic.

Sudan intends to rehabilitate the greater Gezira Scheme (2 million feddan, which is equivalent to 800,000 hectares) by growing cotton and other staples, while introducing livestock into the crop rotation. It is not yet clear as whether new management of the Gezira Scheme will use large-scale or small-scale production systems and whether it will operate through cooperatives or farmers’ associations. The adoption of large-scale farming in the Gezira irrigated farming system could shorten the crop value chains by adding value through processing. The assumption revolves around a basic notion: shorter value chain can benefit small, informal SMEs during crises or pandemics like COVID-19 and others.

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46 In October, in response to an announcement by the World Organisation for Animal Health concerning documented cases of RVF in the Sudan, Saudi Arabia banned livestock imports from the country. As a result of the ban, it is reported that thousands of quarantined sheep and goats died of hunger and thirst. In January 2020, the RVF outbreak was declared over (FAO 2021).

47 One feddan = 4,200 square meters, or 0.42 ha.
Building back better

Although there are discussions at federal and state level about the need for more resilient health and food systems, these have yet to be translated into serious, workable and implementable plans due to the Sudan’s budget challenges. It is also not clear how agrifood policies should address major challenges such as climate change, biodiversity and environment degradation.

While capacity building and more resources are certainly required to address the Sudan’s agrifood challenges, there is a need to understand the root causes of unequal access to resources, knowledge, assets, technology, and markets supply/value chains by marginalized groups and to establish a transformative process to subvert them.

With less than two years remaining in its mandate, agricultural transformation is likely to take longer than the transitional government has left. Ongoing discussions with UN agencies, international NGOs and development partners are focusing on short and medium-term interventions in the framework of the Country Preparedness and Response Plan (CPRP) and UNDAF country plans. The Sudan’s experience with COVID-19 has exposed existing gaps and suggested mechanisms for dealing with future crises. With support from its partners, the government aims to establish both ‘emergency’ and ‘development’ programmes that would enable it to achieve its long-term goals.

Are the mechanisms employed during the epidemic, such as deliveries of food and electronic transactions, likely to remain?

Online food delivery reduces social contact and increases disease prevention. However, it is not widely used in the country and is mostly confined to well-off people in large cities. On the other hand, cash transfers through mobile systems are common. The Sudan’s mobile phone network (ZAIN, MTN and Sudani) covers about 77 percent of the population, including poor communities (Ammar and Elsadig, 2016). During the pandemic, the mobile payment approach was widely used by individuals and agencies to transfer cash to the beneficiaries including those of social protection programmes after their registration and verification.

Although not currently available, the use of electronic transactions and mobile applications for agricultural extension services and cash transfers are likely to emerge in the near future. This requires establishing an efficient management information system (MIS). However, such technologies may grow in popularity during COVID-19 times and could therefore establish a stronger customer base, which may also exert a shift in working modalities in the future.

What debates are taking place in Sudan around how food, health, and financial systems could have been better prepared to deal with this (or a future) crisis?

Most debates focus on the need for a comprehensive review of the food, health and financial systems to understand the bottlenecks and drivers of change at federal and state levels. This is the first step to determining effective long-term policy solutions. There is also a growing realization that the existing emergency preparedness plan needs to be improved and strengthened to enable the Sudan to effectively confront future crises.

48 Many people worldwide started to use internet and other social media communications as a physical distance mechanism during the pandemic.
INFORMATION AND GOVERNANCE

Administrative and governance capacities
Although authorities tried hard to enforce policies and measures to limit the spread of the pandemic, there were many reported leakages. This was mainly due to the weak enforcement capacity of the relevant federal and state institutions and limited public compliance with the COVID-19 measures. Strict measures, policies, and programmes were applied in big cities and towns, as well as rural communities while the latter suffered disproportionately due to their relative lack of access to health services.49

Information, assessment and policy dialogue
The Government of Sudan established a food market information system (MIS) with the assistance of FAO in the Sudan’s Integrated Food Security Information for Action (SIFSIA) programme.50 From 2008 to 2012, the MIS collected information on market prices for both crops and livestock. The information system continued to function under a successor project – the Food Security Policy and Strategy Capacity Building FSPS-CB Programme – and is currently supported by the Greater Stability in Food Security project. The efficiency and capacity requires further progressive strengthening in information management, policy and strategy formulation and implementation (FAO, 2020).51 Information on production and supply chains is collected in mid-season reports as well as through annual crop assessment missions (ACFSAM), which provide indicators on the production of cereals, prices, and other information that enable early warning on vulnerabilities in Sudan such as food insecurity, floods and pests infestation (FAO, 2020b).

Studies and assessments
FAO has produced nine briefing papers (known as debrief updates) on the impacts of COVID-19 in the Sudan. The papers were developed through the “Greater Stability in Eastern Sudan through better and more Informed Decision Making in Food Security” project52 and are based on monthly food security updates from Food Security Technical Secretariats (SFSTs) in six states (FAO, 2020). The target audience includes both internal and external users, including FAO stakeholders, government line ministries, and partners in Sudan.

Although the Federal Food Security Technical Secretariat (FFSTS) in the Prime Minister’s Office and the MoANR studied food consumption patterns in Sudan prior to the pandemic, the study requires a comparative review to look at how consumer preferences have changed as a result of COVID-19.

FAO, WFP and the Government of Sudan are jointly conducting livelihood, agriculture and food security assessments alongside other partners (e.g., FEWESNET, USAID). The best known of these assessments is the Annual Crop and Food Supply Assessment Mission (ACFSAM). In June and July 2020, FAO and FFSTS examined the impact of COVID-19 on agriculture and agrifood systems using a questionnaire to target about 500 extension staff across 180 localities in 18 states of the Sudan. The results of the assessment report are still being processed by FAO. No project on assessment

49 Strict measures and policies were implemented in big cities particularly in government, NGO and agency workplaces. However, few restrictions and measures have been observed in rural and remote areas, except during the total lockdown, which restricted movement from rural areas to urban centres.
50 Under the Sudan institutional capacity programme (2008-2012), the Sudan Integrated Food Security Information for Action (SIFSIA) was funded by European Union and jointly implemented by the Government of Sudan and FAO.
51 For further information see the FAO project “Greater Stability in Eastern Sudan through better and more Informed Decision Making in Food Security.”
52 An EU-funded project implemented by FAO in close collaboration with the Government of Sudan (FFSTS/ MoANRs).
of impact of COVID-19 on SMEs. The United Nations Industrial Development Organization (UNIDO) can work jointly with FAO, and the Ministry of Commerce and Industry (MoCI) to analyse the impacts of COVID-19 on the country’s economy, particularly the operations of SMEs.

The UNDP has finalized a COVID-19 socio-economic impact assessment (SEIA) in April 2021 in partnership with the Government of Sudan. Key findings have been incorporated in this report.
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The Food and Nutrition Security Impact, Resilience, Sustainability and Transformation programme (FIRST) is a strategic partnership between the European Union and FAO. Through a network of policy officers embedded in government bodies, it works hand in hand with over 22 countries on setting the right conditions to promote both public and private investments in sustainable agriculture and creating an enabling environment for these investments to contribute to achieving food security and nutrition.

Launched by the European Union, FAO and the World Food Programme at the 2016 World Humanitarian Summit, the Global Network against Food Crises is an alliance of humanitarian and development actors united by the commitment to tackle the root causes of food crises and promote sustainable solutions to eradicate hunger and malnutrition through leveraging analysis and knowledge sharing, strengthened coordination in supporting evidence-based policy responses and collective efforts across the Humanitarian, Development and Peace (HDP) nexus.

A joint effort between FIRST with the Global Network has produced assessments on policy responses related to COVID-19 and their impact on agrifood systems in 13 countries. In particular, FIRST brought policy analysis capacities to support the programming priorities of FAO’s Office of Emergencies and Resilience (OER) and the Global Network in these countries; FAO’s OER and the Global Network provided quantitative assessments of the impacts of the pandemic on food security and nutrition.

This document was produced by the FAO representation in the Sudan. The process was led by El Fadil Ismail, FIRST policy officer in the Sudan, with contributions from Elwathig Mukhtar Hamid, and other members of the country programme team, the FIRST management team and the Technical Support Unit of the Global Network against Food Crisis.
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