



Food and Agriculture  
Organization of the  
United Nations

## THE SUDAN

Impact of shocks on livestock inputs, food supply chains  
and livestock livelihoods

DIEM-Monitoring report  
July 2024





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## Abbreviations

<b>ACLED</b>	Armed Conflict Location and Event Data Project
<b>CFSAM</b>	Crop and Food Security Assessment Mission
<b>DIEM</b>	Data in Emergencies Information System
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FCS</b>	food consumption score
<b>FIES</b>	Food Insecurity Experience Scale
<b>GPS</b>	global positioning system
<b>HDDS</b>	household dietary diversity score
<b>IDP</b>	internally displaced persons
<b>IPC</b>	Integrated Food Security Phase Classification
<b>ISDC</b>	International Security and Development Centre
<b>NDVI</b>	Normalized Differential Vegetation Index



## Main results

- > A significant proportion of the livestock input traders (71 percent) encountered shocks in the three months preceding the survey, with unusually high fuel/transport prices dominating the list of shocks (45 percent). Other shocks reported included unusually high food prices (23 percent), movement restrictions (21 percent), theft or looting of business assets and/or products (19 percent), and violence or conflict in the community (16 percent).
- > A sharp decrease in the supply of cereals, grains and pulses – the main staple food – was observed in the Darfur region, while an increase was noted in Port Sudan (Red Sea State), which serves as the formal import channel.
- > A sharp increase in the prices of cereals, grains and pulses was witnessed in various markets including Northern (Ed Damazine), East Darfur (Ad Du'ayn), North Kordofan (Sheikan), Red Sea (Port Sudan and Sinkat), South Darfur (Nyala Shimal), West Kordofan (Al Dibab and Al Fula) and White Nile (Kosti)
- > Access to finance or credit was identified as a critical barrier to the survival and growth of food businesses, with the majority of food traders (76 percent) experiencing difficulties accessing financial services caused by the conflict. A worsening situation of business activities is foreseen by a substantial proportion (60 percent) of traders.
- > Overall, around three-quarters of livestock input traders (71 percent) reported facing a shock in the three months preceding the survey. All surveyed traders (100 percent) in Sennar and South Kordofan, 95 percent in East Darfur, 85 percent in both North Darfur and White Nile, 77 percent in West Kordofan, 75 percent in Red Sea, 68 percent in North Kordofan and 37 percent in South Darfur reported facing a shock.
- > The overwhelming majority of livestock input traders (85 percent) reported facing difficulties operating their business during the three months preceding the survey. All surveyed traders (100 percent) in all states – except for 47 percent in South Darfur, 42 percent in Gedaref, and 19 percent in Sennar and Blue Nile – reported facing a difficulty in the three months preceding the survey.
- > The majority of livestock input traders (85–95 percent) changed their livestock input supply sources in the three months preceding the survey, particularly in Blue Nile, East Darfur, Kassala, North Darfur, Northern, Sennar, South Darfur and West Kordofan. This was mainly triggered by the conflict or insecurity.

Other factors that contributed to the deterioration of the supply system included market closures, increased business risks, reduction in supplies from other localities/abroad, lowered profit margins and demand changes.

- > Over half of the livestock fodder traders, around two-thirds of the veterinary drug traders and around half of the animal feed concentrate traders reported that they cannot meet the quantity and quality of the product's demand.
- > About 17–28 percent of the livestock input traders considered themselves to be at high or very high risk of understocking livestock inputs, particularly in North Darfur, North Kordofan, River Nile, Sennar, South Darfur and White Nile. Twenty-five to 32 percent of them considered themselves at medium risk and 38–45 percent considered themselves at low to very low risk.
- > Compared to the year preceding the survey, there was a sharp increase in the price of livestock fodder, veterinary drugs and animal feed concentrate. The majority of traders projected a high likelihood of a general rise in the prices of livestock inputs across all states in the three months following the survey – attributed to the lean season, the previous poor harvest, reduced imports or decreased inflows from surplus zones.
- > A significant decrease in livestock production levels was observed by the majority of livestock extension officers (about 58 percent) mainly associated with the pasture crisis (reported by 65 percent), and conflict or insecurity (64 percent). Other reasons included lack of veterinary services (vaccination), livestock diseases, water scarcity and lack of livestock inputs.
- > A general surge in livestock prices was reported across the states except in Blue Nile, Gedaref, North Kordofan and West Kordofan.



# Context

## Current context

Armed conflict broke out in the Sudan on 15 April 2023 between the Sudanese Armed Forces and the Rapid Support Forces (ACLED, 2024). In the more than a year since the outbreak of the conflict, over 8.6 million people (UNHCR, 2024) have been forcefully displaced by the war, with 6.8 million people displaced within the country, and 1.8 million who have fled to the Central African Republic, Chad, Egypt, Ethiopia and South Sudan. The armed conflict initially broke out in Khartoum and then spread to other areas, mainly in the Greater Darfur region – Central Darfur, North Darfur, South Darfur, West Darfur and Ed Daein in East Darfur. The conflict has also spread into the Greater Kordofan Region – North Kordofan, South Kordofan and West Kordofan. In December 2023, the conflict spread to Aj Jazira State and intensified in North Darfur, South Kordofan, West Kordofan and White Nile States (IPC, 2024a). In addition to death and injury, the war has resulted in severe damage to livelihoods including looting, extensive damage to infrastructure like schools and health facilities, the collapse of the banking system, and interruptions to electricity and telecommunication networks.

The use of sexual violence as a weapon of war has been widespread, leaving women and girls as the primary victims bearing the brunt of this conflict who continue to be exposed to the risk of sexual and gender-based violence everywhere, including at home and in overcrowded camps (Care, 2024). Reports from West Darfur indicate that thousands of people continue to be killed in what is being described as ethnic cleansing (Human Rights Watch, 2024).

The escalating conflict underpins unprecedented levels of humanitarian needs and acute food insecurity. About 25 million people require humanitarian assistance in 2024 (OCHA, 2024a) and 17.7 million people (37 percent of population) are estimated to be facing Crisis or worse (Integrated Food Security Phase Classification [IPC] Phase 3 and above) acute food insecurity, including 4.9 million people facing Emergency (IPC Phase 4) levels of acute food insecurity. In 2024, 3.66 million children under five and 1.2 million pregnant and lactating women are estimated to be acutely malnourished (IPC, 2024b). The Famine Early Warning Systems Network (FEWS NET) has warned that the country faces a risk of famine in the areas worst hit by conflict including parts of Khartoum and West Darfur, and among the displaced populations in Greater Darfur – particularly around Al Fasher – where there has been a recent escalation in conflict (FEWS Net, 2024a).

The annual average inflation rate increased from about 140 percent in 2022 to about 260 percent in 2023 (FAO, 2024). Cereal prices – which have followed a sustained increasing trend since 2018 due to macroeconomic challenges – have increased at faster rates since the beginning of the conflict, soaring due to insufficient supplies, disruptions to trade flows and the physical destruction of markets. Between March 2023 – immediately before the outbreak of hostilities – and March 2024, prices of domestically produced sorghum and millet, and prices of mostly imported wheat, more than doubled in most monitored markets.

Based on this background, FAO, through the Data in Emergencies Monitoring (DIEM-Monitoring) System, implemented a survey to assess the functionality of markets, the supply and accessibility of food items and livestock inputs, and to identify challenges experienced by livestock keepers and traders. This DIEM-Monitoring assessment, conducted from 25 March to 14 April 2024, covered one or two major markets in each state that were functional at the time of data collection.

## Impact of conflict and insecurity

To understand the ongoing context, the DIEM-Monitoring assessment asked the respondents to identify the impact of the conflict and the groups most affected. A vast majority (85 percent) indicated that children are the group most affected by the conflict. Women (84 percent) and the elderly (77 percent) followed as the next most affected groups.

The most commonly reported impact of the conflict and insecurity included the escalation of prices for food and non-food items (79 percent), and the increased price of fuel (69 percent). Nearly 40 percent reported difficulties accessing vital agricultural inputs such as pesticides, seeds and livestock products.

Table 1. Respondents indicating the impacts of conflict and insecurity on food security and livelihoods

Impact	Number of respondents	Percent (%)
Increased prices of food and non-food items	202	79
Increased price of fuel	176	69
Limited access to agricultural inputs	100	39
Displacement	97	38
Limited physical access to markets	94	37
Increase in banditry and criminality	94	37
Limited access to farmlands	60	24
Restrictions or limits on livestock movements	53	21
Damage to intercommunal relationships	46	18
Destruction of infrastructure (roads, bridges, etc.)	25	10
No impact on food security and livelihoods	19	8
Limited access to fishing grounds	18	7
Other (specify)	0	0
<b>Total</b>	<b>255</b>	

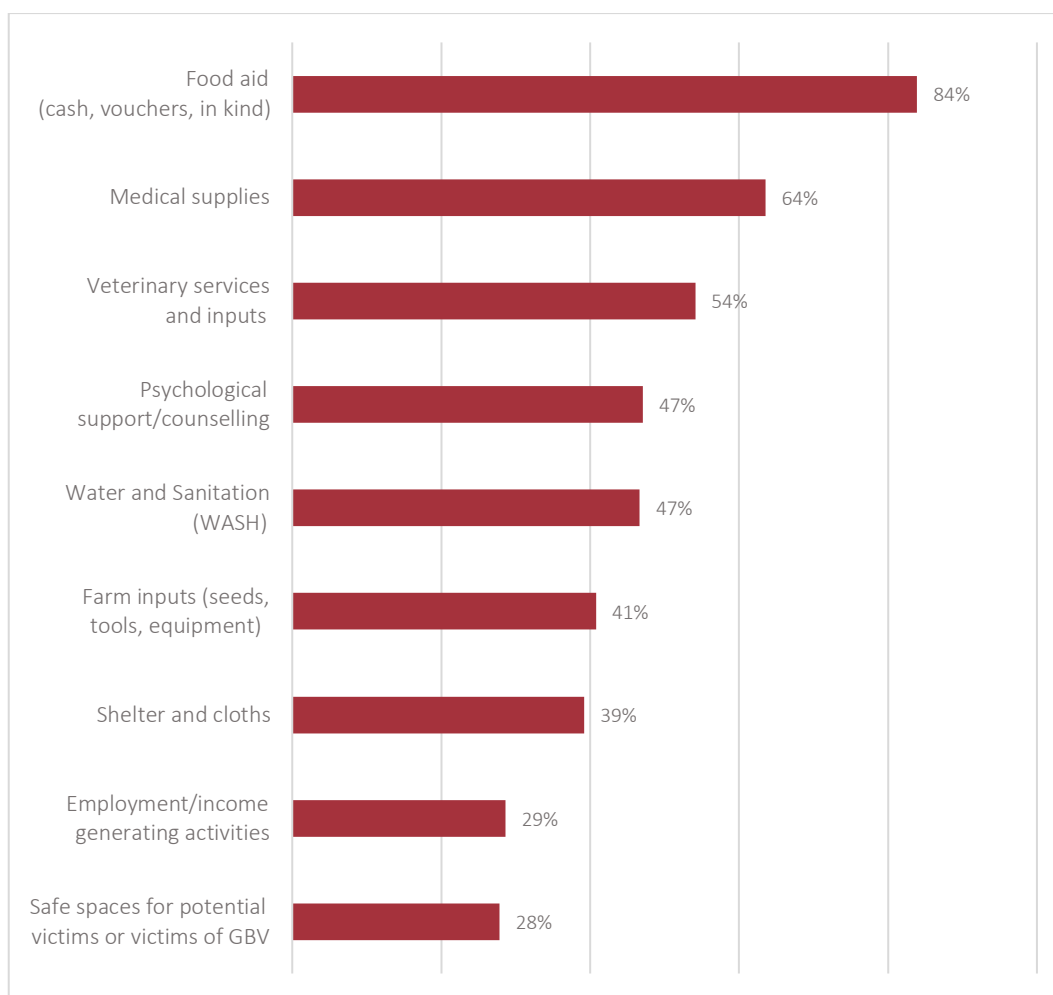
**Source:** FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

**Note:** This was a multiple-choice question and respondents were able to select more than one answer.

When respondents were asked to identify the most pressing needs resulting from the ongoing conflict, food assistance emerged as the most urgent need (84 percent) (Figure 1). Medical supplies (64 percent), veterinary services and inputs (54 percent), psychological support/counselling (47 percent), water and sanitation (47 percent), farm inputs (41 percent), shelter and clothing (39 percent), employment/income generating activities (29 percent), and safe spaces for potential victims or victims of gender-based violence (GBV) (28 percent) were also identified as critical needs.



Figure 1. Urgent needs of the community (percentage of respondents)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

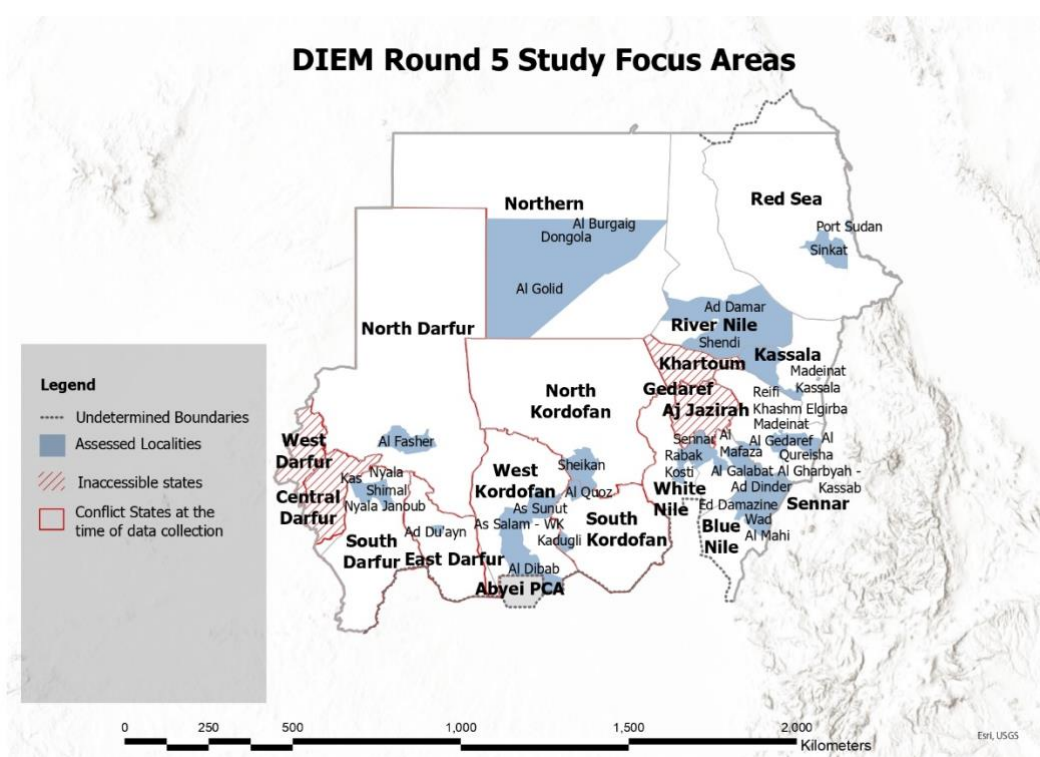
## Assessment objectives

- To assess market availability and access to veterinary drugs, feed and fodder by traders (retailers and wholesalers), and affordability by livestock keepers.
- To assess market availability and access to food items at the market by traders (retailers and wholesalers) and assess if consumers were able to afford food items.
- To identify the challenges experienced by food traders and livestock input traders in their business operations and evaluate the challenges faced by livestock keepers.
- To identify the needs of livestock input and food traders including priority areas of intervention.
- To understand the needs of livestock keepers – in pastoral and agropastoral areas – and optimize productivity through livestock extension officers.

## Methodology

The fifth round of DIEM-Monitoring in the Sudan adopted a qualitative approach through face-to-face surveys. Three separate questionnaires were administered targeting food traders, agricultural input traders and livestock extension officers. The survey covered 14 states: Blue Nile, East Darfur, Gedaref, Kassala, North Darfur, North Kordofan, Northern, Red Sea, River Nile, Sennar, South Darfur, South Kordofan, West Kordofan, and White Nile (Figure 2). The survey was not able to target respondents in Aj Jazirah, Central Darfur, Khartoum, and West Darfur due to active conflict. Data collection took place from 25 March to 14 April 2024.

Figure 2. DIEM study coverage area



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

The final boundary between the Sudan and South Sudan has not yet been determined. Final status of the Abyei area is not yet determined.

One to two localities where major markets were located in each state and at least 20 respondents were targeted per locality. A total of 300 respondents were targeted per tool and 900 key informant interviews (KII) were conducted across each of the three tools, as summarized in the table below.

Table 2. Sample details

Questionnaire	States	Number of localities per state	Sample per locality	Expected sample
Livestock extension officers	14	1 or 2	20	300
Food trader KIIs	14	1 or 2	20	300
Livestock input traders	14	1 or 2	20	302
<b>Total sample</b>				<b>902</b>

Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Overall, 298 (273 male and 25 female) food traders, 302 (235 male and 67 female) livestock input traders and 255 (144 male and 111 female) livestock extension officers were reached. The breakdown of respondents is provided in Annex A of this report.

## General profiles of the three categories of key informants

### Food traders

The food traders' assessment was conducted in the major markets of each state. Most food traders were primarily retailers, with a few wholesalers. The majority operated in daily markets, while a small number sold their products in periodic markets. Out of the 298 food traders interviewed, 273 were male and 25 were female. Most of the food traders were retailers (78 percent), while 20 percent were wholesalers – primarily selling cereals, grains and pulses, meat and eggs. These three food item groups were regarded as the most important traded items by the respondents. Other traded commodities included dairy products, condiments, oils, vegetables, fruit, tubers and roots, fish and forest products.

### Livestock input traders

Overall, 302 traders were interviewed in 14 states of which 78 percent were male and 22 percent were female traders. The most frequently traded input was veterinary drugs (sold by 64 percent of the 302 traders interviewed), followed by animal feed concentrate<sup>1</sup> (37 percent), livestock fodder (26 percent), livestock equipment (15 percent), animal farming tools/equipment (4 percent), and fishing/aquaculture tools and equipment (1–2 percent).

### Livestock extension officers

In April 2024, 255 extension officers were interviewed across 22 localities in 14 states of the Sudan to assess the impact of conflict and other shocks on food security and agricultural livelihoods. Among the key informants, 56 percent (144 respondents) were male and 44 percent (111 respondents) were female. Given the study's focus on the livestock sector, 229 extension officers (90 percent) with expertise in livestock were included from 22 localities across the 14 states.

<sup>1</sup> Animal feed used in the tool referred to fodder (green or dried straw for cattle and other livestock), while animal feed concentrate referred to other feed (powdered/grain/processed).

The survey also included 12 agriculture extension officers (5 percent) from North Darfur, Red Sea and South Kordofan States, and 11 fisheries extension officers (4 percent) from Blue Nile, Gedaref, Northern and River Nile states to provide a more comprehensive picture.

## Limitations

- The livestock input traders survey data provides an indicative picture of the impact of shocks on supply, sales, prices and agricultural livelihoods, considering the current conflict context.
- Considering the small number of the livestock input traders interviewed – particularly for livestock fodder – the findings at state level may not be considered as representative of all traders.
- Data from four conflict affected states – Aj Jazirah, Central Darfur, Khartoum and West Darfur – could not be collected. This assessment, therefore, may not provide a complete and indicative picture of the impact of conflict and security, and other related shocks on traders in those states.
- Lack of sufficient documentation by enumerators of the feedback based on follow-up questions made it difficult to explain or link the findings to some ground causes.

# Main assessment findings

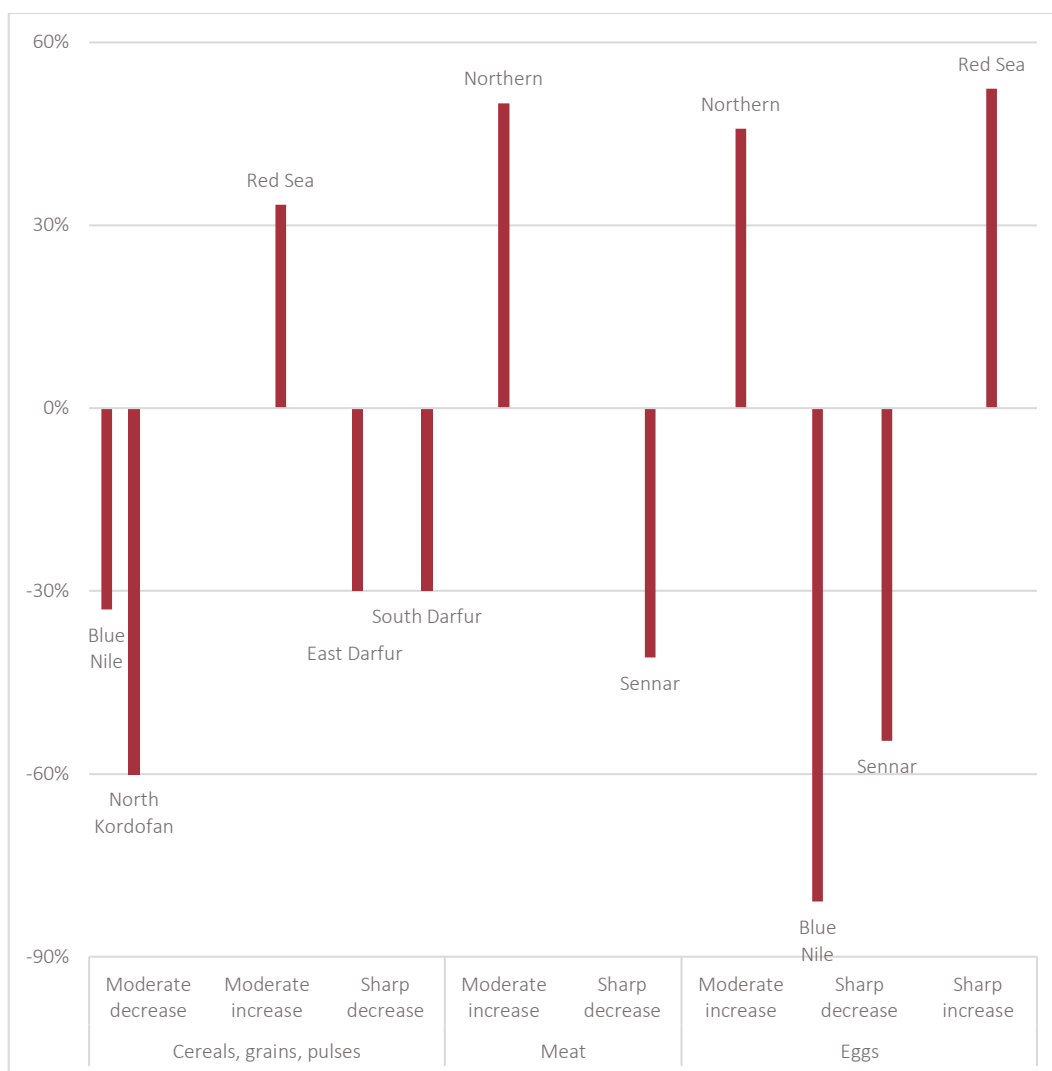
## Food traders

### Supply changes for the most important traded commodities

The main cereals produced in the Sudan include millet, sorghum and wheat. The Crop and Food Security Assessment Mission (CFSAM) outlined that the national cereal production for 2023/24 was 46 percent below that of the previous year and 41 percent below the five-year average of the previous years (FAO, 2024).

In April 2024, the DIEM-Monitoring assessment observed a sharp decrease in the supply of cereals, grains and pulses in South Darfur (Kas locality) and East Darfur (Ad Du'ayn), while a moderate increase was reported in Red Sea (Port Sudan). Meat recorded a sharp decrease in Sennar (Sinja and Sennar) and a moderate increase in both Dongola and Al Burgaig in Northern state (Figure 3). A sharp decrease of eggs was witnessed in Blue Nile (Ar Rusayris and Ed Damazine) and Sennar (Sennar and Sinja); a moderate increase in Northern (Dongola and Al Burgaig); and a sharp increase in Red Sea (Port Sudan and Sinkat). At the Gedaref auction market, the supply of sorghum decreased in April 2024 by 52 percent compared to the previous month. This was partially attributed to the ongoing conflict due to disrupted production and transport of the commodity to the market (WFP, 2024).

Figure 3. Changes in supply of different commodities (percentage of food traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

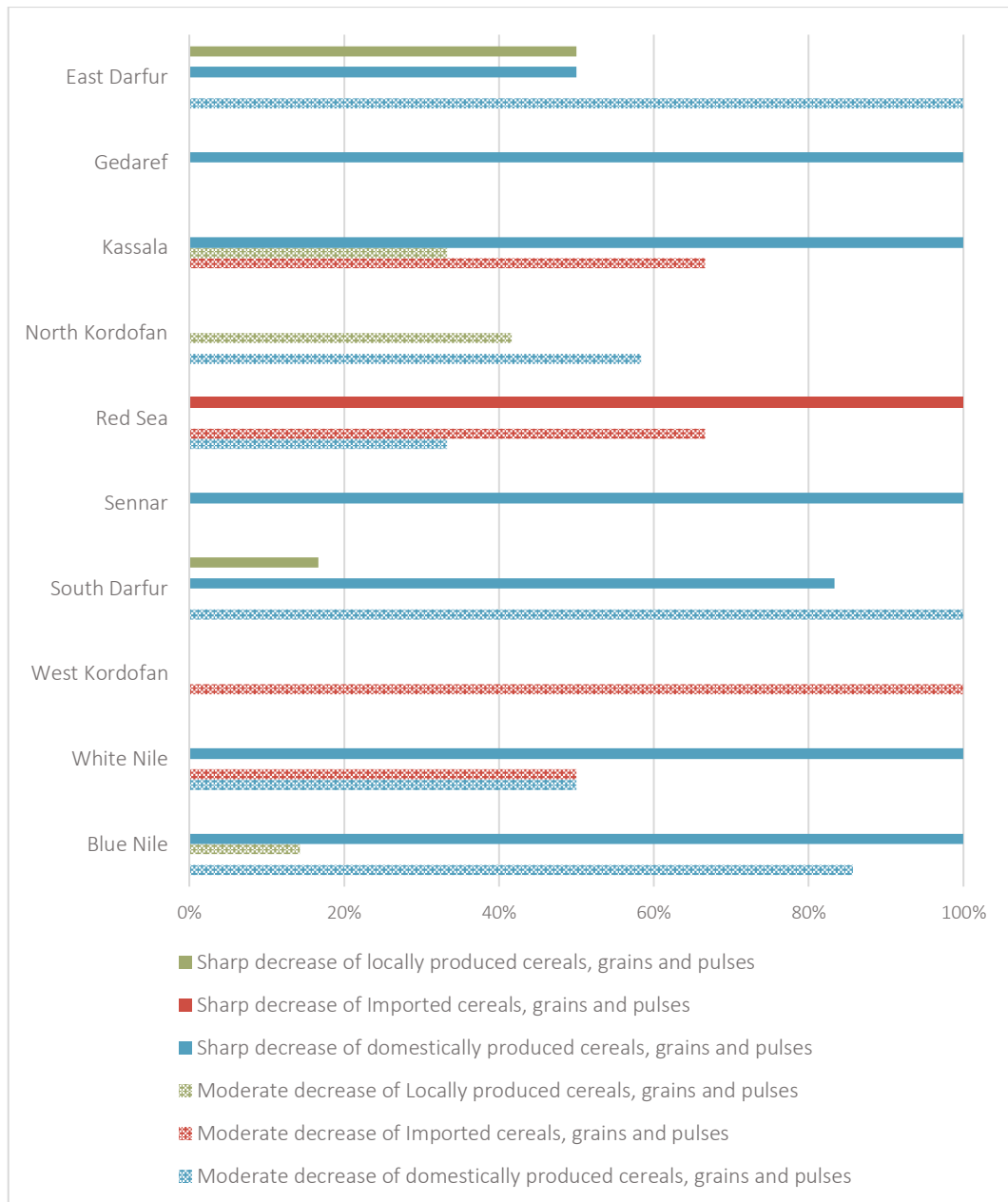
There was a sharp decrease in supply affected domestically produced cereals, grains and pulses (Figure 4),<sup>2</sup> as reported by 35 percent of respondents; locally produced<sup>3</sup> meat (31 percent); and domestically produced eggs (25 percent). A sharp decrease for domestically produced cereals, grains and pulses was largely evident in Blue Nile (Ed Damazine), East Darfur (Al Du'ayn), Gedaref (Madeinat Al), Kassala (Reifi Khashm Elgirba), Sennar (Ad Dinder and Sinja), South Darfur (Kas and Nyala Shimal) and White Nile (Kosti). Imported cereals, pulses and grains sharply decreased in Red Sea (Sinkat), while locally produced cereals, pulses and grains decreased in East Darfur (Ad Du'ayn) and South Kordofan (Al Quoz). A sharp decrease of domestically produced meat was noted in Blue Nile (Ar Rusayris and Ed Damazine), Sennar (Sennar and Sinja), South Kordofan (Al Quoz) and White Nile (Rabak). Locally produced meat sharply decreased in East Darfur (Ad Du'ayn), Gedaref (Al Galabat), North Darfur (Al Fasher), Northern (Dongola), Sennar (Ad Dinder), South Darfur (Nyala Shinal), South Kordofan (Al Quoz)

<sup>2</sup> Domestic production refers to food produced within the country but outside the locality.

<sup>3</sup> Locally produced food commodities are produced within a locality.

and West Kordofan (Al Dibab). Imported eggs sharply decreased in Northern (Al Burgaig), while a sharp decrease of locally produced eggs was recorded in East Darfur (Ad Du'ayn), Kassala (Madeinat Kassala, Reifi Khashm Elgirba), Northern (Dongola) and River Nile (Shendi).

Figure 4. Moderate and sharp decrease of domestically, locally and imported cereals, grains and pulses (percentage of food traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Though there was a decrease of domestically produced cereals, CFSAM findings indicated that the quantity of imported wheat flour increased from 127 000 in 2022 to 206 000 tonnes in 2023 to compensate for the reduced local milling capacity attributed to severe damage to facilities due to the conflict. With the national cereal availability gap from domestic production and imports estimated at two million tonnes, distribution from

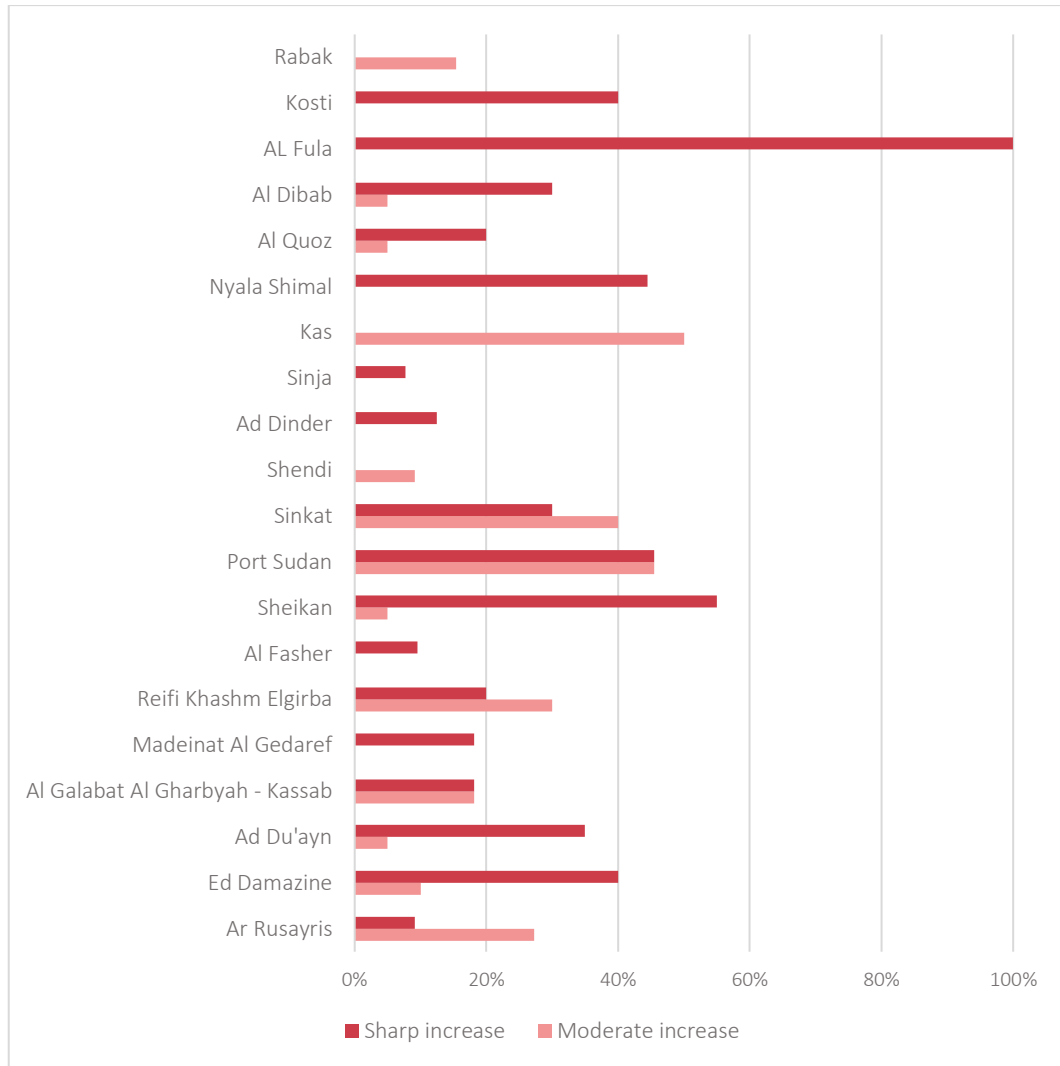
southeastern surplus areas to Greater Darfur and Greater Kordofan deficit areas have been further complicated by conflict-induced movement restrictions. While formal food imports, especially wheat, have been channeled through Port Sudan (Red Sea state), cross-border trade flows have been further hindered by the closure of the border between the Sudan and Chad, and South Sudan's trade restrictions on food and fuel (FEWS Net, 2024a).

There was a slight increase (12 percent) in the price of the World Food Programme's (WFP) local food basket compared to March 2024 and a substantial surge of about 128 percent from the same month of the previous year (WFP, 2024). According to FEWS NET, there was a sharp increase compared to the previous year and the two-year average in the price of sorghum across almost all markets including Dongola market (Northern), Al Fasher (North Darfur), El Obeid (North Kordofan), Geneina (West Darfur), Kadugli (South Kordofan), Om Durman (Khartoum), Nyala (South Darfur) and Port Sudan (Red Sea). Similarly, the price of wheat had a sharp increase across all markets in addition to a sharp increase of millet prices in Dongola (Northern), Al Fasher (North Darfur), El Obeid (North Kordofan), Geneina (West Darfur), Kadugli (South Kordofan), Nyala (South Darfur), Om Durman (Khartoum) and Port Sudan (Red Sea) (FEWS Net, 2024b).

DIEM-Monitoring findings indicated that compared to the same time last year, the prices of cereals, grains and pulses increased sharply in Northern (Ed Damazine), East Darfur (Ad Du'ayn), North Kordofan (Sheikan), Red Sea (Port Sudan and Sinkat), South Darfur (Nyala Shimal), West Kordofan (Al Dibab and Al Fula) and White Nile (Kosti). Prices of meat also increased sharply in Blue Nile (Ar Rusayris and Ed Damazine), Northern (Al Burgaig and Dongola), Sennar (Sennar and Sinja), White Nile (Kosti and Rabak) and Gedaref (Madeinat Al Gedaref). Additionally, prices of eggs sharply increased in Blue Nile (Ar Rusayris and Ed Damazine), Northern (Al Burgaig and Dongola), Red Sea (Port Sudan and Sinkat) and Sennar (Sennar and Sinja). This is illustrated in Figure 5 below.



Figure 5. Moderate and sharp increase in the prices of cereals, grains and pulses (percentage of food traders)



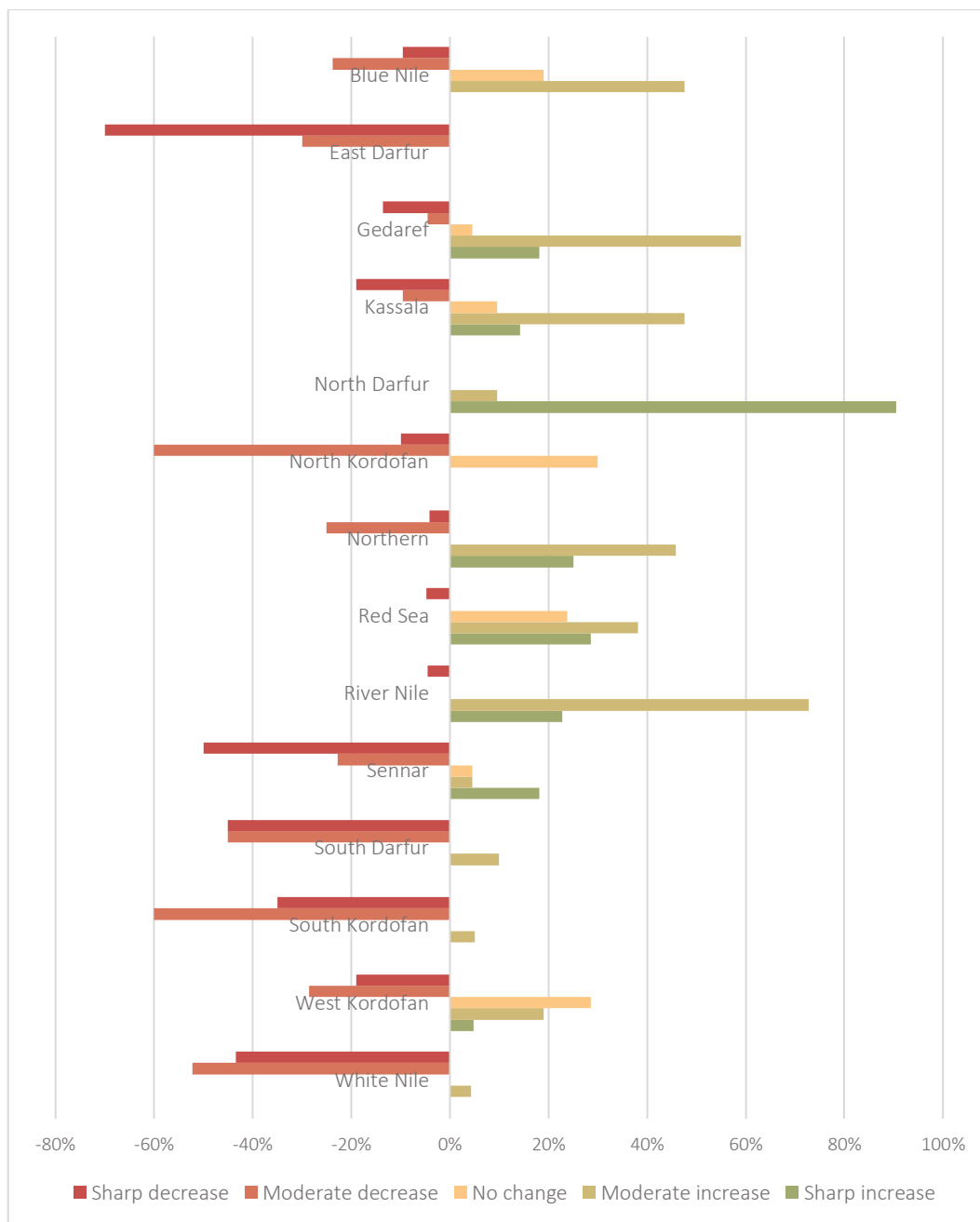
Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

According to CFSAM, the sharpest increases in the price of cereals in 2023 were recorded in the Greater Darfur Region, Greater Kordofan Region and in Khartoum State, where the conflict is more intense.

#### Demand changes for the most important traded food items

Overall, there was a general decrease in the number of customers since the conflict started as reported by 53 percent of food traders. An increase was reported by 39 percent while 8 percent observed no change in the number of clients. As illustrated in Figure 6 below, a sharp decrease in the number of customers was mainly recorded in Ad Du'ayn (East Darfur), Sennar and Sinja (Sennar), Nyala Shimal (South Darfur), Al Quoz (South Kordofan), and Kosti and Rabak (White Nile). A sharp increase in the customer base was witnessed in Al Fasher (North Darfur).

Figure 6. Change in the number of customers since the conflict began (percentage of food traders)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Based on situational monitoring and the contextual situation provided by the field teams, East Darfur became a host state for displaced people from Central, South and West Darfur creating a business opportunity for the Darfur region. Traders, therefore, streamed in to sell their products as the customer base increased. Nyala Shimal in South Darfur was fully operational which allowed traders and customers to sell and buy commodities, respectively. As at April 2024, Blue Nile hosted nearly 150 000 internally displaced persons (IDP), the majority of whom originated from Aj Jazirah and Khartoum States. The rest had been displaced from North Darfur, North Kordofan, Sennar, South Darfur, South Kordofan and White Nile (IOM, 2024). In contrast, East Nile, River Nile and South Darfur were the highest IDP receiving states as at May 2024 (OCHA, 2024b). Some

of the high receiving states of the displaced population observed a decline in the number of customers, which may translate to low purchasing power and dependence on humanitarian food assistance by the displaced populations.

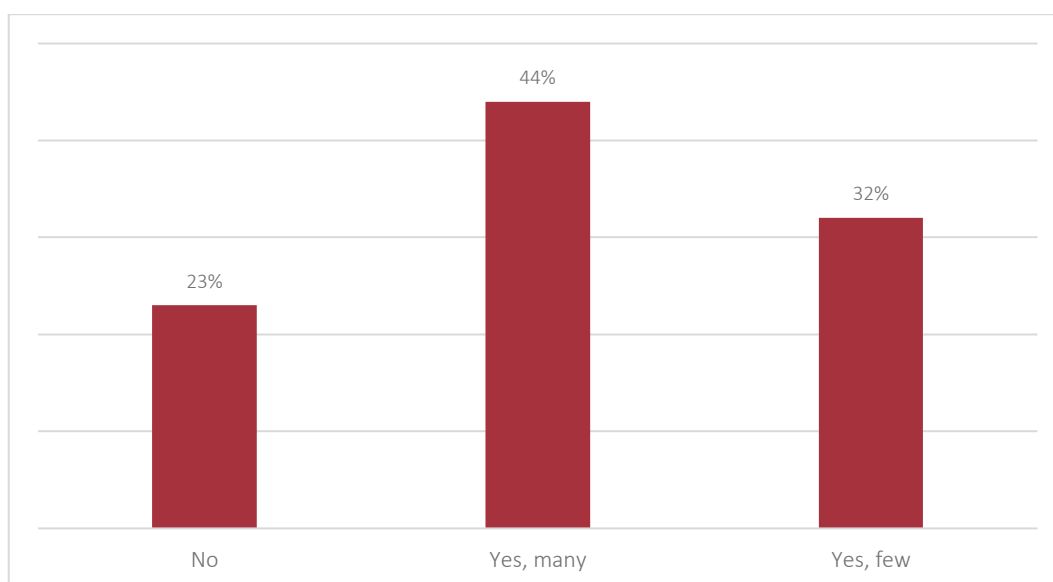
### Transportation challenges

Except for Red Sea and White Nile States, food traders from all other states experienced many challenges while transporting food items. More female traders (64 percent) reported these challenges compared to their male counterparts (47 percent).

### Accessibility of credit by customers and traders

The majority of food traders observed that more customers demanded to acquire food items on credit since the conflict started and they were able to extend this option to their customers. Overall, 44 percent of the food traders encountered numerous difficulties accessing financial and credit services compared to the pre-conflict period, while 32 percent faced only a few challenges and 23 percent reported no challenges at all (Figure 7).

Figure 7. Difficulties experienced accessing financial and credit services postconflict (percentage of food traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Among the 25 female food traders surveyed, the majority (88 percent) reported facing significant challenges accessing credit and financial services compared to the pre-conflict period, while 8 percent reported encountering only a few challenges. In contrast, 36 percent of the male food traders reported similar challenges, with 40 percent reporting only a few.

Challenges accessing financial and credit services were reported across all localities except in Kassala (Madeinat Kassala), Red Sea (Sinkat) and Sennar (Ad Dinder). Consequently, many traders had to adapt by changing the products they traded, or adjusting their supply and marketing channels. Some observed a slowdown in business activity in Blue Nile (Ar Rusayris and Ed Damazine), Northern (Al Burgaig) and Sennar

(Sennar and Sinja), while others were forced to close their businesses in Kassala (Madeinat Kassala) and North Darfur (Al Fasher). It is important to note that the banking system was not operational in most areas of Greater Darfur and Greater Kordofan creating significant challenges for business owners in accessing financial services or credit. Additionally, the requirements for collateral and formal documentation to obtain financing were particularly challenging for women, the majority of whom were unable to meet these conditions.

Although the majority of food traders indicated that they expected to face more difficulties in terms of market supply and food sales in the three months following the survey, they did not anticipate shutting down their businesses.

The three main urgent needs pointed out by the food traders to sustain their businesses included peace and stability, increased supplies and financial support. The need for peace and stability was mostly reported in Blue Nile, North Darfur, South Darfur, River Nile, Sennar, North Kordofan and West Kordofan, while the need for supplies was mainly expressed in East Darfur (Ad Du'ayn), Gedaref (Madeinat Al Gedaref), Red Sea (Port Sudan and Sinkat), South Darfur (Kas), South Kordofan (Al Quoz) and White Nile (Kosti and Rabak).

## Livestock input traders

### Geographic locations and status of business

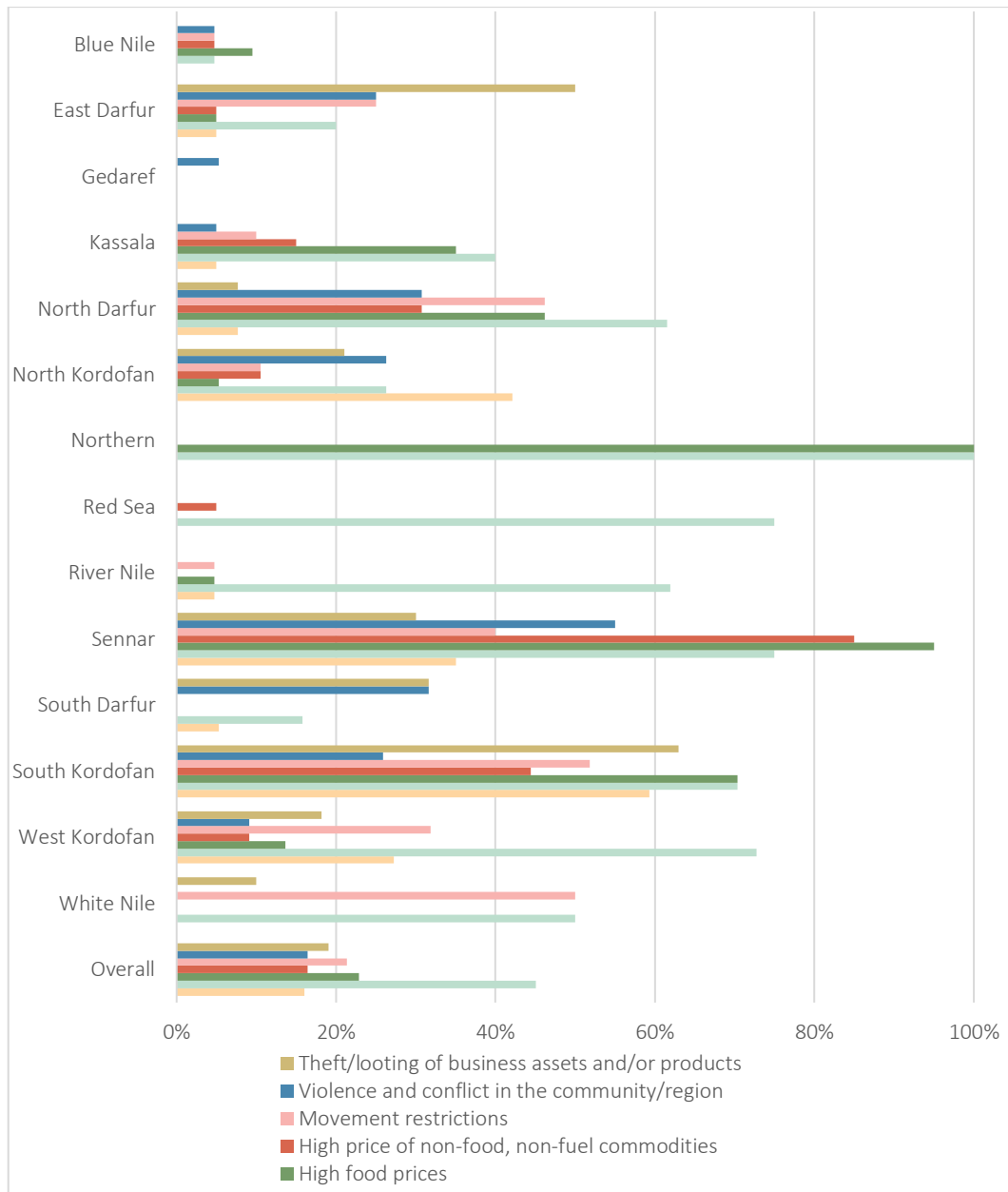
In the case of geographic locations of the traders interviewed, between 4 and 7 percent of the livestock input traders were interviewed in 13 states, whereas, in South Kordofan, around 14 percent of the traders were interviewed. Gender differences by type of livestock inputs sold were more pronounced for veterinary drugs, livestock tools/equipment and animal farming tools/equipment (more female traders sold these inputs compared to male traders). Almost all (98 percent) traders reported that their businesses remained opened over the month preceding the survey. Around one-tenth (8 percent) of the traders had moved from other states and the main reasons for leaving their original states were conflict (57 percent), loss of business means (22 percent), non-operational markets and non-functioning financial institutions (9 percent each), and other reasons (17 percent). Around 63 percent of the interviewed traders started their businesses more than three years before the survey, 27 percent in the 1–3 years preceding the survey and 10 percent in the 12 months preceding the survey.

### Shocks and difficulties faced by livestock input traders

Overall, 71 percent of traders reported facing a shock during the three months preceding the survey. All surveyed traders (100 percent) in Sennar and South Kordofan, 95 percent in East Darfur, 85 percent in North Darfur and White Nile, 77 percent in West Kordofan, 75 percent in Red Sea, 68 percent in North Kordofan and 37 percent in South Darfur reported facing a shock in the three months preceding the survey. Overall, the main shocks faced by traders were unusually high fuel/transport prices (45 percent), followed by unusually high food prices (23 percent), movement restrictions (21 percent), theft/looting of business assets and/or products (19 percent), violence and conflict in

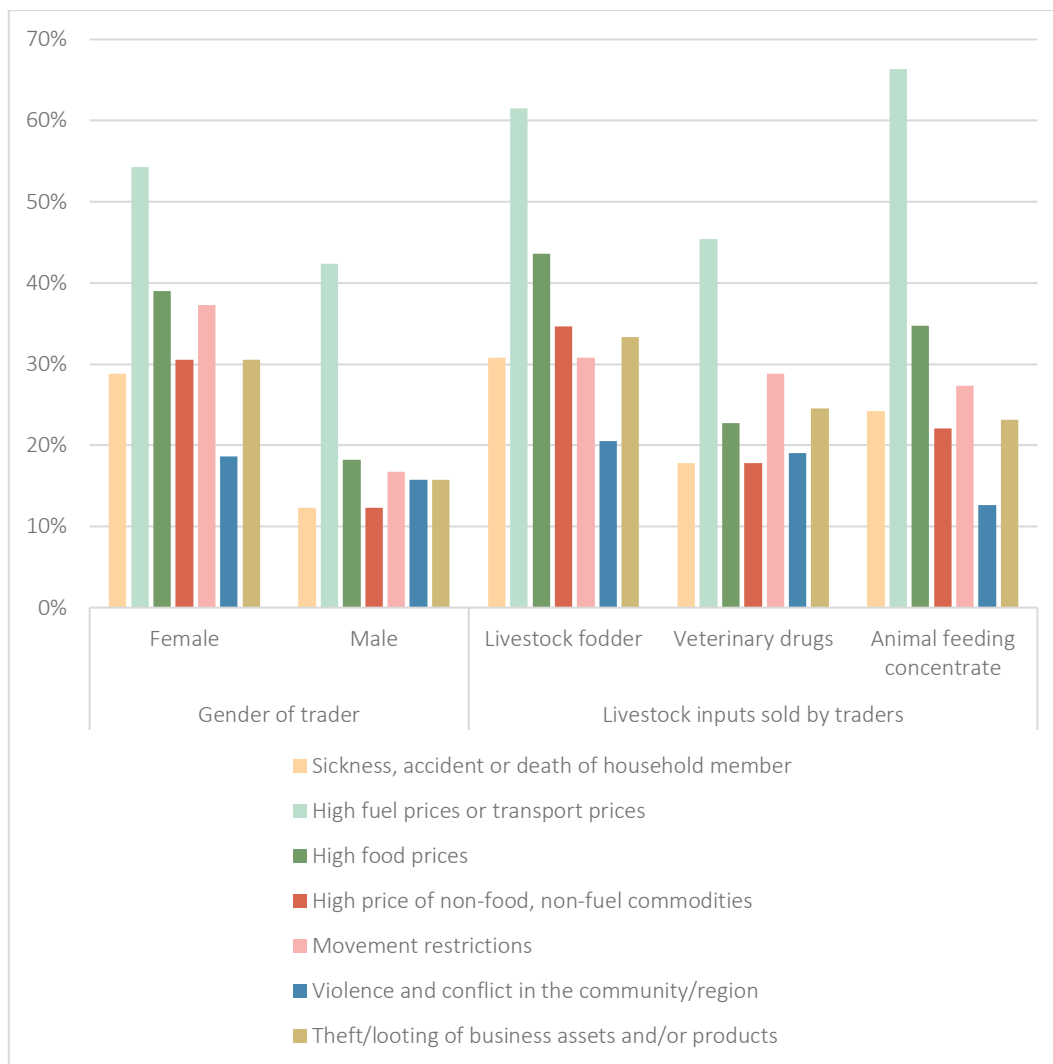
community/region (16 percent), unusually high prices of non-food/non-fuel commodities, sickness, accident or death of household member(s) (16 percent), and sickness of self (13 percent) (Figure 8). Female traders were slightly more likely (80 percent) to face a shock compared to male traders (69 percent) (Figure 9).

Figure 8. Main shocks faced during the three months preceding the survey (percentage of livestock input traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Figure 9. Main shocks faced during the three months preceding the survey by gender of trader and types of livestock inputs sold (percentage of livestock input traders)



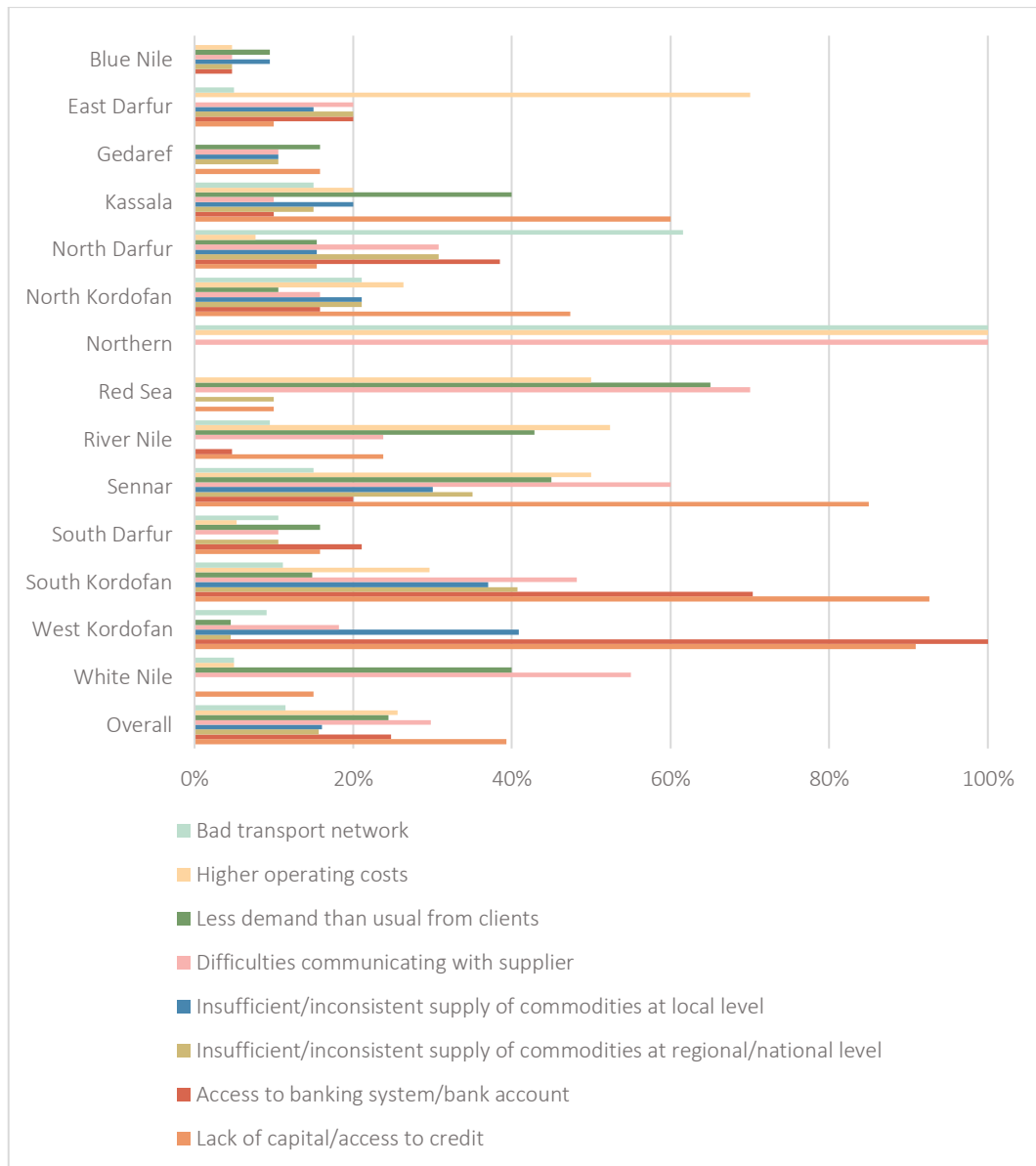
Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Across states, movement restrictions were reported mostly in South Kordofan, White Nile, North Darfur, Sennar, West Kordofan and East Darfur; violence and conflict in community/region were mostly reported in Sennar, North Darfur, South Darfur, South Kordofan and East Darfur; and theft/looting of business assets and/or products was reported mostly in South Kordofan, East Darfur, South Darfur, Sennar, North Darfur, Sennar, North and West Kordofan states.

Overall, the overwhelming majority of traders (85 percent) reported facing difficulties operating their business during the three months preceding the survey. All surveyed traders (100 percent) in all states, except 47 percent in South Darfur, 42 percent in Gedaref and around 19 percent in Blue Nile and Sennar, reported facing a difficulty during the three months preceding the survey. Overall, the main difficulties faced by traders were lack of capital/access to credit (including bank loans) (39 percent) followed

by difficulties communicating with suppliers (30 percent), higher operating costs<sup>4</sup> (26 percent), less demand than usual from clients (25 percent), lack of access to banking system/bank account (25 percent), insufficient/inconsistent supply of commodities at regional, national and local levels (16 percent each), bad transport network (11 percent) and market closure where business is operated (10 percent) (Figure 10).

Figure 10. Main difficulties faced during the three months preceding the survey (percentage of livestock input traders)



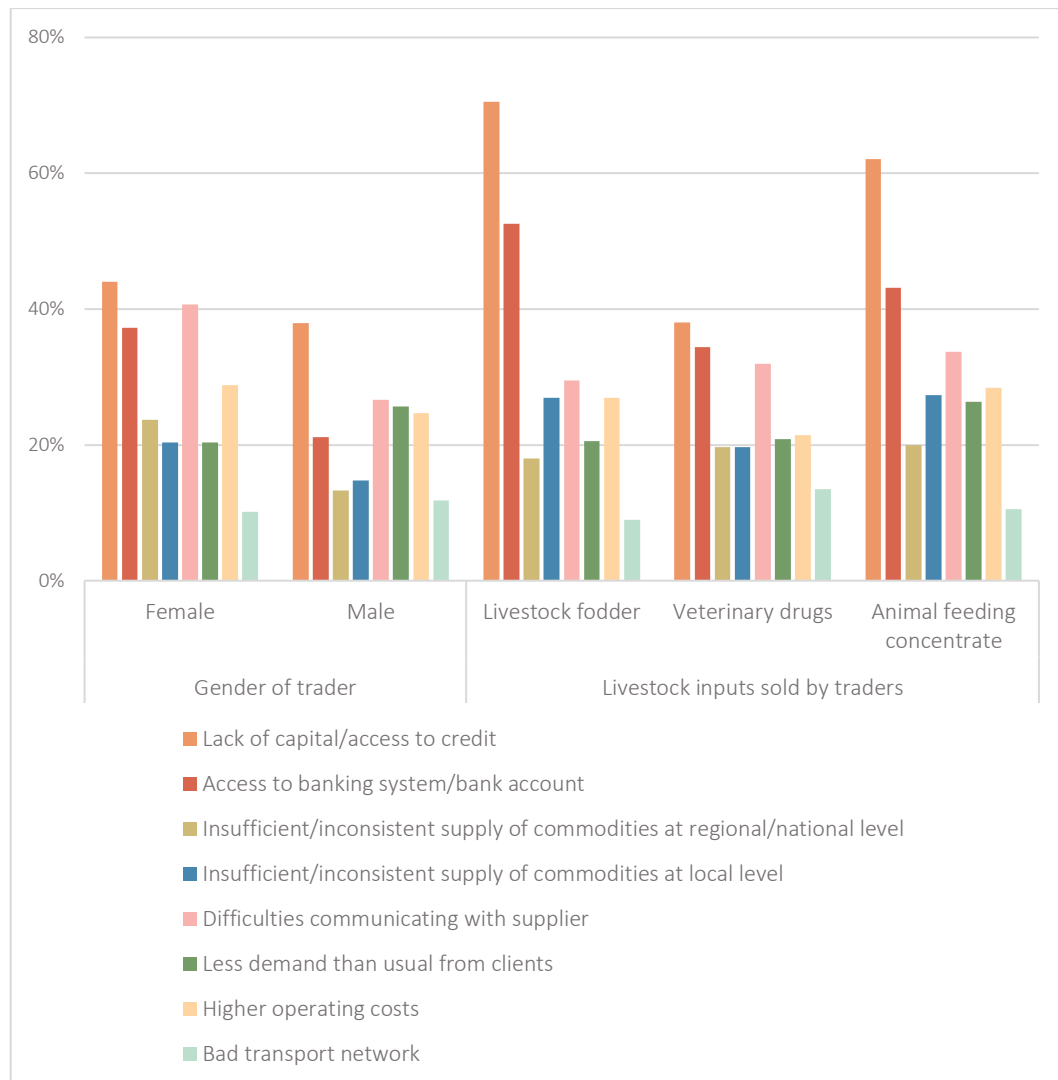
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Overall, female traders were slightly more likely (90 percent) to face difficulties than male traders (83 percent) (Figure 11). Lack of access to banking system/bank account, communicating with suppliers and higher operating costs were the prominent reasons.

<sup>4</sup> Due to higher fuel price, electricity price, business license costs, transport costs and more costs to ensure security, for example.

Across states, lack of capital/access to credit (including bank loans) was mostly reported in Kassala, North Kordofan, River Nile, Sennar, South Kordofan and West Kordofan; higher operating costs were reported mostly in East Darfur, Kassala, North Kordofan, Red Sea, River Nile, Sennar and South Kordofan; less demand than usual from clients was mostly reported in Kassala, Sennar, Red Sea, River Nile and White Nile; and insufficient/inconsistent supply of commodities at local level was mostly reported in East Darfur, Kassala, North Kordofan, Sennar, South Kordofan and West Kordofan.

Figure 11. Main difficulties faced by gender of trader and types of livestock inputs sold during the three months preceding the survey (percentage of livestock input traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Supply sources of livestock fodder, animal feed concentrate and veterinary drugs

In the case of livestock fodder, the majority of traders reported own production (58 percent) followed by supplies from farmers within the locality (46 percent), traders within the locality (26 percent), farmers’ supplies from outside the locality (22 percent) and traders supplying from other localities within the country (14 percent).



Own production was the most important source of supply for female livestock fodder traders (90 percent), whereas farmers within locality were the main suppliers for male traders (56 percent).

Overall, 22 percent of livestock fodder traders reported a change in their most important supply source during the three months preceding the survey, mostly male traders compared to females, and those that faced shocks and difficulties during the three months preceding the survey, compared to those that did not face them.

Ninety-four percent of traders reported farmers within the locality as their previous, most important source of supply of fodder, followed by own production (82 percent), traders within the locality (59 percent), farmers supplying from outside the locality (41 percent) and traders supplying from other localities within the country (6 percent).

The analysis revealed that, except for traders receiving supplies from other localities within the country, a reduction in current supply sources was reported by traders for all other sources, attributed to a lack of data on current supply sources from three states – East Darfur, South Darfur and White Nile.

For veterinary drugs, traders supplying from other localities within the country were the most reported supply source (56 percent), followed by traders within locality (39 percent), traders in other countries (16 percent), own production (12 percent) and other sources (8 percent).

Traders within localities were the most important source of supply for female traders (36 percent), whereas traders in other localities within the country were the main suppliers for male traders (66 percent).

Overall, 46 percent of veterinary drug traders reported a change in their most important supply source during the three months preceding the survey, particularly in West Kordofan (100 percent), Northern (86 percent), East Darfur (85 percent), South Darfur (74 percent), Sennar (64 percent), River Nile (60 percent), and North Darfur and Kassala (56 percent each). Slightly more male traders reported a change in their most important source compared to females, and those who faced shocks and difficulties in the three months preceding the survey compared to those who did not face them.

The previously mentioned most important source of supply of veterinary drugs for traders was traders supplying from other localities within the country (76 percent) followed by traders within district (38 percent) and traders in other countries (32 percent).

The analysis above indicated a substantial reduction in reporting of supplies from other localities within the country and traders in other countries as their supply source at the time of the survey. This may be due to the ongoing conflict, violence and the security situation in the country that has had an adverse impact on the supply of veterinary drugs from traders in other localities within the country and traders in other countries.

In the case of animal feed concentrate, traders supplying from other localities within the country were the most reported supply source (41 percent), followed by farmers within locality (32 percent), traders within locality (30 percent), own production (29 percent) and farmers outside locality (15 percent).

Own production was the most important source of supply for female traders (81 percent), whereas traders in other localities within the country were the main suppliers for male traders (47 percent).

Overall, 30 percent of animal feed concentrate traders reported a change in their most important supply source during the three months preceding the survey, mostly by male traders compared to female. This was reported mostly by traders who faced shocks and less by traders who faced difficulties compared to those that did not face them.

The previous most important sources of supply of animal feed concentrate for traders were farmers within localities and traders within district (as reported by 52 percent of traders, each) followed by traders supplying from other localities within the country (42 percent), own production (24 percent) and farmers outside the locality (12 percent).

Therefore, there was a substantial reduction in reporting the supply of animal feed concentrate from farmers within a locality and traders within locality as supply sources, and a slight increase in reporting of own production and farmers outside a locality.

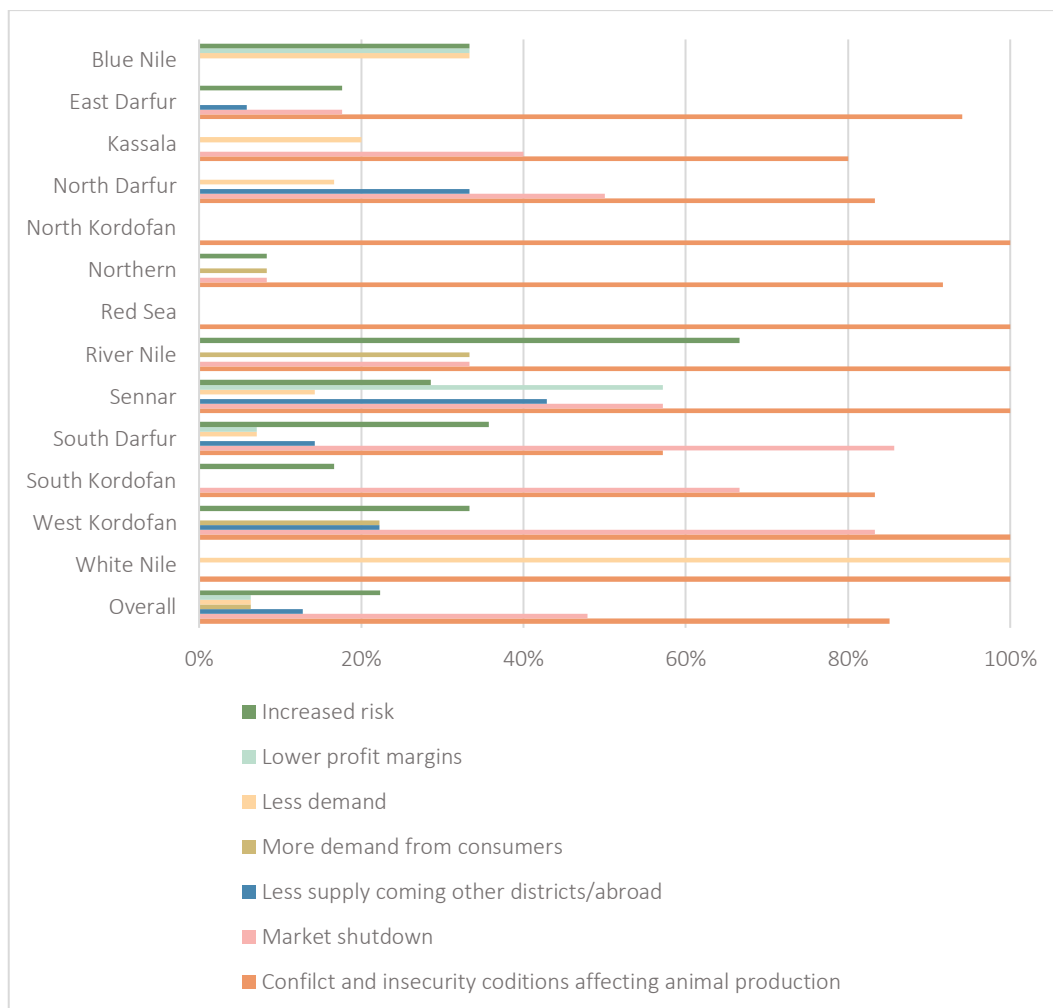
#### Most important reasons for change in supply sources

Overall, the most important reason for change in the supply sources of livestock inputs was conflict and insecurity conditions affecting animal production, (85 percent of traders), followed by market shutdown (48 percent), increased risk<sup>5</sup> (23 percent), less supply coming from other localities/abroad (13 percent), lower profit margin (7 percent), less demand and more demand (6 percent, each) (Figure 12).

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<sup>5</sup> Increased risk for business, risk of lower demand/sales, risk of not receiving the desired supplies from a particular source, etc.

Figure 12. Most important reasons for change in supply source (percentage of livestock input traders)

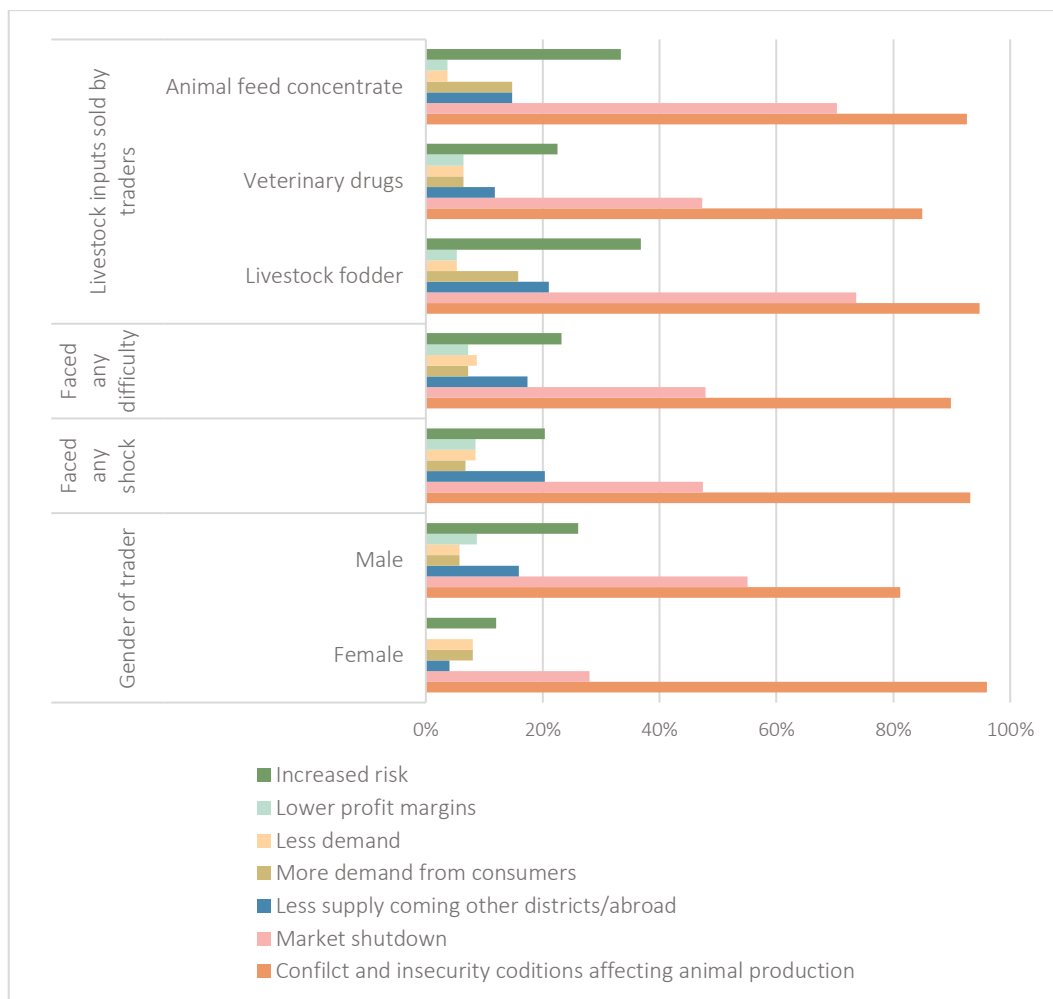


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders were more likely to report conflict and insecurity affecting animal production (96 percent) compared to males (81 percent) as the most important reason for change in supply source. Likewise, traders who faced any shock or difficulty were substantially more likely to report conflict and insecurity affecting animal production compared to those that did not face them.

In the case of livestock fodder, veterinary drugs and animal feed concentrate traders, between 85 and 95 percent cited conflict and insecurity affecting animal production as the most important reason for change in supply source, followed by market shutdowns (47–74 percent), increased risk (23–37 percent), less supply coming from other districts/abroad (12–21 percent), lower profit margin (4–6 percent), less demand (4–7 percent, each) and more demand (7–16 percent) (Figure 13).

Figure 13. Most important reason for change in supply source by gender of trader, any shock or difficulty faced, and type of livestock input sold (percentage of livestock input traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Expected change of most important sources of supply in the three months following the survey

Traders were also asked if they plan to change their most important supply source in the three months following the survey. Overall, 70 percent of the traders, particularly 80–90 percent in Blue Nile, Gedaref, North Darfur, North Kordofan, Red Sea, Sennar and White Nile, did not have any plan to change their most important supply source. No gender difference was found for changing the most important supply source in future. However, traders who faced any shock or difficulty were less inclined to change their most important supply sources compared to those who did not face any shock or difficulty. Between 65 and 73 percent of livestock fodder, veterinary drugs and animal feed concentrate traders, respectively, did not plan to change the most important supply source at the time of survey.

### Expectation about sufficient supply of livestock fodder in the three months following the survey

Merely 20 percent of traders expected sufficient supply of livestock fodder in the three months following the survey, around one-third did not expect sufficient supply and almost half (46 percent) did not know about their supply sufficiency in the near future (Figure 14). The most important reasons for not having sufficient supply of livestock fodder in the three months following the survey as reported by traders were conflict and insecurity (26 percent), bad harvest from the previous season (21 percent), transportation issues (6 percent), finance issues (5 percent) and less demand (3 percent).

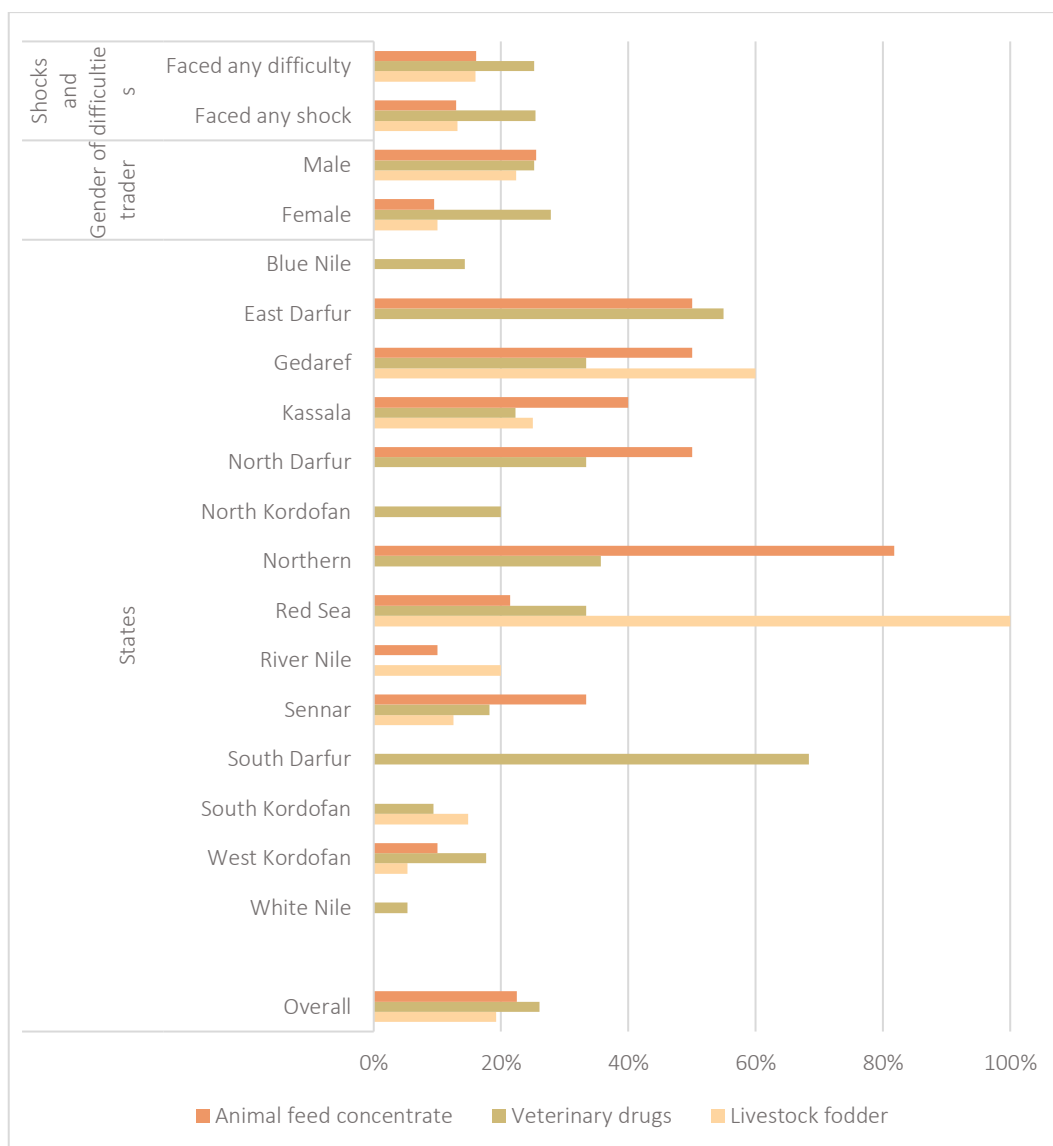
### Expectation about sufficient supply of veterinary drugs in the three months following the survey

Around one-fourth (26 percent) of the traders expected sufficient supply of veterinary drugs in the three months following the survey, 41 percent did not expect sufficient supply and 33 percent did not know about their supply sufficiency in the near future (Figure 14). The most important reasons for not having sufficient supply of veterinary drugs in the three months following the survey as reported by traders were the insecurity situation (47 percent), halting of production by local companies (24 percent), transportation issues (9 percent) and financial issues (4 percent).

### Expectation about sufficient supply of animal feed concentrate in the three months following the survey

About a quarter (23 percent) of traders expected sufficient supply of animal feed concentrate in the three months following the survey, 37 percent did not expect sufficient supply and 41 percent did not know about their supply sufficiency in the near future (Figure 14). The most important reasons for not having sufficient supply of animal feed concentrate in the three months following the survey as reported by traders were the ongoing conflict (25 percent), low local production (18 percent), high transportation costs (12 percent), effects of the rainy season (11 percent) and bad harvest from the previous season (5 percent).

Figure 14. Expectation that there will be sufficient supply of livestock inputs in the three months following the survey (percentage of livestock input traders with a yes response)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Livestock input sources that might be affected in the three months following the survey

Overall, 41 percent of the surveyed traders reported that the supply of locally produced (from within localities) livestock inputs might be affected in the three months following the survey, 22 percent reported that the supply of imported inputs might be affected, 19 percent reported that the supply of domestically produced (within country but outside of the locality) inputs might be affected and 22 percent stated that they did not know how the supply might be affected.

## Sales and demand of livestock inputs

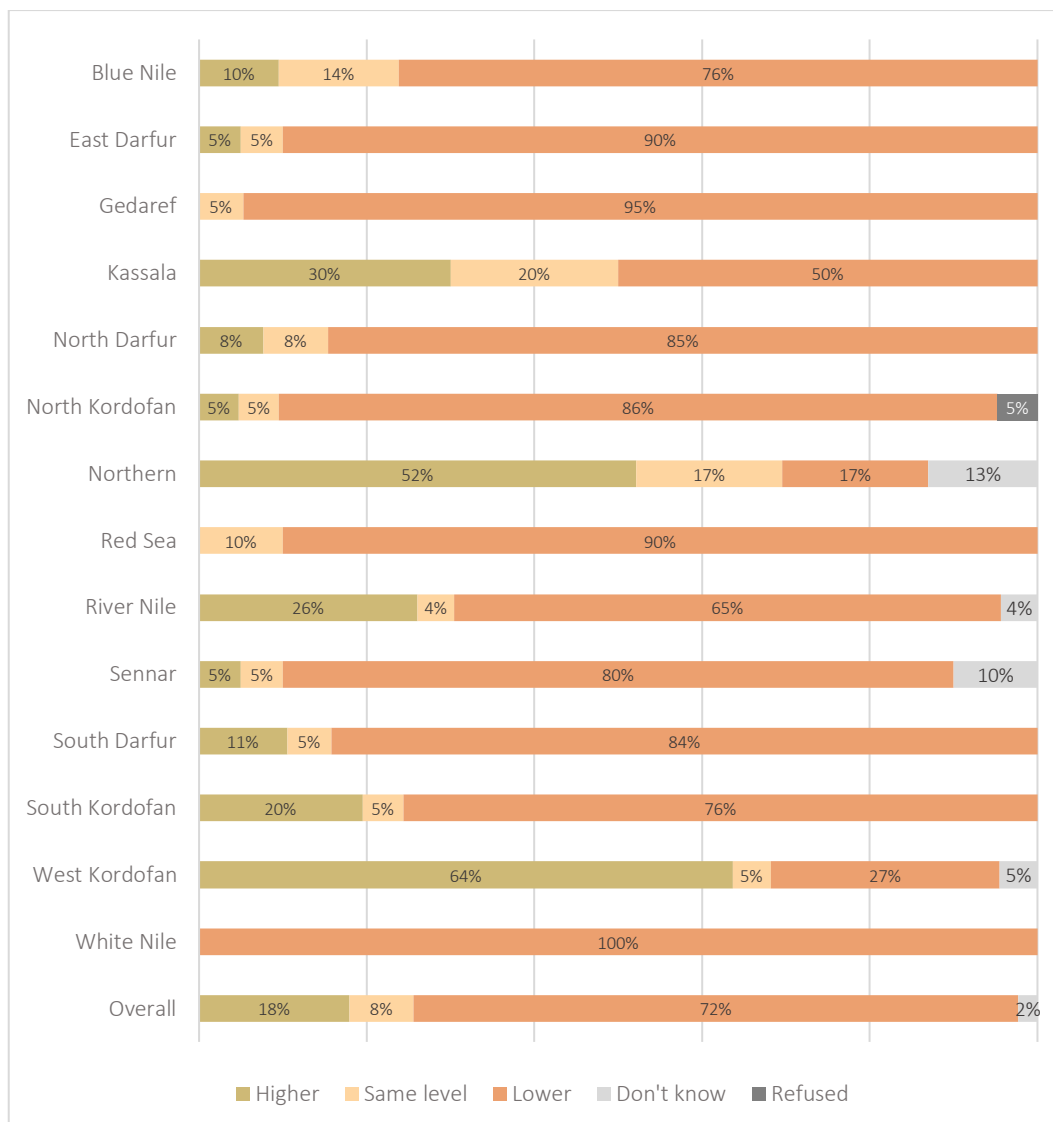
### Main clients for livestock input traders

The most important clients for traders were individual animal breeders as reported by 71 percent of interviewed traders, followed by pastoralists (45 percent), groups of animal breeders (38 percent), agropastoralists (22 percent) and other livestock input dealers (8 percent). Female traders were more likely than male traders to report individual animal breeders as their main clients.

### Change in the number of customers

On average, during the three months preceding the survey, 103 customers bought animal feed concentrate, 68 bought veterinary drugs and 52 bought livestock fodder. Female traders sold livestock fodder to more customers compared to male, whereas veterinary drugs and animal feed concentrate were sold more by male traders than female. The average number of weekly customers was positively associated with the duration of the business. The older the business, the more likely it was to attract customers irrespective of the type of main input mentioned above. In comparison to the number of customers over the same period in the year preceding the survey, around three-fourths of traders (72 percent) reported that their customers reduced, most likely due to the conflict and security situation which led to mass displacement and economic shocks. Eighteen percent reported an increase in customers, 8 percent reported no change and the remaining 2 percent either refused to answer or did not know (Figure 15). Across states, a reduction in the number of customers was reported mostly in Blue Nile, Gedaref, East Darfur, North Darfur, North Kordofan, Red Sea, River Nile, Sennar, South Darfur, South Kordofan and White Nile. In these states, between 65 and 100 percent of surveyed traders reported a reduction in the number of customers compared to the same period in the year preceding the survey.

Figure 15. Change in the number of customers (percentage of livestock input traders)

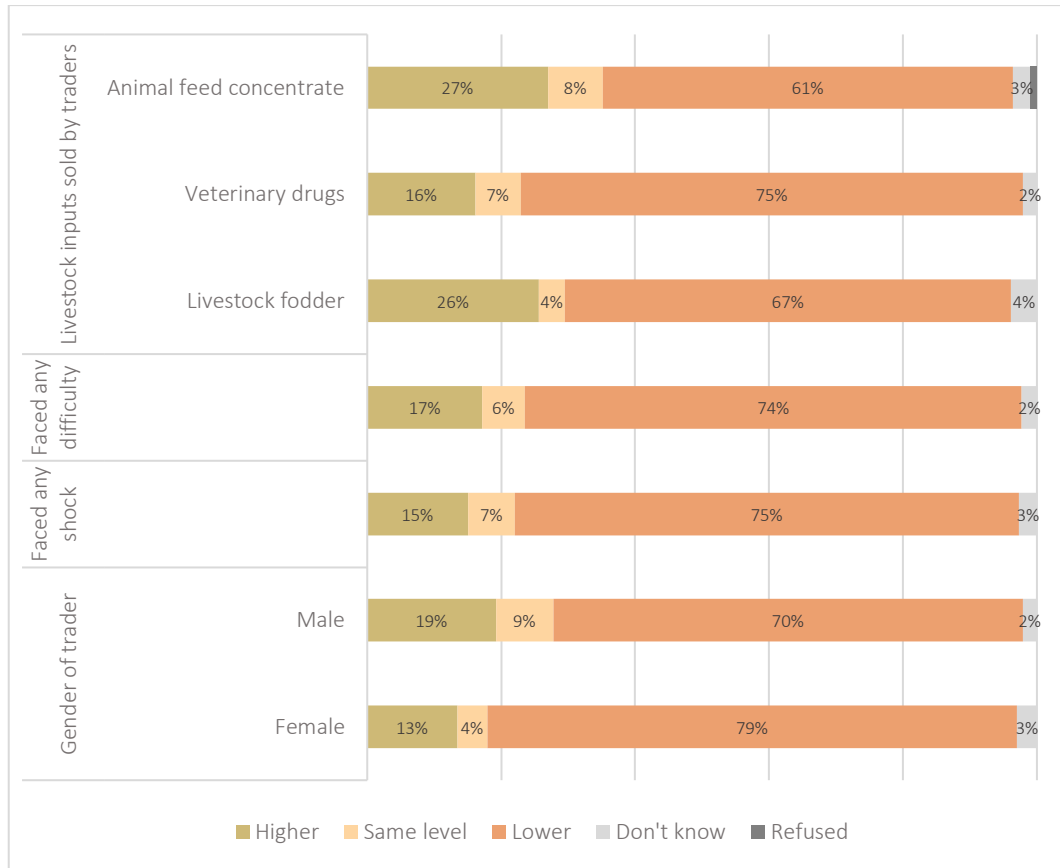


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders were slightly more likely than male traders to report a reduction in the number of customers over the one-year reference period. Facing any shock or difficulty has impacted the number of customers substantially less as a slightly lower percentage of traders facing any shock or difficulty reported a reduction in the number of customers compared to their counterparts. Further, 66 percent of livestock fodder traders, 61 percent of animal feed concentrate traders and 75 percent of veterinary drug traders reported a reduction in the number of customers, possibly due to seasonal variations and the quality of inputs sold by the traders (Figure 16).



Figure 16. Change in the number of customers by gender of trader, shock or difficulty faced, and type of livestock inputs sold (percentage of livestock input traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Change in sales volume of livestock fodder

A significant decrease in the sales volume of livestock fodder was reported by half of the surveyed livestock fodder traders compared to the same period before the conflict, whereas one-fifth reported a slight decrease in sales volume, adding-up to almost three-quarters (72 percent) of traders who reported a decrease in sales volume. Substantially more female traders and slightly more traders who faced any shock reported a significant decrease in sales volume compared to their counterparts over the reference period (Figure 17).

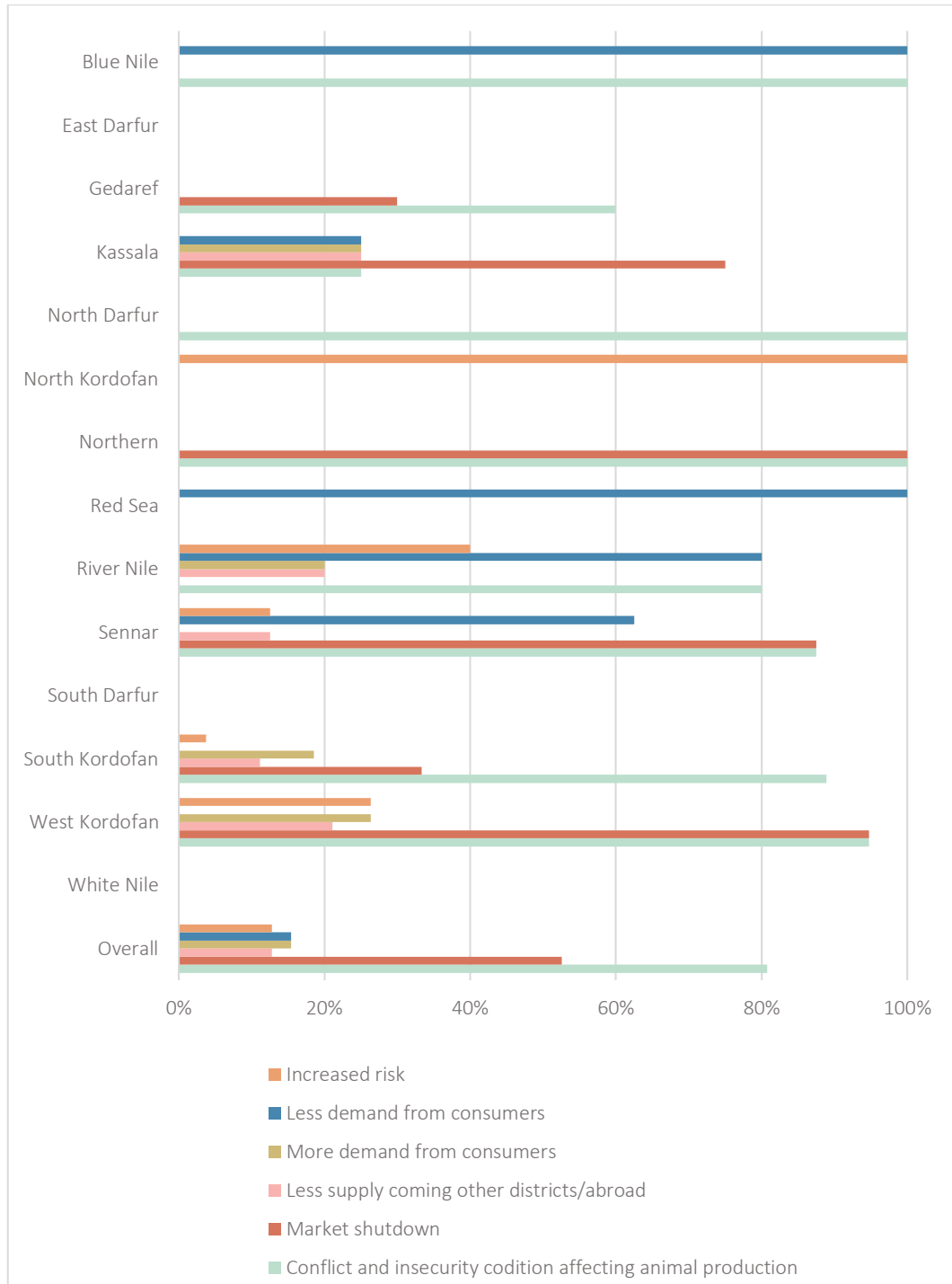
Figure 17. Change in the sales volume of livestock fodder (percentage of livestock fodder traders)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

The most important reasons for a change in sales volume of livestock fodder, as reported by surveyed traders, were conflict and insecurity conditions affecting animal production (81 percent), followed by market shutdown (53 percent), less demand and more demand (15 percent each), less supply coming from other localities/abroad (13 percent) and increased risk (13 percent) (Figure 18).

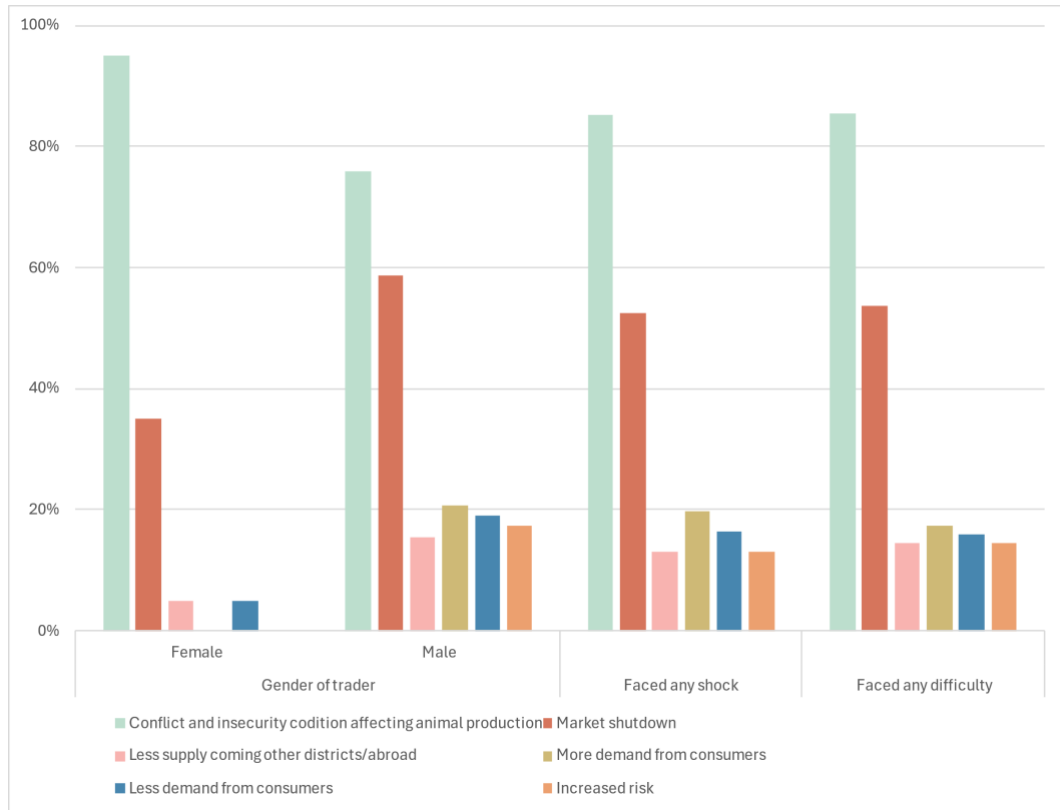
Figure 18. Most important reasons for the change in sales volume of livestock fodder (percentage of livestock fodder traders)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders and those who faced any shock or difficulty were substantially more likely to report conflict and insecurity conditions affecting animal production as the most important reason for change in sales volume of livestock fodder compared to their counterparts (Figure 19).

Figure 19. Most important reasons for the change in sales volume of livestock fodder by gender of trader, and any shock or difficulty faced (percentage of livestock fodder traders)

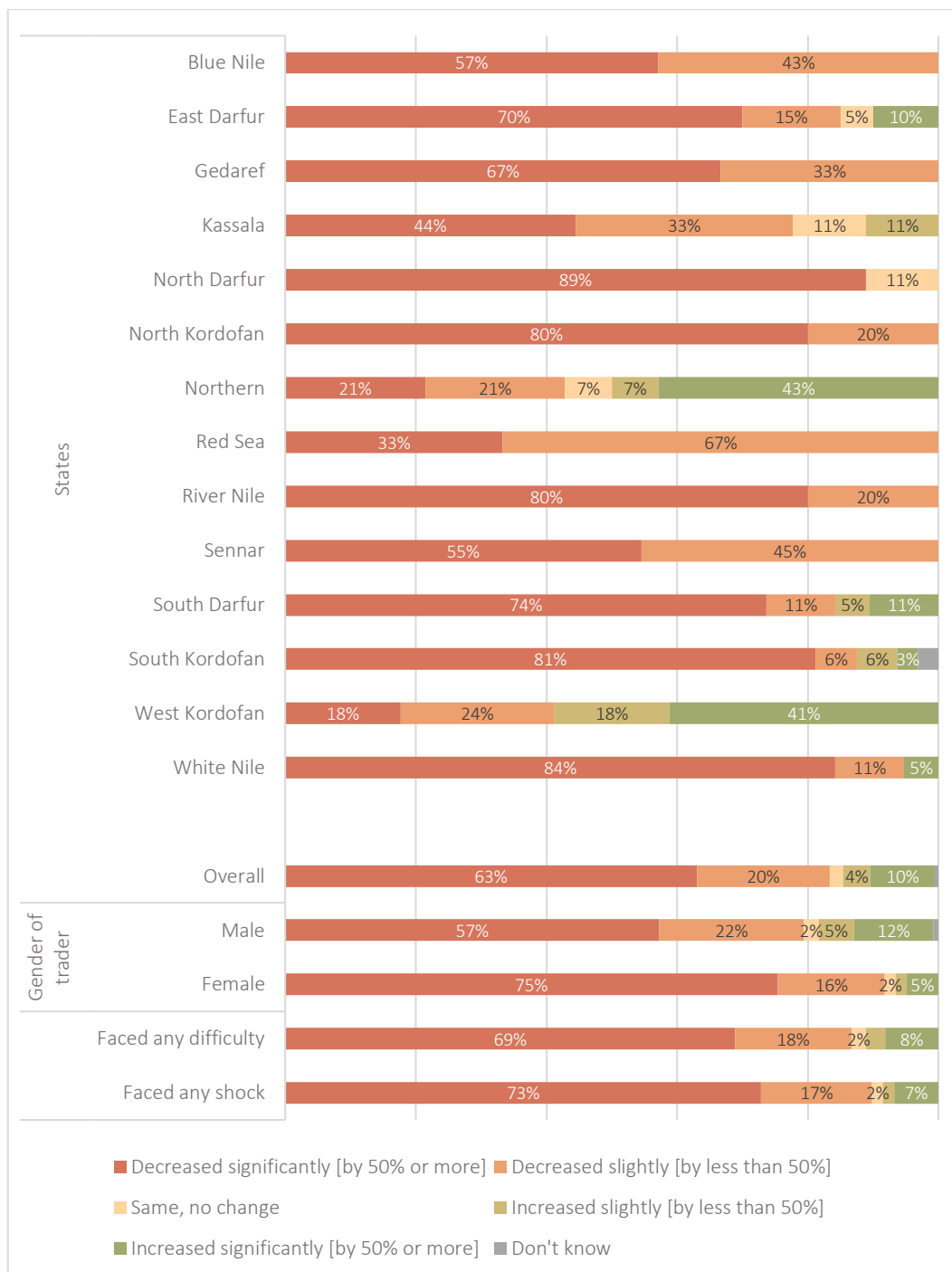


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Change in sales volume of veterinary drugs

Around two-thirds (63 percent) of surveyed veterinary drug traders reported a significant decrease in sales volume compared to the same period before the conflict and one-fifth reported a slight decrease, totaling 83 percent of traders who reported a decrease in sales volume. Substantially, more female traders and those who faced a shock or difficulty reported a significant decrease in sales volume compared to their counterparts over the reference period (Figure 20).

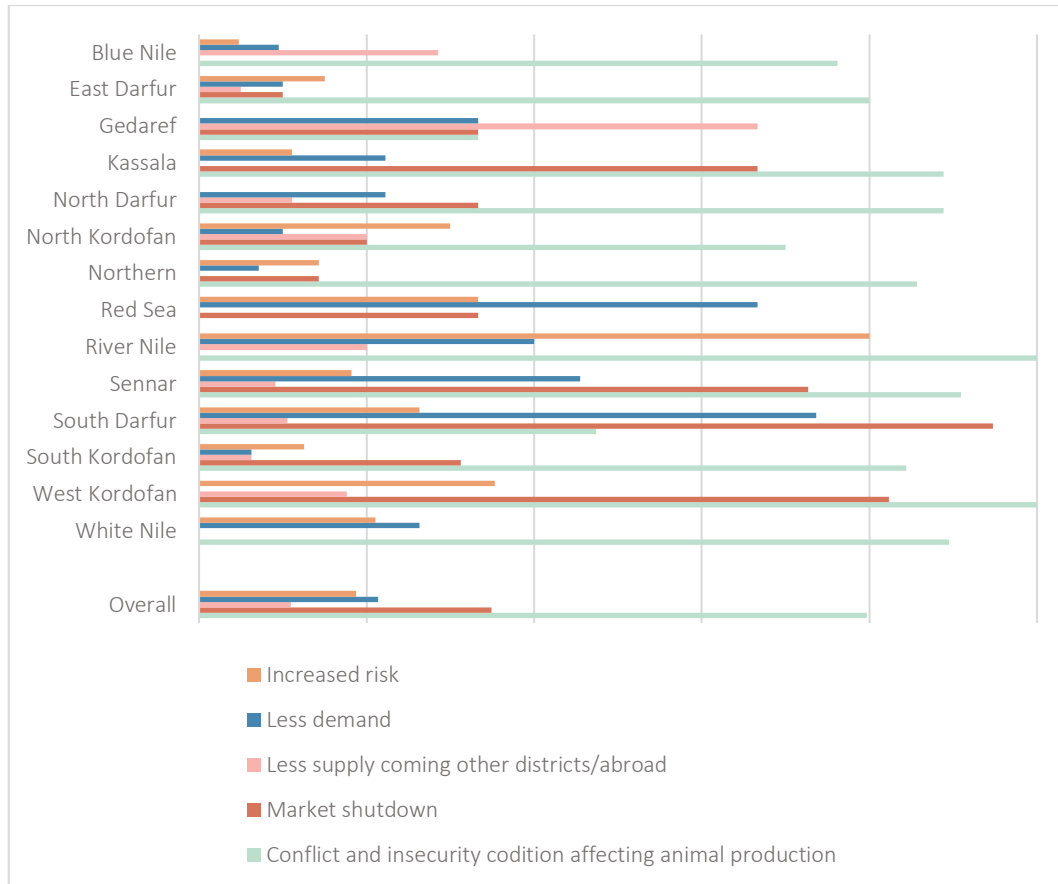
Figure 20. Change in the sales volume of veterinary drugs (percentage of veterinary drug traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

The most important reasons for the change in sales volume of veterinary drugs were similar to those reported for animal fodder such as conflict and insecurity (80 percent), followed by market shutdown (35 percent), less demand (21 percent), less supply coming from other localities/abroad (11 percent) and increased risk (19 percent) (Figure 21).

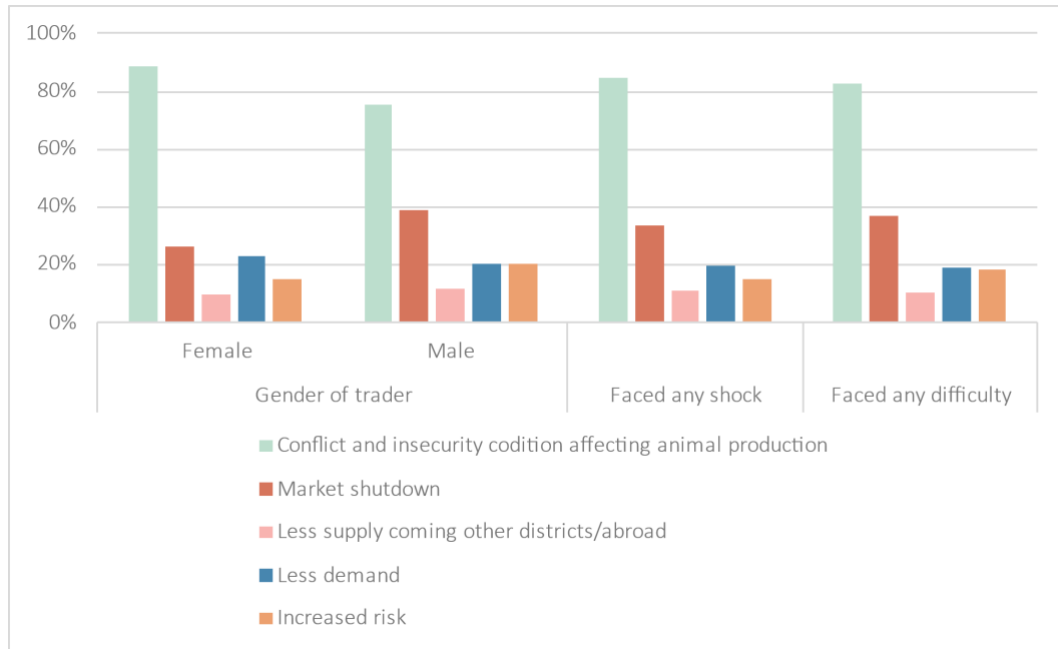
Figure 21. Most important reasons for the change in sales volume of veterinary drugs (percentage of veterinary drug traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders and those who faced a shock or difficulty were substantially more likely to report conflict and insecurity as the most important reason for the change in sales volume of livestock fodder compared to their counterparts (Figure 22).

Figure 22. Most important reasons for the change in sales volume of veterinary drugs by gender of trader, and any shock or difficulty faced (percentage of veterinary drug traders)



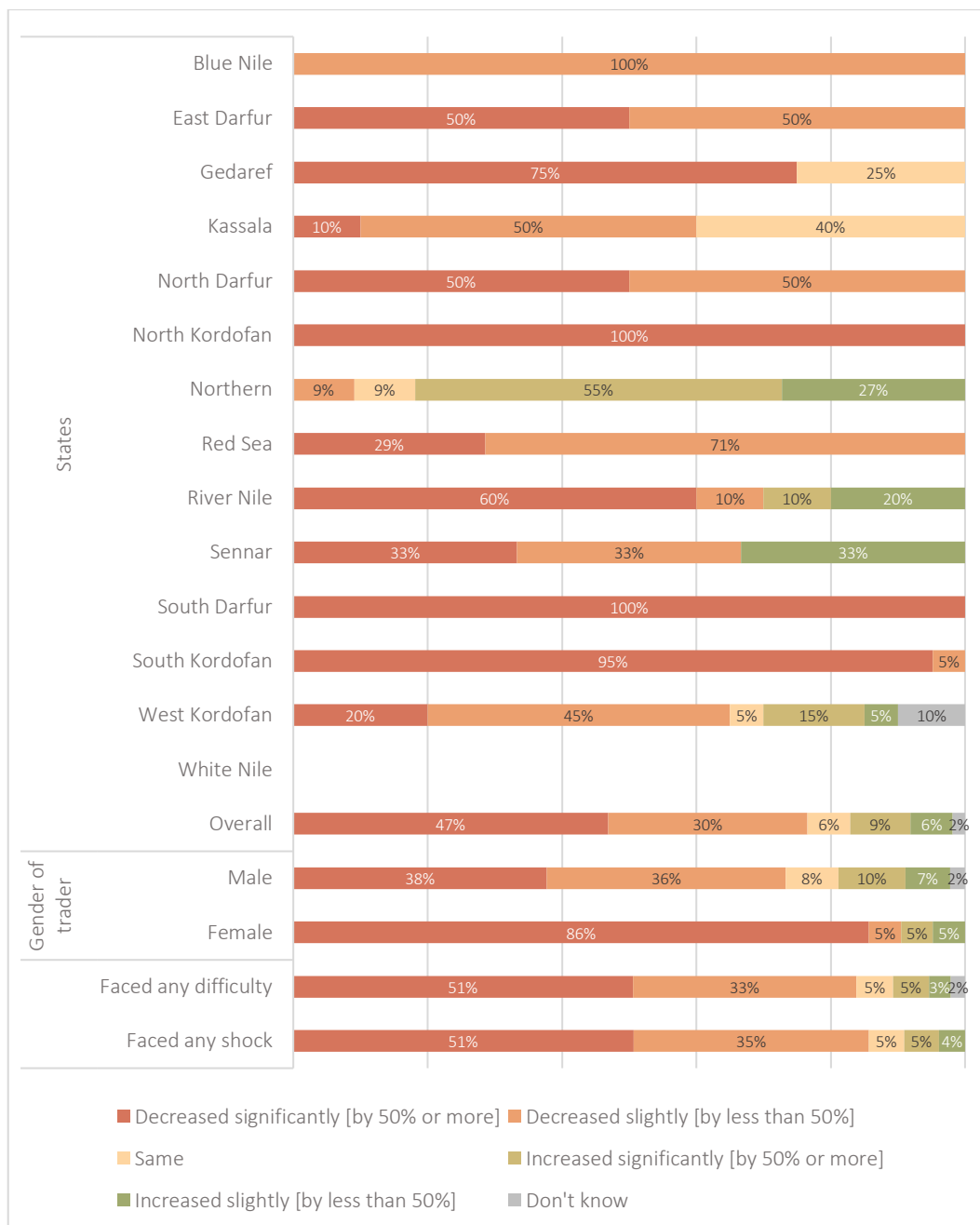
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders and those who faced a shock or difficulty were substantially more likely to report conflict and insecurity as the most important reason for the change in sales volume of livestock fodder compared to their counterparts.

### Change in sales volume of animal feed concentrate

Overall, almost half (47 percent) of surveyed animal feed concentrate traders reported a significant decrease in sales volume compared to the same period before the conflict and 30 percent reported a slight decrease, totalling 77 percent of traders who reported a decrease in sales volume. The percentage of female traders was more than twice that of male traders reporting a significant decrease in sales volume, whereas there was no difference in traders whether they faced any shock or difficulty, or not (Figure 23).

Figure 23. Change in the sales volume of animal feed concentrate (percentage of animal feed concentrate traders)

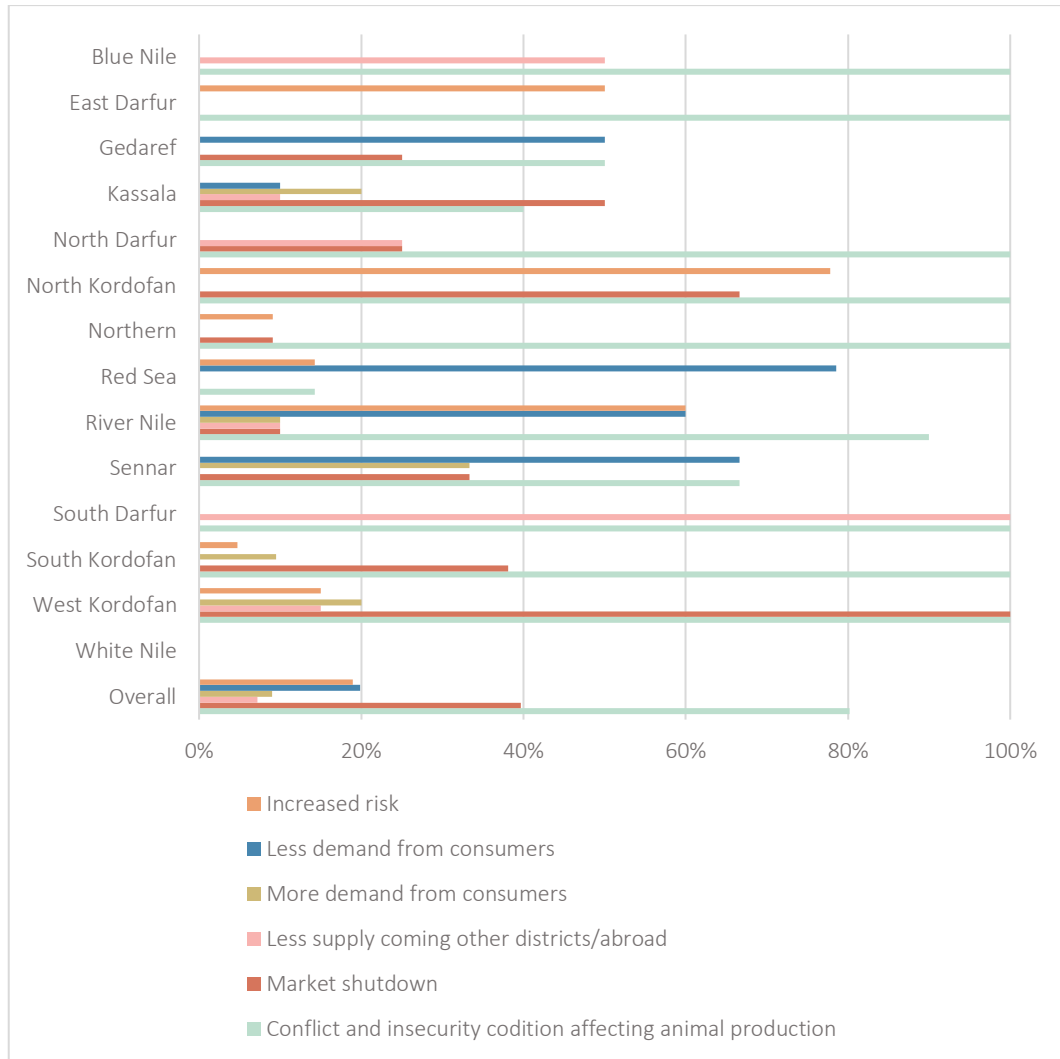


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Overall, the most important reasons for the change in sales volume of animal feed concentrate were also similar to those reported for two other focused inputs such as conflict and insecurity conditions affecting animal production (80 percent), followed by market shutdown (40 percent), less demand (20 percent), increased risk (19 percent), more demand (9 percent) and less supply coming from other districts/abroad (7 percent) (Figure 24).



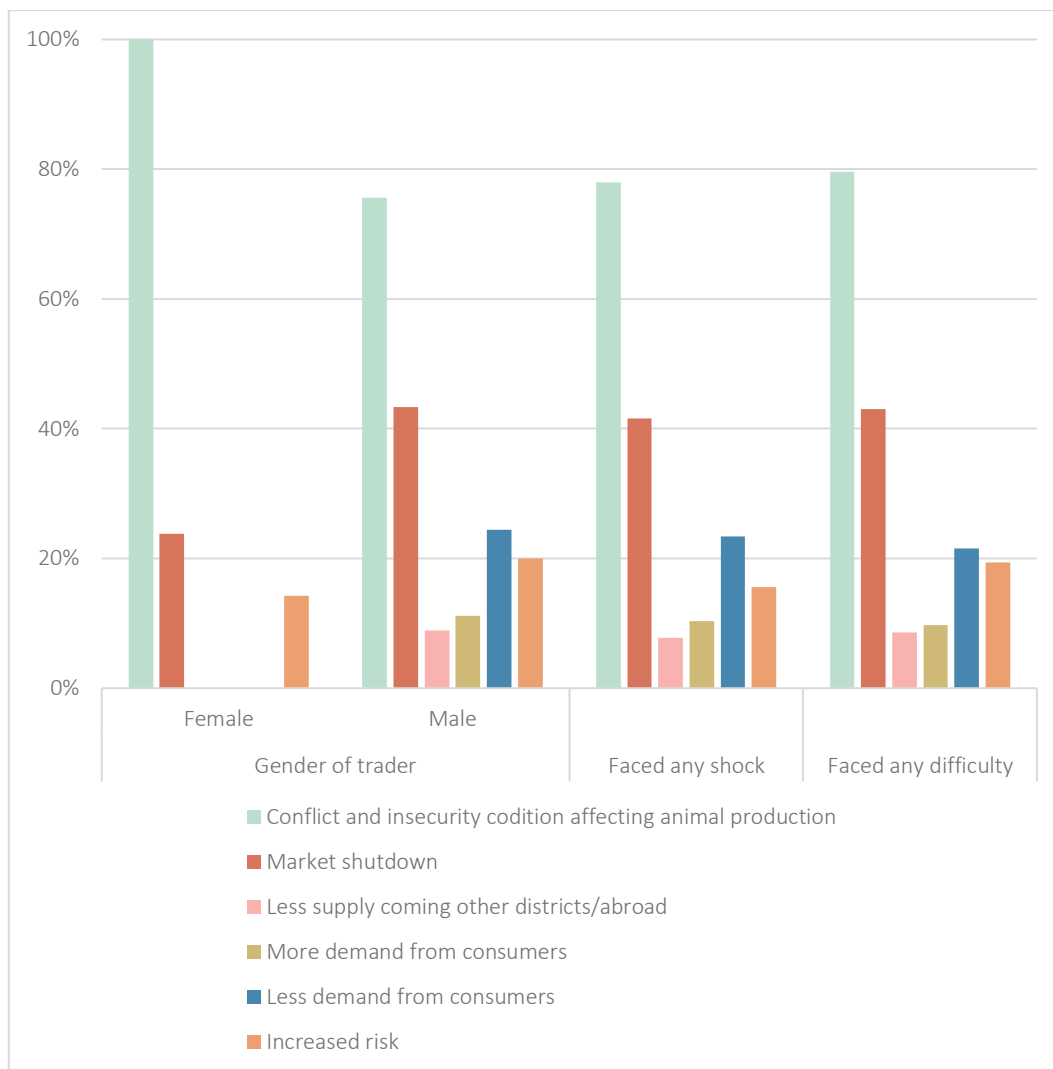
Figure 24. Most important reasons for the change in sales volume of animal feed concentrate (percentage of animal feed concentrate traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Female traders and those who faced any shock or difficulty were substantially more likely to report conflict and insecurity conditions affecting animal production as the most important reason for the change in sales volume of livestock fodder compared to their counterparts (Figure 25).

Figure 25. Most important reasons for the tchange in sales volume of animal feed concentrate by gender of trader, and any shock or difficulty faced (percentage of animal feed concentrate traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

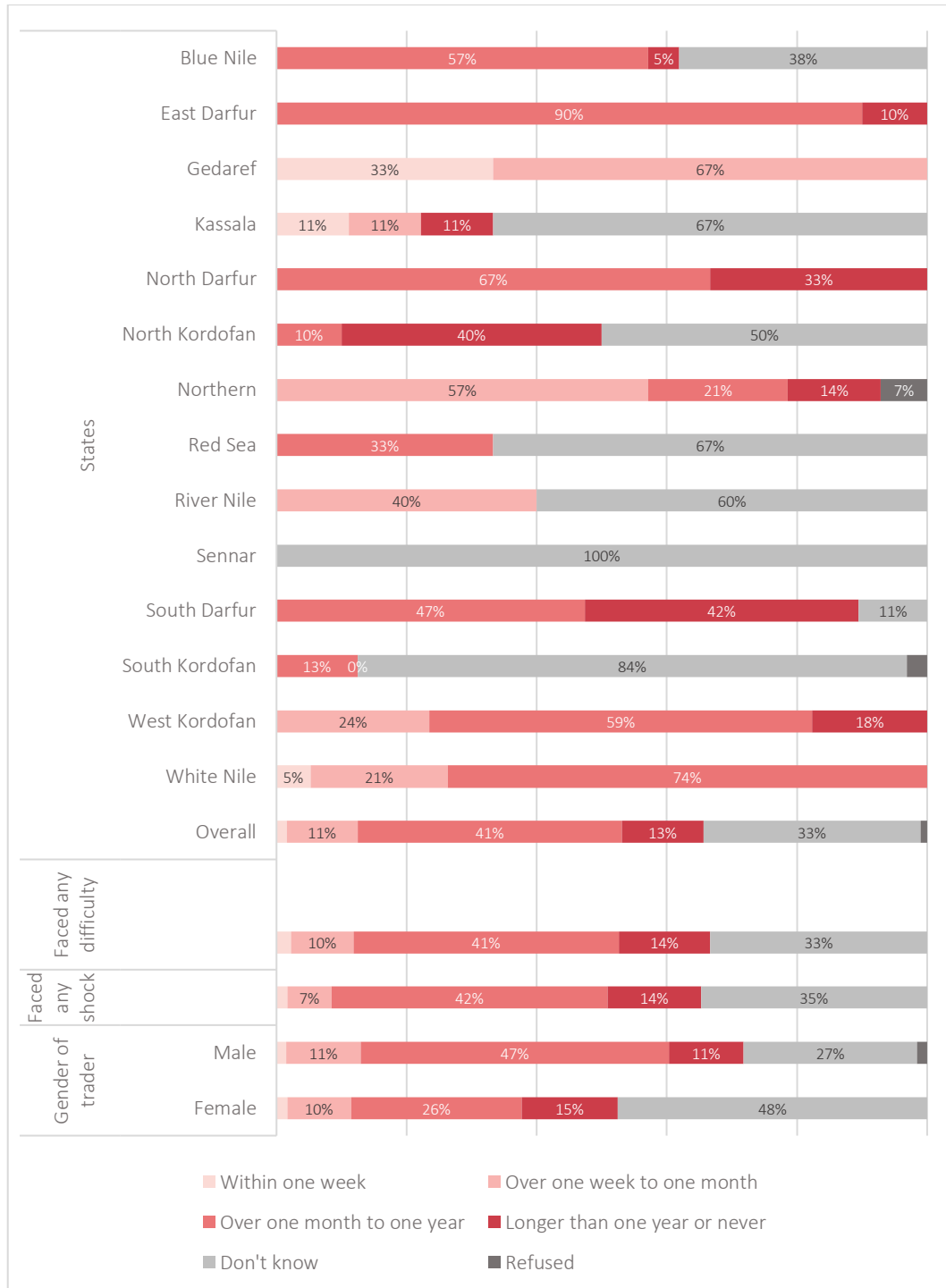
### Expectation about sales of livestock fodder returning to normal levels

One-fourth of surveyed livestock fodder traders expected that it would take between one month and one year for sales to return to expected/normal levels, 8 percent expected longer than one year or never, 6 percent reported that it would take over one week to one month, 10 percent expected sales to be back to expected/normal levels within a week and around half did not know how long it would take.

### Expectation about sales of veterinary drugs returning to normal levels

Forty-one percent of surveyed veterinary drug traders expected that it would take between one month and one year to go for sales to return to expected/normal levels, 13 percent expected longer than one year or never, 11 percent reported that it would take over one week to one month, 2 percent expected sales to resume to expected/normal levels within a week and around a third did not know how long it would take (Figure 26).

Figure 26. Expectation that sales of veterinary drugs will return to normal levels (percentage of veterinary drug traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Expectation about sales of animal feed concentrate returning to normal levels

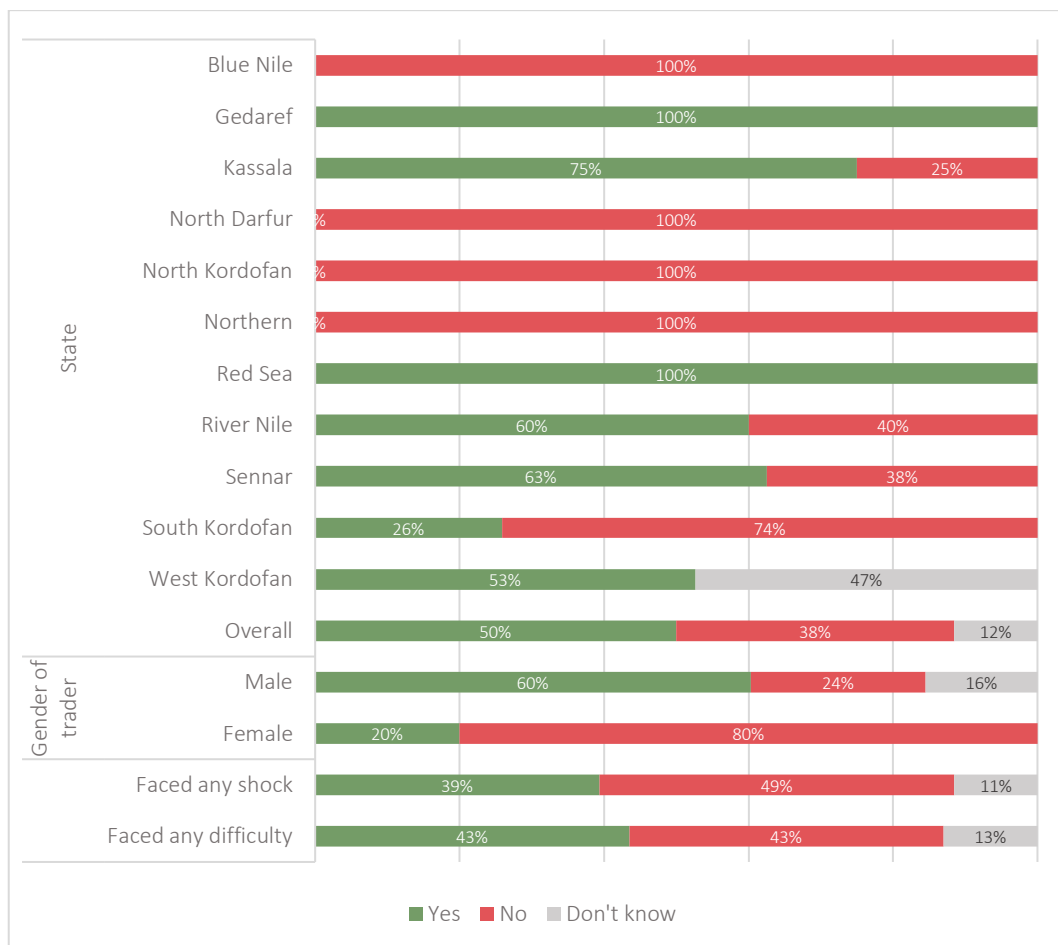
Overall, 18 percent of surveyed animal feed concentrate traders expected that it would take over one month to one year to have their sales return to expected/normal levels, 12 percent expected longer than one year or never, 15 percent reported that it would

take over one week to one month, 4 percent expected it within a week and half did not know how long it would take.

### Ability to meet demand for livestock fodder

Overall, just over half of the livestock fodder traders reported that they are able to meet the quantity of demand, nearly two-fifths responded negatively while around one-tenth of the traders did not know. Except in Gedaref, Kassala, Red Sea, River Nile and Sennar, more than half of the traders in other states were not able to meet the quantity of demand for livestock fodder (Figure 27). More male traders could provide the quantity demanded than female, whereas those who faced any shock or difficulty were less likely to meet the quantity demanded compared to their counterparts.

Figure 27. Ability to meet quantity demand for livestock fodder (percentage of livestock fodder traders)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

In the case of desired quality, over half of the livestock fodder traders reported that they could meet the desired quality demanded for livestock fodder, nearly two-fifths responded negatively while 5 percent of traders did not know. Except in Gedaref, Kassala, Red Sea, River Nile, Sennar and West Kordofan, more than half of the traders in other states were not able to meet the desired quality for livestock fodder (Figure 28).

More male traders could provide the desired quality than female, whereas around half of those who faced any shock and traders who faced any difficulty were able to meet the desired quality compared to their counterparts. Further, those who faced any shock or difficulty were two times less able to meet the desired quality demand compared to their counterparts.

Figure 28. Ability to meet desired quality for livestock fodder (percentage of livestock fodder traders)

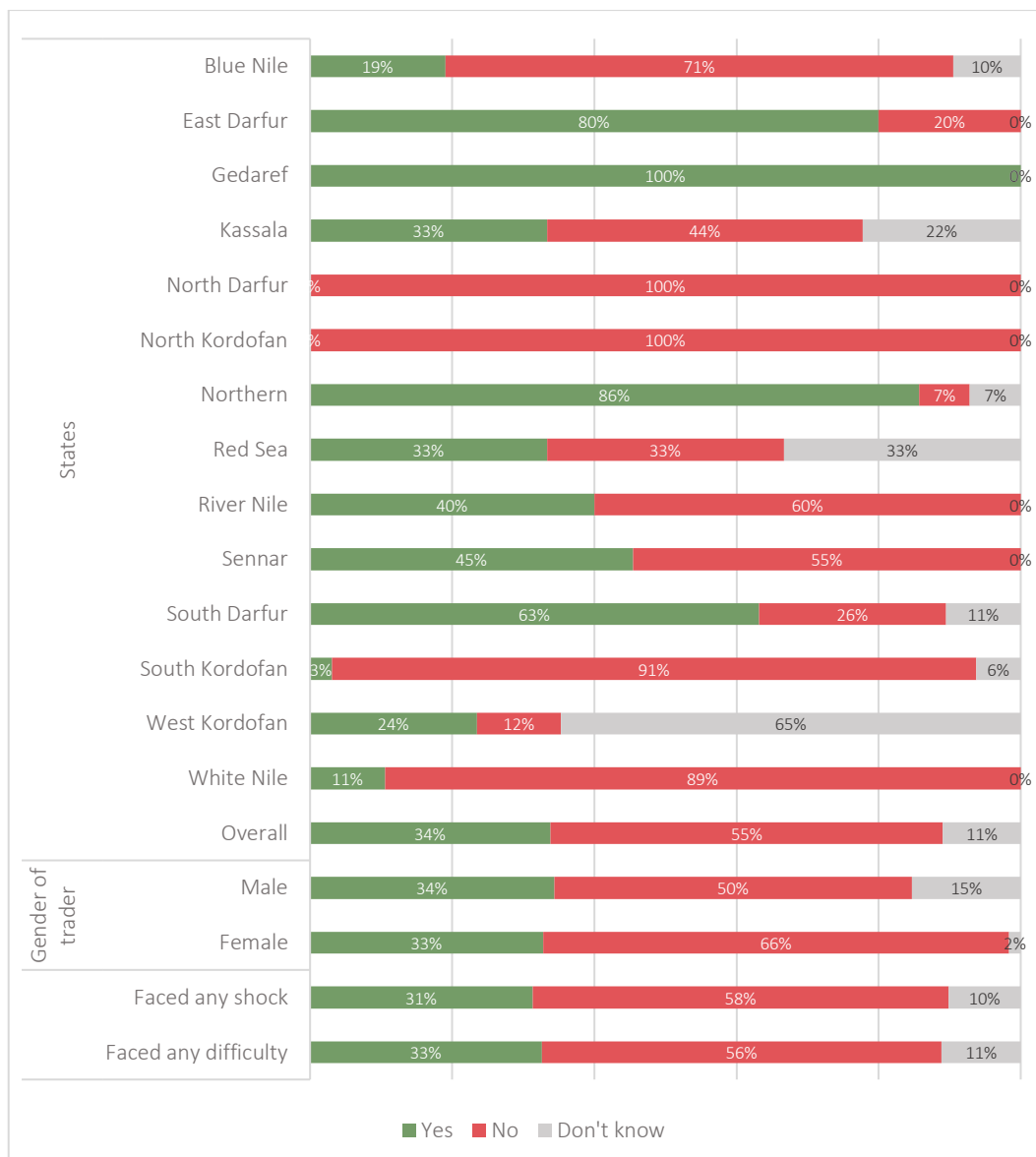


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Ability to meet demand for veterinary drugs

Overall, one-third of the veterinary drug traders reported that they could meet the quantity demand, over half responded negatively while around one-tenth of traders did not know. Except in East Darfur, Gedaref, Northern and South Darfur, more than half of the traders in other states could not meet the quantity demand for veterinary drugs (Figure 29). There was no major difference in meeting quantity demand by gender and those who faced any shock or difficulty.

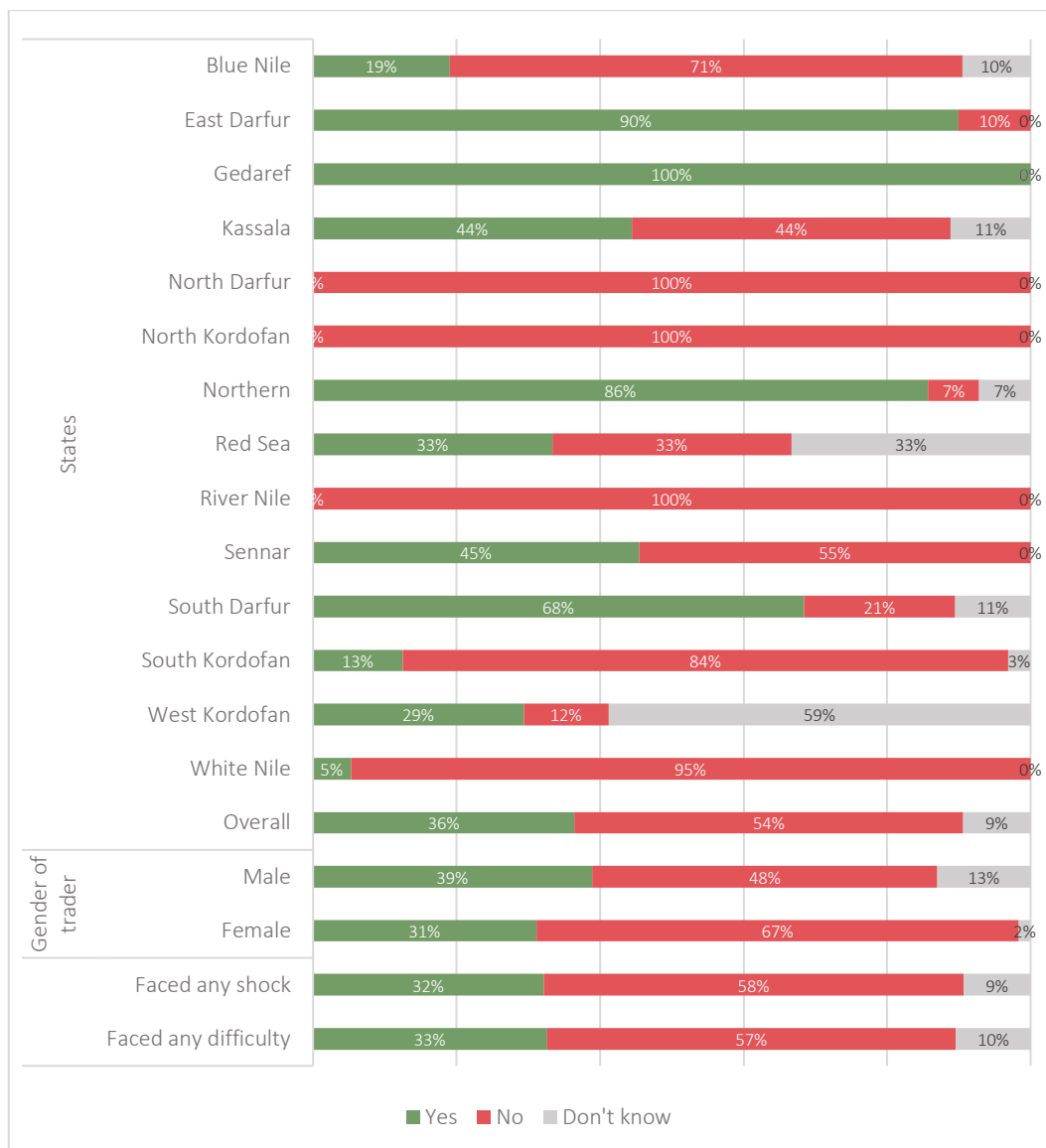
Figure 29. Ability to meet quantity demand for veterinary drugs (percentage of veterinary drug traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Over one-third of the veterinary drug traders reported that they could meet the desired quality demand, over half responded negatively while one-tenth of traders did not know. Except in East Darfur, Gedaref, Northern and South Darfur, more than half of the traders in other states were not able to meet the desired quality for veterinary drugs (Figure 30). Slightly more male traders could provide the desired quality than female, whereas there was no major difference in meeting demand by those who faced any shock or difficulty compared to their counterparts.

Figure 30. Ability to meet desired quality for veterinary drugs (percentage of veterinary drug traders)

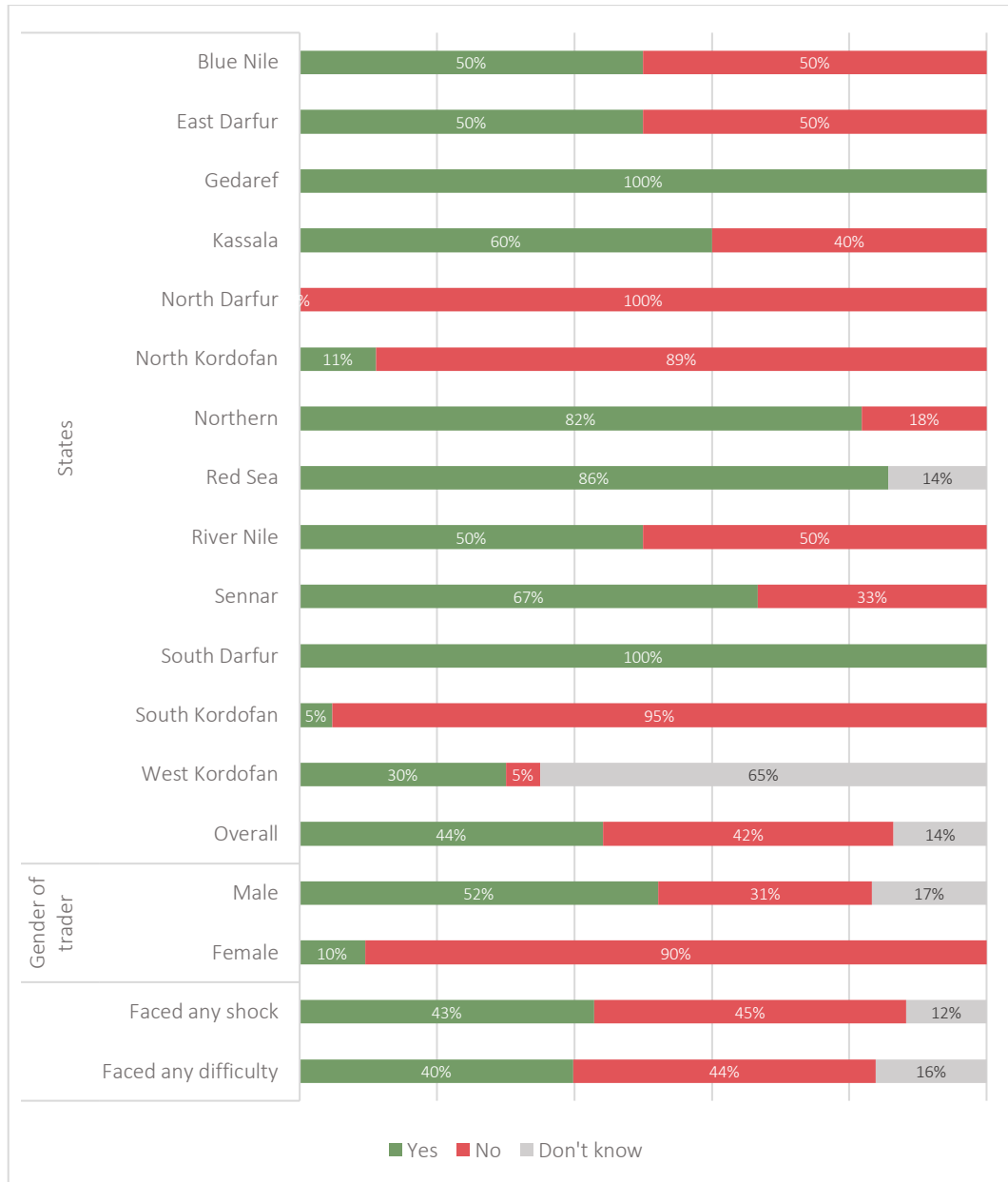


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Ability to meet demand for animal feed concentrate

Overall, 44 percent of the animal feed concentrate traders reported that they could meet the quantity demand. A similar percentage (42 percent) responded negatively while 14 percent of traders did not know. Except in Blue Nile, East Darfur, Gedaref, Kassala, Northern, Red Sea, River Nile, Sennar and South Darfur, more than half of the traders in other states could not meet the quantity demand for animal feed concentrate (Figure 31). Over 50 percent of male traders compared to one-tenth of female traders were able to meet the quantity demand, whereas there was no major difference in meeting quantity demand by those who faced any shock or difficulty.

Figure 31. Ability to meet quantity demand for animal feed concentrate (percentage of animal feed concentrate traders)

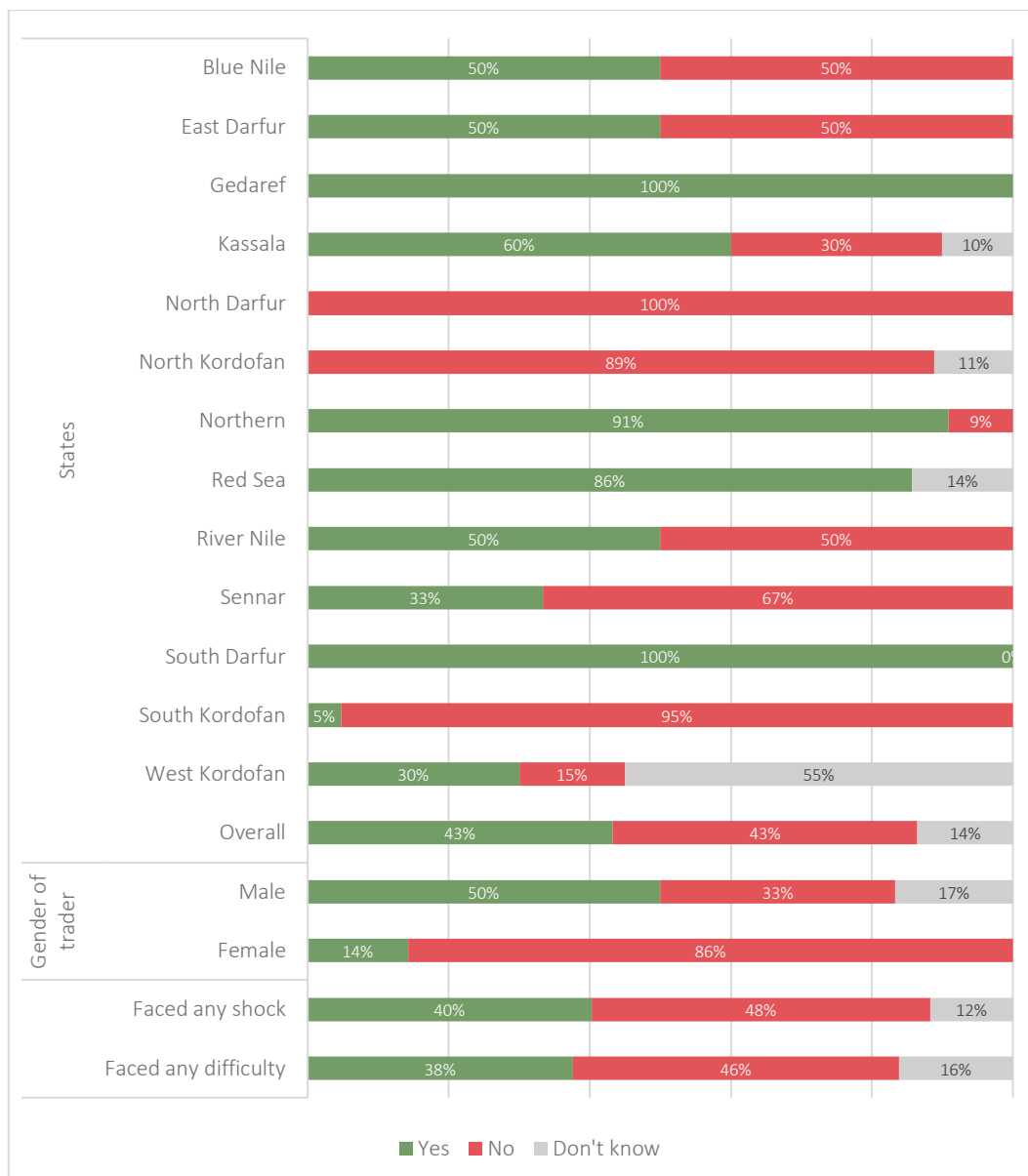


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Overall, 43 percent of animal feed concentrate traders, each, reported that they could and could not meet desired quality, while 14 percent of traders did not know. Except in Blue Nile, East Darfur, Gedaref, Kassala, Northern, Red Sea, River Nile and South Darfur, more than half of the traders in other states could not meet the desired quality for animal feed concentrate (Figure 32). Half of male traders compared to 14 percent of female traders were able to meet the desired quality, whereas there was no major difference in meeting quantity demand by those who faced any shock or difficulty.



Figure 32. Ability to meet the desired quality for animal feed concentrate (percentage of animal feed concentrate traders)



Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Credit sales of inputs, change in customers and sale volume on credit

Overall, 14 percent of surveyed traders sometimes provided livestock inputs on credit to farmers. Slightly more female traders compared to male, 6 percent of livestock fodder traders, 13 percent of veterinary drug traders and 14 percent of animal feed concentrate traders sometimes provided livestock inputs on credit.

Overall, the number of customers purchasing inputs on credit has reduced. Around half of the surveyed traders – that sell inputs on credit – reported less customers purchasing livestock inputs on credit during the three months preceding the survey compared to the same period in the year preceding the survey, around -one-fourth of surveyed traders, each, reported more customers and no change, whereas 2 percent did not know the answer. The percentage of female traders reporting an increase and no change in credit

customers was two times that of the male traders. Three-fifths of livestock fodder traders, half of veterinary drug traders and two-fifths of animal feed concentrate traders reported less customers compared to the same period in the year preceding the survey.

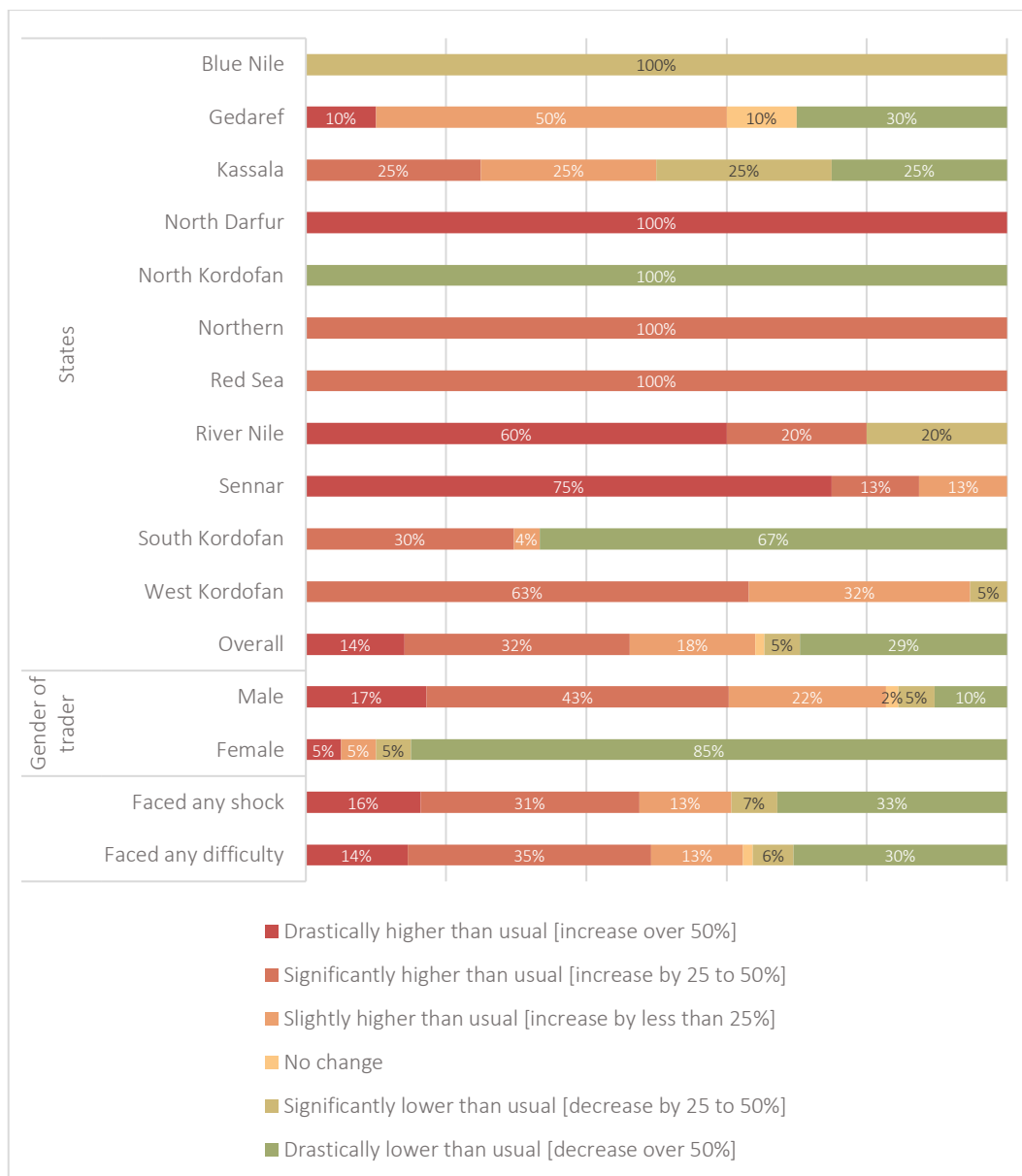
In terms of sales volume of inputs on credit, over half of the surveyed traders sold more livestock inputs on credit in the three months preceding the survey compared to the same period in the year preceding the survey. While no difference was found by gender of trader, 60 percent of livestock fodder traders, 52 percent of veterinary drug traders and 47 percent of animal feed concentrate traders reported sales of more livestock inputs on credit.

## Price of livestock inputs

### Change in the price of livestock fodder

Around two-thirds of traders (64 percent) reported higher than usual livestock fodder prices; 14 percent reported drastically higher than usual prices; 32 percent reported significantly higher than usual prices; and 18 percent reported slightly higher than usual prices compared to the average price over the same period in the year preceding the survey. One percent of traders reported no change and 35 percent reported a decrease in prices. However, an overwhelming majority of female traders (85 percent) reported prices that were drastically lower than usual, whereas 43 percent of male traders reported significantly higher than usual prices (Figure 33).

Figure 33. Change in the sales price of livestock fodder compared to the same period last year (percentage of livestock fodder traders)

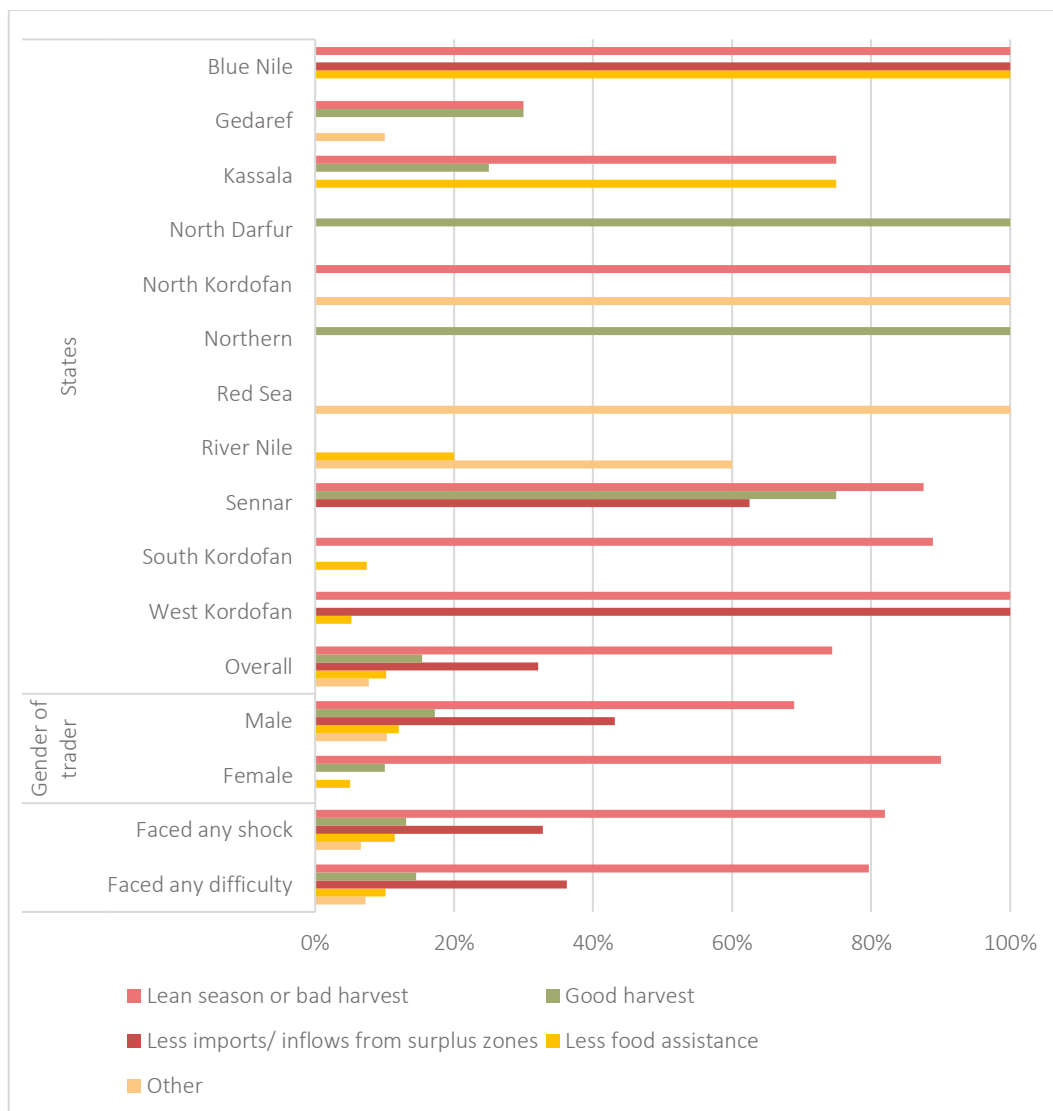


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

An overwhelming majority of livestock fodder traders (70 percent) expected an increase in prices in the three months following the survey. Twenty percent of female traders compared to 88 percent of males expected the same.

The most important reasons for the change in the prices of livestock fodder in the three months following the survey were the lean season or bad harvest (74 percent), less imports/inflows from surplus zones (32 percent), good harvest (15 percent) and less food assistance (10 percent). Apart from higher reporting of lean season or bad harvest by female traders (90 percent) compared to male traders (69 percent), other reasons, included in Figure 34, were reported more by male traders than female.

Figure 34. Most important reasons for the change in the prices of livestock fodder in the three months following the survey (percentage of livestock fodder traders)

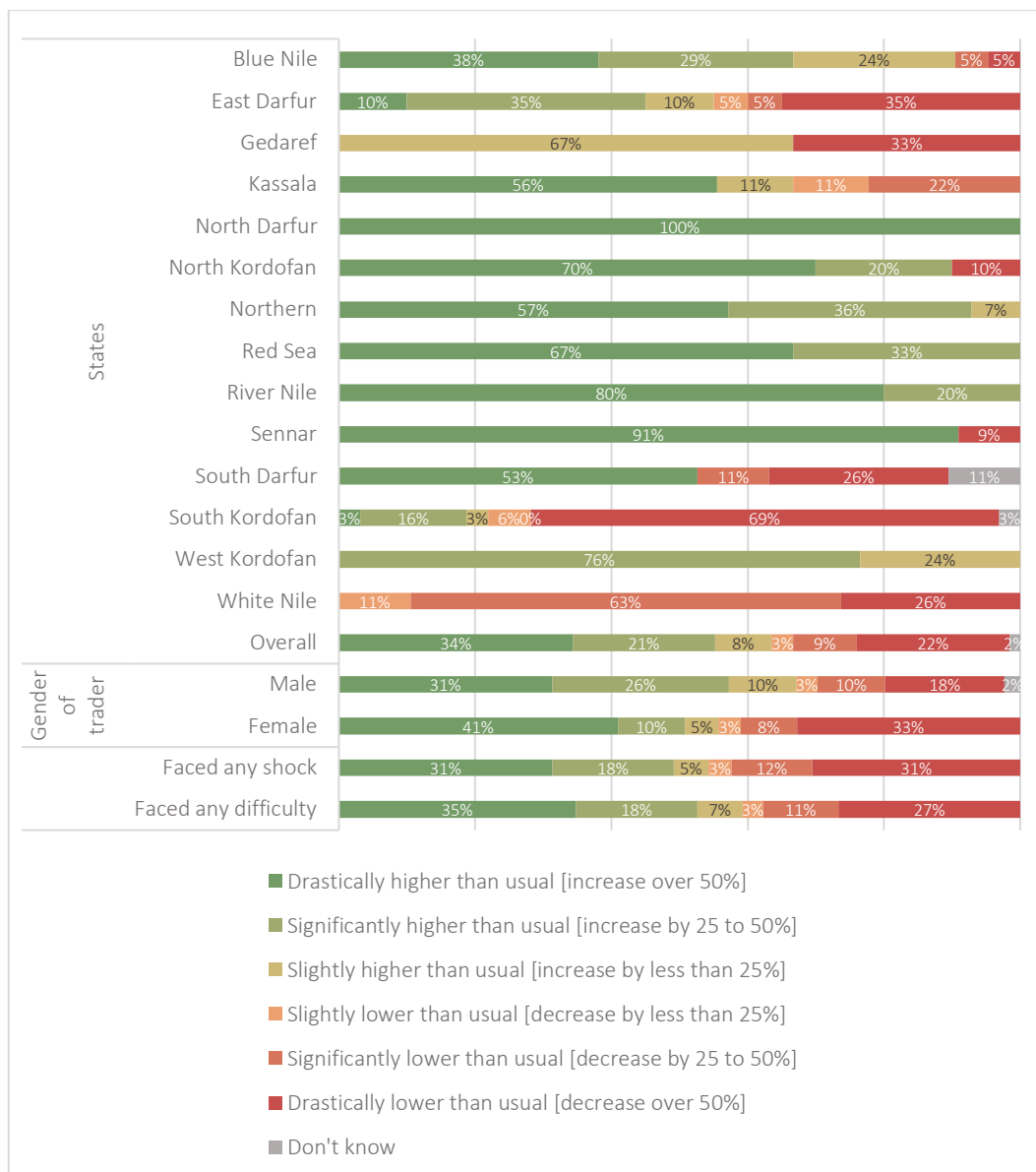


Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Change in the price of veterinary drugs

Around two-thirds (63 percent) of traders reported higher than usual veterinary drug prices; 34 percent reported drastically higher than usual prices; 21 percent reported significantly higher than usual prices; and 8 percent reported slightly higher than usual prices compared to the average price over the same period in the year preceding the survey, whereas 35 percent reported a decrease in prices and 2 percent did not know. Most of the female traders (41 percent) and male traders (31 percent) reported prices drastically higher than usual (Figure 35).

Figure 35. Change in the sales price of veterinary drugs compared to the same period last year (percentage of veterinary drug traders)

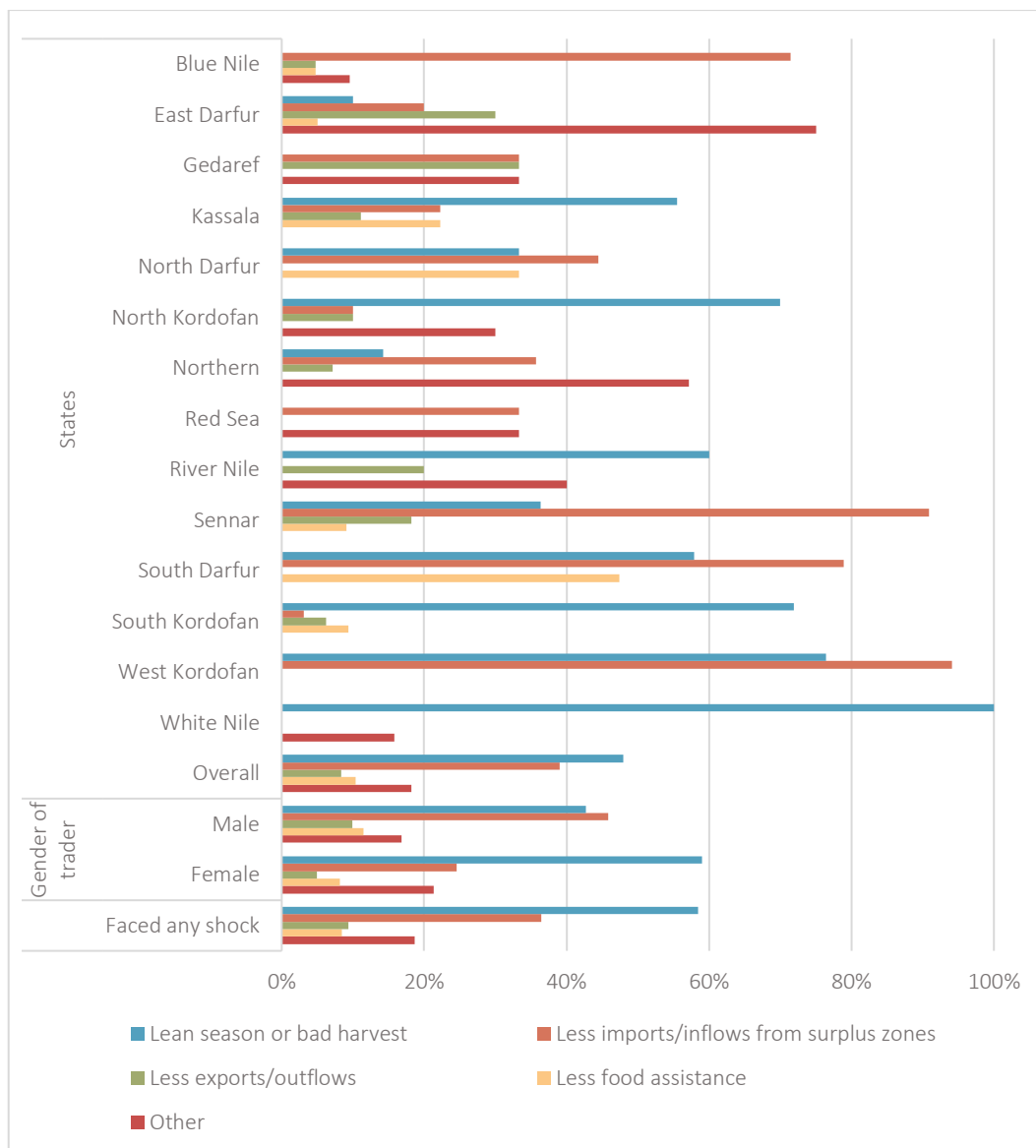


Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Around four-fifths of veterinary drug traders (81 percent) expected an increase in prices in the three months following the survey. A substantially smaller percentage of female traders (67 percent) compared to males (87 percent) expected the same.

The most important reasons for the change in veterinary drug prices in the three months following the survey were lean season or bad harvest (47 percent), less imports/inflows from surplus zones (39 percent), less food assistance (10 percent), less exports/outflows (8 percent) and other (18 percent). Apart from higher reporting of lean season or bad harvest by female traders (59 percent) compared to male traders (43 percent), other reasons, included in Figure 36, were reported more by male traders than female.

Figure 36. Most important reasons for the change in the prices of veterinary drugs in the three months following the survey (percentage of veterinary drug traders)

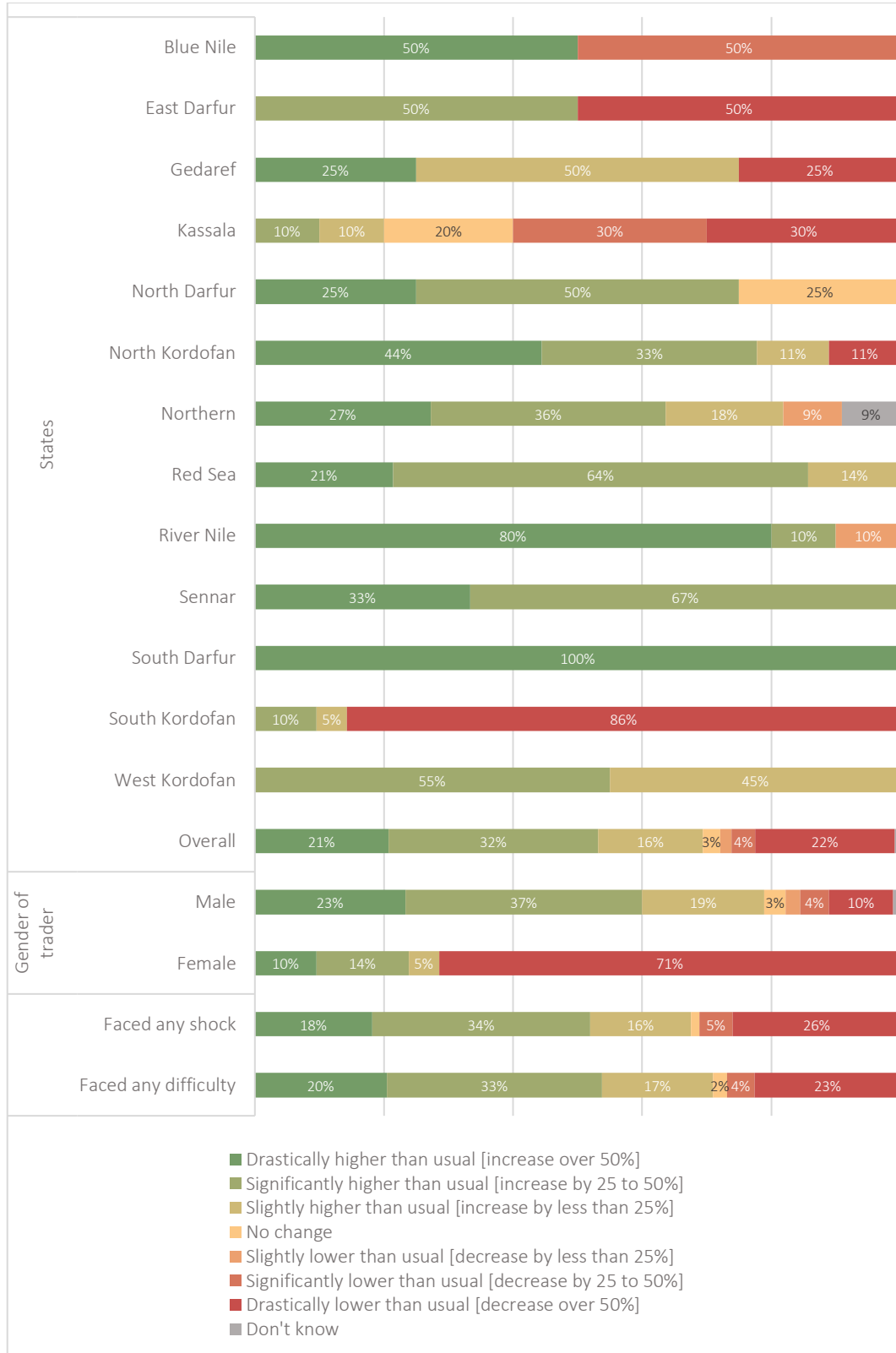


Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Change in the price of animal feed concentrate

Over two-thirds of traders (69 percent) reported higher than usual animal feed concentrate prices; 22 percent reported drastically higher than usual prices; 32 percent reported significantly higher than usual prices; and 16 percent reported slightly higher than usual prices compared to the average price over the same period in the year preceding the survey, whereas 3 percent reported no change and 27 percent reported a decrease in price. However, an overwhelming majority of female traders (71 percent) reported prices that were drastically lower than usual and 37 percent of male traders reported significantly higher than usual prices (Figure 37).

Figure 37. Change in the sales price of animal feed concentrate compared to the same period last year (percentage of animal feed concentrate traders)



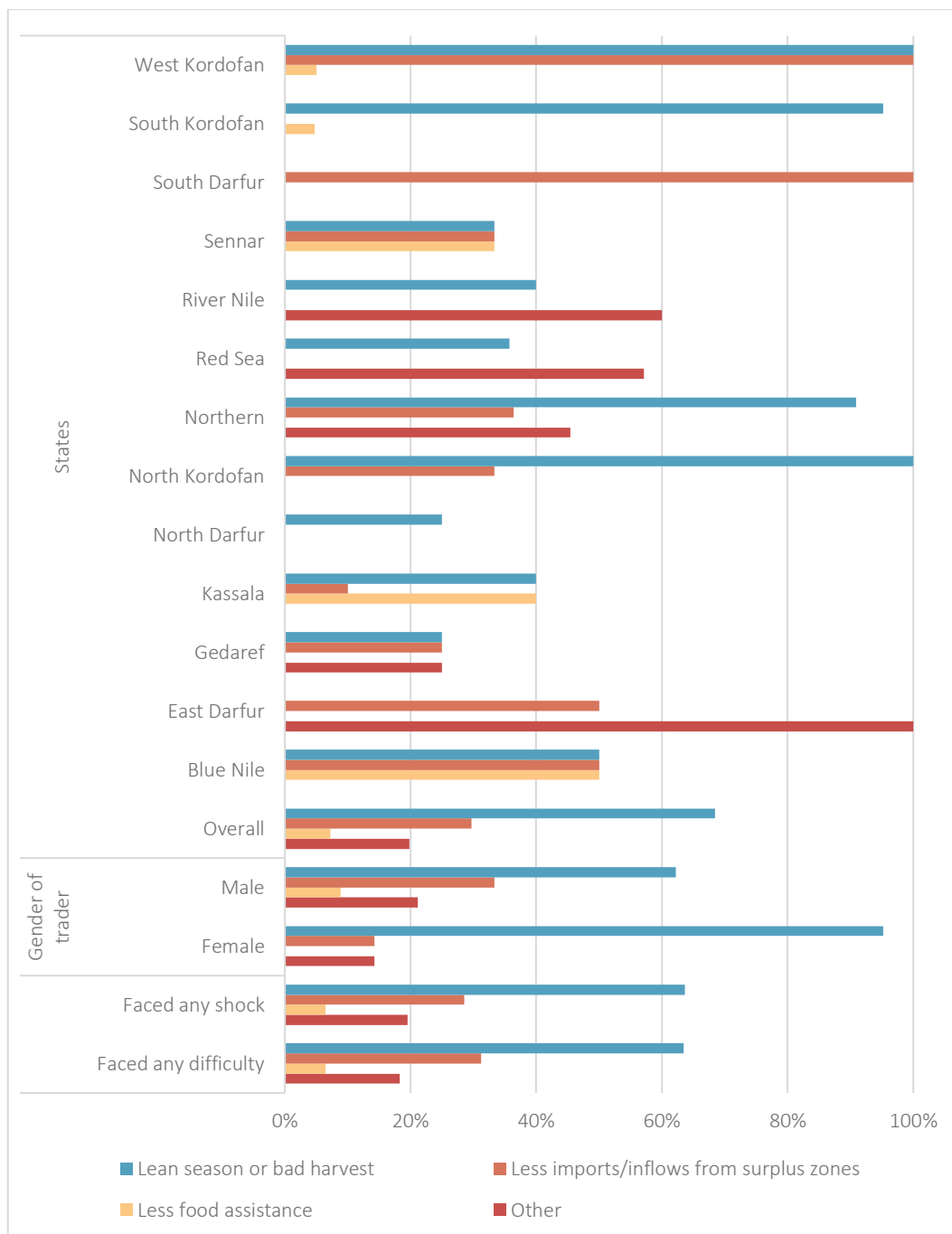
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Over three-fourths of animal feed concentrate traders (77 percent) expected an increase in prices in the three months following the survey. Twenty-four percent of female traders compared to 89 percent of males expected the same.

The most important reasons for the change in prices of animal feed in the three months following the survey were lean season or bad harvest (69 percent), less imports/inflows from surplus zones (30 percent), less food assistance (7 percent) and other reasons (20 percent). Apart from higher reporting of lean season or bad harvest by female traders (95 percent) compared to male traders (62 percent), other reasons, included in Figure 38, were reported more by male traders than female.



Figure 38. Most important reasons for the change in the prices of animal feed concentrate in the three months following the survey (percentage of animal feed concentrate traders)



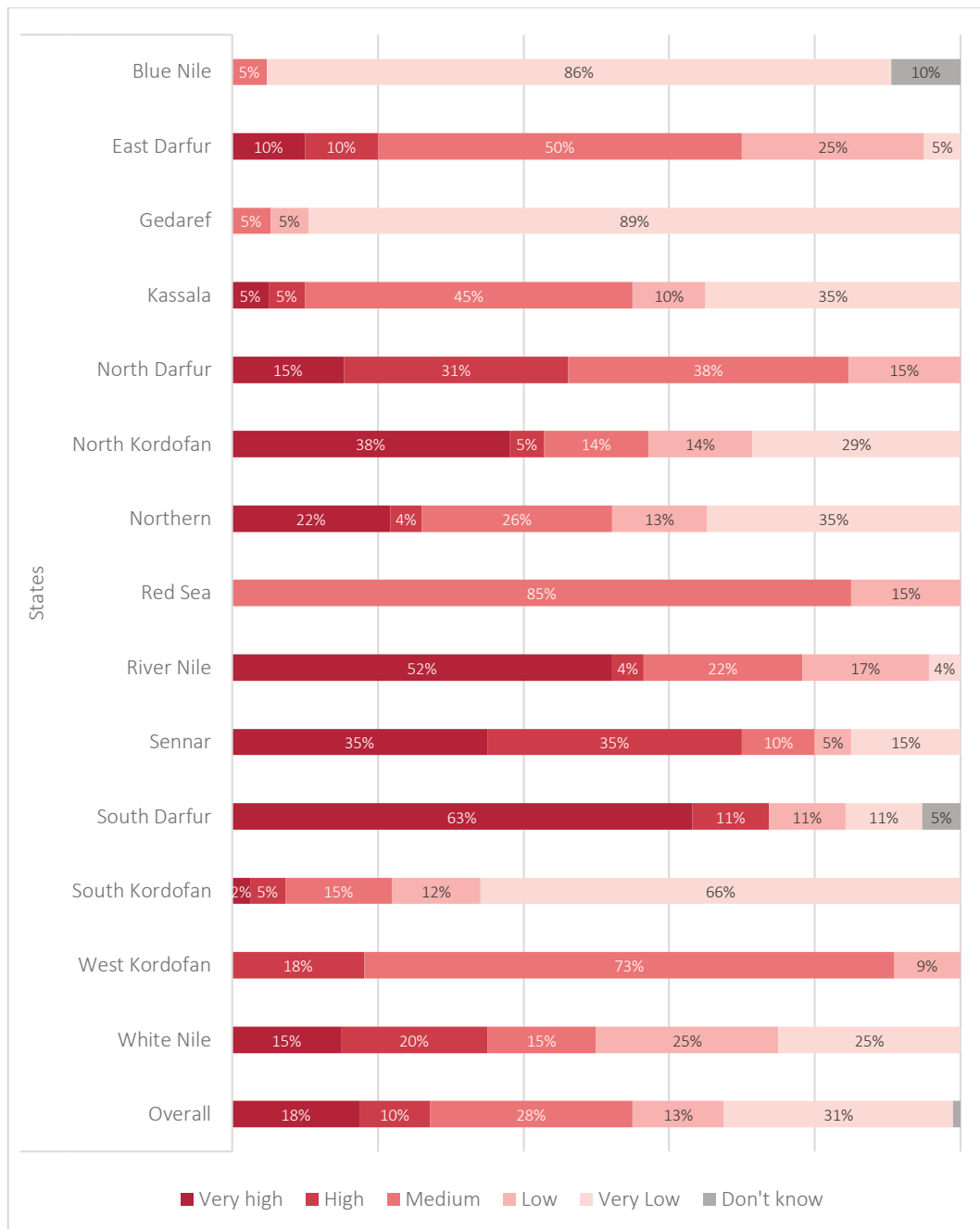
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Risk of understocking

Over one-fourth of the surveyed traders considered themselves at high or very high risk of understocking due to insufficient stock and/or the availability of future stock. Over one-fourth considered themselves at medium risk, and 44 percent considered themselves at low or very low risk of understocking (Figure 39). Slightly less female traders considered being at very high or high risk (24 percent) compared to male traders (28 percent). Those who faced any shock or difficulty in the three months preceding the

survey were almost two times more likely to report high or very high risk of understocking compared to those who did not face any shock or difficulty.

Figure 39. Risk of understocking (percentage of surveyed traders)



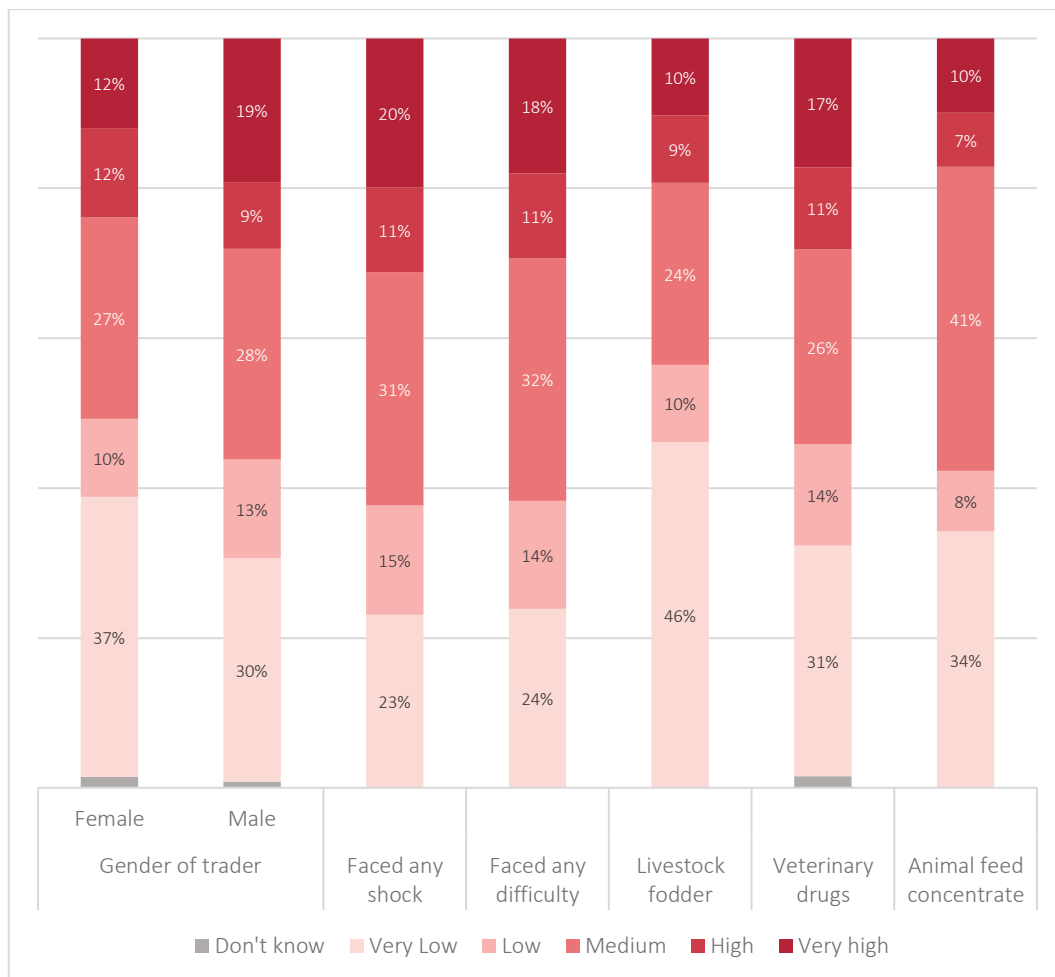
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

One-fifth of the livestock fodder traders considered themselves at high or very high risk of understocking due to holding less stock and/or the availability of future stock, around one-fourth considered themselves at medium risk, whereas over half (56 percent) of them considered themselves at low or very low risk (Figure 40).

In case of veterinary drugs, 28 percent of the traders considered themselves at high or very high risk of understocking, 26 percent considered themselves at a medium risk, and 46 percent considered themselves at a low or very low risk (Figure 40).

For those trading animal feed concentrate commodities, 17 percent of them considered themselves at high or very high risk of understocking, 40 percent considered themselves at a medium risk, and 43 percent considered themselves at a low or very low risk (Figure 40).

Figure 40. Risk of understocking by gender of trader, any shock or difficulty faced, and type of livestock inputs sold (percentage of livestock input traders)

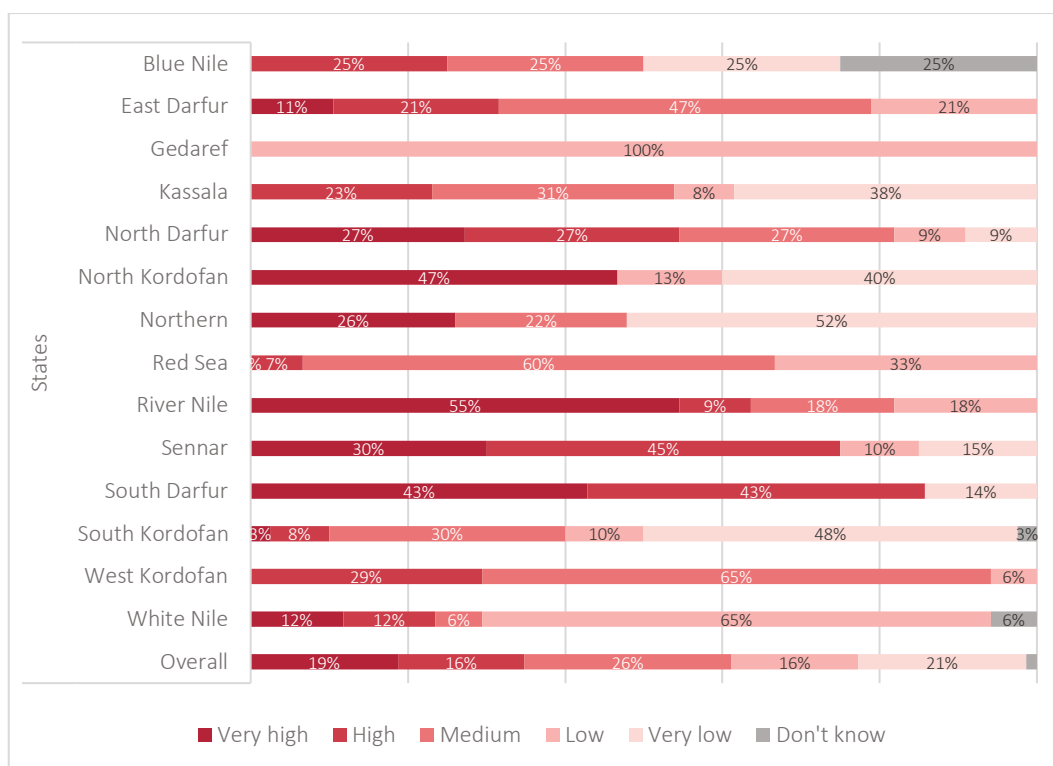


Source: FAO, 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

### Risk of losing business

Around one-third (35 percent) of the surveyed traders considered themselves at high or very high risk of losing business. Over one-fourth considered themselves at a medium risk, and 38 percent considered themselves at low or very low risk (Figure 41). Female traders were two times less likely to consider themselves at very high or high risk (20 percent) compared to male traders (40 percent). Over one-third (36 percent) of those who faced any shock or difficulty in the three months preceding the survey reported considering themselves to be at high or very high risk of losing business compared to none of those who did not face any shock or difficulty.

Figure 41. Risk of losing business (percentage of surveyed traders)



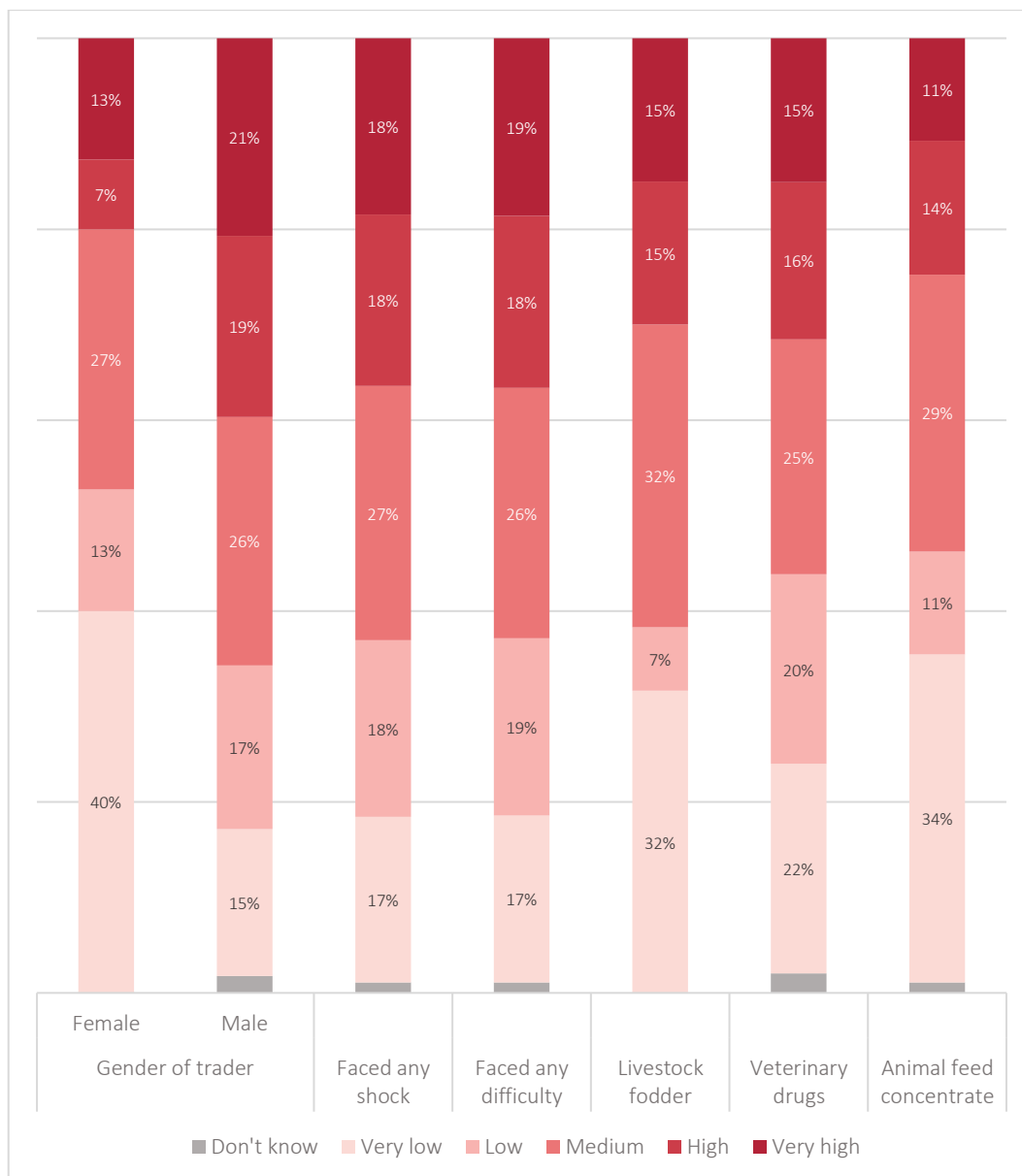
Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

Over one-third (37 percent) of the livestock fodder traders considered themselves at high or very high risk of losing business, one-fourth considered themselves at a medium risk, and two-fifths considered themselves at low or very low risk (Figure 42).

In case of veterinary drug traders, around one-third considered themselves at high or very high risk of losing business, one-fourth considered themselves at a medium risk, and over two-fifths (42 percent) considered themselves at a low or very low risk (Figure 42).

For those trading animal feed concentrate items, one-fourth considered themselves at a high or very high risk of losing business, 30 percent considered themselves at a medium risk, and 45 percent considered themselves at a low or very low risk (Figure 42).

Figure 42. Risk of understocking by gender of traders, shock or difficulty faced, and livestock inputs sold (percentage of livestock input traders)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

## Needs, assistance, and participation of livestock input traders in cash and/or voucher-based programmes

### Most important needs

The most important needs identified by the surveyed traders were access to capital/credit (56 percent), marketing or sales support (39 percent), affordable market space (35 percent), lower taxes (32 percent), access to bank account (24 percent), access to/better infrastructure (market, storage facilities, etc.) (24 percent), training (24 percent), and support for supply or procurement of agricultural inputs, such as information about supply source, communication with suppliers, etc. (21 percent).

More female traders expressed the need for all the above-mentioned needs except for the need for access to better infrastructure (market, storage facilities, etc.) and lower taxes. Those who faced any shock or difficulty in the three months preceding the survey were more likely to report the above needs compared to their counterparts, except for lower taxes, affordable market space, and marketing or sales support – in the case of shocks only – compared to those who did not face any shock or difficulty.

#### Assistance received by livestock input traders in the three months preceding the survey

Five percent of the surveyed traders reported that they had received a form of assistance during the three months preceding the survey. There was no major difference by gender and whether a difficulty was faced or not. However, those who experienced any shock were almost six times less likely to receive any assistance compared to those who did not face any shock (2 percent compared to 11 percent). None of the livestock fodder traders, 3 percent of the veterinary drug traders and 6 percent of the animal feed concentrate traders received assistance during the reference period.

The major types of assistance received during the three months preceding the survey were loans (44 percent), cash or food assistance (19 percent), tax discount or subsidies (19 percent), logistical support (19 percent), social insurance (13 percent), and technical advice or business-related information (13 percent).

More female traders reported receiving all of the above-mentioned types of assistance except for logistical support and loans compared to male traders. None of the female traders received logistical support and one-fourth received loans compared to half of the male traders. Those who faced any shock or difficulty in the three months preceding the survey were more likely to report receiving the above-mentioned types of assistance compared to their counterparts except for loans, and technical advice or business-related information compared to traders who did not face any shock or difficulty.

The major types of assistance received by veterinary drug traders were loans, technical advice or business-related information, cash and food assistance, tax discount or subsidies, and social insurance. In the case of animal feed concentrate traders, the main types of assistance received were logistical support, loans, cash and food assistance, and tax discounts or subsidies.

#### Participation of livestock input traders in cash and/or voucher-based programmes

Four percent of surveyed traders participated in cash and/or voucher based programmes. Two percent of female traders participated in these programmes compared to 5 percent of male traders, while 5 percent, each, of livestock fodder and animal feed concentrate traders participated and 4 percent of veterinary drugs traders participated.

#### Income sources of households within different geographical areas

The key informants were asked what the main source of income was in the geographical area at the time of the survey. Based on the frequency of the responses, the most prevalent income source across all states combined was both the production/sale of crops and livestock products (56 percent), followed closely by the production and sale of

crops only (48 percent), self-employment or small business (44 percent), and production and sale of livestock products (43 percent). Other notable income sources included formal employment (31 percent), and collection and sale of natural resources (23 percent).

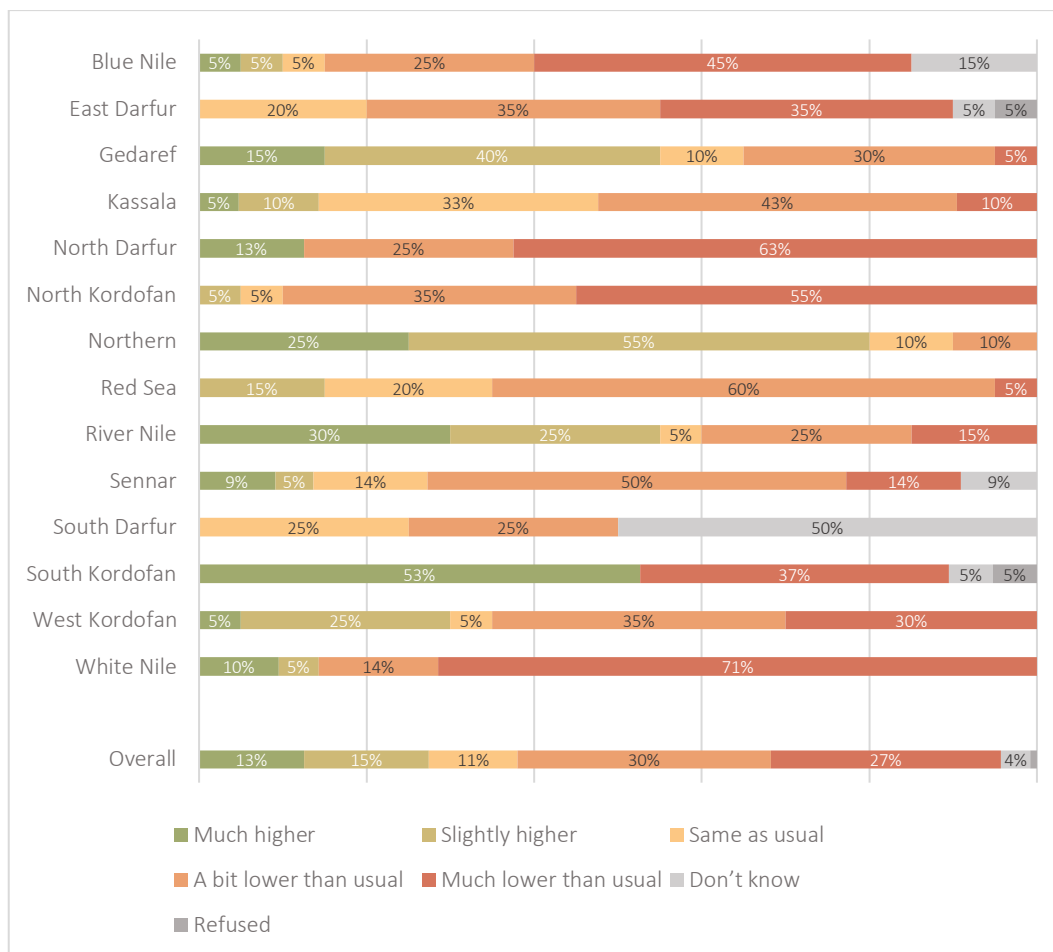
While the findings suggest that the production and sale of crops remains the predominant income source in most states, all respondents in North Darfur and South Darfur mentioned the production and sale of livestock.

In November 2022, FAO, in collaboration with the International Security and Development Centre (ISDC), a German-based research organization, conducted a baseline study in 14 states of the Sudan for a Central Emergency Response Fund project. The CERF baseline study revealed that the largest share of income of rural households was generated through crop farming (38 percent). The households generated, on average, 25 percent of their income from wage work, which was evenly distributed between agricultural and non-agricultural wage work. Eighteen percent of the average household income was generated through off-farm businesses and households generated, on average, 9 percent of their total income through livestock produce sales (ISDC, 2023).

#### Livestock production

Overall, while a majority of respondents (58 percent) reported a decrease, a significant portion (28 percent) reported an increase in the level of animal production this year compared to last year for their main livestock (Figure 42). The observed decrease in livestock production levels was mainly associated with the pasture crisis (65 percent), and conflict or insecurity (64 percent). Other reasons included lack of veterinary services (vaccination), livestock diseases, water scarcity and lack of livestock inputs.

Figure 42. Change in the level of animal production for main livestock compared to last year (percentage of livestock extension officials)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

A vast majority of the respondents in North Kordofan (90 percent), North Darfur (88 percent) and White Nile (86 percent) States reported declines. In North Darfur, 63 percent of the respondents reported that animal production was much lower than usual. In contrast, a vast majority of the respondents in Northern State (80 percent) reported an increase in animal production compared to last year. In South Kordofan, 53 percent reported much higher production compared to last year.

### Shocks and difficulties

The study investigated the most important shocks affecting livestock production in the states over the three months preceding the survey. The extension officers in the localities ranked the shocks based on their severity. The importance of each shock was determined by assigning points based on rank (3 for first, 2 for second and 1 for third). A higher score indicated greater importance.

The findings highlight that conflict or insecurity posed a significant threat to livestock production in several states, especially in Darfur and Kordofan regions. Lack of pasture



availability was also significantly affecting livestock production in several states, including Kassala, Sennar and West Kordofan.

The CFSAM, conducted in January 2024, reported that pasture availability was generally fair to good across the country at the time of the assessment. However, CFSAM also indicated that it was not expected to last through the dry season in several states (FAO, 2024). This DIEM-Monitoring assessment complements the CFSAM findings, underscoring the lack of available pasture in several states in April 2024.

The respondents ranked economic disruptions, lack of feed, lack of regular veterinary services, difficulties accessing markets and lack of input supply based on importance. The importance of each difficulty was determined by assigning points based on rank (3 for first, 2 for second, 1 for third). A weighted score was calculated to understand the overall importance of each difficulty.

The results indicated that economic disruptions were the most concerning issue overall (mean score=1.64), followed by lack of feed (mean score=1.29) and lack of regular veterinary services (mean score=1.02).

Difficulties accessing markets (mean score=0.59) and lack of input supply (mean score=0.50) were perceived as less critical, on average.

#### Prices for main types of live animals

The respondents were asked if prices for the main types of live animals had decreased significantly (>50 percent decrease), decreased slightly (<50 percent decrease), increased significantly (>50 percent increase), increased slightly (<50 percent increase), or remained unchanged. Overall, the majority of respondents reported a significant increase in prices (71 percent), while only a small percentage indicated a decrease (8 percent) from Blue Nile, Gedaref, North Kordofan and West Kordofan.

#### Change in livestock asset base

This study examined the variations in livestock ownership among households in the Sudan since the onset of the conflict. As reported by extension officers across 14 states, overall, the findings indicated diverse trends in livestock ownership since the onset of the conflict. An estimated 9 percent of the respondents reported no change, while 28 and 24 percent reported significant and slight decreases, respectively. It was also found that 16 percent reported a significant increase and 21 percent reported a slight increase.

In North Darfur, 88 percent of respondents reported a significant decrease, while 75 percent in Blue Nile reported the same. In contrast, 58 percent of respondents in South Kordofan reported a significant increase in livestock ownership since the conflict began.

## Needs and assistance received by livestock farmers

### Urgent needs to support livestock production

Extension officers were asked to identify the three most urgent needs over the three months following the survey to support livestock production. Overall, the most frequently reported urgent needs were security and peace (77 percent), pasture, feed and fodder (59 percent), veterinary services (vaccination) (49 percent), cash (45 percent) and water (42 percent),

Veterinary services – including vaccination – were reported as an urgent need across the states. In 11 out of the 14 states surveyed, more than 30 percent of respondents identified veterinary services as a critical need. This finding suggests that livestock health is a major concern in the states and veterinary services are crucial for protecting animal herds. States with the highest urgency for feed were White Nile (95 percent), Sennar (82 percent) and Kassala (81 percent).

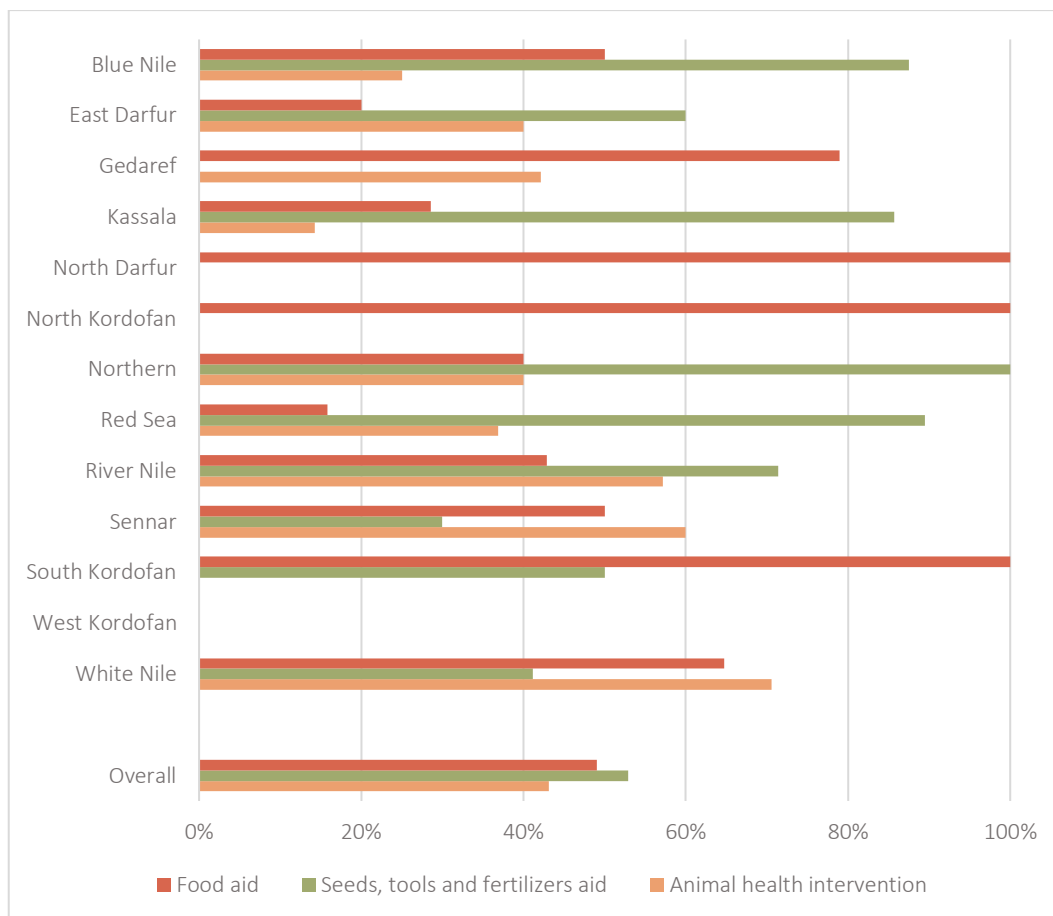
According to the FAO Representation in the Sudan, livestock owners are facing a severe shortage of vaccines and medications which directly stems from the destruction of the country's vaccine manufacturing capacity as well as the significant damage inflicted upon the veterinary drug supply chain. Failure to address these issues could result in deteriorating livestock conditions, leading to heightened mortality rates and reduced income for livestock owners.

### Assistance received

Extension officers were asked about assistance including social protection schemes in their geographical areas since the conflict began, as well as any disruptions encountered. Nearly half (44 percent) of the respondents reported some form of assistance. A significant portion (41 percent) indicated some level of disruption in the delivery of assistance, with 23 percent reporting significant disruption. A high proportion of respondents reporting significant disruption were found in Kassala (55 percent), North Kordofan (30 percent) and South Darfur (46 percent) States. Based on the frequency of the response, the key reasons for the disruption in the provision of assistance were lack of funding (64 percent), disruption of telecommunication networks (56 percent), and insecurity or conflict (50 percent).

Other new or increased assistance (in terms of agriculture and food security) has been provided since the conflict. Seeds, tools and fertilizer (53 percent), and food assistance (49 percent) were the most commonly reported forms of assistance across all states. Animal health interventions (43 percent) were also significant forms of assistance that have been provided since the conflict began (Figure 43).

Figure 43. Agriculture and food security assistance received since the conflict began (percentage of livestock extension officials)



Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

## Marketing and transport challenges

Forty percent of the extension officers reported that transportation of agricultural products and food commodities was still functioning, although with some disruptions. Thirty-nine percent indicated that transportation was functioning normally without any disruptions.

The survey aimed to assess the challenges faced by farmers in marketing their agricultural production (crops and livestock). An estimated 86 percent of the respondents reported that farmers in their geographical areas were encountering challenges marketing their crops and livestock, with 41 percent reporting significant challenges. The key challenges included high transportation costs (61 percent), increased prices of commodities (59 percent), lack of physical access to the market due to insecurity/conflict (38 percent), lack of means of transport including trucks and carts (27 percent), destruction of markets (24 percent), and destruction of infrastructure like bridges and roads (21 percent).

### Challenges to household food security

A substantial majority of respondents (70 percent) indicated that households were facing challenges accessing food and basic commodities. The key challenges related to accessing food – ranked by importance – included loss of income due to conflict, high food and essential items prices, depletion of household stocks from the previous harvest, lack of access to markets due to conflict and insecurity, and challenges accessing cash due to the shutdown of banking systems and money transfer services.

Table 3. Scores of the challenges to access food ranked by the respondents

Challenges	Mean
Loss of income due to conflict	3.8
High food and essential items prices rank score	2.9
Depletion of household stock from previous harvest rank score	2.2
Lack of access to markets due to conflict and insecurity rank score	2.2
Challenges accessing cash due to shutdown of banking systems and money transfer applications/means	1.6
Loss of income from other causes not mentioned above rank score	1.6

**Source:** FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

**Note:** Points were assigned based on rank: 5 for rank 1, 4 for rank 2, 3 for rank 3, 2 for rank 4 and 1 for rank 5. A weighted score was calculated to understand its importance.

# Recommendations

## Emergency livelihood preservation recommendations (short- and medium-term)

### Humanitarian assistance and livelihood support

- Scale-up humanitarian assistance by providing food, food vouchers and cash transfers, mainly in Darfur and Kordofan States.
- Scale up veterinary services for livestock rearing households, provide subsidized veterinary drugs, feed and fodder to traders to ensure an uninterrupted supply of livestock inputs to protect the productive assets of households i.e. livestock.
- Initiate a Cash + response including cash transfers in conjunction with livelihood support – provide animal feed and veterinary drugs, and scale-up vaccination programmes.
- Resume livestock extension services in localities where conflict has subsided.
- Provide capacity building training for seasonal and/or displaced livestock rearing households. The training should focus on livestock management, safer migration routes, and information on sources of livestock inputs and services in localities where conflict has subsided.

### Food and livestock input supply and business support

- Engage in advocacy with key actors and stakeholders, including the governments of neighbouring countries – Chad, Libya and South Sudan – to remove border/trade restrictions and facilitate the free flow of commodities like food items and livestock inputs into the Sudan through formal trade routes.
- Support the production, preservation and storage of fodder for livestock production and income generation opportunities.
- Collaborate between banking institutions and development partners to facilitate the opening of bank accounts by traders to enable more efficient business transactions.
- Provide capacity building for seasonal and/or displaced food, and livestock input traders on business management, value addition and procurement of agricultural inputs including information about supply sources, communication with suppliers, etc.

### Situation monitoring

- Ensure regular monitoring of supplies, sales and prices of essential food items and livestock inputs through DIEM assessments in collaboration with government and non-government partners.
- Conduct a damage and loss assessment to provide detailed information on the cost of the damages caused by conflict, and provide a prioritized recovery and reconstruction plan.
- Ensure regular context monitoring to provide conflict-sensitive follow-up actions.

## Resilience-building recommendations (long-term)

Improve access to capital, credit and banking services through innovative and inclusive approaches

- Support the banking system to simplify processes – especially for female traders – by reducing lengthy documentation requirements.
- Partner with microfinance institutions that are still functional to offer small interest loans to traders tailored to meet their needs.
- Implement women, men and mixed gender group lending groups where participants guarantee each other's loans.
- Encourage asset-based lending to traders and livestock keepers.
- Initiate joint lending by collaborating with development partners in programmes issuing credit opportunities and financial services to food and livestock input traders.

### Peacebuilding initiatives

- Support community-based initiatives that spearhead dialogue among communities with conflicting political views.

### Other long-term livelihood-based recommendations

- Engage in reconstruction of livestock assets and infrastructure, food storage facilities, livestock input manufacturing factories, and market and road networks to promote production and supply of food and agricultural inputs.

# Annex

Annex 1. Food traders, livestock extension officers and livestock input traders surveyed

Food traders				
State	Locality	Female	Male	Total
Blue Nile	Ar Rusayris	0	11	11
	Ed Damazine	0	10	10
East Darfur	Ad Du'ayn	3	17	20
Gedaref	Al Galabat Al Gharbyah - Kassab	0	11	11
	Madeinat Al Gedaref	0	11	11
Kassala	Madeinat Kassala	0	11	11
	Reifi Khashm Elgirba	0	10	10
North Darfur	Al Fasher	5	16	21
North Kordofan	Sheikan	0	20	20
Northern	Al Burgaig	0	10	10
	Dongola	0	14	14
Red Sea	Port Sudan	0	11	11
	Sinkat	0	10	10
River Nile	Shendi	0	22	22
Sennar	Ad Dinder	0	8	8
	Sennar	0	1	1
	Sinja	0	13	13
South Darfur	Kas	1	1	2
	Nyala Shimal	9	9	18
South Kordofan	Al Quoz	7	13	20
West Kordofan	Al Dibab	0	20	20
	AL Fula	0	1	1
White Nile	Kosti	0	10	10
	Rabak	0	13	13
<b>Total</b>		<b>25</b>	<b>273</b>	<b>298</b>

Livestock extension officers				
State	Locality	Female	Male	Total
Blue Nile	Ed Damazine	2	5	7
	Ar Rusayris	1	11	12
	Wad Al Mahi	0	1	1
East Darfur	Ad Du'ayn	6	14	20
Gedaref	Madeinat Al Gedaref	10	10	20
Kassala	Khasham ElGirba	6	4	10
	Madeinat Kassala	7	4	11
North Darfur	Al Fasher	1	7	8
North Kordofan	Sheikan	9	11	20
Northern	Al Burgaig	1	3	4
	Dongola	9	7	16
Red Sea	Port Sudan	7	3	10
	Sinkat	4	6	10
River Nile	Ad Damar	12	8	20
Sennar	Ad Dinder	1	6	7
	Sinja	9	6	15
South Darfur	Nyala Shimal	0	4	4
South Kordofan	Al Quoz	1	0	1
	Kadugli	9	9	18
West Kordofan	Al Fula	3	17	20
White Nile	Kosti	9	4	13
	Rabak	4	4	8
<b>Total</b>		<b>111</b>	<b>144</b>	<b>255</b>



Livestock input traders				
State	Locality	Female	Male	Total
Blue Nile	El Damazine	1	11	12
	Ar Rusayris	0	9	9
East Darfur	Ad Du'ayn	7	13	20
Gedaref	Al Mafaza	0	1	1
	Madeinat Al Gedaref	3	14	17
	Al Qureisha	0	1	1
Kassala	Madeinat Kassala	2	9	11
	Khashm Elgirba	1	8	9
North Darfur	Al Fasher	4	9	13
North Kordofan	Sheikan	6	15	21
Northern	Dongola	5	12	17
	Al Burgaig	1	2	3
	Al Golid	0	1	1
	Sharaq El Neil	1	1	2
Red Sea	Port Sudan	1	9	10
	Sinkat	0	10	10
River Nile	Ad Damar	6	17	23
Sennar	Ad Dinder	2	6	8
	Sinja	1	11	12
South Darfur	Nyala Janoub	1	3	4
	Nyala Shimal	2	13	15
South Kordofan	Al Quoz	0	20	20
	Kadugli	17	4	21
West Kordofan	Al Fula	0	21	21
	As Sunut	0	1	1
White Nile	Kosti	3	7	10
	Rabak	3	7	10
<b>Total</b>		<b>67</b>	<b>235</b>	<b>302</b>

Source: FAO. 2024. Sudan: DIEM-Monitoring assessment results (April 2024). In: *FAO Data in Emergencies Hub*. Rome. [Cited 8 June 2024]. <https://data-in-emergencies.fao.org>

## References

- ACLED (Armed Conflict Location and Event Data).** 2024. Sudan country hub. In: *ACLED*. Wisconsin, United States of America. [Cited on 8 June 2024]. <https://acleddata.com/africa/horn-of-africa/sudan/>
- Care.** 2024. One year later: Women and girls bear the brunt of Sudan’s conflict. In: *Care International*. London. [Cited 8 June 2024]. <https://www.careinternational.org.uk/press-office/press-releases/one-year-later-women-and-girls-bear-the-brunt-of-sudans-conflict/>
- Human Rights Watch.** 2024. Sudan: Ethnic Cleansing in West Darfur. In: *Human Rights Watch*. New York City, United States of America. [Cited 8 June 2024]. <https://www.hrw.org/news/2024/05/09/sudan-ethnic-cleansing-west-darfur>
- FAO.** 2024. *Special report – 2023 FAO Crop and Food Security Assessment Mission (CFSAM) to the Republic of the Sudan. 19 March 2024.* CFSAMs Special Reports, 01/2024. Rome. <https://doi.org/10.4060/cd0053en>
- FEWS NET.** 2024a. *Sudan Food Security Alert, May 3 2024.* Washington, D.C. [https://fews.net/sites/default/files/2024-05/Sudan-Food-Security-Alert-20240503-final\\_0.pdf](https://fews.net/sites/default/files/2024-05/Sudan-Food-Security-Alert-20240503-final_0.pdf)
- FEWS Net.** 2024b. *Sudan price bulletin, March 2024.* Washington, D.C. [https://fews.net/sites/default/files/2024-03/PB\\_SD\\_202403.pdf](https://fews.net/sites/default/files/2024-03/PB_SD_202403.pdf)
- IOM (International Organization for Migration).** 2024. *DTM Sudan – Monthly displacement overview (08).* Geneva, Switzerland. <https://dtm.iom.int/reports/dtm-sudan-monthly-displacement-overview-08?close=true>
- IPC.** 2024a. *IPC Alert: Sudan.* Rome. [https://www.ipcinfo.org/fileadmin/user\\_upload/ipcinfo/docs/IPC\\_Alert\\_Sudan\\_March2024.pdf](https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Alert_Sudan_March2024.pdf)
- IPC.** 2024b. Sudan – IPC Alert: A conflict surge threatens millions to slide into worst levels of acute food insecurity and malnutrition. In: *IPC*. Rome. [Cited 8 June 2024]. <https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156903/?iso3=SDN>
- ISDC.** (2023). Support for the FAO impact analysis of the “Restoring food and nutrition security of affected farming and pastoral communities in Sudan” project. In: *ISDC*. Berlin. [Cited 8 June 2024]. <https://isdc.org/projects/support-for-the-fao-impact-analysis-of-the-restoring-food-and-nutrition-security-of-affected-farming-and-pastoral-communities-in-sudan-project/>
- OCHA (United Nations Office for the Coordination of Humanitarian Affairs).** 2024a. *Sudan Humanitarian Needs and Response Plan 2024 (December 2023).* New York City, United States of America. <https://www.unocha.org/publications/report/sudan/sudan-humanitarian-needs-and-response-plan-2024-december-2023>

**OCHA.** 2024b. *Sudan humanitarian update (15 May 2024)*. New York City, United States of America. <https://www.unocha.org/publications/report/sudan/sudan-humanitarian-update-15-may-2024>

**UNHCR (United Nations High Commissioner for Refugees).** 2024. Sudan: One year of spiralling conflict and displacement. In: *Dataviz*. Geneva, Switzerland. [Cited 8 June 2024]. <https://dataviz.unhcr.org/products/gotm/2024-04/sudan-one-year-spiralling-conflict.html>

**WFP.** 2024. *WFP Market Monitor – Sudan, April 2024*. Rome. <https://docs.wfp.org/api/documents/WFP-0000158819/download/>



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