



Food and Agriculture  
Organization of the  
United Nations

Chad

# DIEM – Data in Emergencies Monitoring brief, round 5

Results and recommendations  
January 2024

Data collection 5 September to 1 October 2023

## Key highlights

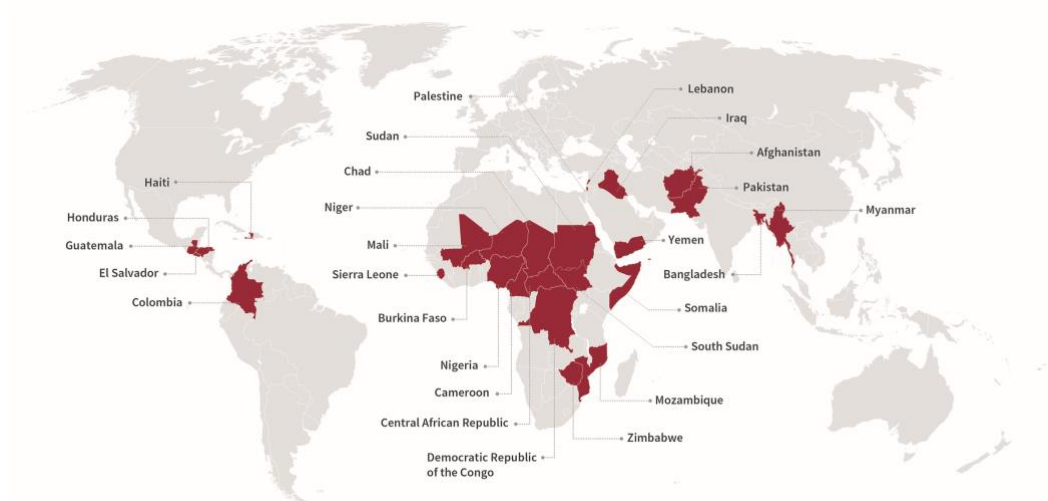
- > Seventy-two percent of respondents said they had been affected by at least one shock in the three months preceding the survey. The provinces most affected were Kanem, Logone Occidental and Wadi Fira. The main shock of an economic nature was the rise in food prices reported by 42 percent of respondent households.
- > Of the households surveyed, 65 percent had experienced a reduction in their main source of income in the three months preceding the survey.
- > Half of the surveyed households derived their main income from crop production, and 20 percent from livestock production and marketing. Sixty-two percent reported a second source of income.
- > The main crops were millet, groundnuts and sorghum. More than a third of the respondent crop producers reduced the area under cultivation and two-thirds reported a significant drop in harvest.
- > The main livestock raised in the assessment areas were goats, cattle and sheep. Over three-quarters of the surveyed livestock producers reported a reduction in their herds due to production difficulties.
- > The Food Insecurity Experience Scale (FIES) shows particularly high results in Kanem, with 82 percent experiencing food insecurity. Across the targeted provinces, 58 percent of the surveyed households were moderately or severely food insecure, and 8 percent were severely food insecure. According to the household dietary diversity score (HDDS), 9 percent of surveyed households had low dietary diversity.

## Methodology

The Food and Agriculture Organization of the United Nations (FAO) conducted the fifth round of the Data in Emergencies Monitoring (DIEM-Monitoring) household survey in Chad to assess agricultural livelihoods and food security. Data were collected through face-to-face surveys in 484 villages in 22 departments of the provinces of Kanem, Lac, Logone Occidental, Moyen-Chari, Moyen Kebbi Est and Wadi Fira. A total of 5 321 agricultural and non-agricultural households were interviewed between 5 September and 1 October 2023. The survey is representative at department level (administrative level 2) and the sample was designed with a 10 percent margin of error. Weights were applied on the basis of population size, percentage of agricultural households and wealth indicators (access to toilets and level of education).

Data collection took place during the rainy season when certain crops were being harvested. The second (December 2021), third (August 2022) and fourth (January 2023) rounds of data collection have been drawn from to make comparisons throughout this brief.

Figure 1. Countries with established DIEM-Monitoring Systems



**Source of data:** FAO. 2023. DIEM-Monitoring. In: *FAO Data in Emergencies Hub*. Rome. [Cited 1 July 2023]. <https://data-in-emergencies.fao.org>

**Source of map:** United Nations Geospatial. 2023. Map of the World. In: *United Nations*. [Cited 20 July 2023]. <https://www.un.org/geospatial/content/map-world-1>

The final boundary between the Sudan and South Sudan has not yet been determined. The final status of the Abyei area is not yet determined. The dotted line represents, approximately, the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

### About DIEM-Monitoring

FAO established the DIEM-Monitoring System to collect, analyse and disseminate data on shocks and livelihoods in countries prone to multiple shocks. DIEM-Monitoring aims to inform decision making by providing regularly updated information on how different shocks are affecting the livelihoods and food security of agricultural populations.

At the core of the DIEM-Monitoring System are country-level dashboards. Readers are encouraged to explore these dashboards to gain more insight into the context of Chad and other countries.

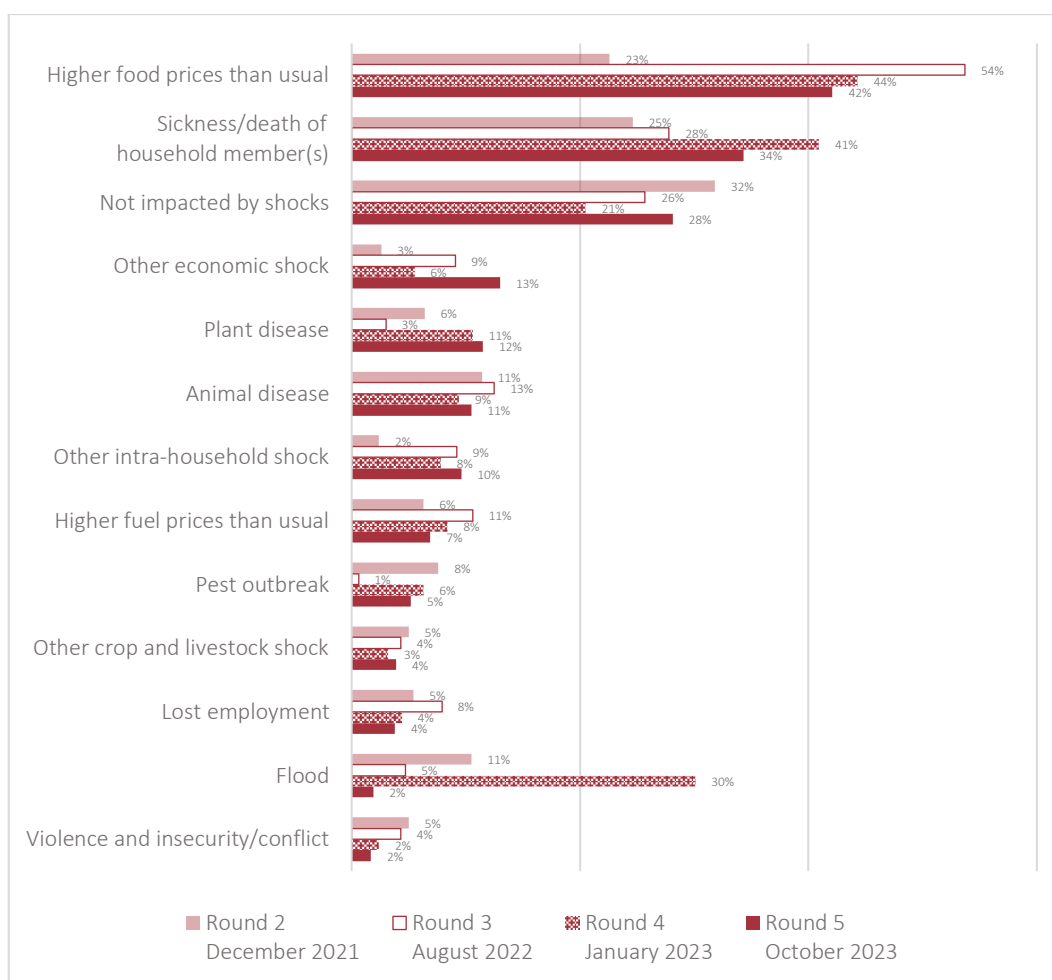
Learn more at <https://data-in-emergencies.fao.org/pages/monitoring>

## Income and shocks

Seventy-two percent of respondents said they had been affected by at least one shock in the three months preceding the survey. The provinces most affected were Kanem (98 percent), Logone Occidental (96 percent) and Wadi Fira (83 percent). The main shock of an economic nature, was the rise in food prices, reported by 42 percent of surveyed households, compared with 44 percent in the previous round (Figure 2). Illness or death of a family member accounted for 34 percent of responses. This rate rose to 60 percent in Kanem and 55 percent in Logone Occidental.

In Kanem, 92 percent of households were affected by rising food prices, 60 percent in Wadi Fira and 46 percent in Mayo Kebbi. The rise in food prices can be explained by the international context, but also by the particularly severe flooding in Chad in 2022.

Figure 2. Most frequently reported shocks (percentage of households)



Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (December 2021, August 2022, January and October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

At department level, the rise in staple food prices was cited most by households in the departments of Kanem province: 91 percent in Kanem, 92 percent in Nord Kanem and 96 percent in Wadi Bissam, due to a poor agricultural season and lower agricultural production in Lac, the traditional supply zone. In the two targeted Wadi Fira departments, Dar Tama and Kobé, 67 percent of households said they were affected by rising food prices. This can be

attributed to the ongoing conflict in Ukraine, the crisis in Sudan, the low level of agricultural production in the last season, the high cost of transport due to rising fuel prices and the poor state of road infrastructure.

Illness and death of household members were cited in all targeted departments. Most deaths were linked to traffic accidents, with the most vulnerable households unable to access quality health care. In addition, there are not enough local health centres to provide first aid in the event of an accident or serious illness.

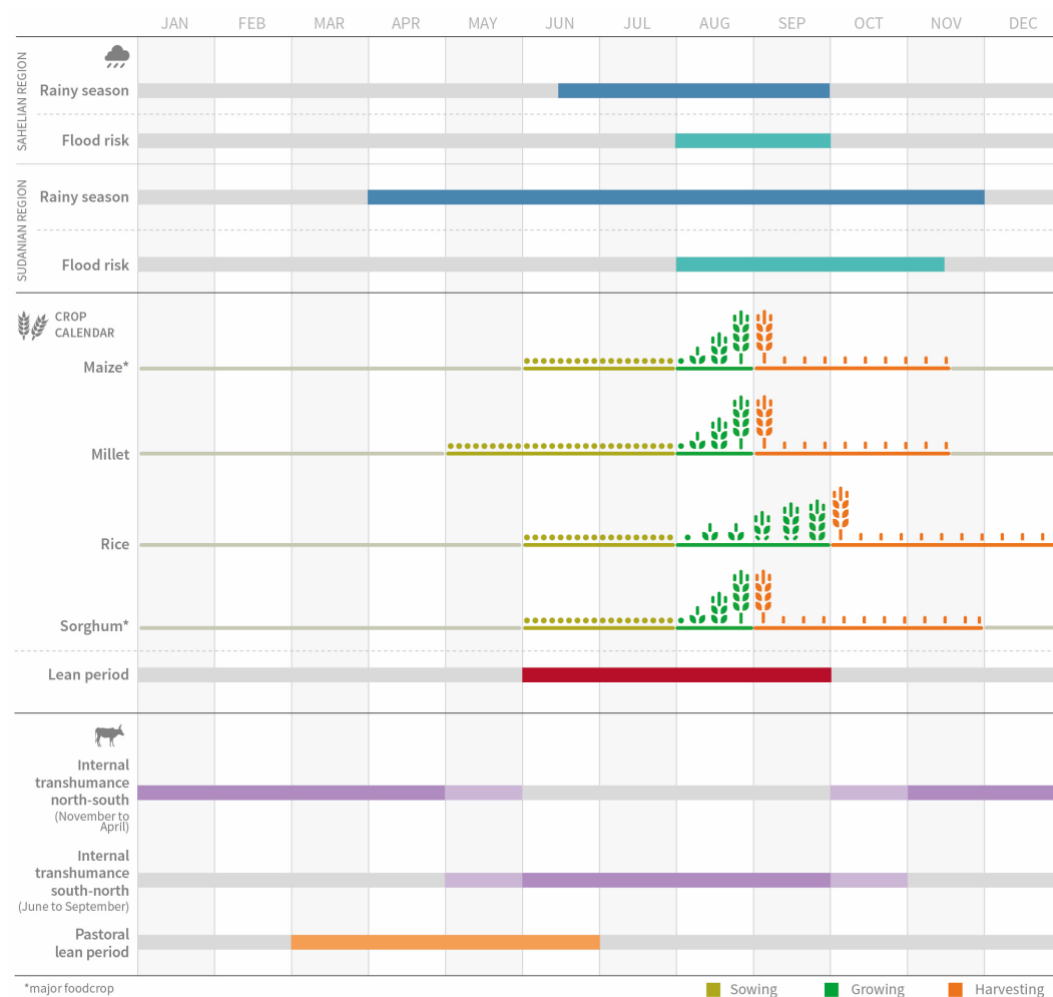
The Chadian Ministry of Livestock identified pockets of drought in certain areas of the Sahel provinces, notably Barh el Gazel, Kanem and Lac. According to the DIEM-Monitoring assessment, a third of households in the departments of these provinces claim to have been affected by drought.

Forty-eight percent of surveyed households (compared to 70 percent in the previous round) derived their main income from agricultural activities, and 20 percent from livestock production and marketing (compared to 18 percent). Sixty-two percent reported a second source of income.

In addition, 65 percent of surveyed households reported a reduction in their main income in the three months preceding the survey, compared to 52 percent in the previous round. There are many reasons for this: lower agricultural production following a poor growing season, crop losses, and limited access to the services, knowledge and technologies needed to improve productivity. Lack of access to credit at rural level means that the least well-off farmers are unable to develop new sources of income or improve their productivity.

## Crops

Figure 3. Chad agricultural calendar



Source: FAO. 2023. GIEWS Country Briefs: Chad. In *FAO*, 7 August 2023. Rome [Cited 2 November 2023]. <https://www.fao.org/giews/countrybrief/country.jsp?code=TCD&lang=en>

The main crops in the areas targeted by the survey were millet (45 percent of crop producers), groundnuts (18 percent), sorghum (13 percent) and rice (7 percent). Thirty-five percent of crop producers increased their area under cultivation compared with the previous season, 33 percent maintained the same area and 39 percent reduced their area. Sixty-seven percent of surveyed crop producers noted a significant drop in their harvests. The causes of this decline are multiple: climatic variations, soil exhaustion, pests and inadequate water management. Another difficulty is the very limited access to agricultural inputs, such as good quality seeds. As a result, 81 percent of crop producers encountered production difficulties (74 percent in the previous round), such as crop damage during the growth phase (45 percent), lack of water or insufficient rainfall (42 percent) and plant diseases (32 percent) (Figure 4).

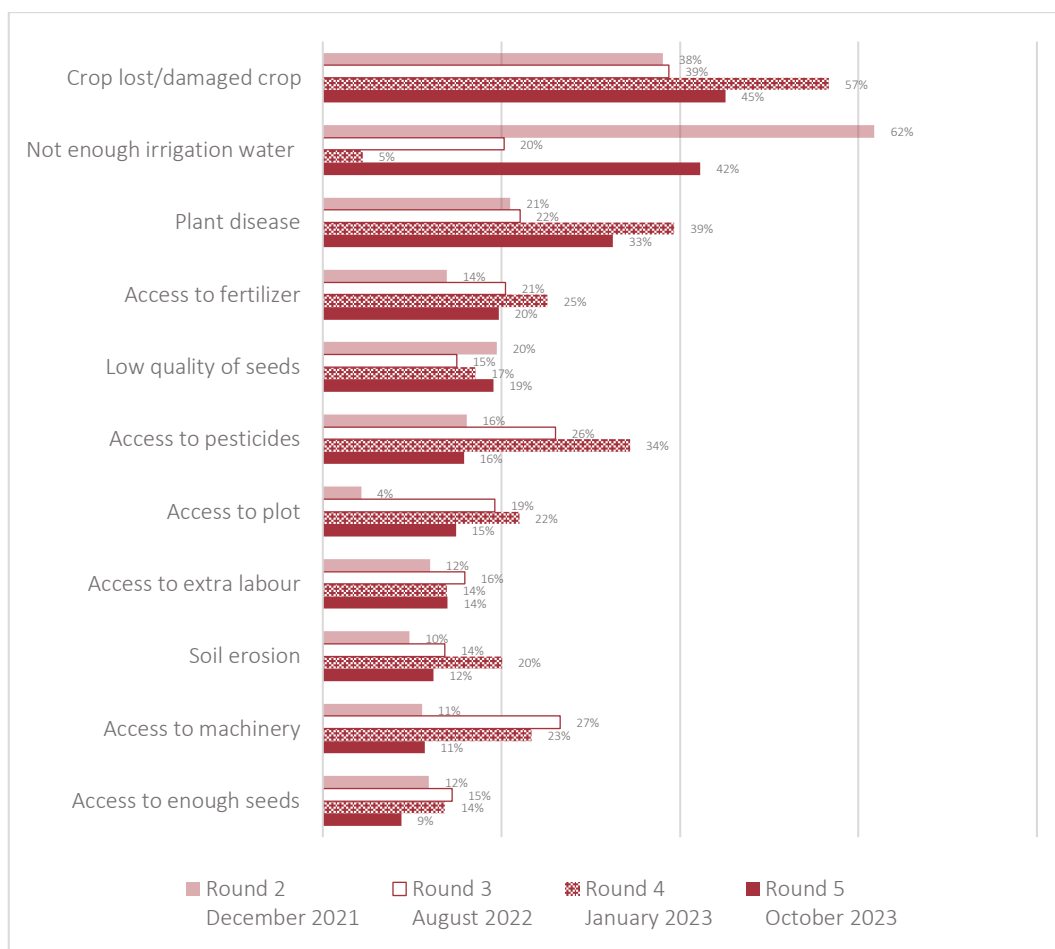
Crop damage (other than disease, such as pests, birds, etc.) was cited in all departments, but those most affected were Mègri (82 percent), Lac Iro (79 percent), Biltine (78 percent), Kabbia (76 percent), Mont Illi (75 percent) and Wadi Bisam (70 percent). In addition, plant diseases remained a concern in the departments of Fouli (87 percent), Biltine (84 percent), Kaya (82 percent), Nord Kanem (54 percent), Wadi Bissam (52 percent) and Kanem (51 percent). The long dry spells during the rainy season in most localities in the Sudanian and Sahelian zones

disrupted planting operations and encouraged the appearance of crop pests, notably caterpillars and grasshoppers.

Access to water is particularly problematic in the departments of the Sahelian zone provinces covered by the assessment. At least two out of three households reported difficulties irrigating their fields.

The poor quality of seeds was cited more often by households in the Wadi Fira province, more specifically in the departments of Biltine and Mégrî (71 and 63 percent). Crop producers stored their own seeds from one year to the next in poor conditions, rather than buying from seed companies.

Figure 4. Crop production difficulties (percentage of crop producers)



Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (December 2021, August 2022, January and October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

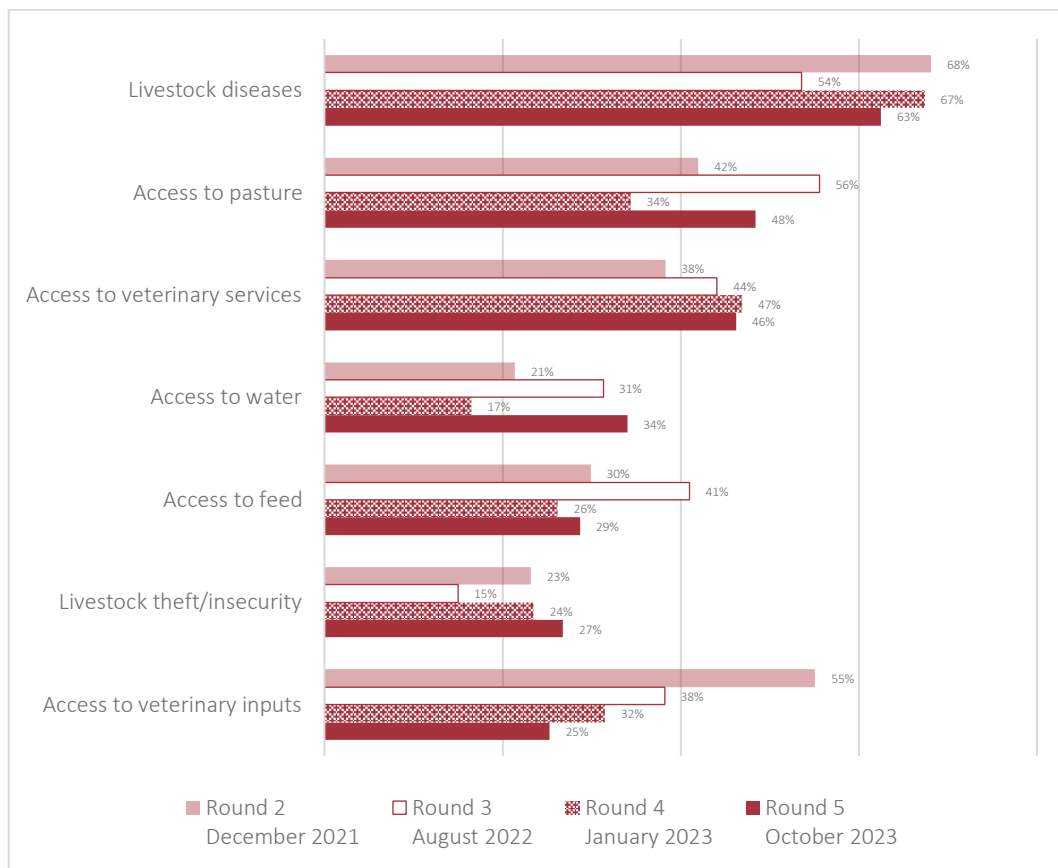
Forty-six percent of crop-producing households reported difficulties selling their crops, compared to 36 percent in the previous round. High transport costs and other marketing costs remained the main difficulties, down from the previous round (61 compared to 85 percent). Thirty-four percent of crop producers experienced a reduction in selling prices, and 41 percent reported a drop in demand from regular customers.

## Livestock

The main livestock raised in the assessment areas were goats (52 percent of farmers), cattle (21 percent) and sheep (16 percent). Seventy-seven percent of livestock producers reported a decline in their numbers of livestock (compared to 72 percent in the fourth round).

Seventy-three percent of livestock producers reported production difficulties, notably animal illness or death (63 percent), as well as access to pasture (48 percent) and veterinary services (46 percent) (Figure 5). These difficulties are often structural: despite the efforts of public authorities, there is a shortage of qualified personnel in animal husbandry techniques in certain areas of the country.

Figure 5. Livestock production difficulties (percentage of livestock producers)



Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (December 2021, August 2022, January and October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

The provinces of the Sahelian zone are highly exposed to difficulties when trying to access grazing land, particularly as a result of climate change. Depleted pastures, dried-up watercourses and seasonal diseases are decimating herds. Added to this is the narrowing of transhumance corridors due to the expansion of villages and fields, leading to major conflicts between herders and farmers.

In addition, 56 percent of herders have encountered marketing difficulties, including low selling prices (79 percent), excessively high marketing or transport prices (30 percent), and fewer customers or purchases (50 percent).

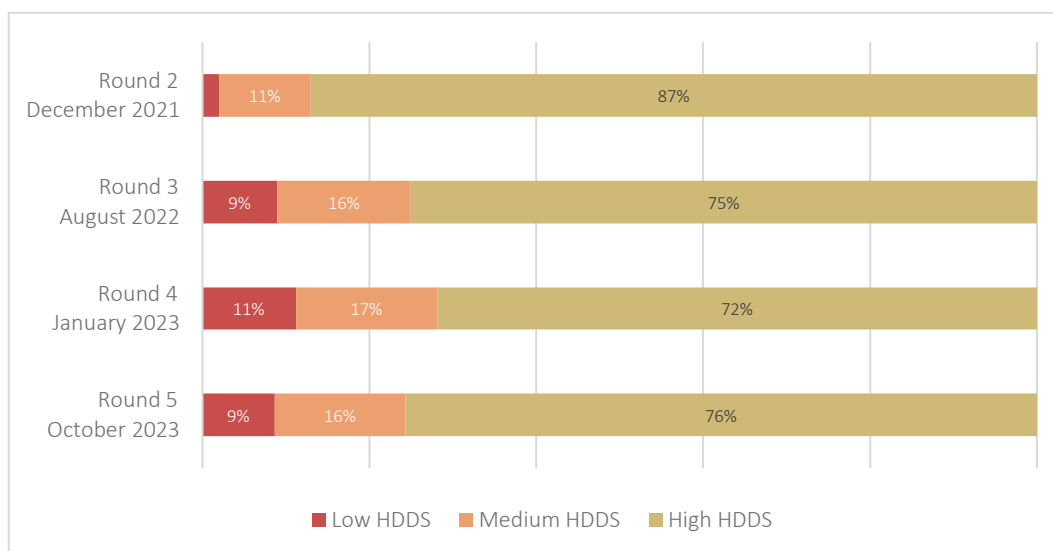


## Food security

The FIES<sup>1</sup> indicates particularly high results in Kanem, with 82 percent of respondents moderately or severely food insecure. This figure is particularly alarming when compared to the 47 percent recorded in September 2022. Across the targeted provinces, 58 percent are moderately or severely food insecure, and 8 percent are severely food insecure.

The HDDS shows low dietary diversity for 9 percent of surveyed households, medium diversity for 16 percent and high diversity for 76 percent (11, 17 and 72 percent, respectively, in the previous round) (Figure 6).

Figure 6. HDDS (percentage of households)



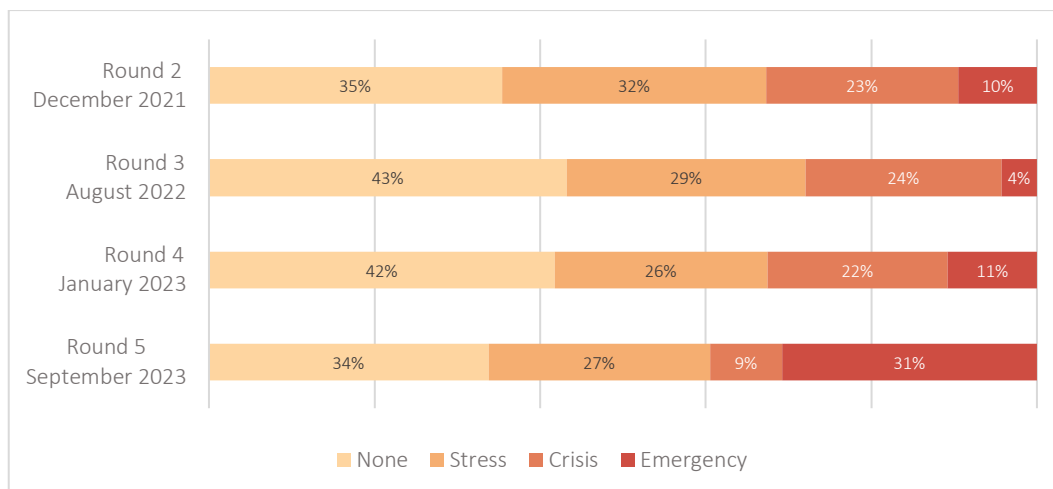
Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (December 2021, August 2022, January and October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

Sixty-four percent of surveyed households (58 percent in the fourth round) used coping strategies: 27 percent used stress strategies (compared to 26 percent the fourth round), 9 percent used emergency strategies (compared to 11 percent) and 31 percent used crisis strategies (compared to 22 percent) (Figure 7).

---

<sup>1</sup> FIES results are subject to change until the country scale is established for more consistent comparability across rounds.

Figure 7. Livelihood coping strategies index (percentage of households)



Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (December 2021, August 2022, January and October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

## Needs

Nearly 99 percent of the surveyed households reported needing assistance, including food or cash (76 percent, stable compared to the fourth round), seeds (52 percent compared to 53 percent), tools (43 percent compared to 52 percent), fertilizer (37 percent compared to 42 percent) and marketing support (34 percent). Most households (89 percent) had received no assistance in the three months preceding the survey. Only 5 percent (9 percent in the fourth round) received food assistance and 2 percent received seeds.

## Recommendations

### Short-term recommendations

- > Provide producers with timely inputs for off-season crops in the provinces of Kanem, Lac and Wadi Fira.
- > Provide households in Wadi Fira with quality seeds.
- > Assist populations in crisis situations through food assistance, low-cost food sales and cash transfer programmes.
- > Ensure close monitoring and follow-up on the food situation.
- > Increase producers' incomes through the development of cash crops (groundnuts, sesame, cotton) and local financial support.
- > Encourage market garden production to boost household incomes, particularly during periods of low agricultural activity and demand for horticultural products.
- > Offer veterinary services and inputs, and provide food supplements for livestock in the most vulnerable pastoral areas.

### Medium/long-term recommendations

- > Provide medium- and long-term assistance to populations affected by recent floods.
- > Improve and disseminate drought early warning systems.
- > Develop agricultural and pastoral resilience: improve seed quality and the availability of short-cycle varieties, make inputs available and encourage more intensive cultivation.
- > Revitalize transhumance corridors.
- > Construct additional pastoral wells.

## Annexes

Table 1. Main shocks reported by department (percentage of households)

	Drought	High food prices	Lost employment	No shock	Plant disease	Sickness/death of household member(s)
<b>Kanem</b>						
Kanem	39	91	2	1	29	62
Nord Kanem	30	92	6	3	13	55
Wadi Bissam	48	96	3		36	63
<b>Lac</b>						
Fouli	23	2	0	36	14	33
Kaya	32	5	1	28	24	32
Mamdi	30	0	0	61	0	1
Wayi	35			65		
<b>Logone Occidental</b>						
Dodjé		3		42	2	25
Guéni		0	0	28	0	36
Lac Wey	20	52	5	3	17	69
Ngourkosso	9	46	2	4	11	62
<b>Mayo-Kebbi Est</b>						
Kabbia		28	2	50		32
Mayo-Boneye	0	60	9	21	6	35
Mayo-Lemié	14	55	12	18	20	24
Mont Illi		48	3	36	3	24
<b>Moyen-Chari</b>						
Bahr-Kôh		17	2	42	0	44
Grande Sido		29	1	44	1	36
Lac Iro		27	0	55	1	25
<b>Wadi Fira</b>						
Biltine	1	54	11	32	30	30
Dar-Tama	27	67	6	1	25	26
Kobé	27	67	8	4	8	5
Mégri		41	6	53	30	15

Source: FAO, 2023. Chad: DIEM-Monitoring assessments results (October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

Table 2. Crop production difficulties by department (percentage of surveyed crop producers)

	Not enough irrigation water	Crop damages	Access to fertilizer	Access to pesticides	Access to plot	Plant disease	Quality of seeds	Soil erosion
<b>Kanem</b>								
Kanem	71	61	10	3	3	51	39	12
Nord Kanem	81	25	8	2	6	54	14	4
Wadi Bissam	76	70	26	0	2	52	40	5
<b>Lac</b>								
Fouli	45	35	1	1		87	33	16
Kaya	61	33				82	31	16
Mamdi	65	14	2		8	9	6	1
Wayi	88	68	1	0	2	10	17	
<b>Logone Occidental</b>								
Dodjé	4	59	23	29	14	24	16	4
Guéni	4	54	35	18	9	12	6	9
Lac Wey	15	13	43	6	25	33	26	40
Ngourkosso	17	10	31	2	32	31	21	46
<b>Mayo-Kebbi Est</b>								
Kabbia	1	76	18	2	13	5	3	1
Mayo-Boneye	9	20	36	55	10	13	2	5
Mayo-Lemié	26	36	30	39	3	40	13	7
Mont Illi	1	75	9	4	14	42	10	1
<b>Moyen-Chari</b>								
Bahr-Köh	50	27	13		15	5	7	2
Grande Sido	30	46	7	3	19	11	6	2
Lac Iro	12	79	7	3	21	5	2	2
<b>Wadi Fira</b>								
Biltine	34	78	29	6	48	84	71	
Dar-Tama	90	33	21	25	17	45	7	27
Kobé	96	12	18	11	10	15	10	19
Mégri	63	82	13		28	79	63	

Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

Table 3. Livestock production difficulties (percentage of surveyed livestock producers)

	Access to pasture	Access to water	Access to veterinary inputs	Access to veterinary services	Access to feed	Livestock diseases or death
<b>Kanem</b>						
Kanem	68	71	39	52	52	89
Nord Kanem	69	37	30	57	46	83
Wadi Bissam	95	86	54	84	44	88
<b>Lac</b>						
Fouli	60	61	7	26	30	37
Kaya	74	50		6	15	32
Mamdi	16		15	10	18	56
Wayi	5		29	36	35	67
<b>Logone Occidental</b>						
Dodjé	11		19	54	2	76
Guéni	6		2	50	4	72
Lac Wey	8	8	19	63	13	72
Ngourkosso	14	14	30	44	7	81
<b>Mayo-Kebbi Est</b>						
Kabbia	49	4	9	35	30	53
Mayo-Boneye	50	26	40	65	1	53
Mayo-Lemié	43	39	41	60	4	57
Mont Illi	48	15	14	43	26	46
<b>Moyen-Chari</b>						
Bahr-Köh	16		27	16	29	45
Grande Sido	30	9	37	20	18	40
Lac Iro	20	19	55	23	27	36
<b>Wadi Fira</b>						
Biltine	94	84	24	50	64	17
Dar-Tama	40	36	15	37	17	90
Kobé	84	62	16	49	24	65
Mégri	97	92	12	52	89	12

Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>

Table 4. Main needs reported (percentage of surveyed households)

	Access to irrigation water	Animal feed	Cash or food assistance	Marketing support	Pesticides	Restocking animals	Seeds	Tools	Veterinary inputs	Veterinary services
<b>Kanem</b>										
Kanem	21	39	97	44	2	16	52	21	48	41
Nord Kanem	16	31	88	26	0	6	41	14	37	48
Wadi Bissam	33	48	100	80	2	13	33	8	56	41
<b>Lac</b>										
Fouli	17	4	77	19	26	1	55	28	3	8
Kaya	8	5	95	28	26	0	55	33	3	3
Mamdi	31	6	45	26	36		70	57	8	5
Wayi	21	7	65	19	29	1	60	48	12	11
<b>Logone Occidental</b>										
Dodjé	6	3	73	28	44	22	58	48	11	17
Guéni	0	0	80	29	35	21	41	39	5	11
Lac Wey	9	1	79	33	24	21	71	58	6	9
Ngourkosso	13	3	77	29	21	16	85	56	6	10
<b>Mayo-Kebbi Est</b>										
Kabbia	2	8	54	16	59	20	38	70	12	25
Mayo-Boneye	3	3	85	17	27	28	31	42	7	4
Mayo-Lemié	5	7	74	16	29	17	29	39	8	10
Mont Illi	3	7	53	17	35	5	40	54	10	21

	Access to irrigation water	Animal feed	Cash or food assistance	Marketing support	Pesticides	Restocking animals	Seeds	Tools	Veterinary inputs	Veterinary services
<b>Moyen-Chari</b>										
Bahr-Köh	1	5	82	52	4	11	22	16	5	4
Grande Sido	0	11	73	47	20	35	69	62	11	7
Lac Iro	3	3	68	47	27	46	58	64	19	6
<b>Wadi Fira</b>										
Biltine	9	7	54	13	28	2	72	37	2	8
Dar-Tama	70	54	75	62	47	17	68	49	16	57
Kobé	50	59	67	59	28	11	46	28	24	54
Mégri	24	16	57	26	18	1	44	30	12	18

Source: FAO. 2023. Chad: DIEM-Monitoring assessments results (October 2023). In: *FAO Data in Emergencies Hub*. Rome. [Cited 2 November 2023]. <https://data-in-emergencies.fao.org>





**USAID**  
FROM THE AMERICAN PEOPLE

This brief is made possible by the support of the American people through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of FAO and do not necessarily reflect the views of USAID or the United States of America Government.

## Contact

---

### FAO Representation in Chad

FAO-TD@fao.org  
@FaoTchad  
N'Djamena, Chad

---

### Office of Emergencies and Resilience

Data-in-emergencies@fao.org  
data-in-emergencies.fao.org | @FAOEmergencies  
Rome, Italy

---

### Food and Agriculture Organization of the United Nations

The boundaries and names shown and the designations used on the map(s) in this information product do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on the map represent approximate border lines for which there may not yet be full agreement.

FAO. 2024. *Chad: DIEM – Data in Emergencies Monitoring brief, round 5 – Results and recommendations, January 2024*. Rome.  
<https://doi.org/10.4060/cc9347en>



Some rights reserved. This work is available under a CC BY-NC-SA 3.0 IGO licence