



Food and Agriculture  
Organization of the  
United Nations

**Bangladesh**

DIEM – Data in Emergencies

Monitoring brief – round 7

Results and recommendations

June 2023

**Data collection** 17 February to 21 March 2023

## Key highlights

- > Food consumption and livelihoods have improved since the last round, and when compared to the same period last year.
- > Economic shocks are not only predominant, but on a steep rise, and fuel and transport costs seem to have a compounding effect.
- > Pest outbreaks and plant diseases are the most reported crop production constraints, but access to fertilizer indicated an increasing trend.
- > About 21 percent of farmers reported a decrease in harvest, in particular among female-headed households (33 percent compared to 20 percent of male-headed households).
- > Reduction in the area planted is associated with decapitalization suggesting that asset depletion among farmers constrains investments in production.
- > Herd sizes of cattle have an improving trend, but poultry animal deaths continue to be a big concern.
- > Crop marketing has become more difficult, particularly for rice. The livestock marketing environment has improved.
- > Barisal, Rajshahi and Rangpur divisions, and the hotspots of Barind and the Drought-Prone Areas, and Chittagong Hill Tracts present the highest prevalence of poor dietary diversity, Food Insecurity Experience Scale (FIES) and coping strategies, along with Mymensingh and Dhaka divisions (particularly severe recent food insecurity).

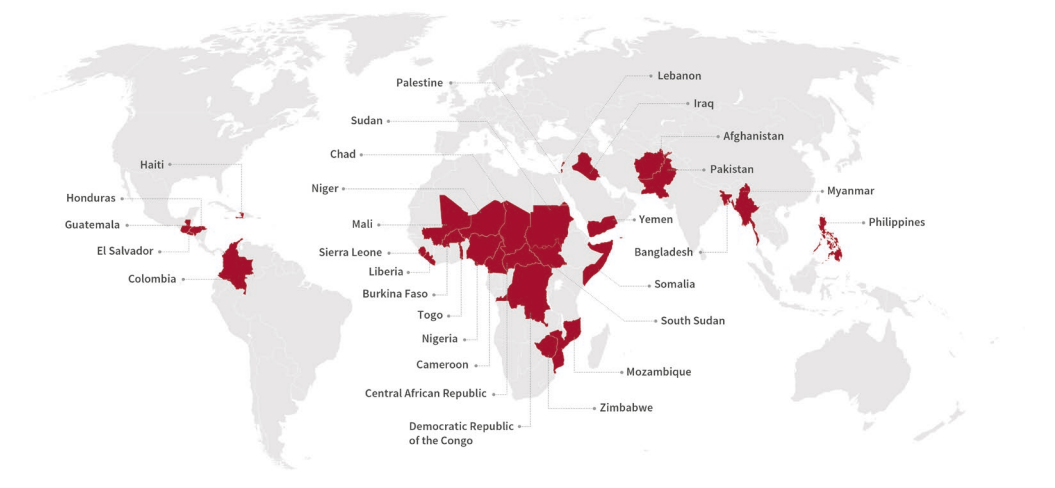
## Methodology

The Food and Agriculture Organization of the United Nations (FAO) launched a household survey in Bangladesh through the Data in Emergencies Monitoring (DIEM-Monitoring) System to monitor agricultural livelihoods and food security. This seventh-round survey reached 3 075 households, representative at division level. The survey targeted all eight divisions of the country: Barisal, Chattogram, Dhaka, Khulna, Mymensingh, Rajshahi, Rangpur and Sylhet. The survey also targeted the hotspots identified in the Bangladesh Delta Plan 2100: Barind and the Drought-Prone Areas, Chars, Chittagong Hill Tracts, Coastal Zone, Cross-Cutting Area, and Haor and the Flash Flood Areas.

Interviews for this seventh-round survey were conducted between 17 February and 21 March 2023 through computer-assisted telephone interviews. Data collection took place during the potato harvest, with recall up to three months (*Aman* harvest in November) without any lean period or natural shocks. The sample was weighted by three wealth proxies: demographics, agricultural activity and toilet facility. In addition, quotas were imposed to be able to present results by hotspot.

The fourth-round survey was conducted between 16 October and 24 November 2021, the fifth-round survey between 17 March and 2 April 2022, and the sixth round between 7 September and 8 October 2022. These three rounds 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 3 November 2022. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

**Source of map:** United Nations. 2023. *Map of the World*. Cited 3 November 2022. [un.org/geospatial/content/map-world](https://un.org/geospatial/content/map-world)

The final boundary between the Sudan and South Sudan has not yet been determined. 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.

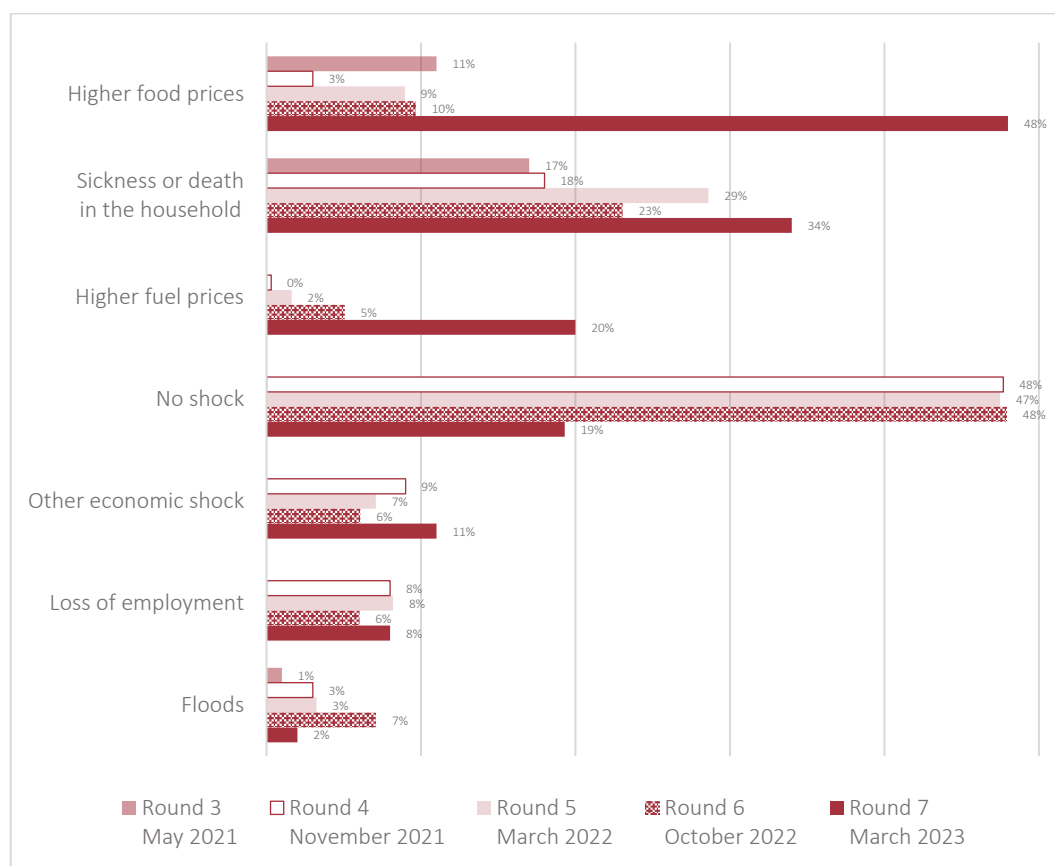
At the core of the DIEM-Monitoring System are country-level dashboards. Readers are encouraged to explore these dashboards to gain more insight into the context of Bangladesh and other countries.

Learn more at [data-in-emergencies.fao.org/pages/monitoring](https://data-in-emergencies.fao.org/pages/monitoring)

## Income and shocks

Economic shocks steeply increased this round (Figure 2). The increase of food prices was the most frequent shock, followed by sickness/death in the family, which had previously been the most frequently reported shock since the beginning of 2022. Shocks that were associated with COVID-19 restrictions (such as business constraints) almost disappeared. Economic and idiosyncratic shocks were frequent across all divisions and hotspots. These shocks were much more frequent among households with lower levels of education, unpaved floors and no toilet facility suggesting that poverty is a key factor to these kinds of shocks. High fuel and transport costs seem to have a compounding effect. Despite less frequent agricultural shocks, when comparing income sources from farming to 12 months ago, improvements are evident.

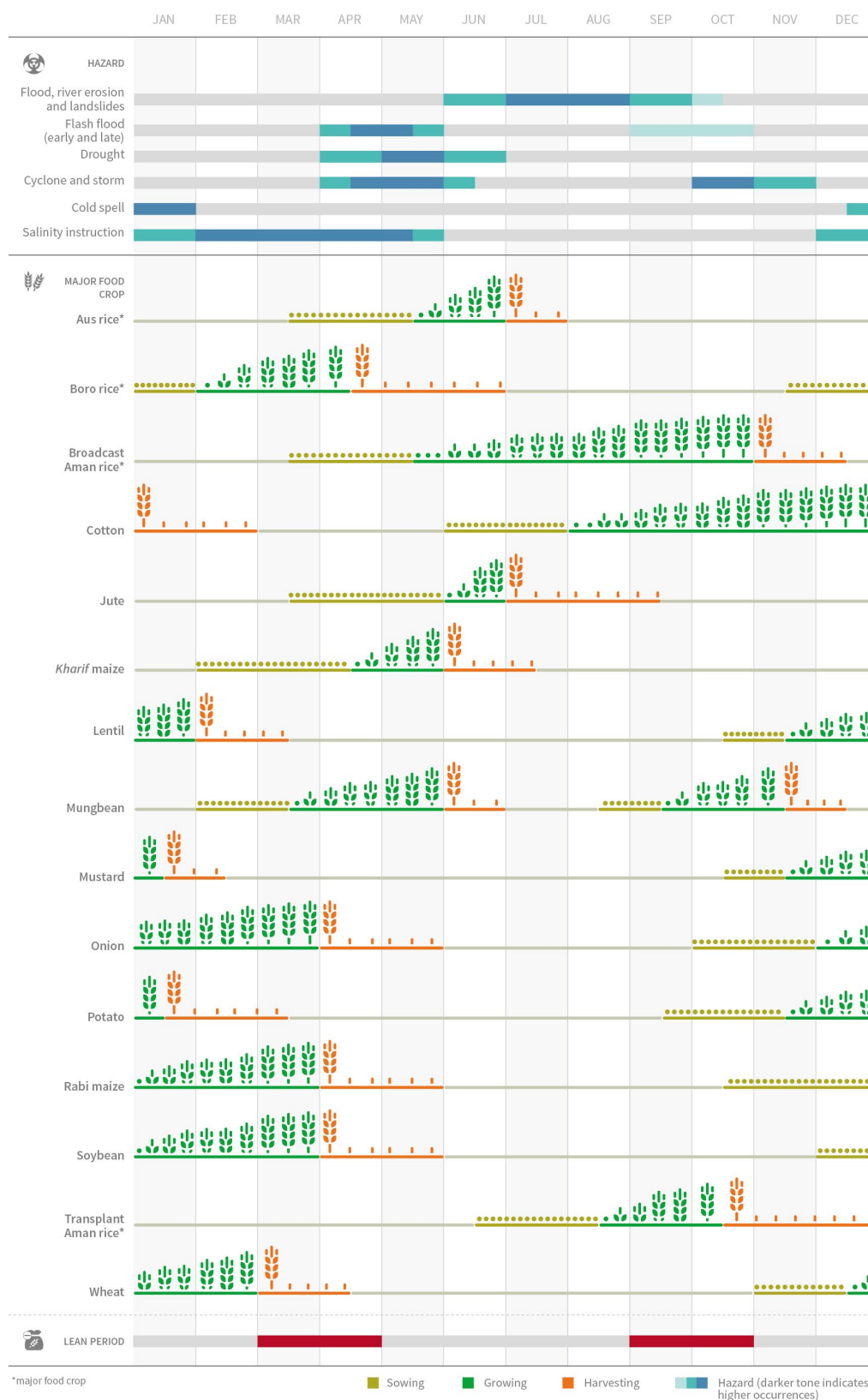
Figure 2. Main shocks (percentage of households)



Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (May and November 2021, March and October 2022, and March 2023). In: FAO Data in Emergencies Hub. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

## Crops

Figure 3. Bangladesh agricultural calendar



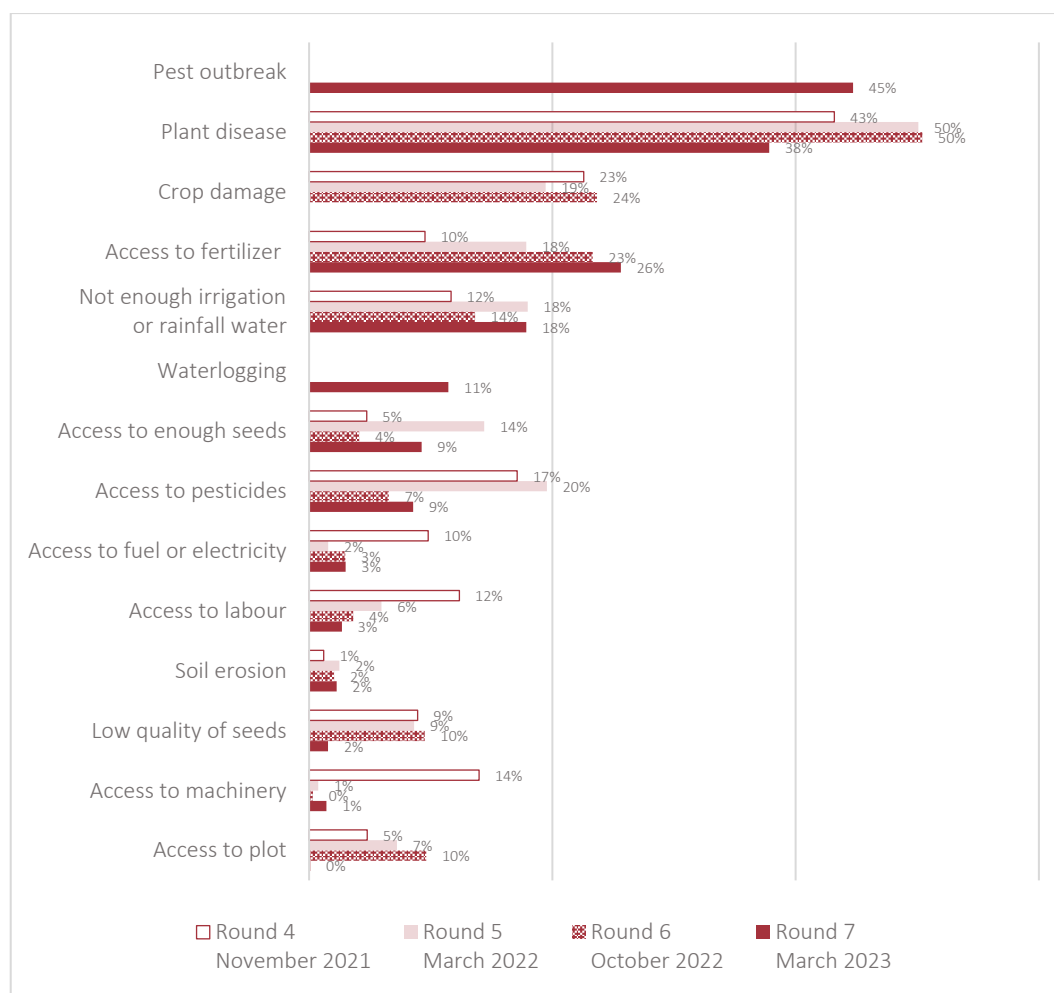
**Source of data:** FAO. 2022. GIEWS – Global Information and Early Warning System: Country briefs – Bangladesh. In: *Food and Agriculture Organization of the United Nations*. Rome. Cited 9 November 2022. [fao.org/giews/countrybrief/country.jsp?code=BGD](http://fao.org/giews/countrybrief/country.jsp?code=BGD)

While pest outbreak was the most reported challenge, plant diseases were the most reported crop production constraints (Figure 4). Difficulty accessing fertilizer has increased from 10 percent in the fourth round to 26 percent in the current round, although this was not associated with a decrease in production. The three most common crop production difficulties were higher in Khulna, Rangpur and Sylhet divisions.

About 21 percent of farmers reported a decrease in harvest (Figure 5), in particular female-headed households (33 percent compared to 20 percent of male-headed households). Among farmers, land size is strongly associated with food insecurity. Reducing the area planted is less associated with consumption indicators, but rather with decapitalization, suggesting that asset depletion could be the cause of it. High food and fuel prices were associated with a decrease in harvest, but the irrigation source may also play a role as 34 percent of farmers sourcing water from a constructed water point reported a drop.

Rice marketing was more difficult than the previous round. Fifty-three percent of rice producers reported atypical difficulties compared to 21 percent in the sixth round. The increase in transportation costs and lower profitability were the most frequent issues and the only improvement was access to markets and post-harvest losses. These improvements are likely the result of lifting COVID-19 restrictions. However, post-harvest losses were still prevalent. Seventy-one percent of rice producers reported production losses, and cited pests and rodents as the most frequent cause. For those reporting more extreme outcomes, and losses of more than half or all, the main reason reported was flooding.

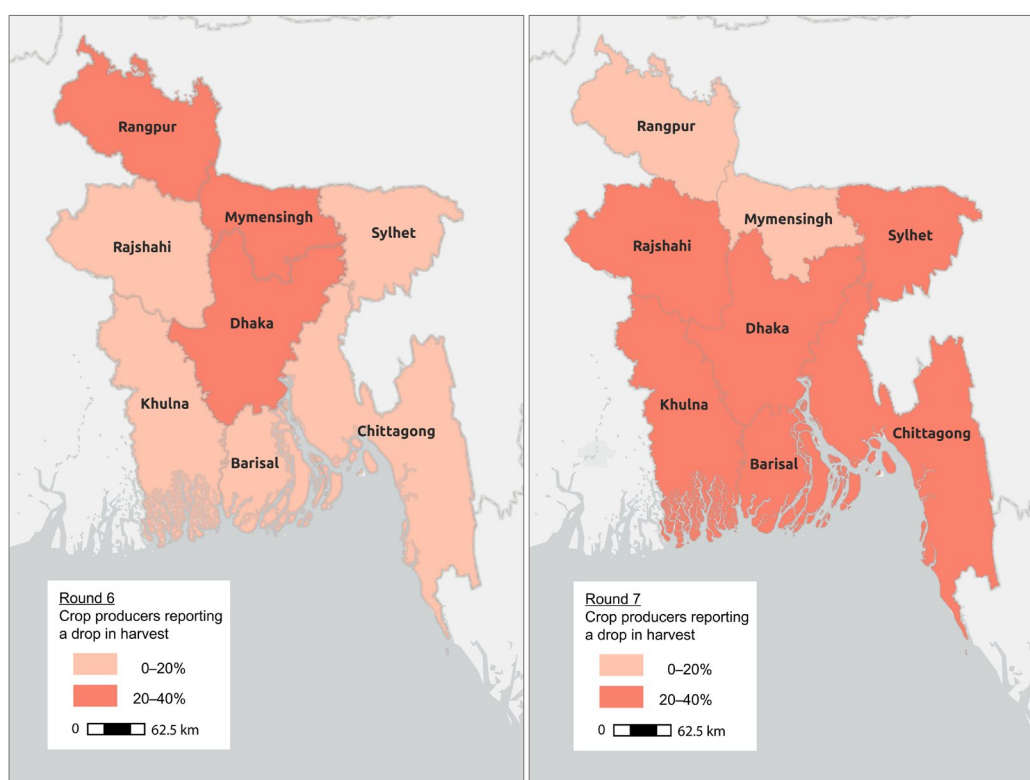
Figure 4. Crop production difficulties (percentage of crop producers)



Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (November 2021, March and October 2022, and March 2023). In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

Changes in response options in the round 7 questionnaire make it impossible to compare some data with previous rounds.

Figure 5. Crop producers reporting a drop in crop harvest (percentage of crop producers)



**Source of data:** FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (November 2021, March and October 2022, and March 2023).

In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

**Source of map:** Esri, HERE, Garmin, FAO, NOAA, USGS. 2018. Map of Bangladesh. Cited 5 May 2023. <https://data-in-emergencies.fao.org/pages/explore>

## Livestock

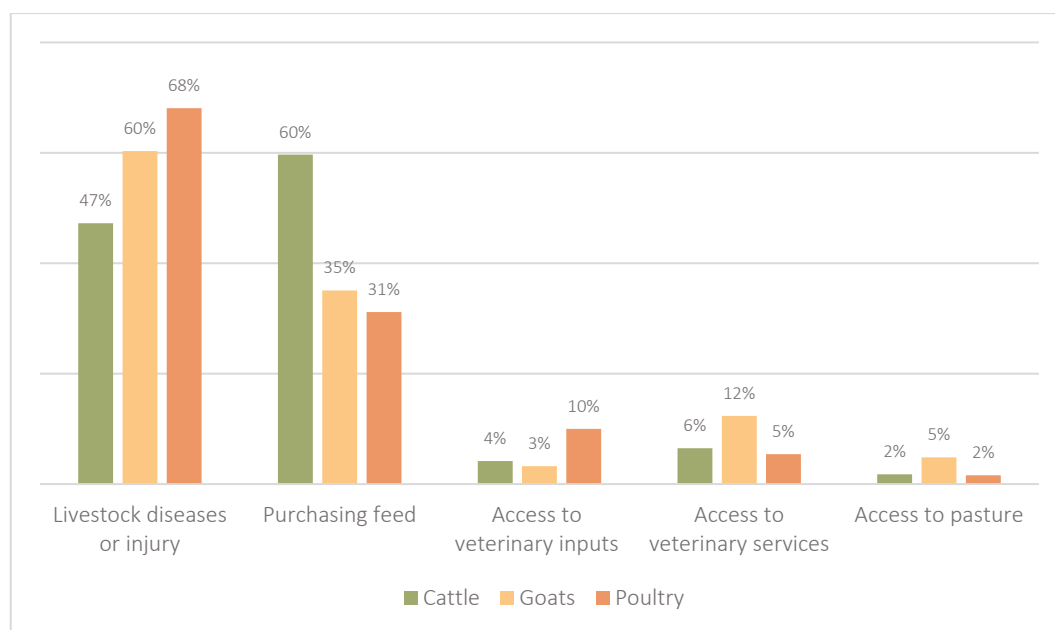
For cattle, the proportion of respondents that mentioned a decrease in herd size remained the same as the previous round and has reduced since last year. During this round, there was an increase in poultry producers citing death and a slight decrease in commercial sales. Distress sales increased for cattle and poultry (4 percent and 1 percent in the sixth round, respectively) but did not reach the levels of the fifth round (9 percent and 10 percent, respectively).

The most frequent challenge for cattle production was access to feed (Figure 6). This frequency decreased for goat and poultry producers, down from more than 40 percent in the last round, although it was statistically associated with a decrease in goat herd size. Livestock disease was the most frequent challenge for goats and poultry, deteriorating since the last round, and was cited more in Barisal and Chattogram.

The livestock marketing environment improved and producers had better selling prices. However, the most cited sales difficulties were an increase in marketing (transportation) costs and low prices compared to production costs.



Figure 6. Livestock production difficulties (percentage of livestock producers)



Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (March 2023). In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

The sample of fisherfolk remains small and was mostly composed of freshwater fishing. Compared to last year, the freshwater catch has increased but one fifth mentioned atypical difficulties. The most frequent issues in fish marketing were transportation costs and low selling prices. Lower demand appears to be more associated with a decrease in price.

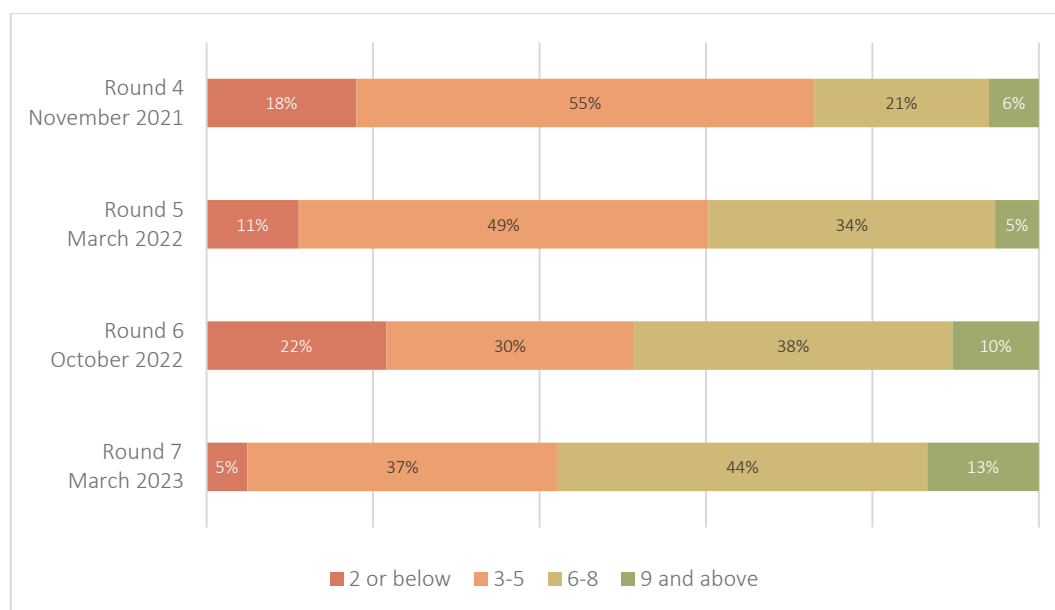
## Food security

Food consumption and livelihoods have improved since the last round, and when compared to the same period last year (Figures 7 and 8). Barisal, Rajshahi and Rangpur divisions, and the hotspots of Barind and the Drought-Prone Areas, and Chittagong Hills Tracts present the highest prevalence of poor dietary diversity, FIES<sup>1</sup> and coping strategies (Figure 9), along with Mymensingh and Dhaka divisions (particularly severe recent food insecurity).

Poor households and female-headed households were found to be in the most difficult situations. Crop producers experienced worse food security outcomes (even severe), but not when combined with livestock.

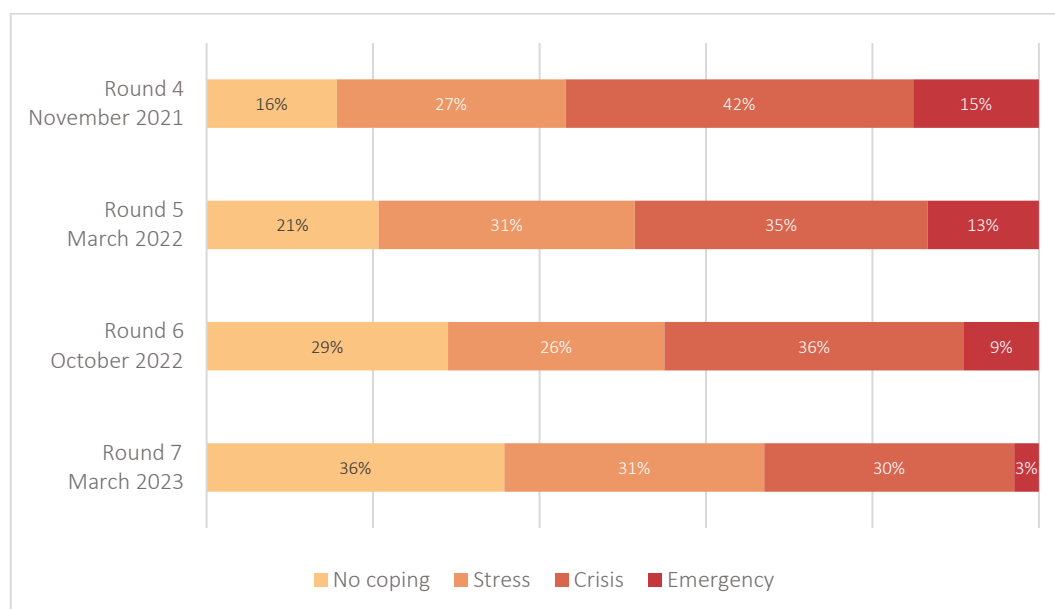
<sup>1</sup> FIES results are subject to change, until the country scale is established for a more consistent comparability across rounds.

Figure 7. Household Dietary Diversity Score



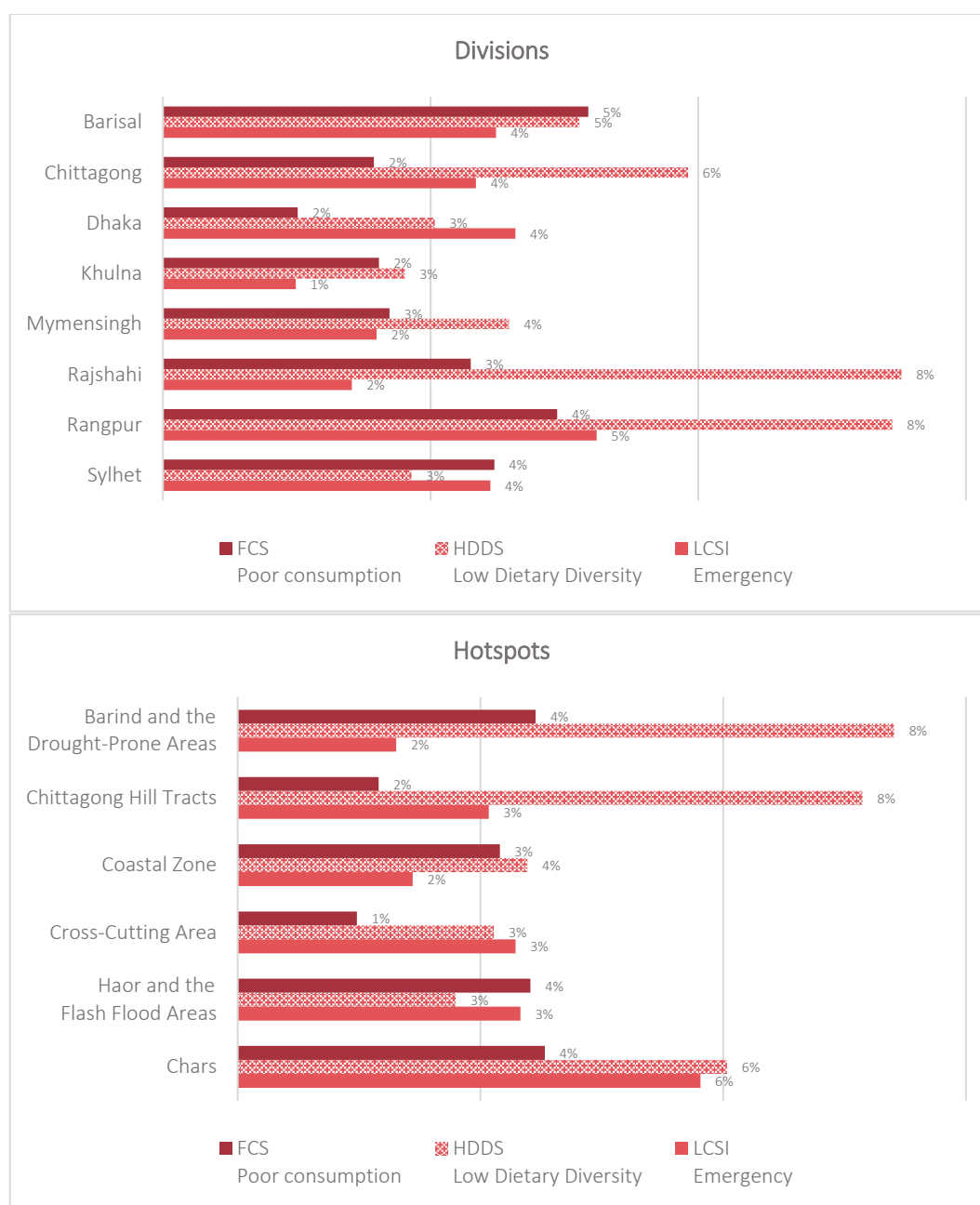
Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (November 2021, March and October 2022, and March 2023).  
In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

Figure 8. Livelihood coping strategy index



Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (November 2021, March and October 2022, and March 2023).  
In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

Figure 9. Food security indicators by division and hotspot



Source of data: FAO. 2023. Bangladesh: DIEM-Monitoring assessment results (March 2023). In: *FAO Data in Emergencies Hub*. Rome. Cited 5 May 2023. [data-in-emergencies.fao.org](https://data-in-emergencies.fao.org)

## Needs

Beyond cash assistance, needs reported by households are in similar proportion to previous rounds: agricultural input needs were most frequent among farmers (particularly in Barisal and Mymensingh, cited by 37 and 33 percent). Fish inputs, livestock feed and extension services were also cited as needs. Food assistance needs were mentioned by about 10 percent of surveyed households (20 percent in the Chittagong Hill tract).

## Recommendations

### Short-term recommendations

- > To make the compounded effects of fuel prices manageable, price increases should be supported by carefully calculated rates of transport and by establishing stronger mechanisms to monitor transportation costs.
- > Promote extension services by providing trainings to crop producers on how to deal with pest outbreaks and plant diseases with correct, judicious and efficient uses of pesticides.
- > Agricultural extension officers should take measures to increase access to pesticides and fertilizers for the crop producers, and to explain how ground water can be used for irrigation.
- > To counteract the decline in yield, provide crop producers, especially female heads of households, training in cutting-edge crop production techniques.
- > To prevent poultry disease, develop a strategy to share information on poultry disease prevention and management. Veterinary services, like poultry vaccines, need to be made more accessible to livestock producers.

### Long-term recommendations

- > Support the marketing of rice farmers by enhancing the marketing and supply chain functions.
- > The same production challenges for poultry were encountered in previous cycles, indicating the need for efficient interventions to improve access to veterinary services, especially in Barisal and Chattogram.
- > Supply chain management needs to be strictly and routinely monitored. Additionally, more feed mills must be established to meet the surge in feed demand rather than relying on only imports.



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