Bangladesh

DIEM – Data in Emergencies
Monitoring brief, round 6

Results and recommendations
November 2022

Data collection 7 September to 8 October 2022
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 sixth-round survey reached a random sample of 2,546 households, representative at division level. The survey targeted all eight divisions of the country: Barisal, Chittagong, 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 sixth-round survey were conducted between 7 September and 8 October 2022 through computer-assisted telephone interviews. Data were weighted by demographics, agricultural activity and a wealth proxy (wall material). The fourth-round survey was conducted between 16 October and 24 November 2021, and the fifth-round survey was conducted between 17 March and 2 April 2022. Both rounds have been drawn from to make comparisons throughout this brief.

Figure 1. Countries with established DIEM-Monitoring Systems


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

Income and shocks

The frequency of shocks related to COVID-19 restrictions decreased but there was an increase of food and fuel prices reported as a shock, especially in the Coastal Zone and Chittagong. Sickness or death was the most frequently reported shock compared to previous rounds (Figure 2).

Figure 2. Main shocks reported (percentage of households)

A considerable proportion of households, particularly in Barisal, Mymensingh and Sylhet, were affected by floods. In these divisions, one out of ten households had their house eroded by the floods or had to evacuate. For most of the affected households, the peak of the flooding was in late July and the beginning of August 2022. When the flooding occurred before July, the effects on crops were more profound.
Income increased for most sources. However, farm and off-farm casual labourers reported a more frequent reduction of income (> 50 percent) compared to one year ago. Farm casual workers were particularly vulnerable as their income was reported as much lower, on average, compared to the other income sources. During the fifth and fourth rounds, 50 percent and 66 percent of farm casual workers, and 30 percent and 67 percent of off-farm labourers reported a drop in income, respectively.

Crops

Figure 3. Bangladesh agricultural calendar

The area planted remained the same or increased for most farmers compared to last year, except for 17 percent that reported a reduction in planted area, tended to have less livestock and faced more difficulties accessing fertilizer. Plant diseases and crop damages and losses were still the most common problems as reported in previous rounds (Figure 4). In addition, accessing fertilizer became difficult for an increasing share of farmers. There were geographical differences relating to the different crop production difficulties: access to labour was cited mostly in Dhaka (10 percent); access to fertilizer was cited mostly in Barisal (31 percent) and in Khulna the least (17 percent); damages and losses were cited mostly in Haor (35 percent); lack of water was cited mostly in Chittagong Hills Tracts (26 percent) and the Coastal Zone (20 percent); and access to pesticides was cited mostly in the Cross-Cutting Area (9 percent) and Haor (8 percent).
The harvest prospects were good for the recent growing season but in Chars, Chittagong Hills Tracts and Haor, 23 percent of the farmers reported a drop in harvest. A drop in harvest was associated with the reduction of the area planted, lack of irrigation as a production difficulty and for those affected by floods. The drop in harvest was not associated with the use of fertilizer nor its source. The survey indicated that only 5 percent of farmers did not apply soil fertilization. The procurement of chemical fertilizer on the market was the most common source, and 65 percent of those who used chemical fertilizer reported access to it. Despite a general increase in price (reported by nine out of ten farmers), 74 percent continued to apply the same products and dosages at the increased cost. Twenty-six percent of the farmers that typically used chemical fertilizer either switched to manure or reduced the dosage.

Floods affected crop production and livelihoods. In addition, the timing of the floods was a crucial factor. The farmers that estimated a reduction in crop production was 28 percent when flooding occurred before mid-June 2022, and 23 percent after this date. In Mymensingh, more than other divisions, farmers were affected by floods and more frequently reported that their crops had been affected.

The marketing conditions improved from the fifth round conducted in March 2022. The low selling price of crops (39 percent) was the most frequently reported challenge, same as the last two rounds (Figure 5). For rice, post-harvest damages and losses (50 percent) was the most frequently reported challenge. Due to the current inflationary context, marketing and transportation costs need to be monitored. The frequency of households reporting it as a difficulty more than doubled since last year, especially in Khulna. Marketing difficulties were more frequent for sales to wholesalers/retailers at the market, except transportation costs and lower price. Among staple producers, the high frequency of low prices when selling to traders...
was cited across most crop categories, underlining the low purchasing power of staple farmers. The marketing conditions, that have remained favourable, were more challenging for staple farmers selling to traders.

Figure 5. Comparison of the price received for main crops compared to the same period last year

<table>
<thead>
<tr>
<th></th>
<th>Intermediary traders at the village</th>
<th>Intermediary traders at the village</th>
<th>Intermediary traders at the village</th>
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<tbody>
<tr>
<td></td>
<td>To wholesalers/retailers at marketplace</td>
<td>To wholesalers/retailers at marketplace</td>
<td>To wholesalers/retailers at marketplace</td>
</tr>
<tr>
<td>Staples</td>
<td>18%</td>
<td>13%</td>
<td>16%</td>
</tr>
<tr>
<td>Vegetables/fruit</td>
<td>28%</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>Cash crops</td>
<td>63%</td>
<td>65%</td>
<td>60%</td>
</tr>
</tbody>
</table>


Livestock

The share of livestock producers with less livestock compared to last year was 57 percent for poultry producers, 43 percent for cattle producers and 34 percent for goat producers indicating an improvement from the previous round. Most livestock producers cited sales at a good price as the reason for the decrease in herd size (over 26 percent in the current round and 11 percent in round 5). There were proportionately more goat producers that increased their herd compared to other species. In addition, distress sales decreased for cattle and poultry (4 percent and 1 percent in the current round compared to 9 percent and 10 percent in round 5), and animal death decreased as well (22 percent for poultry in the current round and 42 percent for poultry in round 5). Difficulties purchasing feed was the most cited issue among cattle (59 percent) and goat producers (46 percent), while diseases were frequent among poultry producers (51 percent) (Figure 6). Access to veterinary services improved for cattle producers (23 percent in the current round and 38 percent in round 5) but decreased for poultry producers (6 percent in the current round, 2 percent in round 5 and 4 percent in round 4).
The marketing environment is improving. Most households reported an improvement in selling prices compared to what is typical for the season, across all products. Twelve percent of cattle producers reported marketing difficulties, mostly accessing markets, while 9 percent of poultry producers reported marketing difficulties, mostly low selling prices. Selling difficulties for poultry producers concentrated in local markets. Fourteen percent of poultry producers reported difficulties at village markets, compared to 3 percent who reported difficulties selling to buyers/processors from outside the village, and no poultry producers reported difficulties selling to local retailers.

### Food security

Food consumption was assessed with the Household Dietary Diversity Score (HDDS), which indicated the difference between the seasons. Compared to the fourth round in October 2021, there was an improvement, except for low-dietary diversity which remained at a similar level (18 percent in the fourth round and 22 percent in the current round). Compared to the fifth round in March 2022, low dietary diversity doubled in incidence (from 11 percent to 22 percent in the current round). More households had a more diversified diet and those consuming six or more food groups increased from 39 percent in the fifth round to 48 percent in the sixth round.

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**Figure 6. Livestock production difficulties (by category of livestock)**

The proportion of households engaged in crisis and emergency strategies has improved over recent rounds (15 percent in round 4, 13 percent in round 5 and 9 percent in round 6). Geographically, the HDDS and livelihood coping strategy index (LCSI) were consistent across divisions. For example, the hotspot of Char’s and the division of Rangpur continued to show poor outcomes in terms of food consumption and decapitalisation. In other areas like Khulna and the Coastal Zone, more households had poor consumption, and Barisal and Mymensingh divisions reported a higher incidence of flooding. Overall, the main issue contributing to food insecurity was the depletion of assets.

**Figure 7. HDDS over recent data collection rounds**

<table>
<thead>
<tr>
<th>Round 4 November 2021</th>
<th>Round 5 March 2022</th>
<th>Round 6 October 2022</th>
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<tbody>
<tr>
<td>6%</td>
<td>5%</td>
<td>10%</td>
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<tr>
<td>21%</td>
<td>34%</td>
<td>38%</td>
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<tr>
<td>55%</td>
<td>49%</td>
<td>30%</td>
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<tr>
<td>18%</td>
<td>11%</td>
<td>22%</td>
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**Figure 8. LCSI over recent data collection rounds**

<table>
<thead>
<tr>
<th>Round 4 November 2021</th>
<th>Round 5 March 2022</th>
<th>Round 6 October 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>42%</td>
<td>35%</td>
<td>36%</td>
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<tr>
<td>27%</td>
<td>31%</td>
<td>26%</td>
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<tr>
<td>16%</td>
<td>21%</td>
<td>29%</td>
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The Food Insecurity Experience Scale (FIES)\(^1\) indicated an overall improvement with a decline in the prevalence of high levels of acute food insecurity (classified as crisis or phase 3 or worse under the Integrated Food Security Phase Classification). The FIES fell from 24 percent during the fourth round to 18 percent during this round. However, the prevalence of severe food insecurity remains unchanged (5 percent in rounds 5 and 6 and 4 percent in round 4), indicating deep-rooted structural drivers. Food insecurity worsened in Rangpur and Rajshahi (from 4 and 5 percent in round 4, to 6 percent across both divisions in round 5, and 7 percent across both divisions in the current round), and in Khulna (from 4 percent in round 4 to 5 percent in the current round).

Figure 9. Prevalence of recent moderate or severe household food insecurity (FIES), HDDS and LCSI

Rangpur and Mymensingh were found to have an exceptionally high prevalence of moderate and severe food insecurity. In Rangpur, 49 percent were moderately food insecure and 7 percent severely food insecure, while in Mymensingh 43 percent were moderate and 9 percent severe. A combination of the FIES results with HDDS and LCSI indicates worse food security outcomes, particularly in Mymensingh and Rangpur over the current round.

Shocks influenced asset depletion, and crop and livestock difficulties had an impact on consumption, in particular the reduction in area planted, and – among flood-affected households – whether crops were inundated. For example, 76 percent of households affected by higher food prices adopted crisis or emergency livelihood coping strategies, while 42 percent of those not affected adopted these strategies. Similarly, 81 percent of farmers who reported crop production difficulties reported consuming five or less food groups, compared to the 18 percent who reported no crop production difficulties. Among flood-affected households, loss of livestock was associated with decapitalisation (64 percent adopted crisis or emergency livelihood coping strategies, compared to the 40 percent that reported no livestock losses), and food stock losses were associated with low HDDS.

\(^1\) FIES results are subject to change. The country scale will continue to evolve over additional rounds of data collection allowing for more consistent comparability across rounds.
Needs

Beyond cash assistance, the greatest needs for assistance in the three to six months following the survey were seeds and fertilizer (33 and 39 percent respectively for crop producers) and animal feed (30 percent for livestock producers). A proportion of the respondents mentioned the need for access to credit/finance (more than 7 percent across all livelihood groups).
Recommendations

Short-term recommendations

➤ Establish stronger mechanisms to monitor farmgate prices of major food commodities to ensure that farmers receive a fair price.

➤ Introduce zero interest credit programmes and stimulus packages for smallholders.

➤ Promote extension services on the appropriate fertilizer dosage to reduce waste and promote organic fertilizer use along with correct, judicial, and efficient use of pesticides.

Long-term recommendations

➤ Support producer organizations through enhancing their capacity in post-harvest management to ensure better prices.

➤ Marketing support for isolated producers through strengthening supply chain functions and marketing channels (e.g., contract farming and establishing farmers markets at the community level).

➤ Support further research and development of high yielding and stress tolerant varieties (e.g., short duration varieties for the Haor/Mymensingh-Sylhet region which would be hard hit in the case of early flash floods).

➤ Improve access to veterinary services, particularly for poultry.
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