Sierra Leone

Data in Emergencies
Monitoring brief – rounds 5 and 6
Results and recommendations
April 2022
Methodology

This brief presents the comparative results of two household surveys that were conducted in Sierra Leone by the Food and Agriculture Organization of the United Nations (FAO) through its Data in Emergencies Monitoring (DIEM-Monitoring) System. The fifth-round household survey took place from 1 to 27 November 2021, and the sixth-round household survey took place from 1 to 25 February 2022. The aim of the assessments was to monitor the impact of a range of shocks on agricultural livelihoods and food security.

The data was collected through face-to-face surveys in the districts of Bo, Bombali, Bonth, Kailahun, Kambia, Kenema, Koinadugu, Kono, Moyamba, Port Loko, Pujehun, Tonkolili, Western Area Rural and Western Area Urban. A total of 3,685 households participated in the fifth-round survey, and a total of 2,598 households participated in the sixth-round survey. Cases were weighted by demographics, urban/rural milieu, and access to water (improved and un-improved sources) and sanitation facilities (flush and not flush), as proxies for wealth.

Figure 1. Countries with established DIEM-Monitoring Systems

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 Sierra Leone and other countries.

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

Results from the sixth-round indicate that 52 percent of surveyed households reported having experienced at least one shock in the three months preceding the interview. The main shock experienced was of an economic nature, resulting in higher than usual food prices (32 percent of the surveyed households) and fuel (23 percent) (Figure 2). The increase in food prices was experienced to a higher degree in Bonthe (70 percent) and Moyamba (52 percent) in the Southern province, and in Kenema (68 percent) and Kono (54 percent) in the Eastern province.

The increase in prices follows a macro-economic trend seen in the region. The main driver of the inflation is the depreciation of the local currency, combined with the country’s large dependency on food imports, and spill over effects of COVID-19 restriction measures.

Plant diseases and pest outbreaks impacted 17 percent of surveyed households. The most affected households were located in Moyamba (44 percent).

A sizable share of households (34 percent) reported reduced income compared to the same period in a typical year. A decrease in income was experienced in Bombali district (Northern province), Moyamba district (Southern province) and the Western Area Rural district (Western province), while an increase in income was reported in Tonkolili, Koinadugu and Port Loko districts (Northern province) and Kailahun (Eastern province). The Western Area Urban district maintained the same income overall. Moreover, less than half of the households (41 percent) relied on a secondary source of income.

When comparing shocks that affected respondent households over the two survey rounds, the prevalence of higher food and fuel prices has increased, indicating a trend (Figure 2). However, shocks of an environmental nature, such as landslides, earthquakes, hurricanes and drought were only reported by households surveyed in the fifth round.
Figure 2. Most-reported shocks (percentage of respondents)

Crops

The sixth-round survey was conducted during the post-harvest period (Figure 3). Of the 63 percent of households identified as crop producers, 76 percent cultivated rice – harvesting of lowland rice goes up to January – as their main crop, followed by cassava (10 percent). Crop production difficulties were reported by 87 percent of households interviewed – and were largely experienced across the entire country. For most of the crop producers, crop growth was undermined during the growing season with 67 percent reporting damages caused by pest outbreaks – rice was mostly affected by rodents, cassava by grasshoppers and maize by fall armyworms. Low quality seeds were blamed as one of the main reasons behind the subpar harvest (48 percent lower when compared to a typical year), together with plant diseases (affecting 56 percent of households). The lack of access to agricultural inputs, especially fertilizer (40 percent) and manpower (37 percent) were reported as other difficulties affecting the harvest (Figure 4). The inability to access fertilizer was cited by households in Kenema (77 percent), Kambia (78 percent) and Port Loko (59 percent) as a reason for the low harvest, while the lack of access to quality seeds affected those in Kenema (80 percent), Moyamba (80 percent), Port Loko (79 percent) and Pujehun (63 percent).

Figure 3. Sierra Leone crop calendar

Respondents who faced crop production difficulties also experienced difficulties selling crops (60 percent). This was due to high transport costs (89 percent), a reduction in selling prices (45 percent) and the number of usual buyers (41 percent). Access to markets was another barrier experienced by 34 percent of households (mainly due to lack of infrastructure).

When comparing these results to those from the fifth round, the data show an overall increase in the number of farmers experiencing crop difficulties, in particular in accessing agro-inputs such as fertilizer and quality seeds. The results also indicate more damage during plant growth.

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

<table>
<thead>
<tr>
<th>Issue</th>
<th>Round 5</th>
<th>Round 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop lost/damaged</td>
<td>44%</td>
<td>67%</td>
</tr>
<tr>
<td>Plant disease</td>
<td>56%</td>
<td>63%</td>
</tr>
<tr>
<td>Low quality of seeds</td>
<td>33%</td>
<td>53%</td>
</tr>
<tr>
<td>No access to fertilizer</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>No access to extra labour</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>No access to enough seeds</td>
<td>3%</td>
<td>12%</td>
</tr>
<tr>
<td>No access to pesticides</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>No access to machinery</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>No access to machinery</td>
<td>14%</td>
<td>30%</td>
</tr>
<tr>
<td>No access to plot</td>
<td>12%</td>
<td>30%</td>
</tr>
<tr>
<td>Soil erosion</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Not enough irrigation water</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>No access to fuel/electricity</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
<td>5%</td>
</tr>
</tbody>
</table>


**Livestock**

The survey was carried out during the dry season, a time of increased competition over the use of resources between crop and livestock farmers. Livestock producers reported difficulties in production (86 percent) and the sale of livestock (57 percent). The main production constraints reported were lack or limited availability of pasture (61 percent), limited access to veterinary services (56 percent), and livestock death or disease (50 percent) (Figure 5). The households most affected by the lack of access to pasture were those in Port Loko and Kenema. Port Loko
also experienced production difficulties due to the spread of livestock diseases, in particular peste des petits ruminants (PPR) and foot-and-mouth disease (FMD).¹

Livestock sales were represented by goats (48 percent), sheep (21 percent), poultry (10 percent) and cattle (4 percent). Sale difficulties were attributed to transportation costs (71 percent), reduced purchases or delays in payments by buyers (54 percent) and low selling prices (37 percent).

These results, when compared to the data collected in round 5, indicate that the drought experienced over recent months exacerbated the difficulties in accessing water and pasture for livestock farmers. There are no additional trends to note when examining other shocks.

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

![Bar chart showing livestock production difficulties](chart)


¹ Over the last couple of years, FAO has actively addressed chronic problems of livestock diseases. In 2020, FAO provided vaccines for FMD as part of the emergency support programme to the country. In addition, a million PPR vaccines were handed over to the country through the Ministry of Agriculture livestock division in 2021, and another 800 000 at the beginning of 2022. FAO also provided additional technical support with trainings on vaccination and veterinary services to community animal health workers as part of the emergency support.
Food security

About 49 percent of respondent households experienced recent moderate or severe food insecurity. Food insecurity was more pronounced in the Western Area Rural district (70 percent), Kambia (70 percent) and Koinadugu (70 percent).

More than half of the households interviewed had a high level of dietary diversity (56 percent), and 16 percent presented a low level of dietary diversity. About 71 percent of the surveyed households experienced little to no hunger during the last three months. Overall, there were a low number of households experiencing moderate and slight hunger.

The coping strategies put in place by respondents revolve around stress strategies (32 percent) – many households spent their savings, borrowed money and food, or relied on help – and crisis strategies (30 percent) – households decreased their expenses on agricultural inputs (20 percent), consumed seed stocks held/saved for the next planting season (18 percent), and reduced expenses on health (30 percent). About 12 percent put in place emergency strategies such as begging (10 percent).

The level of food security and dietary diversity have improved during the last three months. Overall, households are better off as indicated by the data on coping strategies. In round 5, 30 percent of households applied emergency coping strategies but only 12 percent engaged such coping strategies in round 6.

Needs

The quasi totality of the interviewed households declared the need for assistance (98 percent). However, only less than 5 percent received assistance in the form of food, cash vouchers and seeds, in the three months preceding the survey.

Respondents indicated the need for economic support like cash or food assistance (81 percent) and loans (51 percent) but are also keen to receive agricultural inputs such as seeds (54 percent), fertilizers (53 percent) and tools (48 percent) in the next three to six months (Figure 6).

The need for economic assistance, in the form of cash and loans, has risen over the last three months when compared to the previous round of analysis. Access to agro-inputs, such as seeds and agricultural tools, was the dominant assistance sought after in round 5. It is likely that this difference is attributed to the sample composition as no intervention has taken place to address the need for agro-inputs.
Figure 6. Assistance needed in the coming six months (percentage of respondents)

- Cash assistance: Round 5 = 71%, Round 6 = 81%
- Seeds: Round 5 = 54%, Round 6 = 78%
- Fertilizers: Round 5 = 53%, Round 6 = 63%
- Loans: Round 5 = 20%, Round 6 = 51%
- Tools: Round 5 = 51%, Round 6 = 67%
- Pesticides: Round 5 = 19%, Round 6 = 41%
- Marketing support: Round 5 = 16%, Round 6 = 10%
- Access to tractors: Round 5 = 6%, Round 6 = 13%
- Storage equipment/facility: Round 5 = 11%, Round 6 = 16%
- Technical support/extension services: Round 5 = 14%, Round 6 = 11%
- Veterinary services: Round 5 = 14%, Round 6 = 8%
- Processing product: Round 5 = 11%, Round 6 = 7%
- Access to land: Round 5 = 7%, Round 6 = 6%
- Access to irrigation water: Round 5 = 8%, Round 6 = 6%
- Veterinary inputs: Round 5 = 9%, Round 6 = 7%
- Information on COVID-19 safety measures: Round 5 = 3%, Round 6 = 3%
- Other: Round 5 = 3%, Round 6 = 3%
- Restocking animals: Round 5 = 6%, Round 6 = 5%
- Animal feed: Round 5 = 2%, Round 6 = 6%
- Fisheries/fisheries equipment: Round 5 = 7%, Round 6 = 2%
- Land rehabilitation: Round 5 = 2%, Round 6 = 2%
- Animals/animal product transportation: Round 5 = 1%, Round 6 = 4%
- Sales of animals: Round 5 = 1%, Round 6 = 1%

Recommendations

Short-term recommendations

> The results of both rounds of data collection indicate that improving access to agro-inputs must be considered a top priority in the next couple of months. It is recommended that support be provided to small-holder farmers through input supply coupled with boosting extension services to increase the availability of tailored information and advice for farmers, and to improve the ratio of extension officers to small-holder farmers. The need to improve extension services spans the entire surveyed areas. It is recommended that Kenema, Kambia and Port Loko be prioritized and access to fertilizer improved. Access to quality seeds should be improved across all surveyed districts, but especially in Kenema, Moyamba, Port Loko and Pujehun.

Medium- to long-term recommendations

> One of the challenges mentioned by respondent households across all surveyed districts, but particularly in Moyamba, Kono and Bonthe, was lack of manpower. This can be linked to youth migration to urban areas in search of job opportunities, and shifted interests towards other sectors such as mining and bike riding. It is recommended that strategies for youth retention be strengthened in the agriculture sector, and that direct targeting is employed. Youth have indicated interest in the use of technology in agriculture creating the possibility to explore innovative agribusiness ideas and entrepreneurship.

> Pastoral households, and those practicing mixed crop-livestock farming, indicated that veterinary inputs and services were among their primary needs. It is recommended that the ratio of livestock extension officers to small-holder farmers be improved to ensure timely support. It is also recommended that community animal health systems be strengthened, especially in Port Loko, Koinadugu, Bombali, Pujehun and Tonkolili. In addition, lack of water and pasture should be addressed by putting in place strategies to help farmers dealing with persistent drought conditions and poor animal nutrition.

> Further cash support and food assistance should be provided to help build more resilient food systems – starting with the most vulnerable districts.

> Alternative livelihood support could come from the promotion of agroforestry which provides additional sources of food and income. There are also many environmental benefits to agroforestry and it provides wood commodities such as fuel wood.