



Food and Agriculture
Organization of the
United Nations

Sierra Leone

DIEM – Data in Emergencies Monitoring brief, round 7

Results and recommendations
September 2022

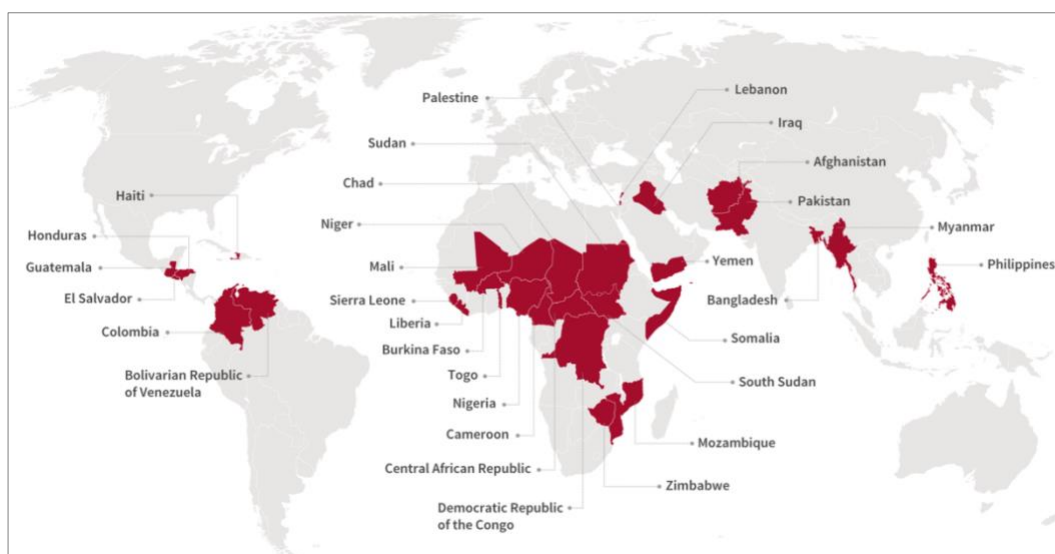
Data collection 12 June to 25 July 2022

Methodology

The Food and Agriculture Organization of the United Nations (FAO) launched a household survey in Sierra Leone through the Data in Emergencies Monitoring (DIEM-Monitoring) System to monitor agricultural livelihoods and food security. Data were collected through face-to-face interviews in all of the districts of Sierra Leone: Bo, Bombali, Bonthe, Kailahun, Kambia, Kenema, Koinadugu, Kono, Moyamba, Port Loko, Pujehun, Tonkolili, Western Area Rural and Western Area Urban.

A total of 2 596 households were surveyed between 12 June and 25 July 2022 during the lean season. All of the data were weighted at the analytical stage to ensure that the regional population distribution was adequately represented.¹ The fifth-round survey, which reached 3 685 households, took place from 1 to 27 November 2021, and the sixth-round survey, which reached 2 598 households, took place from 1 to 25 February 2022. Both the fifth and sixth rounds have been drawn from to make comparisons throughout this brief.

Figure 1. Countries with established DIEM-Monitoring Systems



Source of data: FAO. 2022. *DIEM-Monitoring*. Rome. Cited 6 April 2022. <https://data-in-emergencies.fao.org>

Source of map: United Nations. 2020. *Map of the World*. Cited 6 April 2022. www.un.org/geospatial/content/map-world

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

¹ In this survey, the percentage of the agricultural population across the fourteen districts was an average of 73 percent, in line with the 2015 census. However, higher percentages of agricultural households were found in Moyamba, Pujehun and Western Area Urban districts, and lower percentages were found in Western Area Rural district. Higher percentages could indicate that the sample may have been skewed towards rural households. The lower percentages found in Western Area Rural were in areas that share boundaries with Western Area Urban.

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

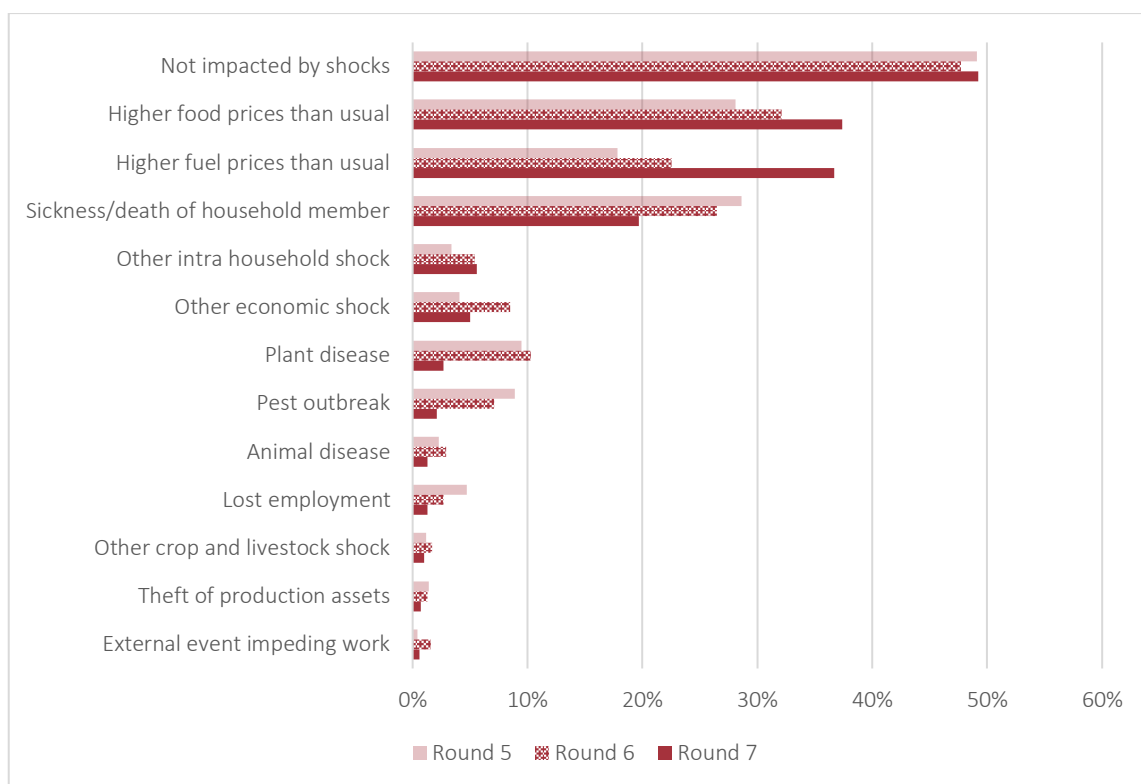
Results from the seventh round indicate that about half (51 percent) of the surveyed households experienced a shock over the last three months. Northern and Eastern were the provinces where most of the households reported experiencing shocks in the three months preceding the survey. The most frequent shocks reported were much higher than usual food prices (37 percent) and much higher than usual fuel and transport prices (37 percent) (Figure 2). Other reported shocks included sickness, accident or death of a household member (20 percent). An increased number of households reported the effects of higher than usual food and fuel prices during this round when compared to rounds five and six.

Thirty percent of surveyed households indicated that the main source of income reduced in the three months preceding the survey, a tendency consistently seen over the last three rounds. A reduction in the main income source was experienced by 39 percent of surveyed households in the fifth round and 34 percent during the sixth round.²

Other shocks included the impacts of COVID-19 which were reported by 13 percent of the households and were mainly related to movement restrictions which lead to product scarcity or an increase in prices. Pest diseases and outbreaks affected an average of 3 percent and 2 percent of households, less than what was recorded in the previous two rounds, likely because households were interviewed during the lean season. However, some districts were more affected than others. In Koinadugu, for example, 17 percent of surveyed households reported pest outbreaks, and 11 percent of surveyed households in Port Loko reported pest diseases.

² The country continues to experience an increase in the Consumer Price Index and inflation rate as a result of global supply chain problems due to COVID-19 and the Ukraine-Russia war.

Figure 2. Main shocks reported (percentage of households)



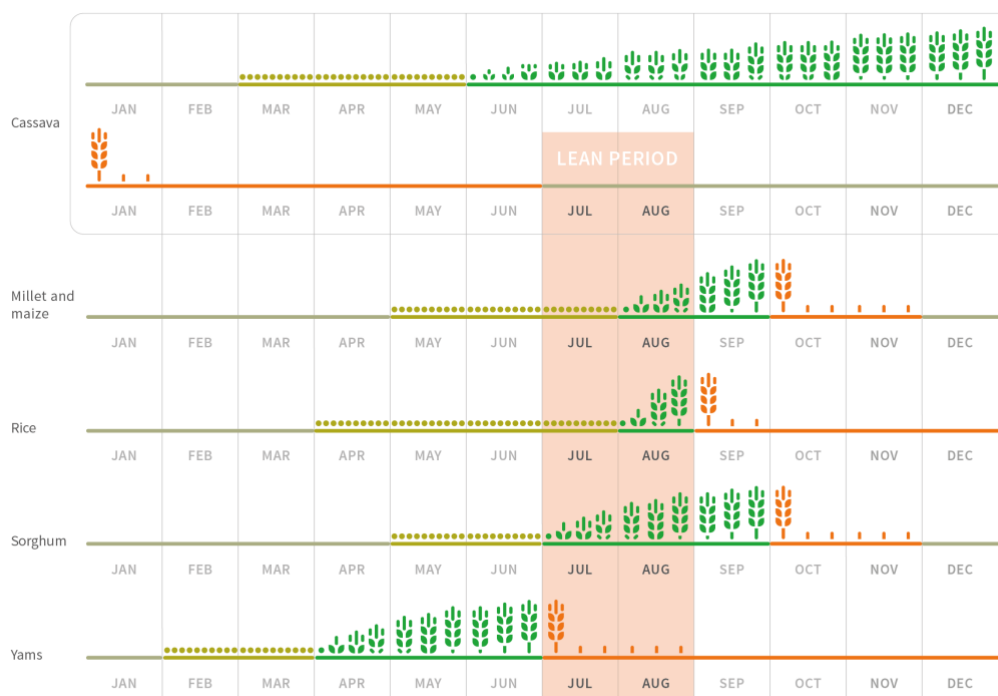
Source of data: FAO, 2021 and 2022. Sierra Leone: DIEM-Monitoring assessments results (November 2021; February 2022 and June-July 2022). Rome. Cited 10 September 2022. <https://data-in-emergencies.fao.org>

Crops

About 68 percent of the survey respondents were involved in crop production. Difficulties with crop production were experienced by 90 percent of the crop producers. The growth of the crops cultivated was undermined during the growing season for 66 percent of respondents, in particular in Kono (93 percent) and Moyamba (93 percent). Plant diseases affected an average of 42 percent of the respondents, in particular in Kono (96 percent), Tonkolili (78 percent) and Pujehun (50 percent).³ Access to agricultural inputs was a challenge in terms of access to fertilizer (36 percent), insecticides (15 percent), seeds (22 percent), high-quality seeds (43 percent) – in Kenema (89 percent), Kono (67 percent) and Port Loko 63 (percent), in particular – manpower (42 percent) and machinery (14 percent) (Figure 4).

³ Rodents, grasshoppers and fall armyworm were the major pests that affected crops during the growing season. The major diseases were cassava mosaic diseases and black pod diseases.

Figure 3. Sierra Leone crop calendar

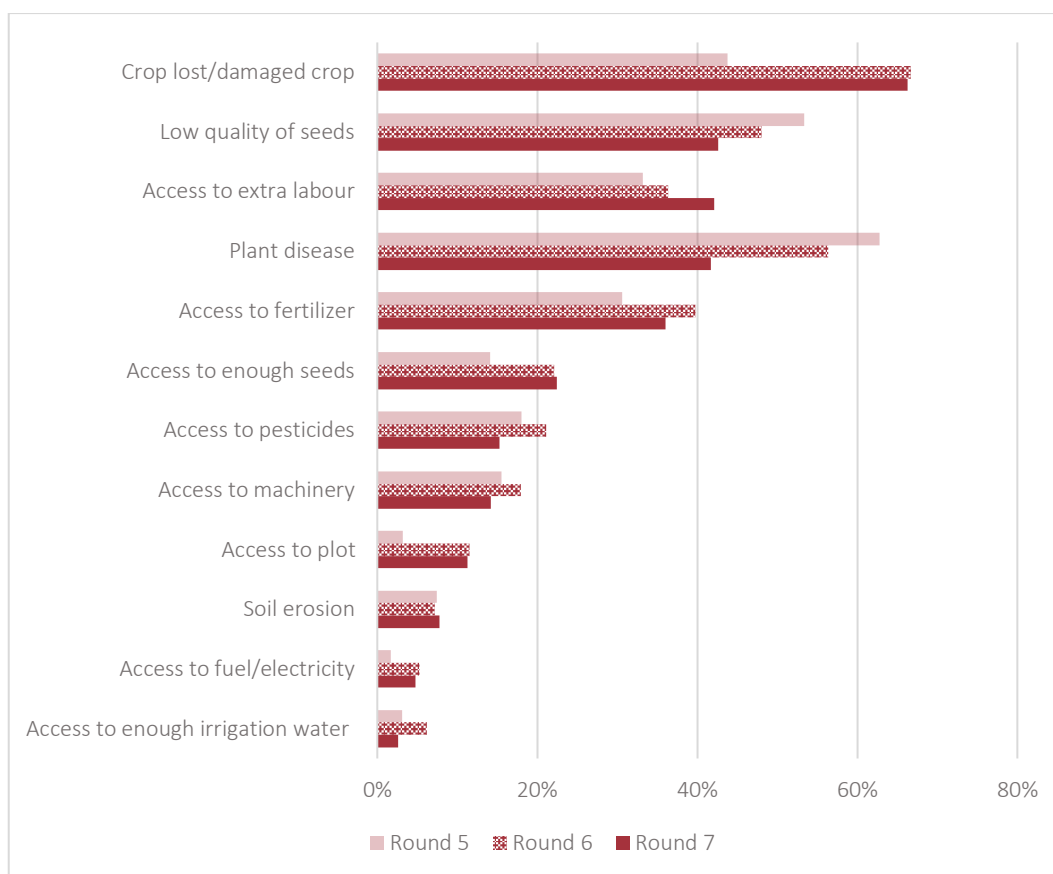


Source of data: FAO. 2021. GIEWS – Global Information and Early Warning System: Country briefs – Sierra Leone. In: *Food and Agriculture Organization of the United Nations*. Rome. Cited 15 March 2022. www.fao.org/giews/countrybrief/country.jsp?code=SLE

Accessing plots was a challenge faced by 11 percent of crop producers. During data collection, some areas involved in low land farming were affected by flooding. This explains the difficulties accessing plots experienced by farmers in Bombali, Bonthe and Kambia.

The crop area reduced by 21 percent compared to a normal year and 29 percent of crop producers experienced a reduction in harvest compared to a typical year. Crop sales difficulties were experienced by 74 percent of households. These sales difficulties were due to high transportation costs (92 percent), a reduction of selling prices (28 percent) and the number of usual buyers (26 percent), and difficulties processing the product (26 percent).

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

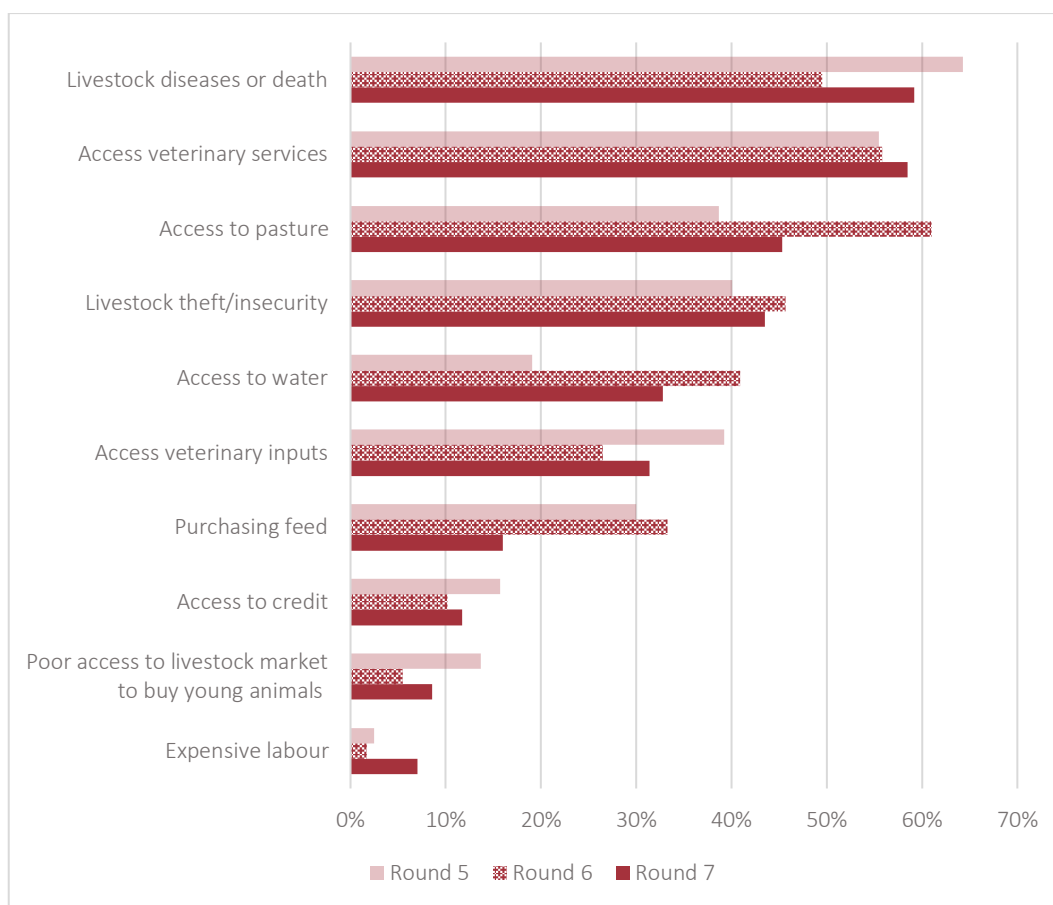


Source of data: FAO. 2021 and 2022. Sierra Leone: DIEM-Monitoring assessments results (November 2021; February 2022 and June-July 2022). Rome. Cited 10 September 2022. <https://data-in-emergencies.fao.org>

Livestock

About 10 percent of the respondents were involved in livestock production and 83 percent experienced production difficulties in the three months preceding the survey. Livestock disease or death affected 59 percent of the surveyed livestock producers (Figure 5). Difficulty accessing veterinary services (59 percent) and veterinary inputs (31 percent), pasture (49 percent), livestock theft (44 percent) and access to water (33 percent) were other reported difficulties. Additional difficulties including trouble purchasing feed (16 percent), a reduction in the number of animals (39 percent), mainly due to the death of the animals, and sales difficulties (58 percent), mainly due to high transportation costs (86 percent) and usual traders and customers not buying as much as usual (40 percent), were reported by the surveyed households.

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



Source of data: FAO. 2021 and 2022. *Sierra Leone: DIEM-Monitoring assessments results (November 2021; February 2022 and June-July 2022)*. Rome. Cited 10 September 2022. <https://data-in-emergencies.fao.org>

Food security

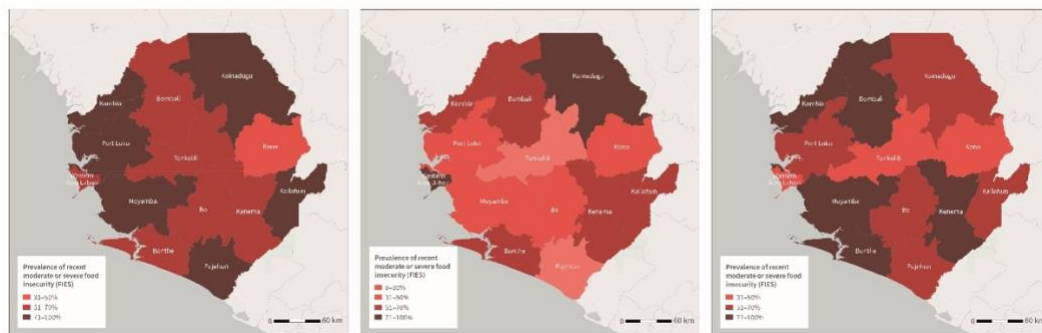
About 71 percent of the surveyed households experienced moderate or severe recent food insecurity (RFI) as measured by the Food Insecurity Experience Scale (FIES). Moderate or severe levels of food insecurity with values above the average were found in Kambia (99 percent), Bonthe (96 percent), Kenema (86 percent), Western Area Urban (82 percent), Bombali (80 percent) and Moyamba (70 percent).

In Figure 6, FIES results have been compared across rounds 5, 6 and 7. The survey results indicated that the majority of districts experienced an increase in the level of food insecurity over the last rounds. This might be due to the fact that data were collected during the lean season, which is challenging from the point of view of food security. Overall, these results are indicative of high food prices and low purchasing power which result in acute constraints on a household’s economic access to food.

More than half of the surveyed households had a high level of dietary diversity (46 percent) as measured by the Household Dietary Diversity Score (HDDS). Twenty-six percent presented a low level of dietary diversity. According to the household hunger scale, about 84 percent of the households experienced little to no hunger, 15 percent experienced moderate hunger and 1 percent experienced severe hunger.

The Livelihood Coping Strategies Index indicated that the coping strategies put in place revolved mostly around crisis strategies (35 percent) – many households spent their savings, borrowed money and food, or relied on help – and crisis strategies (30 percent) – households consumed seed stocks held/saved for the next planting season (25 percent), reduced expenses on health (33 percent) and harvested immature crops to eat (19 percent). About 24 percent put in place stress strategies – spent savings (62 percent), borrowed money (53 percent), purchased food on credit or borrowed food (51 percent), and 20 percent resorted to emergency strategies (18 percent begged).

Figure 6. Prevalence of recent moderate or severe food insecurity as measured with FIES (From left to right: Round 5, Round 6, Round 7)

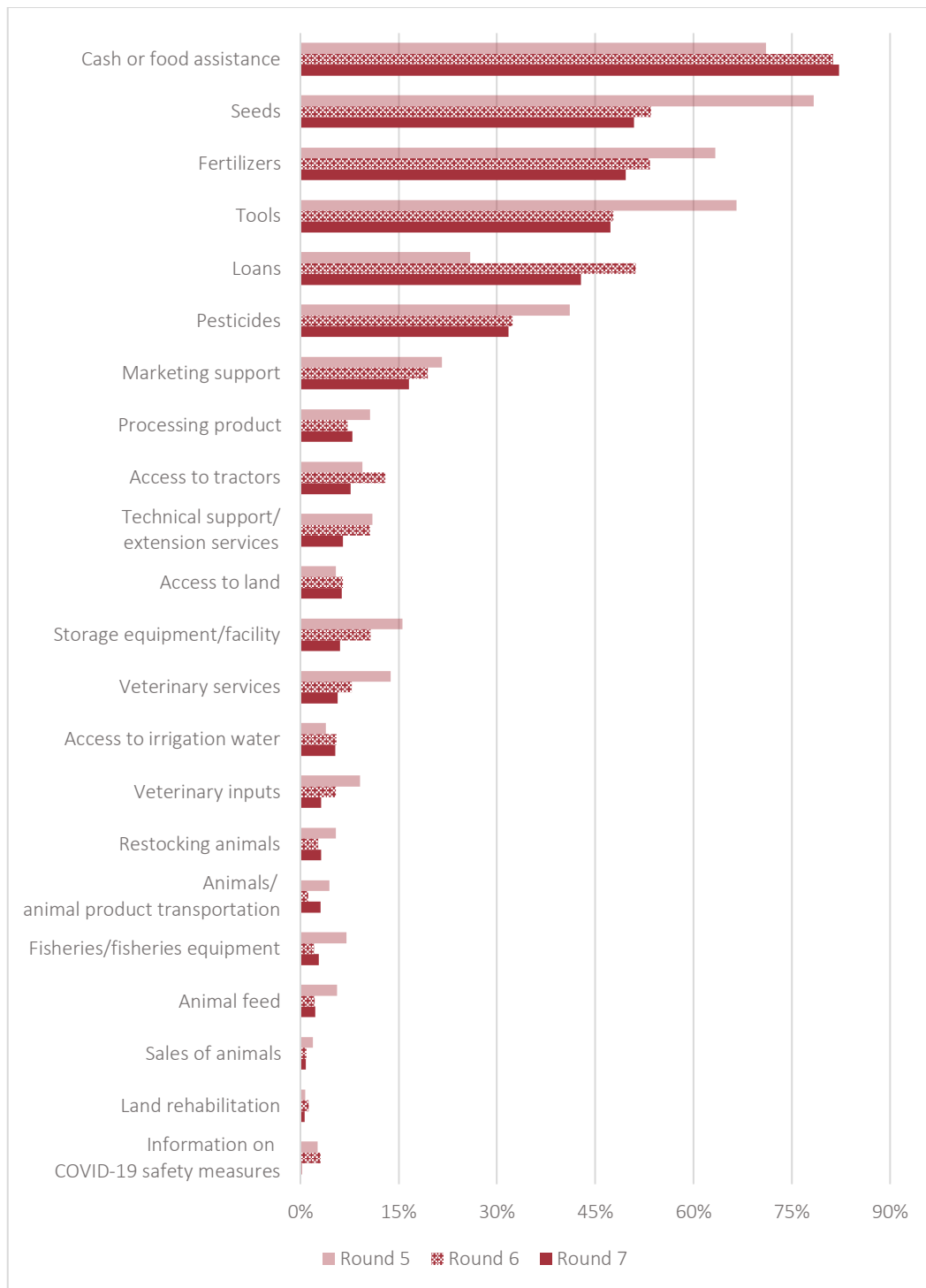


Source of data: FAO. 2021 and 2022. *Sierra Leone: DIEM-Monitoring assessments results (November 2021; February 2022 and June-July 2022)*. Rome. Cited 10 September 2022. <https://data-in-emergencies.fao.org>
Source of map: Esri, HERE, Garmin, FAO, NOAA, USGS. 2018. *Map of Sierra Leone*. Cited 10 September 2022. <https://data-in-emergencies.fao.org/pages/explore>

Needs

The quasi totality of the interviewed households declared the need for assistance (99 percent), however, less than 9 percent received assistance in the three months preceding the survey. The assistance received was mainly in the form of food, cash vouchers and extension services. Households reported the need for support in terms of cash or food assistance (82 percent), seeds (51 percent), fertilizer (50 percent), tools (47 percent), loans (43 percent), pesticides (32 percent) and marketing support (17 percent) (Figure 7).

Figure 7. Assistance needed in the coming six months (percentage of households)



Source of data: FAO. 2021 and 2022. Sierra Leone: DIEM-Monitoring assessments results (November 2021; February 2022 and June-July 2022). Rome. Cited 10 September 2022. <https://data-in-emergencies.fao.org>

Recommendations

Short-term recommendations

- > Provide access to credit in the form of unconditional cash transfers or vouchers to redeem inputs and allow crop producers with limited resources to access process machinery and agricultural inputs. This access should be prioritized in Pujehun and Kambia, followed by Bombali, Kenema, Koinadugu, Kono, Moyamba, Port Loko and Tonkolili where farmers should be supported with access to fertilizer. Access to seeds should be facilitated, especially in Pujehun, Moyamba and Kambia, followed by Kenema, Tonkolili, and Bombali. Access to process machinery is recommended in Kambia and Kono.
- > Alternatives to chemical fertilizer, such as the use of manure and organic fertilizer, should be promoted.
- > Provide food assistance during the growing season to save households from consuming seed stocks held for the next planting season and to harvest immature crops. Seed consumption as a crisis livelihood coping strategy was prevalent in the three months preceding the survey, particularly in Pujehun, Kambia, Moyamba, Port Loko and Kailahun. Immature crops were mostly consumed in Pujehun and Port Loko.

Long-term recommendations

- > In order to promote feed access and pasture access, improve management of grazing land and promote rotational grazing during the rainy season to ensure the availability of grassland during the dry season.
- > Further explore the causes of seed insecurity and seed security options (seed aid, seed networks, seed banks, etc.). Support households in Kambia, Kenema, Kono, Moyamba and Port Loko with access to seeds.
- > Make affordable processing machinery available and increase the capacity for small crop producers to use machinery and promote local processing innovations.
- > Improve access to veterinary services and veterinary inputs. Access to veterinary services should be strengthened in Koinadugu, Kono, Port Loko, and Tonkolili. Access to veterinary inputs is particularly needed by livestock keepers in Kono.

- > Improve resilience through the enhancement of farmers' skills and knowledge of good agricultural practices and the distribution of farming tools, which should be prioritized in Moyamba and Pujehun.
- > Strengthen and upscale social protection to support vulnerable people across all districts.



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Contact

FAO Representation in Sierra Leone

FAO-SL@fao.org
fao.org/sierra-leone | @FAOSierraLeone
Freetown, Sierra Leone

Office of Emergencies and Resilience

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

**Food and Agriculture Organization
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