Lebanon

DIEM – Data in Emergencies Monitoring brief, round 6
Results and recommendations
February 2024

Data collection 31 October to 30 November 2023
Key highlights

> Seventy-six percent of households reported high food and fuel prices as the most common shocks experienced in the three months preceding the survey (August–October 2023) – much less compared to the fourth round, which took place in November 2022 (86 percent) and slightly less compared to the fifth round, which took place in September 2023 (78 percent). Less households (55 percent) reported a decline in their main source of income in the three months preceding the survey compared to the fifth (60 percent) and fourth (72 percent) rounds.

> The main challenges reported by crop producers included the high cost of fertilizer and pesticides as well as difficulties accessing labour. Challenges reported by livestock producers were related to purchasing feed and accessing veterinary inputs and services.

> Twenty-one percent of households experienced moderate or severe recent food insecurity (RFI) according to the Food Insecurity Experience Scale (FIES), which slightly decreased compared to the fourth round. About 86 percent of households resorted to crisis coping strategies.

> Twelve percent of farmers were impacted by the situation in southern Lebanon affecting 38 percent of farmers in El Nabatieh and South.

> Among the affected households, 39 percent were displaced, 63 percent were unable to access their fields safely and 26 percent had to abandon their fields. An additional 23 percent reported losing their harvest, with 17 percent of farmers reporting damaged or destroyed crops. Secondary reports state the loss of more than 47,000 olive trees.

> Forty-one percent experienced difficulties transporting agricultural products, while 67 percent reported reduced access to markets. Additionally, 35 percent struggled to access food, primarily due to income decline, market inaccessibility, and soaring prices.

> To address the above challenges, it is recommended to enhance food and cash assistance for agricultural households facing food insecurity. Provide cash or voucher support for inputs to small-scale crop and livestock producers, and deliver climate-smart agricultural training. Over the long term, recommendations include gender-responsive interventions, sustainable water management and other initiatives.
Methodology

The Food and Agriculture Organization of the United Nations (FAO), in collaboration with Lebanon’s Ministry of Agriculture (MoA), conducted a household survey through computer-assisted telephone interviews from 31 October to 30 November 2023. The objective was to monitor the impact of shocks on agricultural livelihoods and food security. The survey targeted the agricultural population using the sampling frame of agricultural holdings from the 2010 Lebanon Agricultural Census, which lists almost 170,000 holdings (MoA and FAO, 2012).

A total of 1,050 agricultural households were interviewed across seven governorates – Akkar, Baalbek-El Hermel, Bekaa, El Nabatieh, Mount Lebanon, North and South – with 150 agricultural households selected from each governorate using a random systematic approach. Survey results are comparable to those from the previous rounds of DIEM-Monitoring which collected data from the same cohort of 1,050 agricultural households. During the previous rounds, a subsample was taken from the agricultural production survey and derived from the agricultural census. Data were weighted at the analytical stage to ensure that farm size and regional population distribution were adequately represented and comparable to previous rounds.

Findings from the current round have been compared to those from the fourth round, which took place from 24 October to 19 November 2022, during the same season as the current round. The season covered by the survey was the planting season for wheat and barley, and the harvest season for olives and apples. Comparisons to the fifth round, conducted from 10 August to 7 September 2023, have also been made throughout this brief. Additional survey questions were added in the current round to assess the impacts of the escalating situation in southern Lebanon on farmers’ agricultural livelihoods and food security.

Figure 1. Countries with an established DIEM-Monitoring System


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 Lebanon and other countries.

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

Income and shocks

Around 88 percent of respondents reported experiencing shocks in the three months preceding the survey. High food and fuel prices were the most common shocks reported by households, same as the fourth and fifth rounds. Seventy-six percent of households cited high food and high fuel price related shocks. Both female-headed\(^1\) and male-headed households faced similar challenges in some areas. However, for issues like plant diseases, sickness and death of household members, other economic shocks and population movement restrictions, noticeable gender differences emerged, with female-headed households reporting these shocks more. On the other hand, in the case of pest outbreaks, male-headed households reported facing more challenges.

While high food and fuel prices continued to be the primary reported shocks (Figure 2), the findings indicated a notable decline compared to the fourth round and a slight decrease from the fifth round. This regression can be attributed to the stability of the exchange rate, and improvements in the availability of food and fuel in the markets, particularly following the removal of fuel subsidies in September 2022.\(^2\) Furthermore, other reported shocks such as violence and insecurity/conflict (10 percent) and population movement restrictions (5 percent) emerged significantly in the sixth round, attributed to escalating security concerns in southern Lebanon.

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\(^1\) Female-headed households are led and managed by a woman for agricultural, economic or other decision making. These households are more vulnerable in the context of the country.

\(^2\) Under the fuel subsidies programme in place since 2020, quantities of fuel imported into the country were limited by quotas. There were delays in processing import requests, leading to fuel shortages from 2020 to 2022. Following the gradual lifting of the fuel subsidies since the programme ended in September 2022, fuel prices have increased and fuel is also more available in the market. Fuel is now sold in United States dollars (USD), or its equivalent in LL, based on the prevailing exchange rate.
Figure 2. Main shocks reported (percentage of households)


Around 55 percent of households faced a decline in their primary sources of income, with Mount Lebanon registering the highest rate of 69 percent (Figure 3). This was primarily driven by challenges to agriculture, specifically a reduction in olive and apple harvests. In contrast, Bekaa experienced reduced impact with a 36 percent decrease, due to better harvests and prices in the region.
The overall dip in income across all governorates was attributed to high agricultural input costs, escalating fuel expenses and the devaluation of the Lebanese pound (LL). However, when comparing the current round to the fourth round, there was an improved trend in income, linked to the stability of the exchange rate and the dollarization of the economy. On the other hand, when comparing the current round to the fifth round, a regression was observed in most governorates, except in El Nabatieh and South, influenced by the situation in southern Lebanon.
Around 81 percent of the households involved in agricultural activities reported being engaged in crop production with 85 percent of crop producers reporting facing production difficulties. The most reported difficulties included limited access to fertilizer (82 percent) – with no significant changes when compared to the fourth and fifth rounds – and access to pesticides (58 percent) – with a significant decline in households reporting access to pesticides as a difficulty in the current round compared to the fourth and fifth rounds (Figure 5). This decline might be explained by the post-harvest period when farmers tend to reduce pesticide use as they transition to soil preparation. It is worth noting that the prices of pesticides have remained consistent compared to the fifth round as they are being sold in USD, with no alterations observed in the USD exchange rate compared to LL. As a result, farmers have reported encountering fewer challenges accessing pesticides this round, possibly attributed to the reduced use of pesticides.
Figure 5. Crop production difficulties (percentage of crop producers)

<table>
<thead>
<tr>
<th>Access to fertilizer</th>
<th>Access to pesticides</th>
<th>Access to manpower labour</th>
<th>Plant disease</th>
<th>Access to machinery</th>
<th>Not enough water</th>
<th>Access to fuel or electricity</th>
<th>Access to enough seeds</th>
<th>Access to plot</th>
<th>Access to quality seeds</th>
<th>Pest outbreak</th>
<th>Access to credit</th>
<th>Uncontrolled animal grazing</th>
<th>Too much irrigation or water</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>82%</td>
<td>63%</td>
<td>66%</td>
<td>42%</td>
<td>12%</td>
<td>2%</td>
<td>19%</td>
<td>44%</td>
<td>15%</td>
<td>4%</td>
<td>4%</td>
<td>13%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>


Access to labour or manpower (50 percent) saw a slight increase compared to the fifth round possibly due to challenges in southern Lebanon, especially in El Nabatieh and South governorates, where labour access has become more difficult due to displacement. These difficulties were also reported by female-headed households. Access to fuel or electricity remained a significant issue, showing a notable regression in the current round compared to the fourth and fifth rounds influenced by increased availability following the lifting of fuel subsidies.

Crop production difficulties were more pronounced in Mount Lebanon and El Nabatieh (94 percent each). In El Nabatieh, the difficulties were linked to the escalating hostilities in southern Lebanon. In Mount Lebanon, the challenges stemmed from the fact that most farmers are small agricultural holders facing high production costs due to expensive land and labour. Additionally, these difficulties were exacerbated by a decline in the olive harvest this year.
In the current round, 66 percent of households anticipated a decrease in harvest, up from 60 percent in the fifth round and 41 percent in the fourth round. El Nabatieh (86 percent) and South (85 percent) governorates reported the highest decrease, primarily due to the escalating hostilities in southern Lebanon where most of the households’ crops and agricultural products have had their production affected. High rates of households were also unable to harvest olives.

While there were no statistical differences between the current round and the fifth round, both rounds showed a significant decrease in harvest compared to the fourth round due to the decrease in olive harvest. The 2022 olive harvest surpassed this year’s yield by 40 to 50 percent, attributed to the alternate year bearing trees.

Around 55 percent of crop producers reported difficulties selling their products because of increased marketing costs (75 percent), lower prices (52 percent) and lack of demand (41 percent). In the current round, low selling prices were reported less than the fourth and fifth rounds. This was mainly attributed to the stabilized exchange rate and economic stability. A slight increase in the lack of demand was also observed this round compared to the fifth round. This was influenced by the escalating hostilities in southern Lebanon where demand decreased in affected areas due to displacement, resulting in lower prices for perishable crops.

El Nabatieh (69 percent), Mount Lebanon (63 percent) and South (63 percent) reported the highest percentage of households facing difficulties selling crops. The challenges faced in El Nabatieh and South were linked to the situation in southern Lebanon. In Mount Lebanon, challenges to apple marketing including payment delays and high refrigeration costs driven by high costs of fuel prices, urged farmers to sell at lower prices during peak production.

Approximately 38 percent of households reported a decline in selling prices, showing an improvement from 52 percent in the fifth round and 58 percent in the fourth round. This positive trend could be attributed to households receiving better prices for olives and various fruit and vegetables compared to the previous year. Certain products, such as lettuce, showed price increases due to lower supply caused by cultivation challenges in southern Lebanon. However, households in Mount Lebanon (54 percent) reported the highest decline in crop sales prices, attributed to selling apples during the peak season at lower prices, followed by El Nabatieh (46 percent) due to the escalating hostilities in southern Lebanon, then Akkar and Baalbeck el Hermel (42 percent – reported equally in both governorates) where farmers reported facing lower prices for certain vegetables like cabbages and cauliflower due to imports from neighbouring countries and farmers reporting wheat prices lower than the year before.

About 3 percent of households reported changing their main crops to other types of crops (including wheat, tobacco, tomatoes, potatoes and apples) due to recent economic events. The most cited reasons for these substitutions were lack of inputs and lack of money to buy usual crop inputs (61 percent), and new crops inputs being cheaper (54 percent).
Livestock

Around 17 percent of the surveyed households involved in agricultural activity reported being engaged in both crop and livestock production, and 2 percent reported being engaged in livestock production only. The main livestock reared by the surveyed households were cattle (27 percent), goats (22 percent) and honeybees (19 percent). Livestock producers in El Nabatieh and Mount Lebanon were predominantly poultry producers, those in Akkar and South were predominantly cattle producers, and those in Baalbek-Er-Hermel, North and Bekaa were predominantly goat producers.

About 76 percent of livestock producers reported production difficulties, mainly purchasing feed (79 percent), and accessing veterinary inputs (63 percent) and veterinary services (59 percent) (Figure 6). Veterinary inputs and feed are largely imported and sold in USD.

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

Results from the current round were similar to those reported in the fourth and fifth rounds in terms of the most common difficulties. Access to labour, however, showed a significant decline compared to the fourth round. This was likely due to the increased ability of livestock producers to pay higher wages to livestock workers.
Female-headed households reported similar difficulties as male-headed households, however, difficulties purchasing feed, and accessing veterinary services and pastures were reported more frequently by female-headed households compared to male-headed households. Over 46 percent of livestock producers reported a decrease in the number of animals they owned compared to the previous year, which they mostly attributed to distress sales (22 percent), like the fourth and fifth rounds. El Nabatieh showed the highest decrease this round (50 percent). There were no statistically significant differences in distress sales across the three rounds. However, a slight improvement has been observed both in terms of distress sales and the overall decrease in the number of animals. This positive trend is attributed to households receiving slightly better selling prices for their livestock products which are now sold in USD.

Less households (39 percent) reported difficulties selling their products compared to the fifth (41 percent) and fourth (58 percent) rounds. The most common livestock sales difficulties reported were high marketing costs and lower prices (73 percent each). No significant differences were observed in the difficulties faced in livestock sales when comparing this round to the fourth and fifth rounds. However, there was a slight increase this round in reporting lack of demand from usual buyers, challenges processing products, damages and losses during transportation, and markets flooded with products compared to the fifth round. This increase could be attributed to the escalating hostilities in southern Lebanon. Only 39 percent of the livestock producers reported a decrease in selling prices, with Mount Lebanon (63 percent) reporting the highest percentage of households claiming a decrease in sale price in livestock and livestock products due to the lower selling prices of poultry.

Around 1 percent of households changed the composition of their herds due to economic and climatic reasons. Seventeen percent of households faced unusual livestock mortality caused mainly by animal diseases (58 percent).
Food security

Twenty-one percent of households experienced moderate or severe RFI\(^3\) according to the FIES,\(^4,5\) a slight decrease when compared to the fourth and fifth rounds. Baalbek-EI Hermel had the highest prevalence of RFI (31 percent), followed by Akkar and Mount Lebanon (25 percent, each) (Figure 7). According to the household hunger scale, about 98 percent of households experienced little or no hunger. Only 0.5 percent of households were found to have low dietary diversity. Similarly, only 4 percent of households had poor food consumption score (FCS).\(^6\) Less households had low dietary diversity (i.e. a household dietary diversity score between 0 and 2) compared to the fourth and fifth rounds, and about 34 percent of households reported using reduced food based coping strategies (such as households relying on less preferred food, reducing the number of meals and limiting portions) in line with the Integrated Food Security Phase Classification (IPC) Phase 2.

Figure 7. Prevalence of food insecurity based on the FIES by governorate (percentage of households)

According to the livelihood coping strategy index, nearly all (96 percent) households adopted coping strategies to meet their food needs. The very high dependence on adopting coping strategies indicates that households are very vulnerable to any natural or economic shock, and any deterioration in their livelihood situation will increase the prevalence of food insecurity. The most common livelihood coping strategies adopted were decreasing expenses on agricultural

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\(^3\) RFI is used for indicators to define moderate and severe food insecurity in the context of the Sustainable Development Goals monitoring process, and to define the thresholds set to correspond as closely as possible to the IPC acute food insecurity phases.

\(^4\) FIES provides estimates of the proportion of the reference population facing food insecurity at different levels of severity and based on 8 core questions asking about experiences associated with limited ability to obtain food (due to resource constraints) over a period of 30 days.

\(^5\) FIES results are subject to change until the country scale is established for more consistent comparability across rounds.

\(^6\) FCS is a composite score based on dietary diversity, food frequency and the relative nutritional importance of food groups at household level. It asks about the number of days in which each food group was consumed by the household in the seven days preceding the survey.
inputs (90 percent), reducing health expenses (74 percent) and spending savings (54 percent). The percentage of households resorting to crisis livelihood coping strategies did not show any significant differences between the current round (88 percent), and the fourth and fifth rounds (88 and 86 percent, respectively). Households in almost all governorates adopted crisis or emergency coping strategies, with more than 85 percent of households in each governorate reporting the use of crisis coping strategies, except for Bekaa where 79 percent of households adopted crisis or emergency coping strategies (Figure 8).

Figure 8. Livelihood coping strategies by governorate (percentage of households)

While the ongoing utilization of coping strategies may temporarily reduce food consumption gaps, the depletion of these strategies could lead to a gradual deterioration in food intake. For this reason, it is necessary to closely monitor food security outcomes to address any emerging challenges.
Needs

Nearly all (98 percent) of the surveyed agricultural households indicated a need for assistance in the three to six months following the survey. Female-headed households had similar needs as male-headed households. Overall, crop producers expressed the need for inputs for crop production (84 percent), while livestock producers expressed the need for livestock feed (80 percent) and veterinary services (62 percent).

The percentage of crop producers requesting inputs for crop production in the sixth round was not significantly different than in the fourth and fifth rounds. The percentage of households (both crop and livestock producers) requesting cash assistance in the current round (58 percent) compared to the fifth round (63 percent), however, it increased significantly in comparison to the fourth round (46 percent).

Overall, only about 4 percent of households reported receiving assistance in the three months preceding the survey, compared to 7 percent in the fifth round and 8 percent in the fourth round. The assistance delivered was mainly food assistance (2 percent), cash (1 percent) and vouchers (1 percent).

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7 Cash assistance is meant for multi-purpose use, such as to buy food and essential non-food items, and/or agricultural inputs.
Impact of the escalating hostilities in southern Lebanon on agricultural households

During the sixth-round survey, the impact of the escalating hostilities on agricultural households in southern Lebanon was also assessed. Of the 1 050 surveyed households, the highest impacts were reported in El Nabatieh (54 percent) and South (23 percent) governorates and affected a total of 12 percent of farmers in all seven governorates. Farmers outside the directly affected areas also faced challenges marketing crop and livestock production due to reduced demand, processing difficulties and consumers' limited access to markets.

Thirty-nine percent of affected households were displaced, primarily in South and El Nabatieh, with 35 percent relocating to stay with relatives and friends. The affected households relied on staple crop production (23 percent) and 63 percent were unable to access their fields safely. Furthermore, 23 percent reported losing their harvest along with a high percentage of farmers who reported damaged or destroyed crops (17 percent). This is in line with reports from the MoA, which stated that the situation in southern Lebanon has resulted in a significant loss of more than 47 000 olive trees forcing an early end to the olive harvesting season in this area (MoA, 2023).

Disruptions in transportation for sales affected 41 percent of surveyed households, impacting their income and food security. Reduced market access due to security concerns (67 percent) and lack of demand (48 percent) were common issues reported, suggesting decreased income levels. About 35 percent faced challenges accessing food and basic commodities due to income loss and limited market access. The findings highlighted the widespread disruptions in southern Lebanon, emphasizing the need for immediate support and ongoing monitoring for recovery efforts. Further information can be found in the forthcoming Lebanon: DIEM-Impact report.
Recommendations

Short-term recommendations (1–6 months)

> Expand existing food and cash assistance initiatives to encompass agricultural households facing moderate to severe food insecurity and households employing crisis and emergency coping strategies to meet food needs, particularly in Akkar, El Nabatieh and South governorates.

> Increase the provision of inputs as cash or voucher assistance interventions, targeting small-scale crop and livestock producers across diverse geographical regions in all seven governorates.

> Provide comprehensive training on climate-smart agriculture\(^8\) for crop production, and animal health and nutrition training for livestock production to enhance resilience to climate change and to cold weather, particularly in Bekaa, Baalbek-El Hermel and North.

> Continue to closely monitor the food security status of Lebanese households, with a specific emphasis on those engaged in agriculture, and support the establishment of a comprehensive food security surveillance system across all governorates. This is essential for decision-making and timely interventions.

> Ensure better coordination and linkages with the work that will be carried out by the Food Security and Agriculture Sector partners of the Lebanon Response Plan Framework over 2024.

> Introduce a specialized fall crop preparedness programme to equip small-scale crop producers with the knowledge and resources needed for the upcoming planting season, particularly in Akkar, Baalbek-El Hermel and Mount Lebanon.

> Launch a winter-focused initiative for livestock producers, offering support for winter-specific challenges. This includes provisions of feed and veterinary care tailored to cold weather conditions and should prioritize Akkar, Baalbek-El Hermel, Bekaa, Mount Lebanon and South governorates.

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\(^8\) Climate-smart agriculture refers to an agricultural approach that targets climate change when implementing farming practices including good agricultural practices and integrated pest management. The goal is to build resilience and adapt to the changing conditions and its purpose is to enhance food security, increase farmers’ incomes and foster sustainable agriculture, amid the challenges posed by climate change.
> Conduct a comprehensive impact assessment of the escalating hostilities in southern Lebanon to assess damages and losses in crops, livestock and forestry, and identify farmers who have suffered from major damages and losses to agricultural assets and production.

> Support farmers affected by the escalating hostilities in southern Lebanon to access seeds, livestock feed, veterinary services and other agricultural inputs, especially in El Nabatieh and South governorates.

> Provide targeted cash assistance to farmers who suffered significant damages or losses to assets and production. Implement targeted interventions to support other emergency and early recovery needs of the affected agricultural households.

Medium- to long-term recommendations (6–24 months)

> Implement targeted programmes offering direct support, trainings and technical assistance to small-scale crop and livestock producers. Focus the programmes on increasing production, productivity and farmers’ incomes, and improving marketing practices to reduce production costs and post-harvest losses, particularly in El Nabatieh, Mount Lebanon, North and South.

> Extend financial support to small and medium crop producers for the adoption of alternative energy sources, including renewable energy. This will reduce dependence on fossil fuel energy, decrease operational costs, and promote sustainable practices in agriculture, mainly in Baalbek-El Hermel, Bekaa and Mount Lebanon.

> Support gender-responsive interventions focusing on the production of high-value crops by emphasizing product diversification and improving market linkages to empower women in agriculture, encouraging the economic growth inclusivity and diversity, particularly in Bekaa, Mount Lebanon and North where there is a low percentage of women engaged in agriculture.

> Increase efforts in sustainable water resources management and supply by scaling up interventions to enhance irrigation water availability. This approach aims to increase water use efficiency and support sustainable agricultural practices, particularly in Baalbek-El Hermel, El Nabatieh and South.

> Develop comprehensive programmes to support fodder crop production, including the processing of animal feed and initiating efforts to restore pasture lands to ensure a sustainable and reliable source of nutrition for livestock and strengthen the overall agricultural ecosystem.
> Take measures to control inflation, especially food, fuel and agri inputs prices.

> Provide capacity building trainings for crop and animal production as well as agro-processing for skill enhancement and income diversification for households, particularly in El Nabatieh, Mount Lebanon and North.
Notes


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