Food and Agriculture
Organization of the
United Nations

Afghanistan

DIEM – Data in Emergencies Monitoring brief, round 5

Results and recommendations
October 2022

Methodology

The Food and Agriculture Organization of the United Nations (FAO) launched a household survey in Afghanistan through the Data in Emergencies Monitoring (DIEM-Monitoring) System to monitor agricultural livelihoods and food security. This fifth-round survey reached a random sample of 6 019 households in 25 provinces, representative at administrative level 1. The survey targeted the provinces of: Badakhshan, Badghis, Balkh, Bamyan, Daykundi, Farah, Faryab, Ghazni, Ghor, Hilmand, Hirat, Jawzjan, Kabul, Kandahar, Khost, Kunar, Kunduz, Maidan Wardak, Nangarhar, Nimroz, Nuristan, Paktika, Parwan, Samangan and Takhar. The targeted households were randomly selected using two-step cluster sampling and probability proportional to size. Rural households were surveyed face-to-face to monitor the impacts of shocks on livelihoods and food security.

Interviews for this fifth-round survey were conducted between 23 July and 26 August 2022. Data were weighted by demographics and a wealth proxy (type of toilet). The third round, which reached 7 144 households, took place from 1 August to 24 September 2021, and the fourth round, which reached 5 971 households, took place from 12 March to 4 April 2022. Both the third and fourth 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. In: *FAO Data in Emergencies Hub.* Rome. Cited 3 October 2022. https://data-in-emergencies.fao.org
Source of map: United Nations. 2020. *Map of the World.* Cited 3 October 2022. www.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.

Income and shocks

Almost all surveyed households reported shocks, of which economic shocks were predominant (Figure 2). Indicating a worsening trend, much higher food prices rose from a frequency of 62 percent during round 3, to 78 percent in round 4 and increased to 89 percent in the current round. Higher fuel prices also increased in frequency and were cited by 43 percent during round 4 rising to 75 percent in the current round. Among climate related and agricultural shocks, drought was widespread and increased from 59 percent in round 3 to 73 percent in the current round. Plant disease increased from a frequency of 22 percent in round 4 to 50 percent in round 5.

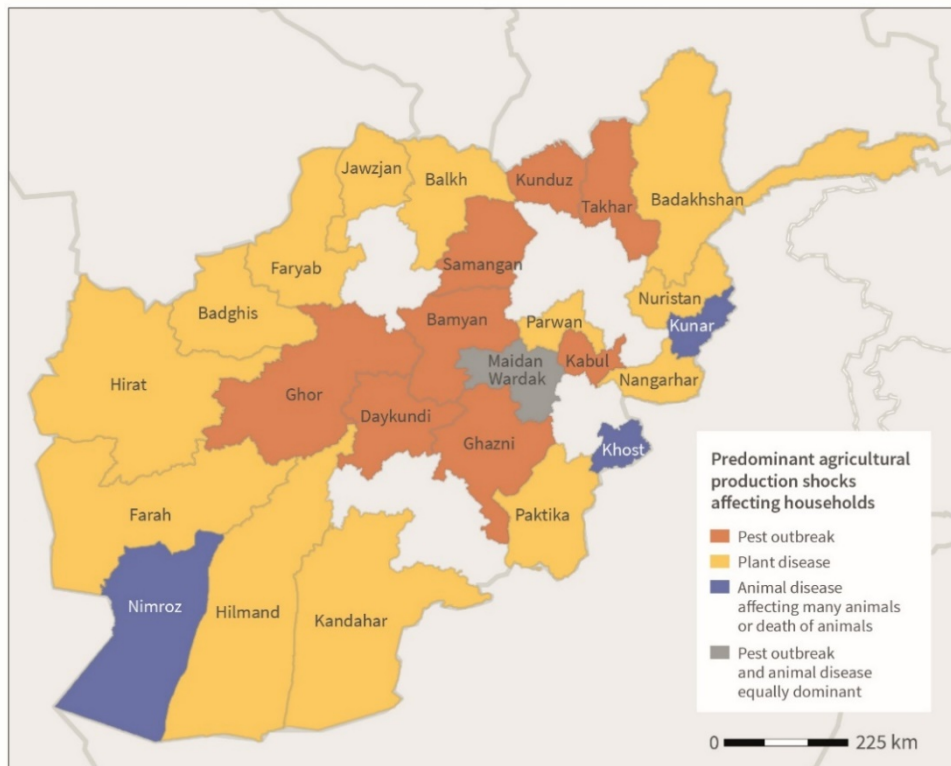Figure 2. Main shocks reported (percentage of households)
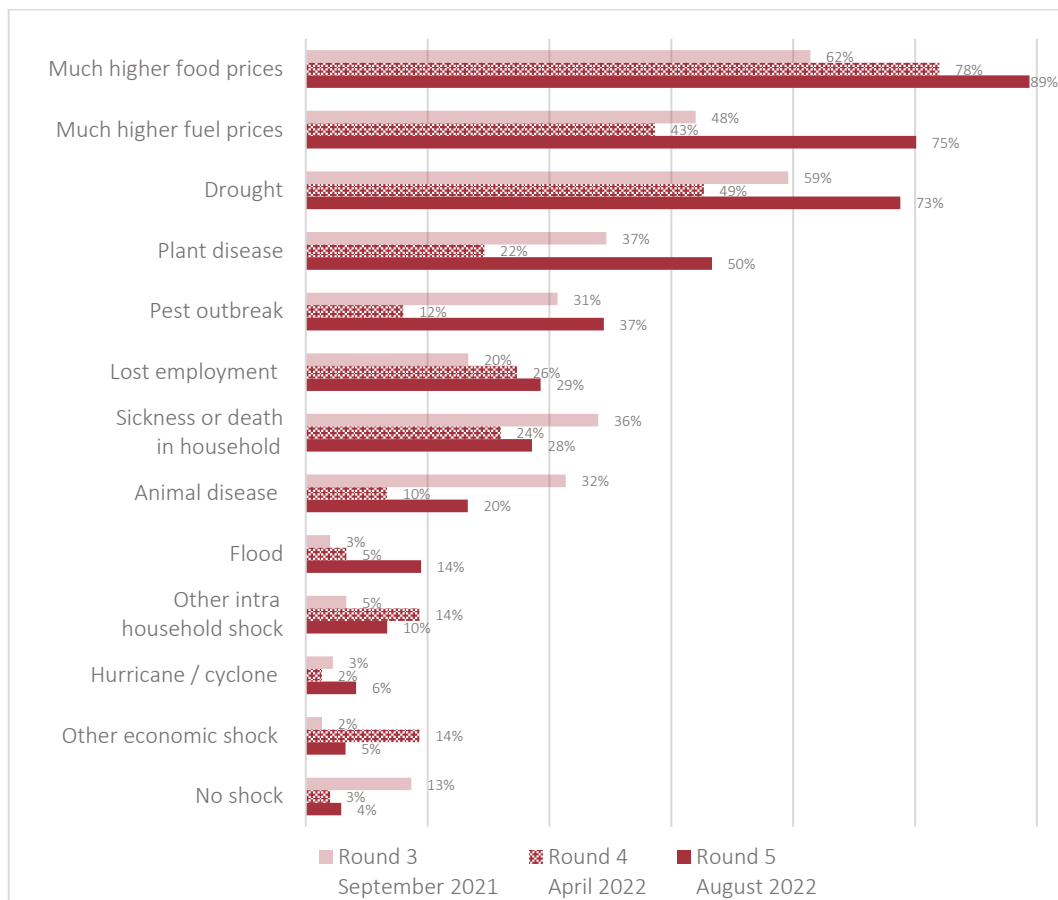
Source of data: FAO. 2022. Afghanistan: DIEM-Monitoring assessments results (September 2021, April 2022 and July–August 2022). In: *FAO Data in Emergencies Hub*. Rome. Cited 3 October 2022. https://data-in-emergencies.fao.org

Some shocks affected certain provinces more than others (Figure 3). Shocks related to food prices were less frequent in Ghazni and Nuristan. Among intra household shocks, loss of employment mainly affected daily wage work and was more frequent in Nangarhar (82 percent), Kabul (63 percent) and Paktika (53 percent). Sickness of a household member was more frequent in Daykundi (79 percent), Kunduz (58 percent) and Kabul (52 percent). Drought was more frequent in Kandahar and Jawzjan (98 percent), Hilmand (95 percent), Daykundi (90 percent) and Ghor (90 percent). The households that were most affected by flooding were in Badakhshan, Maidan Wardak, Nuristan and Paktika. Plant diseases concentrated in Daykundi, Hilmand, Kabul, Kandahar, Khost and Kunduz, while animal diseases concentrated in Khost, Nangarhar and Paktika. Pest outbreaks was more frequent in Bamyan, Daykundi, Farah, Hilmand, Kabul, Khost, Kunduz, and Paktika.

Almost all (95 percent) surveyed households reported a decline in their primary source of income in the three months preceding the survey, compared to a normal year (up from 73 percent in round 3 and 85 percent in round 4).

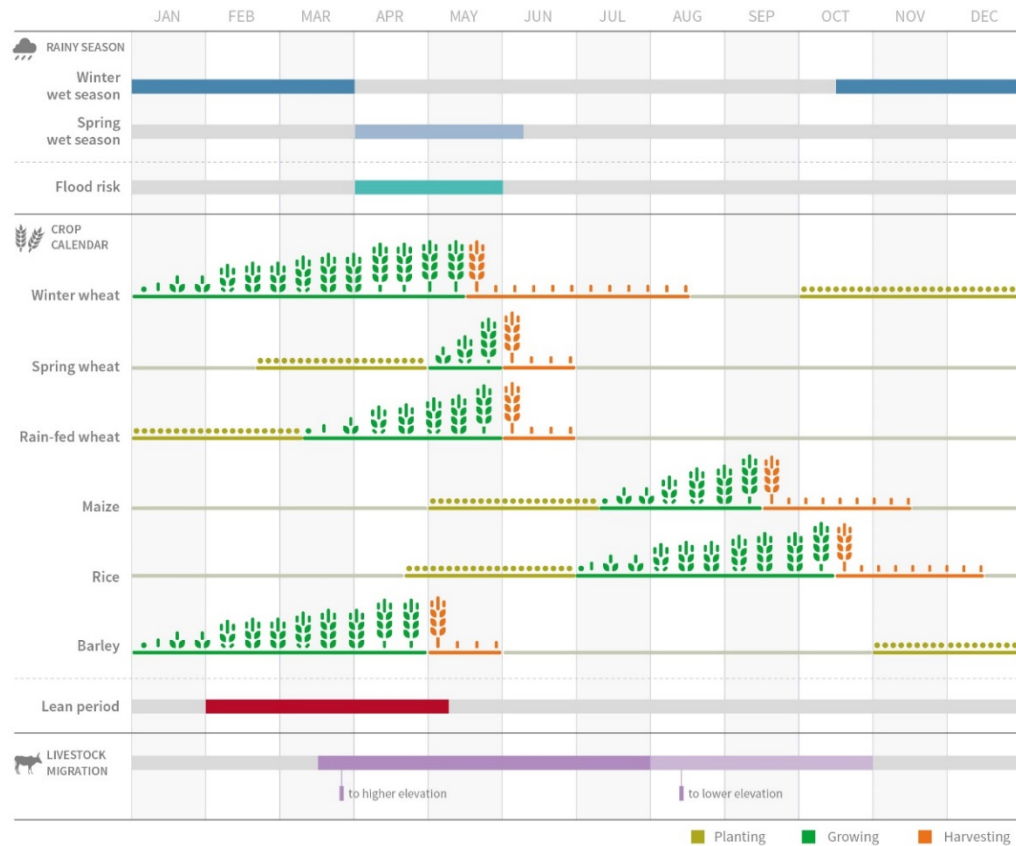Figure 3: Predominant agricultural production shocks affecting households

Crops

Figure 4. Afghanistan crop calendar

The reduction in planted area is of major concern in Afghanistan. This trend has been observed over previous rounds, but in this fifth round, the share of farmers that reported a reduction in the area planted has increased substantially (83 percent). In Nimroz, Paktika and Jawzjan, all farmers reported a drop in the area planted. This is particularly concerning for wheat farmers, as 75 percent of wheat farmers planted less or a lot less. The main reasons for planting less were less water available for crops and lack of inputs (seeds and fertilizer in particular) (Figure 5).
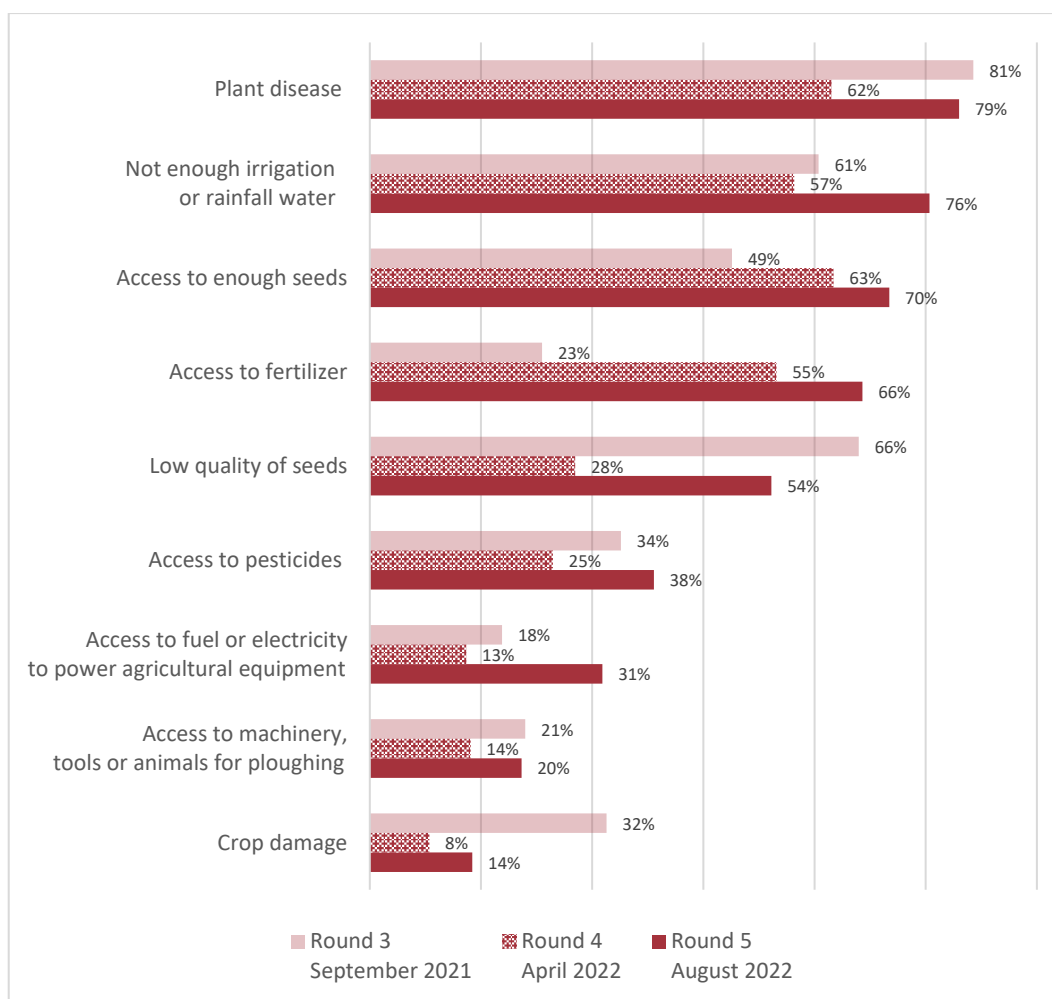
Figure 5. Reasons for planting less (percentage of households)
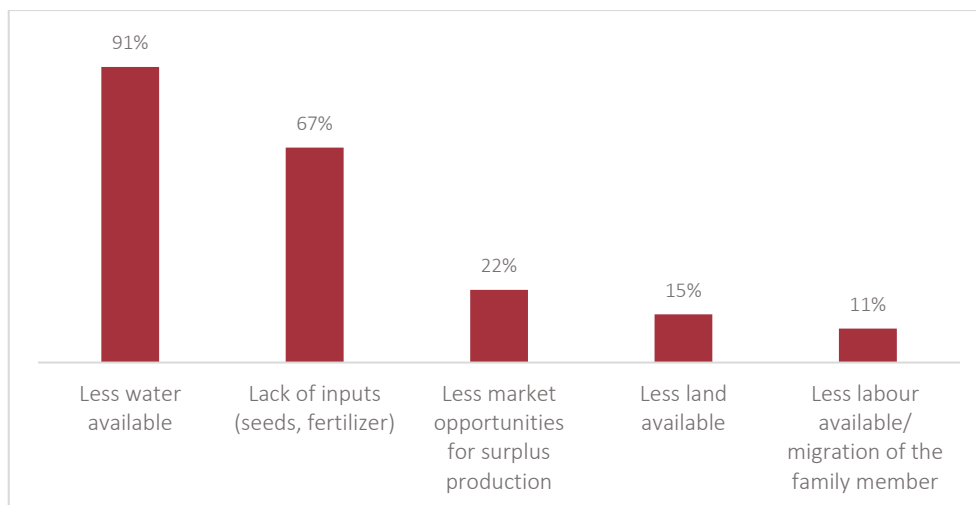
The primary reported constraints to crop production were plant diseases (79 percent), lack of water (76 percent) and access to inputs like fertilizer (66 percent) and pesticides (38 percent) (Figure 6). These constraints have been evident since the last round but have increased in some provinces. The low quality of seeds (reported less frequently in round 4) became a more common issue and was cited by 54 percent of farmers this round. Rust, aphids, smut and powdery mildew were the most frequently reported diseases while locusts, ants and worms were the most frequently reported pests.

Figure 6. Main crop production difficulties (percentage of households)

Plant disease: 81%, 62%, 79%
Not enough irrigation or rainfall water: 61%, 57%, 76%
Access to enough seeds: 49%, 63%, 70%
Access to fertilizer: 23%, 55%, 66%
Low quality of seeds: 66%, 28%, 54%
Access to pesticides: 34%, 25%, 38%
Access to fuel or electricity to power agricultural equipment: 18%, 13%, 31%
Access to machinery, tools or animals for ploughing: 21%, 14%, 20%
Crop damage: 32%, 8%, 14%

Round 3
September 2021
Round 4
April 2022
Round 5
August 2022

Two-thirds of the interviewed farmers faced difficulties accessing quality seeds in the previous planting season and are expecting the same difficulties in the upcoming season. Higher seed prices, insufficient household income to buy seeds, and low-quality seeds were the most frequently cited reasons.

A drastic 96 percent of farmers reported a decrease in production, a large increase from the 74 percent that reported this during round 4. Eighty-five percent of farmers that sold produce also had marketing difficulties. The most frequent marketing difficulty was high marketing costs (including transportation). Sixty percent of surveyed farmers reported that their main crops were sold for a lower price when compared to the average price over the same period during the previous season.

Livestock

The pasture conditions have not improved. Sixty-three percent of livestock farmers experienced poor pasture in the fourth-round survey. In the current fifth-round survey, 88 percent of livestock farmers experienced poor pasture, particularly in Bamyan, Kunar and Nimroz. In general, livestock herds/flocks decreased due to stress sales and animal deaths which have also

increased (Figure 7). Distress sales increased from 23 percent in round 3, to 52 percent in round 4, to 65 percent in this round. This increase in distress sales between rounds 3 and 5 is almost three times. Similarly, loss of animals due to death caused by poor health, disease, malnutrition, or injuries increased from 31 percent in round 4 to 39 percent in this round. In other words, one in three livestock keepers reported animal loss due to death caused by lack of proper animal health care and quality inputs.

Figure 7. Households reporting a decrease in the number of livestock compared to the same time last year
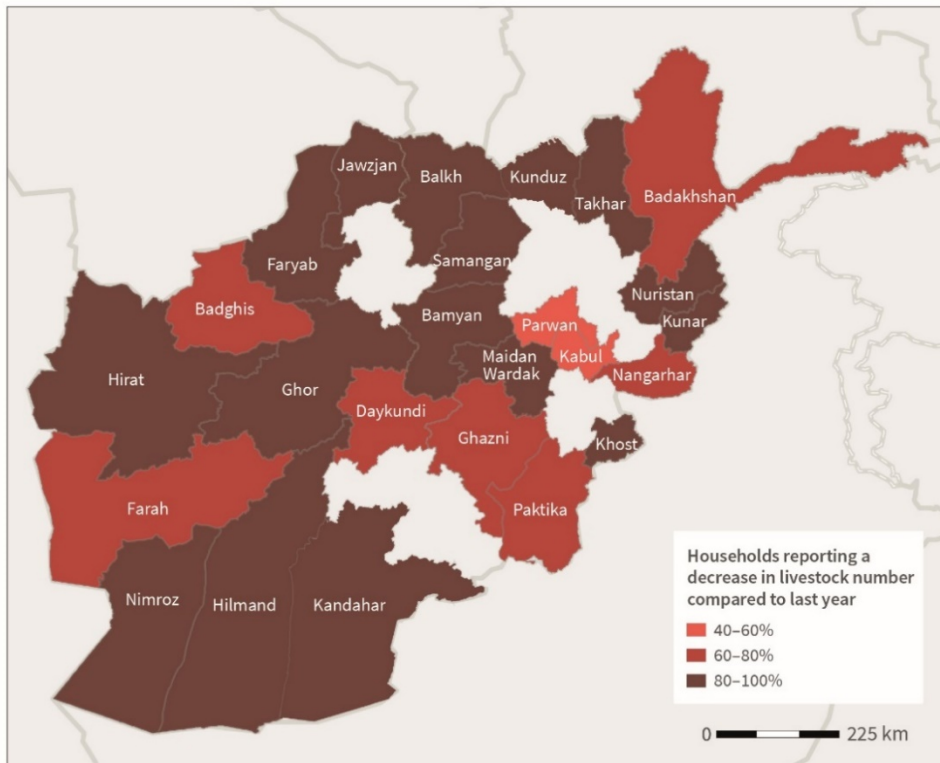
Source of data: FAO. 2022. Afghanistan: DIEM-Monitoring assessment result (July–August 2022). In: *FAO Data in Emergencies Hub*. Rome. Cited 3 October 2022. https://data-in-emergencies.fao.org
Source of map: Esri, HERE, Garmin, FAO, NOAA, USGS. 2018. *Map of Afghanistan*. Cited 3 October 2022. https://data-in-emergencies.fao.org/pages/explore

The main constraints to livestock production were the poor condition of pastures, lack of/limited access to water, livestock diseases and difficulty purchasing feed (Figure 8). In the fourth round, these challenges were also the most frequent, but accessing feed was more common. In the current round, access to pasture was heavily cited (72 percent), meaning three out of four livestock keepers reported lack of access to pasture and quality feed as a key constraint to livestock production.

Figure 8. Main livestock production difficulties (percentage of households)
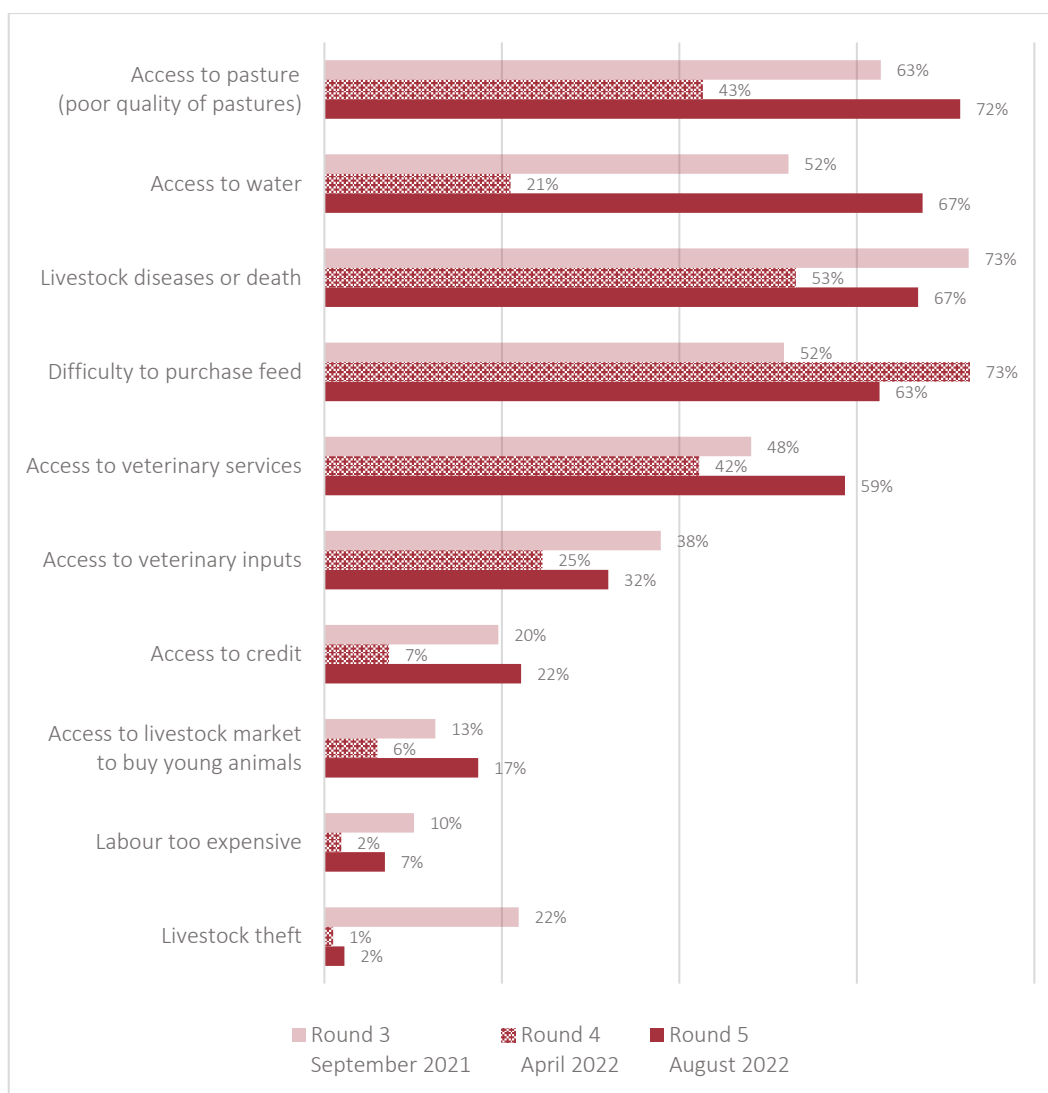
Source of data: FAO. 2022. Afghanistan: DIEM-Monitoring assessments results (September 2021, April 2022 and July–August 2022). In: *FAO Data in Emergencies Hub*. Rome. Cited 3 October 2022. https://data-in-emergencies.fao.org

Livestock marketing was difficult because of the increased marketing costs (including transportation) and low sale prices (particularly in Kunar, Nangarhar, Nimroz and Paktika), which is consistent with the high frequency of stress sales.

Food security

Dietary diversity has improved, compared to the previous round, likely as a result of the harvest. Forty-four percent of households had an acceptable food consumption score, and 60 percent had a Household Dietary Diversity Score (HDDS) of 5 or more. Food consumption remains poor in Balkh, Bamyan, Ghor, Hilmand and Samangan. As measured by the Food Insecurity Experience Scale,[1] recent food insecurity (RFI) remains high (84 percent moderate and severe and 17 percent severe) (Figure 9). In addition, many households still engage in severe food related coping strategies and 64 percent of respondent households have a reduced coping

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[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.

strategy index (rCSI) of 19 or more. This is probably related to the extreme decapitalisation of productive assets and to reduced production and productivity.

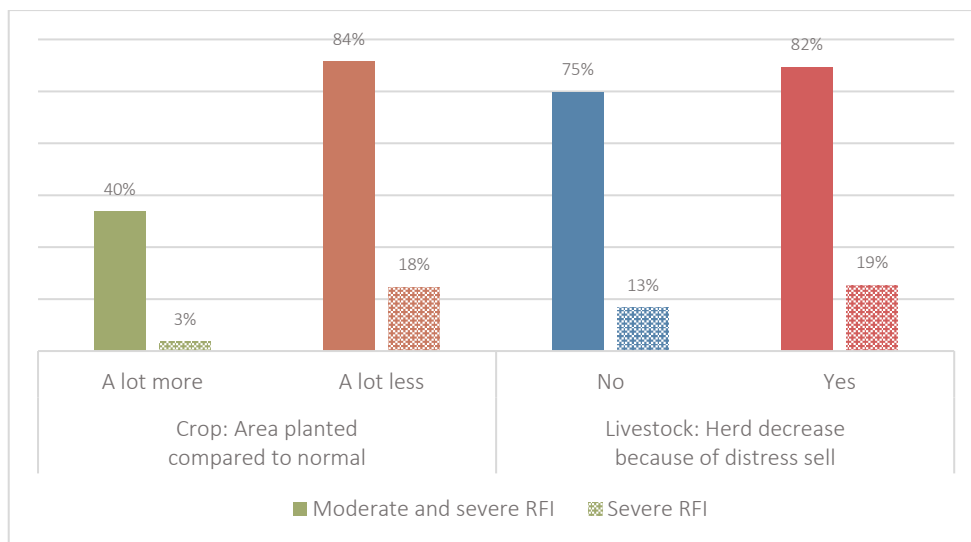Figure 9. Prevalance of recent moderate or severe households food insecurity as measured by FIES
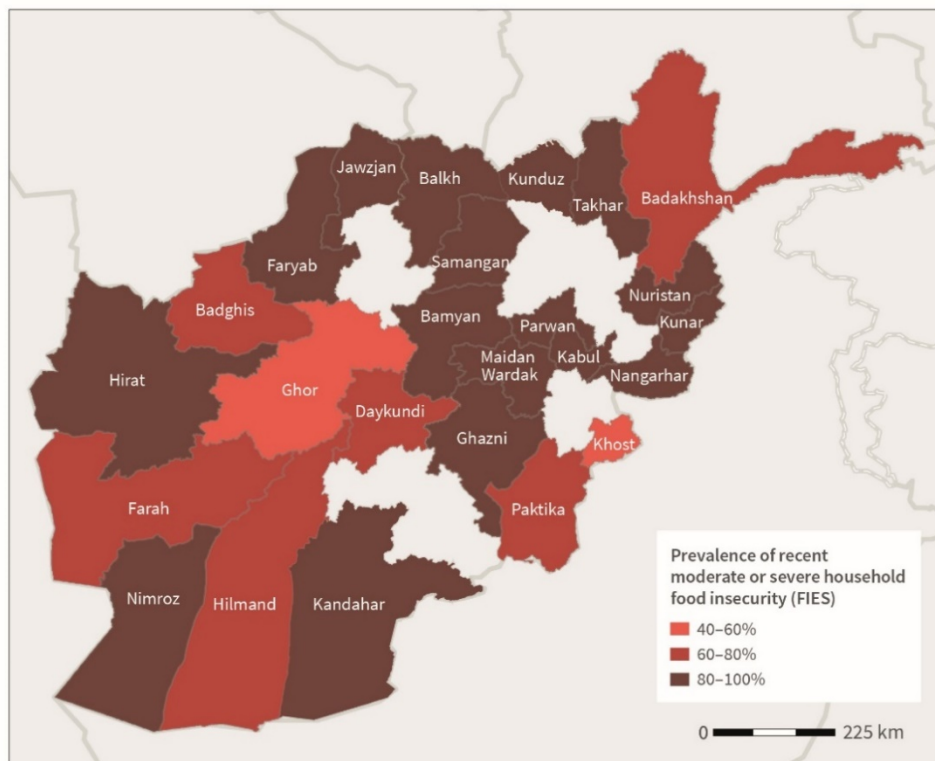
The livelihood coping strategies index (LCSI) indicated that 64 percent adopted crisis coping strategies and 33 percent of households adopted emergency coping strategies. Crisis and emergency coping strategies – consuming seed stocks saved for the next planting season (cited by 57 percent of respondents), forgoing farming on all the land for the season (cited by 43 percent) or selling land/house (cited by 17 percent) – are more difficult to reverse in the short term and threaten future production and income.

Food insecurity is more common among non-agricultural households (95 percent moderate and severe RFI), but among farmers and livestock producers, decisions on how much to plant and how many animals to sell seem to impact food security outcomes. A reduction of the farmed area and distress sales, for example, are coping strategies associated with food insecurity and are likely to worsen the situation by constraining future income and food production (Figure 10).

Figure 10. RFI according to planting decisions and distress sales (percentage of households)

Crop: Area planted compared to normal — A lot more: 40% / 3%; A lot less: 84% / 18%. Livestock: Herd decrease because of distress sell — No: 75% / 13%; Yes: 82% / 19%. Legend: Moderate and severe RFI; Severe RFI.

Needs

All surveyed households declared a need for assistance. Cash and food assistance were the most frequently reported needs among non-agricultural households. Fertilizer, seeds, access to water, tools, pesticides, animal feed, loans, veterinary services and inputs were the most frequently reported needs among agricultural households. Land rehabilitation was requested more from the provinces (Khost and Paktika) affected by the 22 June 2022 earthquake, and in Maidan Wardak.

Recommendations

Short-term recommendations

> Identify and distribute an input package targeting wheat producers that includes certified/high quality tested seeds resistant to biotic and abiotic stressors like drought, pests and diseases, quality fertilizer and extension services/trainings focused on seed treatment with fungicide, integrated pest management, climate resilient cultivation practices and crop rotation for farmers. The packages should target the upcoming planting season especially in Daykundi, Faryab, Ghazni, Ghor, Hilmand, Kabul and Kandahar, and other acutely food insecure provinces.

> Improve the capacity of implementing partners to train farmers about pests and diseases, controlling mechanisms, safe usage of globally approved fungicides and to promote seed treatment practices to control soil and seed borne diseases.

> Support livestock keepers/herders, especially those who have decapitalized, with livestock protection packages, including concentrated animal feed for the upcoming winter season, deworming services, vaccination and animal health care, trainings and linkages to local extension services.

> Distribute quality tested seeds of improved fodder crops (e.g., alfalfa, berseem, clover, sorghum, maize, etc.) and, where feasible, introduce methods for making hay, silage, mineral block based treatment and concentrated feed.

> Provide vaccinations against viral diseases (lumpy skin disease, foot and mouth disease, anthrax, enterotoxaemia, and others), and increase community awareness to farmers' livestock assets.

> Implement cash-for-work activities, especially for water harvesting, in rural areas to support purchasing power of the consumers and encourage the producers to produce.

Long-term recommendations

> Implement an integrated pest management approach through farmer field
  schools to train farmers on pest and disease life cycles, cultivation methods
  and appropriately control pests and diseases. This should be accompanied by
  enhancing the capacity of extension workers and farmers on the identification
  of pests and diseases, and on time management.

> Provide extension services by establishing a demand driven extension system.

> Establish farmers associations/groups at village/district levels for conducting
  collective marketing activities (sorting, grading, packaging, etc.). Engage these
  groups in input procurement such as safe pesticides and others.

> Establish natural resources management/pasture management associations
  and increase their capacity for water preservation and rangeland restoration
  and management.

> Promote artificial insemination interventions for dairy cows and goats at
  different levels and the provision of technical services and marketing
  opportunities.

> Promote home-based sustainable farming practices and healthy diets,
  including the production of nutrient-rich foods (especially legumes),
  processing, preservation and storage while disseminating best practices in food
  preparation and consumption (nutrition education).

> Support home-based livestock production, mainly poultry and ruminants, and
  greenhouses for home use to enrich household access and consumption of
  nutrient-rich food.

> Explore opportunities, promote, and implement employment and sustainable
  income generation activities (e.g. employment though food and cash crop
  value chains and other opportunities arising from the agro-business sector and
  the intensification of agriculture to create employment).

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