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Twenty-two percent of Libyans are engaged in some form of agricultural production – a large proportion despite agriculture’s small contribution to the national GDP (3 percent in 2011).

Conflict, political instability and insecurity have fuelled the crisis in Libya, impacting individuals and families as well as the country’s economy and institutions. Resulting waves of displacement and the protracted nature of the situation has affected the ability of households to withstand additional impacts, while the erosion of purchasing power and market linkages have made opportunities to improve resilience and recover from the conflict increasingly scarce.

As the conflict continues to result in displacement and as the ongoing economic crisis contributes to rising food prices, food security will remain a top priority. Although the average food consumption patterns of households remains relatively high, low levels of coping capacity suggest that the current situation will deteriorate. Involvement in agriculture will continue to play a vital role in contributing to food security as households face increasing difficulties.

Previous qualitative assessments have shown that the crisis has exacerbated pre-existing challenges associated with agricultural production in Libya, including water scarcity, animal and plant diseases, desertification and labour shortages. In addition to these longer-term challenges, the crisis has ruptured market linkages and disrupted access to water, electricity, inputs, and transportation.<sup>1</sup>

Crop and livestock production are a significant source of food security for many Libyan households, which tend to be small producers. Along these lines, one key finding of this assessment is that despite agriculture’s relatively small contribution to Libya’s Gross Domestic Product (GDP) – less than 3 percent in 2011<sup>2</sup> – the proportion of Libyans engaged in some form of agricultural production is comparatively large (22 percent). In spite of this, participation in agriculture may have been considerably higher before the crisis, however, with approximately 7.5 percent of the population abandoning agricultural activities since 2014.

<sup>1</sup> The Food and Agriculture Organization of the United Nations (FAO)/Middle East Consulting Solutions. 2018. Agriculture and Rural Livelihoods Assessment-Libya

<sup>2</sup> FAO and the World Food Programme (WFP). 2011. Food Security in Libya – An Overview.

## Background and methodology

Unless otherwise noted, information presented in this brief is based on data collected during 2018 Multi-Sector Needs Assessment (MSNA) led by REACH Initiative and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) in July and August of 2018. This assessment, which included the input of various sectors and technical working groups active in the response to the Libya crisis, was conducted to inform the 2019 humanitarian planning process. In order to better understand the food security situation throughout the country, FAO's Regional Initiative on Building Resilience for Food Security and Nutrition (RI-FSN), together with Food Security Sector co-lead WFP, provided additional resources to support the exercise, including funding to expand geographic coverage in difficult-to-reach areas as well as technical inputs.

As the 2018 MSNA provided one of the first opportunities to collect statistically representative data across nearly all of Libya

since the start of the conflict, RI-FSN and its partners devised an approach that would take stock of the effects of the crisis on the agricultural sector as well as to provide a baseline for future comparisons.

The assessment was based on household interviews guided by a two-stage random-sampling approach ensuring representative results from three different population groups (residents, IDPs, and returnees) in 20 of Libya's 22 mantikas (first-level administrative divisions). The two mantikas that were not assessed were Almargeb and Nalut. The results for each of these groups in each mantika correspond to a confidence interval of 95 percent and a margin of error of 10 percent. During the analysis stage, results for population groups were weighted to produce results that were statistically representative for mantikas, population groups, and Libya as a whole.

## The pre-crisis agriculture sector

In 2010, agriculture accounted for only 3 percent of Libya's GDP. Throughout the preceding decades, its role in Libya's economy had declined in relation to the country's dominant oil industry and growing services and construction sectors. Stagnation in the sector made the country highly dependent on imports. Before 2011, Libya imported 80 percent of its consumption requirements, with wheat, oil, maize, and milk comprising the main commodities sourced from abroad.<sup>3</sup>

While environmental constraints placed severe limitations on the development of agriculture in Libya before the crisis, the sector still had the potential to expand and increase its efficiency. In the period leading up to the crisis, the vast majority (approximately 85 percent) of Libya's 15.4 million ha of agricultural land was comprised of pasture. An additional 2.1 million ha of arable land was available, primarily in coastal regions receiving the most rainfall. Permanent crops, primarily fruit trees, comprised a significant portion of arable land in these areas. At the same time, approximately only half of the land developed for irrigation (470 000 ha) was actually irrigated. Full development of the additional irrigable land (750 000 ha) would have had to have relied on groundwater, which is particularly scarce in some regions.<sup>4</sup> Even before the crisis, farming has tended to take place on a relatively small scale and serve as one of several sources of income. In 2011, there were approximately 170 000 farmers, of whom approximately 40 percent were fulltime and nearly 90 percent were also small-scale producers with farms under 20 ha.<sup>5</sup>

<sup>3</sup> FAO and WFP. 2011. Food Security in Libya – An Overview.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

## Engagement in agriculture since the crisis

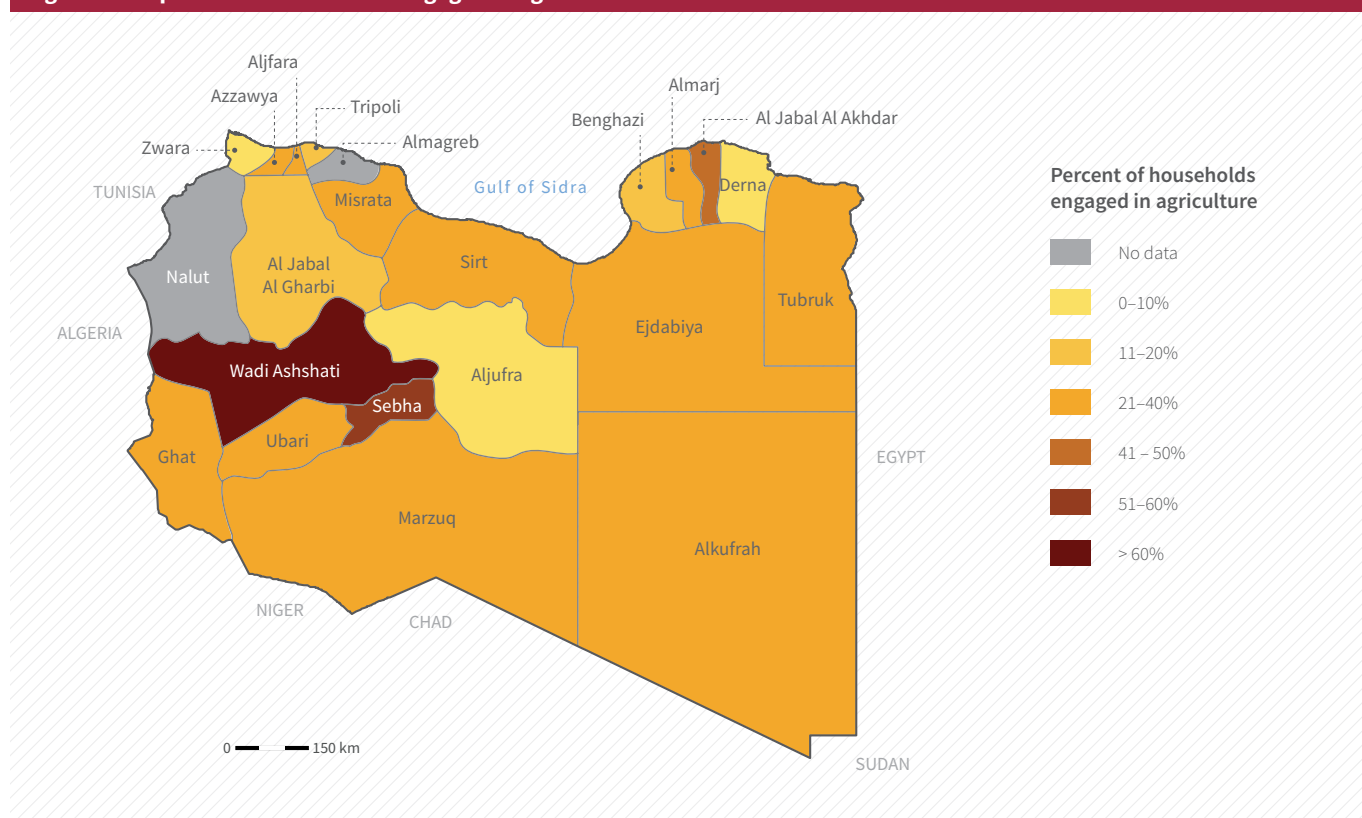
MSNA found that 22 percent of Libyan households are engaged in agricultural activities – i.e. crop or livestock production and fishing, or a combination of these activities.<sup>6</sup> As shown in **Figure 1**, engagement in agriculture varies considerably by mantika. In some areas of the Fezzan Region (southwestern Libya), particularly in Wadi Ashshati and Sebha, more than half of households reported being engaged in agricultural activities. In more populous manitkas in the coastal northwest, such as Zwara, Tripoli and Aljfara, approximately 10 percent or less of the population reported engagement in agriculture.<sup>7</sup>

Typically, households are engaged in agriculture to produce food for their own consumption. Accordingly, the vast majority of households (92 percent) consume what they produce, and only 8 percent rely on agriculture exclusively as a source of income. Nearly half (49 percent) of households both consume and sell what they produce.

<sup>6</sup> In MSNA, households were considered to be engaged in agricultural activities if they reported being involved in one or more of the following activities: crop production (farming or gardening), raising livestock, fishing or fisheries, or other activities such as forestry, regardless of whether production was for personal use or income.

<sup>7</sup> Despite Libya's long coastline, participation in fishing and fisheries is limited (less than 1 percent of the population based on this assessment). Accordingly, participation in fishing and fisheries was included in the overall analysis of engagement in the agriculture sector, but was not analysed as a separate subsector in this brief.

**Figure 1. Proportion of households engaged in agriculture**



Source: FAO, 2018



## Impact of the crisis on agricultural engagement

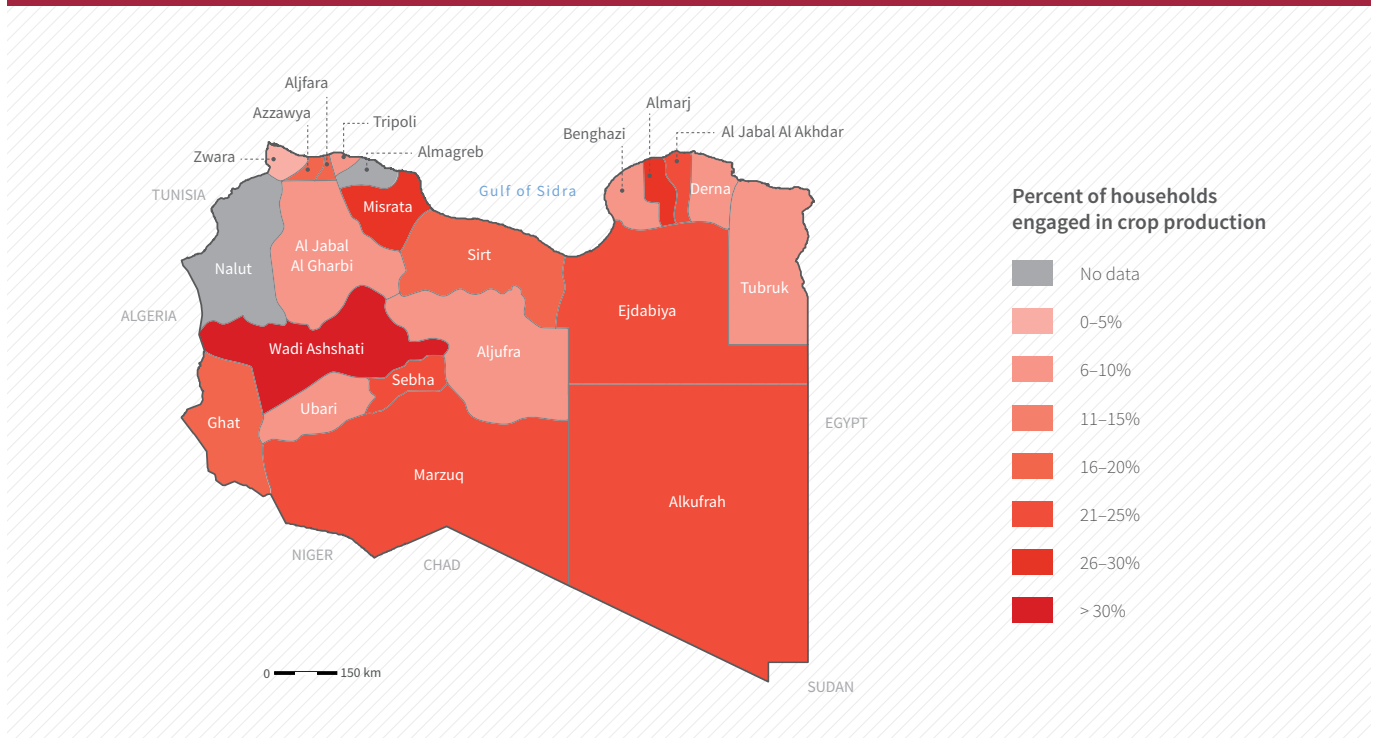
Nationally, 7.5 percent of households have abandoned agricultural activities since 2014, with the highest rates observed in Azzawya (35 percent), Sebha (25 percent) and Benghazi (17 percent). Perhaps unsurprisingly, returnees and IDPs were much more likely to have abandoned agricultural activities (12 percent) than non-displaced populations (7 percent). Displaced populations, including returnees, appear to face specific difficulties resuming agricultural activities. While 23 percent of non-displaced households were engaged in some form of agricultural production, the rate for displaced populations was nearly half – 12 percent for IDP and returnee households alike.

Nearly three-quarters (74 percent) of households still engaged in agricultural production report challenges continuing that are associated with the crisis. Crop producers commonly cite power cuts, increased insecurity, and the inability to access or afford inputs. Livestock producers commonly face a lack of veterinary services and supplies, difficulties feeding herds, and report having had to consume their herds to meet their food needs.

## Crop production

Engagement in crop production (farming or gardening) stands at 14 percent of households nationally, with the highest proportions observed in Wadi Ashshati (50 percent), Misrata (29 percent), and Al marj

**Figure 2. Proportion of households engaged in crop production**



Source: FAO, 2018



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### Main challenges affecting crop producers

- Power cuts
- Increased insecurity
- Inability to access or afford seeds and water resources
- Inability to access or afford fuel, tools, and machinery

(27 percent). Approximately 47 percent of households reported cultivating areas of land of less than one ha; another 45 percent reported areas of 1–10 ha. Larger farms – ones over 10 ha – were uncommon but found more frequently in Azzawya, Jabal Al Akhdar and Sebha.

Tomatoes, peppers, onions, and leafy greens were reported as the most commonly grown crops, often cultivated in small plots for household consumption. There were some notable exceptions for individual mantikas: Olives and pulses predominated in Al Jabal Al Gharbi; citrus was the most important crop in Derna; and dates were the main crop in Al Jufra. In Fezzan Region (southwestern Libya), barley and fodder cultivation were notable, reflecting the relevance of livestock in these mantikas.

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### Main challenges affecting livestock producers

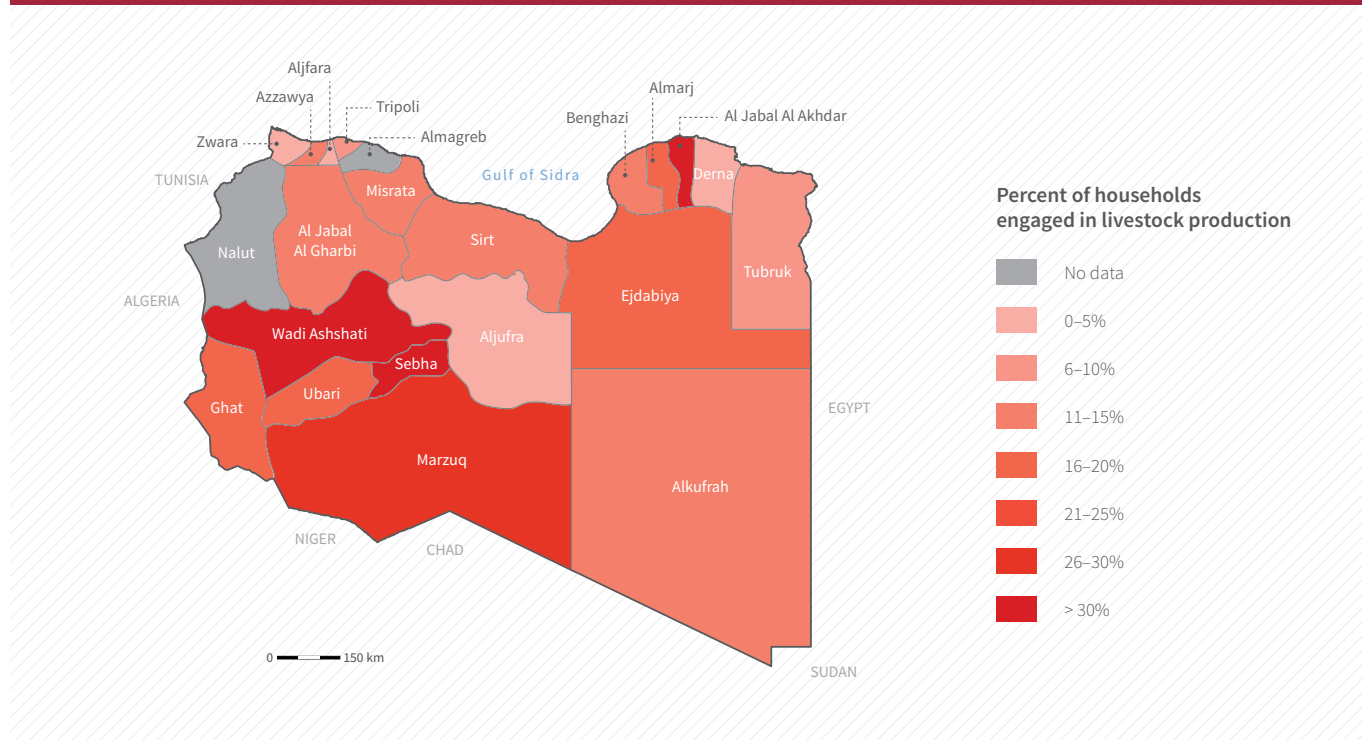
- Lack of veterinary services, vaccines, and medicines
- Lack of access to fodder, animal feed, or land
- Had to sell or slaughter animals for their own consumption
- Stolen animals

### Livestock production

Nationally, 12 percent of households are engaged in livestock production, with the highest proportions observed in Sebha (50 percent), Wadi Ashshati (40 percent) and Al Jabal al Akhdar (31 percent). As shown in **Figure 3**, livestock production predominates in some areas of the interior of the country, while it is less common along the more urbanized coast.

Small ruminants were the most common livestock holdings in a majority of mantikas, with sheep being most frequent, followed by goats. In most locations, a majority of households involved in livestock production owned fewer than 10 small ruminants (sheep and goats), although larger herd sizes (more than 50 animals) were common in Al Jabal Al Akhdar (for both sheep and goats) and Ubari (for sheep).

**Figure 3. Proportion of households engaged in livestock production**



Source: FAO, 2018

Poultry raising was common in Wadi Ashshati and Sebha, involving more than one-quarter of households; flock sizes were relatively small, however, and larger-scale production was more common in coastal mantikas, such as Benghazi. Camel herding was significant in Ubari and cattle holdings were significant in Al Jabal Al Akhdar, Al Marj and Wadi Ashshati.

### Food security context

While most Libyans have been able to maintain relatively high levels food consumption levels, other food security indicators suggest that the situation will deteriorate. High rates of crisis or emergency coping strategies (60 percent), and high levels of expenditure on food make the current situation untenable. Households spend 53 percent of their expenditure on food and 31 percent of households spend more than 65 percent. Currently, vulnerable households are increasingly unable to access food because they cannot afford it, and food prices have continued to rise as households' resources and coping capacities have declined.

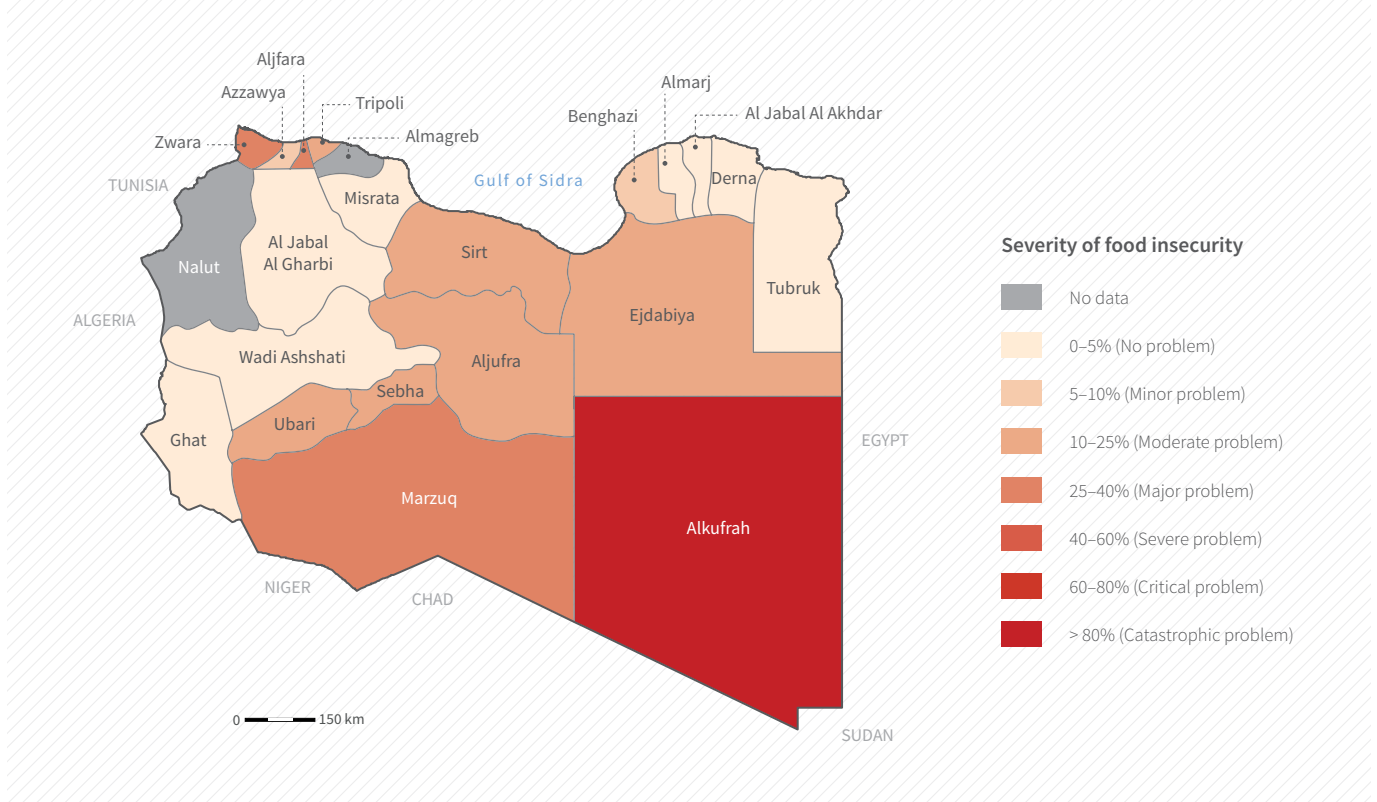
While national levels of food insecurity have remained relatively low, the situation varies significantly between mantikas, as highlighted in **Figure 4**. Based on the Food Security Index, which takes into account Food Consumption Score, food expenditure share and the use of livelihoods coping strategies, 68 percent of households in Al Kufra are food insecure and relatively high rates (30 percent of the population or over) were also recorded in Aljufra, Murzuq and Zwara.

In addition to geographic variations, displaced and female-headed households are also more likely to be food insecure. For example, 17 percent of IDP households were food insecure, while only 12 percent of non-displaced ones were.

In the protracted crisis context of Libya, engagement in agriculture may play a vital role in supporting resilience. Whether for income generation, home consumption, or both, crop and livestock production will likely yield short-term benefits for food security as well as longer-term benefits as households are able to better adapt to future shocks. This is true for individual households as well as for Libya as a whole, which had seen stagnation in its agriculture sector and an increasing dependence upon food imports in the years leading up to the crisis.

Additional analysis is necessary to better understand the relationships between engagement in agriculture and food security outcomes so that support can be provided to households that need it most. It is worth noting that on a national level, households engaged in some form of agricultural production are less likely to be food insecure (5 percent) than those that are not (13 percent). While this suggests a strong positive relationship between agricultural engagement and food security overall, multiple factors, including displacement and additional sources of

**Figure 4. Prevalence of household food insecurity**



Source: FAO, 2018

income, may contribute to it. There are also pockets of the country where rates of food insecurity and engagement in agriculture are both high and where food insecure households engaged in agriculture require urgent support.

In addition to supporting households that are already engaged in agriculture, there is ample scope to expand engagement. Returnees are as likely to be engaged in agriculture as populations that are still displaced, reflecting the difficulties some households face in resuming production. While 22 percent of households were currently engaged in some agricultural activity, another 28 percent reported that they had access to land or water to engage in crop or livestock production or fishing. These populations, which tend to live in urban, peri-urban, and coastal areas, may potentially look to small-scale production as a source of longer-term food security.

Finally, on a national level, there is a need to promote conflict-resilient and climate-sensitive agricultural production while facilitating farmers' access to high-quality inputs and support, such as agricultural extension services, vaccines, capacity building and financial support. Accordingly, more in-depth assessments of agriculture activities are required to identify suitable interventions for specific areas, e.g. drip irrigation, diversification of forage crops, recovery of fisheries, and animal health services.

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