



# THE IMPACT OF CONFLICT, CLIMATE AND THE ECONOMY ON AGRICULTURE IN DISTRICTS OF RETURN IN IRAQ

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Following the conflict with the Islamic State in Iraq and the Levant (ISIL), the number of people engaged in agriculture appears to have declined in districts where displaced people have returned to their areas of origin. This decrease stems from large-scale destruction of farming assets and infrastructure due to conflict, limited capacity to replace such inputs, a lack of incentives to return to farming, and a changing climate in Iraq<sup>2</sup>. This analysis brief explores these dynamics in more detail using statistically representative data across the primary districts of return in Iraq. It looks to gain insight into the challenges faced by returnees working in agriculture after the conflict. The brief also considers the degree to which conflict-, economic-, and climate-related factors play a role in the decline of agriculture as a livelihood, and the implications of this change for sustainable reintegration.

This brief is part of a larger research project, Reimagining Reintegration, carried out by IOM Iraq and Social Inquiry, that explores the sustainability of returns across 14 districts hosting the largest shares of returnees in the country. These are, in descending order of returns, Mosul, Ramadi, Falluja, Telafer, Tikrit, Heet, Hawija, Hamdaniya, Shirqat, Kirkuk, Baiji, Sinjar, Khanaqin, and Balad. The findings presented here are drawn from an original household survey and roster of 2,260 returnee respondents in these districts collected between March and April 2022.

The survey included a household module (applicable to the overall household situation), a personal module (gathering perceptions of the respondent), and a roster module (collecting personal characteristics of each household member), covering topics related to demographics, displacement and conflict history, safety and security, adequate standards of living, livelihoods and economic conditions, housing condition/restitution and tenure security, civil documentation, social cohesion and public participation, and remedies and justice.

The outputs of this project also include an analysis of sustainable reintegration in districts of return and another brief on differences between male- and female-headed households and their implications for sustainable return.

## THE ROLE OF AGRICULTURE AS A LIVELIHOOD IN DISTRICTS OF RETURN

Agricultural activities (farming and livestock herding) take place across most of the top 14 districts of return, though they are not predominant economic sectors of employment and wealth generation. Agriculture, however, features prominently in narratives discussing the climate-displacement nexus, which has emerged as a top challenge confronting Iraq. IOM assesses this relationship in post-conflict areas of Iraq using new household-level data on returnee households. This data is complemented by other research conducted by IOM on the impact of climate change on agricultural livelihoods in IDP and returnee locations based on key informant interviews using a similar set of indicators<sup>3</sup>.

Based on results from the household-level survey, at present, 13% of returnee households are engaged in farming and 11% are engaged in livestock, where frequently there is overlap among both (Figure 1). Falluja, Tal Afar, Ramadi, Hawija, Shirqat, Sinjar, Balad and Hamdaniya districts, respectively, hold the highest share of families engaged in either or both activities, based on the absolute number of households residing there. For example, in Falluja, there are an estimated 11,600 returnee households currently involved in farming and 10,800 in livestock herding, with frequent overlap among activities.

An important contextual aspect is that not all households that used to engage in agriculture before displacing have restarted activities upon return. Indeed, there has been a significant drop in the proportion of households practicing agriculture between 2014 and 2022: approximately 5% of households report that they farmed before displacement but have abandoned this livelihood upon return (Figure 1). Thus, the percentage of households engaged in farming dropped from 18% pre-conflict to 13% in 2022, with a similar trend found in livestock as well. In districts where a higher share of households were practicing agriculture pre-displacement, such as Sinjar or Shirqat, up to 10% have abandoned agriculture.

<sup>1</sup> Kamel Shideed et al., "Why Displaced Farmers Do Not Return to Agriculture? Lessons from Iraq," *Refugee Survey Quarterly*, 39 no. 4 (2020): 514-24.

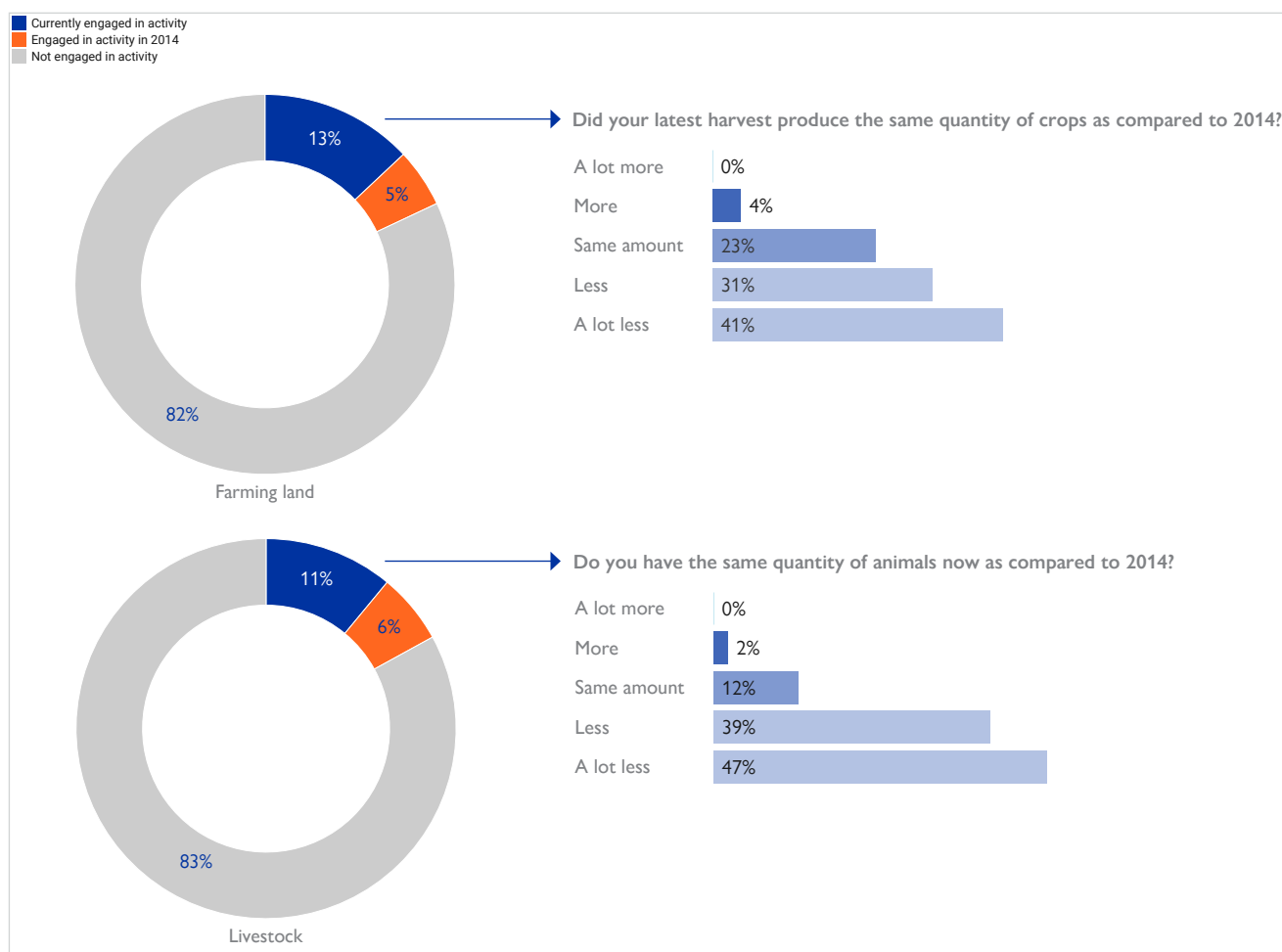
<sup>2</sup> Jordan Lesser-Roy, "If I Leave . . . I Cannot Breathe": Climate Change and Civilian Protection in Iraq (Erbil: CIVIC, 2022).

<sup>3</sup> IOM, Factsheet: The impact of climate change on the environment in IDP and returnee locations (Baghdad: IOM, 2022).

A critical factor to note with respect to agricultural livelihoods in this post-conflict context is that, even when households do retake these livelihoods upon return, many struggled to sustain pre-conflict production and yields. Nearly three out of four households currently engaged in farming reported a diminished harvest as compared to 2014, right before the onset of the conflict and displacement. (This trend is depicted in the bar charts on the right side of Figure 1.) Among livestock owners, the situation is even more dire— more than four out of five households reported diminished herds compared to what they possessed in 2014.

These responses regarding variation in yields are mostly subjective and qualitative, but they indicate a general negative trend in this type of livelihoods. A particular concern, however, is that less harvests and smaller herds also signify lower revenue for households, thus impacting their economic prospects. These dynamics risk triggering negative coping strategies among households. For example, households may deplete other assets, or move to other informal livelihood options such as daily labor. Eventually, these coping strategies affect the capacity to sustainably reintegrate. In such cases, agriculture households may not be able to remain in their area of return, and may seek to re-displace or migrate elsewhere.

Figure 1. Prevalence of agricultural activities among returnee households and variations in production



Overall, these rates of abandonment and decreased production highlight the challenges faced by returnees engaged in agricultural activities.<sup>4</sup> Some obstacles stem from the direct impact of the conflict, while other challenges reflect

broader issues linked to climate and institutional support impeding the sector’s recovery. These obstacles, as reported by respondents, are explored next.

<sup>4</sup> The livelihoods opportunities in the agriculture sector seems to be in decline across the country, even in areas not affected directly by conflict. Similar rates of abandonment are seen in the southern governorates of Iraq, for example, where the impact of environmental degradation seems stronger. For more details, see IOM & Social Inquiry, A Climate of Fragility: Profiling of Basra, Thi-Qar and Missan governorates (Baghdad: IOM, 2022).

## CAUSES OF LOWER PRODUCTION AND ABANDONMENT OF AGRICULTURE

Economic factors are the primary reasons reported for the reduction in agriculture yields, like the cost of inputs (such as seeds, fertilizers and pest control) and limited government support (Figure 2). This last element is especially important given that the public sector has traditionally provided strong support for the agricultural sector. For example, it has facilitated subsidized inputs, land allocation, loans, or the direct purchase of produce at above-market prices.<sup>5</sup> On the other hand, livestock herders experience different difficulties. Many seem to have had their livestock stolen during the conflict period, or sold their livestock as a coping strategy. This resulted in smaller herds with households unable to restore their size. Affordability of inputs, and lack of financial resources in general, thus play a crucial role in explaining the sluggish recovery in agriculture. Recovering farming equipment and livestock requires financial resources that many households may not have – particularly after spending funds to return to their place of origin. Additionally, while the Department of Agriculture and Livestock is restoring its activities in many districts, capacity may still lag behind pre-conflict levels.<sup>6</sup>

After economic factors, environmental conditions and negative climate impacts were the second leading cause of reduced production. Unpredictable weather and water scarcity are significant challenges for both farming and herding. For the latter, the combination of lower farming production and environmental issues decreases the availability of fodder for livestock, thus driving its price up; the same trend affects the availability of grazing land after harvesting. These environmental stressors were reported by a significant proportion of present livestock owners.

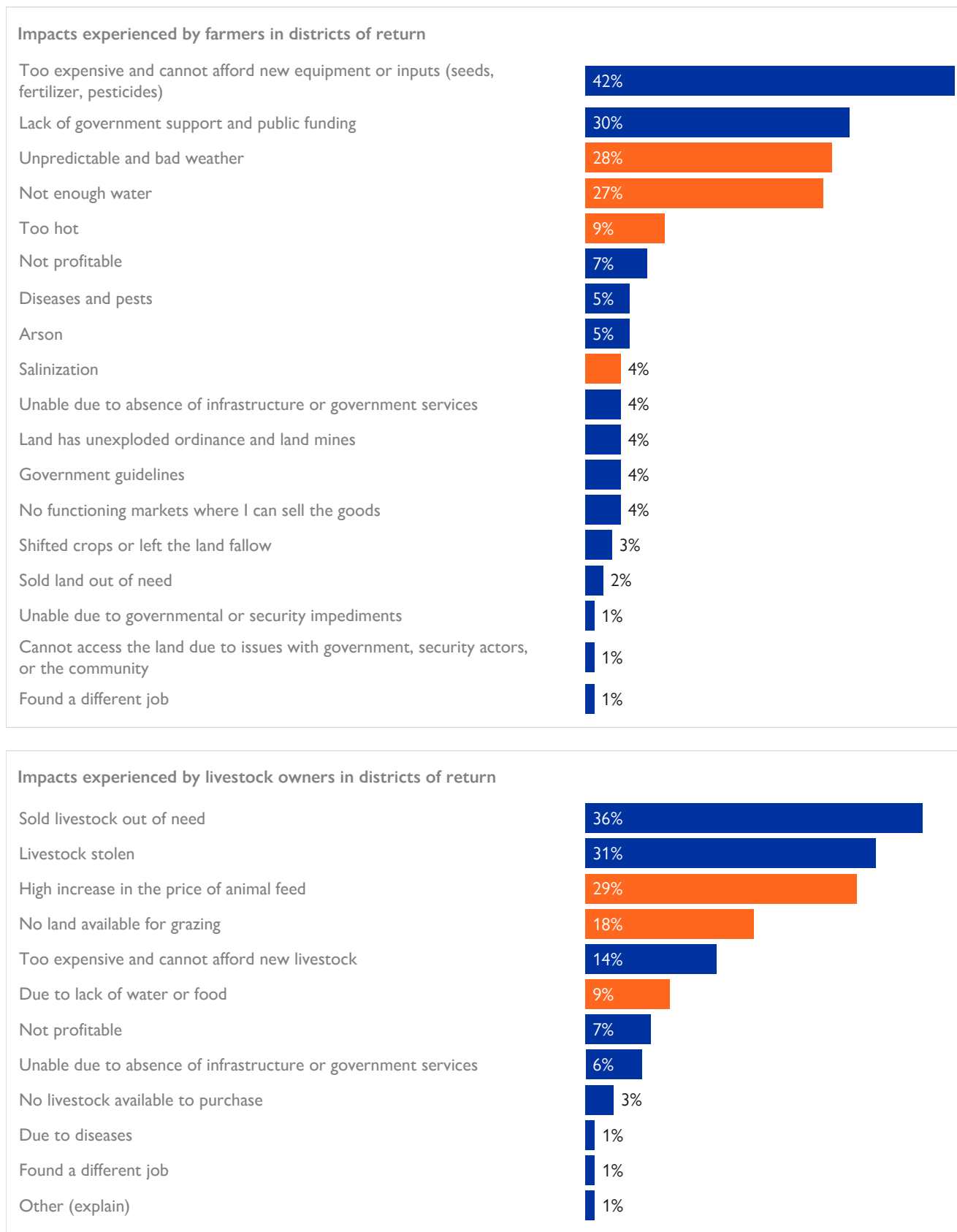
Other challenges play a lesser role. Security issues – linked to the presence of mines or interference by security actors, for example – were not frequently reported by households engaged in agriculture. Similarly, the absence of physical markets to sell or buy produces and livestock is also a minor issue highlighted in these districts.



<sup>5</sup> World Bank & FAO, Iraq: Agriculture sector note (Rome: FAO, 2012).

<sup>6</sup> See for example, Guiu, R. & Afkari, S. Post-conflict political economy in Sinjar: What the aftermath of conflict and historical neglect mean for recovering the local economy (Erbil: Social Inquiry, 2019); Barhoum, L. & Nalbandian, E. Unfarmed now, uninhabited when? Agriculture and climate change in Iraq (Oxford: Oxfam, 2022).

Figure 2. Prevalence of detrimental impacts to agricultural livelihoods reported by respondents engaged in these activities



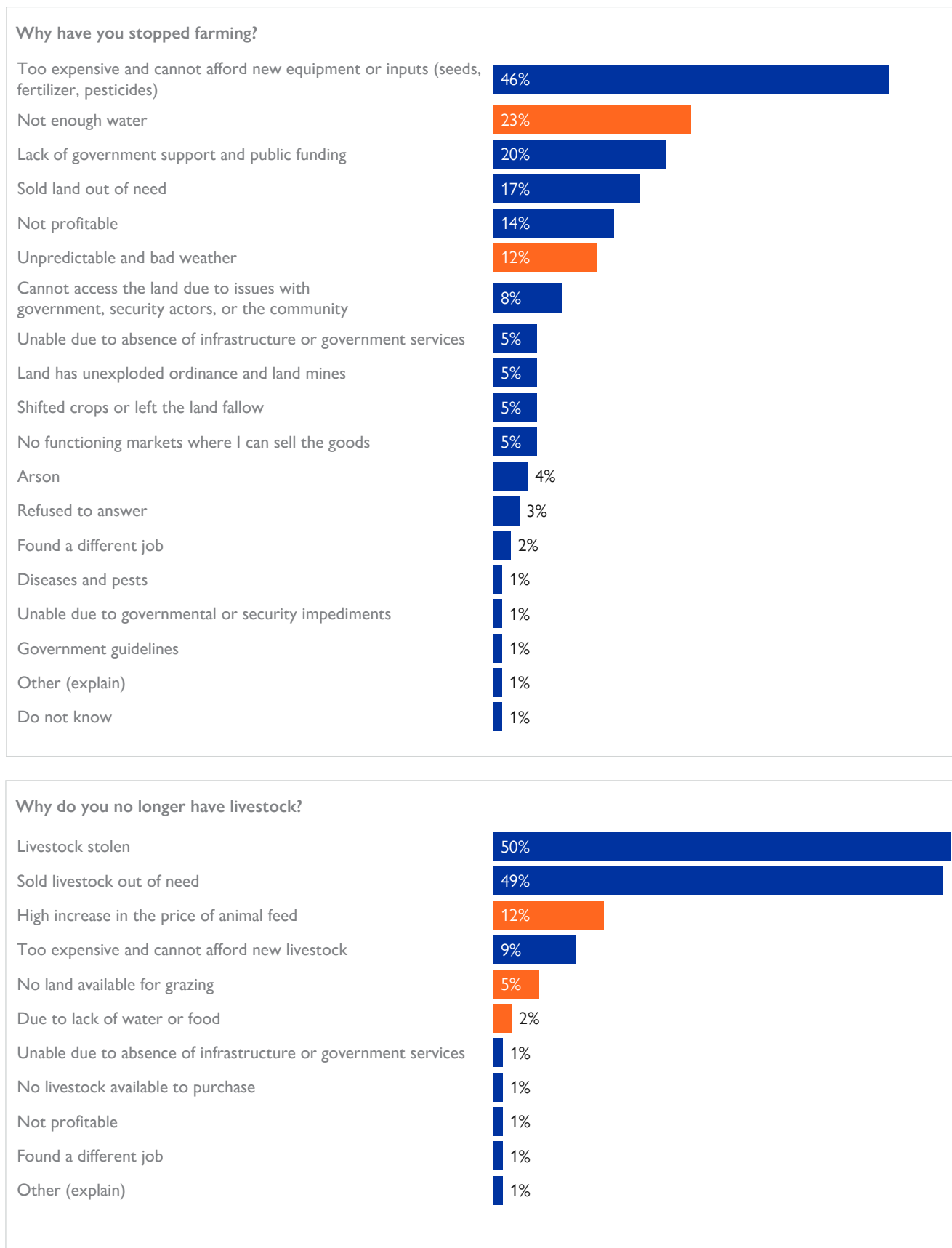
Note: Multiple responses permitted. Indicators linked to climate and environmental degradation are highlighted in orange.

**Climate-related factors are more impactful than economic factors in some districts compared to others.** Across these 14 districts of return, the northernmost districts such as Sinjar, Shirqat, Hamdaniya and Telafar depend more heavily on rainfall than others that have reliable access to irrigation. As a result, changes in weather patterns disrupt harvests there more significantly than in other areas of Iraq. Respondents in these districts indicated that unpredictable and poor weather conditions and lack of water were the primary reasons for lower production. It is in these districts as well where reduced livestock was driven by a lack of grazing land, which itself is driven in part by inconducive weather conditions. Furthermore, the effects of climate-related crop reduction contribute to the increasing price of feed for animals (which is a relatively widespread phenomenon, regardless of district).

Finally, these challenges push some households to abandoning their past agriculture activities upon return (Figure 3). It is similar structural and household economic factors (i.e. expensive inputs and equipment for farming as well as loss of livestock due to conflict) that played a predominant role in halting altogether farming or livestock activities. Secondary factors include climatic conditions or related effects, like a lack of water for farming or affordable feed for livestock. However, climatic factors appeared to feature less prominently in explaining the abandonment of agriculture activities. For example, only around one in four of households that abandoned farming did so because of lack of water, and only around one in ten because of unpredictable weather. This may imply that **farmers and livestock owners do attempt to adapt to challenging climate conditions before fully abandoning these activities and seeking livelihoods in other sectors.**



Figure 3. Prevalence of detrimental impacts to agricultural livelihoods reported by respondents who stopped these activities since 2014



Note: Multiple responses permitted. Indicators linked to climate and environmental degradation are highlighted in orange.



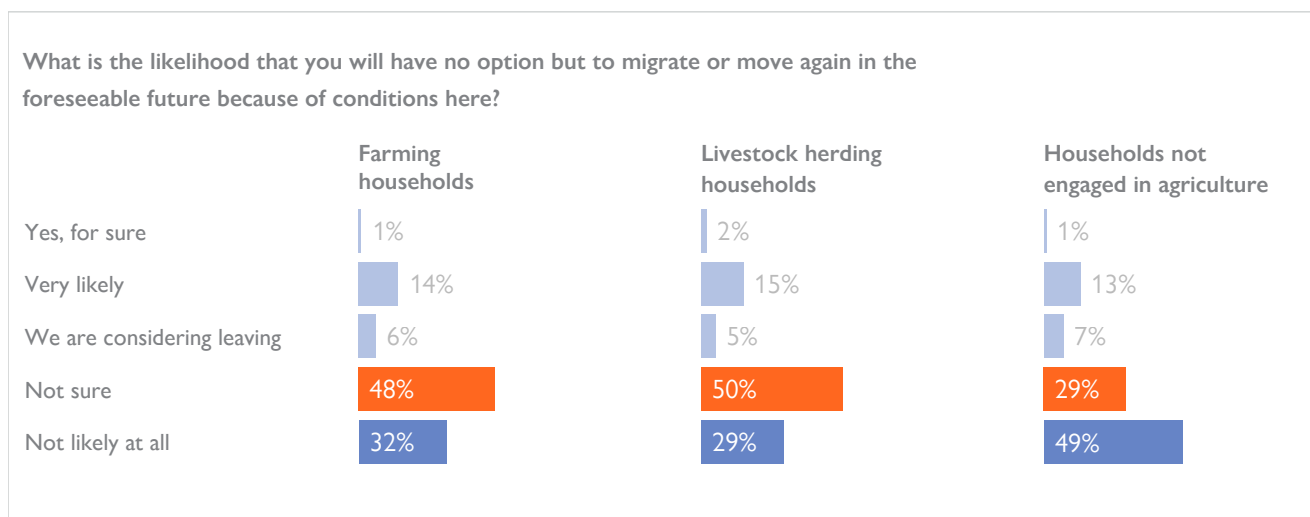
## IMPLICATIONS FOR THE SUSTAINABLE REINTEGRATION OF AGRICULTURAL HOUSEHOLDS IN DISTRICTS OF RETURN

This analysis helps illuminate why some returnee households have not restored their pre-conflict agricultural activities, either in farming or livestock herding. For those households who have managed to restore them, the levels of production (and thus revenue) are far from pre-conflict levels. Although agriculture is not a particularly large economic sector<sup>7</sup> – even in rural areas – it is worrying that its size is diminishing even more. It puts the families that depend on it at economic risk and raises questions about their capacity to reintegrate or remain in their places of origin long-term.

Many issues point to the need of public investment and support, both in the sector and across the broader value chain (inputs, markets, and governmental support services such as coordination, oversight and transportation means). This support must also include climate adaptation measures and strategies, such as early warning systems and technology spread among farmers and livestock owners. Failure to act in this regard has implications for the agricultural sector of the country, the durability of current return movements, and sustainable reintegration in these conflict-affected districts.

Importantly, this concern is already manifesting. Returnee farmers and livestock owners are highly uncertain about being able to stay in their current locations (Figure 4). While only a small proportion indicate a strong likelihood of leaving again, around half of farmers and livestock owners remain unsure of whether current conditions would force them to leave or allow them to remain in the near future. The magnitude of this proportion is apparent when compared to returnee households not engaged in agriculture, which are more certain they will remain and reintegrate in their place of origin. Addressing this precarity among agricultural households is a priority for not only their own sustainable return and reintegration, but also to contribute to building less fragile rural communities overall in the aftermath of conflict.

Figure 4. Likelihood of re-displacing from return location or being able to remain in the foreseeable future



Note: only returnee households; farming households and livestock herding households can overlap if they report doing both activities.

<sup>7</sup> Other sectors like public sector, security forces and trade are predominant in this study.

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