

MCNA X: Food security and water scarcity

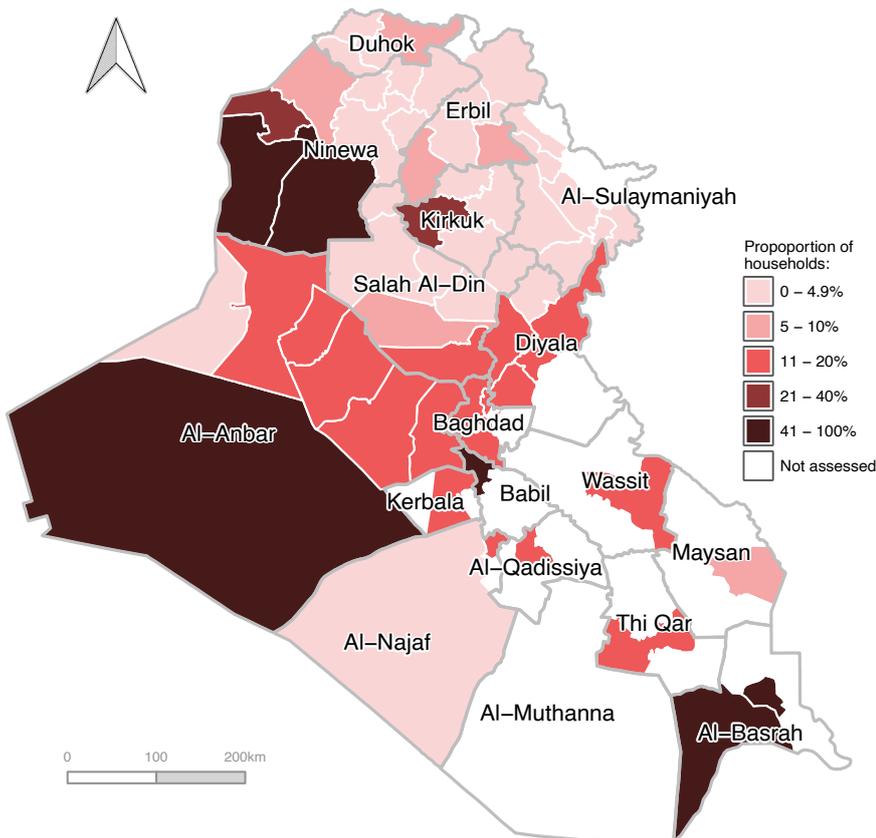
April, 2023

Iraq

KEY MESSAGES

- The MCNA X nationwide figures regarding access to an improved water source for drinking (9%) and food consumption scores (5%) **obscure heightened needs across districts**. Over 80% of households in Al-Rutba, Al-Hatra and Al-Baaj reported not having access to an improved water source for drinking while a much higher prevalence of poor or borderline food consumption scores was found in Al-Mussyab (68%), Al-Hatra (35%) and Kifri (25%).
- The reported lack of access to an improved water source for drinking, having an unemployed adult in the household or living in critical shelter conditions are not individually associated with substantially lower food consumption scores. The likelihood of poor and borderline food consumption scores, however, doubles when these needs co-occur in the household.
- Poor water quality and limited availability of water may result in higher cost of living for displacement-affected population groups in the coming months in governorates such as Diyala, Anbar, Ninewa, and Basrah, where households often reported to rely on bottled water and water trucking due to a lack of alternative.

Proportion of out-of-camp IDP and returnee households in Iraq with no reported access to improved water source for drinking:



CONTEXT & RATIONALE

Humanitarian and development actors are increasingly alarmed by the adverse effects of climate change in Iraq. Recent studies from [NRC](#), [IOM](#) and [ACF/REACH](#) all show that climate change has already manifested itself through climate-induced displacement, reduced food accessibility and water scarcity.¹

With summer approaching fast, extreme temperatures and water scarcity will present additional seasonal challenges to the displacement-affected population in Iraq. The gruelling heat in the coming months will likely slow down work and make work that remains available, extremely arduous.² This is particularly worrisome for displacement-affected households, of whom 63% in the [MCNA X](#) reported to rely on irregular employment, such as construction or agricultural daily labour, to sustain their livelihoods. As temperatures continue to soar, the availability of drinking water and water for agricultural³ purposes will become increasingly scarce, thereby likely affecting agricultural yields, livelihood opportunities, and public health.

To gain insights in which districts and population groups might be most affected this summer, this factsheet revisits data on food security and water scarcity from the MCNA X. Considering that the MCNA X survey was conducted in the peak of last year's summer, it may particularly hold valuable insights for humanitarian and development actors seeking to take anticipatory measures in the coming months.

METHODOLOGY:

MCNA X was implemented through a nationwide household-level survey among IDPs returnees and host community members. Data was collected between June and August 2022. See page 6 for more details.

* MCNA X surveyed only host community households in the following districts: Al-Baaj, Al-Fallujah, Al-Hatra, Al-Hawiga, Al-Rutba, Erbil, Sinjar, Sumail and Tooz Khurmato. Districts were selected based on high PiN figures and/high severity in the [2022 Humanitarian Needs Overview](#), and should not be generalized to reflect nationwide host community needs.



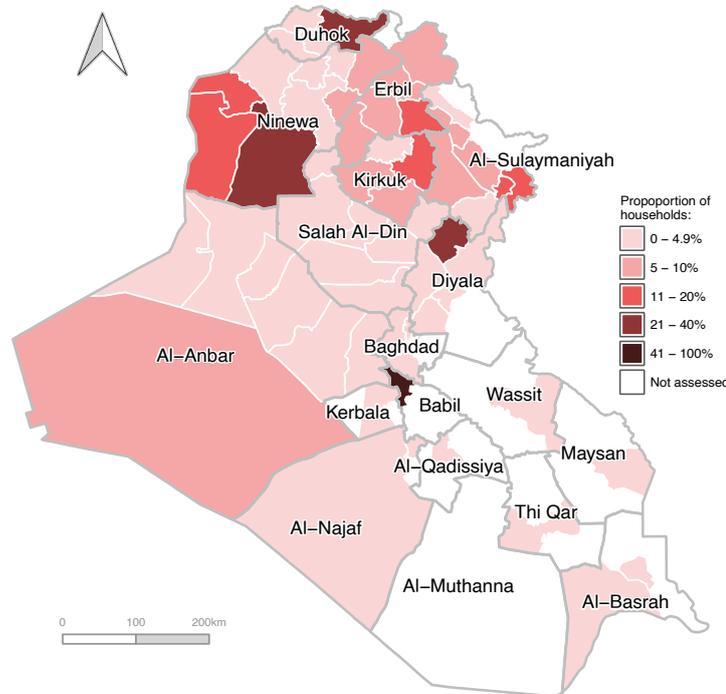
Food consumption scores:⁴

Nationwide 5% of households show poor or borderline food consumption scores.

Top-3 highest proportion of households with poor or borderline food consumption scores, by population group and camp/district:

In-camp IDP	1. Arbat (25%) 2. Ashti (22%) 3. Hasansham U3 (19%)
Out-of-camp IDP	1. Al-Mussyab (68%) 2. Al-Hatra (27%) 3. Kifri (26%)
Returnee	1. Al-Hatra (32%) 2. Al-Baaj (18%) 3. Al-Rutba (7%)
Host community*	1. Al-Hatra (45%) 2. Al-Baaj (31%) 3. Al-Rutba (18%)

Map 1. Proportion of out-of-camp IDP and returnee households with reported poor or borderline food consumption scores:



Household hunger scale:

Nationwide 5% of households show poor or borderline food consumption scores.

Top-3 districts and camps with the highest proportion of households reporting moderate or severe hunger (excl. in-camp IDP households):

Districts:	Little to none	Moderate	Severe
1. Al-Mussyab	60%	40%	0%
2. Al-Baaj	69%	30%	1%
3. Al-Hamdaniya	90%	10%	0%

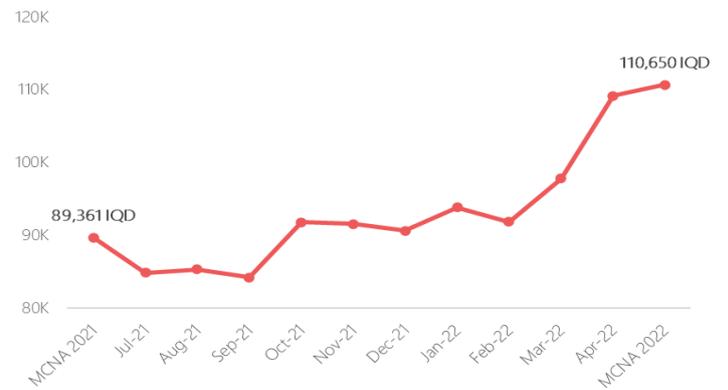
Camps:	Little to none	Moderate	Severe
1. Hasansham U3	79%	21%	0%
2. Arbat	82%	18%	0%
3. Harshm	82%	17%	1%

Top-10 strata with highest proportion of households reporting unacceptable food consumption scores and at least moderate hunger:

Nationwide 1% of households show both poor/borderline food consumption scores and at least moderate hunger.

Camp/District	Population group	Proportion
Al-Mussyab	Out-of-camp IDP	32%
Hasansham U3	In-camp IDP	7%
Debaga 1	In-camp IDP	6%
Hasansham U2	In-camp IDP	5%
Harshm	In-camp IDP	5%
Al-Hatra	Out-of-camp IDP	5%
Al-Baaj	Returnee	4%
Arbat IDP	In-camp IDP	4%
Al-Hatra	Returnee	3%
Al-Baaj	Host community	3%

Value of food components of the Survival Minimum expenditure basket⁵ between MCNA IX and MCNA X (in IQD):



Note: Reported average household income from employment and pension meanwhile decreased by 8%, from 454,000 IQD in 2021 to 418,000 IQD in 2022.

Food expenditure share

Nationwide 28% of households reported spending more than 65% on food.

Proportion of households who reported spending more than 65% of total expenses on food, by group:

In-camp IDP	29%
Out-of-camp IDP	16%
Returnee	46%
Host community*	27%

Top-5 districts and camps with the highest proportion of households reportedly spending more than 65% of total expenses on food:

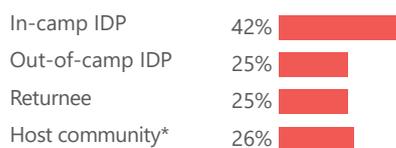
District:	Proportion:	Camp:	Proportion:
Heet	61%	Qayyarah Jadah 5	57%
Al-Ramadi	56%	Khazer M1	54%
Al-Mahmoudiya	54%	Tazade	51%
Telafar	54%	Hasansham U2	46%
Haditha	53%	Debaga 1	45%

* MCNA X surveyed only host community households in selected district. See footnote page 1.

Debt for food:

Nationwide 28% of households reported taking debt for food.

Proportion of households reported taking on debt for food, by population group:



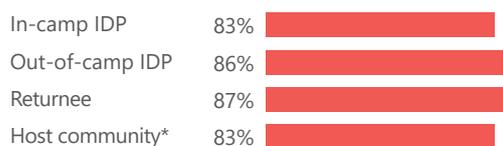
Top-5 districts and camps with the highest proportion of households reportedly taking debt for food, by district:

District	Proportion	Camp	Proportion
Halabcha	59%	Hasansham U2	76%
Chamchamal	55%	Khazer M1	72%
Makhmour	47%	Hasansham U3	69%
Tikrit	46%	Tazade	67%
Al-Hawiga	44%	Qayyarah Jadah 5	57%

Proportion of households reporting having applied livelihood coping strategy within 30 days of data collection:**

Nationwide 85% bought food on credit, 59% reduced expenditure on non-food items, and 12% high-risk behaviour/activities.

Bought food on credit or through borrowed money from relatives and friends:



Reduced expenditure on non-food expenses (e.g., health, education):



Engaged in high-risk behaviour/activities:



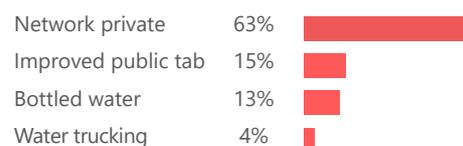
Average number of days in the week households used coping strategy to cope with lack of food or money to buy food:

	Rely on less preferred and less expensive food	Limit portion size at meal times	Reduce number of meals eaten in a day	Adults do not eat so children can eat
In-camp IDP	3	1	0	0
Out-of-camp IDP	2	1	0	0
Returnee	1	0	0	0
Host community*	2	1	0	0



WATER SCARCITY

Primary reported source of drinking water across surveyed population groups:

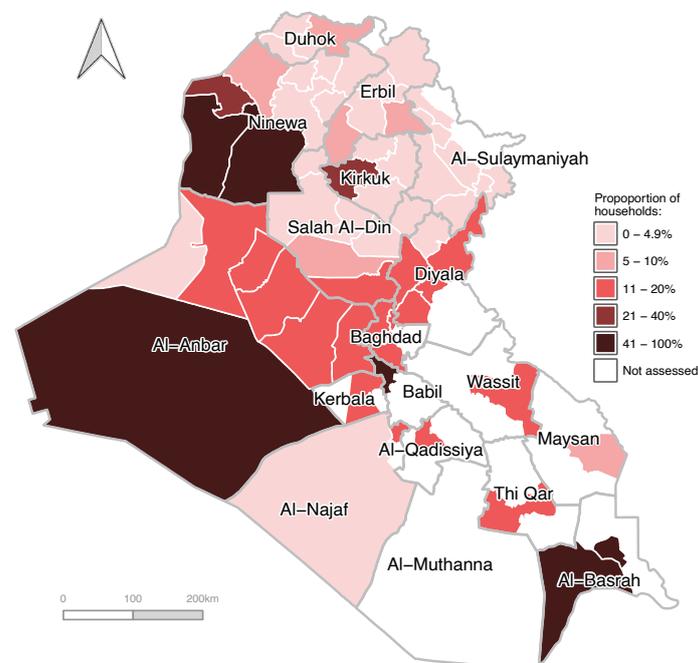


Proportion of households with no reported access to improved water source for drinking, by population group:

Nationwide 9% of households reported not having access to improved water source.



Map 2. Proportion of out-of-camp IDP and returnee households with no reported access to improved water source for drinking:



Proportion of IDP households with no reported access to improved water source for drinking, by camp:

Camp:	Proportion:	No. of HHs in camp:
Khazer 1	92%	995
Shariya	61%	2,451
Bersive	14%	1,008
Bajed Khandala	7%	1,694
Hasansham U2	3%	2,090

Proportion of households who reported not having access to sufficient water for drinking and domestic purposes, by population group:

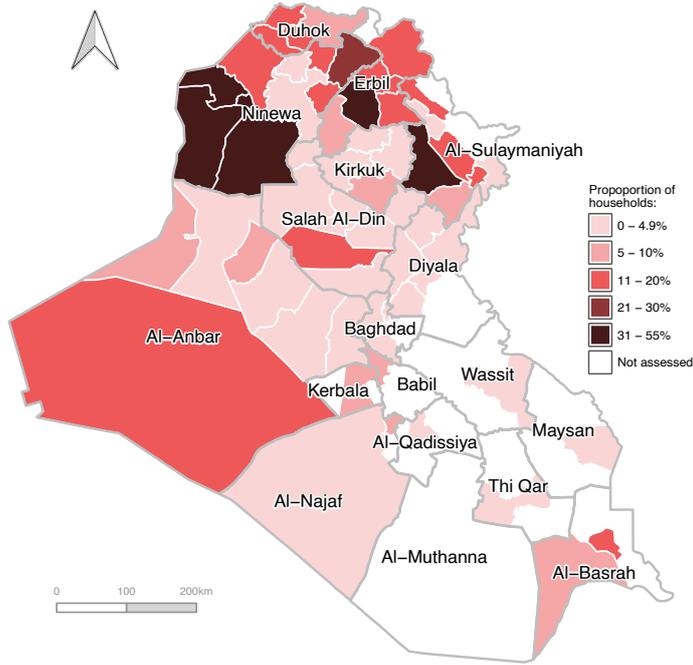
Nationwide 22% of households reporting not having sufficient water for drinking and domestic purposes.



* MCNA X surveyed only host community households in the following districts: Al-Baaj, Al-Fallujah, Al-Hatra, Al-Hawiga, Al-Rutba, Erbil, Sinjar, Sumail and Tooz Khurmato. See footnote page 1.

** Figures include households who reported that they already exhausted this coping strategy.

Map 3. Proportion of out-of-camp and returnee households who reported lacking access to a sufficient quantity of water for drinking and domestic purposes:



Households reported lacking access to sufficient quantities of water, in districts that covered host community households during the MCNA X (highlighted if difference > 10%):

	Out-of-camp IDP	Returnee	Host community
Al-Baaj	64%	61%	36%
Al-Fallujah	11%	4%	0%
Al-Hatra	73%	62%	26%
Al-Hawiga		8%	0%
Al-Rutba	20%	10%	37%
Baquba	8%		1%
Erbil	41%		31%
Sinjar	43%	48%	47%
Sumail	17%		28%
Tooz Khurmato	2%	3%	2%

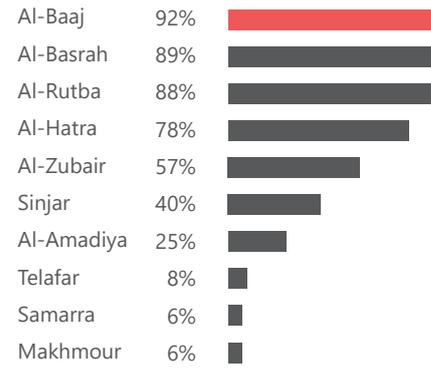
Water as reported priority (information) need:*

Nationwide 7% of households reported drinking water as priority need.

Out-of-camp IDPs and returnees	Drinking water as priority need	Accessing Water Services as Information Need
Al-Hatra	22%	14%
Tel Afar	19%	11%
Al-Hawiga	18%	14%
Al-Baaj	17%	19%
Daquq	17%	17%
Al-Rutba	15%	16%
Al-Mahmoudiya	13%	11%
Baquba	13%	9%

Proportion of households who reported water-trucking as primary source of drinking water:

Nationwide 4% of households reported to primarily rely on water trucking for drinking water.



Co-occurrence of needs:

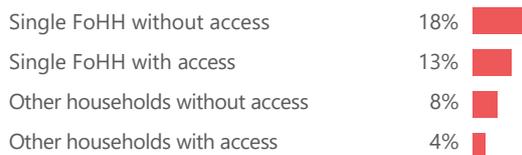
Proportion of households reporting poor or borderline food consumption scores in co-occurrence of other needs:

At least one adult unemployed:	No access to improved water source for drinking:	Living in critical shelter conditions	Proportion poor or borderline FCS:
Yes	Yes	Yes	21%
No	Yes	Yes	12%
Yes	No	Yes	12%
Yes	Yes	No	8%
Yes	No	No	6%
No	No	Yes	5%
No	Yes	No	4%
No	No	No	4%

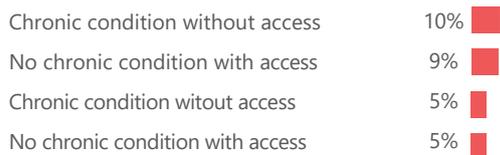
Proportion of households reporting poor or borderline food consumption scores:

Nationwide 5% of households show poor or borderline food consumption scores.

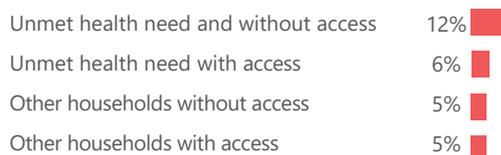
Poor/borderline FCS by access to improved drinking water and single-female headed household (FoHH):



Poor/borderline FCS by access to improved drinking water and at least one household member reported having a chronic condition:



Poor/borderline FCS by access to improved drinking water and at least one household member with an unmet health need:

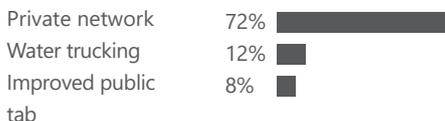


*More than one in five households reported drinking water a priority need in Kabarto 2, Bersive 2, Bajed Kadala, Rwanga Community, Kabarto 1, Jadah 5 and Khanke IDP camps

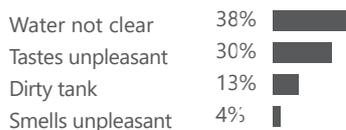
Governorate profiles:*

Ninewa:

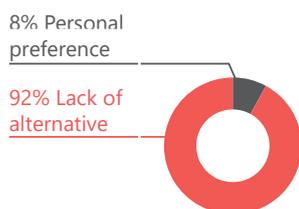
Reported primary source of drinking water:



Reported problems with water quality:**



Reported reason water-trucking:



Reported frequency of treating water prior to drinking it:

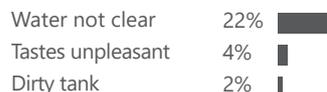


Al-Basrah:

Reported primary source of drinking water:



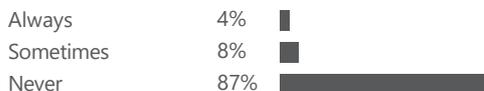
Reported problems with water quality:**



Reported reason water-trucking:



Reported frequency of treating water prior to drinking it:

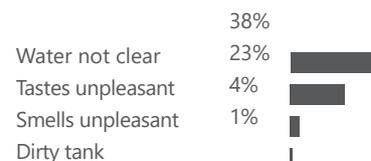


Al-Anbar:

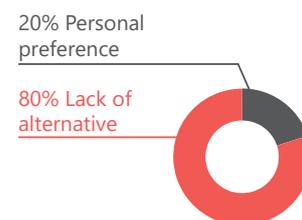
Reported primary source of drinking water:



Reported problems with water quality:**



Reported reason for bottled water:



Reported frequency of treating water prior to drinking it:



Diyala:

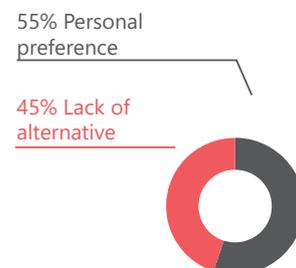
Reported primary source of drinking water:



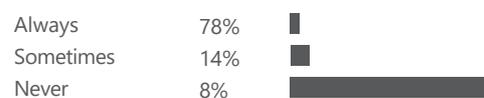
Reported problems with water quality:**



Reported reason for bottled water:



Reported frequency of treating water prior to drinking it:



* Figures represents averages across all population groups.

** 72% of households in Al-Basrah, 50% of households in Al-Anbar, 14% in Diyala, and 67% in Ninewa reported no problems with water quality.

Conclusion

In the MCNA X, 92% of the displacement and conflict-affected population reported having access to an improved water source for drinking. Only 4% of households reported relying on (unimproved) water trucking for accessing drinking water. Around 95% of the population groups surveyed in the MCNA X show acceptable food consumption scores, too. This factsheet, however, demonstrates that national averages tend to obscure the stark disparities that persist at the sub-national level. Around 68% of households in Al-Mussyab, for instance, reported poor or borderline food consumption scores while 90% out of host community, returnee and IDP households in Al-Rutba did not have access to an improved water source for drinking.

As summer approaches, data from the MCNA X provides a cautionary tale of how water-trucking dependent households in Al-Baaj and Al-Rutba are at risk of supply-chain disruptions, while households in Diyala and Al-Basrah will almost inevitably face severe water quality issues in the coming months.

While the summer heat certainly poses a hardship to households, climate change creates unpredictability, too. Although Southern Iraq's Marshlands experienced a resurgence in water levels in January,⁶ the subsequent month of February witnessed the Euphrates and Tigris rivers plunging to an all-time low.⁷ Decisions concerning the distribution of available water resources, particularly for agricultural production,⁸ will also be a decisive factor influencing displacement-affected households' food security and water scarcity situation. According to two NRC studies, crop failure has not only evaporated income and savings of returnee and host community farmer households in districts such as Sinjar and Al-Baaj, but has also diminished the demand for seasonal labour on which many IDPs in rural areas depend.⁹

MCNA X data may be used to anticipate and tailor district-specific interventions to improve access to safe drinking water, based on the reported primary sources of drinking water and most cited water quality issues. Households in Al-Anbar or Diyala governorates, for instance, may not be confronted with the same water quality issues or water-trucking dependencies as households in Al-Basrah and Ninewa, but they still likely face additional economic hardship since they reported a reliance on bottled water for drinking.

The unpredictability imposed by climate change, and the uncertainty as to which areas might be most or newly affected by lack of precipitation is compounded by uncertainties related to decision-making and legislation regarding the distribution of water. This means that humanitarian actors, as much as possible, should take a flexible stance, both program-wise and geographically, as to where their food security and WASH-related interventions will be implemented in the coming months. Humanitarian funding is drying up quickly and although it may not be within the scope of humanitarian actors to turn the tide on water scarcity, a timely response to address current food security and water needs, may mitigate the risk of future deterioration. Addressing these needs may also lower public health-related risks such as last year's outbreak of cholera across Iraq.¹⁰

To do so, humanitarian and development actors need continued access to up-to-date data. The MCNA X provides practitioners with invaluable information regarding the most prevalent issues faced by the conflict-affected population in Iraq, which could be complemented with remote sensing, mapping of supply chains and impact assessments on livelihoods and household resilience. Although humanitarian actors are scaling down their operations, information management, therefore, remains critical for understanding shifting needs among households and enabling effective anticipatory and mitigative action.¹¹

METHODOLOGY OVERVIEW

The MCNA X was implemented through a nationwide household-level survey, which was conducted between June 5 and August 16, 2022. For all out-of-camp samples, a two-stage stratified cluster sampling approach was employed (with 90% level of confidence and a 10% margin of error at population group and district level). Based on the population figures from the [IOM Displacement Tracking Matrix](#) (DTM) Master List, sampling frames were developed for all districts with a minimum of 200 IDP or returnee households and adjusted to align with OCHA-defined administrative boundaries. Within each location, a set of geo-points was randomly generated and provided to enumerators who would then interview an eligible household nearest to a given geo-point. The in-camp IDP population was sampled through a simple random sampling approach (95% level of confidence, 10% margin of error). The adjacent Camp Profiling assessment was conducted using an expanded MCNA questionnaire in all formal IDP camps with at least 100 households (all 26 camps). Districts for host community coverage were selected based on 2021 HNO findings on high number of people in need and/or high severity scores. As such, findings on host community needs should not be considered representative of the host community across the entire country.

Endnotes:

1. See: NRC (2022). [A dry horizon: Iraq's interlinked drought and climate crises](#). IOM (2022). [Migration, Environment, and Climate Change in Iraq](#). REACH & ACF (2022). [Water Scarcity and Climate Related Needs Across Iraq](#).
2. New York Times (2022). [Extreme heat will change us](#).
3. The Guardian (2022). [The green land is a barren desert': water scarcity hits Iraq's Fertile Crescent](#)
4. For more information, see [World Food Programme](#).
5. REACH & ICF (2023). [Joint Price Monitoring Initiative](#).
6. FAO (2023). [Iraq continuous Monitoring the Dramatic impact of Climate Changes and water shortage on Agriculture in Southern Iraq's famed Marshlands](#)
7. France 24 (2023). [Levels of Iraq's Tigris and Euphrates plunge in south](#).
8. See footnote 3.
9. See: NRC (2022). [A dry horizon: Iraq's interlinked drought and climate crises](#) and NRC (2021). [Iraq's drought crisis and the damaging effects on communities](#).
10. IFRC (2022). [Cholera Epidemic - DREF n° MDRIQ015 Operation update n° 1; 01 December 2022](#)
11. OCHA (2023). [Humanitarian Transition Overview Iraq](#).