

# Between a Rock and a Hard Place: Natural Hazards and Internal Displacement in Iraq

This paper highlights the importance of considering climate adaptation and vulnerability in pursuing durable solutions for internally displaced persons in Iraq, a country threatened by natural hazards and vulnerable to climate change.

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Sitting at the "convergence of governance gaps and environmental change" (Guiu 2020: 5), Iraq is increasingly threatened by natural hazards, and, is one of the world's most vulnerable countries to decreased water and food availability. Alongside this growing challenge, approximately 1.2 million Iraqis remain as internally displaced persons (IDPs). Living in formal camps and informal sites, urban and rural settings, the majority were displaced by the conflict with the Islamic State from 2013 onwards.

Natural hazards, and Iraq's limited capacity to adapt (particularly given its economic reliance on oil exports), will further undermine access to durable solutions for IDPs in the coming years. The environmental degradation associated with climate change, in particular water shortages and rising temperatures, threaten both the sustainable return and reintegration of existing IDPs, and risk the creation of new displaced populations. These dual challenges – seen through the lens of growing climate vulnerability – are seldom considered in the context of Iraq's frameworks for, and approaches to, displacement. This short paper seeks to redress this gap, and to highlight the importance of considering climate adaptation and vulnerability when seeking durable solutions for displaced Iraqis.

Globally, the increasing convergence of natural hazards such as droughts, earthquakes and hurricanes and associated displacement, is receiving more attention. The Internal Displacement Monitoring Centre (IDMC) detailed the resulting vulnerabilities for affected or potentially affected populations as one of the key trends in their 2021 Global Report on Internal Displacement (IDMC 2021). Policymakers and academics are recognising that climate-related displacement poses an equal and growing risk to conflict-driven displacement. The International Committee for the Red Cross (ICRC) describes this intersection between conflict and climate change as "the perfect storm" (ICRC 2021). In Iraq, such recognition locally is in its infancy. This paper identifies this risk in the displacement context of Iraq, drawing on monitoring and other reports, and first-hand experience of the author when working among IDP communities in the north and west of Iraq. It is clear that the dual issues of natural hazards and displacement must not just sit alongside each other but must be examined in tandem.

# Displacement and durable solutions

Approximately 1.2 million people remain displaced in Iraq, three years after the Islamic State was territorially defeated in the country (UNOCHA 2021: 11). Most have been displaced for more than five years, and come from the governorates of Ninewa, Salah al Din, and Anbar – all of which were occupied by the Islamic State. The IDP population of Iraq is spread across both camp and non-camp settings, with approximately 15 per cent living in IDP camps and the remainder in urban settings or informal sites (IOM DTM 2021). While returns have accelerated – particularly since the territorial defeat of the Islamic State in Iraq in December 2017 – the barriers to return that prevent IDPs from returning to their areas of origin are extensive. These include security issues such as perceived extremist affiliation and lack of civil identity documentation, to resource and infrastructure concerns including destroyed housing and inadequate livelihoods opportunities.

In Iraq, the political and humanitarian community is pursuing durable solutions for these IDPs. Durable solutions refer to the absence of assistance or protection needs relating to displacement, and, in the context of IDPs, is typically achieved through three forms, aligned with human rights law, and implemented in full consultation with the affected population, in a dignified manner and honouring their wishes (IASC 2010: A1). The first is sustainable return and reintegration to area of origin, which is when an IDP is able to safely and freely return to the place they were living in prior to displacement. The second is local integration into areas of displacement – which, in the Iraqi context, is only applicable for those IDPs in out-of-camp settings. The third form of durable solution is settlement and integration in a third location, another safe part of the country that is neither the area of origin nor the area of displacement. In Iraq, this is typically seen among IDPs with impediments that prevent them from returning to their area of origin, and has, for example, resulted in a growing population of IDPs relocating to the western neighbourhoods of Mosul city.

However, even when returns to areas of origin can take place, these do not necessarily meet the sustainability requirements of durable solutions returns. The Norwegian Refugee Council (NRC), Danish Refugee Council (DRC), and International Rescue Committee (IRC) outline several scenarios of failed returns in Iraq, including premature returns, coerced or forced returns, and blocked returns (Saieh, Brown & McCluskey 2018: 13). These are a pertinent reminder that the physical act of return to area of origin does not constitute nor result in a durable solution for IDPs.

But while the focus of much of the international and humanitarian community has been on political, security, and infrastructure barriers to return, Iraq as a whole is grappling the beginnings of a climate crisis that poses risks both to existing durable solutions, and also threatens to displace more Iraqis from their homes.

### Climate vulnerability in Iraq

Iraq is dependent on the two great rivers that flow through its territory: the Tigris, and the Euphrates. Iraq's major population centres and agricultural lands line these rivers, with Baghdad located in central Iraq on the banks of the Tigris, Mosul a further 400 kilometres upstream, and Ramadi in the west bisecting the Euphrates. In times both of conflict and peace, the rivers have been essential to the country's development and security. Destroyed bridges are a tell-tale visual legacy of the conflict in Iraq, and my work in Iraq frequently takes me across newly-inaugurated bridges replacing those destroyed during conflict with the Islamic State, as well as temporary bridges enabling communities to still travel across the two rivers.

Reduced rainfall and water flow issues are both undermining the Tigris and the Euphrates. In 2020-2021, Iraq recorded the second driest season in 40 years, with scientific estimations suggesting further reduced rainfall in the coming decades (World Bank 2021). Average temperatures have been increasing, with the World Bank estimating that the mean annual temperature will increase by 2° Celsius by 2050 (World Bank 2021). These natural hazards are further exacerbated by water disputes with Iraq's neighbours, who control much of the vital water supply that feeds the Tigris and Euphrates in Iraq. The two rivers account for 98 per cent of the country's surface water (Al-Aloosy 2021). To the east, Iran has been building dams and diverting water for irrigation projects, reducing both the natural flow of the Tigris in Irag's north, and undermining the regeneration of the southern marshlands (Keynoush 2021). To the north and west, Turkey controls the flow of the Euphrates, and major dam projects have progressively reduced the water flow into Iraq since the 1970s. Iraq's vulnerability to the water demands of its neighbours undermines its adaptation to changing climate realities, particularly as Turkey and Iran's dependency on damming and irrigation projects grows alongside the impact of natural hazards. Further

undermining Iraq's environment is unprecedented soil salinity, with results in the degradation of arable land.

The fate of Iraq's water crisis briefly punctuated international news when the Mosul Dam was captured by the Islamic State in August 2014. Structurally unstable and perceived at risk of a sabotage attack, any failing of the dam would result in mass flooding along the Tigris plain, resulting in a massive loss of civilian lives (Milner 2014). Weaponised as an instrument of warfare, the Mosul Dam highlights the convergence of water and security. While the recapture of the dam, the territorial defeat of the Islamic State, and extensive structural repairs have reduced the perceived threat, the summer of 2014 is a pertinent reminder that both competition for resources and enormous environmental power undermine stability and security.

Displacement relating to natural hazards and environmental degradation is not new to Iraq. During the 1990s, the Ba'athist regime led by Saddam Hussein sought to systematically displace the Ma'dan peoples (or Marsh Arabs) from their homeland in Iraq's southern marshlands through the targeted diversion of water from the area. This government-instituted drainage both destroyed the unique ecological system of the marshlands, and resulted in an estimated 100,000 Ma'dan being forcibly displaced from their traditional homelands inside Iraq (Refugees International 2003). Intended to undermine potential political and social opposition among the Ma'dan, this act of displacement appears, in retrospect, a precursor to Iraq's current water crisis, which — while driven not by repressive or vengeful government policies — threatens to drive yet greater numbers of Iraqis from their homes.

More recently, recurrent small-scale displacement has been occurring in Iraq's southern governorates, where water scarcity and desertification have undermined agricultural production and resulted in food insecurity. Research led by the IDMC among communities in three governorates in Iraq's south indicated that water shortage was the leading push factor

for peoples' movement away from their areas of origin (Guiu 2020: 21). An estimated 15,000 individuals across Thi-Qar, Missan, and Basra had reportedly been displaced by water shortages as of January 2019 (Guiu 2020: 7). In the context of ongoing conflict-driven displacement, such small-scale movements, and the rural depopulation they exemplify, are largely neglected when considering internal displacement in Iraq.

Today in Iraq, the threat of climate displacement comes not from repressive government seeking to undermine political opponents, but rather from mismanagement of natural resources and the twinned challenges of limited capacity and political unwillingness to confront the threat of accelerating climate-linked hazards. Decades of conflict have left Iraq more vulnerable to natural hazards: capacity to address climate risks is limited when communities are occupied addressing the consequences of conflict (UNEP 2020).

In Iraq, processes to encourage adaptiveness to natural hazards have been largely driven by the international community, in collaboration with government entities. An example of this is the three-year process to develop a National Adaption Plan (NAP) to build climate resilience, colled between the Government of Iraq and the United Nations Environment Programme (UNEP). Despite such initiatives, the Notre Dame Global Adaptation Initiative ranks Iraq 126<sup>th</sup> on its climate change readiness index (University of Notre Dame 2020).

Iraq's willingness to meaningfully address natural hazards is made more fraught by its dependency on oil exports, which are the greatest source of government revenue (Fathallah & Robertson 2020). Discussions around climate vulnerability tend to link closely with changing global energy demands, and the economic toll this will incur on exports and revenue. Alternative renewable energy sources, such as solar power, are in their infancy in Iraq, although a growing number of initiatives are being adopted (Al-Ansary 2021).

For policy makers, the notion of fragility refers to a "societies' heightened exposure to risks combined with a low capacity to mitigate or absorb them" (Grip 2017: 258, referring to the Organisation for Economic Cooperation and Development definition). Iraq sits at this nexus of exposure to risk and limited capacity to absorb that risk. A range of geopolitical, security and other risks persist in Iraq, which have challenged its ability to mitigate or absorb the risk drivers of natural hazards. This neglects the relationship between these hazards and internal displacement in Iraq, which adopts several forms and risks undermining Iraq's hard-fought stability.

## Climate change as a driver of displacement

Many of Iraq's existing population of 1.2 million IDPs face extensive barriers to return, ranging from perceived insecurity to a lack of services. While seldom acknowledged as a primary impediment to return, the agricultural degradation and water shortages associated with rising temperatures and drought conditions threaten to compound these barriers. Where IDPs cannot return to their agricultural land, or return to find it unable to be farmed, they are less likely to be able to meet their basic needs and reintegrate into their area of origin. Already facing the destruction of housing and the limited availability of services, the environmental degradation of arable and agricultural land further deters IDPs from returning to their areas of origin.

A further risk that natural hazards pose to IDPs in Iraq is the potential for secondary displacement. Observed by the IDMC to be a key trend in internal displacement globally, the intersection of conflict and natural hazards poses an enormous risk to IDPs (IDMC 2021: 6). Both vulnerability and needs are heightened when communities are displaced first by conflict, and then again by natural hazards. Globally, this has been seen in contexts including Yemen and Somalia, where secondary displacement as a result of natural- and climate-related phenomenon results in even greater protracted displacement (IDMC 2021: 6).

In the context of integration into areas of displacement or resettlement in third locations, natural hazards may also potentially undermine local integration as a result of competition for scarce resources. For example, in contexts of severe water shortages, resettled IDPs may find themselves unable to establish agriculture or farming practices. In my own travels across Iraq, I have seen widespread crop failure in areas of return in Ninewa governorate, with communities consistently reaffirming the challenge this presents to sustaining their livelihoods.

Given Iraq's climate vulnerability, it must also be recognised that natural hazards may act as a driver of future displacement. Already witnessed in smaller numbers in Iraq's south, where water shortages and soil salination challenges are most acute, movement as a result of deteriorating environmental conditions seems set to grow. Much of this will likely take the form of rural-to-urban migration, as traditional agricultural livelihoods become unsustainable, and will result in the rural depopulation of Iraq. Other movements may be triggered through more frequent flood occurrences (linked with increased river fluctuations), and water pollution and contamination (Price 2018: 5). Currently largely self-sufficient for its food needs, climate change will also undermine the food security of Iraqis (Fathallah & Robertson 2020).

It should be noted, too, that the political wrangling over Iraq's water supplies with its neighbours is widely viewed to be the trigger point for future regional conflict (Al-Aloosy 2021). Any such conflict, however remote a possibility, would inevitably result in internal displacement.

When viewed in conjunction, the risks posed by natural hazards to internal displacement in Iraq are significant. Specifically referring to drought in central and southern Iraq, the International Organization for Migration (IOM) recognises that this crisis may "have implications at the humanitarian, economic, security and social levels" (IOM 2020: 4). The intersection of these themes relates closely to integrated humanitarian-

development nexus programming, which must inform durable solutions for IDPs.

Potentially preventing returns, and potentially driving displacement, natural hazards must be addressed not only as an environmental risk, but as a risk to stability and social cohesion efforts. Emerging from decades of conflict, Iraq must adopt a holistic approach that incorporates climate vulnerability into displacement responses, or else risk protracted displacement.

#### **Durable solutions**

The durability of solutions for IDPs is tied to the sustainability of those solutions. Any programming – whether it be returns or reintegration – that does not take into account Iraq's heightened vulnerability to natural hazards is short-sighted, and risks undermining durable solutions for displaced Iraqis. Durable solutions programming must recognise that it is required to meet "not only…people's immediate humanitarian needs but also reducing risk and vulnerability" (Nguya & Siddiqui 2020: 466). This reflects the nexus approach to humanitarian and development interventions, which proves particularly relevant in considering durable solutions for IDPs. Longer-term programming that ties the sustainability of durable solutions in Iraq to climate risk mitigation is an example of where a humanitarian-development nexus approach can be practically operationalised.

Among the criteria for achieving durable solutions for IDPs are "an adequate standard of living, including at a minimum access to adequate food, water...[and] access to employment and livelihoods" (IASC 2010: A4). Environmental degradation in Iraq undermines both of these criteria. With access to adequate water far from assured, and agricultural production threatened, it will be increasingly difficult for the Iraqi government and humanitarian community to assure potential returnees of reliable access to food and water. Similarly, with huge

numbers of Iraqi livelihoods tied to agriculture, returnees will struggle to access employment and meet their livelihoods needs. While durable solutions take into account a far broader range of factors, these challenges appear somewhat insurmountable as barriers to return, given Iraq's relative lack of readiness for climate adaptation.

Where returns are intended to take place, there must be credible evidence that minimum access to basic needs can be met, and that livelihood and employment opportunities are in place. Where integration is intended either in the area of displacement or in a new location, these same standards must adhere, while also ensuring the availability of such resources for host populations. Without such considerations, the success of Iraq's returns programming — which has seen the vast majority of those displaced under the Islamic State return home — risks being a Band-Aid solution in the face of a slower encroaching, but equally destructive, displacement crisis.

#### Conclusion

Iraq sits at an intersection of challenges, a country seeking hard-fought stability after decades of volatility. Government and social priorities gravitate towards rebuilding and reconstruction, and facilitating returns to areas of origin. Undermining such efforts, however, is the creeping environmental crisis that threatens Iraq. Acute water shortages and increasing temperatures will, unless meaningfully addressed, undermine the fragile foundations of durable solutions for IDPs in Iraq. Any efforts towards sustainable solutions for internal displacement in Iraq must take into account the manifold risks posed by natural hazards, including both protraction of existing displacement and new displacement.

In recent summers, people have seen and felt the effect of drought on Iraq. In my work, which takes me across north- and west-Iraq, I see rivers running dry, and lakes running low. The scorching temperatures are hotter than ever. But the encroaching climate crisis in Iraq must not be

looked at in isolation, just as Iraq's protracted internal displacement must not be looked at in isolation. These crises, twinned by geography and conflict, must be addressed together, in order to achieve the durable solutions that Iraq so desperately craves.

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## **Bibliography**

Al-Aloosy, M. 2021, *Iraq's Water Crisis: An Existential But Unheeded Threat*, Washington, D.C.: The Arab Gulf States Institute in Washington.

Al-Ansary, K. (21 February 2021) 'Iraq Plans to Build 10 Gigawatts of Solar Projects Over 10 Years', *CNN*, online. Available at <a href="https://www.bloomberg.com/news/articles/2021-02-21/iraq-plans-to-build-10-gigawatts-of-solar-projects-over-10-years">https://www.bloomberg.com/news/articles/2021-02-21/iraq-plans-to-build-10-gigawatts-of-solar-projects-over-10-years</a>

Fathallah, H. & Robertson, T. 2020, How the agri-food sector can turn Iraq's economy around, Washington D.C.: Atlantic Council.

Grip, L., 2017, *Coping with crises: forced displacement in fragile contexts*, Stockholm: Stockholm International Peace Research Institute.

Guiu, R. 2020, When Canals Run Dry: Displacement triggered by water stress in the south of Iraq, Geneva: Internal Displacement Monitoring Center, Social Inquiry, and Norwegian Refugee Council.

Hassan, K., Born, C., & Nordqvist, P., 2018, *Iraq: Climate-related security risk assessment*, Stockholm: Expert Working Group on Climate-related Security Risks.

Inter-Agency Standing Committee, 2010, *Framework: Durable Solutions* for *Internally Displaced Persons*, Washington, D.C.: Brookings Institution.

International Committee of the Red Cross, 2021, *Iraq's perfect storm – a climate and environmental crisis amid the scars of war*, Geneva: International Committee of the Red Cross.

International Committee of the Red Cross, 2020, When rain turns to dust: understanding and responding to the combined impact of armed conflicts and the climate and environment crisis on people's lives, Geneva: International Committee of the Red Cross.

International Displacement Monitoring Centre, 2021, 2021 Global Report on Internal Displacement: internal displacement in a changing climate, Geneva: Internal Displacement Monitoring Centre.

IOM Displacement Tracking Matrix: Iraq Mission, 2021, 'Master List'. Available <a href="http://iraqdtm.iom.int/MasterList">http://iraqdtm.iom.int/MasterList</a> (accessed 20 September 2021).

International Organization for Migration, 2020, Water quantity and water quality in central and south Iraq: a preliminary assessment in the context of displacement risk, Geneva: IOM.

Keynoush, B. 2021, Water scarcity could lead to the next major conflict between Iran and Iraq, Washington, D.C.: Middle East Institute.

Milner, A. (18 August 2014) 'Mosul Dam: Why the battle for water matters in Iraq', *BBC News*, online. Available at <a href="https://www.bbc.com/news/world-middle-east-28772478">https://www.bbc.com/news/world-middle-east-28772478</a>

Ministry of Foreign Affairs of the Netherlands, 2018, *Climate Change Profile: Iraq*, The Hague: Ministry of Foreign Affairs of the Netherlands.

Nguya G. & Siddiqui, N. 2020, "Triple Nexus Implementation and Implications for Durable Solutions for Internal Displacement: On Paper and in Practice," *Refugee Survey Quarterly*, Volume 39, Issue 4, December 2020, pp. 466-480.

Price, R. 2018, *Environmental risks in Iraq*, London: United Kingdom Department for International Development.

Refugees International, 2003, Forgotten People: the Marsh Arabs of Iraq, Washington, D.C.: Refugees International.

Saieh, A., Brown, D. & McCluskey, P. 2018, *The Long Road Home - achieving durable solutions to displacement in Iraq: lessons from returns in Anbar*, Geneva: Norwegian Refugee Council, Danish Refugee Council, and International Rescue Committee.

United Nations Environment Program, 2020, 'Iraq Launches National Adaptation Plan process for climate change resilience'. Available <a href="https://www.unep.org/news-and-stories/press-release/iraq-launches-national-adaptation-plan-process-climate-change">https://www.unep.org/news-and-stories/press-release/iraq-launches-national-adaptation-plan-process-climate-change</a> (accessed 5 Setpember 2021).

United Nations Office for the Coordination of Humanitarian Affairs, 2021, *Iraq: 2021 Humanitarian Needs Overview*, Erbil: UNOCHA.

*University of Notre Dame*, 2020, 'Notre Dame Global Adaptation Initiative: Rankings'. Available <a href="https://gain.nd.edu/our-work/country-index/rankings/">https://gain.nd.edu/our-work/country-index/rankings/</a> (accessed 5 August 2021).

World Bank Group: Climate Change Knowledge Profile, 2021, 'Iraq: Climate Projections'. Available <a href="https://climateknowledgeportal.worldbank.org/country/iraq/climate-data-projections">https://climateknowledgeportal.worldbank.org/country/iraq/climate-data-projections</a> (accessed 21 September 2021).