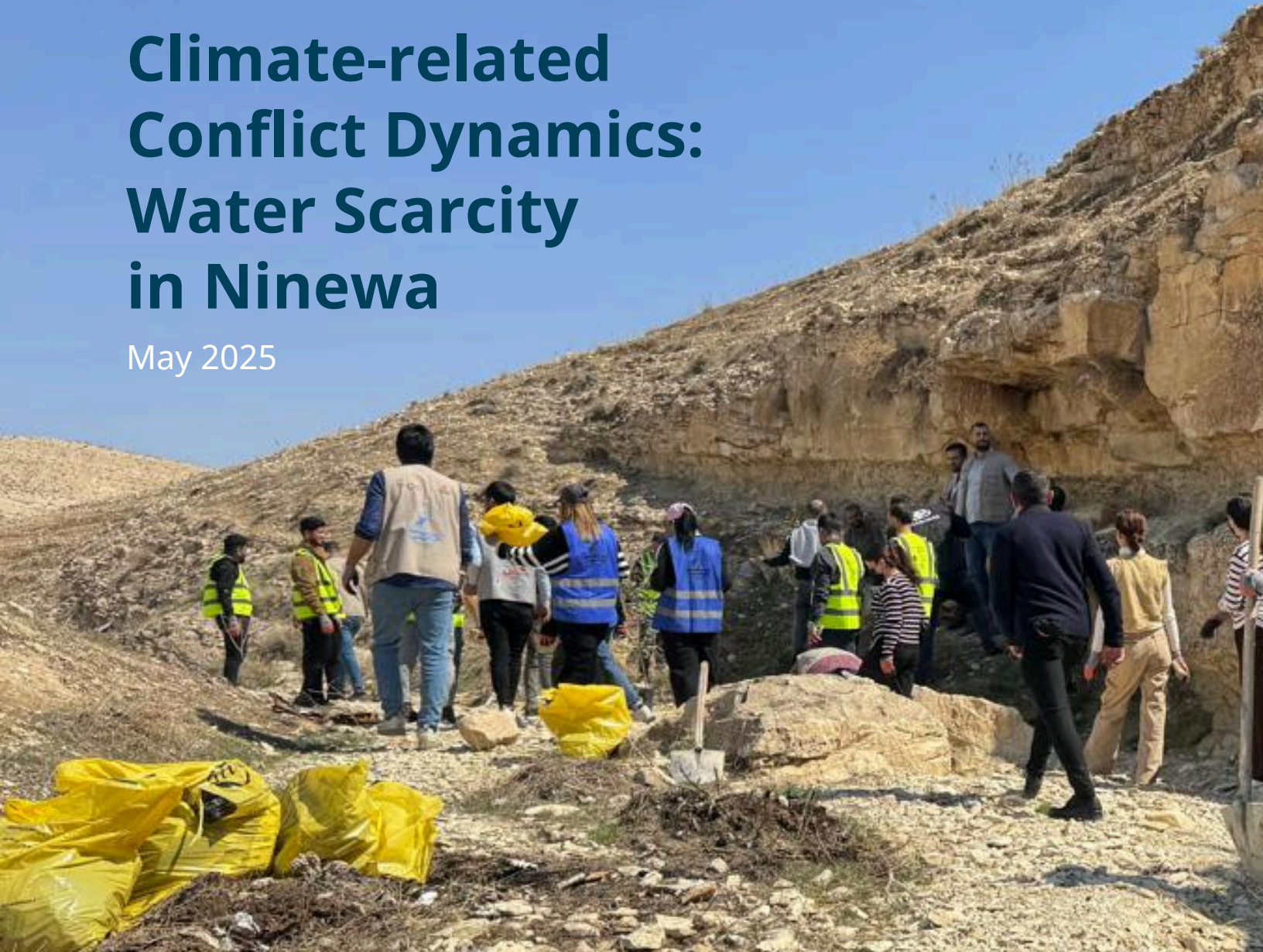


Climate-related Conflict Dynamics: Water Scarcity in Ninewa

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**Towards
Inclusive Water
Resource
Management**

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This brief explores the intersection between water governance and conflict in Ninewa, where water scarcity evolves into a trigger for local tensions, displacement toward already overstretched towns, and the breakdown of social cohesion. It is aimed at highlighting the urgent need for community-centred approaches to reduce risks and promote sustainable, locally led solutions.



Context

Research consistently ranks Iraq amongst the most vulnerable[1] countries by climate change[2], a finding that reflects lived realities and everyday experiences of communities across the country. Droughts, floods, heatwaves and dust storms are a regular experience for those who live in Iraq. Climate impacts on agriculture, health, and access to water exacerbate existing conflict-related vulnerabilities for civilians who have survived decades of violence.

How climate change impacts people and the environment varies across the country. For some, this means climate-induced displacement, such as in the south in governorates like Thi Qar[3]. For others, such as in Basra, climate risks linked to continued pollution have resulted in widespread deforestation (30 million palm trees are now estimated by less than one million)[4] and the loss of economic security linked to these resources.

In Ninewa governorate, climate change-related challenges are compounded by post-IS recovery dynamics, damaged infrastructure, displacement, limited access to livelihood opportunities, and increasing pressure and demand from the local authorities. Once known as Iraq's "breadbasket" and sustained by the Tigris River and seasonal rainfall, the governorate[5] now faces mounting pressure on its water resources: from climate change, the absence of water regulation agreements for equitable sharing of river water, inefficient infrastructure, and the legacy of protracted conflict. Communities in rural and conflict-affected areas of Ninewa continue to face significant barriers to accessing clean and sufficient water, which has led to increased competition over limited resources and growing mistrust between civilians and local authorities[6]. In this context, water scarcity is not just a development or environmental issue, it is a protection concern.

[1] The Century Foundation, Living the Climate Emergency: The Deep Roots of Iraq's Climate Crisis, 2023, <https://tcf.org/content/report/the-deep-roots-of-iraqs-climate-crisis/>

[2] Publications Office of the European Union, INFORM Climate Change Quantifying the impacts of climate and socio-economic trends on the risk of future humanitarian crises and disasters, 2022, <https://publications.jrc.ec.europa.eu/repository/handle/JRC130772>

[3] IOM, Displacement Tracking Matrix, Climate-induced displacement, Central and Southern Iraq, 2025, <https://iraqdtm.iom.int/Climate>

[4] OHCHR, Climate change, pollution threaten Iraq's ancient marshes, 2023, <https://www.ohchr.org/en/stories/2023/11/climate-change-pollution-threaten-iraqs-ancient-marshes>

[5] Reuters, How Iraq's agricultural heartland is dying of thirst, 2018, <https://www.reuters.com/investigates/special-report/iraq-water-nineveh/>

[6] Solidarités International & Humat Dijlah, Community Assessments on Water Conflict in Ninewa, 2023.

Gaps and Challenges

The intersecting challenges within the Climate-Conflict nexus that are impacting water access in Ninewa include:

1. Drought: Rising temperatures and declining rainfall have reduced surface water levels and aquifer recharge across Ninewa. The frequency and intensity of droughts have also increased, affecting both drinking water availability and agricultural output. Together with the impact of conflict on the area, this has resulted increased levels of displacement from the area.

2. Inadequate infrastructure: The destruction of water networks and irrigation wells during conflict, compounded by limited investment in reconstruction, continues to restrict water access. Inadequate infrastructure and high salinity levels in wells make water unsafe for use, raising further protection concerns for communities living in under-served locations as communities are exposed to health risks without adequate access to health. High costs of travel make access to water unequal, disproportionately affecting those who are economically disadvantaged.

3. Resource management gaps: Inequitable and unregulated usage has exacerbated water scarcity and conflict among communities in the region. This includes, for example, overexploitation of water for agricultural purposes by large-scale farming operations, which has led to tensions with smaller-scale farmers who had disproportionately less access to resources. Lack of adequate water management regulations have also resulted in unregulated irrigation practices such as drilling for extracting groundwater taking precedence over drinking water. Together this exacerbates existing vulnerabilities for civilians in Ninewa.

4. Socioeconomic hardship: Communities report a dramatic decline in groundwater levels. Due to increasing drilling depths required to access groundwater, the cost of accessing water has also increased[7]. In areas with pre-existing socioeconomic challenges like Baaj, community sources indicate that high costs of drilling have resulted in many small-scale farmers abandoning farming and agriculture to search for other sources of livelihood, which is also resulting in declining livestock numbers. Communities have also reported increasing and tensions at the household level, as men are absent for longer periods in search of different employment, and women are faced with increased household responsibilities.

5. Policy and implementation gaps: While Iraq has adopted policies[8] that aim for addressing environmental challenges, more work needs to be done[9] to respond to needs on the ground. Gaps in the oversight of scarce water regulations enable inequitable access to water and contribute to lack of trust between civilians and authorities.

[7] France24, Iraq's drought-doomed farmers turn to groundwater to boost agriculture, 2025, <https://www.france24.com/en/live-news/20250425-iraq-farmers-turn-to-groundwater-to-boost-desert-yield>

[8] Iraqi Ministry of Environment, National Strategy for the Protection and Improvement of the Environment in Iraq (2024 - 2030), 2024, <https://www.undp.org/iraq/publications/national-strategy-protection-and-improvement-environment-iraq>

[9] World Bank, Iraq Country Climate and Development Report, 2022, <https://www.worldbank.org/en/country/iraq/publication/iraq-country-climate-and-development-report>

Community-centred responses to water scarcity

NP's intervention in Sinjar

Water scarcity is an everyday challenge for communities, and their role in response is essential. In partnership with national and international organisations, NP invested in a project in Sinjar that fosters community-centred responses to address tensions related to water scarcity.

NP supported community initiatives where Community Peace Teams (CPT) – groups made up of community members trained in and leading on nonviolent conflict responses – lead public awareness activities, including tree planting campaigns and community-wide environmental cleaning drives. The CPT formation also represents ethnoreligious diversity in Sinjar district, and includes members from different villages. The benefits here are multi-faceted, offering spaces for communities to tackle a joint climate-related concern, while simultaneously strengthening collaboration across ethnoreligious groups.

“IS could not displace us forever from our areas, but climate change may displace us.”

male participant in NP training, February 10, 2025

The CPT that focuses on water resources management works closely with other CPTs supported by NP in the district and other volunteers to promote sustainable practices and enhance social cohesion. They also establish strong relationships with relevant authorities to mitigate risks of climate-related violence and participate in key events addressing climate change and conflict.

The spaces created by the CPT and their extended network have had practical and effective impacts for local communities. For example, a long-standing dispute over a public well between the neighbouring villages of Safo and Taba was addressed through this project. Supported by an international NGO, the dialogue brought together Mukhtars and community leaders into a neutral space and resulted in a locally endorsed peace agreement focused on equitable water distribution.

In parallel to the work of the CPTs, NP supports community-driven protection efforts such as conducting local assessments of water access and facilitating dialogues between CPTs, communities, and local authorities. CPTs also advocate for temporary water trucking to mitigate shortages and participated in coordination platforms to highlight gaps in infrastructure and service delivery. Fundamentally, these efforts are about centring community ownership, de-escalation, and trust-building as essential components in resolving water-related disputes and promoting peaceful co-existence.

Recommendations

Communities in Iraq have a right to safe and dignified access to water and a peaceful future. To connect the dots between climate and conflict in the region, and support a community-led response, local, national and international policy makers and leaders need to prioritise the following:

Foster public awareness and civilian engagement:

Promote locally tailored awareness campaigns on water conservation and peaceful dispute resolution, led by trusted community actors. Engage youth, schools, and religious/community leaders in promoting shared responsibility for water protection.

Invest in conflict-sensitive infrastructure rehabilitation:

Rehabilitate and expand water infrastructure with a protection lens, ensuring investments address both material gaps and community-level tensions. Prioritise equitable access, safe design, and community consultation at all stages of the process.

Enhance civilian inclusion and leadership in water governance:

Encourage participatory water governance by supporting inclusive planning platforms that centre community voices - especially those in return and high-risk areas. Facilitate regular engagement between local actors, duty bearers, and youth and volunteer groups (such as CPTs) to ensure solutions are grounded in community priorities including fostering collective action to prevent conflict.

Enforce regulations that promote equitable access to water:

Applying a lens of just and fair access to resources, where pre-existing vulnerabilities are taken into consideration, is essential for effective development and implementation of water management policy. This includes addressing practices of unregulated water consumption that contribute to inequitable access to water and increase tension. Particular attention needs to be paid to the specific impact of water scarcity and dignified access to water for women.

Collective efforts towards addressing water scarcity:

Implementation of Iraqi national policies and strategies related to climate adaptation is a collective responsibility for government actors, humanitarian and development partners, and donors. For regulations to be enforced and to enhance trust between civilians and duty bearers, there is a need to invest in collaborations for technical community-centred water management efforts.