Localised interlinkages between climate, peace, and security in Iraq

UNAMI Climate, Peace and Security Analysis Report

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Executive Summary

Iraq is among the world's most climate vulnerable countries because of its geographic location and existing environmental fragility which interact with socio-economic and institutional factors. While Iraq is enjoying its most stable period since 2003, governance challenges, instability and violence still exist. Climate change has the potential to exacerbate these existing tensions to undermine peace and increase the risk of conflict. This report identifies four primary localised climate, peace and security risk pathways in Iraq. It further proposes entry points for climate, peace and security interventions and provides recommendations for addressing climate, peace, and security risks.

The primary localised climate, peace and security risk pathways in Iraq are: 1) direct competition for natural resources, 2) exploitation of natural resources by armed actors, 3) limited and politically motivated assistance for climate-displacement and 4) non-participatory, centralised natural resource management.

Direct competition for natural resources manifests itself as regular inter-community conflicts, primarily disputes about surface and ground water. Community conflicts in Iraq are often referred to as tribal conflicts. However, this oversimplifies the climate, peace and security relationships since the groups in conflict often have access to significant weapons and have affiliations with other armed groups and political parties. As a result, water conflicts can escalate quickly, leading to injuries and fatalities. Better natural resource management and governance, especially the reduction of water loss and pollution, is needed to reduce the risks of conflict. Integrated water resource management initiatives supported by the UN and the Government of Iraq should be clearly informed by climate, peace and security risk analysis to ensure positive peace and security impacts.

The exploitation of natural resources by armed actors is a significant and growing climate, peace and security risk in Iraq. It is reflective of the wider integration of armed groups in the social, political and economic systems of the country. Such groups now play an active, and sometimes dominant, role in the agriculture and land management sectors. These sectors have become revenue streams for armed groups, helping them to maintain and increase their membership and influence. As a result, efforts to protect and manage land and water, and take climate action have been undermined. To address this, environmental governance needs to be strengthened as part of Iraq's progress towards bringing armed groups under the effective control of the state.

Like many countries, Iraq currently has no consistent system for identifying, registering, and providing services to people internally displaced by climate and environmental factors. A lack of an effective support system for climate displacement has caused feelings of marginalization and neglect by the displaced communities and the residents. This leads to frustration and a wide-ranging distrust of authorities and institutions, seriously eroding social cohesion and fuelling discontent. There is an urgent need for the Government and the UN System to better recognise and support people displaced by climate change.

Non-participatory, centralised natural resource management, especially with respect to water, has caused resentment against the Government authorities. At the local level, inconsistency and corruption have hindered effective natural resource governance. In some cases, regulations are enforced harshly and without community consultation, while in other cases there is no enforcement. This inequity has led to anger and civil unrest and ultimately has not protected water or land resources from mismanagement. There is an urgent need to establish transparent systems for public participation in natural resource

management. To facilitate participation, public education and outreach about climate change is needed to ensure that communities understand the practical impacts of climate change. The UN can support the Government of Iraq to develop more inclusive, resource management and environmental-governance approaches at all levels. The roles and responsibilities of all stakeholders need to be clearly defined, from the national level to the governorate and community levels.

Fundamental improvements in governance, migration support and public awareness are needed to mitigate the existing climate, peace and security risks and prevent new risks from developing. The topic of climate change can act as a catalyst for public participation in environmental governance and peacebuilding. The UN and the Government of Iraq can support participatory climate forums which have been shown to generate opportunities for the government, civil society, private sector and academic stakeholders to collaborate.

Climate change presents a clear challenge as a risk-multiplier for conflict and insecurity in Iraq. Without intervention this could lead to repeated cycles of insecurity and violence. In contrast, conflict-sensitive climate action provides an opportunity to enhance inclusion, build peace, and strengthen social cohesion. The UN System can support on-going climate, peace and security analysis at the sub-national, national and regional levels. This will help ensure that climate, peace, and security linkages are considered in Government policies and UN and development partner programmes, providing an opportunity to use climate change adaptation and mitigation to promote peace and security in Iraq.

Introduction

Climate change is one of the defining global challenges of the 21st century and interacts with many other global issues. It acts as a risk-multiplier, creating conditions which undermine worldwide progress on stability, prosperity, justice, health and equity. However, while climate change is global in scope, it manifests in specific national and localised impacts which interact with each unique local context. It is widely accepted that, while climate change may not directly cause conflict, under certain social, economic, and political conditions, climate-related hazards can exacerbate tensions and increase the likelihood of disputes. Existing grievances, economic shocks, environmental degradation, and poor resource management, all play a role in determining peace and security outcomes (ICRC 2023). Iraq is facing multiple such challenges, including political tensions, demographic pressures, and environmental degradation. A number of national-level studies and assessments have indicated that these challenges are intersecting with climate change to intensify peace and security risks (Hassan et al 2018, NUPI-SIPRI 2022, DPPA 2023, Berghof 2023a). To address these challenges, a more detailed understanding is needed of how these relationships expresses themselves in specific, concrete ways at local levels.

This report is the result of the climate peace and security work carried out by the United Nations Assistance Mission in Iraq (UNAMI) between August 2023 and May 2024. It aims to add to the current understanding of climate, peace and security risk pathways in Iraq. It presents the results of a localised risk analysis which was conducted to identify concrete entry points for climate, peace, and security interventions. It provides a brief background on Iraq's climate vulnerabilities and a review of the climate, pace and security risk pathways that have been identified so far. The report then proposes more detailed, localised recommendations to address the risk pathways.

Iraq's climate vulnerability

Iraq is among the world's most climate vulnerable countries. Serious droughts, floods, and extreme heat are already regular events that have led to water scarcity, desertification, and soil erosion (Von Lossow 2018). Intense heatwaves, sometimes exceeding 50°C, are occurring with increasing regularity in Iraq, seriously jeopardising human well-being and the nation's natural resources. For example, the heat wave of July and August 2023 saw people across the country seeking medical treatment for heatstroke (Al Jazeera 2023) and was reported to have caused severe drying of 70 per cent of the southern marsh lands (FAO 2023). These impacts are set to intensify as climate projections indicate that, by 2050, Iraq's climate will be extremely arid. The frequency of heatwaves will increase, and this will, in turn, lead to further land degradation and more occurrences of sand and dust storms. Annual average rainfall is projected to decrease by an average of 9 per cent by 2035, with the greatest reduction of 17 per cent expected to occur during the historically wet months of December, January, and February (World Bank 2024). Overall climate change is expected to reduce available freshwater by 20 per cent by 2035 (World Bank 2022).

Water shortages are already regular events in Iraq, with an estimated seven million people, 15 per cent of the population, currently facing water insecurity. Water limitations are especially frequent in the southern governorates, where lower rainfall and river levels are also allowing widespread saltwater intrusion into farmland, causing soil salinity and land degradation (Salman et al 2023). Agriculture, which employs 25 per cent of the population and is the second biggest sector in terms of employment after oil (WFP 2021), has been seriously impacted. Sixty-four per cent of all cultivated land in Iraq depends on irrigation from

the Euphrates and the Tigris rivers and their tributary systems, which is increasingly limited (Von Lossow 2018). In addition, climate change impacts on water and land are compounded by other kinds of environmental degradation, including pollution. For example, industrial waste and untreated sewage is widely discharged into the main river systems (Salman et al 2023).

Climate change vulnerability is an interplay between the level of a country's exposure to climate change and the capacity of its people, environment, economies, and institutions to adapt to the impacts of climate change. Iraq has been ranked as the world's 154th most prepared country in terms of adaptive capacity (Notre Dame, 2024). Iraq's dependence on oil revenue and its undiversified economy contribute to its low level of preparedness. A legacy of conflict has also had a significant detrimental impact on Iraq's adaptive capacity by weakening institutions and essential services, as well as disrupting economic development and undermining social cohesion. While Iraq is enjoying its most stable period since 2003, armed violence still persists in fragmented and localised forms. The multiple waves of conflict over decades also contributed to environmental damage that has further worsened the climate vulnerability seen today (PAX 2017). Climate, peace, and security are therefore tightly linked in Iraq, both historically, and in terms of Iraq's future challenges and opportunities.

Existing analysis on climate, peace, and security linkages in Iraq

As stated in the preamble of Security Council resolution 2732 (2024) extending UNAMI's mandate until December 2025, the UN Security Council supports the Government of Iraq in "combating climate change and environmental and water-related challenges". The linkages between climate change, peace, and security, both globally and in Iraq, have received a growing amount of recognition in recent years. The majority of the published climate, peace and security risk assessments for Iraq take a macro, national-level view of Iraq's climate risks (Hassan et al 2018, NUPI-SIPRI 2022, DPPA 2023). Noteworthy exceptions to the macro-level assessments are the recent reports released by the Berghof Foundation and Peace Paradigms (Berghof 2023a, Berghof 2023b), which also provide insight from community-level assessments in selected districts.

These studies have identified multiple pathways through which climate change intersects with political, social, and economic stresses in Iraq to compound existing conflict vulnerabilities and tensions. While the various reports define the pathways slightly differently, the main themes discussed in the literature are consistent. These are: climate-induced migration resulting in unplanned urbanization; livelihood deterioration sparking social unrest and the promotion of armed group activities; heightened tensions over shared water resources; governance challenges and risks related to the global energy transition.

Studies by the International Organization for Migration (IOM) have shown that people displaced by environmental factors in Iraq tend to relocate to urban centres that often lack the services and infrastructure to cope with the increased population (IOM 2022). Climate-related displacement in Iraq is often long-term, even when the displaced communities have a previous tradition of seasonal movements (IOM 2021). Public perception of migration by the receiving communities has been largely negative. This sentiment is primarily related to the increased strain on services and already limited economic opportunities (IOM 2021). Climate-displaced communities have reported experiencing exclusion and

harassment (Berghof 2023a) which has increased inter-communal tensions and resentment, creating the potential for conflict and insecurity.

Both unsupported migration and urbanization have led to a deterioration of livelihoods in many affected communities, increasing the risk of conflict over scarce resources (Hassan et al 2018). Climate change has the potential to directly reduce rural agriculture livelihoods by disrupting weather patterns, while urban livelihoods can be impacted by increased demand for, and a reduced reliability of, services like electricity and water. This can limit the operation of schools and businesses and create intolerable conditions in homes. These impacts drive an increase in poverty and inequality, which can exacerbate existing grievances with local governments or the State. Reports have also indicated that these impacts generate an environment that can be exploited by armed groups, increasing their influence and recruitment. For example, analysis suggests climate-driven losses of agricultural livelihoods in 2007 boosted Da'esh recruitment in rural areas of Iraq (DPPA 2023).

In Iraq, the tensions over natural resources are often related to access to water. Agriculture in Iraq is particularly water intensive and highly vulnerable to climate change. Crop yields are subject to significant fluctuation from year to year depending on annual rainfall. In recent years, insufficient or unreliable rains have sparked local conflicts as well as protests and riots across Iraq (NUPI-SIPRI 2022). At the community-level water access can have a direct link to disputes and conflict. The Norwegian Refugee Council reported that, in 2022, when Iraq experienced lower than average rainfall (REACH 2022), almost 40 per cent of households surveyed indicated a high level of community tension attributed to drought, while in 2023, during an El Nino weather pattern, which is associated with higher rainfall in Iraq, only 4 per cent of households reported high levels of tension (NRC 2023).

Ineffective or weak governance can significantly compound the impact of climate change since strategies for adaptation and mitigation cut across all sectors and require coordination, planning, and targeted investment (World Bank 2024). Iraq's legacy of conflict has led to successive governments leaving issues related to climate change largely unaddressed, giving greater attention to the provision of security over improved water infrastructure, land management, or functioning wastewater treatment systems (Hassan et al 2018). While the Government of Iraq has begun to take steps to tackle risks associated with climate change, challenges such as weak governance and corruption have made it difficult to invest meaningfully in climate change adaption and mitigation (NUPI-SIPRI 2022). Moreover, Iraq's dependency on the oil and gas sector, which in 2023 represented 95 per cent of Iraq's total government revenues, has disincentivized climate action (World Bank 2022).

Despite growing research on Iraq's climate, peace, and security linkages, gaps remain in the localised understanding of the pathways of interaction between climate change and peace and security that commonly occur in Iraq. Climate change, and the links between climate, peace and security, are also not well integrated into existing public policy (McMurray 2024). Further details are needed on how climate, peace and security risk pathways interact, and how they are contextualised in Iraq's complex social, economic, and political dynamics. Addressing these gaps can help identify specific entry points that may

be available to disrupt climate, peace and security risk pathways and enhance opportunities to build resilience and peace through climate change adaptation and mitigation.

Methods and approach

The information presented in this report was collected through a qualitative approach using semi-structured interviews. In total, 15 interviews were conducted between December 2023 and March 2024 In addition, the report draws from 46 UNAMI internal reports and case studies from across the country, as well as information obtained through media and analytical reports in the public domain.

The report's conceptual approach is based on the UN Climate Security Mechanism's integrated climate, peace and security risk assessment approach (CSM 2020). It evaluates the peace and security risks resulting from the direct and indirect effects of climate change as a function of the interplay between climate stressors and exposure, and existing vulnerabilities and coping capacities (Figure 1).

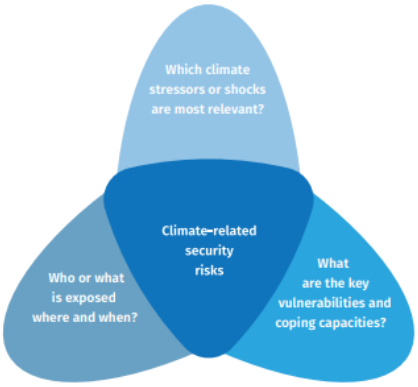

Figure 1. Diagram illustrating the UN Climate Security Mechanism's integrated climate, peace and security risk assessment approach (CSM 2020).

Finally, an effort has been made to provide context and narrative richness through the presentation of selected specific examples and cases. These should not be seen as exhaustive, but as representative of the broader patterns identified in the analysis.

Localised climate, peace, and security risks in Iraq

The climate, peace, and security linkages and risks identified in this report are broadly aligned with those that have been reported in past studies. However, a more detailed analysis has allowed for greater specificity, as well as opportunities to provide more clarity about how the linkages and risks relate to practical realities. The core themes identified in this report are: direct natural resource competition; exploitation of natural resources by armed actors; limited and politically-motivated assistance for climate-displacement; and non-participatory, centralised natural resource management.

Natural resource competition

Direct competition for natural resources by different user groups is one of the most commonly discussed climate, peace and security risk pathways. Climate change and environmental degradation are increasingly cited as factors that drive conflicts between and within communities (World Bank 2021, Berghof 2023a). Land and water are the primary sources of income for Iraqis in rural agricultural communities and, as discussed above, both water availability and land productivity are being seriously diminished by climate change. The NRC report described above shows how immediate the impact of climate-related resource limitation can be on social cohesion (NRC 2023). However, natural resource competition is not new to Iraq, and processes for negotiating access to, and distribution of, these resources are well embedded in traditional practices (WPS 2022).

The use of natural resources by different groups in Iraq is now governed by a combination of formal legal systems and informal local systems based on customary rights and traditions, these vary significantly between communities (Galawesh 2014). The transition to formalized legal oversight of land and water rights, as well as the adoption of centralised systems for natural resource management, have been sources of tension. Formalization processes have rarely included traditional natural resource management strategies like, for example, inter-community agreements that define livestock movement routes, allowing herders and sedentary farmers to avoid confrontation (WPS 2022). This is largely because such arrangements are difficult to verify due to a lack of documentation to prove ownership, access rights, or the provisions of earlier agreements. At the same time, the impacts of climate change are exceeding the capacity of any existing traditional resource-sharing mechanisms to provide fairly for the needs of all users. During the current assessment, the resources most often associated with direct conflict were surface water and ground water for irrigation, though conflict over access to grazing lands was also occasionally reported. This reflects the dominance of crop production in Iraqi agriculture, with 75 per cent of farmers dependent entirely on crop production while only 25 per cent undertake livestock or mixed crop and livestock production (FAO 2021).

Inter-communal conflict resulting from direct water competition was most often reported in the southern governorates. The most recent example occurred in the southeast of Dhi Qar (Figure 2) in March 2024, when ongoing disputes over water access escalated violently, resulting in some fatalities and injuries. The situation appeared to exceed the response capacity of local police, requiring the deployment of Iraqi Security Forces. Over 100 individuals were arrested in relation to the incident. This example is not unique, with similar events reported in other southern governorates, as well as in Kirkuk.

Figure 2 – Map of Iraq showing Dhi Qar governorate where disputes over water access escalated violently, resulting in fatalities and injuries.

Direct conflicts over natural resources at the local level in Iraq are often characterised as "tribal conflicts" and competing resource-user groups do often come from different tribal groups. However, this characterisation oversimplifies the climate, peace and security risks, since the groups in conflict often also have additional affiliations, including with political parties. Tribal leaders regularly hold political office or administrative appointments, and tribal and political groups may also have close affiliations with various armed groups. This complex dynamic creates significant challenges for achieving equitable and peaceful natural resource sharing, especially at times when climate change is seriously restricting water availability.

Climate change is making events like drought far more frequent, more intense and longer lasting. A World Weather Attribution report indicates that climate change has already increased the frequency of extreme droughts in Iraq to one in every 10 years (WWA 2023). As a result, there are far more frequent opportunities for water competition to spark cycles of violence and reprisals, enhancing other complex and varied political and sectarian conflict factors. The resulting increase in the occurrence of "tribal conflict" has already been well documented (DPPA 2021). Further, when, as was the case in Dhi Qar, the opposing user-groups have significant access to weapons, the scale of the conflict quickly exceeds the capacity for local authorities to contain it. National security sector actors are now regularly called upon to intervene in local conflicts. This creates situations where national security actors come into conflict with communities, tribal groups and other local armed actors, creating the risk that local natural-resource competition will undermine national peace and security. Greater competition for natural resources also ultimately underpins more complex climate, peace and security pathways as explained below.

Exploitation of natural resources by armed actors

Areas heavily reliant on climate vulnerable livelihoods like agriculture can experience economic decline, leaving communities vulnerable to exploitation and recruitment to illicit enterprises and armed groups (Larsen et al 2023). This has often been proposed in the literature as a climate, peace and security risk pathway that allows non-state armed actors to recruit new members, and there is evidence in Iraq that limited employment opportunities does increase recruitment by these groups (USAID 2018, Berghof 2023a, SIPRI 2024). For example, in Sinjar, reports indicated that ongoing political tensions coupled with serious historical infrastructure damage, has seriously limited economic opportunities and led to high

levels of armed group recruitment. In addition, thousands of people from Sinjar are currently still internally displaced but many hope to return (Chatham House 2024). Many of these people historically depended on agriculture (FAO 2021). The combined impacts of climate change, damaged infrastructure and low adaptive capacity, could make agricultural livelihoods less viable for displaced communities when they return. This could further allow armed groups to present themselves as attractive patrons in the future.

Beyond the opportunistic recruitment of people facing climate-driven poverty, reports also indicated a more deliberate and sophisticated exploitation of water and land resources by armed actors, as a means of maintaining and growing their economic and political power and influence. This reflects Iraq's broader, ongoing challenges with bringing armed groups under the effective control of the state. The active participation of armed groups in the agricultural and land development sectors is an outcome of a history of population displacement and complex land tenure systems, which regularly led to competing land claims, and a resort to armed actors to enforce those claims (USAID 2018). As a result, some armed groups are now deeply embedded, and at times dominant, actors in these climate-vulnerable enterprises. For example, in Diyala, reports indicate that in certain areas agricultural production has been largely taken over by armed groups. These groups use the area as a base for their operations as well as actively farming the land for economic benefit. Agricultural workers are often members of the armed groups and may come from other parts of the country to work on the farms. As a consequence of this move into agribusinesses, a number of armed groups now have a specific economic incentive to control water resources by force, especially as water becomes more limited under the strain of climate change.

In other areas, for example near a number of Iraq's urban centres, armed groups are also significant landowners. These groups have purchased, or otherwise acquired, land from traditional smallholder producers and many of the original landowners have left the area. The armed groups have undertaken subdivision and building projects, adding value to the land and selling it at significant profits. Many of these land parcels cannot legally be subdivided because of local regulations intended to prevent unplanned urbanisation and protect agricultural land. However, reports indicate that some armed groups are sufficiently powerful and politically influential to prevent local authorities from enforcing those regulations. This has serious implications for the viability of climate change adaptation, since the armed groups tend to prioritise short-term returns over long-term effective natural resource management and food security. Iraq is already a net importer of food, and national food security is greatly impacted by fluctuations in global food markets (WFP 2022). These markets are also highly climate sensitive (Khalfaoui 2024), so the increasing dependence on food imports, that comes with the indiscriminate urbanisation of farmland, further compounds Iraq's climate vulnerability.

Similar patterns of armed groups, or their affiliates, dominating primary production and disregarding natural resource regulations have been observed in other parts of Iraq. For example, in Muthanna, date production, which requires large quantities of ground water, is often controlled and managed by armed groups. These groups have also been reported to have threatened and displaced indigenous nomadic communities in the area. Similarly, in Missan, water intensive aquaculture and certain types of rice production are being increasingly banned by authorities because climate change is reducing water availability. Yet armed groups and their affiliates continue to take the water as needed for fish farming and rice production, while farmers not supported by the armed groups have gone out of business. Overall, there are now fewer producers of fish and of the high-value local "amber" rice, resulting in higher prices.

As a result, farmers affiliated with the armed groups are not only able to carry on with water-intensive production, undermining local water security, but are also profiting from the inflated prices of climate sensitive products.

Profiteering from climate change impacts also occurs in urban settings. Water trucking has become increasingly profitable in Basra's larger centres since the municipal water supplies are unable to meet demand. Reports indicate that private water suppliers, affiliated with armed groups, sell water they have obtained from public sources while also undermining efforts to improve the public water supply. A similar situation has been reported for electricity provision, armed groups and their affiliates have large generators and sell electricity across the cities, while resisting initiatives to improve the public energy networks. This not only heightens climate vulnerability, it also intensifies existing frustrations over poor or non-existent service provision, leading to regular demonstrations and the potential for significant future civil unrest if the situation remains unchanged.

The indirect and direct exploitation of climate-sensitive natural resources by armed groups undermines peace and security as well as the ability of communities to adapt to climate change. The armed groups get bigger and wealthier through extra recruitment and a range of semi-licit and illicit economic activities. In parallel, efforts to protect and manage land and water, improve basic services, and introduce climate-compatible technologies are undermined by armed groups seeking to protect their economic and political interests and influence. Together these trends present both immediate and longer-term climate, peace and security risks for Iraq.

Limited and politically-motivated assistance for climate displacement

Climate displacement and migration has been described as a key climate, peace and security challenge globally. In Iraq there are already numerous examples of climate displacement. IOM estimates that over 135,498 individuals are displaced due to climate change, largely to urban areas, in central and southern Iraq alone (IOM 2023). Challenges directly related to the influx of people into cities include an increased strain on the already inadequate infrastructure and heightened competition for limited jobs. Marginalization, exclusion, and harassment of displaced people has been documented across the country, and this has increased inter-community tensions and resentments (Berghof 2023a).

There is a lack of assistance for people who are displaced by climate and environmental factors. A stark example of this can be found in Samawah, Muthanna, where 211 adults and 9 children from formerly rural families are subsisting in the landfill south of the city (Figure 3).

Figure 3 – People displaced by climate change searching for scrap metal at the Samawah municipal landfill in Muthanna governorate.

People living in the landfill site do not have access to clean water, sanitation, or adequate food. In addition, at least two people have been killed when they encountered unexploded ordinances while searching for scrap metal in the landfill. To date, no assistance has been provided to these families, as no government or other organisation has the specific responsibility to assist the climate-displaced. While this specific case may represent an especially serious example of unmet humanitarian need, and ignored climate, peace and security risk, the reality is that many people are in need but do not get any assistance. A primary underlying reason for this is the lack of a dedicated, consistent system for identifying, registering and providing services to people internally displaced by climate and environmental factors.

In some cases, people displaced by climate change are registered as displaced under the existing IDP system, which was designed for people displaced by conflict. The registered people do receive a limited amount of assistance, but the extent and duration of the assistance is variable and not transparent. The lack of an effective support system for climate displacement has generated perceptions of marginalization and neglect, not just among the displaced community but also among local residents (IOM 2021). In addition, the unreliability and lack of transparency in the assistance system leaves displaced people vulnerable to exploitation and manipulation. Reports indicate displaced communities are often offered temporary cash or in-kind assistance during an election cycle in exchange for their political support. The assistance provided quickly ends when it is no longer politically expedient: one interviewee noted “they (*the climate-displaced*) know they will not get anything now because there are no elections”. This leads to frustration and a wide-ranging distrust of any authorities and institutions (IOM 2021) and can easily spark protests and demonstrations. Climate change will continue to drive increased urbanization and the current lack of support for the climate-displaced has already seriously eroded social cohesion, creating a significant climate, peace and security risk now and into the future.

Non-participatory, centralised natural resource management

Effective governance over the use of limited natural resources is vital for adapting to and mitigating climate change. The cross-cutting nature of climate change requires coordination among multiple government actors and between different levels of government (World Bank 2024). The government of Iraq has a number of mechanisms for allocating land and water resources, especially for agriculture. A primary regulatory system is the centralised decision making on the allocation and distribution of water at the central Government level. But decisions on water allocation are ultimately implemented at the governorate and local levels, this can cause inconsistencies and confusion over who is responsible for water management. In the past this has created disputes that have led to clear peace and security risks, such as the Basra water crisis in 2018, which resulted in a public health disaster and sparked violent protests. The water crisis led to an exchange of recriminations between the central Government of Iraq, the Basra Governorate and community leaders (WPS 2022). Overall, existing water management systems are the subject of public resentment, and there is a widespread perception that actors with power and financial resources get preferential access to water. This will only become more salient as climate change further constrains water resources.

On a local level the unpredictable and non-participatory annual allocation of water sparks the kinds of direct resource conflict described earlier. Every year, small inter-community water conflicts, often resulting in casualties, erupt across the country. These can last for several days to weeks while the communities, driven by various affiliations, vie for control over the limited, centrally allocated water volumes. At times the centralised water allocation has also sparked disagreements between downstream and upstream governorates. In 2023, Missan Governorate accused Wasit Governorate of overusing its water share, prompting the federal Government to intervene to settle the dispute. Such inter-governorate water grievances have also been used for political purposes. This was seen in 2018 during the parliamentary elections, when politicians in Muthanna inflated grievances over water allocation as part of their election campaigns, with some threatening to take water from neighbouring areas by armed force. Since climate change projections indicate that the frequency of drought in Iraq is on track to increase even further to one in every five years by 2050 (WWA 2023), such political posturing, and the overlap between political and armed actors in Iraq, suggests the potential for tensions over water resources to escalate even further in the future.

When climate-related problems intensify, the central Government often issues new national regulations to curb specific activities or water uses. This was the case in 2023, when a Cabinet Resolution mandated the closure of fishponds across Iraq to protect drinking water. In certain areas the implementation of this resolution was enforced swiftly and severely, with effectively no consultation or engagement with local communities. Authorities arrived with heavy machinery and physically destroyed fishponds and water pumping infrastructure. In Wasit for example, it was reported that over 3,000 fishponds have been destroyed since the resolution came into effect (Figure 4).

Figure 4 – Government Authorities removing illegal water pipelines leading to fishponds in Wasit governorate. Photo credit: Wasit Water Resources Directorate

The removal of fishponds has a cascading impact on the local economy, as the owners of the fishponds lose property and revenue, and the workers employed at the fishponds lose their jobs. According to reports from Kirkuk, the destruction of 2,500 fishponds is estimated to have impacted 4,000 families and sparked anti-government protests. The enforcement of this regulation has also been perceived as inconsistent and laxly enforced when politically influential actors could be affected, further undermining both public trust and efforts to manage water.

Non-participatory decision making, and draconian enforcement of restrictions feed anti-government sentiments and protests which worsen climate, peace and security risks. As climate change intensifies and water resources and the productivity of land are being further diminished, community participation and engagement in natural resource management will be essential for avoiding larger-scale conflicts.

Other hazards

The collection of information for this report highlighted a number of other hazards. These too can interact with climate hazards to undermine peace and security. First, it was reported that, in several areas which were mined in successive conflicts since the 1990s, flooding is exposing and moving the remaining landmines. Therefore, some landmines are now located beyond the known minefields, and explosions have caused deaths and injuries. As climate change causes more frequent and more intense floods, this problem will increase if mines in the flood zones are not removed. Second, groundwater boreholes are proliferating across the country, many of them are illegal. While water from these bores has helped address immediate short-term water issues for the groups that can afford them, they are causing a measurable decline in ground water, which is already impacting distant lakes and rivers. Perpetuating a dependence on water-intensive agriculture with unsustainable boreholes delays the uptake of climate-smart technologies and increases climate vulnerability. Third, the unregulated dumping of solid and liquid waste, including biohazardous and industrial chemical waste, has been widely reported. This waste is being dumped on land and, predominantly, in rivers and streams. This is a key contributor to the current water shortages, which if addressed, would have an immediate positive impact on public access to clean water and climate resilience.

Recommendations

The information gathered for this report, in addition to previously available analysis, shows that climate, peace and security linkages in Iraq are both real and serious. Climate projections indicate that, even with the most ambitious climate action, Iraq will face irreversible climactic transformations (WWA 2023), which will increasingly undermine the structures and resources needed to maintain peace and security. Nevertheless, there are actions that can be taken to ameliorate the climate, peace and security risks identified in this report. This section provides recommendations for addressing each of the main climate, peace and security risks, as well as cross-cutting recommendations.

Reducing natural resource competition

1. The UN and the Government of Iraq should engage directly at the community-level to convene fora where different water-user groups can express their needs and agree on conflict resolution mechanisms that can be activated locally before violent conflicts erupt.
2. The UN should coordinate training and capacity building on conflict resolution mechanisms for local actors, government authorities and partners.
3. The UN and the Government of Iraq can rapidly upscale integrated water resource management (IWRM) programmes. IWRM activities should be clearly informed by climate, peace and security risk analysis, and related investments should specifically target communities that have existing conflicts or are at high risk of conflict due to water restrictions.

Addressing natural resource exploitation by armed actors

1. In the short term, all stakeholders in the agriculture and land management sectors need to be pragmatically engaged to promote climate action. The UN can assist in promoting dialogue between all stakeholders and to develop a joint “code of conduct” for sharing resources.
2. In the longer term, the UN and the Government of Iraq can work towards improved environmental governance as part of Iraq’s progress towards bringing armed groups under the effective control of the state.
3. Climate change adaptation and mitigation programmes supported by the UN and the Government of Iraq should be designed to be sensitive to the various political, tribal and other affiliations of the target communities to avoid unintentionally increasing tensions.

Improving assistance for climate-displacement

1. The UN should undertake immediate and strong advocacy to ensure that the people currently in urgent humanitarian need are assisted, especially smaller groups of highly vulnerable, marginalised people who are not recognised under existing systems.
2. The UN and the Government of Iraq should build on their existing IDP support programmes to include more consistent recognition and support for people displaced by climate change. The existing work on this issue needs to be urgently upscaled to ensure needs are met and to restore public trust in government institutions.

Enhancing inclusive natural resource management

1. The UN and the Government of Iraq should enhance the capacity of the national and sub-national government entities involved in water allocation, agriculture, and land management. This should include the creation of transparent systems for public participation in natural resource management to build back peace and social cohesion.
2. The UN should play a coordination role between national institutions, civil society, donors, and international agencies to ensure natural resource management actions are undertaken in ways that consider climate, peace and security linkages.
3. UN and the Government of Iraq should deliver comprehensive, context-specific public education and outreach about climate change.

Cross-cutting recommendations

1. All actors can use climate change as a catalyst for public participation in environmental governance and peacebuilding. Climate change and natural resource management are topics of common concern that can provide opportunities for positive dialogue between parties with otherwise divergent interests. Events like the Kirkuk Climate Forum of May 2024 show that climate change can be a topic that provides opportunities for dialogue and collective action (UNAMI 2024).
2. The UN should advocate for migration to be accepted and supported as a legitimate, positive climate change adaptation strategy. Human mobility in response to climate change and environmental damage is a reality, and it can have positive outcomes for all stakeholders. The political and policy environment needs a fundamental change to embrace climate-related migration, and to recognise and support it as a positive and necessary climate change adaptation strategy.
3. The UN should continue to analyse and advise on climate, peace and security linkages in Iraq and in the wider region. Undertaking specific localised climate, peace and security risk analysis has allowed for the identification of clear entry points and actions for addressing these risks in Iraq. Consistent analysis at the sub-national, national and regional levels will identify further opportunities to mitigate risks and promote climate change related peacebuilding.

Conclusion

In conclusion, there is clear evidence in Iraq that climate change presents a substantial challenge as a risk-multiplier for conflict and insecurity. If ignored, it could lead to repeated cycles of insecurity and violence which will intensify over time. In contrast, inclusive climate action provides an opportunity to build peace and enhance social cohesion. To minimise climate peace and security risks and maximise peace-promoting adaptation and mitigation, the Government of Iraq, the UN, and other development partners need to consider localised climate, peace and security linkages. Doing so will provide an opportunity to use climate action to promote peace and security in Iraq.

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