# WEATHERING RISK

# Integrating Climate Security into Policies: Roadmap for Iraq

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**Disclaimer:**
This roadmap aims to guide Iraqi policymakers in
streamlining climate security consideration into policy and to
highlight priorities for support to donors. Recommendations
should be implemented with regard to the changing conflict
situation, adjusted according to new conflict and climatic
developments.

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# Executive Summary

Climate change is already leading to worse security outcomes in Iraq. Increased water scarcity and more intense heat are significantly impacting water and food security for millions of Iraqis. The economic consequences – given implications for livelihoods and government subsidy programmes – and social pressures, such as increased and unmanaged mobility towards overcrowded urban centres, instigated by climate change are making an already delicate security situation more tenuous. Indeed, in the future, climate change will exacerbate fault lines that crisscross the entire country, undermining political and social stability in the process. Though several dynamics are critical to mention here, some of the most pressing include:

- **Climate-change effects on water scarcity threaten to exacerbate pre-existing societal fault lines and lead to conflict.**

- **Climate change threatens important economic sectors relied upon by Iraq's most vulnerable populations, reducing their well-being and contributing to worsening social cohesion.**

- **Climate change undermines mobility's resilience qualities, as intensified urban drift and continued returnee displacement worsen the human security of Iraq's most vulnerable.**

- **Climate change further undermines the government's effectiveness in providing public services and responding to crises, leading to festering grievances that can destabilise the state.**

Though climate change poses undeniable challenges to the social and political stability of Iraq, both climate change and climate security remain under-represented within institutional mandates and policy mixes. Several reasons account for this, including the need to prioritise more traditional security concerns over the preceding decades, the financial costs war imposes on state budgets and its impact on economic development, and the role and importance of oil in Iraq's economy. However, in addition to these elements, a lack of knowledge and information on climate and security linkages, technical capacity limitations – especially in data collection, and design and implementation of policies and programmes – all inhibit meaningful climate-policy integration and action. However, the necessity of managing and mitigating insecurity has not and will not diminish, regardless of these challenges. This requires national, regional and international actors to undertake efforts to support the integration of climate change, and especially climate security, into policy. Such efforts should include:

**IMMEDIATE:** Improving climate change and climate security awareness and buy-in.

### SHORT-TERM

- Identifying and strengthening capacity of national coordination committee.
- Initiating knowledge and learning on climate and security.
- Providing capacity building on expanding and adopting climate data and reporting.

### MEDIUM-TERM

- Identifying and integrating climate security into policies, strategies and processes, and ensuring alignment and synergies with national development plans and published international commitments.
- Developing medium- and long-term climate security strategies and action plans at the national and sub-national level.

### LONG-TERM

- Alleviating programming and institutional constraints that inhibit adoption and action on climate change and security.

The suggested course of action has been identified from analysis gathered over the year-long Mainstreaming Climate Security Considerations in Recovery Pathways research initiative, a joint adelphi and CGIAR undertaking as part of the SDG-Climate Facility: Climate Action for Human Security project, which brought together the UNDP Regional Hub for Arab States, the UNDP Climate Security Mechanism and the WFP Regional Bureau for the Middle East and Northern Africa. The recommendations are based on the project's findings and a literature review on climate security's current policy integration. Two workshops were also held with technical experts and national actors to ensure the roadmap was grounded and applicable to the Iraqi context. These workshops occurred in September 2022 and March 2023. The roadmap aims to help Iraqi policymakers better streamline climate security into policies and to highlight priorities for support to donors. The roadmap distinguishes between federal authorities and Iraq's 19 subnational authorities.

# Acknowledgements

In collaboration with:

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Sinjar, Iraq (Levi Meir Clancy, unsplash)

# Key Climate Risks

Climate risks are already prevalent in Iraq. Over the course of the preceding decades up to 2022, Iraq has seen noticeable increases in temperatures, shifting and declining rainfall patterns, and the observed and recorded prevalence and extended duration of droughts. This has further instigated other natural hazards, including flash flooding and dust storms with disastrous consequences for Iraqis. Furthermore, rising sea levels will continue to strain already limited freshwater in Iraq's southern areas. These climate risks combine with human-led degradation to seriously undermine Iraq's natural environment and resilience, with important implications for biodiversity, water scarcity and food security.

## Rising air temperature

Air temperatures are likely to increase all over Iraq under multiple RCP scenarios.[1] These can range depending on the specific scenario, but generally, temperatures are very likely to increase between 1.6°C and 2.4°C by 2030, 1.9°C and 3.2°C by 2050, and 1.8°C and 4.8°C by 2080.[2] Rising temperatures will affect all of Iraq. Increases will be most pronounced in the northeast, especially in a RCP 6.0 scenario.

## Increasing number of hot days

Coinciding with higher temperatures on average, more hot days (i.e. temperatures above 35°C) can be expected with a high degree of certainty. The northeast and west are expected to see the highest increases, with an increase of more than 20 very hot days by 2030, in comparison to the year 2000. In the rest of Iraq, the increase will be lower, amounting to between eight and 12 additional very hot days by 2030, under RCP 2.0 and 6. Rising temperatures and the increasing number of very hot days will result in an increased exposure to heatwaves. Depending on the scenario, between 12 percent and 36 percent of Iraqis will be exposed to heatwaves annually by 2030.[3]

## Decreasing precipitation levels

Though less certain than rising temperatures, precipitation declines are expected through to 2080. This is predicated with higher emissions scenarios, in particular RCP 6.0. That decrease will not be consistent across the whole country, with more in the west and south expected. Generally, projections indicate a very likely decline of between 4 percent and 18 percent decline by 2030, with high variation across the country. By 2050, western Iraq may see up to 27 percent decline, with consistent levels for other areas.[4] Furthermore, low precipitation reduces soil moisture and vegetation cover in Iraq, making the land more susceptible to erosion. High winds exacerbate this process by blowing away the dry, unprotected topsoil, leading to desertification.

## Rising sea levels

Sea levels are expected to rise globally, which will have implications for the Southern Basra Governorate. A rise in sea levels will occur under all emissions scenarios. In the more immediate future, under RCP 2.6 and RCP 6.0, that can be as much as 17.9 cm by 2050.[5] Rise in sea level will elicit more inundation events, contributing to both the salinisation of fresh water relied upon for agriculture and worsening soil conditions. Furthermore, under a higher emissions scenario, Basra, Iraq's second-largest city, could be largely inundated by sea water by 2050.[6]

Sinjar, Iraq (Levi Meir Clancy, unsplash)

# Climate-Related Security Risks

**Climate change effects on water scarcity threaten to exacerbate pre-existing societal fault lines and lead to conflict:** Decreasing rainfall and increasing extreme heat are interacting with human-led factors to worsen water security in the near term. Medium- and long-term climate projections are equally as stark. Water stress is already having important cascading consequences for Iraqi well-being, including on food, water and livelihood security. It may also further strain state-society relations, as the government is seen as either ill-prepared to respond or already responding poorly. Tensions over accessing water are mounting at international, national and subnational levels, as well as between communities. They threaten to reinvigorate nascent civil strife. Without systems in place to manage water scarcity, Iraq could face significant periods of instability.

**Climate change threatens important economic sectors relied upon by Iraq's most vulnerable populations, reducing their well-being and contributing to worsening social cohesion:** Shifting and decreasing precipitation and increasing extreme heat contribute to more significant crop failures and lowering agricultural yields and the income that comes along with it. Though agriculture contributes marginally to Iraq's total GDP, over 25 percent of the country's population relies on the sector for their livelihoods.[7] A large portion of those people live in rural areas where few alternative livelihoods exist. Failing crops and corresponding higher food prices combine with lower incomes, and together, worsen pre-existing vulnerabilities and increase food insecurity. Tensions, already high due to decades of war and insecurity, threaten to intensify as communities seek to secure resources for themselves. Protests against the state due to a perceived lack of response to climate-induced insecurities are only to increase as people see their quality of life dwindle. Gender elements are important to consider: droughts have led to increased commodity prices, such as materials for crafts, which many women use to generate income.[8]

**Climate change undermines mobility's resilience qualities, as intensified urban drift and continued returnee displacement worsen the human security of Iraq's most vulnerable:** Climate change implications for water, food and livelihoods are simultaneously pushing people to move, while increasing displacement among recent returnees. Climate pressures are felt most in rural agrarian communities, facilitating urban drift with important implications for urban spaces. Those who move may ultimately find themselves in continued precarious positions, since urban spaces are themselves already under natural resource and economic strain. Employment prospects may be limited, forcing people to move to informal settlements. Furthermore, some dynamics prevalent in more rural spaces can be transposed to urban areas, leading to possible tensions and even conflict as traditional fault lines move. For those returning back to homelands following decades of strife, the threat of continued displacement looms large, as many are from the regions worst affected by climate change.[9] Displacement undermines resilience and worsens vulnerability, as people lose out on livelihoods and incomes needed to respond to crises, including those instigated by climate change.[10]

**Climate change further undermines the government's effectiveness in providing public services and responding to crises, leading to festering grievances that can destabilise the state:** Climate change risks interact with pre-existing governance challenges, further reducing the government's ability to provide basic services and critical investments. As Iraqis' quality of life remains threatened due to a confluence of factors, including climate-related ones, the demand for basic services will only intensify. Public service provision is already limited, and large-scale demonstrations have previously taken place in response to poor service delivery and increased climate insecurity. The government thus risks failing to meet the needs of its population. That can have important social consequences, including more destabilising protests, increased disregard for the state and the subsequent rise of a "winner-take-all" mentality. It could also encourage non-state armed actors to co-opt grievances and ultimately drive recruitment. Again, gender elements are vital to consider: following the aftermath of a climate-induced natural hazard, women face excess risk "due to an upsurge in harassment and the absence of adequate security provisions and protective measures in IDP neighborhoods."[11]

Erbil Bazarr, Erbil, Iraq (Saad Salim, unsplash)

# Institutional Framework

## Institutional Summary

Though inhibited by the priorities of war and post-war recovery, Iraq is increasingly taking note and advancing on climate change. These efforts include separating the Ministry of Health and Environment and both emphasising and following through on meeting United Nations Framework Convention on Climate Change (UNFCCC) obligations, such as finalising Iraq's Nationally Determined Contribution (NDC) and developing its National Adaptation Plan (NAP). A whole set of actors within the government, at federal and governorate levels, contribute to designing and undertaking this work. These include bodies such as the Office of the President, committees in Parliament and councils at the federal and governorate levels, and ministries. Though the president's office is an important vehicle for climate security action, the ministries ultimately play a more important role in developing and responding to climate insecurity.

Of this myriad set of actors, several institutions can be considered as especially critical to the country's climate change and security response. Of these, the Ministry of Environment (MoENV) is a central climate change and security actor within Iraq. MoEnv is responsible for acting, especially in a coordinated manner, on matters related to the protection and improvement of the environment, including the critical development of policies related to climate change. The country's coordinating and technical body on climate change, the National Centre for Climate Change (NCCC), sits within this ministry. This body aims to enhance national technical capacity for climate change implementation. The ministry also chairs the Permanent National Committee for Climate Change (PNCCC), which is a cross-ministerial and multi-stakeholder body supporting the NCCC draft. The PNCC also executes strategic plans, coordinates with stakeholders and raises national awareness around climate change and climate finance in particular. In addition to the NCCC and PNCCC, the MoEnv also chairs the cross-ministerial and sectoral Federal Council of the Protection and Improvement of the Environment. This body makes recommendations on a broad swath of areas related to climate change to the Council of Ministers, a pre-eminent legislative decision-making body in Iraq.[12] The MoEnv is the national designated authority for the Green Climate Fund (GCF).

It is also tasked with implementing key strategies related to climate change, such as the National Environmental Strategy and Action Plan (2013-17), Iraq's NDC and Iraq's NAP. The MoEnv additionally ensures compliance with the UNFCCC, among others.

The institutions noted above have important agenda-setting, technical and coordination capacities. However, the nature of some climate impacts and their knock-on social implications means that the Prime Minister's National Operational Centre (PMNOC) also has an important role to play.[13] The Crisis Cell housed within that entity convenes to respond to crises as they occur, and as such, has both resources and convening power important for action. That is because it is cross-ministerial, with links to technical experts and private-sector actors as needed. Though not all climate risks require crisis-level engagement or coordination, this body is important because it is able to advance action on certain thematic issues with relative ease.

In addition to the MoEnv, the Ministry of Water Resources (MoWR) and Ministry of Agriculture (MoA) are directly implicated in key areas of climate security, including water and food security. The Ministry of Finance (MoF) and the Ministry of Planning (MoP) also have important roles to play in advancing climate action and climate security, given that national and subnational policies and plans are either developed or require approval and input by these bodies.[14] The importance of water security in Iraq and the role of international relations in mitigating water scarcity now and into the future means the Ministry of Foreign Affairs (MoFA) is also a critical federal institution with climate change responsibilities.

At the subnational level, parallel institutions and organisations exist, including both branches of the MoEnv and Provincial Council on the Protection and Improvement of the Environment. Relevant ministries, such as the MoWR, also have governorate-level exposure in line with the country's ongoing decentralisation process.[15] Governorates themselves are able to pass legislation, including those pertaining to the environment, climate change and water management. They also produce four-year development plans that can include many provisions around climate security themes, such as water management, sustainable development and poverty reduction. District and subdistrict level entities are important for implementing policies and are the closest to the community: They are integral to advancing climate action with implications for climate security.

Since 2003, federal policymaking and implementation have generally been fraught and fragmented, and this is true for climate-action legislation and frameworks especially. However, prior to 2003, the government did develop important legal frameworks on climate issues, including the establishment of MoEnv and policies on food, water, agriculture and development. Naturally, the immense focus on the security situation meant that policies related to more traditional notions of security and reconstruction were prioritised. Though climate-oriented policymaking was fraught during the period after 2003, the government, with assistance from the international community, has continued to draft policies and strategies on climate issues. Notably, these include strategies on water management and environmental protection, and the development of the NDC and the current ongoing NAP process. However, though some policies and strategies have been developed, implementation and enforcement remain constrained. These are due to a multitude of factors, including ongoing insecurity, economic incentives and governance challenges.

Iraq relies on the international community to support, both technically and financially, the country's response to climate change. These include the World Bank, the UN, especially UNDP and UNEP, and the GCF, among others. Many of the activities undertaken are either directly related to climate change issues, such as support for better water provision or climate smart agriculture, or critical governance support, such as enabling institutional readiness for climate finance and other capacity building endeavors. Aid flows remain important forms of support, though Iraq has been noticeably slow to access available sources of climate finance. Local NGOs and associations also play an important role in advancing climate action.

Given the challenging security environment, traditional security concerns have demanded much of Iraq's institutional attention and continue to influence state politics today.[16] That influence remains strong not only because the security situation remains tenuous, but also due to the sheer number of security actors present and their semi-institutional nature. As a result of the latter, they enjoy a considerable degree of influence.

Key institutional security actors include the Iraqi Security Forces (ISF), the Counter Terrorism Service (CTS), and the army. In addition to these actors, semi-institutionalised militias provide security services. Of particular note are the Popular Mobilisation Unit (PMU), also known as the Popular Mobilisation Front (PMF), which is a loose collection of Shi'a militias legally affiliated with the state[17] and militias linked to tribes.[18] For the latter, tribal militias are localised within tribal-held territory, although they often work in conjunction with the state, especially during the fight against ISIS. Important to note is the recognition that these security actors maintain important political influence and have important social roles within communities. In Kurdistan, the Peshmerga are critical security services, and several militias operate under Kurdistan authorities. Lastly, under the MoEnv, an "environmental police" force is meant to ensure compliance with environmental laws around waste management or illicit goods trade and trafficking, for example. International security forces are also present in the country, particularly from the United States and Iran, and multilateral forces, including NATO and the UNAMI.

Al-Sulaymanyiah, Iraq (Makwan Barzan, unsplash)

# Climate security Integration

## Degree of integration

Though recent initiatives have improved engagement with climate change, it remains under-represented within Iraq's institutional policy mix. Given that, climate security itself is critically under-represented too. Iraq does not have an overarching climate-change policy that impacts its ability to steer, coordinate and monitor climate action across government and society writ large. Instead, Iraq takes an ad-hoc, fragmented and indirect approach to managing climate change and its security effects. Several disparate climate-adjacent policies and plans exist, which incorporate important themes around climate change without mentioning climate change and its likely security effects. Environmental laws, water and waste management laws, and agricultural policies all deal with climate themes, but neither climate change nor security is factored into them very often. For example, neither the National Environmental Strategy and Action Plan (2013-17) nor the Strategy for Water and Land Resources in Iraq (SWLRI) (2014) include mentions or actions on climate change, even though both of these strategies deal directly with climate-change sensitive resources with important conflict risks, such as water use. Similarly, security laws or strategies fail to engage on climate themes and whenever they do, they remain limited in scale and ambition.

However, climate change and security considerations are becoming more prevalent in Iraq's policy mix. Critical plans and strategies increasingly incorporate climate change, albeit to varying degrees. For example, the Iraq Vision 2030 project simply states the words "climate change" while the National Development Plan (NDP) 2018-2022 and the Reconstruction and Development Framework more explicitly detail the impacts of climate change and its effects on certain vulnerable groups.

Though policies and plans that incorporate climate change and climate security implicitly or explicitly do exist, some important challenges remain in maximising these policies' effectiveness. First, policies tend to be developed in a siloed manner: policies that do mention climate change and are focused on the environment do not include language around traditional insecurity, though non-violent forms of insecurity are more prevalent (i.e. food and water security). For example, mitigation and adaptation planning do not consider the security implications of actions, including those related to water allocation.[19] This is the same for legislation and plans governing security services or peacebuilding-related plans or activities, which do not articulate climate change as an entry point for conflict resolution or as an important contributor to conflict risk.[20] References to human security, however, are more prevalent. Furthermore, even though plans or policies may reference the link between climate change and insecurity, plans or activities to manage climate insecurity remain lacking.

Silos exist between federal ministries too: since there is no overarching policy framework or ministry responsible for climate action with enforcement capabilities, ministries are left to act in line with their responsibilities or obligations, as laid out in sector specific strategies or policies. No oversight body exists to monitor compliance and action or adapt if need be.[21]

Policy alignment and sequencing remains an important issue too, with Iraq's major development frameworks such as the White Paper (2020), Vision 2030 (2019), and the NDP (2018) not in alignment on both the importance of climate change or the actions needed to combat it.[22] Lastly, many of the policies and approaches referenced here are federal, which perform substantially better than subnational, in terms of identifying and planning for climate change and climate insecurity.[23] Even though governorates develop four-year plans, few contain references to the environment apart from water resources, and even fewer deal with issues of climate change or climate security.[24]

However, even if climate and security policies and plans are improving in their focus on climate change and its potential security implications, policy implementation and adherence remain considerable challenges. A lack of funds, continued insecurity, limited data and a lack of coordination mean plans were not followed through. In some cases, they did not manage to lift off the ground. Complicating matters is the lack of enforcement capacity of policies that do exist, especially those critical to climate security. For example, water allocation is guided by the SWLRI, but it is not always adhered to. Governorates may be inclined to secure their water needs especially in times of crises, or past allocations are maintained even though needs suggest reallocation may be necessary.[25] Individuals may also tap into water systems illegally even though the punishments, if caught, are nominally severe. Poor enforcement on policies or strategies critical to climate security pose amplifying climate and conflict risks.[26]

## Challenges to integration

**TECHNICAL CAPACITY CONSTRAINTS**

An important inhibitor to both climate security adoption and policy development and implementation is poor data availability. This is true across a whole host of needs, from climate data around impacts of certain climate stressors on key sectors, to data vital for monitoring areas like water usage, for adaptation and mitigation planning, such as GIS layers or databases on soil type or biodiversity, and on the social, economic, demographic and sectoral, such as agriculture or water, impacts of climate change.[27]
These limitations exist at multiple levels, including national, subnational and local. Several reasons exist for poor data access, including two decades of conflict, as well as an underinvestment in necessary infrastructure and subsequent use of inadequate mediums for data collection and management. Additionally, there is a lack of finance at all levels. Without good data, informing policies becomes a challenge, and in sectors such as water, critical for mitigating scarcity and protecting against conflict, that is a critical risk factor. Furthermore, without knowledge around climate change or its security implications, the urgency and opportunities for addressing climate insecurity are weakened.

However, even in an environment of improved data access, the ability to use that data and turn it into effective policy continues to be an important challenge. Capacity limitations, especially around developing, applying policies and systems, and monitoring, inhibit policy development and implementation.[28] These challenges exist at the local level, where data gathering is critical and the effects of climate insecurity are felt most acutely. They also exist at the national level, where government decision makers and technical staff have not had exposure to developing institutional or policy frameworks on important climate related themes, such as biodiversity conservation or land management. Creating effective institutional frameworks, policies or monitoring regimes helps avert potential conflict risks, especially in areas like water management.

## FINANCIAL CAPACITY CONSTRAINTS

Though the country has vast oil reserves, Iraq's financial position remains precarious. The war has had a particularly important effect on the financial health of the country, and for almost two decades, it has required considerable attention and investment. This is in addition to the implications of war on a nation's economic development. However, the cost of war and its associated economic burden only partly explain the country's poor finances: the shape of the economy and its financial mismanagement have been important contributors. First, Iraq's reliance on oil, at around 90 percent of government revenue, to fill coffers leaves it susceptible to international market forces.[29] Alternative revenue streams are insufficient to buttress against lower oil prices. Second, financial mismanagement has meant that even when oil windfalls are available, the country is not able to capitalise on them. Governments have historically prioritised political interests or maintained inefficient and expensive public payrolls and subsidies.[30] Given this misallocation, other crucial sectors become underinvested, such as those critical to human capital (and therefore institutional capacity) or climate security. For example, the MoWR received only 1 percent of the budget in 2021.[31] This poses considerable challenges that, without addressing, lead to dilapidated infrastructure and a "winner-take-all" politics as governorates scramble to secure limited resources. More urgently, it also means implementing important policies and priorities becomes very difficult to do. This has affected important sectors for climate security, such as the lack of follow-through on the SWLRI.[32]

Though the government has increasingly taken steps to access climate finance, the country only recently completed its NDC in 2021. This step was critical to making over USD$100B available for mitigation and adaptation activities that are only now available for Iraq. With that said, there has been preparatory work to help integrate and respond to climate change, such as the GCF's support to strengthen the country's Nationally Designated Authority (NDA), but more needs to be done.[33]

## GOVERNANCE CONSTRAINTS

Ultimately, important governance challenges impede policy development, on top of climate change, mitigation and adaptation, and climate security. First, the reality is that climate change, especially up until now, has just not been a priority. Given the immediacy and severity of war, the government has been more focused on alleviating poverty, ensuring economic development, and maintaining security, rather than on dealing with climate change and subsequently climate security.[34] Second, short-term opportunism undermines the state's ability to respond to medium- and long-term climate security threats.[35] Because Iraq is made up of different factions sharing power, decision-making processes can become hamstrung or bogged down. Additionally, due to the nature of Iraq's political settlement, political actors may prioritise their constituents, seeking short-term gains over long-term planning.[36] Furthermore, because power is informally shared among specific groups, certain groups can hold up meaningful changes and reform or subvert or ignore policies altogether.[37] Collectively, these arrangements reduce trust and faith in government, undermining activities and initiatives that the government puts forward. Last, decentralisation continues to face challenges with important implications for climate security adoption. First, because bottom-up processes do not feed into high-level decision-making, policies and plans run the risk of ignoring on-the-ground realities with important consequences for insecurity.[38] Second, governorates and subregional actors remain under-resourced, impacting their ability to plan and act on climate change, let alone provide adequate services generally.[39] And last, roles and responsibilities are not clearly delineated, impeding several aspects of policy development and implementation, including strategic planning, resourcing and enforcement.[40]

# Recommendations

Though progress has been made in identifying and planning for climate change, climate security within Iraq's institutions and policy mix remains limited. To make sure Iraqi institutions and policy mix are fit for purpose to effectively mitigate or manage climate insecurity, the country needs to better integrate climate security considerations and begin to plan for them in a concerted way. In this way, the country can embark on a coordinated effort to address the human and traditional security implications from climate change, ensuring synergies among the different sectors involved and ultimately improving outcomes.

Several inhibitors have blunted climate change and climate security's mitigation and adaptation actions thus far. Most critically, a lack of awareness and knowledge of climate and conflict interlinkages, as well as more systemic institutional planning and programme development challenges, have been at play. Implementation limitations at the national, subnational and community levels need to be bolstered in order to ensure activities reach local communities. Integrating participatory mechanisms throughout the implementation of this roadmap's various elements will be necessary. This roadmap therefore aims to undertake several important steps towards effective integration, institutionalisation and planning around climate security, creating the capacities and vision needed to mitigate climate change's worst effects. Supporting implementation is an important focus of this roadmap, given that challenges remain most critical there.

It is important to note that climate security does not exist in a vacuum, and this roadmap must work in tandem and build off of previously existing climate action and capacity-building initiatives. For example, this roadmap can draw from initiatives already undertaken as part of the GCF supported NDA Strengthening in Iraq for Climate Finance Programming, Governance, Regional Cooperation and Knowledge Generation project and the UNEP-led Adaptation Planning Support project. The adoption of this roadmap needs to complement these processes, not compete with them. Given the multiple policy priorities and the high costs associated with implementation, regional and international partners are also expected to continue their close cooperation with Iraqi authorities in implementing this roadmap.

Above all, however, for climate change and security action to be realised, urgent and meaningful structural reforms on politics, the economy and security need to take place. These have been articulated in several pieces published by international partners, such as the World Bank Group's Country Climate and Development Report (2022), and recognised within Iraqi policy circles, referenced within both the NDC (2021) and the NDP 2018-2022.

The recommendations were informed by research and analysis carried out throughout the year-long SDG-Climate Facility: Climate Action for Human Security project's Mainstreaming Climate security Considerations into Recovery Pathways initiative, which is an undertaking that brings together the UNDP Regional Hub for Arab States, the UNDP Climate Security Mechanism and the WFP Regional Bureau for the Middle East and Northern Africa. Additionally, stakeholders were engaged during a hybrid workshop held in September 2022 and during an in-person consultation in Cairo in March 2023. Recommendations are subject to the resource constraints and information available at the time of writing. Policymakers are advised to exercise best judgement and invoke the expertise of local communities to guide policy development and implementation.

# Immediate

The importance of advancing this roadmap, in consultation with country stakeholders themselves, cannot be overstated. Climate security is a threat to Iraq, affecting various aspects of Iraqi life. It will likely further undermine already stretched resilience capabilities. The challenges are widespread yet interconnected, with many different areas needing to be addressed coherently and simultaneously. In support of that, a comprehensive strategy and framework to coordinate climate security action is needed at the national level, and one that identifies needs and priorities according to countries themselves. This will help guide both domestic and international policy and programming to address the multi-faceted and complex climate-peace-development-humanitarian nexus that exemplifies climate security issues in Iraq. This integration roadmap is a first step to that end, but it needs to be continued and finalised. International organisations are well-positioned to support national actors in doing so, including the WFP and UNDP. Furthermore, Iraq's own country plans and strategies should reflect the priority areas presented in this Roadmap so as to align donor action and resources with country needs and priorities.

**SUGGESTED ACTIONS:**

- Provide support to country team offices to develop national consultation processes in collaboration with key government stakeholders, in order to review this roadmap's findings and recommendations towards finalisation.

- Review country strategies and plans, as well as ongoing programming, and embed roadmap recommendations accordingly.

Improve climate change and climate security awareness and buy-in.

Recognition of climate change and its societal consequences is rising across large portions of the population. However, there remains an important lack of understanding and learning on climate change and climate security especially. This can have different implications across different segments of society. For political actors and decision makers, a lack of awareness on the scale and scope of climate-change effects threatens to reduce the urgency needed to make it a political priority. Among community groups, such as farmers and urban dwellers, it can impede the sort of behavioral change needed for adaptation to succeed. Across society, collective exposure and understanding on how different groups might be affected, as well as the national nature of these effects, can spur collective resolve to act. Finally, through peer-to-peer exchange, potential areas of collaboration and compromise among otherwise antagonised actors may spring up in response to shared threats, around water use, for example. By advancing knowledge on climate change and its implications, especially when different segments of society are targeted and engaged, entry points for climate action, from policy to mitigation to adaptation to, crucially, conflict resolution, can emerge.

**SUGGESTED ACTIONS:**

- Create a communication and dissemination strategy aimed at local communities, focusing first on those at risk of climate-change effects, such as youth or farmers. The communication strategy needs to have different elements, from workshops at farmers' associations, to lectures at universities, all the way to digital media aimed at digitally-connected youth groups. It is important to highlight both the implications of climate change and the activities already under way led by the state, NGOs, community groups and individuals, to showcase that climate action works and is worth investing in.

- Convene a series of dialogues between local governments and communities from different geographies. These dialogues should focus on discussing the localised implications of climate change, such as water scarcity, while highlighting the importance of mutual cooperation to advance climate goals. If possible, how climate issues have contributed to violence reduction and facilitated conflict prevention should be highlighted. These sorts of dialogues can be useful to inform planning stages too, so if applicable and necessary, undertaking facilitated dialogues to identify potential cooperation points, especially for conflict prevention, could be included.

- Create a training package and series of capacity-building workshops for high-level officials in both key ministries and at the governorate level. This training package and workshop series needs to provide participants with a thorough understanding of climate security, presenting examples from across the country. Participants can workshop identifying climate security linkages and possible solutions. It is important this package is cross-sectoral and participants come from different entities. Governorates should be prioritised, as well as key ministries identified by the government. Whenever and wherever possible, local partners should be engaged, either as workshop facilitators or as presenters of climate implications.

## Short-term

> **Identify and strengthen capacity of national coordination committee.**

In order to integrate climate security across government, as well as plan for climate security responses, coherent and effective coordination is paramount. A suitable institution needs to be identified that can act as a central coordination mechanism able to reach across government, ultimately leading a whole government approach to climate security integration and planning. In addition to leading in coordination, the body will act as a focal point that can assist the government with planning and implementation work around climate security, as well as technical integration into pre-existing policies or policies currently under development. Ideally, the body itself should already be working on climate change themes, such as the PNCCC, NCCC or MoEnv, and have political influence to move this initiative forward, such as the president's office. For the body to operate effectively, the institution needs to be formalised and have a legal basis for action. Ultimately, having a leading climate security coordination body can provide the direction and guidance needed to ensure all of government is engaged, and that future plans and approaches complement and build off of each other.

**SUGGESTED ACTIONS:**

- Establish a taskforce to review and identify the best-suited body to lead intergovernmental coordination and technical efforts around climate security policy development and implementation.

- Following the identification of a competent authority, undertake a technical-needs assessment in order to identify possible gaps in coordination, assessment and monitoring capacities. Undertake corresponding training activities and develop thorough competence in climate security.

- Develop a framework for cross-ministerial coordination. This framework should be accompanied with a stocktaking exercise that identifies relevant government entities, including ministries or units working on climate change, mitigation and adaptation, and conflict prevention and resolution. Core-support entities, like the MoF and MoP should be engaged. Identifying or adopting pre-existing coordination protocols and processes should be encouraged. Adopting international best practices or frameworks developed as part of other projects or initiatives, such as the NAP process, should also be encouraged.

- Adopt legislation that enshrines the intergovernmental coordination committee, and be sure to identify the relevant agencies and bodies' roles and responsibilities from the outset. This should be championed by actors at the highest level to secure buy-in, and it should also be integrated directly into the budget.

## Initiate knowledge and learning on climate and security.

Complimenting coordination of government action on integrating and responding to climate security is up-to-date information on climate security's key themes in Iraq. These themes range from climate data, analysis on the social implications of climate change in any given governorate, and an understanding of direct conflict links as a result of climate change gleaned from communities. Knowledge on limitations of government action vis-à-vis climate change, local-level inhibitors to implementation or locally-led anticipatory and prevention responses can enrich policies and plans and focus efforts. Ultimately, good data allows for pre-existing policies and plans to be up-to-date and accurate. They can also support already-established government initiatives, such as disaster-response mechanisms or social protection policies. It can also mean that future policies and plans that will be put in place are adequately informed and priorities for action can be identified.

**SUGGESTED ACTIONS:**

- Design and undertake a multi-sectoral climate security-assessment to review and identify current and future climate security issues, affected vulnerable groups and communities, and activities already undertaken to address them at national and subnational levels. This review aims to identify priority areas for action and will directly inform both national- and subnational-level climate security strategies. Given that some research has already been done along climate security themes, previous strategies and assessments should be fed into this work so as to not duplicate research. Expand consultation to include groups and communities affected by climate insecurity, civil society of non-governmental organisations and experts. In principle, the previously identified coordinating committee would be responsible for overseeing this work.

- Continue to invest in the digitisation of climate-related monitoring systems, data collection and storage. Focus efforts and resources on improving systems related to conflict sensitive issues. For example, ensure up-to-date and modern water-usage information and storage capacity, or early-warning and disaster response, and feed these into existing plans wherever relevant.

- Consider the development of climate and conflict indicators, and ensure these are embedded into existing monitoring and evaluation frameworks.

## Provide capacity building on developing and adopting climate data and reporting.

Good data and information needs to be accompanied with improved capacities around data integration into planning. The ability to conduct information gathering and then build medium- and long-term plans are both important for climate security planning. National-, subnational- and local-level technical staff should be prioritised. Medium- to long-term planning around climate security, monitoring and evaluation implementation, and data-storage systems within institutions should be their focus. This training can build off of training already done as part of previous support projects – in particular the GCF's NDA support project, which sought to provide capacity to technical staff on medium- and long-term planning. However, training on how to undertake data collection methodologies should be provided to a broader subset of individuals, especially to local NGOs or other associations on the ground. These actors are not only at the front of climate security implications, but they may also be in a position to assist government efforts in implementing climate security programming, since many may already have quite developed data-collection processes and methodologies. Linking up with these organisations can be more cost effective and foster links between government actors and NGOs.

- Develop uniform guides and tools, and provide corresponding training to user groups. These tools can include training materials on climate security, templates for climate security planning, climate reporting, early warning, monitoring and evaluation frameworks, and methodologies to conduct assessments. If needed, draw from international best practices, working with international partners to identify appropriate methodologies and assist in training.

# Medium-term

Identify and integrate climate security into policies, strategies and processes, and ensure alignment and synergies with national development plans and published international commitments.

Though climate change is increasingly prevalent in policy documents and strategies, and climate security considerations are beginning to be reflected too, there remain critical gaps in particularly important policies and strategies related to climate change and insecurity. Therefore, policy actors are encouraged to embed climate change and climate security into existing policies, plans and strategies whenever possible and feasible. Strategies of particular importance, such as the SWLRI, or currently under development, such as the NAP, should be prioritised. Reconstruction plans need to be inclusive of climate security in a much more intentional way. For these policies or those that currently do not exist, such as a water-allocation strategy or climate-change policy, policy design needs to be inclusive and sensitive to typically omitted dynamics, especially around conflict. Furthermore, to the greatest extent possible, policies need to be cross-sectoral and reference other government entities and policies. Therefore, to achieve an intersectional climate security approach, a broad range of stakeholders from multiple ministries should be included in the process, particularly at the early stages.

**SUGGESTED ACTIONS INCLUDE:**

- Undertake a cross-sectoral, cross-ministerial policy review and revision process to identify relevant and necessary policies for review and revision. When revising, ensure alignment and proper sequencing between policies and strategies, and if possible, establish a mechanism within the climate security intergovernmental coordination committee to lead on this work.

- Strongly consider developing critical climate security policies to guide further policy development, regulation and enforcement, especially around water use and management or climate change more broadly.

- Incorporate more funding via government budgets to climate-change research and action. Various activities can be covered here, including the below-mentioned climate security strategies and action plans.

> **Develop medium- and long-term climate security strategies and action plans at the national and subnational level.**

For Iraq to effectively respond to climate insecurity, medium- and long-term strategic planning needs to be put in place at both national and subnational levels. These plans should be holistic, providing domestic policy guidance, a programme-oriented action plan that addresses climate security concerns, and is inclusive of financing options, if not directly embedded within the national or ministerial budget. A monitoring and evaluation framework needs to complement this strategy. Furthermore, these policies should be cross-sectoral to ensure holistic climate security implementation. Strategies should be informed by information gleaned from this roadmap's initial phases. Ultimately, these strategies should provide the steps needed to address climate security concerns, and act as a strategic anchor in Iraq's policy mix around climate change and security more broadly. Since work has already been undertaken in defining responses to climate change and adaptation, and strategies exist on some climate security themes such as water use and land management and biodiversity already, these climate security strategies need to be in alignment with those to avoid duplication and not overwhelm policy actors. Furthermore, the added-value here is the link between peacebuilding and conflict prevention, so plans need to incorporate strategies that put in place or support pre-existing initiatives in addition to those addressing other human security concerns, such as food and water security.

At the national level, consultations should be inclusive of key ministries and other government entities, the donor community and non-traditional security actors, such as NGOs or religious organisations. At the subnational level, consultations need to include the diverse range of actors impacted by climate security's effects, including traditional and non-traditional security actors as much as possible. Space needs to be provided to ensure their contribution and participation as these plans require local buy-in to the greatest extent possible.

**SUGGESTED ACTIONS:**

- Produce climate security strategy and action plan at national and subnational levels, building off of knowledge acquired and priorities identified in previous roadmap steps. It is important that this process and the subsequent outcomes be embedded within the country's institutional framework, either as an endorsed policy, within a broader policy or tied to NDPs. Embedded within this strategy should be a range of policies and regulations across the breadth of climate security, streamlining and coordinating action.

- Develop and embed a tailored and extensive monitoring and evaluation framework, building off climate and conflict indicators and establishing baselines.

- Build in adequate funding, sourcing funds domestically to support sustainability but also tapping into climate finance or PBF funding options with the support of international partners. Users of this roadmap can reference the World Bank's Climate and Development Report, which also lays out needed economic reforms and proposes a few ways to support climate financing, such as developing a Green Sovereign Wealth Fund.[41]

- Produce a comprehensive communication and dissemination campaign.

# Long-term

> **Alleviate programming and institutional constraints that inhibit adoption and action on climate change and security.**

Policy development is an important step in not only mainstreaming climate security but also articulating actions to address identified insecurities. However, previously-mentioned challenges in implementation need to be rectified if these analysis, policies and strategies are to have meaningful impact on the ground. Addressing some of the most pressing constraints remains outside of the scope of this roadmap, but several focus areas can be targeted in the interim, while other reforms take shape. To implement climate security, capacity building around turning policies into actions and designing climate security programmes, including monitoring and evaluation, applying for funding and disseminating communication materials, is particularly useful. Focusing on ensuring programmes and initiatives are cross-sectoral, referencing the interlinkages of climate and conflict, and link climate risk, adaptation, conflict prevention and peacebuilding should be made. Given the diverse set of actors relevant in addressing climate security issues, efforts should be undertaken to expand training possibilities beyond institutional actors, and should incorporate local associations, civil society, and where possible, conflict actors.

**SUGGESTED ACTIONS:**

- Develop a climate security programming guide that can be applicable and shareable across subnational- and district-level organisations. Emphasis within these guides should be on translating policies into programmes and activities, methodologies on how to identify climate security links, and monitoring, evaluation and learning. Consider undertaking an additional needs assessment to identify additional capacity gaps. For example, it may be important to provide consultation methodologies to ensure cross-sectoral and cross-community dialogues are done in a conflict sensitive manner.

- Working with local partners on the ground, develop a repository of potential partners and projects. Ensure the identification of key implementation partners, especially NGOs, community leaders and religious institutions. Furthermore, using previous analysis and further data collection, identify initiatives that can be replicable in other contexts or scaled up and expanded both as directly implementable projects and also as models to inform best practices.

- Host a yearly donor roundtable, presenting climate security projects under development or already-concluded activities. Invite local-level actors to lead these presentations and showcase both success stories and challenges.

# Endnotes

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3   Ibid.

4   Ibid.

5   Ibid.

6   Ibid.

7   World Bank Group 2022. Iraq Country Climate and Development Report. Prepared with assistance of International Finance Corporation and Multilateral Investment Guarantee Agency.Washington, D.C.: World Bank Group. Retrieved from: https://openknowledge.worldbank.org/handle/10986/38250.

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13   adelphi and CGIAR 2023: Workshop Proceedings.Cairo.

14   von Lossow, Tobias and Laura Irina Patrahau 2022: Water Governance in Iraq. Enabling a Game Changer. Prepared with assistance from Clingendael Institute. Retrieved from: https://waterpeacesecurity.org/files/245, 22.02.2023.

15   Almosly, Mohamed Riyad M. 2019: The Composition and Competences of the Main Official Environmental Institutes in Iraq.Prepared with assistance from Institut für Auslandsbeziehungen and Elbarlament. Retreived from:https://cleantigris.com/wp-content/uploads/2021/05/Mohamed-Almosly-The-Composition-and-Competences-of-the-Main-Official-Environmental-Institutes-in-Iraq.pdf, 23.02.2023.

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# WEATHERING RISK

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