RICE UNIVERSITY'S
Baker Institute
for Public Policy

The Climate Change-Conflict-Displacement Nexus in the MENA Region

RICE UNIVERSITY'S Baker Institute for Public Policy

The Climate Change-Conflict-Displacement Nexus in the MENA Region

Kelsey Norman, Ana Martín Gil, and Robert Barron

This publication was produced in collaboration with Rice University's Baker Institute for Public Policy. Wherever feasible, this research was reviewed by outside experts before it was released. Any errors are the author's alone.

The Climate Change-Conflict-Displacement Nexus in the MENA Region

Assessing the Climate Change-Conflict-Displacement Nexus

In recent times the world has witnessed an increase in the intensity and frequency of sudden-onset weather events, such as wildfires, cyclones, hurricanes, and floods.[1] Weather-related disasters already displace approximately 20 million people internally every year, and international institutions estimate that, without coordinated adaptation and mitigation measures, the likelihood of climate-related displacement will rise as the effects of climate change intensify.[2]

Although the relationship between climate change, conflict, and displacement is not yet fully understood, it poses significant concerns for the Middle East and North Africa (MENA). Environmental stress — whether as a result of climate or due to human-related factors — can add to preexisting political instability and several factors specific to the region intensify the risks:

- While the rest of the world is seeking to avoid a 1.5 degree Celsius temperature increase in the decades ahead, a 4–5 degree C increase is forecasted in the Middle East.[3] The region is warming nearly two times faster than the global average, potentially impacting agricultural production and causing desertification in a region that is already one of the most water scarce in the world.

- Parts of the region — in particular, North African states bordering the Mediterranean Sea — are simultaneously vulnerable to sudden onset climate events like hurricanes or floods as well as sea-level rise.

- Several countries in the Middle East that are the largest hosts of refugees and internally displaced persons (IDPs) in the world — Lebanon, Jordan, Iraq, Syria, and Yemen — also suffer from a scarcity of natural resources and are expected to be the most impacted by climate change going forward.

Background and Key Components for Further Consideration

The Baker Institute Edward P. Djerejian Center of the Middle East and the United States Institute of Peace convened a set of six closed-door virtual sessions between June 2023 and March 2024, gathering experts to address a sequenced set of discrete issues geared toward the development of actionable recommendations, while inviting audience members — including researchers, practitioners, and government representatives — to contribute to the conversation. These sessions analyzed the

overlapping challenges posed by climate change, conflict, and displacement in the MENA region, seeking to establish a set of recommendations that can be presented to policymakers on these issues. This report is the culmination of those discussions.

Importantly, throughout the workshops and now in this report, we have been cautious not to view climate change as having a deterministic relationship with conflict, violent protests, resource scarcity, or even displacement. This is because framing the climate change-conflict-displacement nexus as inevitable removes responsibility from government officials and other authorities, viewing them as passive victims of nature, rather than political actors.[4]

In the Middle East context, a well-worn example of an overly deterministic take on the role of climate change, conflict, and displacement was the attribution by some scholars and practitioners of the Syrian civil war to climate change. In this account, increased rural-to-urban migration from Northeast Syria — as a result of climate-induced drought — strained urban environments and resources and ultimately lead to conflict and displacement. This theory was debunked, as the Syrian government's poor policy decisions were shown to have had the most pronounced effect on rural-to-urban migration in Syria in recent decades.[5] Still, it is one example of how attributing too great a role to climate change allows the international community to ignore other factors like poor governance, repression, and failed economic policies, all of which impact the likelihood of conflict or displacement.

Scaremongering accounts of the relationship between climate change, conflict, and displacement persist, utilized by political actors — usually in the Global North — to either push for climate-related action or stoke anti-immigrant fears, respectively.[6] While avoiding this approach, we acknowledge that climate change is likely to play some role in the propensity for conflict or in the likelihood of displacement, currently and in the future. As such, this report takes stock of the existing evidence, and considers how countries in the MENA region can mitigate concerns over natural resource scarcity, implement sustainable practices, provide equitable services, develop inclusive socioeconomic policies, and instigate climate change adaptation processes.

Ultimately, we argue that piecemeal efforts by individual states and actors in the region to address these challenges will not be enough. Rather, regional, coordinated efforts, and strategy are necessary. Such a strategy will not only improve lives and livelihoods in one of the world’s most environmentally stressed regions — but can also forge new opportunities for trust and cooperation in the regional political landscape. The following sections cover four subthemes that were identified through our workshop series as key components of the climate change-conflict-displacement nexus, which we will examine in turn:

1. Natural resources.
2. Urban fragility.
3. Gendered impacts.
4. International financing.

Subtheme 1: Natural Resources

Natural resource scarcity, which can be exacerbated by climate change, is undoubtedly affecting and will continue to impact the MENA region. Water insecurity is one of the most pressing issues facing the region, which hosts 12 of the 17 most-water-stressed countries in the world.[7] Furthermore, nearly 40% of the MENA region's population lives in rural areas, meaning that the livelihoods of millions of people are intrinsically linked to the availability of water supply for agricultural and pastoral economic activities.[8] Food insecurity is also a concern due to the region's reliance on food imports and conventional agricultural techniques. Despite only hosting about 6% of the world's population, it accounts for 12.2% of the global undernourished population.[9]

It is important not to overemphasize this relationship between natural resource scarcity and conflict. There are many examples of a country's population experiencing natural resource stress without conflict ensuing. It is also critical to acknowledge how pre and post-independence conflicts increased environmental degradation and set the ground for the poor governance of natural resources in many countries across the MENA region.[10] Even with these considerations, key examples illustrate how natural resource scarcity can impact the likelihood of conflict, such as the fighting over depleting underground water in Yemen, the conflict between Chad and Sudan over pastoral lands, and social tensions over access to groundwater in the Bekaa Valley in Lebanon.[11]

Two prominent examples of countries in which conflict, climate change, and displacement have the propensity to interact are Iraq and Jordan.

Iraq

In Iraq, water shortages are a major concern, with upstream and downstream watershed zones facing different challenges.

- In the Euphrates upstream area, desertification has been on the rise since the early 2010s — coupled with unregulated water use — reducing agricultural yields and increasing urbanization, which in turn likely contributed to and accelerated the rise of Daesh.[12] As a tactical method of control, Daesh seized hydroelectric dams across this zone, placing pressure on local governments and communities.

- Within the Tigris upstream area, tensions between Baghdad and the Kurdistan regional governments have disincentivized Iraq from investing in infrastructure that will serve a disputed territory, leading local communities to turn to militias for assistance with water control.

- In the Tigris-Euphrates downstream confluence area, national level failures to ensure water access have given way to the rise of "water mafias," which are groups that can provide fresh water and intervene in disputes.[13]

Ultimately, water shortages in Iraq — which are the result of poor governance, competing interests, and climate change — have had immediate impacts on individual's lives. The International Organization for Migration (IOM) estimated in 2023 that more than 21,798 families (or 130,788 individuals) had been displaced across ten governorates in central and southern Iraq as a result of climate change and drought.[14]

Jordan

Even before the arrival of large numbers of refugees, whether Syrians or other nationalities, Jordan was an extremely water scarce state. According to the World Bank, the Jordanian population has doubled since 2000, with refugees residing in primarily urban areas, raising the demand for water by 40%.[15] Agriculture is a main driver of water scarcity, consuming almost 50% of Jordan's fresh water, even though it accounts for only 5% of the national gross domestic product (GDP). Domestic agriculture is also a main source of employment for refugees, as the agricultural sector supplies 47% of work permits for refugees, and many more work in this sector informally.

Over time, it is predicted that climate change will result in 30% less water per capita in Jordan as soon as 2030. Jordan therefore illustrates how the climate change-conflict-displacement nexus can manifest: Conflict in Syria drove cross-border displacement, resulting in subsequent strains on urban environments, compounded by the effects of climate change as they impact water scarcity.

Policy Recommendations: Natural Resources

When seeking solutions to natural resource scarcity and its relationship with climate change, conflict, and displacement, there are several policy recommendations to consider:

- **Shift governmental practices to build water systems' sustainability** — This involves moving beyond short-term measures and funding cycles to integrate sustainability within broader developmental efforts.

- **Invest in infrastructure and adequate maintenance** — Much of the focus on strained infrastructure — as a result of both climate change and increased usage due to the arrival of refugees — is, at its core, an issue of proper maintenance and upkeep. This includes water storage, treatment, and provision systems. Raising local awareness about solutions to water overuse and scarcity can also lead to greater investment by communities in water maintenance.

- **Address underlying governance issues** — Water security cannot be achieved through technological or mega-infrastructure solutions alone. Rather, political conflicts between national, regional, and local governments must be addressed, and political interests need to be incorporated as part of climate change mitigation measures.

Subtheme 2: Urban Fragility

In line with global trends, during the 20th century the MENA region witnessed profound shifts in how and where its people live. Between 1960 and the end of the century, the percentage of the region's population living in cities increased from one-third to 60%.[16] By 2022, the region-wide average was two-thirds urban to one-third rural.[17] These patterns are similar to statistics worldwide: Between 1960 and 2022, the percentage of the population living in cities grew from 34% to 57%.[18] By 2050, the United Nations (U.N.) estimates that 68% of the world will live in cities.[19] Urbanization is driven by many factors: economic, educational, sociodemographic, agricultural, and more. As the effects of climate change become more pronounced, we can expect the rural-to-urban migration rate to continue to grow.

In much of the Middle East, the expected benefits of urbanization — such as improvements in lives and livelihoods — have not necessarily kept pace with rapid urban population growth. Housing, economic development, public services, water and electricity access, transportation, and environmental protection have often been overwhelmed, leading to congestion, economic inequality, health disparities, and considerable sociopolitical stressors. As more and more people settle in the region's city centers over time, there are likely to be continued challenges around urban and political fragility.

Political fragility is defined as "the absence or breakdown of a social contract between people and their government."[20] As urban growth continues, governments of the MENA region may struggle to provide the expected public goods — including security, housing, public services, and economic opportunity — to existing and new urban inhabitants. The breakdown of the social contract was the central impetus leading millions to take to the streets during the 2011 Arab Uprisings.[21] Governments are still wary that the potential of unmet demands for public goods may lead to widespread political unrest.

Housing Shortages and Infrastructure Deficits

Stemming from the increase in rural-to-urban migration, the MENA region faces a significant challenge: the scarcity of accessible and convenient housing due to shortages and skyrocketing rents. In Syria, there is an estimated housing shortfall of 1.5–2 million units, with a 3.5-million-unit shortage in Iraq.[22] Future rural to urban movement will put an even greater strain on housing. Some governments in the region have responded by criminalizing informal housing, but this ignores the underlying issue.[23] Additionally, some policies — such as building new housing stock in distant suburbs and exurbs in Cairo without adequate transportation to economic centers, thereby prioritizing middle- and high-income housing — do little to address economic needs.

In addition to issues around housing, cities across the region have not caught up to popular demand on infrastructure, water, sanitation, and hygiene. As the previous section discussed, the region remains one of the most water stressed in the world, with widespread challenges around water distribution, availability, protection, and efficiency. Further, the region's crowded urban areas — built predominantly with concrete and little green space — can become "heat traps," creating extremely difficult living conditions for a large portion of the year.[24]

Community Impacts

Increased rural-to-urban migration can also be a source of tension in urban neighborhoods and workplaces. Some examples from Baghdad:

- At construction sites the rate of conflict — measured as the number of fights on a daily basis between existing cohorts of day laborers and newly arrived migrants, many of whom have fewer urban workplace skills — has increased.[25]

- The arrival of new migrants has led to heightened social tensions within neighborhoods.[26] New urban arrivals often come from comparatively conservative communities or different religious backgrounds, and the changing demographic mix has led to an uneasy atmosphere.[27]

Lastly, rural-to-urban migration can also impact rural communities as they face the loss of a critical mass of residents necessary to sustain small businesses and farms. For example, various villages in southern Jordan have lost their cafes, restaurants, and other businesses due to residents moving to cities. In many cases, those who migrate tend to have more resources, increasing economic stress on the rural communities that are losing skilled individuals and those in leadership roles. Rural-to-urban migration also impacts gender relations, as the next subtheme explores in greater detail.

Policy Recommendations: Urban Fragility

Although urban migration poses challenges such as urban fragility and stressors from rapid urbanization, it also presents opportunities for economic, political, and social renewal. We recommend these policies to approach the issues surrounding rural-to-urban migration in order to mitigate urban fragility:

- **Focus on urban planning toward resilience** — This requires better data collection around land use, socioeconomic stressors, informal settlements, and related issues.

- **Change regional government incentives to de-emphasize major infrastructure and prestige projects** — Instead, international funding and loans should prioritize helping governments focus on policies that emphasize the inclusive rehabilitation of existing neighborhoods.

- **Develop programs to prepare rural-to-urban migrants to be absorbed into new urban environments and economies** — Programs should help migrants transition as effectively as possible and should also consider the needs of existing communities in order to mitigate social and economic tensions.

- **Study and plan for the best ways to support rural populations staying where they are located** — This includes approaches such as investments in the agricultural sector (for example, access to funding for drought-resistant crops) and coastal defenses to counter sea-level rise and flooding, if feasible.[28]

Subtheme 3: Gendered Impacts

The impacts of climate change vary depending on factors such as an individual's gender, age, race, disability, sexual orientation, class, and other identities. Women — due to their differences in gender roles, responsibilities, lower access to resources, technologies, markets, finances and information, and restrictive sociocultural norms — are more vulnerable to climate-related adversities than men, and this effect is compounded if women are displaced persons or refugees. Additionally, because women are more likely to be caretakers of children and the elderly, often confining them to work inside homes, they are more at risk of the effects of sudden onset climate disasters like floods or storms. In this section we consider the most significant gendered implications of the climate change-conflict-displacement nexus.

Increased Feminization of the Agricultural Sector

The outward migration of men who previously worked in agriculture is leading to dramatic increases in the feminization of the agricultural sector. When farming resources are degraded — whether due to climate-induced changes, or because of poor policy or changing international food markets — individuals working in the sector may look to internal or international migration as a solution in order to support their livelihoods and families.[29] Most often, men move first, leaving women to assume their roles in agriculture.[30] In some countries in the MENA region, this has led to a 50% increase in women's participation in the sector. In Morocco, women's participation has grown from 30% to 60% over the last several decades, and in Egypt from 22% to 40%.[31]

However, women's increased participation and the assumption of greater responsibilities in agricultural production and management can bring challenges. In countries like Egypt and Morocco, women farmers are often excluded from training programs designed for male farmers, have limited access to credit, and lack access to equitable land rights.[32] Women also contend with erratic incomes, insecure work, inequitable access to social safety nets, and unaffordable or unavailable childcare.[33] Collectively, these factors mean that women — despite being more involved in agriculture — are unable to make decisions on par with men, which would otherwise enable them to adapt and thrive despite challenges to the sector, including the effects of climate change.

Other Gendered Impacts of Climate Change on Refugees

We should also consider the gendered impacts of climate change on refugees — both how climate change may increase the propensity for conflict that drives displacement, and also how it impacts the livelihoods, living conditions, and overall well-being of individuals living as refugees in host countries.

In the context of the civil war in Sudan, Sudanese women are disproportionately bearing the effects of the unabating violence. While the conflict (which began in April 2023) is centered around power, it is also about access to land, water, and other vital resources. A majority of the 8 million people displaced are women and children, and many women are forced to flee with their children, thus becoming female-headed households, which can lead to several protection risks, especially the likelihood of gender-based violence (GBV).[34]

Nearly 500,000 Sudanese refugees who have managed to cross an international border now reside in Egypt. They have predominantly settled in overcrowded urban areas, where women face restrictive and discriminatory policies, as well as protection issues and a lack of basic services.[35] As discussed in the previous section, cities like Cairo are subject to increasingly hot temperatures during summer months, and apartments in the poorer neighborhoods where Sudanese refugees live are generally not equipped with methods for cooling.

In contrast, more than 500,000 Sudanese refugees have fled to Chad, which is a severely under-resourced country that suffers from water shortages and drought. Most of these refugees are from agricultural backgrounds, but in Chad they cannot grow their own food given the country's water scarcity.[36]

The case of Syrian women refugees in Jordan also demonstrates how conflict, displacement and climate change can intersect in challenging ways. In Zaatari and Azraq camps in northern Jordan, the infrastructure and available services were already in poor condition before the arrival of refugees, with water mostly delivered by truck. Drivers of water delivery trucks in the camp have been more likely to respond to requests by men than women, and women are sometimes harassed by those drivers, who tell the women to go back inside their homes.[37]

IDPs are also affected by water scarcity. In Yemen, the weaponization of water over eight years of fighting has exacerbated the acute famine and prolonged the conflict. As women and girls are usually responsible for gathering water, they have been especially affected — driven by necessity to undertake unsafe journeys into conflict-impacted areas with greater exposure to land mines.[38]

Policy Recommendations: Gendered Impacts

To mitigate the gendered impacts on women experiencing displacement, government actors and international organizations (IOs) can take several key steps:

- **Tackle gender inequality and disempowerment as a strategy for adapting to climate change and building resilience** — In some instances, the impacts of slow-onset climate change can be mitigated by promoting women's equality in law and policy implementation, such as amending women's land rights for those working in agricultural production.

- **Collect gender-disaggregated data around the confluence of climate change, conflict, and displacement** — Because gender roles matter when considering how individuals will contend with the effects of slow-onset climate change and sudden climate-related events, gender sensitive collection of data and analyses that distinguish gender and the consequences of environmental change are key.[39]

- **Educate about gender discrimination and gendered protection issues** —Dealing with gender discrimination and protection challenges like GBV requires education — in partnership with local and refugee-led organizations — as well as a gender-sensitive provision of resources and services, in tandem with sustainability-focused approaches to livelihoods, shelter, and assistance.

The previous sections illustrated the possible avenues by which climate change impacts can heighten the propensity for conflict or lead to displacement. The next section discusses the international financing that will be needed to tackle its effects.

Subtheme 4: International Financing

In the last several years, numerous countries have pledged billions of dollars for climate action — for example, $12.8 billion was pledged in late 2023 at COP28 in Dubai — and the topic of climate-induced displacement is receiving increased attention. At COP28, the Director General of the International Organization for Migration (IOM), Amy Pope, argued that the private sector should play a central role in supporting climate mobility and forecasting which communities are going to be most at risk.[40] The loss and damage fund operationalized at COP28 included the term "human mobility" for the first time, meaning that "countries, communities and organizations will be able to apply for money under the fund to address human mobility needs."[41] Despite this progress, funding for climate-induced displacement projects is still lacking — climate donors have been reluctant to fund these types of projects due to heightened politicization around the issue of migration, and uncertainty as to which approaches work best.[42]

The three main issues with international financing for climate change are:

1. Countries that are most vulnerable to its effects are not those receiving funding.
2. Multilateral development banks (MDBs) primarily work via investment loans rather than grants.
3. The main channels to implement climate-related projects are, at present, recipient governments and U.N. agencies.

A brief explanation of each issue follows.

1. The Most Vulnerable Countries Are Not Receiving Funding

There is a clear discrepancy between allocation of funding and need. According to a 2022 International Federation of Red Cross and Red Crescent Societies report, countries that are highly or very highly vulnerable to climate change received less than a quarter of the available adaptation funding per person: The majority of such financial assistance went to countries considered to have low or very low vulnerability.[43]

The report also found that over half of the most at risk countries were experiencing a humanitarian crisis and dependent on humanitarian support. Moreover, in countries vulnerable to the effects of climate change, such as water-scarce Jordan, that already host large numbers of refugees, this means climate-related financing is not reaching those refugee populations.

2. MDBs Primarily Provide Investment Loans, Not Grants

Multilateral development banks — which are in a strategic position to invest in projects related to climate-induced migration due to the volume of their investments and their long-term returns — primarily work via investment loans rather than grants.[44] Many countries, including in the MENA region, are already struggling with inflation and servicing their existing debt burden and cannot take on further loans. For example, as of the last quarter of 2023, Egypt and Lebanon's external debt accounted for 40.5% ($168 billion) and 34.6% ($34.6 billion) of their GDP, respectively.[45] The current architecture of international climate financing is not meeting the scale of the climate challenge or the needs of recipient countries.

3. The Main Implementation Channels Are Governments and UN Agencies

At present, the main channels to implement climate-related projects are recipient governments and UN agencies, such as the United Nations High Commissioner for Refugees (UNHCR) or United Nations Development Programme (UNDP).[46] UNHCR is the single largest actor in this space, and its main purpose is centered around material aid and infrastructure, which means it is focused on responding to climate change-induced events rather than prevention and adaptation.

It is also important to highlight that projects tend to fail when the organizations implementing them are not aware of existing interests and power dynamics, something that can be seen in refugee camps and urban areas across the MENA region. For example, in some refugee camps in the region where solar panels have been installed, the existence of diesel cartels presents a barrier to maintaining these renewable energy sources.[47] Because the cartels may sabotage solar infrastructure to protect their interests, it is vital for international funders and implementers to engage and work with them.

Promising Examples

Despite these challenges, there are promising examples of financing being invested in relief, resilience, and adaptation work in the region:

- An 8-year-long $30 million project repairing water infrastructure at the border between Syria and Jordan has benefited 1.2 million Syrians and Jordanians. Although the program was created as a response to the Syrian conflict and subsequent increased arrivals of refugees, it evolved from emergency interventions to remedy the lack of water in host communities, increasing the water share per capita and strengthening the resilience of the water system.[48]

- In the course of upgrading 48 homes and building three new ones in low-income areas across Jordan, the Affordable Housing Project — funded by the United Kingdom's Department for International Development — simultaneously trained local refugee builders on green practices and efficiency techniques.[49]

Policy Recommendations: International Financing

To address the gaps in international financing for climate-induced displacement, government actors and IOs can:

- **Increase the number of grants and the amount of concessional funding available for low-income countries and countries highly vulnerable to climate change** — Even if loans are the easiest to scale, these low-income and vulnerable countries cannot continue to incur more public debt: Instead, they need to receive other sources of financing such as grants and concessional funding. Debt forgiveness programs or debt swaps for hosting refugees could be another possible solution.

- **Engage with local actors before and during project implementation** — By obtaining a better understanding of local contexts, living conditions of refugees and host communities, power dynamics, and community interests, implementing actors can enhance project effectiveness and sustainability.[50]

- **Put further emphasis on using financial instruments to empower local actors** — IOs can focus on engaging local initiatives, adapting curricula to teach college students about climate stress, building carbon accounting within government and nongovernment organizations, and improving local livelihoods and living conditions.[51]

Key Principles and Final Insights

Several insights emerge from this multifaceted analysis detailing the effects of the climate change-conflict-displacement nexus on the MENA region, in the past, present, and future. To ensure a sustainable and evidence-based approach to combatting climate-induced displacement, policymakers should consider these five key principles:

1. **Climate change must be considered both at the onset and in the aftermath of displacement** — It is not possible to draw a linear relationship between climate change, conflict, and displacement, nor is it possible to assume that climate change will impact those who are displaced in a singular manner. Instead, climate change and its various impacts should be a consideration in both mitigating the need for individuals to leave their homes — whether through improvements to infrastructure, the governance of shared resources, or agricultural adaptation techniques — as well as in the ways that governments and IOs respond to displaced peoples.

   Example: While climate change may have contributed to the Sudanese civil war by placing additional stress on natural resources, it also has consequences for those who are displaced as a result of the fighting. Many Sudanese have fled to Chad, a severely under-resourced country that suffers from water shortages and drought. Most of these refugees come from agricultural backgrounds, however, due to significant challenges accessing water, they are unable to sustain their livelihoods in agriculture. Those who fled to Egypt face a different set of challenges, including overcrowding in urban environments and strains on infrastructure.

2. **The themes discussed in this report are not disparate topics: In fact they are closely intertwined** — Though this report examines each theme in a separate section, in reality they all intersect. As such, possible solutions need to be multi-scalar, gendered, and involve the perspectives of those most impacted by the effects of climate change.

   Example: One cannot examine the impact of climate-induced rural-to-urban migration on urban fragility and the consequences for those left behind in rural areas without also considering gender. In the Egyptian context, men residing in rural areas have largely been the first to relocate to cities, creating multifaceted challenges for women, who often step into leadership roles, despite facing discriminatory laws regarding inheritance and land rights.[52]

3. **It is important to consider possible reverse causality when looking at impacts of climate change on conflict or displacement** — War has devastating, long-lasting environmental effects — including pollution, toxicity, and water and soil contamination — that contribute to climate change.[53] Those effects can make areas uninhabitable long after a conflict is over and may be exacerbated by climate change, ultimately forcing individuals to look elsewhere for shelter, employment, and safety.

   Example: The destruction of urban spaces in Gaza as a result of the current Israel-Hamas conflict, in addition to the poisoning and depletion of its environmental resources, may take generations to recover from. Even after the current fighting subsides, it is unclear where Gaza's large displaced population will live.[54]

4. **An environmental justice approach should frame the provision of climate financing** — Global North countries should deliver on their commitments to climate funding through measures that allow the least resourced countries to access it. Those implementing projects, usually IOs, should engage directly with vulnerable populations, including refugees, other displaced individuals, and host communities, to ensure the funds are allocated in a way that meets their needs.

   Example: The countries hardest hit by climate change, often compounded by conflict and hosting substantial refugee populations, are typically those least responsible for its causes, yet endure its severest consequences.

5. **The urgency of addressing climate change needs to be balanced against framing it as inevitable or resorting to fear tactics** – Climate change should be seen as a pressing issue that needs to be included in policy analysis, planning and proposing solutions, but government actors should still be held accountable for the environmental impacts of their decisions and actions.

   Example: Iraq was highlighted throughout our workshop series as being at the epicenter of the impacts of climate change, intermittent conflict, and lingering issues of displacement. Yet it is also impossible to separate the current environmental devastation in Iraq from decades of U.S. occupation or very deliberate political actions, such as Sadaam Hussein's draining of the country's marshlands to crush an insurgency and the subsequent displacement of indigenous Marsh Arabs.

In summary, any analysis of how climate change will impact conflict and potentially lead to displacement — whether in the MENA region or elsewhere — must consider underlying political decisions and refrain from viewing governments as passive actors, subject to environmental impacts. This approach brings more solutions to the fore. If the ways that climate change affects conflict and displacement are not foregone conclusions, there is greater potential to mitigate and avoid its deleterious effects.

Acknowledgements

The authors thank the following experts for their contributions to the workshop series that formed the basis for this report:

Ariel I. Ahram — Virginia Polytechnic Institute and State University
Walid Ali — United Nations Development Program (UNDP)
Tegan Blaine — United States Institute of Peace (USIP)
Devon Cone — Refugees International
Reva Dhingra — International Rescue Committee
Elizabeth Ferris — Georgetown University
Natasha Hall — Center for Strategic and International Studies (CSIS)
Lawrence Huang — Migration Policy Institute (MPI)
Merissa Khurma — Wilson Center
Glada Lahn — Chatham House
Nicholas R. Micinski — University of Maine
Dina Najjar — International Center for Agricultural Research in the Dry Areas (ICARDA)
Peter Schwartzstein — Wilson Center
Mona Yacoubian — USIP

We also thank undergraduate student research assistants, including Adrienne Bradley, Imogen Brown, Bela Koshy, Poema Sumrow, Sarah Sowell, and Beyza Yildirim, for their assistance with notetaking and transcription. Thank you also to Tegan Blaine and Caroline Dibble at USIP for their feedback and input.

Notes

Parts of this report were drawn from the research presented at our closed-door workshops by the experts listed above. When a citation to a specific report is not available, we instead cite the broad body of work of the expert.

[1] United States Environmental Protection Agency (EPA), "Climate Change Indicators: Weather and Climate," July 26, 2023, https://www.epa.gov/climateindicators/weather-climate.
[2] Internal Displacement Monitoring Centre (IDMC), "Global Report on Internal Displacement (GRID) 2022," accessed April 20, 2024, https://bit.ly/44yXDdf; The World Bank, "Climate Change Could Force 216 Million People to Migrate Within Their Own Countries by 2050," press release no. 2022/12/CCG, September 13, 2021, https://www.worldbank.org/en/news/press-release/2021/09/13/climate-change-could-force-216-million-people-to-migrate-within-their-own-countries-by-2050.
[3] George Zittis et al., "Climate Change and Weather Extremes in the Eastern Mediterranean and Middle East," *Reviews of Geophysics* 60, no. 3 (2022): e2021RG000762, https://doi.org/10.1029/2021RG000762.

[4] Marwa Daoudy, Jeannie Sowers, and Erika Weinthal, "What Is Climate Security? Framing Risks around Water, Food, and Migration in the Middle East and North Africa," WIREs Water 9, no. 3 (May/June 2022): e1582, https://doi.org/10.1002/wat2.1582.
[5] Daoudy, *The Origins of the Syrian Conflict: Climate Change and Human Security* (Cambridge: Cambridge University Press, 2020), https://doi.org/10.1017/9781108567053.
[6] Hein de Haas, *How Migration Really Works*: *The Facts about the Most Divisive Issue in Politics* (New York: Basic Books, 2023).
[7] Center for Strategic and International Studies (CSIS), "Water and the Future of the Middle East," accessed April 20, 2024, https://www.csis.org/programs/middle-east-program/major-projects/middle-east-transformation-initiative/water-and-future.
[8] Amal Kandeel, "Freshwater Resources in the MENA Region: Risks and Opportunities," Middle East Institute, July 10, 2019, https://www.mei.edu/publications/freshwater-resources-mena-region-risks-and-opportunities.
[9] Nejla Ben Mimoune and Hana El Shehaby, "Breaking the Cycle: How Can the MENA Region Tackle Food Insecurity," Middle East Council on Global Affairs, February 28, 2023, https://mecouncil.org/publication/breaking-the-cycle-how-can-the-mena-region-tackle-food-insecurity/.
[10] Amal Kandeel, "Freshwater Resources in the MENA Region: Risks and Opportunities," Middle East Institute, July 10, 2019, https://www.mei.edu/publications/freshwater-resources-mena-region-risks-and-opportunities.
[11] See the work of Walid Ali, United Nations Development Programme.
[12] See the work of Ariel I. Ahram and Farhad Mamshai, Virginia Polytechnic Institute and State University.
[13] See the work of Ahram and Mamshai, Virginia Polytechnic Institute and State University.
[14] IOM, "Climate-Induced Displacement—Southern Iraq," IOM Displacement Tracking Matrix, 2023, https://iraqdtm.iom.int/files/Climate/20231015118609_2023_10_15_ET_Climate_Sept_2023.pdf.
[15] See the work of Reva Dhingra, International Rescue Committee.
[16] Sara Johansson de Silva and Carlos Silva-Jáuregui, *Migration and Trade in MENA: Problems or Solutions?*, The World Bank, October 2004, https://bit.ly/4arYsGj.
[17] The World Bank, "Urban Population (% of Total Population) — Middle East & North Africa," accessed April 20, 2024, https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=ZQ.
[18] World Bank, "Urban Population."
[19] United Nations (UN), "68% of the World Population Projected To Live In Urban Areas by 2050, Says UN," accessed April 20, 2024, https://bit.ly/3WP4I83.
[20] William J. Burns, Michèle A. Flournoy, and Nancy E. Lindborg, "U.S. Leadership and the Challenge of State Fragility," United States Institute of Peace (USIP), September 2016, https://www.usip.org/sites/default/files/US-Leadership-and-the-Challenge-of-State-Fragility.pdf.
[21] Perry Cammack et al., "Arab Fractures: Citizens, States, and Social Contracts," Carnegie Endowment for International Peace, February 1, 2017,

https://carnegieendowment.org/research/2017/02/arab-fractures-citizens-states-and-social-contracts?lang=en#introduction.
[22] See the work of Natasha Hall, Center for Strategic and International Studies (CSIS).
[23] Amnesty International, "Syria: New Property Law Punishes the Displaced and Could Obstruct Investigation of War Crimes," May 18, 2018, https://www.amnesty.org/en/latest/news/2018/05/syria-new-property-law-punishes-the-displaced-and-could-obstruct-investigation-of-war-crimes/.
[24] See the work of Hall, CSIS.
[25] See the work of Peter Schwartzstein, Wilson Center.
[26] See the work of Schwartzstein, Wilson Center.
[27] See the work of Schwartzstein, Wilson Center.
[28] See the work of Elizabeth Ferris, Georgetown University.
[29] Dina Najjar, "How Can Migration-Induced Feminization of Agriculture Empower Women in the Dry Areas?" GENDER Impact Platform, August 9, 2021, https://gender.cgiar.org/news/how-can-migration-induced-feminization-agriculture-empower-women-dry-areas.
[30] Jemima Nomunume Baada and Najjar, "A Review of the Effects of Migration on the Feminization of Agrarian Dryland Economies," *Journal of Gender, Agriculture and Food Security (Agri-Gender)* 5, no. 2 (2020): 1–12, https://doi.org/10.22004/ag.econ.338767.
[31] See the work of Najjar, International Center for Agricultural Research in the Dry Areas (ICARDA).
[32] Loubna Ou-Salah, Lore Van Praag, and Gert Verschraegen, "Feminisation of Agriculture and the Role of Environmental Changes: 'It's Already a Tough Job and It's Getting Tougher Due to Weather Changes,'" *The Geographical Journal* 190, no. 1 (March 2024): e12542, https://doi.org/10.1111/geoj.12542.
[33] Najjar, "Migration-Induced Feminization of Agriculture."
[34] Protection risks include "violence, assault by armed groups, theft, extortion, and heightened instances of sexual and gender-based violence": "South Sudan Protection Analysis Update: Joint Protection Cluster – UNHCR Update on Protection Risks for South Sudanese Returnees and Refugees and Asylum Seekers from Sudan – February 2024 | External Version," ReliefWeb, March 29, 2024, https://bit.ly/3QC8TzT; see the work of Devon Cone, Refugees International.
[35] Kelsey Norman, "Sudanese Refugees in Egypt Need Support, Not Further Entrapment" (Rice University's Baker Institute for Public Policy, July 20, 2023), https://doi.org/10.25613/NZ2Y-GB38.
[36] See the work of Cone, Refugees International.
[37] See the work of Merissa Khurma, Wilson Center.
[38] Norman, "Migration and Displacement in the Arab World Demands a More Equitable Response," Carnegie Endowment for International Peace, May 3, 2023, https://carnegieendowment.org/2023/05/03/migration-and-displacement-in-arab-world-demands-more-equitable-response-pub-89520.
[39] Ou-Salah, Van Praag, and Verschraegen.
[40] International Organization for Migration (IOM), "Together for Inclusive Solutions: Human Mobility on the Climate Frontlines," December 3, 2023, https://www.youtube.com/watch?v=utXuSLAlRxs.

[41] IOM, "Loss and Damage Fund Operationalized at COP28," January 18, 2024, https://rosanjose.iom.int/en/news/loss-and-damage-fund-operationalized-cop28.
[42] Lawrence Huang, "Why Financing Responses to Climate Migration Remains a Challenge," Migration Policy Institute, October 2022, https://www.migrationpolicy.org/news/limited-climate-financing-responses-climate-migration.
[43] International Federation of Red Cross and Red Crescent Societies (IFRC), "Where It Matters Most: Smart Climate Financing for the Hardest Hit People," November 8, 2022, https://www.ifrc.org/document/making-it-count-smart-climate-financing-most-vulnerable-people.
[44] Huang, Ravenna Sohst, and Camille Le Coz, *Financing Responses to Climate Migration: The Unique Role of Multilateral Development Banks* (Washington, DC: Migration Policy Institute, 2022), https://www.migrationpolicy.org/research/financing-responses-climate-migration.
[45] CEIC Data, "Egypt," accessed April 20, 2024, https://www.ceicdata.com/en/country/egypt; CEIC Data, "Lebanon," accessed April 20, 2024, https://www.ceicdata.com/en/country/lebanon.
[46] Victoria Markiewicz, Nicholas Micinski, and Sophie Schriever, "Climate Migration Research," University of Maine, accessed April 20, 2024, https://sites.google.com/maine.edu/climatemigration/findings?authuser=0.
[47] See the work of Glada Lahn, Chatham House.
[48] International Committee of the Red Cross (ICRC), "Water for Host Communities and Syrian Refugees in Jordan," February 11, 2024, https://www.icrc.org/en/document/completion-icrc-water-program-host-communities-and-syrian-refugees-jordan-2014-2023-0.
[49] Camille Dupire, "The Right to a Green Home: Project Builds Energy, Water Efficient Houses," *The Jordan Times*, July 4, 2018, https://jordantimes.com/news/local/right-green-home-project-builds-energy-water-efficient-houses; World Green Building Council, "Affordable Housing Project," accessed April 20, 2024, https://worldgbc.org/case_study/affordable-housing-project/.
[50] See the work of Lahn, Chatham House.
[51] See the work of Lahn, Chatham House.
[52] See the work of Schwartzstein, Wilson Center.
[53] United Nations Climate Change, "Conflict and Climate," July 12, 2022, https://bit.ly/3wHS67Q.
[54] Zeinab Shuker, "War Has Poisoned Gaza's Land and Water. Peace Will Require Environmental Justice," The Century Foundation, December 19, 2023, https://tcf.org/content/commentary/war-has-poisoned-gazas-land-and-water-peace-will-require-environmental-justice/.