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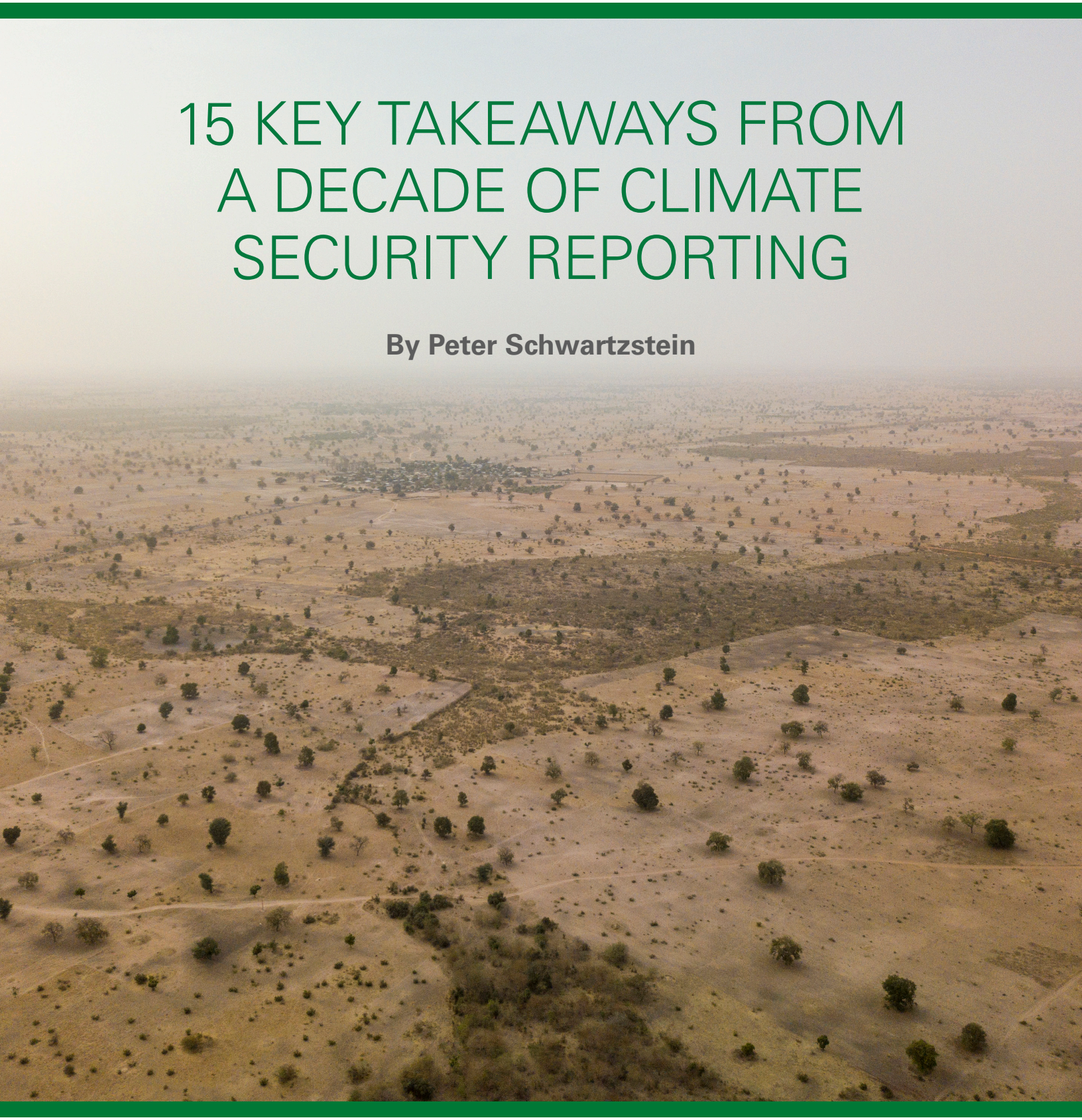
15 KEY TAKEAWAYS FROM A DECADE OF CLIMATE SECURITY REPORTING

By Peter Schwartzstein



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The Heat and the Fury: On the Frontlines of Climate Violence, was released in September 2024 by Island Press in North America and by Footnote Press in the United Kingdom and other Anglophone countries.

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Introduction

For nearly two decades, the connections between climate change and security have been debated and discussed in a diverse array of fora—from universities, think tanks, and the Pentagon, to the National Intelligence Council, NATO, and United Nations. While consensus exists that climate impacts can exacerbate tensions and foster instability, the precise mechanisms linking climate change to insecurity—and appropriate responses—continue to be debated.

A significant limitation in climate security analysis has been the scarcity of firsthand research beyond desk studies and limited interviews. Conflict zones present formidable barriers to researchers, with access constraints and safety concerns impeding comprehensive fieldwork for both researchers and local participants.

Journalists, however, often venture where academics hesitate. ECSP Global Fellow Peter Schwartzstein has spent over a decade on the frontlines, documenting climate-security connections across dozens of countries and numerous conflict zones. His book, *The Heat and the Fury: On the Frontlines of Climate Violence*, draws on this extensive field reporting to reveal how climate change fuels violence worldwide in ways that remain largely underrecognized. These are the stories that are laying the groundwork for the headlines to come.

In this ECSP report, Schwartzstein distills 15 essential insights from his work for policymakers and practitioners seeking to understand the climate-violence relationship, identify emerging instability hotspots, and inform effective interventions and responses.

Credit: Sohan Rahat

1 **We are seriously underestimating the volume of violence related to climate change.** In every conflict-climate setting I've explored, I've come away from periods of extended groundwork convinced that climate and other environmental changes were responsible for a much greater share of that country's chaos than was broadly accepted.

Much of this misreading hinges on our failure to adequately account for how climate change is acting on *other* drivers of instability (see below for more on that). Much of that deficiency, in turn, is due to both distrust of the qualitative research that is generally required to show how climate and other troubles interact—and the complications inherent in conducting that kind of work in conflict zones or otherwise complicated areas. I had innumerable 'messy' experiences while researching this book, ones that I would not be inclined to repeat and a few of which I'd put down to classic young-man-who-thinks-he's-invincible behavior.

2 **There are increasingly fewer forms of violence that don't have some sort of climate component.** It's never the sole driver. Sometimes it's a relatively tangential one. But from Ukraine to Gaza, even major, headline-grabbing conflicts feature climate as a cause, weapon, and/or victim of war.

In Sudan, for example, the Rapid Support Forces (RSF), one of the civil war's two principal protagonists, have benefitted tremendously from flows of cheap, heavily subsidized oil from Libya. Without that fuel, it would have been difficult for fighters to range their vehicles across an enormous country with the same facility. Importantly, the revolution that toppled the regime of Omar al-Bashir and that gave rise to the power vacuum that these generals are now vying to fill was turbocharged by public anger at sometimes-violent, largely Gulf Arab land grabbing, which was itself partly motivated by fears of food insecurity in those climate-affected countries.

Credit: John Wendle

3 There are, of course, umpteen different pathways from climate stress X to bout of violence Y. The pathway that has cropped up most frequently over my reporting is how **climate stresses can undermine coping mechanisms, how they're burrowing, in a 'termite-like' manner, through the support systems on which individuals, communities, and even nation states rely.** By this, I mean everything from the depletion of financial savings and psychological reserves when drought and other intolerable conditions replicate themselves year after year, through to the out-migration of leading citizens, many of whom are extra inclined to move away by dint of their greater talents and in whose absence local conflict resolution bodies are much less likely to function.

In Burkina Faso, for example, I met Boubacar, a very quiet, sensitive young man, who appeared woefully ill-suited to any kind of military service and who for years had resisted the entreaties of the VDP, a government-affiliated militia with a well-earned reputation for brutal behavior. But when the harvest on his small family farm failed for the fourth time in five years (and with it his "last hope" of earning a living from the land), he said he felt powerless to resist their appeals any longer. I'm told he died in battle with jihadists months later.

4 As reflected in a growing body of research, my reporting has shown that, generally, **it is *unpredictable* resource access, rather than absolute resource scarcity, that is fueling violence.** In conversations with farmers and herders across dozens of countries, many of them emphasize that they can generally manage anticipated shortages, or at least manage them in a way that is less likely to translate into hostilities. What they cannot contend with, though, is the uncertainty of not knowing when to plant up their fields or migrate with their livestock.

Among the many instances of farmer-herder conflict in the Sahel that I investigated, most of them were seemingly partly triggered by improvised and ad hoc responses to unexpected inclement conditions. "I cannot plan like this," one Mauritanian herder told me. "People make mistakes when responding to events in real time on the fly," a humanitarian worker in eastern Ethiopia said.

5 **Ultimately, it is the way in which climate interacts with and compounds other destabilizers that is principally responsible for pitching people and places into violence.** This interaction was prominent in four key areas in my reporting: mis- and disinformation; inequality; corruption; and changing population dynamics.

Mis-and Disinformation

Mis- and disinformation are as present and as relevant in the climate security field as they are in so many others. Whether willfully spread or not, 'fake news' about the inequitable partition of resources, or the intentions of rival actors at times of resource stress, among many other tropes, permeates the discourse. For example, some localized water disputes are intensifying precisely because of perceptions, many reinforced by misleading social media posts, that neighboring communities are using an unfair share of water. In Iraq, these clashes have at times been perpetuated by past sectarian strife, which has reduced interactions between adjacent villages (and hence residents' ability to validate rumors), while also leaving some people more inclined to believe the worst of communities with whom they already have complicated relationships.

Similarly, mis- and disinformation appear to be injecting a dangerous new ingredient into transboundary water disputes, most of which, scholars repeatedly point out, have historically ended in peaceful resolution. However, the situation is changing. Many riparian states now need to negotiate with unfamiliar, sometimes distant adversaries. These negotiations are complicated by limited experience in water-related diplomacy, incomplete understandings of the other parties' motivations, and the pervasive influence of misinformation. Given these challenges, it's highly uncertain whether the historical trend of peaceful resolutions will continue. To judge from years-worth of interviews with Egyptian and Ethiopian policymakers, especially at the height of GERD-related tensions in 2013-2014, a little ignorance can go a long way in maximizing tensions.

Inequality

Climate change is also serving to magnify and compound inequality, which is being brought into even starker relief globally due to climate's wildly uneven impacts. Already pronounced divides between rural and urban communities are widening as all-important agricultural sectors wither, while many longstanding urbanites with their generally less climate-vulnerable jobs prosper or at least manage to get by. I found it particularly striking that some of the greatest rates of ISIS recruitment I encountered were among the villages on Mosul's periphery. Because while these communities were, for the most part, not among the poorest of the poor, many of their residents are acutely aware of both their comparatively modest incomes and of the state's pitiful local services relative to those in the city. These very noticeable gulfs are low-hanging fruit for savvy ISIS recruiters who are skilled in identifying precisely which 'buttons' to push.

Credit: John Wendle

Divides within rural and urban communities are also expanding, to sometimes dangerous effect. Many wealthier villagers are better placed to withstand drought as they are more likely to have the funds to dig wells and/or invest in other means of buttressing their farms. At the same time, some urban workplaces are increasingly riven with disputes between existing cohorts of day laborers and newly arrived ones from the countryside. From Baghdad to Kathmandu, I've stumbled on at least half a dozen fights on construction sites, many fueled by bosses taking advantage of the surplus labor to depress wages.

Corruption

Corruption frequently plays an important part in situations where climate-related violence emerges. My reporting trips in Syria have suggested to me a particularly corruption-centered pathway to climate-related violence. Prior to the outbreak of the conflict there in 2011, farmers had faced two particular problems whenever they interacted with the state. First, they were routinely pressured to pay bribes to secure government-provided seeds and fertilizers. Secondly, those supposedly free or heavily subsidized supplies were often of poor quality because crooked officials would dilute them with materials like sawdust, allowing then to sell a portion for personal profit on the private market. When an intense, multi-year drought struck from 2008 onwards, the rural immiseration that accompanied declining crop yields heightened local intolerance of corruption. The very fact that people perceived the state as actively impeding, rather than helping them, at their time of greatest financial need was an outrage too far for many of them. Cue high levels of protest participation and later armed group enlistment.

Credit: Sohan Rahat

Changing population dynamics

Climate change is interacting with fluctuating population dynamics in ways that can aggravate tensions. Certainly, rapid population growth can be problematic insofar as it bolsters demand at times of wavering resource supply—for many of the countries experiencing high birth rates, essential services are already strained or lacking. Rapidly growing populations can also undermine communities' resilience when they resort to destructive, short-sighted tactics in response, such as deforestation in order to free up more farmland and building materials. More than the rapidly growing numbers, though, it's the erratic and occasionally wild and panicked state behaviors that are emerging, partly in response to demographic fears in a warming world, that may prove particularly dangerous in the long run. Wary of their ability to source enough food—and jobs—for their bulging populations, governments from Egypt and beyond have reacted more belligerently than they otherwise might have to dam construction, new irrigation schemes, and other developments in their river basins.

Simply put, poor countries cannot necessarily afford to import sufficient staples to make up for lost or insufficient domestic production. Their authorities, acutely aware of how tightly their own political survival is tied up with affordable food access, can lose their heads.

Relatedly, climate-related *depopulation* can also be hard to reconcile with peace and stability. Amid extra high rates of out-migration from areas where farming is stumbling badly, many villages are losing the critical mass of residents needed to support small businesses. As I've found in rural Jordan and many other places, the loss of the few entertainment options, such as cafes or restaurants, is adding to paralyzing degrees of loneliness for some young men, many of whom have lost their friends to the cities. Deprived of 'licit' distractions, increasing numbers of them appear to be succumbing to criminal or dangerous ones, like drugs or homebrewed liquor.

6 **A country's quality of pre-existing environmental management—and hence the relative health of the landscape—can be fundamental to its chances of avoiding climate-related violence.** In places where water pollution, groundwater depletion, and infrastructural neglect have already sullied or depleted resources, even marginal climate stresses and shocks can be sufficient to fuel instability. Like the proverbial straw that breaks the camel's back, climate-induced troubles can simply be the final blow for agrarian communities already dealing with environmental difficulties of a more local nature. For instance, I met farmers in Sudan's White Nile State soon after they'd torched a local agricultural office and blockaded the highways with burning tires. An intensifying drought underlay some of their rage, they said. But it was the state's failure to maintain irrigation canals that had really infuriated them.

7 **For the time being (see #8), most climate-related violence is low-level and local, but there are some big 'buts'.** In the same way that most people killed by weaponry are killed with small arms, rather than the nukes and mega munitions that tend to grab headlines, a majority of those who experience climate-related violence do so at the hands of their neighbors or other 'local' parties. That reality, however, doesn't make the violence any less punishing for the tens, if not hundreds, of millions of people already affected by this kind of chaos. Nor, given how often these localized troubles bleed into and sometimes merge with more headline-grabbing troubles, does it necessarily lower the geopolitical stakes.

After all, in this exceptionally interconnected world, violence can be contagious, seldom remaining a 'neat,' self-contained disorder. Pirates who prey on fishermen in the coastal waterways of Bangladesh are contributing to high levels of local migration to Dhaka, where some of the recent arrivals have proven easier pickings for gangs, a rural security crisis fueling an urban one. Discontent in agrarian rural areas can give rise to much more broadly felt insecurity, these often hard-to-police landscapes proving useful bases for the Al-Shababs of the world to develop and strengthen, and eventually menace cities. Intent on allaying difficulty in one part of the country, government action can simply transfer it to another. By piping water from better resourced corners of Iran to some of the most drought-ridden, authorities in Tehran have simply spread discontent farther and wider, infuriating farmers at source who don't feel their areas are well-watered enough to assist others.

8 **We are likely to see much more globally significant climate-related violence, the largest share of which may be centered on declining state legitimacy.** In the long—or possibly not-so-long—run, many disliked and distrusted states will struggle to manage the blows that climate stresses will exact on their performance. Already unsatisfactory infrastructure, freshwater access, and wastewater disposal, among other services, is likely to worsen. Large-scale rural to urban migration will further undermine states' ability to provide for the needs of longstanding city residents, many of whom have higher expectations of the state in the first place. Lacking faith in authorities after years of mismanagement, many citizens may be drawn to the least charitable interpretations of officials' role in crises, even blaming them for challenges that are not wholly or even partly of their making.

Credit: John Wendle

In some of these voids, non-state armed groups can prosper, as in swathes of the Sahel, where limited and/or predatory state presences have granted jihadi and other organizations an 'in' to stake alternative claims to legitimacy among angry, disenfranchised communities. When sovereign authorities fail over extended periods, perceived legitimacy can boil down to the provision of basic amenities alone. In other instances, as in Nepal, declining state legitimacy looks a lot less dramatic for the time being but may one day be no less challenging a security problem. "The state in many citizens' eyes," one senior Nepali civil servant put it to me, "is simply withering away. And nothing good comes from that."

9 **Compounding the governance challenge, climate change is further undermining nation states' capacity to perform well, even if or when they are so inclined.** Extreme weather events absorb funds that are desperately needed elsewhere, punching gaping holes in already insufficient budgets, and compromising governments' ability to finance meaningful climate adaptation. Damaged infrastructure complicates officials' efforts to dispense aid in the aftermath of disasters, as in North Carolina in 2024, when downed bridges and swamped roads undermined FEMA and others' ability to respond to those very mega-floods. The more intense climate stresses become, especially in countries' rural hinterlands, where the built landscape is often less capable of tempering extreme weather events, the harder it will be for states to persuade civil servants to move beyond the metropoles and into the places where their administrative skills are most acutely needed to temper climate-related tensions. And so on. In this unvirtuous cycle, it is hard to imagine anything other than more severe anti-state sentiment among citizens either ignorant of or uninterested in excuses.

Credit: Sohan Rahat

10 **As woefully insufficient as it is, the world is slowly committing to more climate action. However, some of the very projects meant to respond to climate's dangers are liable to spark violence, too.** Ill-conceived and poorly implemented adaptation and mitigation schemes have alienated some communities, as, for example, in the case of myriad tree planting schemes, many of which have consumed land that locals depend on for their livelihoods. It was no coincidence, I concluded after researching the fallout from an environmental initiative in northeastern Syria, that ISIS had enjoyed particularly notable success in recruiting many of those who'd lost their grazing land to the reforestation project.

Even smart and sensitively executed projects present the possibility of violence. Criminals may attempt to muscle in on the potential fortunes to be made in the green transition, as in Mexico, where cartels have been trying to profit from lithium extraction. Importantly, those on the losing end of sustainability initiatives are not always willing to go down without a fight. One country's solar field win can be a diesel purveyor's business-killing loss.

11 **For all of the work done in the climate security space over the years, there remains plenty more to uncover about the precise relationship between climate and violence.** This is seemingly particularly true of the climate-trauma link, which has repeatedly cropped up over my ten plus years of reporting. Many of my interviewees in conflict-climate settings have suggested that their cousins, neighbors, or other parties to disputes have turned to violence for reasons that include the sense of dislocation brought about by a changing climate. Despite the sometimes-self-serving nature of this narrative, I'm convinced there's something to it. With the rains no longer falling as they once did, birds migrating at different times (if they come at all), and plants blooming in the 'wrong' periods, among other changes, most of life's few constants have disappeared.

At the same time, sleeplessness—and the worse decision-making that frequently follows—is becoming a fixture of so many of these situations I've explored, with people unable to sleep due to increasingly intolerable nighttime heat or too fearful to close their eyes for fear of being caught unawares by extreme weather events. Everyone, in short, seems exhausted. And that's without reckoning with the traumas arising out of the indirect consequences of climate change—the pervasive sense of rural loneliness due to that prolific out-migration etc.

12 **Unsurprisingly, militaries are at the heart of the story of a hotter, more complicated world, and, whether they want it or not, their roles will likely change enormously over the coming years.** Not only will many of them be forced to respond to even more climate disasters (their generally superior capabilities leaving them uniquely placed to assist civilian bodies), but they'll simultaneously have to navigate a more complicated strategic landscape and possibly decarbonize themselves in the process. All the while, their own infrastructure, equipment, and broader operational readiness may struggle to keep pace with more hostile climatic conditions. Take the experience of the Greek military: In recent years, some of its key bases have been flooded to the point where they've been deemed unfit for future purposes. Others have been torched by wildfires, and, in the case of a few vital island air facilities, rendered unusable for large transport aircraft for periods of the year due to higher temperatures, which reduce lift and hence require longer runways.

13 For the most part, climate-related violence is discussed in relation to poorer parts of the world where countries on the frontlines of climate impacts are also frequently grappling with poor governance. But as richer countries confront the fall-out from destabilization in other parts of the world and their own deteriorating environmental and perhaps political climates, this kind of violence will likely come for 'us' too. Indeed, in small ways, it already is. From heightened violence against women during and after weather events, such as Hurricane Beryl in Texas, to more intense agricultural crime, such as rampant theft of olive oil across the Mediterranean during periods of climate-induced drought, Europe and North America are already alive with troubles of this nature.

Ultimately, though, all of this may be but a small taste of the turbulence that could come rich countries' way if warming continues apace. If, as seems to be the pattern globally, much of the worst dissatisfaction with states arises from their inability to make good on public expectations as climate stresses eat at their capacity to provide, then rich countries, with their high standards of living, generally entitled citizens, and exposure to cross-border migration, the cost of living crisis, and other forces that will emerge from climate stresses elsewhere, may be in a world of bother.

Credit: Sohan Rahat

14 **The climate-conflict narrative is increasingly being used to obfuscate responsibility as more politicians grasp the utility of blaming this big, nebulous force (for which they are largely not responsible) for troubles for which they often are at least partly culpable.** Bashar al-Assad did this early in Syria's civil war, as have the former presidents of Niger and Nigeria. A mid-level security official in Burkina Faso insisted to me that climate change was propelling the jihadists who have seized up to half his country. As in so many other cases, this is not entirely wrong, but it is also not the complete picture. The official was invoking this narrative as a means of washing his hands of a crisis that is also heavily rooted in governance failures. In the process, these figures are muddying the waters and arguably slowing the acceptance of conflict-climate linkages in general.

15 **As bleak as all of this is, one could argue that given the severity of climate change impacts, we might expect to see even more climate-related violence than we currently are.** My reporting has taken me to truly desperate, deeply immiserated places where circumstances and officialdom are thrusting people against one another. And yet, with plenty of exceptions, they have largely refrained from violent behavior. My possibly heartening explanation for this is that most people will go to great lengths to avoid hostilities. If they're granted the tools and mechanisms to keep the peace, the great majority will gladly use them.

Credit: Sohan Rahat

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