

Environmental Displacement and Political Violence

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Environmental Violence Statement

We live in an era of unprecedented environmental violence. Anthropogenic climatic changes and record pollution pulse through the fundamental architectures of society, shaping the geographies of human existence. Migration is among the most drastic consequences of environmental violence, which displaces more people every year than war. The purpose of this chapter is to examine how environmental violence impacts migration and how this displacement feeds into broader cycles of violent political conflict. By analyzing how environmental violence shapes society through processes of migration and conflict – two enduring global challenges – this chapter illuminates the dimensionality of environmental violence and how it reverberates across all levels and sectors of society. In turn, this highlights the multiplicative effect of environmental violence and the disproportionate impact it has on the most vulnerable populations.

12.1 Introduction

Displacement is among the most drastic consequences of environmental violence. While environmental shocks have always “pushed” people to more hospitable environments, anthropogenic changes in their intensity, frequency, and geographic distribution are accelerating displacement at unprecedented rates. Worldwide, human-induced environmental changes now uproot more people every year than war, and exponential increases are expected as the climate crisis unfolds. The alarming intensity of environmental displacement has generated significant speculation about its security consequences, with many arguing that large-scale environmental displacement has the potential to trigger violent conflict [1, 2]. Attention to the potential causal impact of environmental displacement on violence has been amplified by growing concern about the evolving patterns of human movement in

response to climatic change, especially as modeled mitigation pathways that limit warming to 1.5°C become increasingly unattainable [3].

The last few decades have seen a sharp increase in scholarly interest in the relationship between environmental displacement and political violence. Nearly every scholarly publication examining the environment-conflict nexus mentions migration as a possible intermediary in the causal chain [4–10]. Policy discourse has echoed concern for the destabilizing effects of environmental displacement. In the 1990s, unease about the proliferation of environmental displacement first appeared on the docket of UN agencies, including the High Commissioner for Refugees and the Environment Programme. Environmental displacement is now a top policy priority among the world's major intergovernmental organizations (IGOs), non-governmental organizations (NGOs), and national governments, and is already influencing decision-making considerations across areas of defense, foreign relations, homeland security, and immigration.

This chapter provides a comprehensive review of the growing and diverse literature examining the environment-migration-conflict nexus. Despite the growing number of studies, the relationship between environmental displacement and political violence has generated unclear findings. Empirical research varies remarkably in focus and scope, mirroring broader trends in the environment-conflict literature [11]. Studies differ in how they define and operationalize environmental displacement, relying on both direct and indirect measures. Conflict is also defined and operationalized differently. Most prior research examining the security consequences of environmental displacement has focused on civil war [12], but understanding the impact of environmental displacement on other forms of political violence is equally important [13–16]. Variation across empirical studies has yielded inconclusive, and even contradictory, findings. Reconciling these diverse findings is essential, because inferences from research could influence policy, disaster response, adaptation assistance, and other decisions about where to put efforts to address environmental challenges and conflict.

By systematizing existing research, this chapter seeks to clarify the state of knowledge on the environment-migration-conflict nexus, identify points of consensus and debate, and chart a path forward for future research. It focuses on three broad categories of political violence: communal conflict, civil war, and state repression. To this end, the chapter proceeds as follows: the next section defines the core concept of environmental displacement and explores the relationship between environmental violence and migration; the following section maps the complex causal pathways linking environmental displacement to the onset and dynamics of different forms of violent conflict and evaluates the “state of the evidence” or available empirical support underlying theoretical claims; I then conclude with summary remarks and implications for policy.

12.2 Environmental Displacement

12.2.1 Concepts and Terminology

The focus of this chapter is *environmental displacement*, defined as relocation in response to an adverse change in the natural environment. Environmental displacement is one of the many consequences of environmental violence and differs crucially from related terms, such as environmental migration and environmental refugees. Environmental migration implies movement driven by both negative environmental factors in the place of origin and those motivated by positive environmental factors in the destination and, thus, is a more inclusive term. The use of the term environmental refugee – though conceptually closer to environmental displacement – has been fiercely contested. The term first emerged in 1985 when a UN Environment Programme (UNEP) report defined environmental refugees as people who have been “forced to leave their traditional habitat, temporarily or permanently, because of marked environmental disruption” [16]. However, the use of the concept has been highly controversial. The term “refugee” applies to a specific legal category, defined by the 1951 Refugee Convention as “someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion.” Because the legal definition does not currently include individuals who relocate in response to environmental hazards, environmental refugees do not have any official recognition. Nonetheless, policymakers, journalists, and scholars often use the term as a synonym for environmental displacement, often to emphasize the constrained decision-making calculus imposed by an adverse environmental shock.

There are ongoing debates about whether the refugee convention should be revised to incorporate environmental refugees. Proponents argue that the absence of legal protections for those displaced by environmental shocks means that vulnerable populations fall through the cracks of asylum law. Environmentally displaced persons have been recognized by the Global Compact for Migration, Paris Agreement, and UN High Commissioner for Refugees as part of the Global Compact on Refugees, among others. While these agreements reflect growing international recognition of the need to protect environmentally displaced persons (EDPs), they are legally non-binding and unlikely to immediately benefit vulnerable populations. In contrast, opponents argue that broadening the scope of the 1951 Refugee Convention would be legally complicated and time consuming, politically difficult, and may weaken its overall impact [17]. Others argue that the implication of forced displacement is inappropriate because it robs individuals of agency and subjects them to securitization [18]. Notwithstanding these challenges, the term is commonly used as a synonym for environmental displacement [19–21].

12.2.2 Environmental Change and Displacement

The record of human mobility is replete with examples, both ancient and contemporary, of people moving in response to environmental changes. In some cases, entire societies have been permanently uprooted. The great post-glacial rise of sea level coincided with mass population movements inland near modern-day Scandinavia and the Mediterranean [22]. Centers in ancient civilizations, such as Mesopotamia and the Zhou dynasty, are believed to have relocated due to centuries-long droughts. More recently, communities in Fiji and United States islands of Shishmaref and Isle de Jean Charles have been driven inland by rising sea levels. Naturally occurring shocks are not the only drivers of environmental displacement. Human-made environmental disasters caused by toxic pollution also caused mass movement. For instance, the Chernobyl nuclear accident dislocated over 400 000 people, and the area remains uninhabitable today. Research has also linked air and water pollution to dislocations in Vietnam, China, and Italy [23–25].

Migration has always been a strategy for coping with environmental challenges. When natural hazards threaten food and water security, physical safety, and economic prosperity, relocation to a more hospitable environment serves as an adaptation strategy that allows people to avoid and minimize hardship [26–28]. While environmental displacement is difficult to quantify, estimates suggest that a minimum of 26.5 million people every year are uprooted by environment shocks [29], and environmental displacement is expected to increase rapidly as the effects of climate change unfold. The World Bank predicts that climate change will generate approximately 143 million EDPs across Sub-Saharan Africa, South Asia, and Latin America by the year 2050 [30].

Patterns of environmental displacement are highly varied and complex. Temporal and geographic patterns of migration vary by type and magnitude of hazard. For instance, sudden weather shocks such as floods and storms tend to generate shorter-term displacement compared to slower-onset stressors, such as droughts and desertification [31–33]. In addition to exposure, vulnerability impacts displacement. Individuals, households, and communities whose well-beings are highly dependent on the environment are more vulnerable to changes in the ecosystem. In turn, adaptation capacity shapes vulnerability. Dislocation is not an automatic reaction to adverse environmental shocks. Faced with environmental stress, residents can either stay in place and take steps to compensate for the imposed hardship, stay in place and accept a lower quality of life, or relocate [34]. Because migration is often both costly and risky, existing capabilities to cope with environmental stress in situ play a key role in determining whether changes in environmental conditions trigger displacement.

Along these lines, environmental displacement must be understood in the context of social, political, and economic institutions. Marginalized social groups

that lack access to political and economic power are most likely to be displaced by environmental shocks. Because of discrimination embedded in and perpetrated by state structures, politically excluded groups tend to populate areas most exposed to pollution and predictable natural hazards, and they disproportionately suffer losses due to substandard dwellings, poor infrastructure, and unstable livelihoods. Moreover, the costs, availability, and distribution of adaptation mechanisms are highly variable and contingent on the prevailing social, economic, and political conditions [35].

12.3 Environmental Displacement and Violent Conflict: Pathways and Evidence

12.3.1 Communal Conflict

Environmental displacement could increase competition over resources between migrant and native residents, leading to intercommunal violent conflicts. Native residents of host communities may view growing migrant populations as encroachment that threatens their own rightful claim to important rural or urban resources [43]. The rapid and high-volume nature of disaster displacement, combined with the fact that the dislocated are often only able to bring a few belongings or resources of their own, renders them particularly susceptible to being perceived as squatters infringing on the entitlements of incumbent communities. As newcomers attempt to establish settlements, acquire jobs, develop farm operations, and make use of other community assets, confrontations over the rights to and distribution of these resources are likely to ensue [36–39]. In the absence of adequate conflict resolution institutions or government intervention, these disputes have the potential to escalate into violent clashes [40, 41]. Violence, therefore, becomes a tool by incumbents to protect valuable resources and deter further encroachment, or a means by migrants to stake and protect a claim in the community's resources. Contests for resource capture, in which elite representatives from migrant and native groups seize control of and hoard resources to restrict access to their core constituents, increase the intensity of violence and enable disputes over resource access to evolve into more fundamental conflicts over economic and political control [42].

Conflicts erupting over competition for local resources are most likely to start out as small-scale clashes, occurring between communal groups that organize along migrant and native identity lines. These types of conflicts may be particularly likely to erupt when EDPs and native residents belong to distinct ethnic or religious groups. Competition may trigger nativist claims, harden identities between groups, and accelerate the cycle of negative othering between migrants and incumbent residents in the host community, giving rise to “sons-of-the-soil”

conflicts [43, 44]. Shifting the balance of ethnic demographics may also exacerbate perceptions of insecurity in areas where the ethnic groups have a history of conflict and mistrust [45, 46].¹

Case studies suggest that environmental displacement can provoke violent intercommunal conflicts under certain conditions, but comparative evidence has been constrained by a lack of available displacement data. Reuveny (2007) analyzes 38 episodes of environmental displacement, finding that 14 provoked violent intercommunal strife between native residents and newcomers across regions of South Asia, Latin America, and Africa. Notably, land-use conflicts in Sub-Saharan Africa have often been attributed to environmental displacement, as land degradation has increasingly fueled resource competitions between livestock herders and crop farmers [47]. Studies have also linked interethnic riots to environmental displacement, particularly as a consequence of flood displacement in South Asia [48]. While violent communal conflict is not an inevitable consequence of environmental displacement, studies confirm that it can be a particularly likely outcome where conflict mitigation institutions and security governance are weak or absent [49, 50].

12.3.2 Civil War

Building on the extant literature linking migration and demographic change to violent conflict, there are two mechanisms through which environmental displacement caused by natural hazards may aggravate civil war. First, environmental displacement deteriorates living conditions in migrant-receiving areas, fueling anti-government political grievances that provoke violent mobilization against the state. Second, environmental displacement crises attract disaster relief and constrain state capacity, which, in turn, creates material incentives and opportunities for existing armed groups to intensify their violent campaigns. These mechanisms – discussed in detail below – are not mutually exclusive, and environmental displacement can influence the formation and evolution of armed challenges at different points in the conflict process.

The grievance framework provides multiple pathways through which environmental displacement may lead to civil war. First, environmental displacement affects political instability by imposing population pressures and corresponding hardships [51]. Human ecologists point out that all communities are endowed with finite pools of resources on which residents rely for survival and quality-of-life maintenance, including jobs, housing, food, potable water, electricity, infrastructure,

¹ Insofar as the state takes sides in, or intervenes in, disputes between groups, intergroup violent conflict has the potential to incorporate the state and evolve into civil war, as discussed below [48].

and security [52, 53]. Rapid, large-scale population growth strains these resources, diminishes the quality and quantity available to residents, and overwhelms the built-in resilience of economies and state provisional structures that enable resources to expand alongside population growth.

In theory, a concurrent and proportionate increase in a receiving community's carrying capacity can compensate for population pressures imposed by high levels of environmental displacement. Like other public services, governments are responsible for the distribution of disaster relief and can channel resources into shelter, food, water, and financial support for host communities to remedy hardships induced by population pressures. However, many governments are ill-equipped to meet the challenges posed by mass dislocations. Effective responses may be hindered by lack of capacity, corruption, authoritarian governance, and routine underinvestment in disaster relief [54–57]. Even industrialized democracies that are highly effective at distributing public goods under normal circumstances have been known to botch responses to large-scale displacements in the wake of major environmental disasters [58]. In general, the more people are displaced by an environmental hazard, the less likely it is that governments can effectively intervene to ameliorate population pressures.

Rapid population growth can fuel unemployment, homelessness, and breakdowns in security, sanitation, and food and water accessibility – hardships that have long been recognized as a rallying point of civil uprising [59, 60]. Aggrieved by the diminished quality of life and holding political leaders responsible, people have a strong motive to form and participate in armed conflict. Because displaced persons must scramble for livelihoods, housing, and other resources that are not already occupied, they suffer disproportionately from population pressures and are especially likely to perceive a mismatch between expected and realized life quality [61]. Displaced persons also tend to settle into make-shift neighborhoods and peripheral areas where government service provision is weak and resources are already scarce [62]. As a result, displacement-related discontent tends to be concentrated among the dislocated, and the clusters of migrant-dominated slums can become a breeding ground for anti-government mobilization [63].

Environmental displacement may also exacerbate and accentuate pre-existing socio-political inequalities and incite demands for more equitable resource distribution [64]. As noted earlier, politically excluded identity groups are more likely to be displaced by adverse environmental conditions than groups with favored socio-political status due to heightened exposure and depressed capacity to weather hazards in situ [65]. Once displaced, marginalized populations are less likely to receive assistance and remain dislocated for longer periods of time [66]. When environmental changes push disadvantaged groups into new

communities dominated by privileged groups, they are often blocked from local resources, and government relief is steered toward political allies [67]. This process both increases intergroup inequality and heightens migrants' awareness of their disadvantaged status. Under these conditions, deprivation among displaced persons, compounded by intergroup inequality, fosters discontent about the distribution of resources between groups and demands for more equitable allocation [68–71].

In addition to provoking grievances and new eruptions of political dissent, environmental displacement may affect political instability by increasing the intensity of existing armed conflicts. Where armed non-state actors are already engaged in a violent struggle with the government, displacement crises caused by sudden-onset natural hazards create new incentives and opportunities to accelerate violent campaigns. Disaster displacement attracts humanitarian aid operations that provide strategically valuable targets for armed groups. Disaster relief often brings a surge of material goods to migrant-receiving areas, such as food, cash, medical supplies, communication gear, and transportation equipment provided by both government and non-government actors. Violent raids increase where humanitarian support is concentrated as armed groups seek to expropriate aid materials, which can be distributed as patronage to garner public support or utilized directly in support of military operations [72–75]. Aid workers themselves can even be targets of strategic significance, and non-state actors often seek to kill or kidnap relief operatives to undermine the government's legitimacy in public goods provision [76, 77]. Environmental displacement caused by sudden-onset natural hazards triggers an increase in violent attacks by armed groups, as these actors engage in predatory looting and seek to exploit humanitarian aid for strategic gain.

Environmental displacement crises also enable armed actors to more effectively launch violent campaigns at a lower cost and risk. The abrupt and often large-scale character of displacement caused by rapid-onset natural hazards contributes to an atmosphere of chaos in which armed non-state actors move more freely and expand their operations. Similar to conflict refugees, armed groups can blend in with civilian movements fleeing from and returning to disaster-affected areas at a lower risk of detection [78]. In so doing, environmental displacement facilitates the flow of weapons and combatants, allowing armed groups to penetrate and target new areas of the state. At the same time, state-led humanitarian missions preoccupy government attention and resources, further diminishing the government's capacity to monitor and combat internal security threats [79]. Moreover, as militaries are increasingly mobilized to support relief operations [79, 80], armed groups can launch attacks with a lower chance of military confrontation and retaliation.

In sum, environmental displacement creates a set of conditions that armed groups can readily exploit for strategic gain in their struggle against the government. Humanitarian assistance, though intended to ameliorate the hardships associated with disaster displacement, drives an increase in violent raids by armed groups seeking to capture aid resources. In addition, the disruptive nature of abrupt population movements and the redirection of government attention toward disaster response ushers in a window of vulnerability in which armed groups can maximize the impact of violent campaigns at a lower cost and risk. Environmental displacement caused by sudden-onset natural hazards is, therefore, expected to increase violent attacks by armed opposition groups, as these actors capitalize on emerging incentives and opportunities favorable to strategic conflict escalation.

Existing evidence on the relationship between environmental displacement and civil war onset is mixed. Case study research suggests that dislocations driven by slow-onset hazards, such as drought and land degradation, have been linked to the initiation of conflicts in South Africa, Syria, Sudan, and Bangladesh, among others [81–83], though these claims have been contested [84, 85]. In contrast, several large-N studies show that displacement driven by sudden-onset events do not typically trigger civil war [86, 87]. Collectively, these findings hint that the effect of environmental displacement may be contingent on the type of hazard driving displacement. Because displacement caused by sudden-onset shocks tends to be short in duration and distance [88–90], the disruption of displacement may be too transient to generate grievances that motivate armed uprisings [91].

There is greater agreement concerning the relationship between environmental displacement and the dynamics of armed conflict. In their cross-national study, Ghimire et al. [87] show that flood displacement prolongs civil wars. Looking at displacement caused by six different types of environmental shock in Africa, Chesler [86] shows that resulting dislocations increase the intensity of armed conflict. However, there are important gaps in the body of work linking environmental displacement and armed conflict dynamics. First, existing studies focus on dislocations caused by rapid-onset environmental shocks, leaving open the possibility that displacement driven by slow-onset events – such as droughts – may influence patterns of armed conflict. Second, research has largely neglected the country- and conflict-level factors that may condition the effect of environmental displacement. Third, while large-N research shows a generally positive relationship between environmental displacement and conflict duration and intensity, these studies are ill-equipped to evaluate the specific mechanisms driving the relationship. More in-depth, qualitative research is needed to examine which causal pathways motivate the conflict-exacerbating effect of environmental displacement.

12.3.3 State Repression

While scholars and policymakers have long expressed concern for conflict-provoking effects of environmental migration, virtually no studies have examined the possibility that environmental migrants may be on the receiving end of violence. This omission is surprising because migrants and refugees have frequently been targets of state violence. Migrants are often associated with the diffusion of conflict and terrorism [92–94], although most migrants do not directly or deliberately participate in violence [95]. Along these lines, governments often use violence against displaced persons because they are seen as a potential threat or source of political instability [96, 97]. Displaced persons can also be strategic targets for repression when governments face domestic crises, such as economic, political, security, or environmental challenges. Because citizens are often supportive of government crackdowns against migrants, displaced persons can be easily scapegoated for domestic problems [98, 99]. This is particularly true for international migrants, who typically lack electoral power and the ability to impose sanctions against political leaders. Extrapolating from this body of work, it stands to reason that governments may similarly perceive environmentally displaced persons as a potential threat or strategic scapegoat, and target EDPs with violence. This becomes increasingly likely given emerging political challenges, such as populism, immigration restrictions, and border fortifications that reflect a new narrative in which migrants and refugees are viewed as a security problem.

In other words, EDPs may simultaneously fuel and experience insecurity, but existing research has largely focused on the former. This omission reflects a broader scholarly and policy discourse of “securitizing” migration, in which displaced persons are framed primarily as agents of conflict. Given this gap in the literature, more studies should be conducted to examine how and under what conditions states may target EDPs with violence and repression, despite a humanitarian obligation to protect them.

12.4 Conclusions

Policymakers and scholars alike have raised the alarm about the possibility of impending security crises and instability caused by environmental displacement. Understanding the linkages between environmental displacement and conflict is especially consequential given the context of evolving climatic change. Global warming is increasing the frequency and intensity of extreme climate-related natural hazards, even under conditions of limited warming, with direct implications for environmental displacement [100]. Dislocations by accelerated climate-related risks will continue to accumulate with those driven by other environmental events, such as pollution and geological hazards.

This chapter aims to review the literature linking environmental displacement and political violence. Despite diverse findings in existing research, the balance of evidence points to some tentative conclusions. While environmental displacement is unlikely to trigger the onset of intrastate armed conflict, it tends to exacerbate existing conflicts, making them longer and more deadly. The finding that environmental displacement intensifies armed conflict attests to a threat multiplier effect [101, 102]. For governments already in the throes of violent conflict, this portends deepening security crises and potential conflict traps as a downstream consequence of environmental violence. Environmental displacement can also trigger intergroup conflict, particularly in the absence of a state mediator. A crucial gap in the literature is the absence of studies examining the impact of environmental displacement on state repression. Future research should prioritize this nexus to consider how, and under what conditions, states may use violence against EDPs, despite a humanitarian obligation to protect them.

What, if any, policy recommendations can be gleaned from existing research on the environment-displacement-conflict nexus? The conflict-exacerbating effect of environmental displacement highlights the need for more integrative frameworks of disaster preparedness, response, and recovery that incorporate elements of stabilization, security, and peacebuilding. Support for adaptation can limit the size and scope of environmental displacement and, in turn, reduce its destabilizing consequences. International actors can empower individuals, communities, and governments (at national and local levels) to reduce and manage environmental displacement with targeted financial, technical, and informational assistance. A wide range of adaptation options are available to reduce the incidence of catastrophic environmental displacement, and the most effective tools are highly contingent on local geography, economies, and socio-political relationships [103]. Decision-makers must work directly with communities situated in disaster-prone areas to support adaptation strategies appropriate to context.

It is also critical for policymakers to recognize that displacement is not inherently destabilizing and is often a vital adaptation strategy that saves lives and promotes development. Thus, relocation should not be categorically discouraged. Instead, policymakers can prevent displacement-related instability by supporting initiatives to anticipate, facilitate, and coordinate retreat through early warning systems and established evacuation plans. Governments can intervene in a variety of ways to limit displacement-related instability [104, 105]. Managed retreat from hazard prone areas, regulatory action on construction and settlement, investment in climate-resilient infrastructure, risk-informed land planning, and economic diversification are just a few strategies that can limit displacement [106]. Effective disaster response and humanitarian aid are also important for quelling grievances and discontent in migrant-receiving areas, but steps should be taken to secure disaster

relief from predatory looting by armed non-state actors. Where governments lack sufficient resources to implement these measures, support from the international community will be critical in filling in the gaps to mitigate displacement crises and ensuing political instability.

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