



Unpacking the Climate Security Nexus

Seven Pathologies Linking Climate Change to Violent Conflict

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- Abstract

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Abstract

Although acceptance of climate change's role as a 'threat multiplier' is, by now, widespread, the specific causal mechanisms linking climate change to (violent) conflict onset remain under researched. Formal descriptions of the causal mechanisms remain few and far between. This is not problematic only for scientific reasons. The obscurity surrounding climate change's links to violent conflict also hinders the development of targeted policy interventions at a time when the impact of such conflict is on the uptick.

Although climate-related conflicts are complex, extant conflict research suggests that structural patterns can be discerned across cases. This study presents seven climate-related conflict pathologies (see Table 1 below). A climate-related conflict pathology is defined as the specific pathway through which interaction between climate change and social, economic, and political factors leads to violent conflict. For each pathology, the study identifies the relevant factors, describes how they interact with one another, and elucidates the pathways through which they lead to violent conflict. The study also highlights regions that are particularly prone to each pathology and evaluates the available evidence and the degree of scientific consensus surrounding each of them.

Table 1. Climate-Related Conflict Pathologies



#	Pathology description	
1	Climate change-related resource scarcity leads to conflict between pastoralist and sedentary communities	Changes in temperature and precipitation cause forms of scarcity that force pastoralist groups to alter their transhumance routes. This precipitates resource competition between groups, infringes on traditional customary regulations, and increases conflict risk.
2	Climate change-related resource scarcity leads to larger-scale inter-communal violence	Climate change-induced scarcity of water, food, and land resources, in combination with social, political, geographic, and economic variables, can trigger inter-communal tensions.
3	Climate change precipitates (internal) migration, leading to social unrest	Climate change can lead to migration, whether from rural to urban areas or between rural areas. This can spark social unrest by increasing resource competition and exacerbating feelings of relative deprivation, as well as the severity of inter-cultural clashes.
4	Climate change-related social unrest empowers nonstate armed groups	Climate change interacts with state fragility and contributes to livelihood deterioration, creating fertile ground for the emergence and expansion of non-state armed groups (NSAGs).
5	Policies aimed at mitigating the effects of climate change have adverse effects	Climate change policies can trigger political exploitation and marginalization of groups, aggravating existing grievances and tensions.
6	Climate change-related social unrest precipitates large-scale political movements, provoking a government crackdown	Climate hazards can provoke a window of opportunity for violent and non-violent opposition to further undermine authorities. This erodes state capacity and exacerbates social vulnerability. Conflict arises as a result of the state's (violent) crackdown on dissent.
7	Disputes over transboundary resources cascade into interstate conflict	Climate change can foster tensions over transboundary resources in three main ways: 1) water scarcity raises tensions over transboundary freshwater resources; 2) temperature increases create a new frontier for disputes in the Arctic; 3) diplomatic disputes over climate mitigation measures and responsibility.

The climate-related conflict pathologies have been identified based on an in-depth literature review. Publications were selected based on a set of qualitative and quantitative criteria, including an appraisal of the overall quality of the research (robust empirical evidence combined with an articulated theory specifying the relationship between independent and dependent variables); the impact factor of the journal in which the publication appeared; the number of citations each article received (with more recent research being prioritized); and geographical coverage.

The climate-related conflict pathologies contribute to the literature in two principal ways. First, because its findings are based on a synthesis of a large and diverse body of literature, it is more comprehensive in the range of pathologies it covers than existing publications. Second, through the provision of granular descriptions of each pathology, this piece helps to address several ongoing discussions regarding climate change's (indirect) link to conflict within the academic community. The combination of these contributions provides a springboard both for future research and for the development of climate security policies

For future research, it facilitates the formulation and subsequent testing of more specific climate-related conflict hypotheses. It also allows for the development of a deeper understanding of how pathologies feed into one-another. Most importantly, the individual pathologies can be further refined and corroborated using various methods and analytical techniques. In depth case studies involving desk data analysis, field surveys, stakeholder interviews and process tracing, can be applied in conjunction with quantitative methodological approaches to formally test and corroborate the causal mechanisms described in these pathologies.

For policymaking, this study also offers relevant insights. The mediating factors associated with each of the climate-related conflict pathologies outlined in this paper can be actively targeted to proactively reduce the risk of climate change resulting in the onset of conflict in vulnerable states.



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