The Economic, Political, and Social Implications of Environmental Crises

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The Economic, Political, and Social Implications of Environmental Crises

Workshop title:	Environmental Crises as Economic, Political, and Social Crises
What:	An interdisciplinary group of scientists working on human-environment interactions discussed the state of knowledge on the economic, political, and social implications of environmental crises and identified pathways for future research
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Global environmental crises are intensifying to a worrisome degree, and increasingly intertwined. Anthropogenic climate change, for example, threatens human security through more frequent and intense extreme weather events like heat waves, droughts, and floods. At the same time, it aggravates problems related to soil degradation, biodiversity loss, and water scarcity, among others. These developments have been hypothesized to affect patterns of economic development, political stability, and human mobility. But while the underlying ecological, climatological, and (geo)physical changes are undeniable, environmental crises are perceived and framed by experts, decision makers, and broader publics in heterogeneous ways. This further complicates research on, and action upon, these growing environmental problems.

An interdisciplinary workshop[1] was held in summer 2019 at the Georg Eckert Institute in Braunschweig, Germany, to discuss the interlinked economic, political, and social consequences of environmental crises, and the role of discourses and perceptions in this context.

The Social Construction of Environmental Crises

The speakers in the first session distinguished between two dimensions—if not deeper understandings—of environmental crises. First, and in line with a realist epistemology, the part of nature that surrounds human societies (the environment) is rapidly changing. These changes are man-made and—as humans depend on a broad range of ecosystem services—will profoundly affect human societies. Second, drawing on a constructivist epistemology, the framing of a given environmental change—including the question of whether it even constitutes a crisis at all—is heterogeneous and often contested.

For instance, a presentation on two coastal cities in Germany that are similarly vulnerable to a rise in sea levels illustrated diverging public debates about the local impact of climate change. In Lübeck, the potential flooding of the old city is securitized as a major concern that is closely linked to the identity of the city as an important cultural center. The local media in Rostock, by contrast, highlights the increased prospects of tourism that a changing climate could provide for the economically weak city, thus foregoing securitization.

Different social constructions of environmental crises are deeply tied to political struggles. An assessment of climate security discourses showed that in the United States,

[1] The workshop was co-organized by the Georg Eckert Institute for International Textbook Research (GEI), by the GIGA German Institute for Global Area Studies, and by the Potsdam Institute for Climate Impact Research (PIK). The workshop was funded by and linked with the Leibniz Association's research alliance Crises in a Globalised World.

climate change has been increasingly tied to issues of national security and political instability. This has increased overall awareness of climate-related risks, but also limited the influence of traditional environmental actors. The German discourse, by contrast, focuses on human security; until very recently, it constructed populations in the Global South as requiring the assistance of benevolent Western saviors, risking the reproduction of colonial imaginations.

Portrayals of environmental crises in the education sector were found to be political as well. For instance, many states in the Middle East and North Africa tend to utilize their education systems to portray themselves as competent and successful in addressing environmental challenges. School textbooks rather blame individual citizens or outsiders for environmental degradation, hence providing legitimacy to political and economic elites.

Human Mobility During and After Environmental Crises

The second session focused on migration, flight, and displacement in the context of environmental crises. Interest in human mobility as a second-order effect of climate change has increased continuously over the last few decades, and fluctuates between taking securitization, depoliticization, and migration-friendly perspectives. The session showcased and brought into dialogue different methodological and epistemological approaches to the topic.

Using numerical models of climate-induced migration, the first contribution argued that climate change has an impact on mobility patterns but is not the largest driver thereof. The underlying causal connections and intervening variables are also not well understood yet. However migration is, after all, a process that starts on the individual or household level, illustrating the need for qualitative research on the topic. This was shown by means of an

ethnography of the Ewe Diaspora in/from Ghana, which discussed how environmental changes are narrated in affected populations—hence decentering debates about environment and migration. Similarly, a methodological framework of legal anthropology is helpful in understanding climate change-related migration within and from the Pacific Islands. Insights from in-depth field research provided arguments for more migration-friendly solutions and the inclusion of local voices in research and policy.

The last contribution utilized the concept of the Anthropocene to rethink how we even understand "climate-induced migration." The concept questions the nature-culture divide that was foundational for the thinking of the Enlightenment; what is more, it asks how human transformations of the Earth exacerbate inequalities that may lead to displacement, and how these transformations are produced by economies, institutions, discourses, and practices. It thus helps to uncover issues of power and social stratification underlying different levels of (im)mobility.

In the discussion, the workshop participants not only assessed how natural and social sciences have treated climate-related migration so far—including via critical engagement with determinism, alarmism, and the prominent role of causality. They also exchanged views on the relationship between academia and policymaking. Herein they reflected on how research topics are chosen, and how insights from environment-migration research are employed in political debates.

Environmental Crises and Political Instability

Given the magnitude of current-day environmental crises, the presenters agreed that they are likely to impact patterns of political instability and especially intrastate violence. For climate-related disasters in particular, such a link is relatively well established. However, as

for human mobility environmental stress is only a marginal driver of conflict when compared to economic and political factors. Also, disaster-conflict links can only be detected in a relatively small number of cases characterized by preexisting vulnerability profiles such as poverty and ethnic exclusion.

Important knowledge gaps on the topic continue to exist. Teleconnections between environmental crises and instability remain underexplored, with a nexus between droughts in Russia, rising grain prices in the Middle East, and the Arab Spring just one example. Research also focuses strongly on the macroeconomic level (e.g. resource scarcity, economic growth). Micro-level, physiological, psychological, and sociological explanations connecting climate change to violence—for example via heat-induced aggression—deserve further exploration meanwhile. Finally, examples like the de-escalation of the civil wars in the aftermath of Typhoons Sendong in 2011 and Haiyan in 2013, which was a prerequisite for the delivery of humanitarian aid, demonstrate that environmental crises can also have a positive impact on peace and security. Such possibilities, however, are often marginalized, especially in security-oriented national discourses on the topic like those prevalent in the US.

The latter insight is also true for debates on climate change of the Group of Twenty (G20), which the last presentation of the session addressed. While the G20 has discussed anthropogenic climate change since 2008, and issues of peace and security since 2013 (if not earlier), no intersections between both phenomena have been recognized so far. In line with this, while climate change is described as a great challenge it is nevertheless not constructed as a crisis. Rather, the G20 emphasizes routine procedures to deal with the problem (e.g. climate financing, the UNFCCC framework).

Economic Impacts of Environmental Crises

The session provided ample evidence for the adverse economic impact of extreme weather events—sudden and often scarcely predictable environmental crises. In countries with a low gross domestic product, hydrometeorological droughts can reduce economic growth for up to fourteen years. This effect is stable across a number of model specifications, and for all world regions. Similarly, very harsh winters (*dzud*) put a heavy burden on all but the richest herding households in Mongolia. Sample data show a livestock mortality rate of up to 71 percent, which decreases food security and the chance that children complete basic education. This effect is significant in the decade after a *dzud*, again underscoring the potential long-term economic effects of extreme weather events. While wealth plays a key intermediary role, future research should identify additional factors that make countries and households more resilient to such events.

In line with the insights gained during other discussions, discourses and perceptions were identified as crucial to understanding the economic impacts of environmental crises. Stock markets, for example, react to more than just the severity and economic effects of hurricanes. Low media coverage of hurricanes in the US and frequent reference to a more devastating earlier event (Hurricane Katrina) have been found to be associated with positive reactions among stock prices.

The final presentation touched upon the economic consequences of societal efforts to mitigate climate change. An ambitious coal phaseout in Germany, for instance, is predicted to decrease both employment and wage levels in the three extracting regions to at least to some degree, hence potentially leading to conflicts between economic, climate, and social policies. This finding tied back to the two previous sessions, in noting that the impacts of human mitigation and adaptation efforts vis-à-vis environmental crises on mobility and violent conflict remain understudied.

Conclusion

Environmental crises increasingly interact with one another in complex and hard to predict ways, such as potentially critical interactions between planetary boundary transgressions in the dimensions of anthropogenic climate change and biosphere integrity loss. They have various impacts on human societies that again intersect with each other, for instance when weather extremes reduce economic growth—thus increasing the violent-conflict risks that make migration more likely. Such societal impacts can again be severe enough to result in multiple crises, but also mitigate such dynamics in certain contexts too (e.g. migration as adaptation, less violence after typhoons).

Debates during the workshop made clear that a comprehensive understanding of these interlinkages is only possible if the ecological, climatological, (geo)physical, as well as socially constructed dimensions of environmental crises are all taken into consideration. Seeking a broader understanding such as this will enable scientists to lay bare the political implications of various framings of environmental crises, and to devise mitigation and adaptation measures sensitive to local cultures and knowledge stocks. Such an endeavor is certainly ambitious, and will require continuous interdisciplinary cooperation across multiple methodological, epistemological, and ontological positions. Nevertheless, it ultimately promises to be a worthwhile pursuit indeed.