

Helpdesk Research Report: Climate Change and Conflict

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Query: Please provide key readings on the political and institutional impacts of climate change on conflict.

Enquirer: DFID Policy and Research Division

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1. Overview

There is a wealth of general literature on climate change which predicts increased violent conflict as a result of climate-induced changes such as migration, environmental degradation and resource-scarcity. However, these references are rarely supported with empirical evidence. There is very little academic research on the links between climate change and conflict. Of the few studies that are available, the findings are mixed. Most authors argue that whilst climate change may well result in increased conflict, this path is not certain.

The most commonly discussed scenarios are that climate change causes resource scarcity, which prompts violent conflict, or that resource scarcity results in migration which leads to conflict in the receiving area. The papers below discuss these different scenarios. Of the papers that do find a clear link between climate and conflict, climate change appears to be one factor contributing to conflict, not necessarily a leading or important factor.

Several authors link these discussions to existing research on the causes of conflict, particularly the 'greed or grievance' debate. They argue that if conflict is primarily motivated by resource-abundance (or 'greed') as opposed to scarcity, then water or arable land shortages prompted by climate change are less of a concern to conflict prevention analysts. There has been recent research critiquing the greed/grievance debate, but researchers of environmental conflict do not appear to have included this work in their analyses.

There is a much larger literature on security and climate change, particularly from authors who take a broad view of 'human security', including sustainable livelihoods, food security etc. There is a general consensus that climate change poses very serious threats to human security. This literature has only been included if it specifically links increased human insecurity to increased outbreaks of violent conflict. Some of the popular literature on climate change emphasises the threat to international security. The scenario suggested is that increased global competition for resources will lead to increased international tension, which could spark violent, inter-state conflict. In the time available for this query, no academic research was found that supported this view.

"The popular literature frequently refers to an important link between climate change and violent conflict. But when it comes to academic articles or reports, or even web pages, climate change and conflict are rarely mentioned in the same sentence. Moreover, the link is rarely substantiated by convincing evidence." (Nordas and Gleditsch, 2005, p. 2).

"It is necessary to be cautious about the links between climate change and conflict. Much of the analogous literature on environmental conflicts is more theoretically than empirically driven, and motivated by Northern theoretical and strategic interests rather than informed by solid empirical research... This in part reflects the long-standing difficulties in finding meaningful evidence of the determinants of violent conflict and war at international and subnational levels" (Barnett, 2003, p.9/10).

2. Key documents

- Nordas, R. and Gleditsch, P., 2005, 'Climate Conflict: Common Sense or Nonsense?', paper presented at a workshop on 'Human Security and Climate Change', Oslo, 21-23 June:
http://www.cicero.uio.no/humsec/papers/Nordas_Gleditsch.pdf

This paper reviews much of the recent academic literature on climate change and conflict. The authors show that, despite the popular belief that there is a strong link between climate change and conflict, there is little academic research that supports this view. They emphasise that 'the suggested causal chains from climate change to social consequences like conflict are long and fraught with uncertainties' (p.23).

- Gleditsch, N., Nordas, R. and Salehyan, I., 2007, 'Climate Change and Conflict: The Migration Link', Coping with Crisis Working Paper Series, International Peace Academy, forthcoming, see attachment 'Gleditsch, Nordas & Salehyan'.

This forthcoming publication states that "it is entirely plausible – though not predetermined – that violent conflict will emerge as the result of climatic shifts" (p.10). The authors' central argument is that "while violent conflict may indeed be related to environmental changes, the few systematic studies show mixed evidence. Moreover, several mitigating factors are likely to complicate the relationship between climate change and conflict" (p.9). The paper specifically focuses on environment-induced migration as one of the more likely routes to violent conflict. Various different scenarios are outlined and the paper closes by making several policy recommendations.

- Barnett, J. and Adger, W., 2007, 'Climate Change, Human Security and Violent Conflict', forthcoming in Political Geography, see attachment 'Barnett & Adger', please note this is a 'corrected proofs' copy sent by the author.

This article analyses the relationship between climate change and conflict by considering the interplay between three distinct literatures:

- the vulnerability of groups to climate change
- livelihoods and conflict
- the role of the state in development and peace-making

The authors find that climate change reduces access to resources which threatens livelihoods, which in turn threatens human security. It is also likely that climate change threatens the capacity of the state to assist livelihoods. Both of these outcomes may increase the likelihood of violent conflict. However, these links are hypothetical – they are not empirically proven. The authors stress the need for more empirical work in this area, specifically:

- studies to assess the vulnerability of livelihoods to climate change
- analyses of the consequences of livelihood insecurity – is violent conflict a likely outcome?
- research on the role of institutions in guiding successful adaptations to climate change

- Barnett, J., 2003, 'Security and Climate Change', Global Environmental Change, vol. 13, see attachment entitled 'Barnett'.

This article primarily addresses the security impacts of climate change, but also discusses the likelihood of resulting conflict. Barnett surveys the literature and argues that whilst environmental change can be linked to violent conflict, “it has not been shown that environmental factors are the only, or important factors leading conflict”. He states that “on the basis of existing environment-conflict research there is simply insufficient evidence and too much uncertainty to make anything other than highly speculative claims about the effect of climate change on violent conflict” (p.4).

Barnett argues that environmental factors do not trigger open conflict between nation-states – any arising conflict is likely to be sub-national in nature. He applies research that links conflict to ‘greed’ (rather than ‘grievance’), arguing that this research means that resource-scarcity is not likely to trigger increased violent conflict. He also discusses the likelihood of conflict arising from migration, arguing that people rarely migrate for environmental reasons alone, more for economic opportunity elsewhere. Whilst migration can result in conflict, there are numerous examples of large-scale migrations with no such outcome.

- Raleigh, C., and Urdal, H., 2006, ‘Climate Change, Environmental Degradation and Armed Conflict’, paper presented to the 47th Annual Convention of the International Studies Association, San Diego, 22-25 March, Panel on ‘Resource Scarcity and Armed Conflict’: http://www.prio.no/files/file47828_cr001.doc

This article attempts to examine the links between environmental degradation and violent conflict. The authors analyse the relationship between environment and violent conflict in areas that have already experienced the types of environmental change that are predicted to increase with climate change (mainly land degradation, freshwater scarcity and population density and change). They find that environmental and demographic factors have a moderate impact, both directly and indirectly, on the risk of civil war. However, the relationship is not uniform. Specifically, they find that land degradation increases the risk of territorial conflict. Water scarcity increases the likelihood of conflict in densely populated areas, but reduces the likelihood of territorially based conflict. Population growth (i.e. through a large influx of migrants) is not a strong predictor of conflict.

- Reuveny, R., 2005, ‘Environmental Change, Migration and Conflict: Theoretical Analysis and Empirical Explorations’, paper presented at a workshop on ‘Human Security and Climate Change’, Oslo, 21-23 June: <http://www.cicero.uio.no/humsec/papers/Reuveny.pdf>

This paper discusses how environmental degradation as predicted by the IPCC will impact on migration, and the impact of migration on political conflict. Using two case studies (the U.S in the 1930s and Bangladesh since 1950) the author finds that environmental degradation does play a role in migration and that this can be a factor in intra-state conflict. The paper also highlights the potential role of public policy in avoiding violent outcomes to climate-induced environmental degradation and migration.

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Websites visited

Adelphi Research, Chatham House, Christian Aid, Eldis, ENVSEC Initiative, Google, GSDRC, Institute for Environment and Security (IES), International Alert, International Institute for Environment and Development, International Institute for Sustainable Development, Ingenta Journals, IISD Linkages, Linking Climate Adaptation Network, Oxfam, PRIO, SIPRI, Tyndall Centre for Climate Change Research, Woodrow Wilson Center, UNEP.

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