

# Climate-sensitive conflict research: Methodological challenges in the light of the Heidelberg approach

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*The articles on the [ZFD hub „Frieden verbessert das Klima“](#) (peace improves the climate) have examined the climate-conflict nexus in different ways. Lukas Rüttinger summarizes the current state of knowledge about the climate-conflict nexus. Rebecca Froese discusses the complex effect connections in a podcast episode. Other contributions have provided insightful case studies for Niger, Latin America and Uganda. In this contribution, we take a step back and discuss the fundamentals of climate-sensitive conflict research.*

Although there has been much progress in recent years, we still know depressingly little about the connection between the climate crisis and conflicts. Thus, we look at practical challenges and potentials of climate-sensitive conflict research, specifically by shining a closer light on the Heidelberg approach to conflict research. We discuss its scope to incorporate short- and long-term effects of the climate crisis and provide recommendations on how to improve our knowledge base about the implications and consequences of the climate crisis for conflicts.

## *The Heidelberg approach to conflict research*

According to the definition of the Heidelberg Institute for International Conflict Research (HIIK), a political conflict is a positional difference between at least two actors regarding values relevant to a society which is carried out using observable and interrelated conflict measures. These measures lie outside established regulatory procedures and threaten core state functions, the international order, or hold the prospect of doing so.

HIIK distinguishes between five conflict intensity levels. To determine the intensity of a conflict, HIIK employs both qualitative and quantitative indicators. This sets HIIK apart from other research projects which use only quantitative indicators. The indicators comprise two dimensions: the means used to carry out violent conflict measures and the consequences of the use of force. The means dimension comprises the indicators use of weapons and personnel, while the consequences dimension includes the indicators fatalities, destruction, and refugees. The goal of HIIK's fundamental research is to define and observe all political conflicts worldwide and to determine their intensity. It is beyond the scope of HIIK's methodology to investigate causes or consequences of conflicts nor to provide causal analysis. By providing data on a monthly and subnational level, it enables further research on conflicts, including the climate-conflict nexus.

### *The climate-conflict nexus*

The climate-conflict nexus became a focal point for peace and conflict researchers in the last years, resulting in an increased output of both qualitative and quantitative research. However, results of quantitative research can be described as mixed. Accordingly, although some quantitative studies have drawn systematic links between climate change and conflict, not all have done so. Many qualitative studies have focused more specifically on how risks play out in specific contexts, which can lead to direct and indirect interactions, including in the areas of food security, governance and social cohesion (1).

The scientific consensus is that the climate crisis should not simply be seen as a conflict triggering factor but rather be acknowledged in its complexity (2), including a multilayered interplay between political conflicts and climate related consequences such as natural disasters and resource scarcity. The climate crisis is generally considered a stressing factor and a risk multiplier (3), with other factors such as governance and socio-economic development having a much larger influence. As already mentioned, Lukas Rüttinger provides a comprehensive summary (4).

### *Methodological and Practical Problems*

Looking at climate-sensitive conflict research in particular, one will be confronted with methodological and practical problems when it comes to its implementation. What events and developments do we consider as results of the climate crisis? Are we taking short-term effects into account, that is natural disasters such as cyclones, droughts or floods? Or do we look at long-term developments like changes in temperature or sea levels?

One key issue here is to integrate the different characteristics of short-term events and long-term developments. This raises the follow-up question of the extent to which the current methodology of conflict research can meet this challenge and integrate climate-related events. In the case of HIIK, conflict-related actions, communications and events are categorised differently (5). Thus, there are conflict measures that are constitutive of a conflict, such as when actors use physical violence against each other. In addition, there are accompanying – also called corollary – conflict measures, for example negotiations between conflict parties. Both types of measures can be directly identified and taken into account in the analysis.

In addition to constitutive and corollary conflict measures, conflict events are included in the observation. These are events that do not originate from the conflict actors but prove relevant to the course of the conflict. Examples are natural disasters or economic crises. The Heidelberg methodology thus offers the possibility at this point to include short-term impacts of the climate crisis such as natural disasters in future research on a qualitative basis.

However, the integration of long-term implications, such as the rise of sea levels presents a major methodological challenge. Since long-term developments fall out of the identifiable single measure scheme of the Heidelberg approach, it is beyond the reach of traditional conflict research. In order to investigate quantitatively the connection between climatic long-term developments and conflicts, data sets from climate science and conflict research need to be combined. As Halvard Buhaug and Nina von Uexkull (6) point out, little progress has been made in the last decade on this issue.

#### *Potentials and recommendations*

To achieve these methodological objectives interdisciplinarity is integral. Researchers at the intersection of climate and conflict research should be well versed in the fields relevant to continuously analyze this complex nexus. Consequently, we identify three steps that should be taken to build up this crucial knowledge.

- Firstly, expert communities should be encouraged to communicate beyond the limitations and institutional boundaries of their respective fields. They should be enabled to connect in a longer running coherent framework.
- Secondly, a comprehensive methodological framework needs to be developed which contributes to the awareness of the climate-conflict nexus in research.
- Thirdly, the project of creating an environment, in which a holistic climate-conflict research methodology can be developed and applied, is only possible, if sufficient funding for climate-sensitive conflict research is provided.

Last, to improve our understanding of the climate-conflict nexus, fundamental research is key and should be supported more strategically. In this sense, the recommendations of the Advisory Board for Civilian Crisis Prevention for the German government (7) on the increased efforts regarding the conflict-climate nexus are essential steps towards climate-sensitive conflict research. Yet, the implementation of these steps are an important task which has to be taken up.

#### **The Heidelberg Institute for International Conflict Research (HIK):**

Mayely Müller, Maximilian Brien and Thomas Cranshaw all work and research at the HIK, which is an independent and interdisciplinary association based at the Institute for Political Science at Heidelberg University. Since 1991, the staff of the HIK, currently including over 200 volunteers, have been dedicated to researching, documenting and evaluating political conflicts. The annual "Conflict Barometer" provides an analysis and classification of all political conflicts worldwide (8).

## Sources:

- (1) Beatrice Mosello, Lukas Rüttinger & Liesa Sauerhammer (2019): [„The Climate Change-Conflict Connection – The Current State of Knowledge“](#). Climate-Fragility Discussion Paper. Adelphi Research GmbH.
- (2) BICC / HSFK / IFSH & INEF (2020): [„Friedenspolitik in Zeiten des Klimawandels“](#). Focus chapter (pp. 24-43) in the „Friedensgutachten 2020“ of the four German peace and conflict research institutes BICC: Bonn International Center for Conversion, HSFK: Leibniz-Institut Hessische Stiftung Friedens- und Konfliktforschung (Peace Research Institute Frankfurt), IFSH: Institut für Friedensforschung und Sicherheitspolitik an der Universität Hamburg (Institute for Peace Research and Security Policy at the University of Hamburg) & INEF: Institut für Entwicklung und Frieden (Institute for Development and Peace).
- (3) Nora Rathje (2021): [„Time for climate-sensitive conflict transformation. Complex crises need complex responses“](#). Article on the website of the Berghof Foundation.
- (4) Lukas Rüttinger (2020): [„Der Klimawandel als Risikomultiplikator und Konflikttreiber“](#). Article on the website of the Federal Agency for Civic Education (Bundeszentrale für politische Bildung/bpb).
- (5) Heidelberg Institute for International Conflict Research (HIIC, n.d.): [„Methodology of the Heidelberg Conflict Research“](#). Article on the website of the HIIC.
- (6) Halvard Buhaug & Nina von Uexkull (2021): [„Climate-conflict research: A decade of scientific progress“](#). Article on the website Prio | Climate & Conflict.
- (7) Beirat der Bundesregierung für Zivile Krisenprävention und Friedensförderung (Advisory Board to the Federal Government for Civilian Crisis Prevention and Peacebuilding) (2021): [„Klimawandel und Konflikte. Herausforderungen für die deutsche Außen- und Sicherheitspolitik“](#).
- (8) Heidelberg Institute for International Conflict Research (2021): [„Conflict Barometer 2020“](#).