

Development in Brief



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Does Climate Change Increase the Risk of Intrastate Armed Conflict?

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The security implications of global climate change have been the subject of fierce discussion for some years now. Prominent politicians, such as US President Barack Obama, caution against violent conflicts as a consequence of climate change, while well-known publicists like Harald Welzer or Gwynne Dyer claim that there is a risk of "climate wars". Also, the number of publications on the topic has soared in the field of peace and conflict research.

It is feared that long-term rises in temperatures and varying rainfall in the context of climate change will lead to poorer natural living conditions (lack of water, soil degradation, etc.) and therefore trigger violent distributional conflicts over scarce resources. The most prominent example of this alleged causal link is the civil war in Darfur, which UN Secretary-General Ban Ki-moon has referred to as the first climate war of the new millennium.

But do climatic variables such as temperature and precipitation really impact the risk of intrastate armed conflict?

Climate change and intrastate armed conflict

The much-discussed meta-analysis "Quantifying the influence of climate on human conflict" (2013) by Solomon Hsiang et al. considers 32 studies for the post-1950 era and comes to the conclusion that rising temperatures significantly increase the risk of intrastate armed conflict – whether civil wars or non-state conflicts. If the average global temperature really does rise by 2°C to 4°C by 2050, the authors maintain that the number of violent conflicts could soar by up to 50% in some regions.

However, these findings are highly controversial. Critics are particularly deploring questionable statistical methods and a biased selection of data, as they claim that studies with converse results had not been considered in the meta-analysis. The study "Warming increases the risk of civil war in Africa" (2009), which also finds a link between rising temperatures and an increased risk of civil war, is still the subject of similarly controversial discussion.

There is more of a consensus with respect to the effects of varying rainfall. There are a plethora of studies which suggest that fluctuating rainfall significantly increases the risk of civil wars in Sub-Saharan Africa – and beyond. However, there is considerable controversy surrounding methodical approaches and converse empirical results here too.

The finding that rainfall anomalies increase the risk of violent conflicts without state involvement is far more robust: Non-state violent conflicts in Africa occur far more frequently in both years when there is very little and years when there is plenty rainfall. Interestingly enough, abundance, rather than a lack of rainfall is the greater risk factor. Violent conflicts over cattle raiding in East Africa, which are occurring significantly more often during periods of heavy rainfall, are the best example of this phenomenon.

In contrast, there appears to be no connection between the occurrence of extreme meteorological events (storms, flooding, etc.) and the risk of intrastate armed conflict. According to current knowledge, even factors such as water shortage and soil degradation, which are often associated with climate change, do not have any impact on the risk of intrastate violence.

The significance of other risk factors

It is widely agreed that climate change can have a destabilising effect especially in those states that are also characterized by other well-known risk factors for armed conflict. The latter include, among others, a large population, low per capita income, low economic growth, weak security apparatuses and the political and socio-economic marginalisation of ethnic groups. Up until now, everything has pointed towards these other risk factors carrying significantly more weight than the aforementioned climatic variables. According to some studies, the effect of climatic variables disappears entirely as soon as other risk factors are taken into account.

Conclusion

Even though science is still far from reaching a consensus, there are now some indications that rising temperatures and rainfall anomalies increase the risk of intrastate armed conflict. Accelerated climate change could therefore well pose a serious threat to global security. There is no need to come over all alarmist, however, and issue misguided warnings of "climate wars", as violent escalation is only really to be expected in connection with other risk factors, which are often more important.

In future, the countries at risk could primarily be those that are firstly exposed to considerable climate change and secondly also vulnerable in political and economic terms. "Climate hotspots" such as these are mainly found in the Horn of Africa, West Africa, Central Africa and South Asia.

These regions urgently need the support of international development partners. To mitigate distributional conflicts over scarce natural resources, donor organizations should finance a multi-sectoral package of measures to allow countries to adapt to climate change (providing infrastructure, promoting security of food supply, provide alternative sources of income, etc.). Equally important, however, is the promotion of inclusive political and economic institutions, as this will reduce the political and economic vulnerability of the affected countries. ■