

Climate change and violent conflict in East Africa – implications for policy

There is growing consensus among researchers that climate change can increase the risk of violent conflict under certain circumstances. Researchers also agree on the need for a better understanding of why, how and when this might occur. These questions guided an analysis of research addressing the linkages between climate-related environmental change and violent conflict in East Africa. In this policy brief, we summarise the findings and outline the implications for policy.

With warming of the global climate system and recognition of the severe implications this will have for the availability of natural resources, scholars and policy-makers have expressed concern that the effects of climate change will also increase the risk of violent conflict. In its latest assessment report, the Intergovernmental Panel on Climate Change (IPCC) states that “some of the factors that increase the risk of violent intra-state conflict are also sensitive to climate change and variability” (IPCC 2014:773). There is also general agreement that the central questions are why, how and when climate change and variability increase the risk of violent conflict. This policy brief summarises the findings from an analysis of quantitative and qualitative research investigating the links between climate-related environmental change¹ and violent conflict². The region in focus is East Africa.

The climate-conflict link

A large body of scholarly literature on climate-related environmental change and violent conflict in East Africa shows that environmental changes such as changing rainfall patterns, droughts, changes in vegetation cover and increasing resource scarcity have contributed to various types of violent conflict. The link is particularly evident for conflicts involving livestock herders. Case study research also shows that local resource conflicts are sometimes drawn into more intense power struggles related to civil war, for example those in the Sudans and Somalia. This does not mean that climate-related environmental change automatically causes violent conflict – the political, economic and cultural context is often key. Below, we briefly present five explanations for why, how and when climate-related environmental change can lead to violent conflict in East Africa and outline a number of important contextual factors.

Worsening livelihood conditions

Economic hardship can – under certain circumstances – significantly increase the risk of violent conflict and has done so across East Africa. Droughts, dwindling rainfalls, degraded soils and sparser vegetation cover have devastating effects on livelihood conditions in this region, where a large proportion of the population relies on rain-fed agriculture and pasture. With their livelihoods threatened, people believe that they stand to lose less by using violence or by joining armed groups. Sudden climate-related environmental changes, for example droughts or floods, are often more detrimental as people have less time to adapt or to develop peaceful resource-sharing mechanisms. Several studies also show that periods with relatively unfavourable conditions, such as droughts, are more likely to experience communal conflict or civil war. As violent conflict leads to the breakdown of social relations and often forces people to adopt unsustainable livelihoods, there is a risk of the livelihoods-conflict cycle being perpetuated, leading to chronic insecurity.

Increasing migration

Regional migration sometimes leads to violent struggles over natural resources in areas of high in-migration in East Africa. When people can no longer sustain themselves, they often respond by moving to areas where there are more resources available. Therefore, migration is referred to as an adaptation strategy. Migration sometimes leads to violence because groups from different areas often lack common conflict resolution mechanisms to resolve conflicts over resources peacefully. Groups with a strong sense of identity are also generally better at mobilising people for violent purposes. Importantly, migration-induced conflict is more likely to take place in areas where there are more resources and where livelihood conditions are better. The decision to migrate is rarely caused by environmental change alone and is often a result of several factors that interact over time.

¹*Climate-related environmental change* is defined as a change in biophysical conditions that are or will be affected by a change in the state of the climate or by variations in the mean state of the climate.

²*Violent conflict* is defined as deliberate violent acts perpetrated by an organised or semi-organised group against state forces, other organised or semi-organised groups or civilians within the territorial borders of a recognised state.

Changing pastoral mobility patterns

Another slightly different form of migration relates to changing pastoral mobility patterns. Pastoralists earn their livelihood mainly by herding livestock and rely on mobility as a way of coping with the harsh climate conditions in East Africa. It is therefore not migration *per se* that is important, but the fact that pastoralists are increasingly changing their normal mobility patterns. These changes are imposed both by climate-related environmental change and by non-climate factors. The dominant climate-related factor in East Africa is drought. Along their traditional trekking routes, pastoralists negotiate access and follow customary laws that regulate their access to resources. When their routes change, conflicts often arise over water and pasture with groups already present in the area – conflicts that sometimes turn violent. This pattern has been observed across the region, particularly in Kenya, Ethiopia and the Sudans.

Tactical considerations

Weather and short-term climate fluctuations can also affect the tactical considerations of armed groups, notably livestock raiders. Livestock raiding is less costly during the wet season, when the thick vegetation provides cover. Livestock are also stronger during the wet season, making it easier for raiders to trek long distances with stolen livestock. Several studies show that livestock-related violence is more likely to occur during wet periods. This explanation differs from the previous three, since it concerns how the climate affects the decision on *when* to engage in violence, and not on *why* groups wish to engage in violence in the first place. In addition, it illustrates how climate-related environmental changes can affect the dynamics of violent conflict.

Exploitation by elites

Most resource-related violent conflicts in East Africa are relatively low-intensity conflicts among loosely organised groups at local level. However, these local conflicts sometimes become integrated into larger processes of civil war, ethnic cleansing and insecurity through elite exploitation. Political elites sometimes view fuelling inter-group violence as an effective means of diverting attention away from their own shortcomings, crushing political opponents or ensuring the continued support of their constituencies. In such instances, local struggles over scarce resources are situations ripe for elite exploitation, since elites can capitalise on existing grievances and tensions and because the organisational structures necessary for violence are already present. This is particularly apparent in the Sudans, where local resource conflicts are intrinsically linked to regional and national

power struggles. Similar processes have been observed in Kenya, Ethiopia, Uganda and Rwanda.

The importance of political and social context

The relationship between climate-related environmental change and violent conflict does not exist in a political and social vacuum. Political processes permeate every link in the causal chain from environmental change to an increased risk of violent conflict. A group's access to natural resources or vulnerability to climate change is determined by both political and biophysical processes. Political institutions are critical for understanding why some local resource conflicts turn violent, while most do not. Analysis of the case study literature provides many examples of this. One example concerns East African pastoralists, who face increasing resource scarcity as a result of longstanding political, social and economic marginalisation, in combination with more frequent and longer droughts. Acknowledging the political and social nature of the climate-conflict link is important, since it highlights the political manoeuvrability that exists for easing vulnerability and preventing violent conflict.

Temporal and spatial dimensions

In addition to the social and political context, a review of the literature reveals a need for researchers to take the temporal and spatial dimensions into account when analysing the linkages between climate-related environmental change and violent conflict. Climate change involves delayed effects and boundary crossing impacts, as do the dynamics of violent conflict. Mere correlation-based analyses limited to short periods or limited spatial units risk overlooking the complex relations that shape the causal pathways between environmental change and violent conflict. It is thus essential that researchers incorporate these dimensions into their analyses.

The implications for policy

In addition to analysing the linkages between climate-related environmental change and violent conflict, we examined the policy implications reported by researchers in their analyses. We summarise our findings below.

Support impact mitigation and resilience

A central claim in the literature is that worsening livelihood conditions make people more likely to join armed groups or engage in violence. This suggests that efforts to mitigate the impact of climate-related environmental change and to strengthen resilience to climate change may also lower the risk of violent conflict. For pastoralists, common suggestions include weather insurance schemes, improved access to markets and

support for destocking and restocking processes in times of drought. Other suggestions in the literature include strengthening resilience by combating bush encroachment on pasture, controlling infectious insects and providing cheap, accessible veterinary services. For sedentary populations, formal insurance systems against extreme climate shocks and income diversification can help build resilience to climate-related environmental change.

Enable and adapt to mobility and migration

Analysis of the literature revealed that changing pastoral mobility patterns and migration often function as a form of adaptation to climate-related environmental change. Instead of coupling mobility and migration, several studies emphasise that these adaptive strategies should be embraced. One way to break the cycle of vulnerability and violence is to create institutions that facilitate peaceful seasonal migration and to design strategies for harmonising the mobility needs of pastoralists with the needs of sedentary farmers. There is also a need to adapt development policies to mobile populations, for example in the realm of education. Essentially, development agencies need to recognise the importance and function of mobile livelihood strategies and design their policies accordingly. Some studies suggest that this entails raising awareness and lobbying for unfettered mobility for the region's herders.

Strengthen existing conflict resolution mechanisms

The analysis also showed that when institutions are absent, corrupted or non-functional, the risk of violent conflict over scarce resources increases. Adequate and effective conflict resolution mechanisms are hence a way to prevent violent conflict. Since most communities already have such mechanisms, some researchers point out that external actors such as governmental and non-governmental organisations should focus on how to adapt local conflict resolution mechanisms to meet new demands, rather than trying to introduce entirely new mechanisms. Examples cited include strengthening out-of-court conflict management procedures by building capacity among local or traditional institutions or by designing institutions to sanction destabilising practices such as livestock raiding. The literature also emphasises the need to strengthen relevant state institutions at central and district level, include environmental indicators in conflict early warning systems and integrate climate change adaptation into development and post-conflict reconstruction programmes.

About the policy brief

This policy brief is a summary of the report *A Coming Anarchy? Causal Pathways from Climate Change to Violent*

Conflict in East Africa. The analysis is based on a systematic literature review of 44 academic articles that investigate the relationship between climate-related environmental change and violent conflict in East Africa. Both quantitative and qualitative research, including in-depth case studies, were included in the analysis. The report is conducted within a project funded by the Swedish Ministry of Foreign Affairs.

For the full report, see: van Baalen & Mobjörk (forthcoming). *A Coming Anarchy? Causal Pathways from Climate Change to Violent Conflict in East Africa*. Stockholm: Stockholm University & Stockholm International Peace Research Institute.

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