

Water Wars

Abstract

We study the relationship between access to water resources and local violence in Africa. Due to limited irrigation, rural communities rely on rainfall, rivers, and lakes for their economic needs. Rainfall scarcity can make access to water from rivers and lakes more valuable, thereby generating conflicts in rural settings. We explore this hypothesis by integrating granular data on the river network with high-resolution data on rainfall and violent conflict events in Africa from 1997 to 2021. We find that reduced rainfall in a location leads to more conflict in neighboring areas that are water-rich and located upstream along the river network. These are the sites that exert more control over the river flow. The effect is more pronounced in regions experiencing a long-term decline in water presence. Consistent with the proposed mechanism, conflicts concentrate in areas with higher returns to water access, as proxied by the presence of agricultural production. Additionally, the impact is more pronounced in regions with unequal water distribution among ethnic groups, highlighting how cooperation costs are an important friction preventing peaceful sharing of water resources. In terms of policy responses, we find that the effects tend to be mitigated in countries with stronger democratic institutions, better rule of law, higher state capacity and less corruption.

This paper is joint work with Devis Decet (Northwestern University)

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