

Global Rise In Violence May Be Another Effect Of Climate Change

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[Brett Smith](#) for redOrbit.com – Your Universe Online

From higher crime rates to a greater chance of social upheaval, a new study from researchers at Princeton University and the University of California, Berkeley predicts more violence across the globe will be one of the effects of [climate change](#).

Based on an analysis of 12,000 years of historical and climate data culled from 60 different studies in fields ranging from archaeology to political science, the research team concluded an uptick in violence will accompany rising temperatures and lower precipitation levels, according to [their report](#) in the journal *Science*.

“We often think of modern society as largely independent of the environment, due to technological advances, but our findings challenge that notion,” said study co-author [Edward Miguel](#), a professor of environmental and resource economics at UC Berkeley.

While previous studies have linked a rise in violence to rising temperatures, the new study examines violence on a personal, societal, global and historical scale. After performing a comprehensive review, researchers found rising domestic violence in Australia, a higher murder rate in the United States, ethnic violence in Europe, land invasions in Brazil, police action in the Netherlands and even the historic collapse of the Mayan empire could all be traced to higher-than-average global temperatures.

“What was lacking was a clear picture of what this body of research as a whole was telling us,” said lead author [Solomon Hsiang](#), an assistant professor of public policy at UC Berkeley. “We collected 60 existing studies containing 45 different data sets and we re-analyzed their data and findings using a common statistical framework. The results were striking.”

While the researchers looked at how precipitation and temperature relate to conflict on several scales, they found temperature to be the most reliable predictor of unrest. In one particular study, police officers in a training scenario were more likely to draw their weapons as the temperature in the training room was increased.

“The officers said they felt more threatened when they were in the hot room,” Hsiang [told Bloomberg News](#). “Imagine you’re in a country, there are some protesters, and some policemen who are supposed to be maintaining order. Their response to that protest may change based on environmental conditions.”

A central feature of the study was the statistical metric used by researchers: standard deviation, or the distance that particular numerical values differed from the average. Equivalent to a 0.6-degree F temperature increase for one month in an African nation, standard deviations allowed the scientists to relatively compare

different climate zones around the world.

“We found that a 1 standard deviation shift towards hotter conditions causes the likelihood of personal violence to rise 4 percent and intergroup conflict to rise 14 percent,” said co-author [Marshall Burke](#), a doctoral candidate at UC Berkeley’s Department of Agricultural and Resource Economics.

“Our results shed new light on how the future climate will shape human societies,” he added.

The study authors suggested future research should focus on understanding why rising temperatures lead to increased conflict and noted climate change isn’t the only factor influencing levels of violence. They also said policymakers should consider measures to account for the social impact of climate change.