

# CLIMATE CHANGE AND VIOLENCE

Researchers have predicted the meteorological effects of global climate change with alarming accuracy: rising sea levels, droughts, floods, hurricanes, and tsunamis. The psychological, sociological, political, and economic effects are equally as disastrous.

## **We are hard-wired with a 'temperature – aggression' link.**

Hot temperatures activate regions in the brain that regulate emotions and that release adrenaline. The result? We get irritable, uncomfortable, and we act aggressively.

Experiments in labs, field settings, across different regions, and across time are all consistent: individuals exposed to hot temperatures are more likely to be violent as a direct result of the heat.

**An increase of only 1.1°C in annual temperature could result in 25,000 more serious and deadly assaults per year in the US alone.**

## **Women and children are particularly vulnerable.**

According to the UN, women and children are especially vulnerable to the effects of climate change. In the aftermath of severe floods, food shortages, and war, when social norms break down, there is an increase in rape, assault, and homicide.

## **Rapid climate change harms children.**

Children who live in poverty, war, and instability, with malnutrition and low levels of education, will grow up prone to violence when these factors are multiplied by increasing heat.

## **Food insecurity increases aggression and anti-social behavior.**

Climate change compromises agricultural production and increases food insecurity for hundreds of millions of people. Research documents that malnutrition and lack of access to affordable, nutritious food result in violent behavior.

## **Climate change affects economies worldwide.**

Crop yields are reduced, grazing land dries up, and homes, jobs, and infrastructure are lost due to wildfires and flooding. Although most people will feel the economic impact, the most vulnerable populations will be disproportionately affected. This can foster increased resentment and dissent, key risk factors for aggression. These economic effects are most significant in places that are less politically stable and where governments have difficulty feeding, clothing, and housing their residents.

## **Terrorism is motivated by factors related to climate change.**

People are recruited into terrorism under extreme cases of perceived inequality, poverty, and uncertainty, particularly the frustration over the sudden loss of one's livelihood. Droughts, which are increasing in frequency, bring about many conditions that foment terrorism and lead to increased violence in already-violent and vulnerable regions.

**Researchers estimate that an increase of one standard deviation in drought intensity and duration increases the likelihood of conflict in a region by 62%.**

**Climate change will increase conflict and violence amid and between groups of people**, particularly groups whose livelihoods are threatened by climate change. These changes can lead to increased economic and political instability and eco-migration – the movement of groups ranging from small herding groups to whole nations – because of ecological disasters. Eco-migration itself contributes to conflict through increased competition for dwindling resources between groups suddenly occupying the same region. Mass atrocities and genocides in Darfur, Burma, Syria, Bangladesh, and Rwanda are all examples.

**Syria: a perfect climate storm.**

In Syria, a multi-year drought turned 60% of the country's land into desert and killed entire herds of cattle. The result was a mass migration of desperate and angry farmers to urban centers, where the people lashed out against their government for poor management and unsustainable environmental and agricultural policies. Rapid climate changes led to eco-migration, which led to conflict both between ethnic groups and within the citizens of a single country. And these conditions are creating breeding grounds for terrorism.

**Richer nations are more resilient – but not immune.**

Hurricane Katrina hit the southeastern US in 2005 and displaced more than a million people, who took refuge in nearby states. In subsequent months, homicide rates increased in cities that had taken in the displaced. Today, 25 US cities across the country are on the Climate Disruption Index, predicted to be severely impacted by droughts, floods, and other climate disasters.

**THE WORLD IS IN OUR HANDS. THE TIME TO ACT IS NOW.**



Information excerpted from *Likely Effects of Rapid Climate Change on Violence and Conflict*, Courtney Plante, Johnie J. Allen, and Craig A. Anderson, April 2017, in [climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-344](https://climatescience.oxfordre.com/view/10.1093/acrefore/9780190228620.001.0001/acrefore-9780190228620-e-344)