



Droughts as Triggers for Civil War: Empirical Evidence and Policy Implications

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Marc Levy, part of the Earth Institute at Columbia University, is the deputy director of the Center for International Earth Science Information Network (CIESIN). He is currently leading work on water-conflict linkages in order to examine how humans are interacting with their environment in lieu of climate change. This talk in particular focused on the impact of drought on human behavior.

Climate change has officially been recognized as an international threat in terms of National Security by the United States National Intelligence Assessment Survey. This survey, the Annual Threat Assessment published by Dennis Blair, had for the first time, an entire section on the environment and aspects of national security, such as climate change, energy crisis, and global climate shifts. Some experts still question the validity of global climate change, arguing that it may be just a natural, cyclical phase. Currently however, climate change has become a generally accepted phenomenon, much of which is attributed to human actions.

In terms of national security, the United States has improved relations in our approach to world-conflicts. There has been a universal decline in world-conflict battle deaths since WWI, and peace missions have become increasingly more successful. Conversely, trends in deaths resulting from natural disasters have been on the rise since 1975. The number of deaths and the intensity of natural disasters are increasing. Research by CIESIN has found that climate-related disasters have seen the greatest growth, especially floods.

Although this seems contrary to increasing concern over droughts, global warming affects weather patterns and storm intensity and frequency, which may potentially change climates. Areas that were dry may become flooded, and areas that had plenty of water may become arid. Currently scientists estimate that 60% of our ecosystem services are degraded, and few plans are being made. Scientists and politicians are just trying to understand what is going on with climate change, and what it may unveil for the future.

Marc Levy speculates that environmental problems and security agendas have an inverse relationship. As environmental issues get worse, conventional security issues become better. He proposes three phases of the security agenda that may come in the future: a conventional security agenda which occurs when environmental issues are only a slight threat, a mixed security agenda, and a human security agenda when classic security issues become a slight threat. In the mixed security agenda stage, traditional security concerns will be considered with some environmental impact concerns. In human security agenda, issues such as human livelihoods, disaster vulnerability, and forced migration will be considered.

Currently the United States has not moved towards a human security agenda, though some scientists and political analysts feel that it is on the horizon. Although the future of the United States is getting more peaceful with fewer violent conflicts, there are more unexpected dangers. More people are living in dangerous climates, the climates are getting more severe, and the interactions between people and their climates are getting more complex and thus, harder to predict.

Monitoring the effects of droughts has been possible because there were already extensive data available. Studies have found that arid areas are getting drier, soils are drying out, and droughts are getting more frequent and more intense, driven by climate change. New correlations between extreme drought and conflict are being examined in order to maintain national security. Poverty is the most important risk factor for conflict, and nearly all countries with autocracy have problems. The CIESIN has found that when rains fail, 12-14% of the time conflict is likely to escalate the following year. Furthermore, 10% of areas that have the greatest drop in rainfall have a 22% chance for civil war the next year.

These data demonstrate the impact of environmental drivers on war. Violent opposition to current regimes is relatively common in many countries with autocracies, and when drought becomes a problem and families are starving, people are more likely to join a guerilla group in exchange for money, food, and water. Increasing levels of inequality, often driven by drought, lead to conflict zones. This is becoming known as the “Darfur Effect.”

For example in Columbia, areas dependent on coffee experienced great hardship when prices collapsed. Many people lost their livelihoods and faced starvation. During this time, guerilla attacks directly increased because people felt they had no other options. With droughts, similar effects are seen as people’s options for survival decrease and they feel more compelled to join with governmental opposition.

The increase in water demand across the globe combined with climate change is likely to cause more droughts, which may be hotspots for conflict. The economic consumption of population growth also fuels scarcity. Poor countries that are beginning to become more industrialized are demanding more water for industrial use, taking already scarce water resources away from the people. Increased agricultural and domestic water demands in water-scarce areas are also causing water availability to decrease. Unfortunately, the biggest increases in water demands occur in the driest places.

In order to combat this problem, other information must be researched and collected, such as population movements, and local institutions. The importance of the water scarcity issue is going beyond resource availability and becoming a human rights issue. Global change today is experiencing a revolution similar to that of the human rights movement fifty years ago. The ability of countries to cope with national disasters and environmental change is at stake. Governments must take more action to find ways to cope when disaster strikes, and take preventive measures to help deter or soften the effects.

Climate change and environmental disasters are having an additional effect on countries throughout the globe. Refugees from disasters are increasing, and with future predictions for sea

level rises and increased frequency and strength of storms, they are likely to continue increasing exponentially. Currently the global definition of refugee doesn't include environmental issues. Many people who lose their homes and livelihoods during environmental catastrophes don't receive support from their home nations, and must turn to other countries for goodwill and limited assistance.

There is a strong resistance from other countries to prevent the definition of refugee from changing because they do not want to increase the number of forced refugee care. Currently some countries help, but the help is minimal and unlikely to meet increasing demands as environmental disasters increase. This is a big issue in Europe, as many nations have already taken in refugees and have experienced rapid population growth. Countries struggle to support population increases and do not want any more. The fear of environmental refugees is overwhelming political institutions even in stable areas where environmental refugees and population growth are not an issue.

In conclusion, drought is a major issue facing many regions of the world due to climate change. Many poor, arid regions which are already water stressed are experiencing the worst droughts, losing crops, running out of water, and facing political conflict. Even though droughts are often localized, many countries need to take a more active role in helping those people in need. The biggest greenhouse gas producers are not taking responsibility, and are doing little to assist people experiencing climate change firsthand. Countries with the financial capacity to help refugees, and countries with droughts and conflict must implement responses to help. Scientists believe that environmental issues are only going to get worse, increasing in frequency and strength. Global warming is affecting the entire world, and all countries must come together to help those in need in this changing time.

Resource:

"Marc Levy." Center for International Earth Science Information Network. Columbia University. 15 Apr. 2009. <<http://www.ciesin.columbia.edu/levy.html> >