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Climate Change as a Conflict Multiplier

Summary

- Climate change can be a conflict multiplying mechanism as it fosters unforeseen conflicts and reinforces existing ones. While there are many causes of conflict, climate change can be a trigger in the sequence.
- Climate effects that constrain resources are unequally distributed to those countries already in the most desperate situations. Coupled with rising population growth, these events are likely to heighten poverty in the future if no action is taken. Adaptive development must be sustainable to bridge existing shortfalls, must plan for anticipated effects, and provide for the longer-term picture. More developed and higher carbon-emitting states should engage in mitigation efforts to reduce these effects.
- Given that one country will feel the consequences of environmental destruction sown by another, the costs and benefits of adaptation and mitigation should be weighed from a global perspective as the capacity of countries to respond varies. Failure to mitigate and adapt to climate effects can raise the likelihood of violent conflict.

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Hot and Cold Climate Wars¹

Climate change can have major economic and social consequences for all nations. It is possible that some nations will benefit from climate change but most will be impacted negatively. On its current path, inaction can lead to negative economic shocks hampering global food and commodity prices. Hot wars are the conflicts that could emerge in countries near the equator, most of which are developing countries. These conflicts can stem from severe drought, declining agricultural production, torrential rains, flash floods, cyclones, hurricanes, monsoons, tsunamis and tropical storms. Cold wars are likely to occur in more temperate and arctic regions where states will face new economic conflicts. Specifically, conflict can arise with economic competition for newly available resources resulting from a change in ocean ecosystems. This includes border conflicts, regulatory challenges and the development of new trade routes. The underlying relationship found between hot and cold wars is the interplay of resource abundance and resource scarcity that is caused by changes in the climate. Generally speaking, with climate change, there is a shift of resource availability from hot to cold states.

Linking Climate Change to Conflict

Fluctuations in weather patterns have a direct impact on the availability of essential resources. Specifically, weather damages affect crop beds, food production cycles and the spreading of water-borne diseases that can exacerbate already weak physical, economic and social infrastructures. Most of the people that face these negative effects reside in the world's poorest countries. These regions are

expected to incur more severe episodes of droughts, more frequent and catastrophic floods, torrential rains, and heightened tropical storms. In 2008, the world faced a food crisis from rising staple food prices due to rising demand and limited supply. Many studies support that this would likely be the case in the near future under climate changes and anticipated population growth.^{2,3} This impact hits home as food and basic items become increasingly expensive around the world. More frequently, many are observing recent hikes in food prices as a threat to stability as food stocks dry up and incomes and employment are lost.^{4,5} For instance, some analysts attribute the recent unrest in the Middle East and Northern Africa as triggered by the spikes in staple food prices. Indeed, formal studies have supported this idea finding a threshold for food prices above which the likelihood of unrest rises.⁶

While recognizing the importance of food price hikes on conflict, linking these food price increases to climate change directly has also been examined. For instance, a recent study by the nongovernmental organization Oxfam addresses this issue by comparing staple food prices for both a business as usual and climate change affected scenario.⁷ The data shows higher food prices across the board in all regions experiencing climate change. Noting that the price rises without climate change (the baseline scenario), the effects are even greater during climate change. In addition, there are many studies examining the statistical impact climate change has on conflict, recently studies have shown climate cycles to double the risk of civil wars, drawing on historical relationships between them.^{8,9} Another study found El Niño storms to account for up to 21 percent of conflicts around the world since 1950.¹⁰ While forecasting models have been created, efforts that can catalyze the research on the sociological and economic impacts are still needed.¹¹ Climate change can also be a conflict driver through its impact on migration.¹² Some analysts estimate that climate change will cause 250 million people to lose their homelands by 2050.¹³ Migration can put pressure on the receiving country's economic infrastructure and resources. In most cases analyzed, the receiving country is itself relatively poor further constraining resources.¹⁴

Mitigation, Adaptation and Policies

Countries can act proactively to absorb anticipated climatic shocks by either mitigating the effects of climate change through lowering emission production, or adapting to the changing conditions. Balancing mitigation and adaptation efforts should be conflict sensitive by addressing emergency needs when necessary and evaluating the impact and benefit of climate-sensitive development opportunities.

Adaptive activities try to reduce natural disaster risks by developing climate-durable building models, a re-alignment of food production processes, more efficient water usage, monitoring sustainable food supplies and maintaining reserves for future food crisis. Most countries facing severe adaptation issues tend to already be poorer and/or are conflict affected. For conflict-affected states, the battle lies in prioritizing conflict-sensitive approaches while balancing the need for adaptive and sustainable policies.

Policies for Adaptation

- Improve understanding of climate-related effects on local systems and communities;
- Strengthen resilience to climate cycles and invest in adaptive developments, such as drip-feed irrigation and agroforestry, inclusive with local level considerations and input in developments;
- Improve efficiency in food production;
- Encourage development with renewable resources; production requiring non-renewables should include provisions to invest in a more sustainable system;
- Plan for migratory bottlenecks by working with regional and international bodies to coordinate contingency plans and funding;

- Determine provisions to address social dilemmas caused by climate change, including programs and agreements on assisting refugees.

Countries that can play a role in mitigation are those that for the most part caused the climate to change, and who are in a relatively better position to afford mitigation. This calls upon high carbon emitting countries, such as the U.S., China and members of the E.U., to drastically reduce their emissions and offer financial assistance and humanitarian/natural disaster relief to countries facing adaptation. The international community has supported these prospects, and used them as a basis for developing climate change tools. The proposed levels of mitigation would require significant belt tightening, and a shift to a greener and more sustainable economy.¹⁵ For instance, imposing taxes on the price of gasoline or coal could dampen an economy dependent on these commodities, especially when growth is consumption driven in a fragile, post-financial crisis period. However its possible that gains can be made through branding sustainable products and conducting business in an ethical manner, reducing supply chain risk, and developing greater competitive trade advantages.¹⁶ Businesses could find benefits in new markets as they have the opportunity to set industry standards and gain market power. More efficient production processes could potentially lead to increased consumption and possibly outweigh the benefits of carbon heavy products.¹⁷

Policies for Mitigation

- Limit and enforce a standard on carbon emissions;
- Phase out agricultural subsidies and invest in more productive technologies, for items such as farm, bio, and fossil fuels;
- Invest in education and training opportunities for new technology research to improve food and energy use, as well as research modeling the relationship between conflict and climate change;
- Create incentives for a growing green market, including tax breaks, business and education credits, and regulations for unsustainable business practices.

The most notable and perhaps recognized effort at mitigation was the 1998 United Nations Kyoto Protocol, which named a series of emissions limits for North American and European countries and set a proposition for emission market trading. Since then, the EU has set up its own emissions trading scheme, but other major emitters have yet to do so. The U.S. has focused its efforts on an economy-wide transformation, creating a market for carbon, and increasingly the demand for producing more sustainable and efficient products. Below are actions that the international community, both mitigating and adapting countries, can create and support.

International Policies

- Address global price shocks and possibly develop international food reserves coordinated between countries. Research and develop counter cyclical regulations for commodity markets;
- Accumulate funds and programs/plans for receiving increased migratory bottlenecks, identifying geographical risks;
- Reinforce global solutions for food and climate problems, identifying multilateral and interconnected approaches, balancing mitigation and adaptation efforts;
- Foster legal cooperation and improved systems over sea and available land usage;
- Address current inefficiencies in production methods, such as agricultural and energy systems, and propose improved regional trading schemes;
- Create solutions that address the social and economic consequences of climate change, including provisions for refugees, island states and conflict-affected areas.

ABOUT THIS BRIEF

In the fall of 2010, USIP hosted the event Environmental Sustainability and Peace in a Changing World. This Peace Brief incorporates the key points made by discussing the linkages between climate change and conflict and outlines opportunities for both mitigation and adaptation for all stakeholders.¹

ABOUT THE AUTHOR

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Conclusion

Climate change has serious consequences for conflict. Experience has shown environmental catastrophes to shock economic and social systems. These shocks are channeled through the interplay of resource scarcity and disruptions in the economic and social structures. Studies have found staple food prices to be higher because of climate change (as opposed to the business as usual projections). Some studies have even found strong causal relations between climate shocks and conflict historically. The effects can weaken productivity and devastate countries that are particularly vulnerable. In planning for these consequences, there are roles for stakeholders at each level and the resulting policies should be sensitive to the varying effects caused by climate change and be inclusive to all beneficiaries.

Endnotes

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