

The IISS Transatlantic Dialogue on Climate Change and Security

Report to the European Commission

EXECUTIVE SUMMARY

On February 25, 2009, the International Institute for Strategic Studies (IISS) launched the “Transatlantic Dialogue on Climate Change and Security”, funded by a grant from the External Relations Directorate of the European Commission. The purpose of the two-year dialogue, now concluding, was to analyze the impact of climate change on global security and stability. The dialogue has included some of the foremost environmental and security experts from government, including the military and intelligence communities, academia, international organizations, and the private sector. The findings and recommendations presented here are intended to inform policymakers on both sides of the Atlantic on how to most effectively address climate change.

The report outlines the most critical findings and policy recommendations emerging from over two years of intense activities including research, roundtables and conferences.

The findings of the report make clear that climate change presents a critical threat to international security. The national security communities on both sides of the Atlantic, including military and intelligence planners, have a role to play in preparing for climate change. However, the report’s recommendations unambiguously maintain that these threats cannot be addressed with the traditional tools of security – guns and bombs. Instead, the problems caused by a changing climate must be addressed through ‘whole of government’ initiatives.

What follows is the four-page Executive Summary, detailing the dialogue’s findings and recommendations. The report can be downloaded in its entirety, in PDF format, from the IISS website at:

<http://www.iiss.org/EasysiteWeb/getresource.axd?AssetID=51287&servicetype=Attachment>



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Findings

- 1. The earth is warming, and has been for at least a century.** The temperature record is undisputable. The warmest decade on record was the 2000s, with each of the three decade previous to that warmer than the decade before. 2010 was tied with 2005 as the warmest year on record, at 0.62°C (1.11°F) above the average global temperature for the 20th Century. This warming is directly attributable to the increasing emission of carbon dioxide and other greenhouse gases since the beginning of the industrial revolution.
- 2. Variability and Uncertainty are features of the climate system.** No one knows how quickly climate change will happen, and what its specific effects will be. Climate models exhibit significant uncertainty about the sensitivity of the climate system to increasing concentrations of greenhouse gases. Scientists do not know how much warming increasing concentrations will cause.
- 3. Action to reduce emissions of greenhouse gases will not prevent significant warming over the next 30-40 years.** International efforts to reduce emissions agreed over the next decade will determine the climate of the second half of the 21st Century, but most of the warming until 2050 is 'locked in' by the cumulative emissions of the last two centuries. Therefore, we should be preparing for an average warming of at least 0.2° Celsius per decade, consistent with trends since the 1970s.
- 4. Climate change may already be changing weather and precipitation patterns.** The summer of 2010 featured extreme weather in European Russia and Central Asia, including a heat wave in Russia and flooding in Pakistan. While individual events can never be definitively attributed to climate change, scientists predict that man-made climate change will increase the number, power, and duration of extreme weather events.



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Findings

5. **Changes in water resources will be the most visible impact of climate change on human society.** Predicted rainfall changes and droughts in already arid regions could turn marginal farming and grazing lands into deserts, while annual reductions and seasonal variability in river flows will cause water shortages in areas that lack consistent rains. Meanwhile, rising sea levels and an increased probability for extreme weather will cause harmful flooding.
6. **Global food production will be adversely affected by climate change.** Positive benefits of warming such as a longer growing season in northern regions, and possible boosts to growth from increased carbon dioxide in the atmosphere, will be offset by higher temperatures in the tropics and changing precipitation patterns. The result will be declines in yields for the most important crops in developing countries. Achieving a secure food supply will become a challenge for more countries because of a combination of increased prices and changing areas for viable food production.
7. **The impact of climate change on energy security is complex, but likely to be negative.** Climate change presents clear risks for energy infrastructure along coastlines and rivers. Although dependence upon foreign energy and climate change are separate problems, climate change presents long-term strategic uncertainty to energy sources that will have to be addressed.
8. **The impacts of climate change combine to make it a clear threat to collective security and global order in the first half of the 21st Century.** The links between climate change and conflict are complex but clear. Changes in climate per se are unlikely to cause interstate wars between major military powers over the next 30-40 years. However, in areas with weak or brittle states, climate change will increase the risks of resource shortages, mass migrations, and civil conflict. These could lead to failed states, which threaten global stability and security.



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Recommendations

- 1. Addressing climate change will require a ‘whole of government’ focus.** Actions to mitigate emissions, like increasing energy efficiency and promoting the development of new technology are important. So too are often overlooked areas like building resilience to climate change into domestic infrastructure and helping to finance climate adaptation in countries too poor to afford it.
- 2. Climate change is a threat to international security, and security planners should play a role in addressing it.** Military and intelligence organizations have the most experience in strategic planning under conditions of uncertainty. They understand that waiting for certainty often means that you have waited too long. Intelligence communities in both Europe and America should fully examine and prepare for the many scenarios that a changing climate presents.
- 3. Because some climate change is inevitable, governments should prepare for adaptation and disaster response.** Investments in climate change adaptation will be necessary. In many cases, good adaptation policies will double as good overall development policies. Even so, there will be events that overwhelm any preparations, and militaries should be prepared for more rapid and complex interventions into disaster-affected regions.
- 4. Adaptation is not simply a matter of funding levels.** Areas that have experience with annual climate variability often have very high adaptive capacity, and donors should think carefully before substituting technical or financial solutions for community-based solutions that have been honed by centuries of experience. On the other hand, care should be taken when considering the option of injecting adaptation financing into regions at risk of conflict. New funding in these regions can unwittingly give rise to conflict by appearing to favour one interest-group over another.



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Recommendations

5. **Water should be at the center of climate adaptation efforts.** Water supplies will be heavily reduced by climate change in drought-prone areas, and water shortages are a likely cause of conflict around the world. Therefore, infrastructure investments and policy changes that can more efficiently deliver, store, and distribute water should be prioritized. In addition, where water supplies cross borders – whether domestic or international – negotiating water sharing agreements should be a priority.
6. **Preparing food systems for climate change while also preparing for a world of 9 billion people will require significant, sustained investment and robust global markets.** Food supplies could be substantially reduced by climate change over the next 30-40 years, but that is not a foregone conclusion. Significant levels of investment sustained over decades, at levels similar to the Green Revolution of the 1960s and '70s, into increasing agricultural productivity can offset the damage caused by climate change. In addition, because food supplies are a globally traded commodity, robust global markets with open access for all should help to alleviate temporary local shortages.
7. **Transitioning energy systems in order to reduce emissions and increase security will require sustained investment in infrastructure and new technologies.** A shift to renewable energy sources will be the most visible effect of efforts to mitigate emissions. However, focusing solely on the supply of energy misses half of the equation. Demand-side approaches, especially an electrification of transportation and efforts to increase efficiency have the potential to substantially increase energy security by moving away from strategic resources like oil, while also reducing carbon emissions.
8. **Cooperation between Europe and the United States on climate security is important in building support for further action on climate change.** Much of the thought leadership in the USA on climate change is being undertaken by the military and intelligence communities. In order to better influence American climate policy, the EU must more effectively engage the American security community on climate and energy policy. Ensuring that the implementation of the Cancun Agreements enhances security will be an important starting point.