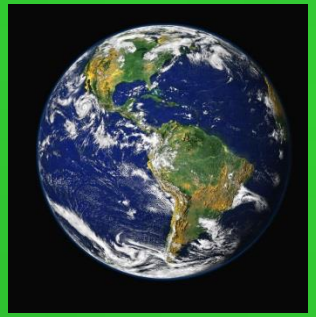


Current Military and Geopolitical Implications of Global Warming

Aaron Stover,
The Heartland Institute

12th International Conference on Climate Change

Thursday, March 23, 2017

Recent Remarks by Secretary of Defense James Mattis

- “Climate change is impacting stability in areas of the world where our troops are operating today. It is appropriate for the Combatant Commands to incorporate drivers of instability that impact the security environment in their areas into their planning.”
- “I agree that the effects of a changing climate — such as increased maritime access to the Arctic, rising sea levels, desertification, among others — impact our security situation. I will ensure that the department continues to be prepared to conduct operations today and in the future, and that we are prepared to address the effects of a changing climate on our threat assessments, resources, and readiness.”

(Revkin, A. (2017 March 14). Trump’s Defense Secretary Cites Climate Change as National Security Challenge. Retrieved 2017 20-March from *ProPublica*: https://www.propublica.org/article/trumps-defense-secretary-cites-climate-change-national-security-challenge)

Linking Climate and Security

- “A changing climate will act as an accelerant of instability around the world, exacerbating tensions related to water scarcity and food shortages, natural resource competition, underdevelopment, and overpopulation… [Climate change is a] threat multiplier that will aggravate stressors abroad such as poverty, environmental degradation, political instability, and social tensions — conditions that enable terrorist activity and other forms of violence. The risk of conflict may increase.”

  (Executive Office of the President. (2015). The National Security Implications of a Changing Climate. Washington, DC: White House, p. 8.)

Critique of the Climate-Security Hypothesis

- Based on IPCC findings without question, when we know past models are flawed with massively exaggerated temperature predictions.

- Causality is assumed without evidence: extreme weather events result in famines/refugees/resource competition.

- Poor methodology: untestable models, lack of control group, reverse causality, using future as evidence, etc.

Alleged Sources of Conflict

1. Water 
2. Famine 
3. Resource Scarcity 
4. Refugee Flows 
5. The Arctic 

Water As a Source of Conflict

- Water is one of the primary variables in the climate-conflict hypothesis, in terms of floods, scarcity, and water quality.

- Lack of empirical evidence: “As near we can find, there has never been a single war fought over water.”

  (Wolf, A. 1999. ‘Water Wars’ and Water Reality. In S. Lonergan, *Environmental Change, Adaptation, and Human Security*. Dordrecht: Kluwer Academic, pp. 251–65.)

- Hypothesis is impractical: water is a shared resource that often crosses borders and the economic incentives suggest cooperation, not conflict.

Unintended Consequences of Introducing Climate Change Security Context

- “Ironically, the climate-security literature may do more to militarize environmental crises by characterizing them as security challenges, and thereby prompting decision-makers to turn from cooperative or diplomatic solutions and towards military options.”

(Feitelson, E., Tamimi, A., and Rosenthal, G. 2012. Climate Change and Security in the Israeli-Palestinian Context. *Journal of Peace Research* **49** (1): 241–57.)

Famine As a Source of Conflict

- Famine is often cited as a potential source of instability, yet modern technology has yielded record food production.
- Climate security alarmists suggest rising temperatures and water shortages will reduce crop yields.
- This ignores:
  a) Technological adaptation
  b) CO_2-as-fertilizer effect as Craig Idso just elaborated
  c) GHG policies increase energy prices, exacerbating food shortages given agricultural reliance on fossil fuel and petroleum products (fertilizers and pesticides).

Cheap Energy Promotes Economic Growth and International Stability

- USAID report surveyed 93 countries on energy consumption, GDP, life expectancy, and stability.
- Access to affordable energy and economic growth increase odds of peace by factor of 2.5.
- Increased energy consumption raises odds of peace by factor of 1.5.

Resource Scarcity As a Source of Conflict

- Argument that environmental degradation leads to scarce resources and violence over competition for them

- "[I]n modern times, no interstate conflicts have been driven by depletion [of mineral resources]."

(Shields, D., and Solar, S. 2011. Responses to Alternative Forms of Mineral Scarcity. In S. Dinar, *Beyond Resource Wars*. Cambridge, MA: MIT Press, pp. 239–85.)

Resource Scarcity As a Source of Conflict (cont'd)

- Recent history illustrates the opposite: rising crop yields, improved resource extraction technology.

- Malthusian resource predictions all disproven: "peak oil," *Limits to Growth* mineral scarcity, etc.

- As referenced with water scarcity, economic incentives imply cooperation, not conflict.

Refugee Flows As a Source of Conflict

- In 2009, Environmental Justice Foundation predicted 150 million “climate refugees” by 2050
- UN endorsed prediction of 50 million “climate refugees” by 2010
- Entirely predictive, future-based claim with scant empirical evidence

Natural Disasters, not Climate

- “Such are the reasons why experts of environmental migrations generally agree that climate change in itself is rarely a root cause of migration. Major population displacements due to environmental and/or climatic factors will remain exceptional except in the case of a sudden natural disaster. And most importantly for the sake of this analysis, they are rarely a cause of violent conflict.”

(Tertrais, B. 2011. The Climate Wars Myth. *Washington Quarterly* **34** (3): p. 24).

The Arctic As a Source of Conflict

- Theory that melting ice creates an increase in Arctic shipping lanes could heighten instability.
- During the Cold War, U.S. and U.S.S.R. conducted military operations without conflict, at a time of greater instability.
- Current defense presence in five Arctic nations is territorial policing in nature, not force projection.

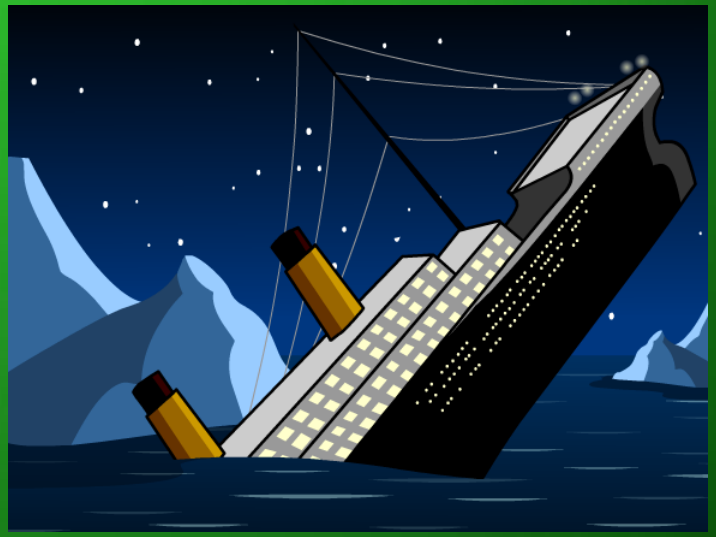
U.S. Navy "Farm-to-Fleet" Biofuels Program: A Cautionary Tale

- Energy is the lifeblood of our Armed Forces: gasoline, JP-5 (yellow kerosene jet fuel), and F-76 (military diesel).
- No reservoir of alternative fuels, nor will there be for foreseeable future.
- In 2011, Depts. of Navy and Agriculture partnered to deliver biofuel fuel blends in JP-5 and F-76 to power Navy ships and aircraft.

U.S. Navy "Farm-to-Fleet" Biofuels Program: A Cautionary Tale (cont'd)

- "Green Fleet's" 2012 maiden voyage used 50% biofuel-blend fuel that cost $27/gallon, compared to $3.60/gallon for traditional fuel.

- Navy spent at least $58B on alternative fuel from 2007-2014, averaging $29.30/gallon.



Climate Change Security Planning is Futile and Wasteful

- "In summary, efforts to link climate change to the deterioration of U.S. national security rely on improbable scenarios, imprecise and speculative methods, and scant empirical support. Accepting the connection can lead to the dangerous expansion of U.S. security concerns, inappropriately applied resources, and diversion of attention from more effective responses to known environmental challenges. The danger of this approach is that it offers a sense of urgency which may not be warranted, given the gaps in the current state of knowledge about climate, the known flaws in the methods used to construct the scenarios on which these security scenarios are based, and confusion over the underlying causes of those security concerns."

  (Kueter, J. (2012). *Climate and National Security: Exploring the Connection.* Arlington, VA: George C. Marshall Institute, p. 5)

References

- Atkins, G. 2011, The origins of the 50 million climate refugees prediction. *Asian Correspondent*. April 23.
- Bastach, M. (2017 January). REPORT: Navy's Biofuels Program Is A Huge Step Backwards. Retrieved 2017 20-March from *The Daily Caller*: http://dailycaller.com/2017/01/05/report-navys-biofuels-program-is-a-huge-step-backwards
- Environmental Justice Foundation. 2009. *No Place Like Home: Where Next for Climate Refugees.* London: Environmental Justice Foundation.
- George C. Marshall Institute. 2015. *Connecting Climate and National Security*. Arlington, VA: George C. Marshall Institute.
- Hayward, T., Briggs, E., and Forbes, D. 2014. *Climate Change, Energy Policy, and National Power*. Chicago: The Heartland Institute.
- Vasudeva, G., Siegel, S., and Mandrugina, O. 2005. *Energy and Country Instability Project Report.* Reston, VA: Energy and Security Group, p. 32.
- Yoffe, S., Wolf, A., and Giordano, M. 2003. Conflict and Cooperation Over International Fresh- water Resources: Indicators of Basins at Risk. *Journal of the American Water Resources Association* **39** (5): 1109–26.