

RESEARCH BRIEF

Climate Change Affects National Security

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Has climate destabilization already dominated the national security conversation? Well, not yet—but it should and it will. If you put a frog into a pot of hot water, it undoubtedly will try to leap out right away to escape certain death. But, if you put the frog in a pot that is filled with water—that is cool and pleasant—then you gradually heat the pot until it starts boiling, the frog may and will not become aware of the danger until it is too late. The frog will gradually and eventually become the main ingredient in a slippery and unsavory amphibian stew.

Apparently, human beings share this primordial behavioral characteristic with our amphibian friends. We evolved to detect and react to sudden changes and not to slow-moving, hard to perceive events. And so it is with our failure to collectively react in intelligent ways to ongoing climate destabilization that threatens prosperity, peace, and life itself. Therefore, climate change does affect, if not hijack, national security.

The incremental but significant environmental variability caused principally by industrial carbon emissions has led to rise in global temperature that now constitutes a slow-moving emergency that will affect every nation (Barrett, 2013). The devastating impact of Typhoon Haiyen or Yolanda—a remarkable extreme weather event

(the US Joint Warning Center clocked wind speeds at 190 mph)—is a taste of what is to come. An increasing number of scientists believe that such a hyper-meteorological event will become more commonplace, impacting all of us, especially the poor of the world. Reactions to extreme weather events such as Typhoon Yolanda can be telling. It prompted renewed discussions at last year's United Nations Climate Change Convention's 19th Conference of the Parties in Warsaw, Poland (McGrath, 2013). While the science is dry and peer-reviewed, the reality on the ground is grim and deadly. Typhoon Yolanda is the latest epic example (Goodman, 2013).

Global warming and its effects:

Case of Tacloban

Though Earth's shifting climate evokes many images, civil unrest usually is not seriously one of them. Yet, a warming planet could have a profound impact on national security worldwide (Cimons, 2013). This time, the threat is not from terrorism or a single enemy, but from natural disasters occurring on an unprecedented scale. Acts of nature fueled by a warming climate—for example, floods and prolonged drought—may lead to disrupted migration, food and water shortages, and other public

health crises, which in turn could prompt civil and political instability. Those impacts would pose a particularly profound threat for people in many countries and those countries' strategic interests. "It's likely that physical and economic disruptions resulting from climate change could heighten tensions in sensitive areas of the world," said Elisabeth Gilmore, Assistant Professor at the Univ. of Maryland (Sigel & Tickner, 2013). The environmental changes from climate change can have important effects on our well-being and security. We, therefore, truly need to understand and face the drastic interactions. It is also worth noting that these extreme weather events prompted by climate shifts could disrupt our way of life and even cause weak governments to fall in some Asian, African, and Middle Eastern nations where marginal living standards already exist.

The wreckage that has been left behind by Typhoon Yolanda is absolutely staggering. No

words can do justice to the level of destruction that one can see: the entire community leveled, water that goes up to the second story of an airport tower over the Tacloban airport, all of this covered by water; the destruction of the trees all the way up the mountains; the leveling of homes and the taking of life. This is a devastation that is unlike anything one has seen at this kind of scale. It is many tornadoes, occurred in Caribbean or America, wrapped into one. It is really quite stunning. It looks like a war zone in every aspect. You would have to see this to really believe it and feel it and to understand it. Also, you have to see and feel the remarkable efforts of people coming together in order to try to respond to this. It is the best demonstration of humanity and common love and sense of responsibility that people feel for each other. The table below shows the list of countries and organizations who pledged to help the victims of Typhoon Yolanda in the Philippines.

Table 1.

Foreign Aid Pledged (Typhoon Yolanda) (Foreign Aid Transparency Hub, 2013)

Country/Organization	Total aid pledged in PHP(cash and non-cash)
Algeria	PHP 132,462,000.00
Arab Gulf Fund for UN Development (AGFUND)	PHP 4,415,400.00
Asian Development Bank	PHP 132,462,000.00
Australia	PHP 1,663,060,410.00
Austria	PHP 79,874,586.00
Bangladesh	PHP44,154,000.00
Belgium	PHP 29,583,180.00
Botswana	PHP 4,976,155.80
Brazil	PHP 6,623,100.00
Brunei Darussalam	PHP 22,077,000.00
Cambodia	PHP 4,415,400.00
Canada	PHP 1,773,070,101.00
China	PHP 79,477,200.00
Czech Republic	PHP 8,654,184.00
Denmark	PHP 300,247,200.00
EU/EC	PHP 1,183,327,200.00

Country/Organization	Total aid pledged in PHP(cash and non-cash)
Finland	PHP 159,111,190.85
France	PHP 50,125,033.73
Germany	PHP 1,337,159,736.00
Iceland	PHP 4,344,753.60
Indonesia	PHP 88,308,000.00
Iraq	PHP 9,493,110.00
Ireland	PHP 208,265,587.20
Italy	PHP 123,657,692.40
Japan	PHP 2,366,963,478.00
Kuwait	PHP 441,540,000.00
Laos	PHP 2,207,700.00
Liechtenstein	PHP 9,625,572.00
Luxembourg	PHP 38,455,661.38
Macau (SAR)	PHP 27,154,710.00
Malaysia	PHP 44,154,000.00
Marshall Islands	PHP 220,770.00
Mexico	PHP 44,154,000.00
Mongolia	PHP 2,207,700.00
Myanmar	PHP 4,415,400.00
Netherlands	PHP 354,998,160.00
New Zealand	PHP 273,809,992.50
Norway	PHP 600,494,400.00
Pakistan	PHP 44,154,000.00
Panama	PHP 8,830,800.00
Papua New Guinea	PHP 51,329,025.00
Romania	PHP 8,874,954.00
Russia	PHP 874,954.00
Saudi Arabia	PHP 441,540,000.00
Singapore	PHP 12,786,998.40
Slovakia	PHP 1,183,327.20
South Korea	PHP 1,103,850,000.00
Spain	PHP 108,057,775.12
Sweden	PHP 430,501,500.00
Switzerland	PHP 288,767,160.00
Taiwan	PHP 88,308,000.00
Thailand	PHP 47,759,770.59
United Arab Emirates	PHP 441,540,000.00
United Kingdom	PHP 4,254,414,516.00
United States of America	PHP 2,727,144,213.75
UNOCHA	PHP 1,103,850,000.00
Vatican	PHP 6,623,100.00
Vietnam	PHP 4,415,400.00

We know that while no single storm can be attributed to climate change, we do know to a certainty that rising temperatures will lead to longer and more unpredictable monsoon seasons and will lead to more extreme weather events (Kerry, 2013). So looking around in Tacloban, you see an unmistakable example of what an extreme event looks like, and a reminder of our responsibility to act to protect the future. Furthermore, let us not make things worse for ourselves by hiding crucial scientific evidence under nonsensical “national security” concerns. Indeed, instead of concealing data, all the evidence of the effects, the sources of those effects, and the possible consequences of climate change should be considered a topic of significant security concern, both global and national (Sachimohanty, 2009).

Deadly typhoons have now become an enemy from which we cannot defend ourselves. They are now an issue of national security. Even the head of any country cannot negotiate with the weather let alone to defeat it.

Efforts to cope with climate change

Ever since the discovery of climate change in the late 19th century, climate research has been a group effort—often by scientists who did not know each other and were disconnected by time and geography. This process holds true up to now. In the last decade, scientists have done research on the correlation between tropical cyclones and climate change, but no group has unequivocally declared a direct cause-and-effect relationship. So far, results have been more like pieces of puzzle offering snippets of a yet undefined scenery. In 1998, a group of climate scientists led by A. Henderson-Sellers came together and asserted that with the doubling of carbon dioxide in the atmosphere, tropical cyclones could be expected to increase their maximum potential intensity by 10-20 percent. This report precipitated a slew of consequential studies. K. Emanuel of the Massachusetts Institute of Technology inferred

in 1999 that storm intensity is influenced by the thermodynamics of the air and ocean along a storm’s path. In a later work with colleagues, he concluded that while the frequency of cyclones should reduce globally, it is found to increase in some areas—in particular, the West Pacific basin (where we are). Furthermore, cyclone intensity would also be expected to increase with ocean surface temperature in the same region (Hontanosas, 2013).

Climate change is far from being just an environmental issue, and international negotiations to address it have already travelled a long and difficult path. The risks of climate change in the multinational arena were recognized at the 1992 UN Earth Summit in Rio de Janeiro; this led to the formation of the UN Framework Convention on Climate Change (UNFCCC) and eventually to a legally-binding international climate treaty, the Kyoto Protocol (Ranvaud, 2013). The Kyoto Protocol, which required the world’s most developed countries that are major emitters of greenhouse gases to reduce their emissions to 5.2% of the 1990 levels, entered into force in 2005—13 years after the Rio summit (*Kyoto Protocol - Toward Climate Stability*, n.d.). At a subsequent meeting in Bali in 2007, parties to the UNFCCC sketched out a timetable for further negotiations aimed at reaching agreement on a post-Kyoto international climate treaty in two years; this meeting also produced an action plan (known as the Bali Action Plan) that outlined four building blocks for achieving long-term cooperative action (Fletcher & Parker, 2008). Nevertheless, negotiations at Copenhagen in December 2009—officially the 15th Conference of the Parties to the UNFCCC of “COP 15”—were on the verge of collapsing altogether before a new agreement, known as the Copenhagen Accord, was reached in the closing hours of the conference. The Copenhagen Accord does not establish legally-binding, emission-reduction commitments; rather it relies on an open enrollment framework wherein

participating countries simply record their emission-reduction targets along with the actions that they plan to implement by 2020 to achieve those targets (The Copenhagen Accord, n.d.). At the “COP 16” meeting, held in November 2010 in Cancun, Mexico, governments agreed to reduce greenhouse gas emissions. However, the voluntary pledges made do not correspond with the objective also agreed at the conference to limit warming to less than two degrees Celsius above pre-industrial levels (Tregaskis, 2010). In December 2011, COP17 was held in Durban, South Africa, where the UNFCCC delivered a breakthrough on the international community’s response to climate change. The outcomes of the Conference included a decision by the Parties to adopt a universal legal agreement on climate change as soon as possible, and no longer than 2015 (United Nations Framework Convention on Climate Change, 2011). Furthermore, the Parties must agree on practical guidance that provides effective incentives for governments to make the safeguards operational, rather than accept weak wording at the level of broad principles in the interest of achieving an easy consensus. On December 8, 2012, the COP 18 ended dramatically in Doha after two weeks of intense negotiations. It was a nail-biting end that came in a no-ball game. A second commitment period of the Kyoto Protocol was agreed upon. Moreover, a plan of work was laid out for the post 2020 agreement under the Durban Platform. Doha, however, failed to do more than give the world a fig leaf to hide the fact that the environmental imperative of ambitious and quick action to reduce emissions had not been met (Centre for Science and Environment, 2012). On November 11, 2013, the first day of the COP 19 held in Warsaw, the Philippine delegate, Naderev Sano, announced his decision to go on hunger strike. In fact, it was his second tear-filled speech to a COP plenary. In 2012, Mr. Sano demanded that the delegates in Doha accelerate the climate funding and treaty process after several typhoons severely

struck the Philippines (CFACT Ed, 2013). President Marcin Korolec of COP 19 announced that COP 19 meeting has set a pathway for governments to work on a draft text of a new universal climate agreement so it appears on the table at the next UN Climate change conference in Peru. This is an essential step to reach a final agreement in Paris, in 2015 (United Nations Climate Change Secretariat, 2013). It is also worth noting that the Conference also decided to establish an international mechanism to provide most vulnerable populations with better protection against loss and damage caused by extreme weather events and slow onset events such as rising sea levels.

CONCLUSION

Since the 1992 UN Earth Summit, the international community has sought to negotiate a cooperative approach to protecting the global climate system. However, a key challenge throughout has been to develop a framework that distributes the burden of mitigation obligations in a way that is generally viewed as both fair, equitable, and feasible and also consistent with the UNFCCC’s principle of common but differentiated responsibilities and respective capabilities. One of the key barriers to developing country participation in international climate agreements arises from the concern that policies to reduce greenhouse gas emissions would perpetuate inequalities in the global distribution of wealth and hinder economic development (Blodgett & Parker, 2010). The issue of economic growth versus environmental conservation can also be seen as developed countries versus developing ones. Some argue that wealthier countries have depended upon polluting industries for their economic growth and wealth building. Now they fear that uncontrolled economic development in the developing world will lead to environmental disaster. They point out that massive clearing of tropical rainforest

for farming threatens biodiversity and may affect the global climate. At the same time, relying on heavy industry adds more pollution to the air, soil, and water resources, while a richer population demands more energy, often produced from burning dirty fossil fuels such as coal.

On the other hand, developing countries point out that they must make industrialization and economic development a priority because they have to support their growing populations and serious socio-economic challenges. Developing countries must address current problems. They also point out that developed countries are most to blame for current environmental damage and it is unfair to demand that developing countries limit their own growth to solve these problems.

In July 2011, the issue of climate change as a threat to international peace and security was tabled at the UN Security Council. This was the first time that the UN Security Council addressed the issue of climate change. The session highlighted the differing views of member states on the issue (Femia & Werrell, 2011).

Science tells us that simply, climate change will mean increased potential for more intense tropical storms. As the Earth warms up, that would include the oceans. Energy that is stored in the waters off the oceans will increase the intensity of typhoons and the trend we now see is that more destructive storms and earthquakes will be the new norm. This will have profound implications on many of our communities, especially those who struggle against the twin challenges of the development crisis and the climate change crisis. Typhoons such as Yolanda and its impacts represent a sobering reminder to the international community that we cannot afford to delay climate action.

Climate destabilization should become the long pole upon which the tent of national security is supported. This may not be a palatable paradigm shift for military leaders and political leaders whose old-school notions of national security and economic security are inextricably

linked to war-making prowess. However, it should be our earnest hope that humans do demonstrate in the near term that we are indeed the superior species on this once greener planet and are willing to collectively avoid the fate of slowly boiling frogs.

REFERENCES

- Barrett, O. (2013, November 26). Climate change hijacks national security. *Foreign Policy Association*. Retrieved from foreignpolicyblogs.com/2013/11/26/climate-change-hijacks-national-security/
- Blodgett, J., & Parker, L. (2010, March 5). *Greenhouse gas emission drivers: Population, economic development and growth, and energy use* (Congressional Research Service Reports for Congress No.RL33970). Retrieved from cnie.org/NLE/CRSreports/10Apr/RL33970.pdf
- Centre for Science and Environment. (2012). Cop18/ Doha. Retrieved from www.cseindia.org/category/topics/cop18/doha
- CFACT Ed. (2013). *COP19: Filipino negotiator goes on hunger strike over typhoon*. Retrieved from www.cfact.org/2013/11/16/cop-19-filipino-negotiator-goes-on-hunger-strike-over-typhoon/
- Cimons, M. (2013, July 12). U.S. military prepares for global unrest amid climate fears (Op-Ed). *Live Science*. Retrieved from www.livescience.com/38167-national-security-impact-of-warming
- Foreign Aid Transparency Hub (FAiTH). (2013, December 18). *Foreign aid pledged*. Retrieved from www.gov.ph/faith/full-report/
- Femia, F., & Werrell, C. (2011, July 22). *UN Security Council strenghtens the climate and security link (sort of)*. Retrieved from climateandsecurity.org/2011/07/22/un-security-council-strenghtens-the-climate-and-security-link-sort-of/
- Fletcher, S. R., & Parker, L. (2008, January 10). *Climate change: The Kyoto Protocol, Bali 'Action Plan,' and International Actions* (Congressional Research Service Reports for Congress No.RL33826). Retrieved from www.house.gov/sites/members/nc04_price/issues/uploadedfiles/climate5.pdf

- Goodman, A. (2013, November 14). Demanding action on climate change at COP19 in the wake of Typhoon Haiyan. *Rabble*. Retrieved from rabble.ca/columnists/2013/11/demanding-action-on-climate-change-cop-19-wake-typhoon-haiyan
- Hontanosas, C. (2013, November 21). 'Yolanda,' national security, and climate change. *Philippine Daily Inquirer*. Retrieved from opinion.inquirer.net/65835/Yolanda-national-security-and-climate-change
- Kerry, J. (2013, December 18). *Remarks at USAID Tacloban*. Retrieved from www.state.gov/secretary/remarks/2013/12/218869.htm
- Kyoto Protocol - Toward climate stability*. (n.d.). Retrieved from www.kyotoprotocol.com
- McGrath, M. (2013, November 11). Typhoon prompts 'fast' by Philippines climate delegate. *BBC News: Science & Environment*. Retrieved from www.bbc.co.uk/news/science-environment-24899647
- Ranvaud, D. (2013, December 23). Action4climate: How the international film industry can contribute to climate change awareness? *Connect4Climate*. Retrieved from www.connect4climate.org/blog/on-the-origins-of-the-climate-change
- Sachimohanty. (2009, July 29). *Global warming and national security*. Retrieved from globalwarmingisreal.com/2009/07/29/global-warming-and-national-security/
- Siegel, J., & Tickner, N. (2013, June 21). Research: Can climate change heat up conflict? *UMD Right Now*. Retrieved from www.umdrightnow.umd.edu/news/research-can-climate-change-heat-conflict
- The Copenhagen Accord. (n.d.). Retrieved from www.carbonplanet.com/copenhagen
- Tregaskis, S. (2010, October 8). Q&A: Cancun COP16 climate talks. *The Guardian*. Retrieved from www.theguardian.com/environment/2010/oct/08/cancun-cop16-climate-talks
- United Nations Framework Convention on Climate Change. (2011). Durban Climate Change Conference-November/December 2011. Retrieved from unfccc.int/meetings/Durban_nov_2011/meeting/6245..php
- United Nations Climate Change Secretariat. (2013, November 23). *UN climate change conference in Warsaw keeps governments on a track towards 2015 climate agreement*. Retrieved from unfccc.int/files/press/news_room/press_releases_and_advsories/application/pdf/131123_pr_closing_cop19.pdf