Jonathan P. Engelbert Research Essay 11/28/16

Letters from Aleppo

What the Syrian crisis can teach the world about climate change

The ongoing Syrian civil war began in 2011 and has displaced millions, killed hundreds of thousands and obliterated entire cities. Factors considered to have triggered the conflict might span from a pro-democracy uprising to religious differences that split the country, depending on who one asks. Some however, have pointed to climate change as one of the key triggers of one of the worst humanitarian crisis in recent memory. If that is so, the Syrian crisis could serve as a cautionary tale for many more climate driven conflicts to come; and how the world is not even remotely prepared for it.

Drought, displacement and civil unrest

The Syrian crisis is a complex issue with many moving parts, with political and religious differences, as well as corruption and inequality highlighted as its main causes. An article published in 2015 (Kelley et al) however, pointed at an overlooked factor; a 3-year drought, the worst ever in the Fertile Crescent in recorded history, and the social and economic issues it would bring about to Syria in the next decade.

The article acknowledges that the region is prone to droughts, but argues that this last drought was unlike anything climate models could have predicted given normal circumstances. Using precipitation data, the authors examined trends of climate and rainfall oscillation for a century, concluding that the sharp decline of precipitation and increase of temperature in recent years could only be explained by anthropogenic influence.

They also point out that unsustainable agricultural practices, – which led to the depletion of groundwater in several areas – an increased demand for natural resources – reflecting a population growth of more than 5-fold in 50 years - and a severe drought that had just occurred

in the 1990's – from which Syria had not recovered – contributed to the collapse of over twothirds of crops, and aggravated the instability of the country.

The failure of crops and death of almost all livestock propelled people from agricultural areas to cities, which with an already crumbling infrastructure, struggled to accommodate the 1.5 million displaced by the drought. The problems this mass internal migration caused were according to the authors, one of the main triggers of the crisis.

Climate change and society: local issues, global consequences

The documentary *Years of Living Dangerously* on how Bangladesh is threatened by sealevel rises (National Geographic, 2014-2016) shows a similar pattern of displacement, in which migration to urban areas stresses cities, which unable to cope with the influx of people, end up having problems that are not immediately predictable or associated with climate change, such as social inequality, lack of infrastructure and social unrest. In the case of a Syria, many of these problems that were local, have affected cities far away from the country, particularly Europe, which has received a massive number of refugees.

The unsustainable agricultural practices of Syrian farmers and policy design were major contributors to the disastrous Syrian drought, and the food prices spike and famine that followed started killing and oppressing its population before there was a war. Arguably, more sustainable agricultural practices could have minimized the Syrian internal migration, and consequently, the tensions it caused.

The devil's best trick

Drought in Syria and sea-level rise in Bangladesh are serious problems caused by anthropogenic climate change. But the biggest problem perhaps, is that many do not believe in man-made climate change itself. Many government officials and media outlets around the word deny climate change altogether, or at least deny that humans are the cause of global warming.

Take the case of Syria. When news outlets acknowledge climate change as a factor in the Syrian crisis, they do so ambiguously and interrogatively (Hulme & Selby, 2015; Stokes, 2016; Mansharamani, 2016; Mathiesen, 2015; Miller, 2015). Publicly acknowledging anthropogenic climate change seems to be linked with loss of credibility.

On the other side, there is no shortage of articles fervently denying that climate change has anything to do with the crisis, or even denying climate change all together. One article cites the article by Kelley et al (2015) discussed in this essay, disqualifying it from being able to support its own thesis (Delingpole, 2015). The author argues that there are geographical incongruences in the study, and disputes much of the data analyzed by the article's authors, as well as the very existence of climate change. The Guardian also voiced its lack of faith on the data used by Kelley et al, disputing the number of people displaced by the drought and calling the precipitation data analysis performed by the authors "dubious and secondary assertions" (Hulme and Selby, 2015). Though it admits that climate change exists, it dismisses the theory that it could trig a conflict like that. Another by *The Telegraph*, not only considers claims that the drought played a part in the Syrian crisis as ludicrous, but also criticizes the Paris Summit as "a massive example of group-think", in which some delegates simply believe climate change fervently because others do too (Booker, 2015). The author of the article goes on to challenge the

relevancy of the summit, stating that few of the delegates involved, if any, would be able to produce any scientific evidence of anthropogenic climate change.

Conclusion: what we can learn from Syria and Dhaka

Kelley et al's article and a superficial analysis of the media response to its findings reveal two major aspects of climate change that make it extremely difficult to address. First, those who contribute to it the most are often not the ones who suffer the consequences. Second, it takes time and much suffering for it to be recognized as an agent in many of today's global challenges. Climate change refugees are already a reality, no matter what one believes. The evidence is irrefutable; the Earth is warming, the levels of Carbon on the atmosphere are at record highs, and the consequences of these trends often affect the most vulnerable.

Moreover, the Syria case shows us the importance of sustainability not just because resources are finite, but because the consequences of irresponsible resources stewardship compound with global warming. Policy must be designed in a manner that protects the environment; and yes, protecting the environment and sustaining economic growth is a tall order, but concerns about the economy are exacerbated many-fold when the environment around it collapses.

Finally, the consequences of climate change know no boundaries, and stretch far from the epicenter of a local crisis.

If the first step to solve a problem is recognizing that there is one, then addressing climate change is not even on sight. Ozone depletion mitigation had very few advocates until an actual hole over Antarctica appeared in the 80s and had people fearing the end of the world. One might say then, that something like this is what climate change needs to be taken seriously, a palpable sign that we are headed for a disaster. So how many more Aleppos and Dhakas will it take?

Citations

Booker, Christopher. (2015, November 28). *Drought did not cause the Syria terror crisis*. The Telegraph online. Retrieved from http://www.telegraph.co.uk/comment/12022872/Drought-did-not-cause-the-Syria-terror-crisis.html

Delingpole, James. (2015, September 9). For the last time, no, the Syrian crisis was not caused by climate change. Breitbart online. Retrieved from http://www.breitbart.com/national-security/2015/09/09/for-the-last-time-no-the-syrian-crisis-was-not-caused-by-climate-change/

Hulme, Mike & Selby Jan. (2015, November 29). *Is climate change really to blame for Syria's civil war?* The Guardian online. Retrieved from https://www.theguardian.com/commentisfree/2015/nov/29/climate-change-syria-civil-war-prince-charles

Kelley, C., S. Mohtadi, M. Cane, R. Seager, and Y. Kushnir. (2015). *Climate change in Fertile Crescent and implications of the recent Syrian drought*. Proceedings of the National Academy of Sciences.

Mansharamani, Vikram. (206, March 17). *A major contributor to the Syrian Conflict? Climate Change*. PBS Newhour online. Retrieved from http://www.pbs.org/newshour/making-sense/a-major-contributor-to-the-syrian-conflict-climate-change/

Mathiesen, Karl. (2015 September 8). *Did climate change help cause the Syria war?* The Guardian online. Retrieved from: https://www.theguardian.com/environment/2015/sep/08/aylan-kurdi-was-not-a-climate-refugee

Miller, Brandon. (2015, November 23). *Is the Syrian conflict linked to climate change?* CNN online. Retrieved from http://www.cnn.com/2015/11/23/world/is-the-syrian-conflict-linked-to-climate-change/

National Geographic. (2014-2016). *Years of living dangerously*. Retrieved from: https://www.youtube.com/watch?v=RMcEF-6A0f0&t=682s

Stokes, Elaisha. (2016, March 3). *The drought that preceded Syria's civil war was likely the worst in 900 years*. Vice News online. Retrieved from https://news.vice.com/article/the-drought-that-preceded-syrias-civil-war-was-likely-the-worst-in-900-years