



A comment on “climate change and the Syrian civil war revisited”



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“Climate change and the Syrian civil war revisited” is an important and necessary corrective to an emerging discourse that climate change is primarily to blame for the massive humanitarian and geopolitical catastrophe that has become the Syrian Civil War. This study will have important consequences for both the broader literature on climate change and conflict and for policy discussions thereof. These consequences will not be uniformly positive.

On the one hand, this piece certainly will refocus scholarly attention on tracing causal paths between climate forcings and conflict outcomes, especially in the context of particular cases. The study by Kelley, Mohtadi, Cane, Seager, and Kushnir (2015), the critique of which motivates much of this article, made a strong and convincing argument for a climate change signal in the Syrian drought but did very little to substantiate the stronger, much more politically charged claim that the drought caused the conflict there. The literature on climate impacts on civil conflict and political violence more broadly is now sufficiently large and nuanced that it is not enough to simply argue *post-hoc ergo propter-hoc*. Selby, Dahi, Fröhlich, & Hulme (2017) have done the literature and the policy community a great service by pointing out the dubious nature of much of the evidence for the intermediate claims that would help establish the causal import of Syria's drought for the subsequent conflict. More generally, this piece will create the expectation that future case studies investigating links between environmental factors and conflict outcomes will need to pay more attention to the specific pathways and mechanisms by which climatic events create grievances, create space for violent political entrepreneurs, and/or incentivize opportunistic, destabilizing behavior by political elites (Benjaminsen, 2008; Kahl, 2006).

I am generally convinced there are relationships between climate, climate change, and conflict, though the relationships appear to be scale- and context-dependent (Hsiang, Burke, &

Miguel, 2013; Salehyan, 2014). But arguing that any particular conflict was “caused” by climate change is exceedingly difficult, in part because multiple motivations are almost always present among combatants, these motivations are both stated and unstated, and because contextual factors, like dependence on agriculture for livelihoods, patterns of exclusionary ethnic rule, and low levels of economic development affect whether a given climate “shock” results in violence (O’Loughlin, Linke, & Witmer, 2014;; Salehyan & Hendrix, 2014;; von Uexkull, Croicu, Fjelde, & Buhaug, 2016). The drought that affected Syria also affected neighboring Jordan, Lebanon and Cyprus, yet widespread violence did not occur there. Even if and when climate matters, it matters in a specific political, social, and economic context that must be taken into account.

On the other, I fear getting the Syrian case “right” – or at least correcting a flawed dominant narrative – will negatively affect discussions of environmental impacts on conflict in the policy sphere. Many will read this article as “all this talk of climate change and conflict is wrong,” when in fact the evidence supports a much more limited conclusion: the impact of climatic factors on the Syrian civil war is not entirely clear. But the dramatic nature of the Syrian civil war and the vocal nature of those linking it to climate change have caused this case to exert inordinate influence on how influential non-specialists and the general public view the relationship between climate change and conflict. Former US President Barack Obama linked climate change to the Syrian conflict, saying it was a contributing factor.¹ Documentaries like Thomas Friedman’s *Climate Wars*, *The Age of Consequences*, and VICE News’ *Assad’s Syria and the Costs of Climate Change* have all made a strong claim for security impacts of climate change building off of the Syrian case, in spite of the fact that most of the compelling influence for climate-conflict linkages emerges from statistical analysis of hundreds if not thousands of cases, and most of that work supports a more limited, probabilistically causal linkages. One can practically hear the anti-climate science machine revving its engine in anticipation of these findings. To the extent the dominant narrative got the Syrian case “wrong”, it will ultimately make it harder for scholars and scientists to communicate the very real economic and security

¹ “Obama: Climate Change Contributed to Syrian War, Is Major Security Threat,” Associated Press October 5, 2016.

implications of climate change more broadly.

Given all this, how can scholars move forward in investigating the links between climate change and conflict? And how can scholars more effectively communicate the security effects of climate change without resting their arguments on reductive interpretations of complex conflicts?

First, scholars should continue to investigate how climate shocks and climate change interact with existing political, social, demographic and economic contexts to result in violence - or not. O'Loughlin et al. (2014) and von Uexkull et al. (2016) are excellent examples of this type of work, where highly resolved climate data are analyzed in interaction with socio-political variables and indicators. Scholars will find Meierding's (2013) admonitions regarding explicitly incorporating agricultural data useful as well.

Second, scholars need to focus on a broader suite of cases and recognize the potential that our current state of knowledge is subject to potentially important scope conditions. To date, climate change researchers studying Africa – the region of the world where links between climate change and conflict have been most thoroughly investigated – have focused disproportionately on former British colonies and countries with stronger civil liberties and more stable political institutions (Hendrix, 2017). I replicated that study's search methodology to search the *Journal of Peace Research* (JPR) – a journal that has been prominent in the environmental security literature – for references to African countries and climate change. I then correlated those references with the Uppsala Armed Conflict Database data on conflict-related deaths since 1989. The Uppsala data include not just conventional armed conflicts but also non-state conflicts, such as violence between tribal militias, and one-sided violence against civilians.

The results are potentially telling: while references in JPR correlate relatively highly ($r = 0.47$) with conflict deaths for the period 1989–2015 – countries with more violence receive more attention – there are some seeming outlier cases. Tanzania, a former British colony with a history of relative political stability and an absence of violence (61 battle deaths for the period) receives almost as much attention as Somalia, where death tolls from armed conflict has been almost 700 times higher.

Kenya is featured in 25 climate change and conflict-related articles, mostly discussing “range wars” between pastoral groups and recurrent episodes of ethnic rioting. However, the intensity of conflict there has paled in comparison to that in neighboring Ethiopia, which is more violent and more exposed to the physical effects of climate change but has received less scholarly attention than its comparatively peaceful neighbor.

These gaps matter for both academics and policymakers. If our knowledge comes disproportionately from less violent yet more accessible cases, like Kenya and Tanzania, how can we know whether our theories and evidence are subject to unacknowledged yet potentially important scope conditions, and how can policymakers know whether proposed interventions will work in Central African Republic or Burundi? If we wish to expand our knowledge in this area, more effort – and more research funds – need to be tasked to non-Anglophone African countries and, at the regional

level, to places like Southeast Asia, which are similarly dependent on agricultural livelihoods and have rapidly growing populations.

Third, scholars must avoid the siren's song of using causal language as applied to particular cases when the evidence supports more probabilistic relationships. Both the public and the policy community are keen to link abstract, probabilistic mechanisms to particular cases, and thus scholars face implicit encouragement to frame their results in terms of cases that seem to fit the causal processes they seek to model. However, most work in this area finds climate shocks raise the probability of a large-scale event (like conflict onset) occurring relative to some baseline or increases the frequency with which smaller-scale events (protests, individual battles or skirmishes, cattle raids) occur. When this evidence is marshalled to explain any particular event, however, it often takes on the air of a necessary condition – if but for the climate shock, the event would not have occurred. This claim is almost always impossible to substantiate and invites significant criticism – to wit, the exchange here. Doing so undermines an already strong case for considering climate change a human and national security issue.

Conflict of interest

I declare no conflicts of interest regarding my comment on “climate change and the Syrian civil war revisited”.

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