

Sampling bias does not exaggerate climate–conflict claims

To the Editor — In a recent Letter, Adams and colleagues¹ argue that claims regarding climate–conflict links are overstated because of sampling bias. However, this conclusion rests on logical fallacies and conceptual misunderstanding. There is some sampling bias, but it does not have the claimed effect.

Suggesting that a more representative literature would generate a lower estimate of climate–conflict links is a case of begging the question. It only makes sense if one already accepts the conclusion that the links are overstated. Otherwise it is possible that more representative cases might lead to stronger estimates. In fact, correcting sampling bias generally does tend to increase effect estimates^{2,3}.

The authors' claim that the literature's disproportionate focus on Africa undermines sustainable development and climate adaptation rests on the same fallacy. What if the links between climate and conflict are as strong as people think? It is far from obvious that acting as if they were not would somehow enhance development and adaptation. The authors offer no reasoning to support such a

claim, and the notion that security and development are best addressed in concert is consistent with much political theory and practice^{4–6}.

Conceptually, the authors apply a curious kind of 'piling on' perspective in which each new study somehow ratchets up the consensus view of a country's climate–conflict links, without regard to methods or findings. Consider the papers cited as examples of how selecting cases on the conflict variable exaggerates the link: each uses a case selection strategy rooted in the qualitative methods literature⁷. One, using a form of 'crucial' case study, finds no evidence of climate impacts on land-use conflicts in Mali, a region where climate–conflict links were particularly likely to be found⁸. The other, using a 'structured, focused comparison,' investigates two regions in the Middle East with similar climate stress but different conflict outcomes and concludes that climate's role as a conflict driver has been exaggerated⁹. It is hard to see how these papers mislead people into thinking climate–conflict links are stronger than they really are.

Knowing that case selection is biased is useful, but not a reason to lower our estimate of the climate's impact on conflict. □

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Competing interests

The author declares no competing interests.

Reply to 'Sampling bias does not exaggerate climate–conflict claims'

Ide et al. reply — We clarify three arguments regarding our study¹.

First, sampling bias is a serious issue in climate–conflict research. Although there are several forms of sampling bias that do not affect estimates, the specific kind of bias we criticize — sampling on the dependent variable — is very likely to lead to an overrepresentation and overestimation of climate–conflict links. Because cases experiencing both climate extremes and conflict are much more widespread in the sample of cases studied than in the general population of cases, the relationship between these variables will seem to be more prevalent than it is. This problem of a 'sampling on the

dependent variable' strategy is widely recognized in the social sciences in general and in the environmental security literature in particular^{2,3}.

Second, our study is concerned with the field as a whole rather than a critique of individual studies. It is hence not helpful to refer to individual studies to criticize our conceptual approach and methods. We agree that both studies cited by Levy⁴ are excellent, but they are not representative of the field as a whole. This is like citing the only article on Oceania in our sample to prove that climate–conflict research has been well studied in this region.

Third, the sampling biases we uncover pose a problem for sustainable development

and climate adaptation. We find, for example, that some highly vulnerable countries receive very little attention from climate–conflict research (such as Bangladesh and Haiti)⁵. But by the same token, if our objective is to understand how societies peacefully manage climate change and how such processes intersect with development and conflict prevention⁶, then we must build explanations from cases in which climate risk is high but violent conflict is not the outcome. The present paucity of such analyses is a gap that needs to be addressed.

We do not deny a link between climate change and conflict in principal. Indeed, some of our own recent work indicates