

Literature Review-Water and Conflict-25/06/2022

Selected research papers and abstracts relevant to my capstone topic

1. **Detges A. Local conditions of drought-related violence in sub-Saharan Africa: The role of road and water infrastructures. Journal of Peace Research. 2016;53(5):696-710. doi:10.1177/0022343316651922**

Using a spatially disaggregated research design and focusing on sub-Saharan Africa, the present analysis assesses how far violent and nonviolent outcomes in the wake of drought can be accounted for by regional differences in the provision of key infrastructures that help coping with drought and preventing violence. The results indicate that civil conflict events in connection with drought are more likely in administrative areas with poorly developed road infrastructures. Drought-related communal violence, on the other hand, is more likely in regions where an important part of the population lacks access to an improved water source.

2. **Detges, A. (2017). Droughts, state-citizen relations and support for political violence in Sub-Saharan Africa: A micro-level analysis. Political Geography, 61, 88-98. <https://doi.org/10.1016/j.polgeo.2017.07.005>**

The analysis explores the conditions of support for violence after drought. Micro-level data for 23 African countries are analysed. Lack of infrastructure does not increase support for violence after drought. Political discrimination increases support for violence after drought.

Lack of trust in the head of state increases support for violence after drought. I find both people who are politically discriminated against and people who do not trust their head of state to be more inclined to endorse political violence when hit by severe drought. These findings, which are consistent across a number of alternative model specifications, show that fragile state-citizen relations play an important part in the processes linking drought exposure and support for political violence.

3. **Theisen, Ole Magnus, Helge Holtermann, and Halvard Buhaug. 2011/12. Climate wars? Assessing the claim that drought breeds conflict. International Security 36(3): 79–106. <https://www.hbuhaug.com/wp-content/uploads/2014/02/IS-2011-for-web.pdf>**

Drawing on these arguments, we present a conditional theory of environmental conflict predicting that drought increases the risk of civil war primarily when it strikes vulnerable and politically marginalized populations in agrarian societies. This general proposition is evaluated empirically through a unique gridded dataset of post-colonial Africa that combines high-resolution meteorological data with georeferenced data on civil war onset and the local ethno-political context. Despite popular conception, we find little evidence of a drought-conflict connection. Instead, the local risk of civil war can be explained by sociopolitical and geographic factors: a politically marginalized population, high infant mortality, proximity to international borders, and high local population density.

4. **Ide T, Lopez MR, Fröhlich C, Scheffran J. Pathways to water conflict during drought in the MENA region. Journal of Peace Research. 2021;58(3):568-582. doi:10.1177/0022343320910777**

We employ the method of qualitative comparative analysis (QCA) to integrate quantitative and qualitative data at various scales (national, regional, local) for a sample of 34 cases (17 of which experienced conflict onset). Our findings show that pre-existing cleavages and either autocratic political systems or cuts of the public water supply are relevant predictors of

nonviolent, water-related conflict onset during droughts. Grievances deeply embedded into socio-economic structures in combination with a triggering event like a drought or water cuts are hence driving such water-related conflicts, especially in the absence of proper political institutions. We thus argue that drought–conflict links are highly context-dependent even for nonviolent, local conflicts, hence challenging determinist narratives that claim direct interlinkages between climate change, hydro-meteorological disasters and conflict.

5. The Persistent Impacts of Electoral Cycles on Public Infrastructure, Ravi Somani & Daniel Rogger, (Revise and Resubmit), Journal of Public Economics

What determines the quality of a nation's infrastructure? We show that electoral incentives at the time of construction have persistent effects on the functionality of contemporary African water systems. We apply a common regression discontinuity approach to the universe of water points in Nigeria, Sierra Leone, and Tanzania built over the period from 1970-2014. Across all three settings, we find that infrastructure installed in the run-up to an election is significantly more likely to be functioning today than those installed shortly after elections. These findings suggest that public officials optimally respond to responsive but myopic citizen evaluations of public performance.

6. Foster, T. (2013). Predictors of Sustainability for Community-Managed Handpumps in Sub-Saharan Africa: Evidence from Liberia, Sierra Leone, and Uganda. Environmental Science & Technology, 47(21), 12037-12046.
<https://doi.org/10.1021/es402086n>

Drawing on the largest data set assembled on rural water points in sub-Saharan Africa to date, this paper employs logistic regression analyses to identify operational, technical, institutional, financial, and environmental predictors of functionality for over 25 000 community-managed handpumps in Liberia, Sierra Leone, and Uganda. Risk factors significantly associated with nonfunctionality across all three countries were (a) system age, (b) distance from district/county capital, and (c) absence of user fee collection.

7. Tim Foster, Sean Furey, Brian Banks & Juliet Willetts (2020) Functionality of handpump water supplies: a review of data from sub-Saharan Africa and the Asia-Pacific region, International Journal of Water Resources Development, 36:5, 855-869, DOI: 10.1080/07900627.2018.1543117

Handpumps are heavily relied upon for drinking water in rural areas of low- and middle-income countries, but their operation and maintenance remain problematic. This review presents updated and expanded handpump functionality estimates for 47 countries in sub-Saharan Africa and the Asia-Pacific region. Our results suggest that approximately one in four handpumps in sub-Saharan Africa are non-functional at any point in time, which in 2015 was roughly equivalent to 175,000 inoperative water points.

8. HARNESSING WATER POINT DATA TO IMPROVE DRINKING WATER SERVICES -July 2017, Nicolas Dickinson, Felix Knipschild, Peter Magara, Gerald Kwizera. WASHNote and IRC Uganda.
https://nl.ircwash.org/sites/default/files/harnessing_waterpoint_data_to_improve_drinking_waterservices_-_white_paper.pdf