Introduction

The primary research question explored in this poster is whether deforestation caused an increase in malaria among children aged 5 and under in Tanzania. Besides the paper on Nigeria (Berazneva and Byker 2017), previous research has yet to identify the relationship between deforestation and malaria. Possible linkages are that forests impact the health and size of the mosquito population as well as filter drinking water.

Data

We utilize data from the Demographic and Health Surveys (DHS) conducted in Tanzania in 2010 and 2015/16. The surveys asked mothers whether each child had a fever in the two weeks preceding the survey. In Tanzania, the term malaria and fever are used interchangeably, so we use fever as an indicator of malaria. Deforestation data originates from remote sensing conducted on Landsat imagery. We utilize a processed dataset created by Matthew Hansen at the University of Maryland.

*Yitc* =α0 +∑βj *lossjtc* +**X′ γ**+**Region′π** + μ′*monthitc* + **DHSyear′t θ** + ∑λ *monthm*×*Region* × *DHSYear* + ε *itc*

References

**National Bureau of Statistics - Tanzania and ICF Macro*.***2011. “Tanzania Demographic and Health Survey 2010.”

**National Bureau of Statistics - Tanzania and ICF Macro*.***2016. “Tanzania Demographic and Health Survey 2015-16.”

**Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, et al.** 2013. “High-Resolution Global Maps of 21st-Century Forest Cover Change.” *Science* 342 (6160): 850–53.

Discussion and Next Steps

* Contrary to the findings of the Nigeria paper, the preliminary Tanzania regression results indicate that there is no statistically significant relationship between deforestation and malaria incidence in children under 5.
* Further investigation is required identify other necessary spatial control variables. The Nigeria paper included nighttime lights, soil, and altitude as additional controls.

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