



A DANGEROUS THREAT TO HUMAN SECURITY

CLIMATE CHANGE: MALAWI

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Introduction

- ❑ Will environmental human security in underdeveloped countries be progressively threatened as the climate changes?
- ❑ Malaria, is of greatest public health concerns and is known as a vector-borne disease most sensitive to long-term climate change. Underdeveloped countries such as Malawi are severely affected by these changes.

Disease Checking

This shot shows A Medicin Sans Frontieres clinic in Makhanga blood testing local people for malaria, many proving positive as a result of the drying up flood waters providing ideal breeding grounds for mosquitoes. Source:Getty Images

Silent Killers

The photo shows the Malaria mosquito taking a blood meal. These mosquitoes are known to transfer infectious diseases by simply a bite. Source: Getty Images

The Sad Truth

A sad 5-year old girl sits on the cracked concrete of a defect borehole in the southern district of Balaka, Malawi, during the severe drought of 2016. Source:Getty Images

Methology

- ❑ My project will consist of a photo essay with an estimated 10 photographs retrieved from Getty Images, online journals and newsletters. My photo essay and photos will show the strong connection between climate change and its negative effects in Malawi's population



A Natural Disaster

A field of dying maize plants in Nsanje District, southern Malawi. Climate change, with its increase in sudden and extreme weather events, plays a role in Ebola outbreaks: dry seasons followed by heavy rainfalls that produce an abundance of fruit have coincided with outbreaks. Source:Getty Images

Lit.

Review/Objectives/Results

- ❑ Climatic and environmental factors, including average monthly air temperature and rainfall anomalies, normalized difference vegetative index (NDVI) and RDT use for diagnosis showed a significant relationship with malaria incidence. (Chirombo)
- ❑ Climate change impacts human infectious disease via pathogen, host and transmission. (Wu)
- ❑ Malawi has the 5th highest number of malaria cases in Eastern and Southern Africa (8% of cases in that region). (Malawi Severe Malari Facts)
- ❑ Malaria transmission is strongly influenced by climatic and anthropogenic factorsBecause of the association between weather and climate patterns, particularly temperature, precipitation, and extreme events, and malaria, climate change is expected to affect the distribution and seasonal activity of *Anopheles* mosquitoes. (Kone)

Conclusion:

- ❑ Overall I found that climate change has a direct effect on the widespread of disease in small countries like Malawi.
- ❑ My research utilized statistics and strong visual representations to explain the severity of this threat.

Citations

Chirombo, James. "Malaria Case Incidence in Malawi ." *Malaria Journal*, BioMed Central, 1 Jan. 2017, malariajournal.biomedcentral.com/articles/10.1186/s12936-019-3097-z.

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"Malawi Severe Malaria Facts." *Malawi / Severe Malaria Observatory*, 15 June 2015, www.severemalaria.org/countries/malawi.

One, Brava. "Impact of Climate Variability on the Transmission Risk of Malaria." *PLOS 1*, 2019, <https://journals.plos.org/plosone>.

Wu, Xiaoxu, et al. "Impact of Climate Change on Human Infectious Diseases: Empirical Evidence and Human Adaptation." *Environment International*, Pergamon, 18 Oct. 2015, www.sciencedirect.com/science/article/pii/S0160412015300489.

Weather Nightmares

A warmer climate also may drive disease-carrying mosquitos into new regions, including higher elevations that used to be too cool for them. Some of those migrating mosquitos are likely to spread malaria to those higher-altitude sites.

Source:<https://www.sciencenewsforstudents.org/article/warning-climate-change-can-harm-your-health>

