

“Domain”

“Communities of Practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.”



Etienne Wenger

“Practice”

“Community”

# Assessing the vestiges of coloniality within the discourse on climate and health justice

## OPEN DISCUSSION MEETING THURSDAY 30 NOVEMBER 2023

The Community of Practice on [Climate and Health Justice](#) hosted by the MMI Network invited its members and others interested to an open discussion meeting on "Assessing the vestiges of coloniality within the discourse on climate and health justice". The Zoom meeting was co-hosted by the [Kampala Initiative](#) and allowed participants to access the insights and lived experience from experts from three different continents that have suffered the gruesome impact of colonisation.

### Speakers

- Dr. Danny Gotto, Executive Director of Innovations for Development, Uganda.
- Dr. Virginia Taelens, Officer-in-Charge of Climate Change Network for Community Initiatives, Philippines
- Adrián Salas Xopan, Maya Elder and Deputy Director of Muuchxiimbal Mayan Ceremonial Center, Mexico.
- Moderator: Magalie Schotte, Coordinator of Be-cause health

Recording of the session: [here](#)

















# TODAY I'LL SHARE ON...

1. what we are observing as some of the key trends in the intersection between climate change and NTDs
2. a brief overview of how WHO's NTD division expresses itself on this topic
3. and end with a recent exercise we had done as FAIRMED in Nepal, together with the government, on NTDs induced by climate change





ACT NOW. ACT TOGETHER

INVEST IN

## NEGLECTED TROPICAL DISEASES



### What are neglected tropical diseases (NTDs)?

Neglected tropical diseases (NTDs) are a group of disease conditions that are widespread in the world's poorest regions, where **water safety, sanitation and access to health care** are substandard.

NTDs cost developing communities billions of dollars each year in

**direct health costs, loss of productivity and reduced socioeconomic and educational attainment.**

NTDs are also responsible for **stigmatization, social exclusion, disability, discrimination**, and place considerable strain on both patients and their families.

# MORE THAN 1 BILLION



# SUFFER FROM A NEGLECTED TROPICAL DISEASE (NTD)





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**50/50**  
DOWN TO GO



## THE CLIMATE CRISIS IS A HEALTH CRISIS

Let's act now to protect human health  
and **end neglected tropical diseases**

Unite. Act. Eliminate.



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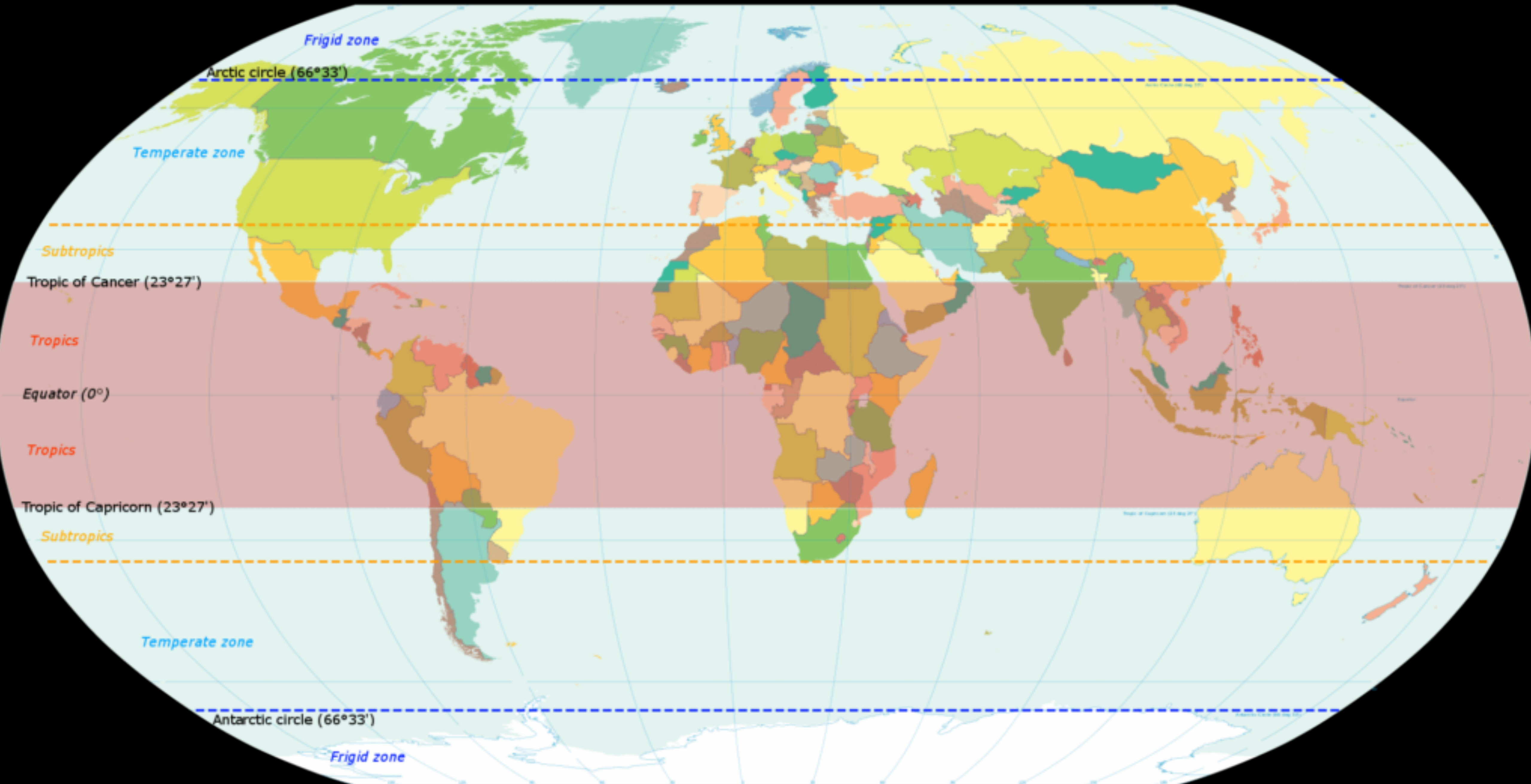
3. and end with a recent exercise we had done as FAIRMED in Nepal, together with the government, on NTDs induced by climate change

1. Vector presence in newer regions, in those that are becoming more warmer and warmer due to adverse climate change.
2. Globalization, increased interconnectedness, and transmission of diseases across borders.
3. Agrarian crisis, displacement, urban migration, crowding of cities and poor living conditions and violence / wars











RESEARCH

Open Access



# Ecological niche modeling predicting the potential distribution of *Leishmania* vectors in the Mediterranean basin: impact of climate change

Bilel Chalghaf<sup>1,2,3\*</sup>, Jomâa Chemkhi<sup>1</sup>, Benjamin Mayala<sup>4</sup>, Myriam Harrabi<sup>1</sup>, Goze Bertin Benie<sup>3</sup>, Edwin Michael<sup>4</sup> and Afif Ben Salah<sup>1,5</sup>







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France

Le Cannet-des-Maures



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**Countries with the Highest Prevalence of NTDs in 2013<sup>a</sup>**

<b>Diseases</b>	<b>1</b>	<b>2</b>	<b>3</b>
Schistosomiasis	Angola <sup>b</sup>	Gabon	Eritrea
Onchocerciasis	Liberia	South Sudan	Democratic Republic of the Congo
Human African Trypanosomiasis	Central African Republic	Democratic Republic of the Congo	South Sudan
Lymphatic Filariasis	Zambia	Eritrea	Gabon
Visceral Leishmaniasis	South Sudan	Sudan	Madagascar
Trachoma	Ethiopia	South Sudan	Mali
Cysticercosis	Burkina Faso	Peru	Liberia
Cutaneous Leishmaniasis	Afghanistan	Sudan	Syria
Chagas Disease	Bolivia	Argentina	El Salvador
Food-Borne Trematodiasis	Laos	Thailand	China
Dengue <sup>c</sup>	Micronesia	Indonesia	Philippines
Trichuriasis	Kiribati	Marshall Islands	Jamaica
Hookworm	Papua New Guinea	Swaziland	Guatemala
Ascariasis	Malaysia	Equatorial Guinea	Afghanistan
Leprosy	South Sudan	Madagascar	Timor-Leste
Rabies <sup>c</sup>	Myanmar	Chad	Niger
Cystic Echinococcosis	Mongolia	Tajikistan	Zimbabwe
Other NTDs <sup>d</sup>	Afghanistan	Yemen	Senegal

Countries in red have been identified to have “low” or “very low” levels of peace by the GPI 2013–2016 [7, 10–12].

<sup>a</sup> Source of prevalence of NTDs from Herricks et al. [8].

<sup>b</sup> Angola was identified to have a “very low” level of peace in 2007.

<sup>c</sup> For dengue and rabies, the table shows highest incidence rather than prevalence.

<sup>d</sup> Other NTDs include dracunculiasis, relapsing fevers, typhus fever, spotted fever, Q fever, other rickettsioses, other mosquito-borne viral fevers, unspecified arthropod-borne viral fever, arenaviral hemorrhagic fever, toxoplasmosis, unspecified protozoal disease, taeniasis, diphyllbothriasis and sparganosis, other cestode infections, trichinellosis, strongyloidiasis, enterobiasis, and other helminthiasis.

**Abbreviations:** GPI, Global Peace Index; NTD, neglected tropical disease.



EDITORIAL

# Modern Sunni-Shia conflicts and their neglected tropical diseases

**Peter J. Hotez**<sup>1,2,3,4\*</sup>

**1** Texas Children's Hospital Center for Vaccine Development, Departments of Pediatrics and Molecular Virology and Microbiology, National School of Tropical Medicine, Baylor College of Medicine, Houston, Texas, United States of America, **2** James A Baker III Institute for Public Policy, Rice University, Houston, Texas, United States of America, **3** Department of Biology, Baylor University, Waco, Texas, United States of America, **4** Scowcroft Institute of International Affairs, Bush School of Government and Public Service, Texas A&M University, College Station, Texas, United States of America

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# 21



*Buruli ulcer*  
*Chagas disease*  
*Dengue and chikungunya*  
*Dracunculiasis*  
*Echinococcosis*  
*Foodborne trematodiasis*  
*Human African trypanosomiasis*  
*Leishmaniasis*  
*Leprosy*  
*Lymphatic filariasis*  
*Mycetoma, chromoblastomycosis  
and other deep mycoses*  
*Onchocerciasis*  
*Rabies*  
*Scabies and other ectoparasitoses*  
*Schistosomiasis*  
*Soil-transmitted helminthiasis*  
*Snakebite envenoming*  
*Taeniasis and cysticercosis*  
*Trachoma*  
*Yaws*

**Ending the neglect to  
attain the Sustainable  
Development Goals**  
**A road map for neglected  
tropical diseases 2021–2030**

# 30



## Climate change, neglected tropical diseases and malaria: an urgent call for further research and action

### Background

In recent decades we have seen progressive changes to global climate patterns caused by anthropogenic impacts on the environment. **These are likely to directly and indirectly affect human health, and are projected to continue and potentially accelerate into the future.** Neglected tropical diseases (NTDs) and malaria are potentially particularly sensitive to these changes as they are prevalent amongst vulnerable populations in countries expected to experience the greatest environmental change in the coming decade.

Rising temperatures and changes in precipitation patterns are altering vector breeding habitats and pathogen development, changing the geographical distribution of diseases and transmission risks. The World Health Organization (WHO) is focusing on understanding these changes and encouraging development and implementation of mitigation and adaptation strategies.

The complex and diverse nature of NTDs and malaria, coupled with major research gaps, has led to this urgent call for multidisciplinary efforts to predict, prepare and respond to evolving epidemiological patterns under climate change.

### State-of-the-art scoping review

The WHO Task Team on Climate Change and NTDs undertook a comprehensive scoping review, in line with PRISMA-ScR guidelines.

A thorough search across industry-leading databases was conducted, on records dating from January 2010 to October 2023. The review combined automation and artificial intelligence tools to screen publications for papers addressing the effects of climate change on the dynamics of all 20 NTDs, malaria, and their associated vectors, as well as papers that explicitly address climate change mitigation and/or adaptation strategies.

The Task Team initially identified 19,597 separate papers. After abstract screening, 1,108 papers were selected for full text screening, and 288 for data extraction. Of these, 100 focused on malaria, 98 on dengue and chikungunya, 35 on leishmaniasis, and 63 on the remaining 18 NTDs.

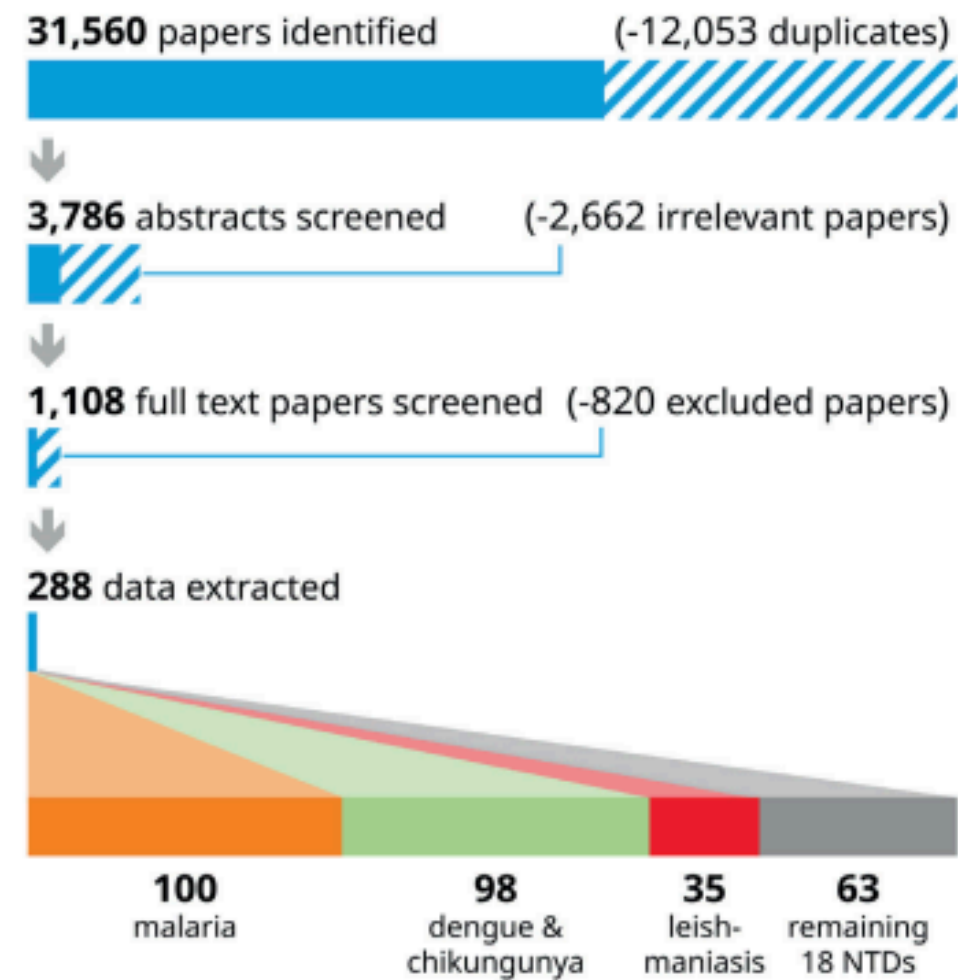


Fig. 1. Scoping review flow.

### Headline results of the review

**Changes to the climate are leading to shifts in the behaviour, range, and intensity of lymphatic filariasis, dengue and malaria vectors. This is supported by growing evidence.**

**The ways in which climate change may impact all other NTDs are not well understood due to a lack of evidence. There is a critical need for further investigation.**

**In relation to NTDs and malaria, effective mitigation and adaptation strategies for climate change need to be built based on evidence.**





## CHALLENGE

*How to make decisions  
with little knowledge?*





**50/50**  
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# Spatio-Temporal Distribution of Dengue and Lymphatic Filariasis Vectors along an Altitudinal Transect in Central Nepal



Meghnath Dhimal<sup>1,2,3\*</sup>, Ishan Gautam<sup>4</sup>, Aljoscha Kreß<sup>2</sup>, Ruth Müller<sup>2</sup>, Ulrich Kuch<sup>2,5</sup>

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## Abstract

**Background:** Rapidly increasing temperatures in the mountain region of Nepal and recent reports of dengue fever and lymphatic filariasis cases from mountainous areas of central Nepal prompted us to study the spatio-temporal distribution of the vectors of these two diseases along an altitudinal transect in central Nepal.

**Methodology/Principal Findings:** We conducted a longitudinal study in four distinct physiographical regions of central Nepal from September 2011 to February 2012. We used BG-Sentinel and CDC light traps to capture adult mosquitoes. We found the geographical distribution of the dengue virus vectors *Aedes aegypti* and *Aedes albopictus* along our study transect to extend up to 1,310 m altitude in the Middle Mountain region (Kathmandu). The distribution of the lymphatic filariasis vector *Culex quinquefasciatus* extended up to at least 2,100 m in the High Mountain region (Dhunche). Statistical analysis showed a significant effect of the physiographical region and month of collection on the abundance of *A. aegypti* and *C. quinquefasciatus* only. BG-Sentinel traps captured significantly higher numbers of *A. aegypti* than CDC light traps. The meteorological factors temperature, rainfall and relative humidity had significant effects on the mean number of *A. aegypti* per BG-Sentinel trap. Temperature and relative humidity were significant predictors of the number of *C. quinquefasciatus* per CDC light trap. Dengue fever and lymphatic filariasis cases had previously been reported from all vector positive areas except Dhunche which was free of known lymphatic filariasis cases.

**Conclusions/Significance:** We conclude that dengue virus vectors have already established stable populations up to the Middle Mountains of Nepal, supporting previous studies, and report for the first time the distribution of lymphatic filariasis vectors up to the High Mountain region of this country. The findings of our study should contribute to a better planning and scaling-up of mosquito-borne disease control programmes in the mountainous areas of Nepal.















# What are our reflections in FAIRMED from being part of such work driven by climate change?

Firstly it is absolutely pushing all actors, state, and non-state, to the limit with financial capacities to address these increasing needs.

Secondly, even though we might not always have the resources to embark on research, in addition to regular project work, it has made us seriously think about how we view our work on NTDs in the intersection of lived realities of climate induced challenges.

Thirdly, it is imperative that we bring out stories of people suffering and their life while experiencing climate change induced challenges.





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