

Climate Sensitivity of Dengue in the Central Province, Sri Lanka

With the support of the Central Province Department of Health, Sri Lanka, Tropical Climate and Foundation for Environment, Climate and Technology are undertaking a project to characterize climate and dengue linkages in Sri Lanka, focusing initially on the Central province. The goal is to use climate information for early warning of disease risk.

Central Province Department of Health, Sri Lanka | Foundation for Environment, Climate, and Technology [FECT] | Tropical Climate Guarantee [TCG]

Climate is a major determinant in the distribution and occurrence of dengue in Sri Lanka. Temperature, rainfall, and humidity affect breeding and survival of vector mosquitoes and to a lesser extent the development of parasites within the mosquitoes. Tropical Climate in collaboration with the Foundation for Environment, Climate and Technology, University of Peradeniya and other partners, is studying climate-dengue linkages in order to develop an early warning system of climate induced disease risk. The project sets goals of characterizing climate and dengue relationships in the Central Province at a fine scale, and to develop early warnings for dengue risk.

CONTACT INFORMATION

Foundation for Environment, Climate, and Technology,
Digana Village, Rajawella,
Sri Lanka.

Phone : +94- 81- 2376746
+94- 81- 2300415

Dr. P.H.D. Kusumawathie,
Email : kusum_amc57@yahoo.com

Rushdha Salih,
Email : rushdhafect@gmail.com

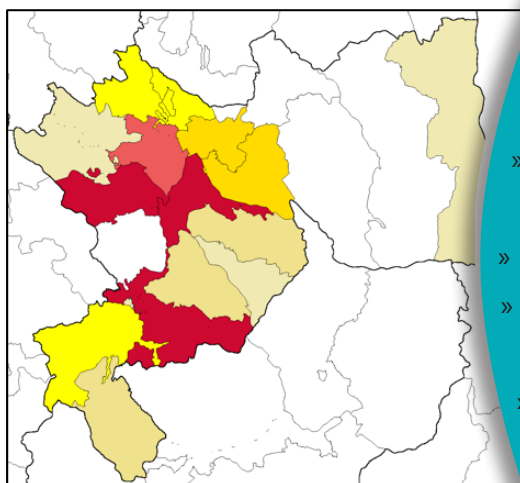
Web : www.climate.lk
www.tropicalclimate.org

Facebook : <http://facebook.com/fectsl>

Twitter : <http://twitter.com/fectlk>

ANTICIPATED PROJECT OUTPUTS

- » A database of fine scale climatic hydrological, entomological and dengue information
- » Fine-scale climate analysis and high resolution prediction techniques
- » A climate monitoring system
- » Geographic information systems for climatic, hydrological, malaria and societal data
- » Methods of identifying linkages between climatic variables and dengue at seasonal, inter-annual, and decadal time-scales
- » Methods to identify factors that lead to vulnerability to dengue.

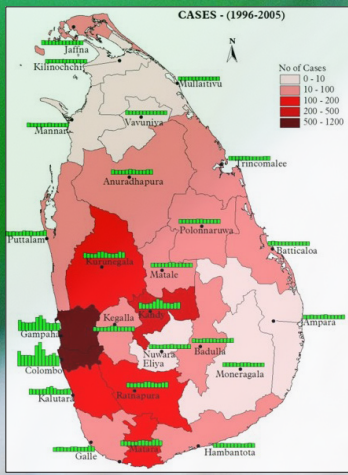


The Number of Dengue Cases in July 2017 by the Different Health Sub-districts in Kandy District

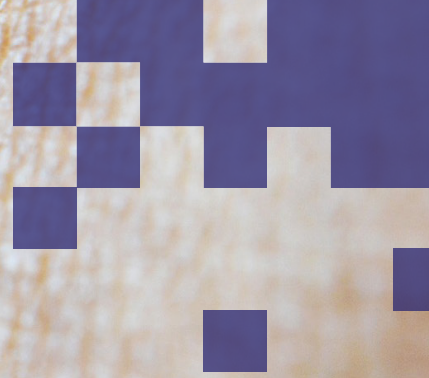


Tropical Climate

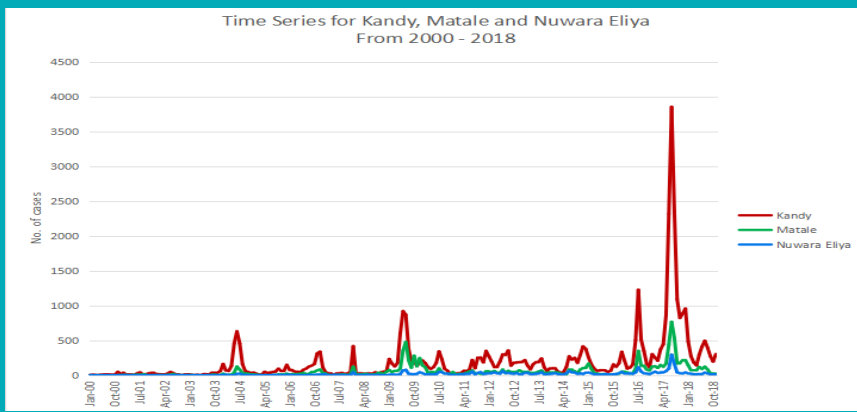




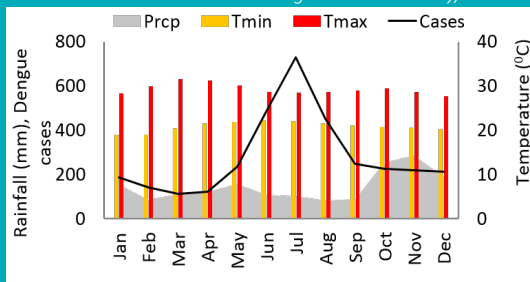
Annual Average Dengue Cases by Districts in Sri Lanka



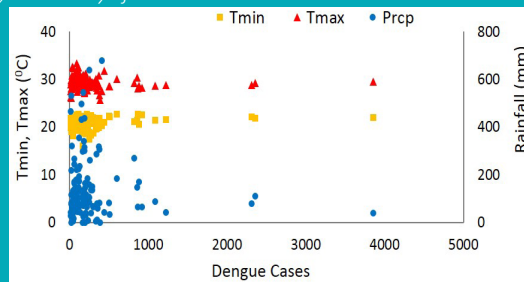
Our analysis shows emerging evidence of climatic influence on dengue, both spatially and temporally. As there is considerable spatial and epochal heterogeneity in the climate and dengue linkage, carefully calibrated, fine-scale studies are needed. The rapid rise in Dengue requires special statistical methods.



Dengue Cases in Kandy, Mathale, NuwaraEliya from 2000 to 2018



Average Number of Cases of Dengue by Month for Kandy With Monthly Averages of Rainfall, Minimum Temperature and Maximum Temperature from 2008 to 2017.



Average Number of Cases of Dengue by Month for Kandy plotted against the Monthly Averages of Rainfall, Minimum Temperature and Maximum Temperature from 2008 to 2017.

ABOUT FECT

This Foundation was established to promote environmental and climate technology and its applications in multiple fields. FECT builds on the work of the officers in Sri Lanka and internationally. Our work is oriented towards developing useable scientific and technological information that can be applied by users in diverse sectors. We work actively with other Sri Lankan partners in Government institutions, Research Institutes, and Universities.

Website : www.climate.lk

ABOUT TCG

Tropical Climate is a registered non-profit voluntary service organization in Sri Lanka dedicated to advancing knowledge on tropical climate, its impacts and adaptation measures. It focuses particularly on regions within and around the Indian Ocean Rim - Sri Lanka, Maldives, Comoros. We work in partnership with Universities, Research Institutes and other public, private and civic organizations. TCG works with other individuals and organizations including the Foundation for Environment, Climate and Technology.

Website : www.tropicalclimateguarantee.org

The project shall lead to capacity building opportunities for researchers and government officials, as well as educational opportunities for students.



The project staff undertaking a consultation with MOH, PHI, AMC, women's groups and experts in community based work and other personnel in Akurana



The project staff have a research meeting with RDHS/AMC staff, and epidemiologists, geographers, anthropologists, sociologists from the University of Peradeniya at Digana Village.

