UNIVERSITI TEKNOLOGI MARA

EFFECT OF VEGETATION ON DENGUE FEVER

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Thesis submitted in fulfilment of the requirements for the degree of

Bachelor of Surveying Science and Geomatics

(Honours)

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AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as reference work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Dengue fever is a major vector-borne disease in Malaysia. Dengue fever is the most common mosquito-transmitted disease, causes to millions illnesses and death each year. This is because the mosquito vector sensitive to environmental conditions such as temperature, vegetation, climate and humidity. The aim of this study is to determine the effect of vegetation on dengue fever cases at Kuala Lumpur by using NDVI of Landsat 8 image. The 2014 dengue data obtained from the data.gov website and vegetation data extract from Landsat 8 image were analysed using remote sensing to show the correlation of dengue in each Parliament in Kuala Lumpur. Linear regression is performed to determine the relationship between vegetation and dengue fever cases. The vegetation is represented by NDVI which is generated from Landsat image and extracted based on the location of dengue cases. Using the dengue cases year 2014 and NDVI that was extracted, the correlation will perform and determination of relationship between vegetation and dengue will identify. It is found that vegetation do not affect towards increasing dengue cases in 2014. As conclusion, vegetation is not the major factor that caused dengue cases increase rapidly.

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