

# **Analysis of Spatial and Climate Factors affecting Dengue Fever (DF) and Dengue Haemorrhagic Fever**

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Abstract : Dengue Fever(DF) and Dengue haemorrhagic Fever (DHF) is also still the major health problem of Thailand, although many campaigns against it have been conducted throughout the country. The disease is among the ten leading causes of hospitalization and death in children in at least eight tropical Asian countries. GIS and Remotely Sensed data are used to evaluate the relationships between socio-spatial, environmental factors/indicators and the incidences of viral diseases. The aim of the study is to identify the spatial risk factors in Dengue and Dengue Haemorrhagic Fever in Sukhothai province, Thailand using statistical, spatial and GIS Modeling. Results on the Dengue produce the effect of several environmental and climate factors. The present study emphasizes the potential of remotely sensed data and GIS in spatial factors affecting Dengue Risk Zone analysis. A spatial factors affecting Disease is attempted using information value method. Information value technique was used to develop a risk map of the area. The link between land use/cover and case of incidence by information value method can be understood that highest information value is obtained for Built-up area almost a whole province and the forest area which the relationship showing negative value. The relations between climate data and case of incidence are not well understood. The affecting area by DF and DHF are having information values in moderately risk zone and high risk zone.