

## Ecological disturbance and prevalence of dengue in Malaysia: Way out

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### Abstract

The supposed habitat of dengue vectors (*Aedes aegypti* and *Aedes albopictus*) had been greatly altered due to the rapid pace of urbanization and globalization. These two species of mosquitoes have developed an incredible ability to adapt to their new ecological niche which is among human beings. Dengue virus has become the most communicable viral diseases in Malaysia because of afore mentioned adaptation. We propose to elaborate on how disturbance of ecology has led to the continual spread of dengue virus and how it can be curtailed based on some research. For any species of mosquitoes to complete its life cycle in terms of reproduction, two important elements are essential: vertebrate blood and water. The shortage of these two elements will lead to the shortage in reproduction and minimize the potential outbreak of dengue virus. New vector control tools include biological control: the use of crustaceans and guppy fish that feeds on mosquito larvae, use of genus *Toxorhynchites* which feed on other species of mosquitoes. Traditional methods used are enforcement of environmental control measures and appropriate management of waste disposals. Chemical and physical control such as fogging, space repellents and use of insecticide treated nets are all needed to minimize dengue vectors and as well prevent them from reaching the essential elements for reproduction thereby protecting the public from the virus.

Keywords: Dengue vectors, ecological disturbance, urbanization, control tools.

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