Malaria Vulnerability Mapping from the Space: A Case Study of Damaturu Town-Nigeria

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Abstract : Malaria is one of the worst illnesses that may affect humans. It is typically transmitted by the bite of a female Anopheles mosquito and is caused by parasitic protozoans from the Plasmodium parasite. Government and non-governmental organizations made numerous initiatives to combat the threat of malaria in communities. Nevertheless, the necessary attention was not paid to accurate and current information regarding the size and location of these favourable locations for mosquito development. Because mosquitoes can only reproduce in specific habitats with surface water, this study will locate and map those favourable sites that act as mosquito breeding grounds. Spatial and attribute data relating to favourable mosquito breeding places will be collected and analysed using Geographic Information Systems (GIS). The major findings will be in five classes, showing the vulnerable and risky areas for malaria cases. These risk categories are very high, high, moderate, low, and extremely low vulnerable areas. The maps produced by this study will be of great use to the health department in combating the malaria pandemic.

Keywords : Malaria, vulnerability, mapping, space, Damaturu
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