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The Climate Comfort and Risk Assessment for Tourism in Bali, Indonesia

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Tourism is one of the main economic resources in Bali unfortunately mostly affected by climate conditions. However, it is still unclear how climate change may affect tourism in tropical archipelagos like Bali Island. Moreover, climate comfort is one of the most important factors that must be taken into account to increase the number of tourists visiting because it may alter the pattern of tourist visits as well as tourist preferences. Therefore, this study will analyze the comfort level of the tourism climate using three different methods as Holiday Climate Index (HCI), humidity index (Humidex), and correlation. Furthermore, using a GIS application, the climate comfort level in each observation will be mapped to find the most comfortable month.

Moreover, HCI and Humidex value will be combined with the number of foreign visitors to Bali to find the relationship between climate comfort indicators and tourist visits will be analyzed. The results of this study indicate there are six months are quite comfortable in the majority area of Bali. While the most comfortable month for traveling in Bali is August and the least comfortable month is December and January. The number of tourist arrivals to Bali has great relation to the number of tourist visits. The results of this study are expected to assist tourists, the tourism sector, and local governments in making pre-travel decisions based on climatic comfort information and tourism policy to enhance the Bali tourism business