## UNIVERSITI TEKNOLOGI MARA

# CASE STUDY: THE EFFECT OF FLASH FLOOD BY POORLY MAINTAINED DRAINAGE SYSTEM TOWARD RESIDENTIAL AT BUKIT KATIL, MELAKA

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## DIPLOMA IN TOWN & REGIONAL PLANNING August 2021

### **AUTHOR'S DECLARATION**

I declare that the work in this Planning Project Paper was carried out in accordance with the Regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This project paper 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 Undergraduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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#### ABSTRACT

Malaysia is a country that is prone to flooding. In terms of the number of population affected, frequency, extent, duration, and social economic impact, it is the most significant natural hazard for the country. Whenever flood occurs, it is sometimes necessary for affected people to be evacuated into temporary shelters. In Malaysia, schools and government buildings are the most common facility to be designated as evacuation centres (EC) due to its suitability to accommodate a large number of people at one time and equipped with essential basic necessities. However, there have been a number of cases whereby these shelters themselves became inundated, forcing evacuees to move out to other location or getting trapped. The Department of Social Welfare, in its Standard Operating Procedure (SOP) on Flood Disaster Management necessitates the need to ascertain the flood susceptibility of evacuation centres as it should be located at a safer location without adverse risk of being affected by flood. Melaka used to be a significant trading state in the 16th century. It had attracted traders from various continents to be its trading partners. Many of these traders had left their footprint enormously. Over the years, these tangible and intangible historical assets have been an attraction to tourism sector which contributes significantly to Malaysian GDP. However, due to the impact of climate change and rapid urban development in Melaka, the flood has posed a risk to Melaka's economy especially in the tourism and residential sector. To protect its interest, Melaka has taken proactive measures in mitigating flood incidences. Thus, this study intends The Effect of Flash Flood by Poorly Maintained Drainage System toward Residential at Bukit Katil, Melaka. This study employs a quantitative approach by using secondary data obtained from the department of Statistics Malaysia and the Department of Irrigation and Drainage. Moran's I, Local Indicator and Spatial Association and Bivariate Moran's I were used to analyze the data spatially. Findings show the mitigation measures taken have relieved the risk posed by floods towards residential at Bukit Katil, Melaka. While from the aspect of the cause of the flood for the Bukit Katil residential area is due to an unmanaged drainage system.

Keywords: Flood, The Drainage System, The Impact Flood, Residential, Melaka, Flood Disaster.

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