Multi Approach Guideline for Resilient Office Buildings Towards Reducing Disaster Risks

(MAGROB)

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ABSTRACT

Malaysia is a country that experienced flood annually, especially during the Northeast Monsoon season. Monsoon floods take a long term and may last a week or more to return to the normal water flow level, whereas flash flood takes only few hours. Throughout the years, flood resilient construction has become an essential component of the integrated approach to flood risk management, and it is now widely accepted through the concepts of making space for water and living with floods whilst building resilience is one of the approaches that can be used to reduce the vulnerability to natural hazards, such as flood. Furthermore, building resilience can be achieved through a high level of awareness and attentiveness to the potential disruptive effects of a disaster and learning from past disruptions. Hence, it is crucial to have a guideline in developing the resilience of buildings in Malaysian context, especially for office building as it possess important roles in ensuring the services could be delivered to the public effectively while maintaining the critical documents that it holds. This study aims to establish Multi Approach Guideline for Resilient Office Building towards Reducing Disaster Risks (MAGROB). Three states have been chosen as the sampling sites namely Johor, Pahang, and Kelantan as those states were frequently affected by the flood during monsoon season. Survey questionnaire was conducted to get preliminary information of the office building involved, followed by case study to get more in-depth understandings of risks and challenges faced by the building managers. Document review was conducted to outline a primary framework for the guideline and finally, Focus Group Discussion was carried out to get more information on the mitigation approaches that can be adopted to reduce the risks of flood on the office buildings and validate the data obtained. The final guideline was established after analysing all the relevant data gathered. As the guideline was divided into generic and specific mitigation approaches, this Multi Approach Guideline for Resilient Office Building towards Reducing Disaster Risk can be used by the building operators and related stakeholders to enhance the resilience of their office buildings and also by the public to enhance the resilience towards disaster in general.