

Tsunami Disasters Preparedness among the Coastal Residence in Penang, Malaysia

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Abstract : Tsunami 2004 was an unforeseeable event that caught Malaysia of guard resulting with 68 losses of lives and with an estimated economic loss of about 55.15 billion US dollar. Scientists predict that if the earthquake epicentre originates from the Andaman-Nicobar region, the coastal population of Penang will have about 30 minutes to evacuate to safety. Thus, a study was conducted to enhance resiliency of Penang community as the area was the worst affected region during 2004 tsunami disaster. This paper is intended to examine the factors that influence intention to prepare for future tsunami among the coastal residence in Penang. The differences in the level of intention to prepare were also examined between those who experience and did not experience the 2004 tsunami. This study utilized a cross-sectional research design using a survey method. A total of 503 respondents were chosen systematically and data gathered were analysed using SPSS. Both genders, male and female were equally represented with a mean age of 44 years. Data indicated that the level of intention to prepare for tsunami disaster was moderate ($M=3.72$) with no significant difference in intention to prepare between those who had experienced or had not experienced the 2004 tsunami. Subsequently, results from a multiple regression analysis found that sense of community to be the most influential factor followed by subjective norm, trust, positive outcome expectancy and risk perception, explaining the 57% variance in intention to prepare. These factors reflect the influence of the collectivistic culture in Malaysia whereby households plus communities have a central role in encouraging each other. Therefore, the findings highlights the potential of adopting a community based disaster risk management as recommended by the United Nations International Strategy Disaster Reduction (UNISDR) which encompasses the cooperation between the local community and relevant stakeholders in preparing for future tsunami disaster.

Keywords : disaster management, experience, intention to prepare, tsunami

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