

ABSTRACT

Seismic Hazard Perception: A Case from Tobago in the Eastern Caribbean

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With more than 1200 earthquakes occurring in the Eastern Caribbean each year seismic hazards are a real and persistent threat to human life, infrastructure and economic development. The island of Tobago, which is located off the North-Eastern coast of Trinidad, (11.0°N, 60.5°W) presents a unique case for the study of earthquake hazard perception due to the fact that Tobago has been relatively isolated from major earthquakes. Since earthquake monitoring commenced in the Caribbean in 1952, Tobago has had three distinct periods of increased earthquake activity known as sequences, which occurred in 1958, 1982 and 1997. These sequences, which for many were the first earthquakes they had ever experienced, may have directly affected how they perceive earthquake hazards. This study examined the variability in perception present among population groups that may have experienced the sequences at different times. Using data collected in a two-week long survey that consisted of semi-structured interviews and which took place mainly in the South-west region of the island (the region most affected by the sequences), trends were identified and analysed. These included an increased fear of urban and built up areas as opposed to open areas which were seen as safest, very little knowledge of earthquake history on the island and a perception gap between what people believe will happen during an event and what actually happens. The lack of contemporary memory of large events has created a sense of comfort with at least 10% of the respondents believing that large earthquakes will not occur. Religious beliefs play a major role in influencing how the older generations respond to information on earthquake hazards and in order for successful mitigation strategies to be implemented solutions to this obstacle need to be found. Further work needs to be done to increase earthquake hazard awareness and overall resilience amongst the young generation.

Keywords: resilience; mitigation, perception, hazards, earthquakes, seismic, Caribbean