This research paper entails theoretical analysis of the dynamics of Tsunamis and its relation to the Caribbean in comparison with international scenarios. Emphasis is placed on the degree of preparedness of the region for such events through the establishment of warning systems. Additionally, the effectiveness of such systems is assessed in a comprehensive manner, thus providing sufficient insight into the role within the Caribbean region.

A tsunami is one of the most unpredictable natural hazards. This event comes with minimal warning, resulting in dramatic and hazardous effects to humanity. Tsunamis constitute a series of massive waves initiated by an impulsive disturbance displacing a mass of seawater from its equilibrium position. Tsunamis are generated from earthquakes, volcanic activities, landslides, meteorological phenomena and meteorite impacts. Internationally, there have been numerous events that resulted in a great deal of devastation largely due to the delay in issuing effective tsunami warnings, such as the event which occurred on 26th December, 2004 in Indonesia. This resulted because of the event being unanticipated, coupled with the absence of an effective localised monitoring network to provide ‘real time data’.

Due to the tectonic structure of the Caribbean tsunamigenic events are definite possibilities. Seismicity is a potential source for initiation within this region. Tsunamis are overshadowed by the frequency of other natural hazards given the fact that the probability of tsunamis occurring in the Caribbean is two (2) per century. However, the need for an effective localised Early Tsunami Warning System cannot be underestimated. This system will provide the linkage between monitoring, communication, distribution and mitigation strategies.
After analysis of the circumstances surrounding international scenarios and Caribbean situations, it can be concluded that the Caribbean is not yet ready to cope with such tsunamigenic events. However, currently the establishment of effective monitoring systems and proper mitigation strategies are being put in place in order to minimise the degree of hazards that will be experienced in light of an event occurring within the region.