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**Assessment of exposure of Sri Lanka to tsunami hazards from Sunda Trench**

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Considering the geographical location of Sri Lanka and the undersea earthquake prone regions in the world, it is clear that the country is exposed to tsunamis generated along the Sunda Trench located to the East, as indicated by the Indian Ocean Tsunami (IOT) in 2004 and subsequent tsunami alerts. Due to the IOT, more than two thirds of the coastline in Sri Lanka in the northern, eastern, southern as well as relatively sheltered western areas were subjected to inundation. However, it was clear in the aftermath of the tsunami, that the degree of damage along the coastal belt was not uniform, with some areas suffering severe damage and other areas suffering a lesser extent of damage, while in certain other areas, often not far away, there was no damage at all. The level of exposure of coastal areas thus exhibited a considerable variation even along a short stretch of the coastline. In view of these circumstances, it is important to assess the risk of potential tsunamis in order to develop an effective early warning system with information related to the impacts of tsunamis. A study was thus carried out using numerical modeling techniques, taking into consideration the different stages of tsunamis due to undersea earthquakes, namely, generation, deep water propagation, shallow water transformation and inundation. The results of the study can be used to develop a database containing information that can be effectively utilized by a tsunami early warning and evacuation system for potential tsunami scenarios which could affect Sri Lanka in the future. The results include maximum wave heights with respect to locations and arrival times at selected points along the coastline for a range of potential tsunami scenarios generated along the Sunda trench.

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