



Hi-tech tsunami alert system launched

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Mumbai can be now alerted within minutes, in case devastating tsunami waves move towards country's business capital. Scientists have created an Early Warning System, which can locate exact epicentre of an earthquake within minutes of its occurrence.

Based on the real-time calculation of data collected through sensors, digital tide gauges and Bottom Pressure Recorders (BPRs), tsunamigenic earthquakes, the direction, speed and intensity of the tsunami waves can be detected within 13 minutes and well in time for evacuation of people.

Tsunami waves generated in the Arabian Sea, following a possible earthquake in the Makran, region will take 210 minutes to hit Mumbai. The waves can be as high as three meters leading to great devastation.

The same waves will hit Karachi within one hour, Dwarka in two hours, and Cochin in four hours. Thanks to the new system, the Indian scientists will now be able to alert the country well in advance. "Country will not be caught unaware like 2004 December," said P.S. Goel, secretary, department of Earth Sciences.

The system, seen as technological marvel by the international community, was lauded by Peter Koltermann, head of the tsunami coordination of Intergovernmental Oceanographic Commission. "The Indian system is the most modern one," he said. Around 150 scientists worked for last two years to create the system costing Rs125 crores. The Early Warning Centre based in Hyderabad receives real-time seismic data from the national seismic network of the Indian Meteorological Department (IMD) and other international seismic networks.

The system can detect all earthquake events more than 6 richter scale magnitude occurring in Bay of Bengal, Arabian Sea and the Indian Ocean within minutes of its occurrence. BPRs installed in the sea/ocean are the key sensors to confirm the triggering of a tsunami.

Seismic and sea-level data are continuously monitored through a system that generates alerts in the warning centre whenever a pre-set threshold is crossed.

The National Early Warning Centre will then disseminate timely advisories to the Control Room of the Ministry of Home Affairs for further action. The National Institute of Ocean Technology (NIOT) has installed 4 BPRs in the Bay of Bengal and the 2 BPRs in Arabian Sea in addition to 30 Tide Gauges.