Preface

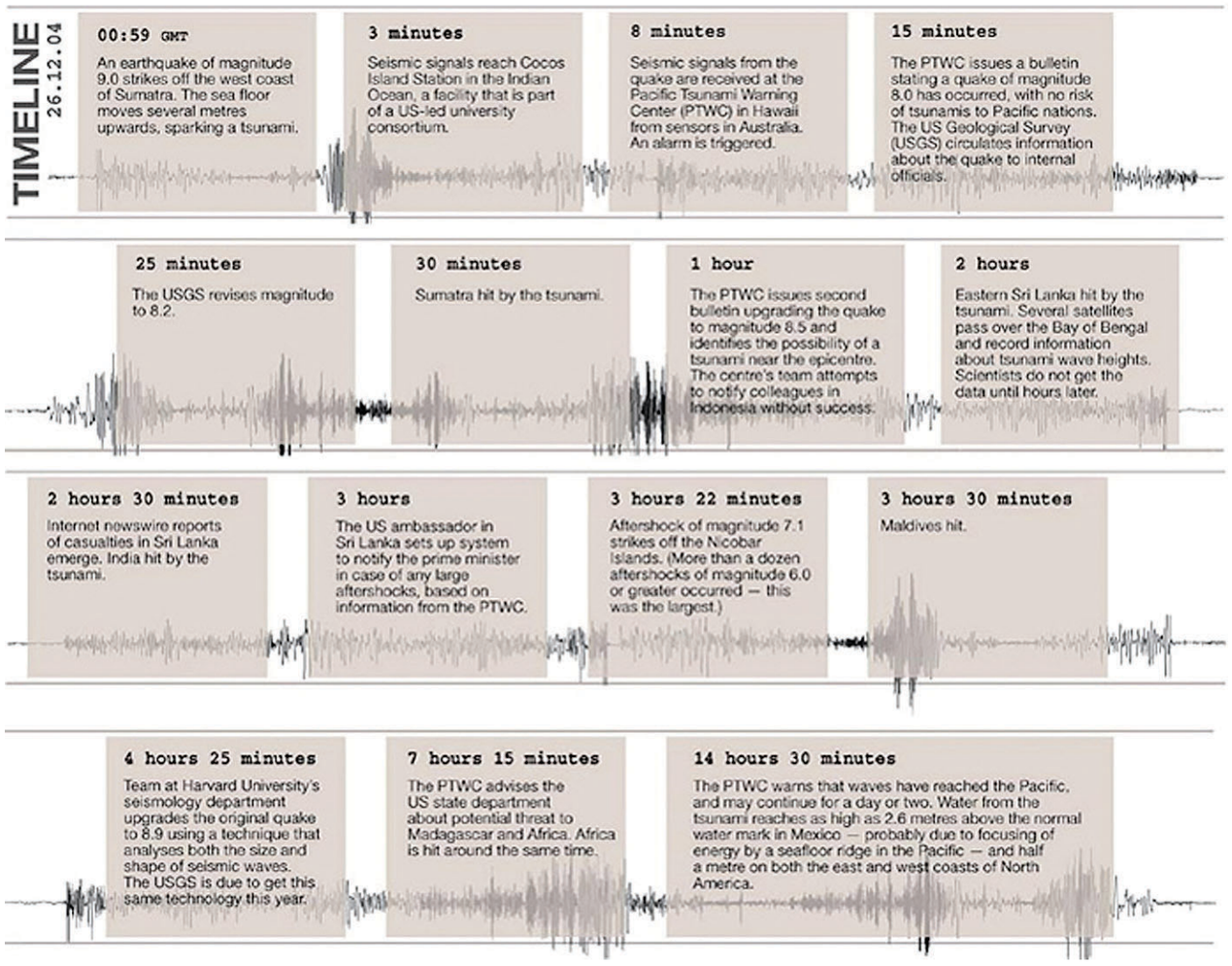
It has been a year since the Tsunami waves hit the Tamil Nadu coast causing death and devastation on an unprecedented scale. Thanks to the clear policy directions and guidance given by the Hon'ble Chief Minister at every stage, and the commitment and hard work put in by officials of various departments, the relief and rehabilitation phases were completed quickly. It has been the endeavour of the State Government to help every citizen affected by the tsunami through a multitude of initiatives. These have not only helped the coastal residents cope with the financial losses but also lent a helping hand to deal with the consequential social and psychological turmoil.

As we move forward to provide a secure future for the affected families, the State is committed to rebuild their lives in every possible manner. The Tsunami Reconstruction Programme provides for financial resources to reconstruct houses, community infrastructure and public assets in a disaster resistant manner and for specific initiatives to protect the coastal areas. It also provides for adoption of alternative vocations to provide sustainable livelihood with enhanced income levels. The Government is also partnering with the communities, who are the first line of defence against natural calamities, to train them to deal with such disasters.

On the occasion of the anniversary of this tragic event, we rededicate ourselves to the task of rebuilding the lives of the affected families, ensuring their safety and security and bringing about a total transformation in the coastal areas.

R. Santhanam, I.A.S
State Relief Commissioner
Government of Tamil Nadu

Date : 21-12-2005



TSUNAMI—GENERATION, PROPAGATION AND INUNDATION

"Tsunami" is a Japanese word that translates as 'harbour waves'. These seismic sea waves are usually the result of a sudden rise or fall of a section of the earth's crust under or near the ocean which displaces the water column, creating a rise or fall in the level of the ocean above. Earthquakes, volcanic activities and landslides occurring above or below the sea surface can also trigger tsunami waves.

Normal waves are generated by wind blowing over the sea surface and their size depends on the strength of the wind and the distance over which it blows. The distance between waves ranges from a couple of feet to a thousand feet and the speed can go up to sixty miles an hour. With tsunami waves, it is the magnitude of the disturbance causing the tsunami that influences the size and strength of the waves.

As a tsunami leaves the deep water of the open sea and moves into more shallow waters near the coast, it undergoes a transformation. As the depth of the water decreases, the speed of the tsunami decreases; but as the speed decreases, the height of the wave grows. A tsunami wave that is imperceptible in deep water may grow to be several feet in height when it reaches the shore.

When a tsunami finally reaches the shore, it may appear as a rapidly rising or falling tide, a series of breaking waves. The first wave may not be the largest in the series of waves. One coastal area may see no damaging wave activity while in another area destructive waves can be large and violent. The flooding of an area can extend inland by 1000 feet (305 m) or more, covering large expanses of land with water and debris.