

Lanka gets a briefing on tsunami

Monday, January 17, 2005

COLOMBO: A group of the world's best scientists on tsunami and related scientific subjects has revealed new details and thinking to the Sri Lankan scientific community and policy makers.

These preliminary data could call for a radical change in government reconstruction and long term plans, Science and Technology Minister Tissa Vitarana said after taking part as the chief guest at an international seminar on tsunami and its impact on Sri Lanka at the BMICH.

At the end of the five-hour seminar, Prof. Vitarana conceded that the presentations given by the panel of international scientists was completely new and should require government attention. However, he said the government was grappling with the issue of balancing the resettlement issues with the legal processes.

"At the moment we are grappling with the issue of the 300 metre from the beach limit on buildings. But I learnt from this seminar that we need to collect a lot of seabed data and coastal data to identify tsunami prone areas. I understand that the uniform 300 m limit is not rational. The Government decision is not to allow any one to build within 300 m, but I don't know whether we are on the right track," he said.

The need to take quick decisions before illegal resettlement occurs was emphasized, and the minister asked for advice. Cornell University Civil and Environmental Engineering Prof. Philip Liu said that the ideal solution is to identify the most important regions, conduct studies and test them against simulations and calculate the maximum run up distance. "Studies on sea bed topography is important, for example, in Kinniya, the government would not have placed the hospital in that area if it knew the sea floor topography could place the hospital at a risk if a tsunami came," he said.

University of Southern California Professor of Civil Engineering Costas Synolakis said that the issue was not of time, but of cost. "In the USA, it costs about 1000 US dollars per kilometer of coastline to

do this kind of study. Resettlement of people between lagoons and sea must be stopped, as they have no way of escaping.

Any beach developer, not necessarily the government, will have to come up with a comprehensive evacuation plan and routes," he said.

He said that he noticed most coastal roads ran parallel to the shoreline, and in case of a tsunami or a flood, the commuters have no way of escaping. "You must make roads perpendicular to the beach, so that there is a way out," he said.

United States Geological Survey (USGS) Oceanographer Dr. Bruce Jaffe said that a larger earthquake occurs every 250 years in Sumatra, but they were not sure whether every one caused a tsunami.

However, Sri Lanka and other Indian Ocean countries would have to face the risk, and come up with suitable plans to mitigate the effects.

The scientists said Sri Lanka should consider geological and other data to come up with inundation or vulnerability maps, tsunami risk zone maps, evacuation routes to help in coastal planning.

Prof. Vitarana continuing the dialogue said that government buildings such as hospitals, schools and railways would be well away 1000 m away from the beach, but the problem was with others. Some members of the local scientific community who had conducted research said that they were willing to work with the foreign scientists and exchange data to expedite the studies on the matter, and the foreigners assured support.

Prof. Liu said one reason for the collapsing of the buildings was substandard. Reef mined areas, coastlines without mangroves were hardest hit, they said, and stressed the need to preserve them. Sri Lanka could also experience severe erosion problems in the tsunami hit areas, and the impact of a tsunami would need to be considered in any future construction of man made structure such as ports. "Know what you are designing for," he said.

It was organized by Soil Tech Limited in association with Alumni Association of Peradeniya university, and the two scientific teams were funded by (USNSF) United States National Science Foundation.