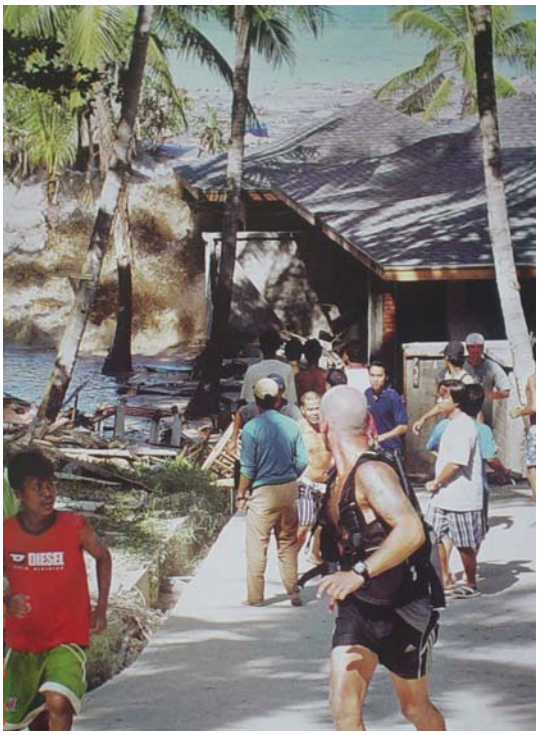
George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES)

Tsunami Reconnaissance Data Repository



Example of behavioral response in Thailand [Chris Gregg, East Tennessee State University]

After a disaster such as the Indian Ocean tsunami of Dec. 26, 2004, teams of experts visit the region to collect "perishable" data such as physical measurements of damage, eyewitness accounts, and casualty statistics. This ***reconnaissance data*** is critical for improving our understanding of tsunamis and their devastating impact on coastal populations. Even more importantly, it will help identify how communities or individuals can prepare for – and safeguard themselves from – future disasters.

With funding from the National Science Foundation, the NEES Program is developing a ***centralized repository*** for reconnaissance data collected in the aftermath of the Dec. 26th event. It will be hosted at the San Diego Supercomputer Center and will include not only data management capabilities, but also ***tools for searching, exploring, analyzing and extracting data***. The Information will be curated by experts, with special functions allowing the broader community to add commentary about the usefulness of data and its application in studying tsunamis and other hazards.

Example of impact caused by tsunami-borne debris in Indonesia [Murat Saatcioglu, Unjversity of Ottawa]

The objectives of the Tsunami Reconnaissance Data Repository are to:

- ✓ **Preserve key data about the Dec. 26th tsunami** that would otherwise be scattered or even lost.
- ✓ **Make data widely accessible via Web interfaces and tools.** New methods will be developed for searching and presenting data in ways that make sense to non-scientists as well as specialists.
- ✓ **Create methods and tools compatible with emerging standards**, so that tsunami reconnaissance data can be linked and cross analyzed with related information from other sources.

We seek the participation of the international tsunami community by contributing relevant data.

Example of scour damage to lifeline system in India [Harry Yeh, Oregon State University]

The Tsunami Reconnaissance Data Repository is just beginning to gather information, such as:

Example of structural damage due to scour in India [Harry Yeh, Oregon State University]

- Maps and satellite imagery
- Topographic and bathymetry data
- Images and videos
- Field measurements (inundation data, beach profiles, scour data, land uplift/subsidence, etc.)
- Post-event questionnaires and surveys
- Recorded tsunami data (e.g., tide gauges)
- Observations of damage to buildings and physical infrastructure
- Eyewitness accounts and personal interviews
- Casualties and other social impact statistics

If you have data on the Dec. 26th tsunami and are willing to consider contributing it for broader use, please contact veytser@sdsc.edu.

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