



International Post-Tsunami Survey for the 25 October 2010 Mentawai, Indonesia Tsunami International Tsunami Survey Team - Mentawai (ITST-Mentawai)

GUIDANCE

BACKGROUND, as of 1 November 2010

The 25 October 2010 magnitude 7.7 Mentawai, Indonesia earthquake and tsunami caused damage and at least 450 deaths in the Mentawai Islands off the western coast of Sumatra, Indonesia. Five minutes after the earthquake, the Indonesia Meteorological, Climatological and Geophysical Agency (Badan Meteorologi Klimatologi dan Geofisika) issued a national warning for a local tsunami, and the Pacific Tsunami Warning Center and Japan Meteorological Agencies issued local tsunami watches seven and nineteen minutes after the earthquake, respectively, to Indian Ocean countries; national authorities are then responsible for issuing warnings to their populations on the tsunami threat to their coasts.

The highest measured tsunami amplitude locally was 0.35 m in Padang, Sumatra, Indonesia, and the highest measured amplitude overall was 0.4 m in Rodrigues Islands, Mauritius. The highest tsunami waves were reported to be 3-6 m high by eyewitnesses

According to the World Data Center for Marine Geology and Geophysics / US National Geophysical Data Center (<http://www.ngdc.noaa.gov/hazard/>) Global Historical Event databases, over 121 tsunamis have been generated in the Indian Ocean since 326 B.C. These include the 2004 magnitude 9.1 Sumatra earthquake and tsunami that killed almost 230,000 people. Since the 2004 event, two tsunamis in the Sumatra region have caused deaths, in addition to the 25 October 2010 tsunami; these were the 2005 magnitude 8.7 Nias earthquake caused 1303 deaths and an additional 10 deaths due to the tsunami, and the 2006 magnitude 7.7 Java earthquake generated a tsunami that caused 664 deaths. In addition, non-fatal tsunamis were generated by the 2007 magnitude 8.4 Bengkulu earthquake that caused 25 deaths and the 2009 magnitude 7.5 Padang earthquake that resulted in 1,117 deaths. Eruptions from three Indonesia volcanoes also caused fatalities since the Sumatra event: in 2005 Karthala caused one death, in 2006 Merapi (Java) caused two deaths, and in 2010 Sinabung (Sumatra) caused two deaths and Merapi has caused more than 30 deaths.

ITST-MENTAWAI SUMMARY

UNESCO's Intergovernmental Oceanographic Commission, UNESCO Jakarta Office, and the Indonesia Ministry for Research and Technology are coordinating post-tsunami surveys of the tsunami and its effects. The coordination effort namely, the International Tsunami Survey Team-Mentawai (ITST – Mentawai), will be centered Jakarta. The goals include:

- Promote sharing of data among field parties
- Minimize logistical problems for visitors and hosts
- Link visitors to Indonesian collaborators
- Provide the GoI with a summary of the ITST-Mentawai findings

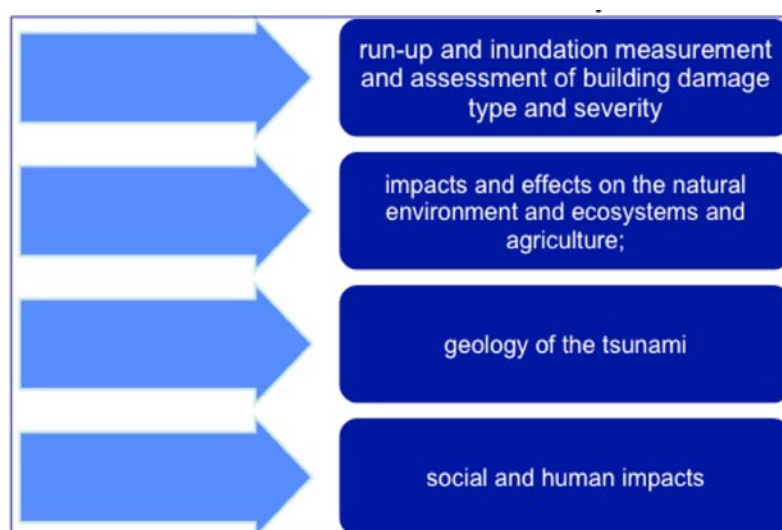
The coordination for this effort will be handled by ITST- Mentawai Coordination Team (ICT). ICT members include representatives, experts, and scientist from UNESCO Jakarta, the Intergovernmental Oceanographic Commission in Paris (UNESCO/IOC), The Ministry for Research and Technology, Indonesia Government Agencies/Institutes, and universities, Jakarta Tsunami Information Center (JTIC), and the International Tsunami Information Centre (ITIC).

Toward these ends, UNESCO encourages all Survey Teams to stay in regular contact with ICT headquarters in Jakarta.

Tsunami disasters attract a large number of local, national, international professionals to investigate scientific, economic, social impacts. Some of these data are perishable making it essential to collect quickly. Important data may also be desirable from locations that are logistically difficult to assess without local assistance and access. At the same time, Emergency Agencies are focusing on public safety, critical support lifelines and infrastructure, resource mobilization to meet its citizens immediate post-event emergency response needs. To carry out both efforts, coordination and cooperation is critical. If data from science teams are made available, it will immediately contribute to better-informed and ultimately, more practical and efficient response and recovery decision-making. Building from concepts employed in post-earthquake technical clearinghouses, the ITST-Mentawai will utilize a simplified implementation of a science/technical clearinghouse to provide an efficient framework for central coordination, information sharing and integration of the data collected from the 2010 Mentawai tsunami.

ITST-Mentawai will follow a format similar to the ITST-Samoa 2009, but modified to recognize that a complete survey may need to cover a much larger geographic area. This will require more efficient and streamlined mechanisms for information sharing and coordination through secure electronic mediums that will be hosted by UNESCO/IOC – NOAA ITIC.

ITST-MENTAWAI GUIDING PRINCIPLES



1. The Mission of the ITST-Mentawai is

- To understand the character of the tsunami and its impact in both the near-source and distant regions
- Provide information on the impacts to the GoI to enable it to enhance their tsunami disaster risk management practice

2. Logistics and Planning

ITST-Mentawai Coordination Team to consist of UNESCO Jakarta Office, UNESCO/IOC, and The Ministry of Research and Technology.

- Jakarta Tsunami Information Center (Ardito Kodijat, Indonesia coordination); UNESCO/IOC-NOAA ITIC (Dr. Laura Kong, overall); The Indonesia Ministry for Research and Technology (Medy Eka Suryana) and UNESCO liaison to BPPT (Velly Asvaliantina)
- The ITST-Mentawai Coordination team will work with local and international scientists and government officials to enable a coordinated survey and to keep information flowing amongst Survey Teams with a goal of seeking to minimize overlap and duplication. Transportation, Lodging: Survey Teams are responsible for their own transportation and lodging. UNESCO/IOC JTIC and local scientists may be able to assist if needed.
- Funding: UNESCO Office Jakarta, UNESCO/IOC, and the Government of Indonesia are unable to provide funding support to Survey Teams.

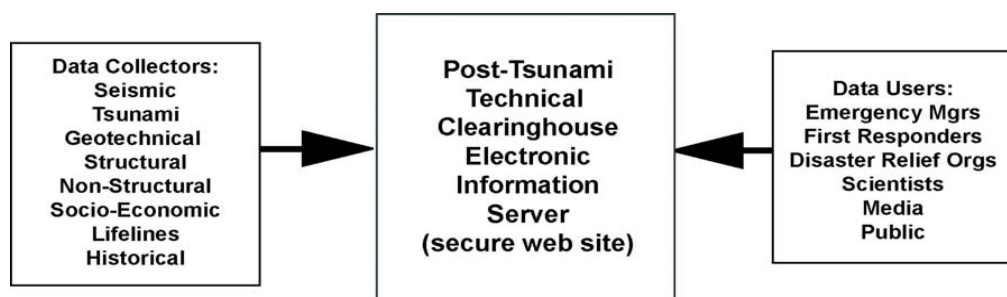
3. Tasks: The ITST-Mentawai should carry out the following tasks. Teams may focus on the collection of just one data type:

- Measure maximum tsunami inundation, flow depths, and maximum run-up; to the extent possible ‘walk the inundation’ line in order to collect an exact summary of the inundation of impacted communities.
- Collect geological samples of sediments left by the tsunami;
- Measure the type and severity of damage to different types of buildings and record what factors appeared to control damage levels;
- Collect and measure information about the environmental and biophysical system impacts of the tsunami;
- Collect information about survivor experiences and stories through interviews;
- Explore the human and community vulnerability and resilience factors at work in different places;
- Provide a map the above information in their summary

4. Survey Team Guidance and Logistics

- Each team (International and National) is required to arrange their research permit in Indonesia (http://www.ristek.go.id/index.php?module=File&frame=lain_lain/frp/frp1.html). If needed, the ITST-Mentawai Coordination Team could assist in processing the permit (working together with the researcher’s national partner);
- Each team shall make known its dates of travel and survey plan to ITST-Mentawai. ITST-Mentawai will make every effort to:
 - Compile the main objectives of each Survey;
 - Inform each Survey Team of activities done by other previous Surveys;
 - Inform each Survey Team on the general situation and present conditions.
 - For specific needs, assist to facilitate contacts, information, and other requests.
 - Receive the general outcomes of each Survey in order to facilitate the next Surveys.
- It is requested that local scientists or other local organizations or volunteers be included with your international team wherever possible. This is to bridge any language or cultural sensitivities, as well as to build local science experience and capacity.
- Please review the IOC Post-Tsunami Survey Field Guide (IOC Manual and Guides 37, First Edition. 1998. 61 pp., English, French, Spanish, Russian) and conduct your surveys consistent with these objectives. ITIC will provide you with its Tsunami Questionnaire (English and Indonesian) and Eyewitness Survey to guide your data collection work. You are encouraged to use them. As needed, these can be translated into languages other than English.

5. Information Sharing and Reporting



Each Survey Team coordinated through ITST-Mentawai is requested submit to ITST-Mentawai within 6 weeks of concluding the Field Survey a one-page summary plus eventually pictures or maps, to be used for further guidance.

UNESCO is committed to preserve the data and intellectual property rights of the scientists who collect and interpret these important data. UNESCO also recognizes the high value of the data to governments for response and recovery planning, as well as for information sharing to enable better tsunami science understanding and so improve tsunami mitigation. To enable activities, UNESCO commits to the following:

- As ITST-Mentawai members are volunteers from organizations and research centers with related interests, participants should not lose the rights to publish data they collect. No data or outcomes from the Summary Report to the Government of Indonesia (GoI) or data provided to other governments, will be released publicly for one year;
- At the conclusion and after quality-control by each Survey Team, the ITST-Mentawai Coordination Team will prepare a compilation Summary Report based on summaries received. The estimated delivery date of the report will be 6 months after the completion of ITST-Mentawai surveys. The Report will be shared with the GoI only.
- The ITIC will provide a secure ITST-Mentawai electronic method (Basecamp ITST-Mentawai) for data collectors to upload Survey metadata and data. The site will also contain Survey Team information, briefing reports, and other related information. Simple upload forms or spreadsheets will be provided to facilitate this process. Before and during fieldwork, Teams can upload daily Survey metadata so that everyone can keep track of progress and coverage, and in order to reduce duplication. ITIC will host a separate ITST-Mentawai Web site for general public viewing, and general document distribution at <http://193.191.134.38/itic/>

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