



January 2007 US IOTWS Program Update

U.S. Indian Ocean Tsunami Warning System (US IOTWS) Program
from advanced technologies to resilient communities

Thai Communities Trained on Coastal Mitigation and Planning

January 16-19, 2007, Pathumthani, Thailand

As part of the US IOTWS Small Grants Program, the Asian Institute of Technology's School of Environment, Resources and Development (SERD) and School of Engineering and Technology (SET) held a training course January 16-19, 2007, for 14 participants from coastal communities in Ranong, Thailand, on coastal mitigation and planning. Participants included local government officials, NGO representatives, and community members from youth and women's groups. The course aimed to integrate social, ecological, environmental, and technical approaches to build capacity at the local level on coastal resource management and disaster preparedness. Activities included visits to AIT's Energy Park, Geotechnical Engineering Laboratory, and Aquaculture Facilities for participants to learn about coastal mitigation measures, such as the use of renewable energy and coastal protection infrastructure. By the end of the week, participants had prepared a coastal mitigation strategy for Muang Kluang Sub-district in Kapoe District, which they will take back to Ranong to share with their communities and develop an action plan over the next two months.



S. Jummongkong

A coastal village in Muang Kluang in Ranong, Thailand. The mangroves serve as a breeding and nursery ground for aquatic organisms and protect against coastal hazards.

Training on Seismic Hazards for Thai Experts

January 16-19, 2007, Bangkok, Thailand

More than 150 Thailand geologists, geophysicists, engineers, and public policy officials attended a workshop and training by the U.S. Geological Survey (USGS) during January 16-19 at Chulalongkorn University in Bangkok, under the USAID-funded US IOTWS Program. The program aimed to strengthen Thailand's ability to understand earthquake risks using improved data, analysis, and maps. Thai and U.S. scientists conducted the training which addressed geological and seismological principles, seismic hazard concepts, and seismic engineering practices. Instructors presented hazard codes, and distributed computer software to the participants in an interactive hands-on training module. Participants will use the training experience to improve Thailand's disaster planning (as part of its overall early warning capabilities) and construction of earthquake-resistant buildings in regions newly discovered to face elevated seismic risks. Thailand's Dam Safety group has already translated some of the material for future training of its personnel.



S. Jummongkong

Training participants visit AIT's Energy Park where alternative energy sources are shown and their uses are demonstrated.



Tsunami Warning Dissemination Following Indonesian Earthquake

January 21, 2007, Manado, Indonesia

A powerful earthquake struck Manado, Indonesia, at 7:27 pm (local time) on January 21, 2007, causing alarm and some damage to buildings in the cities of Bitung and Manado. The earthquake was first measured to be 6.5 magnitude (M) on the Richter Scale and was later upgraded by additional sensors and analysts to measure 7.6 M. According to witnesses, there was a small localized tsunami of three wave surges in the narrow Lembeh Strait passage on the southern side of the North Sulawesi Peninsula. Within seven minutes of the earthquake, key agencies and some mobile phone users received a text message that included a local tsunami alert from the Meteorological and Geophysical Agency of Indonesia (BMG). Radio and television stations, telecommunications networks, mosques and churches, and numerous other organizations were included in the early warning chain to ensure that information reached residents. News of the earthquake and tsunami potential was broadcasted on local and international stations approximately 16 minutes after the quake struck. The possibility of a tsunami sent people running inland to seek the safety of higher ground. As aftershocks were felt throughout the night, BMG continued to send messages. A team member of the US IOTWS Program recorded the messages and the time at which they were received, as well as the times that BMG reported the event occurrence. Based on 28 messages received that evening, it took an average of 10.4 minutes for alerts to reach mobile phones linked to the dissemination system. Below is a sampling of the text messages BMG sent on the night of January 21-22 (translated from Indonesian, Manado local times):

- 19:27** 6.5 RS [Richter Scale] EQ [earthquake]. 160 km southeast from Manado, 51 km depth. Potential tsunami.
- 20:35** In relation to the earthquake at 19:27 in the sea southeast of Manado that had potential for tsunami, there was no tsunami occurring.
- 03:59** 4.9 RS EQ. 155 km west sea of Labuha, North Maluku. 33 km depth.

A total of 27 aftershocks of 4.5 to 5.8 were reported through this dissemination system in the 11 hours after the first major quake. This experience showed that the Indonesian alert system is performing far better than just six months ago in getting alerts to locally affected communities.



UPCOMING US IOTWS PROGRAM AND RELATED ACTIVITIES

US IOTWS Program Event: Third Tsunami Alert Rapid Notification System (TARNS) Workshop

Nakorn Nayok, Thailand

February 6-8, 2007

For more information contact S.H.M. Fakhruddin, US IOTWS Program, at fakhruddin@adpc.net

US IOTWS Program Event: Basic and Intermediate ICS Training

Colombo, Sri Lanka

February 20-23, 2007

For more information contact Trudie Mahoney, USFS, at tmahoney@fsp.net

US IOTWS Program Event: National Coastal Community Resilience Training

Sri Lanka

February 26–March 2, 2007

For more information contact Atiq Ahmed, US IOTWS Program, at atiq@iotws.org

About the US Indian Ocean Tsunami Warning System (IOTWS) Program

The US IOTWS Program is part of the international effort to develop tsunami warning system capabilities in the Indian Ocean following the December 2004 tsunami disaster. The US program adopts an “end-to-end” approach—addressing regional, national, and local aspects of a truly functional warning system—along with multiple other hazards that threaten communities in the region. In partnership with the international community, national governments, and other partners, the US program offers technology transfer, training, and information resources to strengthen the tsunami warning and preparedness capabilities of national and local stakeholders in the region.

For more information please visit www.us-iotws.gov.

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