



March 2006

## US IOTWS Program Update

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

**UNESCAP Hosts Briefing on the USD\$12.5 Million Early Warning System Trust Fund in the Indian Ocean and Southeast Asia.** The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) hosted a donors meeting to solicit input on a voluntary trust fund it is managing on behalf of the Governments of Thailand and Sweden, which have contributed \$10 million and \$2.5 million respectively. The fund will support efforts to develop tsunami early warning capabilities in the Indian Ocean and Southeast Asia. On behalf of the US IOTWS Program, USAID presented priority needs for building national capacity in disaster management and last-mile warning communications and for strengthening community resilience and disaster preparedness. All presenters, including USAID, also emphasized the importance of continuing to support the regional IOTWS process led by UNESCO's Intergovernmental Oceanographic Commission.

**USAID Discusses Tsunami Warning System Priorities in Roundtable with UN Special Envoy Bill Clinton.** USAID participated in a closed roundtable session with UN Special Envoy for Tsunami Recovery Former President Bill Clinton and other donor countries to discuss priorities for the IOTWS during the Third International Early Warning Conference (EWC-III). USAID and National Oceanic and Atmospheric Administration (NOAA representatives attending the meeting supported Clinton's call for providing greater support to downstream early warning needs, improving coordination between donor efforts, and emphasizing the central role for the UNESCO Intergovernmental Oceanographic Commission, which is responsible for overseeing the international IOTWS process.

**US IOTWS Program Promoting Resilient Communities in Sri Lanka and the Maldives** Representatives from USAID, NOAA, the Asian Disaster Preparedness Center (ADPC), and the IOTWS Program Integrator contractor conducted a scoping trip to Colombo, Sri Lanka and Male, Maldives as part of efforts to develop a Coastal Community Resiliency (CCR) Program. The US IOTWS Program team met with national ministries, academia, NGOs and the private sector in each country to build partnerships for establishing the CCR Program and ensure long-term sustainability of the program. Under the program, NOAA and its partners will work with Indian Ocean countries to enhance coastal community initiatives that promote resilience to tsunamis and other disasters, as well as economic and social resilience.

### **University of Rhode Island (URI) Researcher Compares Tsunami Computer Predictions to Actual Wave Damage in Phuket, Thailand**

To help predict the affect of tsunamis in the future, Professor Kate Moran of the URI School of Oceanography, visited the most severe tsunami-affected areas on Phuket Island, Thailand, to compare computer modeling results with actual levels of inundation along the shoreline. Professor Moran had earlier mapped the ocean bottom off of Phuket to collect critical data to determine wave heights and levels of inundation as predicted by a model. To establish the validity of the model, she visited the sites where the largest waves were reported and calibrated the exact heights and distance inland that the waves traveled. She discovered that in several cases, the actual waves were higher and more far-reaching than previously predicted.



**USAID and the National Disaster Warning Center (NDWC) to Establish Warning Notification System in Thailand**

As part of the US IOTWS Program, USAID's Regional Development Mission for Asia (RDM/A) signed a Memorandum of Agreement with Thailand's NDWC to develop a Tsunami Alert Rapid Notification System (TARNS) for Thailand. The TARNS initiative will help NDWC develop and implement a "master plan" for adopting the right technologies and procedures to deliver both disaster warnings and "all clear" alerts quickly and efficiently, and will involve nation-wide simulation exercises. In addition to USAID, the U.S. technical support team will include experts from the U.S. Department of Agriculture's Forest Service (USDA/FS) and NOAA.



*Memorandum of Agreement signing ceremony between Thailand's National Disaster Warning Center and USAID's Regional Development Mission for Asia on March 24, 2006, Nonthaburi, Thailand*

**NOAA Partners with Australia's Bureau of Meteorology to Enhance Indian Ocean Tsunami Warning System Capabilities**

NOAA signed an agreement on March 24, 2006 with Australia's Bureau of Meteorology for improved meteorological and hydrological forecasting in the Indian Ocean and South Pacific regions. The agreement is a mutual exchange of scientific and technical expertise to enhance both countries' capabilities in delivering the most sophisticated forecasting data available. The technology partnership with Australia complements U.S. support for UN-led efforts to develop the IOTWS and other international warning systems, and accelerates Australia's capacity for planning, deploying, and operating tsunami detection systems, such as deep-ocean buoys, in the Indian Ocean.

**RECENTLY HELD AND UPCOMING US IOTWS PROGRAM ACTIVITIES**

**Concept of Operations Workshop. Honolulu, Hawaii**  
Contact: Ed Young, [Edward.Young@noaa.gov](mailto:Edward.Young@noaa.gov)

April 3-6 2006

**Training Program in Seismology and Tsunami Warnings. Colombo, Sri Lanka**  
Contact: Shane Detweiler, USGS, [shane@usgs.gov](mailto:shane@usgs.gov)

April 3-7, 2006

**Incident Command System Training. Colombo and Kandy, Sri Lanka**  
Contact: Deanne Shulman, USDA/FS, [dshulman@fs.fed.us](mailto:dshulman@fs.fed.us)

April 22-29, 2006

**Coastal Community Resiliency Workshop. Bangkok, Thailand**  
Contact: Kitty Courtney, PI, [kitty.courtney@ttemi.com](mailto:kitty.courtney@ttemi.com)

May 23-25, 2006

**Tsunami Alert Rapid Notification System (TARNS) Workshop. Hua Hin, Thailand**  
Contact: Deanne Shulman, USDA/FS, [dshulman@fs.fed.us](mailto:dshulman@fs.fed.us)

May 23-27, 2006

**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.iotws.org](http://www.iotws.org).

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