



# TSUNAMI RECONSTRUCTION

June 2007 - Update



Photo: WWF

A diver removes fishing nets and debris to improve the health of coral reefs in southern Thailand.

## REGIONAL

### REEF CLEANUP BEGINS IN THAILAND

Residents of Thailand's Phang-nga Province removed more than 100 pounds of gill nets and broken fishing equipment from the coral reefs off the coast of Had Thai Muang. The Royal Thai Navy, local dive shops, and municipal agencies also took part in the cleanup. The reef cleanup was part of a project to develop strong coastal community resilience (CCR) programs. It was initiated by the World Wildlife Federation under a grant from the USAID-funded Indian Ocean Tsunami Warning System (IOTWS) Program.

A healthy coral reef system has been shown to be extremely effective in reducing the impact of storms on coastal villages. Local stakeholders identified several key issues, including the development of anti-trawling approaches, small-scale tourism services, and creation of sustainable fisheries. Mooring buoys have already been installed and a survey of the reef and fish species completed. Future activities include the restoration of the seaward reefs, where the tsunami's impact was greatest, development of a participatory management plan, and development of conservation materials to give to tourists.

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## FAST FACTS:

Total U.S. Government Humanitarian Assistance and Recovery Funds

**Tsunami Recovery and Reconstruction Fund:**  
**\$656 million\***

### Assistance provided to each country:

- India: \$17.9 million
- Indonesia: \$405.7 million
- Maldives: \$12.0 million
- Sri Lanka: \$134.6 million
- Thailand: \$5.3 million
- Regional, other countries: \$31.8 million
- Program management: \$17.4 million

\*\$656 million was approved for Tsunami Recovery and Reconstruction Fund, but \$31.3 million is committed to Avian Flu.



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### SRI LANKANS FORM TEAMS TO PREPARE FOR DISASTERS

The Sewalanka Foundation, operating on a grant from the USAID-funded IOTWS, is helping two Sri Lankan communities establish and strengthen Village Disaster Management Committees (VDMC). Members have been taught first aid, disaster preparedness, planning, and search and rescue techniques.

In addition, VDMC members have been trained to conduct risk and vulnerability assessments of their communities. Their surveys revealed that residents in both communities want timely, accurate tsunami warnings and speedy “all clear” messages when it is determined that a tsunami will not occur.

VDMC members are building vital communication links with disaster management agencies and have planned mock evacuation drills for 320 households to familiarize residents with evacuation routes and safe areas.



Photo: A. Ahmed/US IOTWS Program

*Sri Lankans in Kudapayagala, Kaluthara map their villages to determine areas prone to disasters.*



Photo: B. Atwater/USGS

*Layer-cake evidence of four Indian Ocean tsunamis surrounds Kruawun Jankaew, a geologist from Chulalongkorn University in Thailand. Dr. Kruawun led the international team that made this discovery in March 2007.*

### EVIDENCE OF PREVIOUS TSUNAMIS FOUND IN SOUTHERN THAILAND

Geologic field work supported by the USAID-funded IOTWS Program revealed that several large tsunamis inundated southern Thailand during the past few thousand years. A team of Thai, Indian, and U.S. scientists uncovered the evidence on Phra Thong Island, Thailand.

As the photo shows above, four beds of light-colored sand rest on dark soil. The uppermost sand bed was left by the tsunami of December 26, 2004. The underlying sand beds were deposited by tsunamis over thousands of years. Further study should indicate the frequency of tsunamis in the Indian Ocean. The resulting estimates of tsunami frequency may help identify locations for detection equipment and provide guidance on more resilient coastal development.



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### SRI LANKA

#### 'NEW BEGINNING FOR VOCATIONAL EDUCATION' IN SRI LANKA

USAID/Sri Lanka broke ground on nine state-of-the-art vocational training schools in the East and South, developed in partnership with the Ministry of Vocational and Technical Training and the Vocational Training Authority (VTA). They will provide training in key sectors such as welding, electronics repair, masonry and carpentry, as well as English language and computer training.

"These schools are a new beginning for vocational education in Sri Lanka," Minister for Vocational and Technical Training Piyasena Gamage said. "These centers will offer skills not currently available to youth in vocational training, and set a new standard to be sustained."

A unique aspect of the program is involvement of the new centers with the private and non-governmental organization (NGO) sectors. While all the schools will be built or rehabilitated according to high environmental and construction standards, two of the nine have been designed to be Leadership in Energy and Environmental Design (LEED) certified buildings, the first of their kind in Sri Lanka.



Graphic: CH2M Hill

*An artist rendition illustrates one of two new "green" Vocational Training Centers to be built by USAID.*



Photo: Bob Thatcher/CH2M Hill

*USAID contractors installing a steel casing for one of 24 concrete columns that will anchor the new Arugam Bay Bridge.*

#### ARUGAM BAY BRIDGE PROJECT ADVANCES

After a tentative start due to the difficult logistics working on Sri Lanka's eastern coast, construction of the USAID-funded Arugam Bay Bridge is under way on several key fronts. The new bridge is nearly a quarter complete, with approach roads under construction, and concrete columns to support the bridge's horizontal road surface being set into the bedrock under the bay. Steel girders are being fabricated in Indonesia, and are scheduled to be shipped in August. The bridge is expected to be ready for traffic by March 2008, and will economically link three multi-ethnic communities, helping to promote the area as a lucrative tourist destination.

#### ACTION PLAN AGAINST CORRUPTION

A draft action plan to fight corruption developed under the aegis of an Anti-Corruption Program created by USAID to help minimize corruption in distribution of post-tsunami assistance to Sri Lanka was publicly unveiled in June 2007.

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*Sri Lanka continued -*

The program has helped Sri Lanka establish a national action plan against corruption, develop a new Consultative Council to oversee future anti-corruption activities, and launch a successful advertising campaign against corruption.

### USAID REHABILITATES MARKET IN TSUNAMI-AFFECTED ECONOMIC HUB

USAID is supporting renovation of the dilapidated market in the tsunami-affected Kalmunai, a key commercial and social center for Muslim and Tamil communities in Ampara District. Upgrades to the 19-year old market, neglected through years of conflict and economic depression, include improvement of shops, canteen, vendor's association meeting room, furniture, sanitary facilities, and safety equipment. Nearly 500 traders generate \$10,000 of revenue daily at the market, providing a major revenue source for the local government. USAID also plans to support projects on hygiene promotion, solid waste management, and collaboration among vendors.



*The Kalmunai market before USAID restoration.*

Photo: DAI



Photo: Malim, PCI

*Students in Thirumullaivassal, Tamil Nadu during an after-school class.*

### INDIA

#### NEW COMMUNITY CENTERS COMPLETED IN TAMIL NADU

Six new multi-service centers have been completed in the Nagapattinam District of Tamil Nadu. USAID has funded the building of the centers which include children's nurseries, pre-school, after-school classes, non-formal education, vocational training, and information and communication technology components.

These centers train women in skills such as rope making and cashew processing. The centers also provide computer training to help individuals in their job searches and host after-school classes for children. During the last school year, all 143 children who attended after-school classes were promoted to the next grade. Of these, 34 finished the 10th grade, the end of pre-university education in India.

The centers also have equipment that provides weather information to warn the community of any impending natural disaster. Over 1,400 people have already benefited from the centers.



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### INDONESIA

#### SUCCESSFUL COMMUNITY-BASED RECOVERY INITIATIVE COMPLETED

A public-private partnership between USAID and ConocoPhillips as part of the Community-based Recovery Initiative drew to a close in early June 2007. Villagers from all five participating communities attended a closing out ceremony to thank their collaborators for their support in the recovery of these now thriving villages.

The remote communities of Saney, Utamong, Kuala, Teumareum and Bahagia in Aceh Province bore the brunt of the December 2004 tsunami and were left largely de-populated. With local government infrastructure all but destroyed, relief efforts slow to arrive, and officials searching for loved ones, villagers made their way to Banda Aceh and other large towns to find information and assistance.

The villagers were reluctant to return to the barren remains of their villages, but USAID's Community-based Recovery Initiative drew them home by providing much needed cash-for-work programs which benefited more than 1,000 people. ConocoPhillips provided \$1.2 million to support the recovery of the five communities.

The initiative left the design and construction of the reinvigorated communities to the villagers, working with local leaders to develop village-led civil society organizations. Today the villages are reborn, each with its own community center. A total of 280 hectares of agricultural land has been reclaimed for planting, 7 kilometers of irrigation canals cleared, and 20 kilometers of fencing erected. The project not only increased local income, but transferred a sense of ownership and pride to community members.



Photo: Leslie Rose, USAID

*A newly-opened Community Center in the village of Bahagia in Aceh Province.*

#### WEST COAST HIGHWAY PROJECT KICKS OFF

On June 21, 2007, USAID awarded the prime construction contract for the West Coast Highway, which will run from Banda Aceh to Calang and replace the province's decimated coastal road. The highway will open the relatively isolated province up to much-needed trade and domestic and international business income necessary for its economic recovery. The \$108 million contract to Ssangyong Engineering and Construction Co. Ltd. and Indonesian firm, P.T. Hutama Karya is for the construction and rehabilitation of approximately 115 kilometers of road.

"[This award is] a major turning point in the building of this crucial transportation link," Aceh Governor Irwandi Yusuf said at a press conference to announce the award. "The people of Aceh remember well and with great fondness the assistance provided by the American people during those first few horrific months after the tsunami."

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*Indonesia continued -*

The road is the signature project of the U.S. Government's \$254 million commitment to the recovery and reconstruction process in Aceh. Construction is already in full swing on 40 kilometers of the road, and employment opportunities for local villagers will develop along with the ongoing construction. The road is scheduled for completion in early 2010.



Photo: Serambi, Indonesia

*From left to right: Aceh Governor Irwandi Yusuf, USAID/Indonesia Mission Director William M. Frej, and BRR (Agency of the Rehabilitation and Reconstruction for the Region and Community of Aceh and Nias) Deputy Director Bastian Sihombing confer at the award of the prime construction contract for the West Coast Highway.*

### THAILAND

#### KAMPHUAN MEMORIAL TSUNAMI MUSEUM OPENS

Scores of local residents attended the recent opening of Asia's first community-based tsunami education museum in Thailand's Ranong province. The Kamphuan Memorial Tsunami Museum, which was funded by USAID and Coca-Cola (Thailand) and is part of USAID's Sustainable Coastal Livelihood program, is housed in the Tambon Kamphuan Community Learning Center. The center was built to service five nearby fishing villages that were devastated by the 2004 tsunami.

*Continued...*

*Thailand continued -*

The museum, created by tsunami expert Walter C. Dudley of the University of Hawaii, documents how the area's 5,000 residents responded to the disaster and are rebuilding their lives. Photographs, charts, and interactive computer displays explain how tsunamis are created and how people can prepare for future tsunami alerts.

"This small museum serves as a living memorial. There can be no greater tribute to those lives lost than to save lives in the future," said Dr. Dudley, who has repeatedly visited the five Suksamran District communities since the tsunami claimed 105 residents' lives.



Photo: Hal Lipper, USAID

*At the Kamphuan Memorial Tsunami Museum, a local resident studies photographs of the devastation and reconstruction.*