Seacology Establishes Tsunami Relief Fund for Island Communities Involved in Environmental Projects

by Katherine Purcell

Seacology, an environmental nonprofit organization based in Berkeley, California, has established a Tsunami Relief Fund to aid four island communities directly affected by the recent tsunami.[1]

The tsunami that struck south Asia on December 26, 2004, had a devastating impact. A recent Health and Situation Report from the World Health Organization (WHO) gives grim updates about the aftermath of the tsunami. As of February 22, 2005, 169,296 people are reported dead, 127,418 reported missing, and 40,160 injured.[2]

Seacology is an environmental organization that works to preserve the cultures and the endangered biodiversity of island communities. To this end, the environmental group has constructed and maintains 100 different island projects around the world.[1] For more on Seacology's work, visit their Web site (www.seacology.org) or see the article in *HerbalGram* 65.[3]

"Seacology is not traditionally a relief organization, but when we fully understood the scope of the human tragedy in the villages where we had existing projects, we realized it was imperative to make an exception and help these wonderful people recover from the tsunami," Seacology's Executive Director Duane Silverstein told *HerbalGram*.

Four different villages with ties to Seacology's ongoing environmental conservation projects were either damaged or destroyed by the recent tsunami. Thus, all proceeds from the Seacology Tsunami Relief fund will be directly applied to relief efforts in these four villages including Kiralakele, Sri Lanka; Kendhoo Island, The Maldives; Trang Province, Thailand; and Kadachang Village, Andaman Islands.[1] The Seacology Relief Fund aims to use the finances to rebuild the local economies and infrastructures of these four villages.[1]

"The only thing I ask for is a fishing net," says A.G. Nuwan of Sri Lanka. "We are poor people living for the day. We have no savings and need to get back to making money."[1]

WHO figures indicate that 553,287 people in Sri Lanka were directly affected by the tsunami. In total, 30,974 people were killed, 4,698 still missing, and 23,176 injured.[2] There are 26 villages in the Hambantota district of Sri Lanka, with four villages situated around the Kiralakele Mangrove Resource Center. Eight of these villages have been completely destroyed, leaving no homes, infrastructures, or livelihoods for these people.[4] According to Anuradha Wickramasinghe, the Seacology Island Advisory Board Member living in Kiralakele, Sri Lanka, 108 females, 48 fisherman, 12 youngsters, and 102 children from these villages died during the tsunami.[4]

"I visited the village in Sri Lanka a little over two years ago for the dedication of the Mangrove Resource Center. We gave out certificates to about 50 students who took the Mangrove Conservation course. They were mostly fourth to ninth graders, and I understand about half of them perished," said Mr. Silverstein, as he recalled his most recent visit to one of Seacology's programs in Sri Lanka.

In addition, the four villages situated in and around Kiralakele have also been affected. However, due to mangrove vegetation, the damage to these villages was not as severe as it was in other villages.

On India's Andaman Islands, Seacology's Tsunami Relief Fund is helping to repair houses, water pipes, and sanitary facilities for Kadachang Village. Seacology is also providing chickens, goats, and sewing machines so that villagers can regain their livelihoods in the wake of the natural disaster. Photo ©2005 Dr. Felix Sugitharaj.

Mangroves are a species of woody plants and/or part of a plant community that have the unique ability to thrive in salt water. These plants prefer tropical or subtropical climates and grow best

in areas where there is an ideal mix of fresh and salt water, i.e., near the mouths of rivers and tidal creeks, and in areas where floodwaters have deposited enough materials to build up banks for growth.[5]

There are many different kinds of mangrove plants, including 65 recognized species from 20 different families. Some of the more common mangroves include gray mangroves (*Avicennia marina* [Forsk.] Vierh., Verbenaceae), mangrove apple (*Sonneratia alba* J.E. Smith, Sonneratiaceae), red mangrove (*Rhizophora stylosa* Griff., Rhizophoraceae), yellow mangrove (C*eriops* spp., Rhizophoraceae), and orange mangrove (*Bruguiera* spp., Rhizophoraceae).[5]

Mangroves serve many important functions. First, they help protect the coastline from damage because they can absorb energy from waves and wind in bad weather. For example, the Environmental Protection Agency/Queensland Parks and Wildlife Service of Australia Web site states that in 1974, two yachts survived Cyclone Tracy undamaged because they were sheltered in a mangrove creek. Second, mangrove roots trap sediments that might otherwise cloud water and harm coral growth. Third, the mangrove plants and sediments have been shown to absorb pollution, including heavy metals. Finally, the mangroves have historically been used to provide food, shelter, medicine, and tools.[5]

Following are brief descriptions of Seacology Island projects that were damaged or destroyed and will be rebuilt using the proceeds from the Seacology Tsunami Relief Fund.

In Sri Lanka, Seacology has three main projects with the Small Fishers Federation of Lanka (SFFL) including a Mangrove Resource Center with a Biological Garden and library,[1, 6] a sales center at the Kiralakele Mangrove Center,[1, 7] and an ongoing Kiralakele mangrove conservation program.[8] The Mangrove Resource Center survived the tsunami with damage to the roof and cracks in the wall. However, all of the computers, copiers, library material, and furniture were destroyed with the flooding.[6]

On Kendhoo Island, in the Maldives Islands, Seacology has created a project to protect endangered sea turtles. The project entailed the construction of a kindergarten in exchange for the village's commitment to ban the harvest of turtle eggs. The government does have laws banning turtle catching, but it does not cover the egg harvesting from the endangered turtles.[9]

In Thailand, Seacology funds an island project to protect dugongs and their habitats in the Libong and Muk Islands in the Trang Province. Dugongs (*Dugong dugon*) are endangered marine mammals closely related to manatees (*Trichechus manatus).* The project helps protect the dugongs by providing the island communities with the materials and supplies needed to create the additional seagrass beds, which provide food for the animals, and to preserve mangrove forests, which are part of its natural habitat.[10]

Seacology funded and constructed a Mangrove Biological Garden and Resource Center in Kadakachang, a village in India's Adaman Islands near Port Blair.[1, 11] The purpose of the center is to educate island community members on mangrove conservation issues. The original site was abandoned and a new site was selected for the Island Resource Center because of conflicts between the community and forest officers.[11]

The environmental organization has ties to these island communities because of its collaboration in ongoing Seacology island projects and because Seacology has locally based volunteer coordinators living and working in these communities. Seacology's press release states that the organization believes it is vitally important to stand by, repair, and/or replace Seacology projects that have been damaged or destroyed by natural disasters.[1]

"We have carefully designed our relief efforts so that we know the money will be spent efficiently and effectively on items that the villagers themselves indicate are the most needed. There will be no organization or government middlemen. The funds will go directly to the villages to provide fishing equipment, water supply systems, and other critical needs to help get these villages back on their feet," says Seacology's Silverstein.[1]

Seacology works to minimize incidents in which indigenous people are forced to choose between economic development and protecting the natural resources of their island homes. To this end, Seacology looks for win-win situations where island economies can receive some kind of benefit from protecting their local environment. Seacology has 100 island projects, including projects in the North Atlantic, the Pacific Northwest, the eastern Atlantic Ocean and Mediterranean Sea, the Indian Ocean, the Caribbean and Latin America, the Pacific Ocean, Southeast Asia, and Polynesia and Melanesia.[1, 12]

References

1. Seacology Establishes a different kind of Tsunami Relief Fund [press release]. Berkeley, California: Seacology; January 4, 2005.
2. World Health Organization. *Situation Reports on South-East Asia Earthquake and Tsunami.* World Health Organization Regional Office for South-East Asia, New Delhi, India; 2005. Tsunami and Health Situation Report, No. 38. Available at: http://w3.whosea.org/en/Section23/Section1108/Section1835/Section1862_8812.htm. Accessed February 23, 2005.
3. Peterson K. Seacology helps conserve medicinal plants in Madagascar. *HerbalGram.* 2005;No. 65:20-21.
4. Wickramasinghe, Anuradha. Tsunami Relief—Report From Sri Lanka. Available at: http://www.seacology.org/news/display.cfm?id=139. Accessed February 28, 2005.
5. The State of Queensland (Environmental Protection Agency). Mangroves. Environmental Protection Agency/Queensland Parks and Wildlife Service Web site. Available at: http://www.epa.qld.gov.au/nature_conservation/habitats/mangroves_and_wetlands/mangroves/. Accessed March 15, 2005.
6. Seacology. Sri Lanka—July 2004. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/SRILANKA2004.htm. Accessed February 28, 2005.
7. Seacology. Sri Lanka—July 2002. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/SRILANKA2002.htm. Accessed March 1, 2005.
8. Seacology. Sri Lanka—July 2000. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/SRILANKA2000.htm. Accessed March 1, 2005.
9. Seacology. Maldives, Kendhoo Island—October 2003. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/MALDIVES_kendhoo.htm. Accessed February 28, 2005.
10. Seacology. Thailand, Trang Province. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/THAILAND_trang2002.htm. Accessed February 23, 2005.
11. Seacology. Andaman Islands—July 2004. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/individualprojects/ANDAMANISLANDS2004.htm. Accessed February 28, 2005.
12. Seacology. Island Projects. Seacology Web site. Available at: http://www.seacology.org/projects/index.html. Accessed February 23, 2005.