



## Community Outreach Program Educates Islanders about Volcanic Hazards

### Full Mitigation Best Practice Story

#### *State-wide, Hawaii*

**Hilo, HI** - The Center for the Study of Active Volcanoes (CSAV) is located on the Big Island (Hawaii) and operates under the auspices of the University of Hawaii (UH), Hilo. The professional staff includes UH faculty and United States Geological Survey scientists assigned to the Hawaiian Volcano Observatory.



CSAV is a training and outreach program established by the Hawaii State Legislature in 1989. The mission of the center is to provide training and information on volcanic and natural hazards that occur in Hawaii and worldwide. Program delivery is through public outreach, including visits to schools and the presentation of public lectures and symposia, various program specific presentations on volcanic hazards monitoring and response, programs to train educators and production of public information programs relating to natural hazards preparedness, response and mitigation.

CSAV was selected to execute this program due to their extensive experience conducting outreach programs and handling the logistical aspects associated with a program of this magnitude. The program was initiated on the Big Island and subsequently exported to the other islands through their respective UH Campuses. Dr. Donald Thomas, CSAV, Director is the catalyst for the program. He conceived the process, identified the target audiences and through his leadership is responsible for the programs successes to date. The process is designed to reach a broad cross-section of Hawaii's population base. This is accomplished through public seminars, by taking the program to community associations, and by educating students in the grades 4, 6 and 8, thereby instilling an awareness of the multiple natural hazards and the resulting transfer of the knowledge to other family members. The vehicle for accomplishing the student training is a course for Master Teachers who cascade the curriculum to their respective classroom teachers. Teachers are also strongly encouraged to integrate the natural hazards information into their science curriculum. The materials are also included in the UH Earth Science Training Certification Program for education majors.

In addition to presenting information at Big Island schools, CSAV also makes regular presentations at the Keakealani Outdoor Education Center (KOEK) in Volcano, Hawaii. These are multi-day presentations on earth sciences and ecology to 6th graders from schools throughout the state. The presentation focus is on volcanic and lava flow hazards. School presentations center on earthquake and tsunami hazards for 4th grade students and 8th grade students are exposed to information relating to hurricanes and flash floods. In order to appeal to the intellectual capacities of the 4th graders the instructional medium is through hands-on participation and videos. The older student curriculum consists of lectures and video presentations. The program is very popular with students and teachers, with yearly return invitations issued to the presenters. As time progressed, CSAV became a regular part of the presentations at KOEK presentations with approximately six visits per month during the eight months of the school year. There are approximately 40 students in each session. The overall production numbers for the program are: 9 Public Seminars with 270 attending; 150 Student Education Series visits serving 3750; 10 Teacher Training sessions with 6 more scheduled; 20 Community Associations serving 500 households; and 4 Islands reached (Hawaii, Kauai, Maui, Molokai, Oahu is Scheduled in 2001).

Each teacher presented ten lessons incorporating the hazards/preparedness message to their respective classes during the year that the training sessions were held in their county. The intent of the program is that, once the class is in their syllabus, it would be offered every year thereafter. Consequently, the actual number of students reached to date would be about twice that shown above. Teacher training presentations are structured and presented in the same fashion as the Public Seminars, with members of the community in attendance. In most cases the general public outnumbers the teachers, with approximately 500 individuals attending these sessions.

### Activity/Project Location

Geographical Area: **State-wide**

FEMA Region: **Region IX**

State: **Hawaii**

### Key Activity/Project Information

Sector: **Public**

Hazard Type: **Volcano**

Activity/Project Type: **Education/Outreach/Public Awareness**

Activity/Project Start Date: **05/1996**

Activity/Project End Date: **Ongoing**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Local Sources**

Funding Recipient: **State Government**

Funding Recipient Name: **Center for the Study of Active Volcanoes, University of Hawaii, Hilo**

### Activity/Project Economic Analysis

Cost: **\$341,166.00 (Actual)**

### Activity/Project Disaster Information

Mitigation Resulted From Federal  
Disaster? **Unknown**

Value Tested By Disaster? **Yes**

Tested By Federal Disaster #: **No Federal Disaster specified**

Year First Tested: **1997**

Repetitive Loss Property? **No**

### Reference URLs

Reference URL 1: <http://www.uhh.hawaii.edu/~csav/>

Reference URL 2: <http://www.hud.gov/local/index.cfm?state=hi>

## Main Points

- The Center for the Study of Active Volcanoes (CSAV) is a training and outreach program established by the Hawaii State Legislature in 1989.
- The mission of the center is to provide training and information on volcanic and natural hazards that occur in Hawaii and worldwide with program delivery through public outreach.
- The process is designed to reach a broad cross-section of Hawaii's population base and by educating students in the grades 4, 6 and 8, thereby instilling an awareness of the multiple natural hazards and the resulting transfer of the knowledge to other family members.
- The intent of the program is that, once the class is in their syllabus, it would be offered every year thereafter. Consequently the actual number of students reached combined with the public seminars continues to grow and expand.