

COMMON GROUND

HUMANITARIAN PROJECT HAS GLOBAL REACH



Courtesy of Lee Liberty

By Erin Ryan

In January 2010, a team of Boise State geoscientists will travel more than 8,000 miles to search for answers in the earth. Working with collaborators at Chiang Mai University in Thailand, they will conduct hands-on training to help the next generation of Southeast Asian geoscientists address engineering, environmental and cultural issues specific to the places they call home.

Boise State's proposal, titled "The advancement of humanitarian geophysics in Southeast Asia: A student-based approach," is one of two selected in the first round of Geoscientists Without Borders (GWB), a program launched last year by the Society of Exploration Geophysicists (SEG) Foundation designed to apply geophysical technology to the pressing needs of communities everywhere.

The Boise State team includes research scientist Lee Liberty, assistant professor Kasper van Wijk, doctoral students Emily Hinz and Dylan Mikesell, and emeritus professor Spencer Wood. Their project builds on Wood's connection to Chiang Mai University, which began with a 1992 sabbatical and developed into a visiting professorship. Wood's Thai colleagues

Siriporn Chaisri and Fongsaward Singharajwarapan are partners on the GWB endeavor and hope it will advance the capabilities of students in Thailand as well as in nearby countries like China, Cambodia, Malaysia and Myanmar.

"We want to move this concept all over the world," Liberty says. "In a lot of ways, this project will be a first step."

It's a step that would not have been taken without Hinz and Mikesell. It was their idea to apply for GWB, and they considered projects in South Africa and South America before deciding that Wood's experience with the landscape and culture of Thailand and Liberty's collaborative research in the region would strengthen their proposal.

"I think the foundation was attracted to candidates who knew exactly what they wanted to do," says Hinz.

The project is modeled after an established geophysics field camp in Colorado managed jointly by Boise State and the Colorado School of Mines. Using radar, seismic, electrical, gravity and magnetic methods, GWB teams will collect data related to three Southeast Asian humanitarian issues: geological hazards, groundwater contamination and preservation of important archaeological sites. A week of analysis will follow a weeklong field phase, culminating in a student-authored technical report.

"We won't just be going out to a field, turning on a tool and saying, this is how it works. We're trying to target topics and solve problems that are of interest to the local community," says van Wijk.

"It took many years to dial into

a successful field camp, and we're going to make sure we don't make the same mistakes while working in a different cultural environment with limited resources," Liberty adds.

The issue of limited resources is one of the reasons GWB was founded. With 30,000 members in 130 countries, the SEG's charitable foundation recognizes that sharing expertise is crucial to addressing threats to an increasingly interconnected world. Boise State's GWB team also will share funding through \$10,000 in scholarships to help students lay the foundation for a self-sustaining program.

"This is an opportunity to have a direct impact on the community we'll be working with," Mikesell says.

"This isn't a single individual going to a single location to address a single problem. It's about training future generations to address those problems," Liberty adds. "The impact will be so much greater."



Courtesy of Lee Liberty

Above left: Boise State research scientist Lee Liberty and Chanpen Silawongsawat look at a seismograph. Above: Liberty consults with his Thai colleagues.