

Engineering Mission to Vietnam

Del Fredlund

"If I live totally for myself, I will simply feed my ego. If I live for others, I will feed the soul."

Del Fredlund, P.Eng., has often used that phrase to explain his passion for helping others. Throughout his distinguished career as a Professor of Civil Engineering at the University of Saskatchewan, and as a consulting engineer, Fredlund has believed in giving back to his community and profession.

Fredlund is currently the driving force behind a project to deliver much-needed engineering resources to universities in Vietnam - everything from books, soil-testing equipment and computers, to student exchanges and short courses for Vietnamese university teachers.

The charitable effort is part of a larger proposal to develop the Vietnamese Geotechnical Centre (VGC) in collaboration with the University of Saskatchewan's Unsaturated Soils Group (USG). The USG, a section of the Department of Civil Engineering that specializes in geo-environmental engineering, is known internationally for its environmental work. As Vietnam rebuilds its crippled economy, a variety of environmental problems must be ad-



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dressed, including subsidence, contamination of subsurface groundwater and fly-ash pollution associated with the burning of coal.

Professor Fredlund, who has previously organized exchange programs with China and Kenya, first visited Hanoi in June of 1993. His discussions with university and government officials revealed a country that had been virtually cut off from technological developments of the outside world for

about 20 years.

"I felt that there was such a tremendous need there and the people were just so eager to have a country to have contact with," says Fredlund.

After returning home, he sent some books to Vietnamese university professors - a gesture that was well received.

"I got letter back from them that said, 'in all my years as a professor at university I have never received a textbook from outside the country.'"

Other necessities like soil testing equipment are scarce in Vietnam, making it difficult for professors to offer "hands-on" training of engineering students. State-of-the-art computer equipment and software are also rare.

While funding from agencies such as the International Development and Research Centre (IDRC) and the Canadian International Development Agency (CIDA) is still being pursued, work is proceeding with the help of private donations. Professional engineers and companies who've heard about the effort, have been eager to help. For example, the garage of Professor Fredlund's Saskatoon home has been filling up with civil, geotechnical and geo-environmental books. They've been donated

by professors, consulting engineers, civil engineering students and the Prairie Farm Rehabilitation Administration (PFRA), which is in the process of moving its Saskatoon facilities to Regina.

In May, Fredlund will travel to Vietnam with funds for the purchase of two - 486 personal computers, as well as a complete set of geotechnical software, both donated by Geo-Slope International Ltd. of Calgary. Geo-Slope - the world's largest developer of geotechnical and geo-environmental software, was co-founded by Fredlund and his brother Lorne.

It's hoped that a shipping container loaded with books, soil testing equipment, computer hardware and software will leave Saskatoon for Hanoi some time in 1995. More donations of books, computers and soil testing equipment are welcome, and a concerted effort is under way to spread the word about the project.

In addition, two graduate students from universities in Hanoi have been accepted to the University of Saskatchewan. One is doing a masters degree in geo-environmental engineering and the other in geotechnical. The first student is due to arrive at the U of S in April.

It's also proposed that short courses be offered to educate the teachers of engineering in Vietnam. The courses would concentrate on the geo-environmental area, to complement those already approved by CIDA as part of the 1995 VISED (Vietnam Sustainable Economic Development) program. The VISED courses, which deal with being moral and responsible stewards of the environment, would set the stage for more specific engineering solutions to be taught in the engineering classes.

In addition to helping people in need,



Fredlund says it makes good business sense to foster relations with developing economies.

"I have taken professional engineers from the province of Saskatchewan into places like China and Kenya, and in both cases, it has resulted in opportunities for Saskatchewan engineers."

Anyone wishing to contribute to the "Engineering Mission to Vietnam" can

contact *Professor Fredlund*, Tel:(306)966-5374 Fax: (306)966-5427.

Del Fredlund, P.Eng., was the recipient of the 1993 APES Distinguished Service Award.

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