

GERBERA: Mine Action Activities in Vietnam and Laos

In an attempt to help Vietnamese villagers resettle their UXO-contaminated homeland, Germany's GERBERA took the clearance initiative in 1998. As of July 2000, it had successfully relocated 40 families and expanded operations to Laos.

By Lisa M. Vanada, MAIC

Overview of GERBERA

The GERBERA demining organization was founded in 1994 to provide three main services: EOD activities in Germany, where the organization is based; international EOD and demining assistance; and

base; UXO contamination prevented them from returning to their homelands. A German NGO based in Berlin recognized the need for a resettlement program and began the process of preparing the land for the villagers' return. In May of 1998, GERBERA began mapping the two villages in the districts of Cam Lo and Ai Tu. After



■ Quang Tri province demining team. c/o GERBERA

local and international special engineer services, which include the surveillance and cleanup of any kind of environmental waste. Although GERBERA often cooperates with humanitarian associations and local governments, it is equipped to deal with every facet of a mine clearance project.

Resettlement and Relocation in Vietnam

Over 25 years ago, villagers in the Quang Tri province of Vietnam were evacuated during the Vietnam War. These villagers abandoned their farms and homes for a military base situated in a nearby river valley. However, this situation was far from optimal because the river floods twice a year, limiting the agricultural success of the evacuees. In spite of the poor farming conditions, the villagers remained on the

methodically clearing 171 hectares of over 5,000 UXO, the villagers were finally allowed to return to their lands.

In an attempt to escape the UXO contamination of their land, villagers in Vietnam's Hue province migrated south to the Cau Hai lagoon. Approximately 5,000 peasants currently live on boats and attempt to make their living fishing in the overcrowded lagoon. The area is overpopulated and the constant fishing has expended the natural resources. The fish they catch are pathetically small; the biggest are only 5 cm long and most of the local wildlife was displaced. Vogt explains the situation as "not only a social problem, but an environmental one." In 1999, GERBERA began surveying land designated for the relocation of the lagoon residents. It began removing UXO in July 2000 and has presently cleared enough land for 40 families.



Family boat in Cau Hai Lagoon. c/o GERBERA

Potsdam Kommunkation, the German NGO heading the relocation project, hopes that a stable village existence will allow families to send their children to school for the first time. In the past, many of the families traveled seasonally to follow the fish

Equipment and Clearance

In addition to the resettlement and relocation projects in Vietnam, GERBERA is involved with UXO clearance in Laos. Since September 1996, it has destroyed over 34,000

“GERBERA has a training advantage: Germany requires all civilian workers in EOD companies to complete an EOD training school in Dressen. All employees must receive their licenses from this school, and Vogt describes this license as a ‘higher degree’ for EOD workers.”

and the shrimp migration. Relocated families are given land where they can build homes and cultivate small farms. By working the land and earning a stable living they will be able to build a community with neighbors and village support.

UXO in the Luang Prabang province. GERBERA has not used heavy mine clearing machinery in its Southeast Asian projects for two primary reasons: terrain and money. Heavy machinery is rarely used in Vietnam or Laos because of the muddy terrain and heavy forests, Vogt clarified this

decision as one based on convenience and environmental concern. “You can’t use heavy machines if you destroy everything you want to preserve in the area,” he said. Paddy fields, for example, are enclosed with small dams to retain the water. Because the average field is only 40 by 50 meters, large mine detection or clearance machinery taken through the area would destroy the dam and most of the field itself.

The expense of the equipment also negates practicality. GERBERA tested a computerized detection program in Laos; the same program has been used successfully in Germany. Although this technology is feasible in a stable economic environment with high wages, the relatively low wages in the developing countries in Southeast Asia make expensive technology an unlikely option from a financial management perspective. Mine clearance organizations usually find it more efficient to hire a larger number of clearance workers than to use expensive computerized systems. Local workers are readily available, relatively inexpensive to hire, and welcome the opportunity to supplement their income and participate in clearance activities that increase the safety of their families and villages.

Although few mines are found in Vietnam, several types of UXO, primarily different types of bomblets and rifle grenades, contaminate the countryside. The M-16 rifles used in the war held a small device used to launch 40-mm grenades. These rifle grenades litter the region and present a constant threat. Because the grenades were intended to explode shortly after they were launched, the fuses are very sensitive. Vegetation often partially or fully conceals these grenades, which have caused more fatal injuries after the war than any other types of UXO.

Due to the terrain, expense and type of UXO contamination, GERBERA uses handheld metal

detectors to locate UXO positions and depths. This simple technology is reliable and well-suited to the project. After using the metal detectors to scan a plotted area, a detailed map is drawn up for use in clearance and disposal. According to Vogt, clearing the mines is the most difficult step in their work. Project supervisors personally inspect

UXO or clear a specific area, GERBERA’s activities in Southeast Asia require large tracts of land to be entirely clear of UXO and prepared for human inhabitants. To ensure that the designated land is completely mine-free, GERBERA usually relies on two forms of quality assurance: internal quality control and external quality

control. Because Vietnam and Laos do not place external quality controls, GERBERA’s internal system has been revised to provide several levels of clearance checks. GERBERA designed a system requiring each project to create and use a test field. The test field begins as a completely cleared piece of land; any objects or minerals that will cause the mine detectors to signal are removed. Next they carefully map and create defined signal sites where metal pieces are inserted at different pre-

GERBERA often asks village religious leaders for the best dates and times for major project events, such as the opening of a project or the introduction of a new building. This approach shows consideration for the village’s cultural traditions.

each UXO to analyze the type, location, and other factors that determine if it is possible to move the UXO. If it can be moved, the workers carefully transport the UXO to a designated demolition site. Most of the mines GERBERA has encountered are very old and sensitive. If mines are too unstable to transport, they are destroyed in situ.

Quality Assurance

GERBERA places a great deal of emphasis on the importance of quality assurance. Unlike some demining organizations, who respond to a community request to remove a particular

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A typical mine clearance team consists of several workers who are given daily assignments of UXO-contaminated zones. Their goal is to clear the entire area of any mines, UXO or metal objects that could cause a metal detector to sound its alarm. At the end of each day, team commanders canvas between 20-50 percent of the area their team has cleared that day. He checks the area without any consistent system, so the clearance workers are never certain which portions of their area or the adjoining areas will be inspected. The commander should be able to navigate throughout the cleared areas without hearing a single beep from the mine detector. Any detected items are removed immediately and the commander restarts the inspection.

Because this quality assurance system relies heavily upon the functionality of the metal detectors, these handheld devices are frequently checked. Commanders test their equipment every morning and after every break to make sure that it is working properly. In addition to daily inspections of metal detectors,

determined depths. All metal detectors must complete these test fields on a weekly basis, and every detector is graded for the detection accuracy of every signal site.

This consistent test for detection and depth allows the handlers to notice slight changes, as the grades are compared for any alterations. Frequent evaluation of tests and results allows workers to determine even slight technical aberrations. Vogt explains the importance of this early detection. “It’s very easy to realize if a technical instrument breaks down completely,” he says, “but very often it’s not a sudden breakdown but [it] goes slowly. It’s a process. By using this test field, we can realize very early if such a weakness occurs.”

Training

As a German-based organization, GERBERA has a training advantage: Germany requires all civilian workers in EOD companies to complete an EOD training school in Dressen. All employees must receive their licenses from their school, and Vogt describes this license as a “higher degree” for EOD workers. Even officers of the Germany military, regardless of rank and professional experience, are not permitted to participate in EOD work



Clearance worker in Quang Tri. c/o GERBERA

without obtaining this license. GERBERA uses the material from this German EOD school to train local workers they hire for specific projects. The training the workers receive depends on the tasks they will be assigned and the requirements of the local government.

In Laos, all workers complete basic UXO and landmine training in UXO-Lao's National Training School based in Vientiane.

The United States founded this school. Special Forces teams from the Pacific Forces train the local deminers.



to receive the advanced training, but basic training is provided daily for the lower-ranking Vietnamese officers and soldiers. Basic training includes instructions for removing the normal technology, the difference in the technology between mine clearance and UXO clearance, safety procedures, technical procedures, requirements for quality control inspections, and standard GERBERA rules and regulations. The high-ranking officers receive special training on fuses, ammunition and demolition work, equipment handling and mainten-

related an event that illustrates the importance of respectful exchanges, particularly when cultural or religious infractions are unknowingly made.

At the end of a workday in a remote village in Laos, a GERBERA team prepared to destroy the collected munitions. The team leader visited all the houses in the village to advise the residents that they should leave. At one of the houses, he called out to ask if anyone was home. Hearing a muted voice from inside the house, he stepped over the flowers at the door to enter the home and asked the woman inside to leave before they detonated the munitions. He returned to the project site unaware that the flowers at the entrance of the home signified that an occupant had died. Custom prohibits anyone except the wife of the dead husband from entering the house.

After the detonation, the team prepared to leave the village but was stopped by the shaman. He told them the unwelcome visitor had disturbed the ghosts. To appease the ghosts they must perform a very expensive ceremony, and the whole team must remain in the village for three days. After a lengthy dispute the German commander paid the equivalent of two dollars, the villagers were satisfied, and the team was allowed to leave.

Vogt stressed that the most important aspect of this transaction was respect. He explained, "If you negotiate with the peasants you have to respect their feelings and their traditions. It was impossible simply to leave." Several GERBERA policies reflect the value it places on respectful exchanges.

Expanding Mine Awareness

A complete GERBERA project task force includes a community awareness team. For the project in Laos, the team members attended

UXO Lao classes on mine awareness and safety education. Although some of the members are already teachers, they are all taught basic teaching skills and methods for increasing mine awareness. Team members are taught to accompany their teaching sessions with diagrams, pictures, illustrations and puppet shows targeted at children.

In Laos, the GERBERA Community Awareness Team found it necessary to teach adults and children alike not to make an open fire in the woods without first checking the soil. After the occurrence of several different incidents involving villagers who died cultivating new farmland, the team incorporated lessons teaching the villagers not to cultivate new land before the area is cleared.

Mine education in Vietnam is conducted with the cooperation of the schools. The GERBERA Community Awareness Team contacts teachers to schedule mine education sessions. Team members frequently revise sessions to incorporate information pertinent to local situations or perspectives. Shortly after GERBERA arrived in Vietnam, the Community Awareness Team developed an educational program to address the dangers of scrap metal collecting. Many Vietnamese men gathered mine grenades and UXO to sell as scrap metal, but often their crude digging



■ A deminer uses a hand tool to deal with vegetation. c/o GERBERA

tools and inexperience led to injuries and death. The teaching sessions were most successful when they focused on educating the women and children. The women could often persuade their husbands and sons to stop recovering scrap metal.

Continued Diligence

Vogt emphasized that the adherence to structured project assessments, quality control regulations, equipment assessments and promotion of mine education and awareness is not limited to the projects in Laos and Vietnam. GERBERA personnel are required to complete advanced training in services ranging from mine detection, mapping, and mine neutraliza-

tion and clearance, to mine awareness education and local training. Because they offer a wide range of skills and knowledge, GERBERA personnel are often called upon to provide specific assistance for international demining programs, in addition to entire project assignments. As long as humanitarian organizations and local and international governments and associations continue to acknowledge and address mine contamination problems, GERBERA plans to continue their mine action and their efforts to cleanse the environment. ■

Much of the content for this article has been gathered from an interview with Lutz Vogt, the General Manager for GERBERA. Vogt is responsible for GERBERA's demining and UXO clearance activities and has participated in the projects described in this article.

Contact Information

Lutz Vogt
General Manager
GERBERA
K-Liebkecht Str.1B
D-15711 Königs Wusterhausen,
Germany
Tel: 033.75.290.721
Fax: 033.75.201.580
E-mail: GERBERA@T-online.de



■ The munitions pictured are typical of those littered throughout Vietnam's Quang Tri province. c/o GERBERA