

Consortium/Lao PDR
Xieng Khouang UXO Assistance Project

A Review of the
WAR VICTIMS PROJECT in the Lao PDR
for the War Victims Fund

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EXECUTIVE SUMMARY

The legacies of protracted war, both civil war and war against external forces, have shaped the lives of many in Southeast Asia. Most deeply affected are the peoples of Cambodia, Laos, and Vietnam. By 1969, more than 500,000 tons of bombs had been dropped on Xieng Khouang Province, in northeastern Laos. This is equivalent to one bombing mission every eight minutes for nine years, making Xieng Khouang “the most heavily bombed area on earth.”¹ The Mines Advisory Group estimates that as much as 30 percent of this ordnance did not detonate as designed, an “inheritance” that continues to maim, kill, and injure innocent victims 25 years later.

In September 1995, the War Victims Fund (WVF), which is administered by the Office of Health and Nutrition of the U.S. Agency for International Development (USAID), provided an 18-month grant of \$500,000 to the Consortium, a collaboration of three long-standing U.S. nongovernmental organizations (NGOs): Save the Children/US, World Education, and World Learning Inc. The USAID grant was provided to upgrade the medical/surgical capacities of local health facilities and staff at the provincial and two district hospitals, to develop and implement an unexploded ordnance (UXO) education curriculum at several target primary schools, and to increase the technical and managerial capacities of Laotian institutions to manage and implement these and other related humanitarian and developmental initiatives. Due to unforeseen delays in project approval and start-up, the grant was amended to include an additional two-month, no-cost extension. The grant termination date was May 31, 1997.

Unexploded ordnance dropped from the air and left over from ground battles still affects 12 of the 17 provinces in Laos. The affected area from these provinces represents over 50% of the land area of the Lao PDR. Most heavily affected are the northeastern provinces of Houapane and Xieng Khouang, and the southern provinces of Saravane and Sekong where the Ho Chi Minh Trail traversed.

A team of six, including three Laotians, two Americans and a representative of the Consortium sent by the WVF, visited Laos from June 30 to July 11, 1997, to assess the progress of the current Consortium grant and recommend any appropriate modifications. The team also attempted to recommend guidelines for activities in the second phase of the Xieng Khouang War Victims Assistance Project. The evaluation, attempted to identify ways that the project could be improved rather than to assess the results and impact. The evaluation methodology included a review of the literature, interviews with key persons, and site visits. The team was able to visit

¹ Roger Rumph, Mennonite Central Committee in Laos, quoted in *The Bangkok Post*, March 5, 1995.

organizations and offices in Vientiane as well as in the provincial capital in Xieng Khouang and the outlying districts of Kham and Khun.

Summary Findings and Recommendations

Curative Health and Rehabilitation

Substantial progress has been made in the development of emergency medical/surgical care and related services for victims of UXO and other traumatic injuries in Xieng Khouang province. If these services are to be improved and sustained, an organizational structure within the Xieng Khouang provincial health service that can plan, implement, and evaluate all project inputs needs to be established. Continuous training to upgrade the managerial and technical capabilities of the provincial staff is essential for successful implementation of the project.

Recommendations are made for developing a basic organizational structure at the provincial level that will consolidate the project activities and progress to date before any expansion of the medical/surgical care component of the project is implemented. The conditions that would determine when consolidation has been achieved are as follows:

- A provincial/project structure that specifies the specific tasks and responsibilities of each organizational unit has been outlined to support the management of the project extension.
- A cluster of management and technical committees responsible for managing and implementing the project has become operational and has fulfilled the scopes of work described in the recommendations.
- A basic reporting and recording (R/R) system has been developed to monitor the quantitative and qualitative impact of the project.
- A high-priority training program to improve the management and administrative capacities of appropriate provincial and district staff responsible for implementing the project has been designed and conducted.

Unexploded Ordnance Awareness Education

Considerable progress has been made in the development and implementation of a primary school curriculum that teaches children the dangers of unexploded ordnance and how to prevent UXO accidents. Individual components of the program must be solidified before it is replicated in other districts and provinces. Effective integration of the program into the education system can occur only if the program is viewed as an entire package of activities that consists of:

- *An appropriate and effective curriculum.* Field testing of the current curriculum should

continue, with the feedback, comments, and suggestions of educators incorporated and refinements made after each semester.

- *Engaging teaching techniques and methodologies.* Provincial-level training of trainer sessions (TOTs) as well as trainings conducted for educators should utilize participatory and student-centered techniques and methodologies. Educators should have opportunities to “try” these techniques during trainings. Appropriate and useful teaching materials should be developed and included in a standard curriculum package.
- *Productive and useful monitoring tools.* Pre- and post- testing should be conducted in target schools using appropriate instruments. A simple and effective form or checklist should be developed to assist district-level technicians in evaluating the usefulness of methodologies and techniques.

LIST OF ACRONYMS

ADB	Asian Development Bank
CA	Community awareness
CCL	Comité de Coopération Avec le Laos (a French NGO)
Consortium	A collaboration of three U.S. NGOs: Save the Children/US, World Education, and World Learning, Inc.
DCOF	Displaced Children and Orphans Fund
DOE	Department of Education (Lao PDR - provincial/district level)
ESF	Ecoles sans Frontières (a French-based NGO)
HI	Handicap International (a Belgian NGO)
JOCV	Japan Overseas Cooperation Volunteers
MAG	Mines Advisory Group (a British NGO)
MCC	Mennonite Central Committee (a U.S. NGO)
MOE	Ministry of Education (Lao PDR)
MOH	Ministry of Health (Lao PDR)
MLSW	Ministry of Labor and Social Welfare (Lao PDR)
NGO	Nongovernmental organization
NRC	National Rehabilitation Center (Lao PDR)
PL	Pathet Lao (pro-communist forces in the Lao PDR)
UNDP	United Nations Development Programme
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States government
UXO	Unexploded ordnance
UXO/Lao	Lao People's Democratic Republic national program formed to coordinate assistance and programs addressing unexploded ordnance issues
WHO	World Health Organization
WVF	War Victims Fund

The Consortium - Xieng Khouang, Laos Evaluation, July 1997

MAP OF LAOS

INTRODUCTION

The People's Democratic Republic of Laos is one of Asia's most undeveloped and undiscovered countries. A nation that remains veiled in diverse ethnic and religious tradition, Laos is governed and ruled as a Marxist-Leninist state.

Laos is a sparsely populated, mountainous country, roughly the size of Britain and landlocked between Thailand, Burma, China, Vietnam, and Cambodia. Eighty percent of the nation's 4.6 million people derive their livelihood from subsistence agriculture. The rural population is growing at an annual rate of about 2.8 percent, and women bear seven children on average.

About 45 percent of the population is under the age of 15. More than one-third of adults are illiterate, and educational levels are low, particularly among women. On average, Laotian children receive less than three years of schooling.

Despite moves to a free-market economy in 1989 and allowances for private foreign investment, Laos remains one of the poorest countries in the world, with a per capita gross domestic product of US\$350.

Medical facilities in Laos are sparse and almost nonexistent in rural areas. The infant and under-five mortality rate is 182 per 1000, and health standards, particularly among the rural population, are poor. The average life expectancy is 51 years.

In 1947 Laos promulgated a constitution that named the country an independent member of the French Union. The constitution provided for a prime minister and a cabinet responsible to a national assembly elected by universal suffrage every four years. However, internal conflict erupted shortly after the Geneva Agreement in 1954, as pro-communist Pathet Lao (PL) forces seized several provinces on the North Vietnam frontier in an attempt to align the country with Communist China and North Vietnam. In August 1960, a junior army officer carried out a coup against the right-wing, American-supported government, plunging the country into civil war. A settlement to the civil discord was reached in 1962, as the situation in Vietnam escalated.

Although not a direct combatant, Laos was greatly affected by the conflict in Vietnam. The northern provinces of Houapan and Xieng Khouang were heavily bombed, as planes returning from sorties in Vietnam were ordered to drop their ordnance before landing in northeastern Thailand. In the south, several provinces were transversed by the Ho Chi Minh Trail and thus were the target of heavy aerial bombing in an attempt to cut north Vietnamese supply routes. The tonnage of ordnance dropped on the province of Xieng Khouang alone exceeded the amount of

ordnance used during the entire World War II conflict. Despite relative peace over the past two decades, unexploded ordnance, the legacy of internal and external conflicts, refuses to allow Laotians to forget their tumultuous past.

In 1990, the War Victims Fund provided assistance in support of the prosthetic and orthotic needs of the disabled in Laos. This assistance package was renewed in 1992. After a detailed technical assessment, the WVF made a programmatic shift in 1995 toward strengthening UXO prevention as well as post-traumatic medical and surgical treatment capabilities in the heavily affected province of Xieng Khouang.

This 1997 technical review makes clear that the War Victims Project in Xieng Khouang is uniquely poised to have a major impact on the overall development of health services in Laos. By developing effective and appropriate managerial and technical systems in the Xieng Khouang Provincial Health Services to support quality medical/surgical services for UXO and other trauma victims, it can serve as a model that could be replicated in other provinces. The initial foundation for basic infrastructure is being put in place; relationships between the project and the Provincial Health Services are mutually supportive; and managerial and technical support systems are developing within the Laotian cultural and resource environment. In planning to establish the managerial, administrative, and technical guidelines for implementation of the project extension, criteria and resources for adequate documentation of all aspects of implementation must be prioritized and provided for. Policies, implementation guidelines for planning, management and administration of technical services, for recording and reporting, for training programs, for equipment standards, for maintenance of infrastructure, and for procurement systems must be detailed in appropriate manuals. Close interaction with the appropriate departments in the MOH, in order to coordinate the development of standards to guide the provincial health services being developed, must be maintained.

Details regarding the project's medical/surgical component as well as the UXO awareness curriculum and indigenous capacity strengthening are discussed below. The national UXO Lao program as well as the project's relationship with USAID are also briefly examined.

A word about the limitations under which the evaluation team operated is in order. There is a dearth of hard data. Reliable statistical data on medical service delivery at the province and district levels in Xieng Khouang Province are either unavailable or insufficient to objectively evaluate improvements in the medical and surgical care of victims of UXO and other related traumatic injuries. In addition, there is no system for isolating UXO-related cases from non-UXO related cases. As for the the primary school UXO awareness curriculum, the newness of the program has not permitted adequate data collection. The conclusions in this report were therefore based entirely on extensive field observations of physical infrastructure made by the team; on anecdotal information obtained from interviews with medical, technical, and administrative personnel in the central, provincial, and district administrative levels; and on a desk review of the substantial inputs provided by the project.

CURATIVE HEALTH AND REHABILITATION

Findings

Rehabilitation of the Physical Infrastructure

Substantial progress has been made toward installing the physical infrastructure for managing medical, surgical, and emergency cases. In Kham District, a new emergency room building with an operating room equipped for minor surgery and with rooms for sterilization and admission has been completed. A dug well with an electric pump and water tower have been installed as well as a 4.3-kilowatt generator to provide electricity. In Khun District, renovation of an existing hospital room as an emergency room equipped for minor surgery has been completed. However, the quality of construction is inadequate, and the wall tiles in the emergency room must be replaced. The new water tower leaks and requires repair. A dug well, electric water pump, and 4.3-kilowatt generator have been installed. In the Xieng Khouang Provincial Hospital, a new emergency room suite is under construction and scheduled for completion within four to six months. A 110-volt, 30-kilowatt generator converted to 220 volt and operating room equipment, including an autoclave, anesthesia equipment, oxygen tanks, and dermatome, have been donated by the U.S. Department of Defense.

Basic supplies for the treatment of ordnance-related injuries, such as minor surgery sets, oxygen tanks, blood pressure machines, autoclaves, and laryngoscopes, were provided by the project to all three visited sites, but the quantity still is insufficient. This has caused delays in providing treatment due to the requirements of sterilization. This investment in infrastructure has laid the foundation for further improvements in medical/surgical care of victims of UXO-related traumatic injuries. However, the managerial capacities to use and maintain this equipment are rudimentary at best and need to be strengthened. Recording systems for objective measurement of use and maintenance are required.

Training Programs

Twelve training programs have been conducted at the provincial, district, and national levels (Vientiane) under the project. Health Frontiers and JOCV each have conducted two additional training programs. (See Appendixes VI and VII for a complete list of programs and perceived improvements.) The bulk of the training was conducted after September 1996. The team interviewed two key trainers from Vientiane, who described problems in managing and conducting the training at the provincial and district levels: (1) Some of the training offered at the provincial hospital for district staff was beyond the level of practice possible at the district

hospitals; (2) the process for selecting trainees was not systematized, and appropriate staff did not always receive the training; (3) there were no requirements for staff participation; (4) levels of training did not always relate to the capacities and experience of participants, whose prior experience differed.

Despite the problems, the training programs appear to have been instrumental in upgrading the ability of clinical staff at the project sites to handle traumatic cases. However, reliable data to substantiate this subjective observation are not available. The team was not able to discern a coherent training strategy directed toward developing a critical mass of personnel with essential skills to handle medical, surgical, and emergency trauma at the various project sites. Instead, the training had a wider technical scope (see Appendix VI), which necessarily limits its impact.

Although it was not an objective of the initial project, management-related activities have taken place in the form of Action Planning Workshops (March 1996), a mid-term internal evaluation prior to a Planning Workshop conducted at the National Rehabilitation Center (June 1996), and training to evaluate project proposals for the UXO accident prevention contest.

Project Impact

All three sites experienced an increase in patient load during the 12-month operational period for the project compared with the previous 12-month period. Medical personnel consider this increase to be a reflection of the general population's perception that the capacity of the project sites to provide more extensive care has improved substantially. Should this finding be verified statistically, it is relevant because it indicates that UXO and other trauma victims who previously sought care at the provincial hospital are now seeking care at the district hospitals if they believe adequate care is available.

Clinicians at project sites cited a decrease in post-traumatic infections as an indication of improved quality of care at their facilities. Physicians are more skilled in reading X-rays. Laboratories can perform Complete Blood Counts (CBC) and gram stains at the Province Hospital and at Khun to support trauma surgery. (See Appendix VII for a list of perceived improvements in the laboratories and X-ray departments.) A wider range of antibacterials also are available to treat post-operative infection.

Management

The evaluation team was impressed by the level of commitment to the project by national, provincial, and district staffs. Officials interviewed were frank and open in discussing all aspects of the project and provided practical suggestions for improvements. Counterpart staff have been provided and office space for project staff allocated.

There is clearly strong leadership in the Xieng Khouang Provincial Health Service. However, the capacity for planning, implementing, and evaluating provincial, district, and sub-district health programs is still rudimentary and inadequate to support development and expansion of emergency

medical/surgical care for victims of UXO-related traumatic injuries. According to provincial authorities, neither managerial nor technical staff have received requisite training in the management of hospital and public health services, i.e., in conceptualizing, planning, implementing, and evaluating their programs and activities. No plans for systematic development of these skills within the Xieng Khouang Provincial Health Service exist. Record keeping for hospital and public health statistics is basic and does not permit ready access to meaningful statistical compilation. Budgeting processes, financial control, procurement, and inventory management of drugs and supplies are ad hoc and unreliable. Preventive maintenance programs for equipment and hospital infrastructure are haphazard.

The Revolving Drug and Supply Fund

The Revolving Drug and Supply Fund (RDSF) makes essential medications and supplies, procured through a local supplier or an agent in Vientiane, available to all patients at the three project sites. A pharmacy committee manages and administers the fund. UXO patients receive their medications free of charge; other trauma patients pay a basic cost plus an additional fee to recover costs. The RDSF is highly valued by patients and hospital staff alike.

There are several concerns, however. Staff managing the system lack adequate accounting and bookkeeping skills, accounting procedures are fragmented and incomplete. The pharmacy committee does not have a clear mandate. Staff have noted the need to expand the supply of drugs to ensure a reliable supply to patients. Future issues concern integration of the RDSF in the hospital pharmacy and in other hospital-wide cost-recovery efforts.

War Victims Medical Fund

The high cost to treat a UXO victim often requires families to borrow money or sell land or animals. The War Victims Medical Fund was established in April 1996 to cover these expenses. The fund covers the cost of transportation, drugs, treatment in Vientiane (if required), and follow-up surgery. Since April 1996, 27 patients from Kham, Pek, and Khun Districts have used this fund, resulting in a total expenditure of Kip 2,465,565 (about \$2,500). Another five cases are pending.

The fund is administered by the Xieng Khouang Public Health Service and Consortium. When a patient comes to the hospital, an initial data form is completed and sent to the Health Department for review with the patient's medication receipts. The data form then is submitted to Consortium staff, and the money is withdrawn from the bank account. The fund has helped reduce deaths among UXO victims by speeding transport and treatment to these patients. Slow processing of paper work has delayed timely reimbursement of the fund.

Monies from the War Victims Medical Fund are used to reimburse the district hospitals for their transportation costs for UXO patients. The War Victims Medical Fund also reimburses the RDSF.

The Project Approval Process

The government approval process for the project was lengthy. A request for a project related to UXO trauma was first submitted by Xieng Khouang provincial authorities to the Ministry of Health (MOH) in early 1995. A project proposal was prepared by the Consortium in collaboration with Xieng Khouang Province authorities and the National Rehabilitation Center. USAID approved funding in October 1995, after which preparation activities and field visits began. The project received approval by the Government of Lao in March 1996. Field activities began in earnest in April 1996.

Individual project activities have been delayed because of the present lengthy approval processes between provincial and national levels.

English Language Training

There are few medical texts available in the Lao language. Although various groups have donated medical texts, these are most often in English and few medical people at the provincial hospital speak English. No English classes are available at the hospital despite the need of medical professionals to use advanced medical reference materials.

Underlying Assumptions

The underlying assumptions that the evaluation team considers essential for improving the performance of the project in the next phase are as follows:

- To facilitate the sustainability of the medical/surgical/emergency services being developed through this project, the focus of project ownership must be shifted from the Consortium/USAID to the Xieng Khouang Provincial Health Service. Policy making and decision making should be vested in Laotian officials, with the Consortium providing technical guidance and administrative support. The project must be Laotian-owned and -managed.
- Although the number of reported cases of trauma and mortality resulting from ordnance explosions is relatively small, the problem remains huge, and should be viewed as a long-term intervention. As development proceeds and population pressures expand, new land will be utilized for construction and agriculture. Incidents of trauma resulting from ordnance will inevitably continue and may increase. Interventions therefore must be sustainable for the long term.
- The ability of the Xieng Khouang Provincial Health Service to organize, manage, and administer a network of secondary and tertiary care facilities to manage trauma from UXO accidents must be strengthened. Without sound management and administration, the impact of technical interventions will be compromised.
- A rational planning process must be installed to overlay all inputs to the project. There

should be a programmatic plan developed in tandem with MOH and Provincial Health Service officials that defines the life-of-project outputs, inputs, and implementation schedules. There should be an annual planning process that coincides with the MOH planning cycle to ensure that government counterpart contributions are provided on a timely basis. The annual planning process, conducted under the direction of the MOH officials responsible for managing the project, should produce a detailed operational plan that states all deliverables to be achieved in the planning period, provides a detailed time plan for implementation, and includes a detailed budget by activity. It is assumed that the annual operational plans will be approved by the Project Director and the Director of the Provincial Health Service, Xieng Khouang Province.

Recommendations

1. **Consolidation of Project Activities:** No expansion of this component beyond the scope of activities in the first project is recommended at this time. The project should proceed into a consolidation phase where the infrastructure, training, equipment, and drugs provided through the current project can be amalgamated into a coherent package with focused objectives. The following conditions should be achieved before any further expansion is considered:

- There should be an organizational structure for the project that places policy making and decision making in the hands of appropriate Lao agencies, with the Consortium as a facilitator and provider of technical assistance.
- There should be in operation and functioning at an appropriate level a host country management team and/or person for planning, finance, administration, personnel, monitoring, and evaluation.
- A technical committee should be created in each operational area (as proposed in Recommendation # 3).
- A reporting/recording system should be developed and implemented.
- The Revolving Drug and Supply Fund should be operating satisfactorily.
- The War Victims Medical Fund should be operating satisfactorily
- The water and electrical supply required in emergency care facilities should be in place and operating satisfactorily.
- Standard equipment and medical supplies for the emergency rooms should be in place and functional.
- Annual Operational Plans should be developed and approved on a timely basis.
- A comprehensive training plan should be developed to guide the training activities of the project.
- Mechanisms should be in place to measure the post-training skill levels of trainees to ensure that minimum skill levels are being attained subsequent to training.

2. **Organizational Development of Project Management:** A project orientation seminar

should be held at the commencement of the extension to design the organizational arrangements and management systems that will govern the medical/surgical/emergency services under the extension. Among the participants should be representatives of the Xieng Khouang Provincial Health Service, the Office of the Governor, the District Governors Office, the Khun and Kham District Health Offices, the MOH, and the Consortium. This workshop will provide a forum for government officials and Consortium staff to review the recommendations from the evaluation and respond to a project implementation framework to be prepared by provincial staff and the Consortium. The output of this workshop should be (1) an agreement on a project organization and management structure that places authority for management and decision making with an appropriate Laotian agency and (2) formation of technical committees that will be responsible for managing specific activities.

3. Planning, Implementing, and Evaluating Project Activities - Committee Structure: A cluster of management and technical committees should be formed and given responsibility for developing detailed operating guidelines for the principal inputs in this component of the project. The following committees should be formed:

- **Management Committee:** Responsible for developing management systems, administrative and financial systems, human resource development, a reporting/recording system, and policies/procedures for the War Victims Medical Fund.
- **Training Committee:** Responsible for producing an annual technical training plan that:
 - (a) defines the clinical/technical skills that must be developed for each category of personnel at the provincial, district, sub-district, and village levels
 - (b) establishes quantitative indicators to measure levels of skill attainment;
 - © provides a framework for evaluating the impact of the training component of the project
 - (d) designates the categories of personnel that will be trained at each administrative level
 - (e) determines the content of training for each category of personnel
 - (f) states the number of persons in each personnel category that will be trained
 - (g) proposes a life-of-project training budget detailed by type of training and category of personnel.
- **Pharmacy Committee:** Responsible for determining the types of drugs and related supplies to be procured for each project site, procedures for managing drug supplies, and guidelines for operation and management of the Revolving Drug and Supply Fund.
- **Logistics Committee:** Responsible for determining the types of equipment and civil works rehabilitation requirements at each project site and monitoring construction and equipment maintenance.

All the committees will have the following responsibilities:

- Define the roles and responsibilities of the principal individuals and agencies involved in

- implementing specific components of the project
 - Conduct a needs assessment that provides reliable data on the specific technical/managerial area that is the purview of that committee and that can be used as a basis for project planning
 - Prepare implementation guidelines for the project
 - Prepare an annual plan of action for proposed inputs
 - Determine benchmarks to be achieved each year of the project
 - Establish indicators to measure achievement of the benchmarks
 - Monitor implementation of activities
 - Evaluate the annual implementation plans.
4. **Reporting/Recording:** A reporting and recording system that can be used to quantitatively monitor progress toward achieving benchmarks and to measure quality should be developed. Some suggestions for inclusion in the system are (1) definition and categorization of UXO trauma-related cases and (2) number of victims by incident.

For each case, the following minimal data should be collected:

- Age, sex, occupation, and place of birth of victim, site of accident, and category of case
- In-patient vs. out-patient care
- Status upon arrival
- Treatment provided
- Laboratory, X-ray
- Provider (doctor, medical assistant, nurse)
- Outcome (died, recovered [with or without infection], referred [to whom])
- Use of Revolving Drug and Supply Fund

5. **Revolving Drug and Supply Fund:** A review of the RDSF by the Pharmacy Committee and other appropriate staff is necessary to determine areas for further improvement. A plan/document needs to be developed that includes standard policies for administration and management of the fund, budgeting and accounting procedures, reporting and recording procedures, and procedures for periodic review and evaluation.

6. **War Victims Medical Fund:** The War Victims Medical Fund should be reviewed to determine and standardize policies and procedures for payment of specific services, management of the fund, and reporting/recording. Plans should be developed for fund raising and integration with other appropriate provincial or national revolving fund systems.

7. **Health Manpower Development Plan:** A health manpower development plan is needed to improve the managerial capacity of staff at the provincial, district, and sub-district level to support the delivery of adequate medical/surgical care to UXO and other traumatic injury victims. The plan should be based on a needs assessment and should outline training requirements, staffing needs, and mechanisms to provide for adequate coverage. On a priority basis, a specific initial

training plan targeting provincial and district staff members of the managerial and technical committees should be implemented.

8. **Approval Process:** Policies and guidelines to speed up and simplify approval procedures for all aspects of project activities need to be established. As far as possible, these approvals should be made at the Province and follow the details of specific annual plans.

9. **English Language Training and Access:** After the committee system is established, plans should be made for English classes for selected staff members at the provincial hospital. Appropriate materials still will be translated into Lao, and training course materials will continue to be written in Lao. Although the education committee will decide the criteria for determining the participants and general content, their recommendations should take into account the following goals of English language training: (1) improve the ability of medical staff to understand basic medical terminology; (2) enable medical staff to access information in the medical or nursing literature; and (3) enable staff to work more directly with donors in the future. A library system must be established so that all staff have access to relevant books and journals.

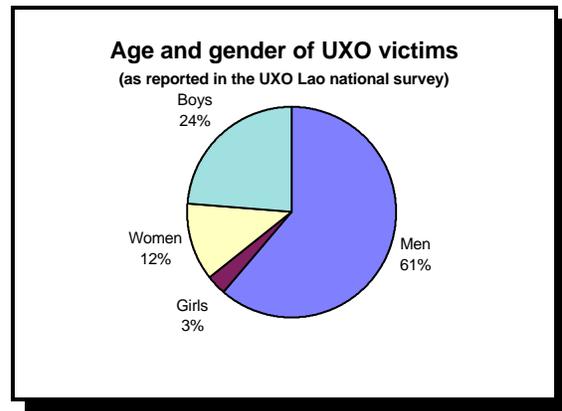
UXO AWARENESS CURRICULUM

Findings

Assessment of the Need

A national survey conducted recently by Handicap International under the auspices of UXO Lao indicates that after an initial sharp decline in the number of accidents involving unexploded ordnance in the years immediately following the cessation of hostilities in 1974, the number has remained fairly constant, decreasing by only 2.5 percent per year.² The lack of a significant reduction in the number of injuries, despite extensive efforts to remove ordnance, illustrates the potent threat that UXO continues to pose throughout rural Laos. The report notes that “More than twenty years after the end of hostilities, unexploded ordnance continues to kill and maim innocent victims at a rate of one accident every two days.”³ Collecting firewood and forest materials, fishing, farming, and playing all can be deadly pursuits.

Adult men are the most frequent victims of unexploded ordnance. Men traditionally undertake heavy agricultural work such as clearing, ploughing, and digging fields, increasing their chances of encountering UXO. Men are also more likely than women to attempt to defuse or open ordnance in an effort to obtain the scrap metal or explosive powder inside.



The percentage of accidents involving boys has increased over the past 10 years.⁴ MAG reports that over 40 percent of all UXO accidents involve children, who because of their small body size are often killed in the explosion rather than maimed.

² Lao National UXO Programme (UXO Lao), *National Survey of the Socio-Economic Impact of Unexploded Ordnance in Lao PDR*, 1997.

³ *Ibid.*

⁴ *Ibid.*

Recognizing the potent threat that the UXO contamination poses, a major thrust of the Consortium program has emphasized strategies to help Laotians, especially children, avoid accidents from unexploded ordnance. Project activities have focused on hazard awareness curriculum and materials development for primary school, local capacity building including training of trainers (TOT) and teacher training, and monitoring and follow-up.

Curriculum Development

Working through the Ministry of Education and in partnership with the provincial Department of Education (DOE), the project has developed a UXO awareness curriculum for primary schools in Xieng Khouang. The curriculum includes a textbook and a teacher's manual covering the history, locations, types, and dangers of various UXO as well as information on simple methods to avoid UXO accidents. It also includes basic first aid procedures should a UXO accident occur.

The UXO education curriculum was produced in close collaboration with other relevant organizations. MAG, UNICEF, UXO/Laos, and others contributed to the development of the materials as well as field testing of the messages conveyed. These organizations strongly endorse the curriculum and indicate that its message is appropriate for the target audience. An additional level of support for the curriculum has been generated at the ministerial level. UNICEF has requested and obtained ministerial approval to integrate the curriculum in its national teacher upgrade program, as appropriate.

After substantial efforts and negotiations, the curriculum was approved by the Ministry of Education for testing in eight district schools in Xieng Khouang Province (three in Khun district and five in Kham). The curriculum was taught during the February - April, 1997, semester.

Discussions with school directors and implementing teachers indicate that the curriculum was fairly well received by the students. Anecdotal evidence indicates that participation in the course has improved students' knowledge. Moreover, students are taking their course books home, and officials report seeing villagers reading the material. There are indications that student awareness has positively affected community awareness.

Training of Trainers/Teaching Methodologies

A small provincial team of three individuals, including Mr. Somchay, the dynamic Deputy Director of the provincial DOE, conducted three-day trainings for the directors of the target schools. The directors in turn were tasked with training the Grade 3, 4, and 5 teachers at their respective schools. The 163 teachers who received training in the curriculum taught the curriculum to 2,382 students. Consortium staff was neither involved in nor present during the trainings conducted by provincial officials and school directors, and no project staff follow-up was conducted to observe the teachers' classroom techniques.

The project plans to reinforce and expand the curriculum in Kham and Khun districts beginning in September 1997. On the basis of feedback from trainers and teachers, the training program will be expanded from three to five days, and two groups of teachers and educators will be trained in August 1997. The first group consists of staff from the eight original target schools. By training the second group, the project will expand the curriculum into 37 new schools (23 new schools in the Kham and Khun districts and 14 schools in the new target district of Phoukood). Tentative plans have been made to expand to an additional 36 schools in Paek district in January 1998.

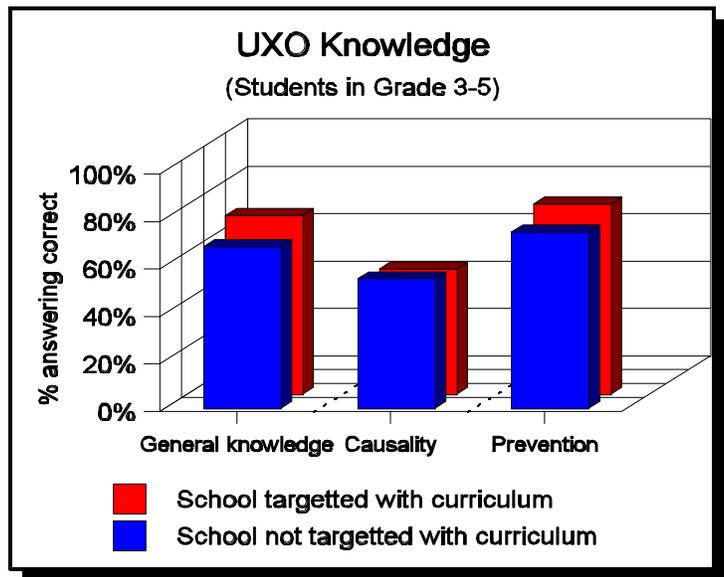
Monitoring and Follow-up

To formally assess student knowledge, the Consortium and provincial Department of Education officials conducted separate post-curriculum surveys of approximately 50 students in May 1997. The sample was drawn from one school in each district. The Consortium survey included students from nontargeted schools in both districts to establish a control group. However, it was later discovered that the nontargeted schools had been included in UXO community awareness activities conducted by MAG.

The figure to the right compares the knowledge of students who participated in the curriculum with that of students who were involved in the MAG community awareness program.

A greater percentage of students who participated in the school course were able to correctly identify how to prevent a UXO accident and what to do in case of an accident (the prevention section). However, students' scores on the causality section were quite low. Questions in this section of the survey asked students to identify the types of people (e.g., farmers, policemen, students, everyone) who can be injured by unexploded ordnance and the types of activities (e.g., dismantling, playing/throwing, walking past, striking with a hoe, cutting the grass very low to the ground) that can cause ordnance to explode.

Students' answers indicate that they feel immune to the dangers and unaware of the actions that can cause ordnance to explode or detonate.



Why students scored as they did cannot be determined. Whether the scores are a result of the instructor, the curriculum, the training program, or characteristics of the children is unknown. A more rigorous survey instrument should be developed for future assessments of student learning. Discussions with Consortium project staff as well as Lao PDR government officials indicate that

little or no follow-up has been conducted regarding training, the curriculum, or teaching methodologies. Insightful and informative suggestions and comments were made by officials during the course of this evaluation. This feedback should be reviewed and incorporated into the program to the extent feasible. However, little time currently exists between now and the next planned training session in August. Moreover, the results of the awareness survey have neither been shared nor discussed with the provincial education authorities. Tentatively, this is scheduled to happen in late July, a relatively short time before the training program is scheduled to begin.

Mr. Somchay, Deputy Director of the provincial DOE, has been the backbone of the program in Xieng Khouang. Without his tireless participation, it is doubtful that so much progress could have been made to date. Beyond his efforts, however, no real curriculum management or administrative structure exists. As long as Mr. Somchay remains in his position, there is little doubt that the program in Xieng Khouang will move forward. However, the program's success should not hinge on the strength of one man. Indeed, as plans exist to expand the curriculum to other provinces, a more formal management structure should be developed and empowered to make decisions regarding the training, curriculum, and follow-up and monitoring. At the same time, the project must be conscious not to develop artificial structures that will exist only as long as funding and Consortium oversight are present. Significant Laotian systems exist in areas such as monitoring and evaluation, and these should be tapped.

RECOMMENDATIONS

1. **Slowed Rate of Expansion:** The project, in collaboration with its partners, should review its planned rate of expansion. The curriculum and training program are still very new and require further development and refinement. Significant expansion at this early stage will promulgate a curriculum that has not yet been proved to be fully effective and strain the new systems proposed and developed.

Some expansion should nonetheless take place, as a continuation of the "testing" phase. Moreover, focus groups should be held to solicit feedback from both teachers and students. This information should then be integrated into a redesigned training.

2. **Provision of Technical Assistance:** The Consortium should participate more fully in the implementation and assessment of the hazard awareness education curriculum. Although the program should be Laotian-owned and -managed, Consortium staff should help the Laotian implementors think through and plan the entire process of the program.

In the areas of TOT and teacher training, closer collaboration is encouraged between the Consortium training staff and the provincial education authorities and trainers. The Consortium's strength, and a major reason why it was chosen to implement this program, lies in its participatory, student-centered teaching/training methodologies. Hence, the Consortium should be a more active participant in the training of trainers at the provincial level as well as in monitoring and assisting the trainers to effectively train at the district and school levels. Once the

trainers demonstrate effective techniques, only infrequent monitoring will be necessary.

3. UXO Curriculum Committee: A small yet empowered education committee should be formed at the provincial level and should meet regularly. The committee should include district, provincial, and training representatives and should plan training activities, address problems that surface, and review overall monitoring and evaluation. This group should base its agenda on the solicited feedback from the school and district levels. The committee is strongly urged to consider the following recommendations:

- The curriculum should be further tested and refined. Over the next several semesters, focus group discussions should be conducted with teachers and students at the end of the semester in order to assess the curriculum content and the appropriateness and effectiveness of the messages. Necessary changes should be incorporated before the next group is trained.
- Technicians from the district level visit each school approximately once a month as part of their normal duties to gather statistics and review school and teacher performance. Follow-up on the UXO awareness curriculum should be integrated into these visits. To do this without adding significant additional work, (1) technicians should attend the same training course that teachers under their purview will participate in and (2) a standardized, concise form (perhaps a checklist) should be developed to assist technicians in assessing the materials and methods.
- Teachers should administer an end-of-the-semester “test/survey” and the results should be reported, as for other subjects. While potential exists for teachers /schools to artificially inflate scores in order to make the class/school results appear high, this should not exist if schools adequately understand that: (1) this is not a matter of achieving an “A” or a “B”, but rather life and death; (2) low scores indicate that the curriculum is not achieving its intended results. This may mean we need to adjust the curriculum, provide additional training, develop more teaching material, or all of the above.
- The results at the end of the semester are then reported to the district, which in turn would report to the province. To the extent feasible, statistical analysis of results as well as functional analysis of student comprehension could be conducted at both the district and provincial levels. Comparison at these levels could provide insight into teaching methodologies between schools as well as possible differences amongst training of trainer approaches utilized in the different provinces.

LAO PDR POLICY AND PROGRAM OVERSIGHT

UXO/LAO

The Government of Lao established the Lao National UXO Programme (UXO/Lao) in 1996 to facilitate coordination of all UXO and mine awareness and clearance activities in the country. This followed the establishment of a trust fund in late 1995 with the assistance of the UNDP and UNICEF. In early 1996, a Community Awareness Technical Working Group was formed, and by mid-1996 a UXO/Lao Community Awareness Office had been organized and staffed.

The objectives of the Community Awareness section are to create a new awareness among rural communities of the continued danger of UXO and educate villagers on ways to minimize the hazard caused by UXO.

In 1997, the Community Awareness section of UXO/Lao developed the first national Community Awareness strategy. Of the nine key objectives set forth in the strategy, four are particularly relevant to the War Victims Assistance Project:

- Encourage the active participation of NGOs in the Community Awareness program of UXO/Lao.
- Establish two primary Community Awareness program components, one in the formal education sector and the other in the nonformal education sector.
- Coordinate with the Ministry of Education (MOE) to ensure the integration of community awareness messages into the national school curriculum.
- Design and produce Community Awareness materials for use in the formal education sector and the nonformal education sector.

The MOE, UXO Lao, and UNICEF work together to develop, coordinate and monitor UXO Community Awareness activities in Laos. The Consortium is one of many implementing partners for the UXO/Lao Community Awareness program, which include the Ministry of Information and Culture, the Lao Women's Union, multilateral organizations, international NGOs, and the U.S. Government (through training and in-kind assistance).

The Consortium was recently chosen to implement a six-month Community Awareness program for UNICEF. The project will extend the UXO curriculum, as developed by the Consortium and its partners, to schools in the UNICEF/MOE Teacher Upgrade Program and develop Community Awareness media (posters and comic books) to be designed by and directed toward children. Through the implementation of the Community Awareness curriculum, valuable information will

be provided for the development of a national curriculum to be designed by UNICEF and the Ministry of Education.

Both UXO/Lao and UNDP staff speak very highly of the cooperation, collaboration, and general management and implementation capabilities of the Consortium and the WVF project.

The U.S. Government and USAID

With the closure of USAID/Thailand's Regional Support Mission for East Asia (RSM/EA) in September 1996, responsibility for the management and oversight of the Consortium grant was transferred to USAID/Philippines. Through a unique and collaborative effort, monitoring support was offered to the "non-presence country" of Laos through a Bangkok-based field representative of TvT, an institutional contractor for the War Victims Fund. The representative has made quarterly monitoring trips to Laos. USAID/Philippines participated in one of the visits. It is planned that as USAID/Philippines becomes more familiar with these activities, and to the extent that the missions mandated downsizing allows, it will participate to a greater extent in these field visits.

The current arrangement provides a bridge between the formal USAID structure in Manila and the project in Laos. The relationship is cooperative and collaborative and provides adequate support and monitoring for the project. With a capable Consortium staff in-country, three to four field visits a year are sufficient. These visits will continue to be supplemented by regular e-mail, phone, and fax communications.

In addition to the relationship with USAID, the Consortium also works and collaborates with the U.S. Embassy in Vientiane. The USG is a major contributor of in-kind assistance and materials to the UXO Lao ordnance removal and community awareness training effort. These activities are closely allied with the project's work in Xieng Khouang.

Recommendations

- 1. Quarterly Reporting:** The project reports redundancy in some of the questions that outline the quarterly reporting format. The Consortium should express these issues to USAID/Philippines along with proposed format changes. In proposing changes, the project should keep in mind that USAID must maintain some standardization.
- 2. USG Interests:** The project must remain sensitive to the interests of the WVF in particular and the USG in general. U.S. Ambassador Wendy Chamberlain has been generous in her support for the project and should be kept abreast of its progress. The Embassy should be on the distribution list for quarterly progress reports and should receive periodic briefings by project management. Project inputs (material and otherwise) should be clearly noted as USAID contributions.

APPENDIX I
SCOPE OF WORK

Purposes of the Evaluation

The goal of this evaluation is to review the project's progress to date. The results of the evaluation (both support from some aspects and suggestions for improvement in other aspects) will be used as guidelines for activities in the second phase of the Xieng Khouang War Victims Assistance project.

Objectives of the Evaluation

1. To evaluate the effectiveness of the project's medical upgrade program in the areas of a) emergency services, b) surgical treatment and c) post-operative care at the province and two district hospitals. This is to assess how the medical training program has improved the emergency care received at the target hospitals. Also are these improved services sustainable within the hospital's resources?
2. To evaluate the appropriateness of hospital rehabilitation work and provision of medical equipment and how that has changed the ability to treat UXO patients.
3. To assess the impact of the UXO education program on school children.
4. To review the project process. This will include evaluation of the following:: 1) Lao government approval process; 2) project management issues; 3) local capacity building aspect; 4) local government's involvement/participation in the project; and 5) project sustainability.
5. In addition the team should look at how the Xieng Khouang War Victims Assistance fits into the Lao national policy in the area of emergency care and UXO Education work.
6. Determine if and how the work of UXO/Lao and the project could be better coordinated or otherwise linked to achieve increased effectiveness of both programs in reducing UXO-related accidents.
7. Are there ways that USAID can or should provide increased support or monitoring to increase or improve effectiveness and impact?

Time Frame for the evaluation June 30 - July 11, 1997

Jul 30-Jul 2 Arrival, orientation and meetings in Vientiane

Jul 3-4 Work in Xieng Khouang capital town (Phonesavan)

Jul 5-6 Work at Kham district

Jul 7 Work at Khun district

Jul 8-9 Work in Xieng Khouang

Jul 10-11 Work in Vientiane and departure

Method of Evaluation

It is important for the evaluation team to review this project in the Lao context and in particular in the Xieng Khouang context. Since there are not baseline data available and compilation of statistics is still in the early stages, much of the data gathering will need to be more qualitative than quantitative. It will need to be based on direct observation and interviewing of participants and cross-referenced. In many cases, hospital staff and administrators tend to talk of project inputs in a very positive way, emphasizing successes, and to de-emphasize problems that may leave them open to criticism.

Presentation of Findings

As stated above, the results of this evaluation will be used to modify the project activities in the second phase. The Consortium plans to integrate the findings of the evaluation into the Project Planning Workshops that are tentatively scheduled for the end of July in Xieng Khouang.

By the end of the evaluation, the team is responsible for a written report. This report needs to include a list of contacts including names, titles, institutional address, phone and fax number (if possible), and any relevant attachments such as questionnaires developed or used in the evaluation.

The report must be completed using Word Perfect 6.0 for Windows, and copies of the report must be submitted in hard copy and on diskette.

Evaluation Team

Consortium staff is not included on the list below but will be involved in all stages of the evaluation as requested by the team.

1. Manny Voulgaropoulos, medical aspects of the project.
2. Robert Horvath, WVF program monitor.
3. Representative of Lao Government (Ministry of Health.)
4. Independent Lao medical or public health specialist.
5. Translator.

Document Review

- Training and evaluation reports
- Evaluation reports from medical trainers (overall core training, surgery training, district level training, anesthesia training, nursing training,...)

- Review of training materials developed during the project period
 - a. Primary school UXO awareness text. Teacher's manual for primary school text.
 - b. Materials for surgery, anesthesia and nursing curricula.
- Review of other materials developed during the project period
- The evaluation team will also have access to and can review the following documents:
 - a. "Some possible levels / topics for evaluation" by Consortium project staff (Randall Arnst).
 - b. "Project Indicators" document developed June 1996.
 - c. Quarterly reports submitted to USAID.
 - d. Statistical information being compiled in collaboration with Province Health Department (which will still probably be in process).
 - e. Translations of evaluation vehicles which have been used - tests used in districts and province.
 - f. Survey in four schools in two districts of 120 students - baseline level of knowledge by Consortium project staff (Somsack) and Province Ministry of Education.

Discussions and Interviews with Collaborating Agencies and Individuals

Interview in Vientiane with appropriate staff from the National Rehabilitation Center

Interview with Dr. Somphit, Dr. Phouvang

Interview the Laboratory Staff trainers

Interview with the National Eye Center staff

Interview with Mahosot X-Ray Department

Interview with the staff from the Asian Development Bank: Dr. Alain Noel, Thomas D'Agnes

Field Evaluation

The strategy for this part of the evaluation will be developed by the evaluation team during the Vientiane meeting. Listed below are people who have been involved in the project and should be contacted:

A. Phonesavan

1. Staff from the Province Health Department.
2. Staff from the various departments of the Province Hospital: hospital administration, surgery, anesthesia, nursing, emergency room, revolving drug and supply fund.
3. ADB: medical director.
4. Department of Education: Dr. Somjay, selected teachers.
5. Province government administration: Vice-governor and representatives of project committee.
6. Mines Advisory Group

B. Khun District

1. Khun District Hospital Administration
2. Participants in the training program (2 physician assistants, 1 doctor, 1 nurse) and other nursing staff as available
3. District Office of Education
4. MAG staff

C. Kham District

1. Kham District Hospital Administration
2. Participants in the training program (2 physician assistants, 1 doctor, 1 nurse) and other nursing staff as available
3. District Office of Education
4. MAG staff

APPENDIX II
ITINERARY

The Consortium - Xieng Khouang, Laos Evaluation, July 1997

- July 5, cont. Meeting with Mr. Somdechay, deputy director of the Department of Education, Xieng Khouang, to discuss district visits as well as project status and impact to date
- July 6 Team returns to Vientiane
- July 7 Team meeting to discuss schedule during last week, report format, roles and responsibilities, and preliminary recommendations
- Team briefing for Consortium director and deputy director
- Meeting with Ms. Chuanpit Chua-oon, director of Consortium in Laos, to discuss project management, status, and impact
- July 8 Meeting with Mr. Thongdeng, deputy director of UXO/Lao, Ms. Amanda Bissex, director of community awareness activities, and Ms. Jenny Rauch, program officer, to discuss UXO/Lao mandate, status and plans as well as relationship with and to the Consortium program in Xieng Khouang
- Report preparations
- July 9 Report preparations
Team meeting to formalize first draft of report
- July 10 Team meeting to formalize first draft of report
- Meeting with Mr. Jeff Avina, resident representative of UNDP/Laos, and Mr. Grant Curtis, advisor, regarding the Consortium project in Xieng Khouang and potential WVF contribution to the UXO Lao Trust Fund.
- Evaluation debriefing with Consortium staff and Lao PDR government officials, including representatives from the Ministry of Health, National Rehabilitation Center, Mahosot Hospital, Xieng Khouang Department of Health, Xieng Khouang Friendship Hospital, and Xieng Khouang Department of Education
- July 11 Team meeting to discuss draft report writing
Team departs Vientiane

APPENDIX III
LIST OF PERSONS CONTACTED

Asian Development Bank - PO Box 2236, Vientiane, Laos; Tel: 856-21-214059; Fax: 856-21-214058

- Dr. Thomas D'Agnes, Health Management Advisor

Consortium/Laos - PO Box 5782, Vientiane, Laos, Tel: 856-21-214524; Fax: 856-21-213553

- Ms. Chuanpit Chua-oon, Director
- Mr. Martin Dunn, Deputy Director
- Mr. Somsak, Xieng Khouang Field Coordinator
- Mr. Sunthorn, UXO Education Awareness Coordinator

Kham District Department of Education - Kham District, Xieng Khouang Province, Laos

- Mr. Kamsang, Head
- Mr. Somphet, Vice Head
- Ajaan Buahum, Head of district primary school (#1)
- Ajaan Khamsao, Head of district primary school (#2)
- Ajaan Tongwan, Head of district primary school (#3)
- Ajaan Suraphu, Head of district primary school (#4)
- Ajaan Sumphorn, Teacher
- Ajaan Duang, Teacher
- Ajaan Hoo, Teacher

Kham District Hospital - Kham District, Xieng Khouang Province, Laos

- Dr. Khamsouk, Director
- Mr. Maiphone, Associate Director
- Dr. Bounpheng, Associate Director and Surgeon
- Auxiliary hospital staff

Khun District Department of Education - Khun District, Xieng Khouang Province, Laos

- Mr. Buathong, Vice Director
- Mr. Boonmee, Head of Technical Education Section, DOE
- Mr. Nui, Head of district primary school (#1)
- Mr. Boonsee, Head of district primary school (#2)
- Mr. Thongwan, Vice Head of district primary school (#3)
- Mr. Seepan, Teacher
- Mr. Khamphan, Teacher
- Mr. Gaew, Teacher
- Ms. Seethong, Teacher

Khun District Hospital - Khun District, Xieng Khouang Province, Laos

- Dr. Xaithong, Director
- Dr. Bounpheng, Associate Director and Surgeon
- Mr. Chanthi, Associate Administrator
- Ms. Phantali, Laboratory Technician
- Ms. Bounsou, Pharmacy Technician and Head of Revolving Drug Fund
- Mr. Khamsai, Mayor of Khun District

The Consortium - Xieng Khouang, Laos Evaluation, July 1997

- Auxiliary hospital staff

Mahosot Hospital - *Vientiane, Laos*

- Dr. Somphit Pathoumthony, Surgeon, Surgical Ward
- Dr. Phouvang, Anesthesiologist, Surgical Ward

Mines Awareness Group (MAG) - *208 Ban Sibounhuang, PO Box 4660, Vientiane, Tel: 856-21-222983; Fax: 856-21-217621; e-mail: mineslao@loxinfo.co.th*

- Mr. Sebastian (Seb) Taylor, Community Awareness Coordinator

National Rehabilitation Center - *Vientiane, Laos*

- Dr. Thongchan Thepsomphou, Director

United Nations Children's Fund (UNICEF) - *Boite Postale 1080, Vientiane, Lao PDR; Tel: 856-21-315203, Fax: 856-21-314852*

- Mr. Am Pathammavong, Assistant Project Officer, Education

United Nations Development Fund (UNDP) - *PO Box 345, Phon Kheng Rd., Vientiane, Tel: 856-21-213390, Fax: 856-21-214819*

- Mr. Jeffery Avina, Resident Representative
- Mr. Grant Curtis, Advisor to the Resident Coordinator

United States Embassy - *Vientiane, Laos*

- H.E. Wendy Chamberlain, U.S. Ambassador
- Mr. John Junk, First Secretary

UXO/Laos - *PO Box 345, Vientiane, Lao PDR; Tel: 856-21-415767, Fax: 856-21-415766*

- Mr. Tongdeng, Deputy Director
- Ms. Jenny Rauch, Program Officer
- Ms. Amanda Bissex, Community Awareness Coordinator

Xieng Khouang Provincial Department of Education - *Xieng Khouang Province, Laos*

- Mr. Somchay, Deputy Director
- Mr. Thongphet, Head of Formal Education Department

Xieng Khouang Provincial Department of Health - *Xieng Khouang Province, Laos*

- Dr. Bouasone, Director
- Dr. Siphone, Head of Technical Section

Xieng Khouang Provincial Friendship Hospital - *Xieng Khouang Province, Laos*

- Dr. Sommsavay, Director
- Dr. Boonxay, Deputy Director
- Auxiliary hospital staff

The Consortium - Xieng Khouang, Laos Evaluation, July 1997

Xieng Khouang Provincial Government - *Xieng Khouang Province, Laos*

- Mr. Khamkone Phayoudone, Vice Governor

APPENDIX IV
BIBLIOGRAPHY

The Consortium - Xieng Khouang, Laos Evaluation, July 1997

Xieng Khouang Provincial Department of Education, *UXO Education Curriculum and Teacher's Manual*, 1997.

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Consortium, *Xieng Khouang War Victims Assistance Project Progress Reports*, January 1996 to April 1997.

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Michael Qualls and Robin Ikeda, *Assessment of the Pre-hospital and Hospital Emergency Medical Services Available for Patients Injured by Ordnance in the Xieng Khouang Province of Laos*, Centers for Disease Control and Prevention, March 1996.

Dr. Somphit, *Evaluation Reports on District Health Training for the Consortium*, March/April 1997.

Dr. Ounkham and Dr. Phouvang, *Report of Anesthesiology Training for the Consortium*, February 1997.

APPENDIX V

XIENG KHOUANG HOSPITAL ORGANIZATIONAL CHART

Xieng Khouang Provincial Friendship Hospital

<u>Director of the hospital</u>			
-	-	-	-
-	-	-	-
-	-	-	-
<u>Adm.-Manag.System</u>	<u>Nursing System</u>	<u>Curative System</u>	
-	-	-	-
<u>Administration-Management</u>	<u>Nursing Committee</u>	<u>Inpatient</u>	<u>Outpatient</u>
-	-	-	-
-	-	-	-
<u>Sector</u>	<u>Sector</u>	<u>Sector</u>	<u>Sector</u>
-	-	-	-
Medical Administration	Internal Medicine I	Internal Medicine I	Outpat. exam
Medical Statistics	Internal Medicine II	Internal Medicine II	Laboratory
Financial and Management	Surgery	Surgery	Dentistry
Electricity-water	Gynecology-Obstetrics	Gynecology-Obstetrics	ORL
Vehicle	Pediatrics	Pediatrics	Physiotherapy
Hygiene	Emergency-ICU	Emergency-ICU	Pharmacy
Maternal and Child Health	Leaders	Leaders	X-ray
		Outpatient	Injection

Staffing

Type of Staff	1995	1996	1997
Medical doctors	13	12	14
Mid-level nurses	4	4	4
Medical assistants	23	18	17
Primary level nurses	35	26	25
Other technicians	12	16	16

APPENDIX VI
MEDICAL TRAINING PROGRAM

Medical Training Programs Offered in Xieng Khouang during First Project Period

Type of Training/ Site	Dates	Trainers	Trainees	Directed toward
1. Nursing internships/ Province Hospital	June - July 1996 (four two-week periods)	Province nursing staff	12 nurses from district hospitals	District nursing staff
2. Health Frontiers Wound Care Workshop/ Province Hospital	Late May 1996	Dr. Margie Persons (ex- patriate from US)	doctors, nurses from surgery staff	Province and district medical/ nursing staffs
3. Surgery, Anesthesiology, Nursing Workshops / Province Hospital	September 1996	Dr. Bounthaphany (surgery), Dr. Ounkham (anesthesiology), Ms. Meemala (nursing)	36 doctors, anesthesiologists, and nurses	Province staff
4. Core Curriculum for Surgeons & Anesthesio- logists/Province Hospital	October 1996 - February 1997	Dr. Somphit Dr. Phouvang	Surgery: 3 doctors Anesthesiology: 6 Other doctors: 5-10	Province, district staffs. Special province lectures once/week
5. Core Curriculum for Nurses / Province Hospital	October 1996 - March 1997	Ms. Meemala	9 province nurses 2 district nurses	Province, district staffs. Training in district hospitals in Jan. & March (Khun only)
6. Advanced lectures for Province staff (topics included emergency care, polytrauma, etc.)/ Province Hospital.	Two one-week periods in November 1996 and January 1997	Dr. Bounthaphany	About 15-20 doctors and nurses	Province staff
7. Surgery Workshop/ Province Hospital	One week in February 1997	Dr. Margie Persons Dr. Masahiro Morikawa	20 Province doctors and nurse, 6 people from the districts	Province doctors (although nurses and district staff joined in training)

8. First aid training for medical staff/ Province Hospital	End of February 1997	Dr. Favarel and Dr. Ounkham (CCL)	22 doctors and nurses - 16 province, 4 from M. Kham, 4 from M. Khun	District and Province staff
9. Pharmacy training/ Consortium Office, Phonesavanh	December 30 & 31, 1996	DPH, Province Hospital, CST staff	15 people (Pharm. nurses from Prov. and District Hospital, DPH staff)	Pharmacies at Province and District Hospitals
Type of Training	Dates	Trainers	Trainees	Directed toward
10. Laboratory training/ Province Hospital	March 1997	Dr. Vimone, Director of Mahosot Laboratory (administration) Dr. Rattanaphone and Dr. Phetsapone (Bacteriology) Dr. Kinnala (Hematology and Parasitology) Dr. Orlasin (Urology)	4 Province staff 1 person from Kham and 1 person from Khun	District and Province laboratory staff
11. Training of Trainers/ Vientiane	May 1997 under the auspices of JOVC	JOVC	Dr. Bounxai	Province
12. District training/ Khun and Kham district hospitals	March- April 1997	Dr. Somphit Ms. Meemala and Dr. Phouvang (March in M. Khun only)	40 participants at both M. Khun and M. Kham Continued on-the-job training at Province.	Districts Province surgery staff
13. First aid training for Province nurses / Province Hospital	End of May 1997 under the auspices of JOVC	Dr. Akkiko Bounxai (from JOVC)	30 Province nurses	Province

14. ADB sub-district health center training/ ADB training center in Phonesavanh	First session June 1997 Will continue with monthly sessions until all groups are trained	Dr. Barbara Bounxai	15 Sub-district health center staff. 70 health center staff will be trained altogether	Sub-district health centers
15. Traumatic eye injury training / National Eye Center, Vientiane	December 1996 - January 1997	National Eye Center in Vientiane	Dr. Xaithong (Khun) Dr. Bounsu (Province) PA Si Chan (Kham)	Province and Districts
16. X-ray training / Mahosot Hospital, Vientiane	March-April, 1997 and follow-up training May 1997	X-Ray Department at Mahosot Hospital	Mr. Vangsi	Province Hospital

APPENDIX VII
AREAS OF IMPROVEMENT

Areas of Improvement - Education and Improved Skills	
Province	
Core Curriculum for Surgery	Surgeons are able to perform more complicated surgeries (gastric ulcer repair, open reduction/ internal fixation, skin grafting, for example).
Core Curriculum for Anesthesiology	Province anesthesiologist (PA Sovanh) is able to function independently for general inhalant and ketamine anesthesia, endotracheal intubation. 2 anesthesia nurses and 2 district PAs received basic anesthesia instruction.
Core Curriculum for Nursing	Improvements in patient care, medication administration, dressing changes, problem solving, nursing administration.
Laboratory Training	1. Four Province Hospital and two District Hospital staff were trained, resulting in use of gram stains for diagnosing infection, use of reagents instead of chem strips for testing, more accurate diagnosis of malaria and other parasitic diseases. 2. Province doctors (both surgeons and general medical staff) have a better understanding of bacterial sensitivity and other considerations for antibiotic use and the indications for ordering various laboratory tests through two one-day courses offered during the laboratory training.
X-Ray Training	Better X-ray technique, more accurate positioning of patient for views, better film development quality.
Emergency Medicine	Somewhat better ability to respond appropriately. In a recent incident, where 6 people were admitted with gunshot wounds at the same time, these patients received timely care.
Administration	1. Some success with the Revolving Drug and Supply Fund. Essential medicines and supplies are available on the surgery floor (the medications are originally supplied through a private fund, not using USAID funds). 2. Monthly coordination meetings for medical aspects of the project, with representatives from Kham and Khun attending. 3. Working group for emergency room was organized, with some organizing of emergency room in January. 4. System of quality control checking in collaboration with Mahosot Laboratory in which slides of gram stains are sent to Vientiane monthly to check the accuracy of the diagnosis. 5. Start of discussion with Mahosot Laboratory director about collaborative ordering of chemicals to ensure continuity of basic supplies.
Ophthalmology	Improved assessment of eye injuries, mainly to determine what is minor and what needs to be referred to Vientiane. Ability to remove shrapnel though eye surgery is still limited.
Districts	
Surgery	More minor surgeries (suturing, abscesses) at M. Khun and better sterile technique. Treated a superficial gunshot wound in the leg at M. Khun.
Anesthesia	Local anesthesia (infiltration)
Nursing	Starting to organize ER and minor surgery rooms better. Starting to organize surgery/ emergency equipment into sterile packs.
Laboratory	Better interpretation of malaria smears. Ability to do gram stains.

Administration	<ol style="list-style-type: none"> 1. Revolving Drug and Supply Fund: Start of a system to maintain supply of essential drugs at the districts, particularly useful for War Victims Medical Fund patients and general surgery patients for ability to provide medications quickly in an emergency situation. 2. District staff representatives attend monthly coordination meetings. 3. Kham district hospital staff were very involved in construction of water supply, electricity and minor surgery, emergency room, and follow-up.
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Area of Improvement - Rehabilitation of Facilities

Province

General	Converted 30KW generators from 110 to 220 W and provided a step-down transformer so that donated DOD equipment could be used as well as being able to use the generators for the rest of the hospital.
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Kham District

ER/ Minor Surgery	Built a free-standing building, that was opened to use in February 1997.
Water supply/ electricity	Water system provided for existing well, including water tower, and pump; generator provided.
Other	Bathrooms built, since there were no facilities before.

Khun District

ER/ Minor Surgery	These rooms were retiled, along with the laboratory (though much of the work will need to be redone).
Water supply/ electricity	Water system, including well, water tower, pump and pump house; bathrooms fixed; generator provided.

Area of Improvement - Equipment/ major items

Province

Operating rooms	<ol style="list-style-type: none"> 1. DOD defense equipment for upstairs OR, which is now used for "clean" surgeries; DOD autoclave - all functional with conversion of generators. 2. Oxygen tanks and connector. 3. Dermatome.
Recovery Room	Oxygen tanks provided; waiting for suction machine.
Emergency Room	Otoscope/ ophthalmoscope, stethoscopes.
Laboratory	Centrifuge and essential laboratory chemicals.
Post-operative floor	20 sets of bedding; scale and height measure.
Communication	High -frequency radio to facilitate communication with districts.

District Hospitals

Emergency Room	Laryngoscope, blades, endotracheal tubes, blood pressure machines, stethoscope.
Minor Surgery	Minor surgery set; blood pressure machine; 2 oxygen tanks with flowmeters, tube, adult masks; battery-operated light source.
Sterilization	Autoclave, green towels for wrapping surgical packs, kerosene stove.
Communication	High-frequency radio for each district
Furniture	2 gurneys on wheels, cabinets, tables.

APPENDIX VIII
SUMMARY OF EXPENSES

No	Description of the activities	Expenses in the areas of the project goals			Remarks
		provincial hospital	Khun district hospital	Kham district hospital	
I	Technical upgrading				
1	Training of the nurses		\$197.70	\$197.70	
2	Training on emergency eye care	\$835.00	\$835.00	\$835.00	
3	Training on revolving fund management	\$47.17	\$47.17	\$47.17	
4	Training on X-ray	\$794.40			
5	Training on Surgery/Anesthesiology /Nursery	\$3,528.60			
6	Training on laboratory	\$950.00			
7	Training on first aid	\$827.53			
8	Training on emergency care and resuscitation	\$250.12	\$250.12	\$250.12	
	Total	\$7,232.82	\$1,329.99	\$1,329.99	\$9,892.80
II	Provision of medical equipment/furniture				
	a. Medical equipment				
	Surgical instrument	\$2,798.00	\$1,114.63	\$1,114.63	
	Equipment for emergency room	\$1,304.90	\$2,082.18	\$2,082.18	
	Equipment for recovery room	\$519.75			
	Equipment for laboratory	\$1,387.95			
	Equipment for sterilization room		\$352.62	\$352.62	
	Equipment for revolving drug fund	\$148.80	\$90.00	\$90.00	
		\$6,159.40	\$3,639.43	\$3,639.43	\$13,438.26
	b. Furniture				
	For emergency room		\$1,217.30	\$1,217.30	
	For operating room		\$2,146.15	\$2,146.15	
	Kerosene stove		\$21.00	\$21.00	
			\$6,747.90	\$6,747.90	\$13,495.80
III	Revolving drug fund/Supplies				
a	For general sale	\$210.80	\$99.30	\$99.30	
	For surgery and anesthesiology	\$190.20	\$20.85	\$20.85	

	For emergency	\$27.00	\$3.00	\$3.00	
		\$428.00	\$123.15	\$123.15	\$674.30
b	Supplies				
	General medical supplies	\$763.67	\$675.73	\$675.73	
	Laboratory supplies	\$489.96	\$459.64	\$459.64	
	X-Ray room supplies	\$168.60			
		\$1,422.23	\$1,135.37	\$1,135.37	\$3,692.97
IV	Fund for War Victim Assistance	\$150.00	\$50.00	\$50.00	\$250.00
V	Renovation, repairs, construction				
	Supplies for patient beds (mattress, mosquito net, bed sheet)	\$800.00	\$200.00	\$200.00	
	Repair of electricity/water system and laundry	\$1,802.99			
	Construction of operating/emergency room			\$21,506.40	
	Construction of bathroom/toilet			\$4,555.26	
	Renovation of emergency room/construction of water reservoir		\$3,722.87		
	Renovation of bathroom		\$298.80		
	Construction of drug well		\$455.00		
	Generator and installation supplies		\$1,691.50	\$1,756.50	
	Water pump and installation supplies		\$237.36	\$237.36	
	High-frequency radio and installation supplies	\$5,148.13	\$5,148.13	\$5,148.13	
	Cabinet for the radio	\$60.00	\$60.00	\$60.00	
	Shelves to store medicines			\$380.00	
	Installation of telephone and renovation of offices	\$1,275.20			
	Total for upgrading and renovation of hospitals	\$9,086.32	\$11,813.66	\$33,843.65	\$54,743.63
VI	Education and community awareness	Provincial education depart.	Khun district	Kham district	
	Writing manuals and student book	\$363.00			

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	Printing student books and teacher manuals	\$2,705.00			
	Community awareness UXO danger	\$2,089.00			
	Education materials for evaluation	\$250.00			
	Total expenses for activities	\$5,407.00			\$5,407.00
	Total expenses				\$94,867.86

APPENDIX IX
UXO AWARENESS TEST

UXO Awareness Test
(for students in primary level, grades 3,4 and 5)

name of school..... district....., Xieng Khouang

name of student..... age.....
grade.....

- check (✓) the box (G) if you think the answer is correct, and place an ☒ in the box if the answer is incorrect

1. What is a UXO?

- G a UXO is something that is dangerous for people and animals
- G a UXO is something that is useful and valuable to our lives
- G every type of UXO is dangerous
- G some types of UXO are not dangerous, and you can play with them

2. Where do you find UXOs?

- G UXOs can be found on the ground, in the ground, in water and on mountains tops
- G UXOs can only be found in paddy fields
- G in trees
- G in ditches and around former army camps
- G outside of your own house

3. What are UXOs capable of doing?

- G severely injure or kill people
- G maim people
- G can be used as a tool to earn a living
- G can be sold for income

4. Who is most likely to be have a UXO-related accident?

- G farmers
- G children/students
- G soldiers/police officers
- G anyone can have UXO-related accident

5. What are the main causes of UXO-related accidents?

- G by dismantling a bomb
- G by using a hoe to prepare fields
- G by playing with a bomb or bomblet
- G by weeding fields or cutting trees
- G by discovering a bomb along a path or in a field

APPENDIX X
CONSORTIUM STATEMENT

Background

The Consortium is a collaboration of three long-established US NGOs: Save the Children Federation/US, World Education, and World Learning Inc. (formerly The Experiment in International Living). The Consortium was formed in 1979 in response to the needs of refugees from Cambodia, Laos, and Vietnam who were en route to resettlement in the U.S. The Consortium Laos program was established in 1992 when the agency was asked to become an implementing partner with UNHCR in providing community development training and services to refugees being repatriated to new communities in Laos.

Over the past 5 years, Consortium Laos has invested heavily in training and development of its staff, which now includes four expatriate staff and 19 local personnel. Technical project staff have competencies in a wide variety of disciplines including nonformal education, women's development, income generation, rural water supply, primary health care and agriculture. All expatriate staff are fluent in the Lao language and have lived and worked in the region for many years. Consortium Laos has a proven administration and financial management capacity and is currently managing four grants from four separate donors.

Current Program

Project	Location	Description of Activities	Duration	Donor
War Victims Assistance Project	Xieng Khouang	upgrading of medical surgical and emergency services, UXO education and community outreach, local capacity building and coordination	Phase II - 6/97 to 9/99	USAID
Irrigation Project	Vang Vieng District, Vientiane	construction of Nam Xang, Pha Thao irrigation system, support for agriculture, clean water supply	Year 1: 8/96 - 7/97; Year 2: 8/97 - 7/98	UNHCR/US Department of State
Primary Health Care and Drug Demand Reduction Project	Nam Bak District, Luang Prabang	primary health care and opium detoxification inputs for returnees of Ban Phonemani and surrounding villages	1/97 - 12/97	UNHCR/US Department of State
Extension of assistance to repatriates	Nam Bak District, Luang Prabang	rural development, credit, and primary health care to returnees of Ban Phonemani and surrounding villages	6/97 - 12/97	Stichling Vluchteling (the Netherlands)