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Needs Assessment in Lao PDR

Jo Durham
MAG (Mines Advisory Group)

Needs Assessment in Lao PDR

This article describes the needs-assessment process and findings for mine-risk education in Lao PDR. Specific issues that arise are identifying those who are at risk, why they are at risk, and what can be done about it.

by Jo Durham [Mines Advisory Group]

Mine-risk education is an integral component of humanitarian mine action and, as with other HMA components, should be a planned intervention. A needs assessment—the process of systematically collecting and analysing information in order to identify who is at risk, why, and what can be done about it—is an essential precursor to programme planning and implementation. A good needs analysis can help programme managers develop appropriate, targeted and effective interventions that address the needs of the target populations. It is a crucial step in framing an appropriate response to risk reduction.

Recognising the importance of a needs-assessment in preparation for its new five-year strategy for the Lao People's Democratic Republic and based on an earlier Geneva International Centre for Humanitarian Demining evaluation, UNICEF commissioned Mines Advisory Group to undertake an MRE needs assessment in five provinces in the Lao PDR.

The assessment identified a number of subgroups that are at risk and helped bring into focus the myriad of contributing factors that influence behaviour. It highlighted the differences in the ways the mine-action "experts" and "laypeople" analyse risk, make decisions, and structure and solve problems in order to determine an appropriate response. The findings suggest that in a country such as the Lao PDR, where communities have lived with unexploded ordnance infestation for over 25 years, more traditional mine-risk education may not be what is required. What may be needed alongside traditional message-based interventions is a more holistic and pragmatic risk-minimisation approach, which may also require a collective paradigm shift in the way different stakeholders view UXO risk. Such methodology would help bridge the current gap between experts' and laypeople's opinions and result in more effective MRE. Alongside this risk-minimisation approach, a more complete, integrated style of UXO action and development will help address some of the underlying vulnerabilities of at-risk populations. The assessment also pointed to possible new directions for reaching women and children including integrating MRE into a broader life-skills approach and parenting guides.

Background to the Assessment

Lao PDR has the distinction of being, per capita, the most heavily bombed nation in the world.[1] As a result of intense ground battles and extensive bombing during the Indochina War,[2] especially during the years 1964–

Hidden threat: almost all people living in contaminated areas are potentially at risk of exposure to live ordnance.
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1973, there is widespread contamination of UXO, which continues to act as a barrier to socioeconomic development and causes death and injury to adults and children. These injuries can result in long-term medical and psychological after effects as well as a huge financial burden to affected individuals, families, their communities and health services.

The government of Lao PDR, with assistance from the United Nations Development Programme and UNICEF, established the Lao PDR Trust Fund for UXO in 1995 to finance a national programme of clearance and education. A National Survey on the Socio-economic Impact of UXO was conducted[3] and reported UXO contamination in 25 percent of all Laotian villages. The United Nations Development Assistance Framework for Lao PDR,[4] as well as other government and donor documents, identify UXO and the threat it continues to pose to both livelihood security and personal safety as cross-cutting issues in tackling poverty.

As with most other mine-action programmes, the Lao MRE programme aims to promote safety in UXO-contaminated communities and has been primarily underpinned by psychological theories of behaviour change, such as the Health Belief Model.[5] More specifically, UNICEF has supported MRE for children in several at-risk communities in 12 of the most heavily contaminated provinces. In preparation for its next five-year strategy, UNICEF commissioned MAG to undertake a risk assessment to ascertain who is currently at risk and why, as well as what can be done to mitigate the risk.

Methodology

The assessment took an eclectic approach to the risk assessment combining ecological approaches to health promotion and injury-prevention and risk-management approaches to environmental health. The study was also informed by the International Mine Action Standards (IMAS) Mine Risk Education Best Practice Guidebook 2, Data Collection and Needs Assessment for MRE[6] as well as the other IMAS for MRE Best Practice Guidebooks[7] and the UNICEF technical note Children Participating in Research Monitoring and Evaluation – Ethics and Your Responsibilities as a Manager.[8]

The assessment consisted of four main components: a literature review; development, testing and administration of a quantitative Knowledge, Attitude and Practice questionnaire; a qualitative assessment; and data analysis. An analysis of the available accident data was also used to inform the assessment, which was conducted by a MAG research team.

The KAP questionnaire was administered in five UXO-contaminated provinces. Multi-stage cluster sampling, probability proportional to size to determine the sampling size and random sampling to identify the sampling frame were utilized. The MAG research team analysed the KAP questionnaire using a statistical analysis software package, the Statistical Package for the Social Sciences (SPSS), and provided broad contextual information on a level of community UXO awareness, attitudes, behaviours, assessment of risk associated with certain behaviours, and how and where people gained knowledge about UXO.

The results of the KAP were used to develop qualitative survey tools then administered in two provinces. Using content analysis, the qualitative phase of the research enabled a better understanding of the individual circumstances, motivations and contributing factors which lead to voluntary or deliberate and unintentional exposure to live ordnance. It also allowed for a more detailed understanding of the range of contributing socioeconomic, psychological, cultural, political and legal factors that contribute to risk behaviours and exposure to live ordnance. Qualitative data was gathered from UXO operators—technical staff and programme managers using semi-structured and unstructured interviews to gain an "expert" perspective.

Findings

The assessment found overall a high level of UXO awareness and understanding among both adults and children. For example, 82 percent of the adult respondents indicated that no UXO is safe and provided a range of correct responses regarding common events that cause UXO to detonate—of the children surveyed, 99.6 percent considered UXO to be dangerous, with most of them reporting being afraid of UXO.

Despite these known risks however, many people, including women and children, reported continuing to interact with live or potentially live ordnance on an almost daily basis. Respondents rationally defended this apparent inconsistency, even though their view was often at odds with "expert"[9] views.

The assessment also found the general categories often used to characterize at-risk populations, that is, the uninformed, the unaware, the reckless and the intentional, were less relevant to the context of Lao PDR. Instead, the study distinguished between intentional exposure (i.e. voluntary) to live ordnance—where actors aware of the risk purposefully expose themselves to live ordnance—and unintentional exposure (involuntary). Voluntary exposure may include for example, moving an item of UXO to another location or tampering with ordnance for economic gain. Voluntary exposure included groups identified as high risk, for example:

- Adult scrap-metal collectors
- Adults who move UXO out of farming land
- Scrap-metal dealers
- Adults who deliberately dismantle UXO
- Children who collect scrap metal
- Children who play or tamper with UXO
- Adults and children who work on agricultural land
- Out-of-school youth and young children

Unintentional exposure. Unintentional exposure to UXO injury is when a person's exposure to live ordnance is unplanned and may include exposure due to inattention or lack of knowledge. While some of the prevention activities may be the same, intentionality is an important variable and particularly relevant in Lao PDR where UXO injury due to intentional exposure to live ordnance (for example through the deliberate tampering of ordnance for the scrap-metal trade) is known to be increasing.[10]

Involuntary exposure, such as exposure to sub-surface UXO while farming, is generally feared due to the lack of control people have over the situation. People have reported voluntarily exposing themselves to UXO—for example, removing items from farming land—in order to avoid possible unintentional exposure later. Contributing factors to involuntary exposure include the inability of clearance agencies to respond to the needs of farmers and a lack of alternative agricultural land. The following quote expresses a view shared by many and helps to illustrate the farmers' plight as well as highlighting the higher level of fear that surrounds involuntary exposure: "No clearance team comes and helps us, so even though it is not safe to move, when we find UXO this farming season we need to move them, otherwise the following year when we farm again we don't know where they are."

Intentional exposure. The assessment identified a number of perceptual, cognitive, pragmatic and economic market factors that informed respondents' rational defence of voluntary risk-taking behaviour. Respondents reported weighing benefits and costs of UXO risk activities compared with other household risks. A key household risk, for example, is basic food insecurity, which is often a motivating force in the decision to engage with, or at least potentially engage with, UXO.

In trying to meet basic needs such as food security, individuals and households also consider the costs and benefits of alternative income-generating options, sometimes preferring activities that may expose them to UXO, such as scrap-metal collection. Where other options had more perceived advantages than scrap-metal collection, however, people reportedly abandoned scrap-metal collection for alternative sources of income. Thus, while contributing factors of voluntary exposure to UXO were often rooted in poverty, it was rarely perceived by communities or individuals as the only option. More commonly intentional UXO risk-taking was found to be based on a rational decision-making process involving weighing the potential costs and benefits of a range of available options.

Fifty-two percent of children surveyed reported collecting scrap metal.

The most common ways in which people voluntarily expose themselves to UXO risk is through collecting or dealing in scrap metal, moving UXO from farmland and dismantling UXO. The following quote from one of the female respondents illustrates how contamination levels combined with the need to uphold basic food security and an insufficient UXO clearance response contribute to people deciding to voluntarily take risk: "I found more than 10 BLUs[7] in my new farming land. Each time I moved them into one place and kept farming as my family land is very small so I need to keep farming in that area."

Predisposing factors that contribute to high-risk behaviour include level of contamination of farming land, belief that some UXO are relatively safe to move, perceptions of safe behaviours and the desire to investigate metal-detector signals. Enabling factors include ease of picking up and moving UXO items, availability of metal detectors and inability of clearance agencies to respond in a timely manner to reports of UXO on farming land, UXO removal being sometimes perceived as the removal of a legitimate cash crop, and a certain level of social and parental acceptance of UXO risk-taking behaviour, even where a UXO incident may have economic and social consequences for families and communities. Reinforcing factors include food-security problems, which motivate people to engage in the collection of scrap metal, lack of alternative income-generating activities, price of scrap metal and lack of access to alternative farming land that is not contaminated with UXO.

A respondent stated, "I moved three bombies from the bottom of a bomb crater. When I was digging I hit one of the bombies so I slowly

picked it up and moved it out from the bomb crater to a nearby area. I was afraid when moving the bombie but I needed the money. In one bomb crater I could get 40 kilograms (88 pounds) of scrap metal." Currently, scrap metal is approximately 1,700 kip per kilo (approximately US$0.08/lb.[11]). Nearly all UXO contamination is in rural Lao where most people—about 80 percent of the population—are subsistence rice farmers and have limited options for generating a cash income if they stay within their communities and home base.

Almost all respondents who reported voluntary exposure to potentially live ordnance were able to provide examples of the risk-reduction strategies they took. These indigenous risk-reduction strategies are often at odds, however, with expert views of safe handling of UXO. Indeed, some respondents also recognised that their strategies might still result in injury and tried to learn more by watching village experts or surreptitiously observing UXO clearance teams to learn from the way they handle UXO. Scrap-metal collectors, including men, women and children using locally-procured metal detectors also had a number of risk-reduction strategies including the one described in the following statements:

- "I feel safer when digging, more confident that it isn't a UXO when I hear the small beeps."
- "The system of the detector is that if we find a small piece of scrap, we get a different sound; if we find a large piece of metal, we get a loud sound."

While a number of respondents were able to describe strategies they use for distinguishing between safe and unsafe ordnance, respondents identified accurate recognition skills as an area in which they felt they needed more knowledge, according to one scrap-metal dealer: "Without knowing it, I have bought many things from villagers—BLUs[12] with explosives, hand grenades with no pins, bullets, mortar shells with gunpowder inside."

The survey also identified a number of contradictions. For example, scrap-metal collection on the one hand is perceived as being potentially risky but on the other hand is not necessarily associated with accidents. This may be due to a cognitive coping strategy whereby the risk is explained away as being exaggerated or a belief that the person has the necessary skills to remain in control.

Conclusion

The assessment found UXO risk-takers, including women and children, are generally aware of the risk and engage in some form of risk-assessment process, which they use to make rational and deliberate decisions regarding acceptable risk. However, from other stakeholders' perspectives such as humanitarian mine-action experts, regulatory bodies, educators and decision makers, there are different views on acceptability and rationality of local risk-assessment processes. This conflict is largely about a divergent definition of risk, differences in how problems are structured and solved, differences in judgments about the probability of an accident, and different kinds of knowledge.

While awareness is an important prerequisite to change and ongoing awareness campaigns may be essential for children, the assessment did not identify it as a major determinant of risk behaviour. Focussing on traditional message-based approaches to MRE is likely to result in developing an intervention that does not address the major underlying determinants of behaviour. Traditional messages on expert-perceived positive behaviours common in MRE programmes may include "Don't touch UXO" and "If you see UXO, report it to a mine-action agency." However, this approach could result in MRE planners falling into the common pitfall of developing an intervention that does not address the major determinants of high-risk behaviour.

To be effective, the MRE programme will have to take into account the determinants of behaviour identified in the assessment. Such an approach may include life skills and communication training. It should also take into account the information and skill-development needs of at-risk communities as identified by respondents in this assessment. In this sense, it represents a paradigm shift from current "expert" HMA practice and message-based MRE. With its emphasis on standards, safety, technical expertise, and zero- or minimal risk, implementing such an approach, which actively engages high-risk populations and builds on current coping strategies and knowledge, is likely to be challenging. Such an approach will require a change from zero-risk to risk minimisation and recognition of the often valid risk-assessment processes and risk-reduction strategies indigenous communities employ. It may also involve a more meaningful and useful transfer of knowledge from experts to laypeople. As M. Worden[13] noted, speaking in the field of health promotion, even when it is known how to undertake successful prevention activities and the people are aware of the preventative tools, such interventions are often unpopular with policy makers, lobby groups, the public and even practitioners themselves. Recent examples of risk-minimisation approaches in HIV prevention like safe needle exchange and safe injecting practices may provide some insight into effective strategies in taking a pragmatic approach to UXO risk reduction.

As the assessment has shown, the complex milieu in which behavioural decisions are made calls for a shift to a risk-minimisation approach. A range of integrated interventions that aim to address the underlying vulnerabilities of UXO-affected communities is also needed. From this perspective, UXO contamination in Lao PDR requires a collaborative, multi-sectoral and multi-level response that includes a range of legislative and regulatory strategies, improved UXO clearance methodology and targeting of resources, skills training, MRE and an integrated approach to UXO action that enables the implementation of broader poverty-alleviation and sustainable-livelihood strategies. Such an approach will save lives, reduce injuries and promote economic growth and development, which in turn will contribute to addressing underlying vulnerabilities and reduce UXO risk.

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Jo Durham has worked in mine action for the last five years. She is currently the Country Programme Manager for Mines Advisory Group Laos.

Jo Durham
Country Programme Manager
MAG Lao
PO Box 4660
Vientiane / Lao PDR
Tel: +856 21 251 849
E-mail: magcpm@laopdr.com, durhamjo@yahoo.com
Web site: http://www.magclearsmines.org