

Mine Risk Education Materials Development Lao PDR

Literature Review



Prepared for UNICEF by

MAG and the National Regulatory Authority for the
UXO Sector in Lao PDR

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List of Abbreviations

CA	Community Awareness
ERW	Explosive Remnants of War
GICHD	Geneva International Centre for Humanitarian Demining
HIB	Handicap International Belgium
HMA	Humanitarian Mine Action
IEC	Information, Education and Communication
LYU	Lao Youth Union
MAG	Mines Advisory Group
MRE	Mine/UXO Risk Education
NRA	National Regulatory Authority for the UXO Sector in Lao PDR
PDR	People's Democratic Republic
UNICEF	United Nations Children's Fund
UXO	Unexploded Ordnance

1. Introduction

This literature review was prepared as part of the consultancy awarded to the Mines Advisory Group (MAG) in Lao PDR to develop new messages and materials for mine/UXO risk education (MRE). The review covers a background on contemporary approaches to health and safety promotion and their application to MRE, an overview of best practice concerning the development of MRE messages and a review of MRE and existing messages in Lao PDR.

Mine/UXO Risk Education is one of the five components of Humanitarian Mine Action (HMA), the others being: mine clearance and survey; stockpile destruction; survivor and victim assistance and advocacy. MRE comprises initiatives that seek to prevent deaths and injuries from landmines and UXO by promoting safe behaviour through information, education and communication. The first tools used to raise awareness for the prevention of accidents caused by explosive devices appeared following the Second World War, largely in the form of national poster campaigns. Following the wars in Afghanistan and Cambodia in the 1980s, new education programmes were developed to protect the populations at risk (Laurence, 1999:1), forming the start of MRE as the mine/UXO action discipline we know today.

In Lao PDR MRE faces particular challenges. During 1964-1973 more than 2 million tons of ordnance was dropped on Lao PDR from over 500,000 bombing missions. Many of the bombs dropped were filled with anti-personnel cluster bomblets (or “bombies” as they are known in Lao PDR) that were intended to explode on or shortly after impact. However, it is estimated that up to 30% of this ordnance did not explode (Sisavath, 2006:28), leaving a deadly legacy contaminating fifteen out of the seventeen provinces in the country. Every year it is estimated that more than 100 people are injured and killed by unexploded ordnance (UXO).¹ Often accidents occur in the course of daily livelihood activities such as farming or collecting forest products, with the exposure to the UXO being unintentional. However, recent studies (Moyes, 2005 and MAG, 2006) have shown that many people who are injured and killed by UXO are aware of the risk but due to poverty and pressing socio-economic needs intentionally undertake high-risk activities such as collecting and trading UXO for scrap metal. The prevailing local experience based on over thirty years of living with UXO (Holmes, 1999:2) often challenges the messages provided by community awareness teams, for example the assertion that all ordnance can be dangerous may contradict local experience that distinction can be made between items in different states. Communication and information dissemination in Lao PDR is further complicated by factors such as illiteracy, language barriers, remoteness, poor transport and social isolation.

The clearance of UXO may take many years in Lao PDR and for people who will continue to live in contaminated areas MRE can help them to protect themselves and negotiate the risks. Reduction of the risk of harm from mines and UXO can partly be addressed through behaviour change and MRE aims to provide individuals with the knowledge and attitudes to bring about this change.² As such, MRE is essentially a health and safety promotion activity, and so it is useful to undertake an analysis of contemporary approaches to health and safety promotion and their application to MRE.

¹ Lao PDR has yet to establish a comprehensive and systematic casualty surveillance system and accident figures are currently collected by UXO Lao, Handicap International Belgium and Consortium. The NRA Victim Assistance Unit is in the process of developing a victim information system.

² UXO clearance also plays a key role in risk reduction and development interventions can help to address risk activities driven by poverty and economic motivations.

2. Health and Safety Promotion and Mine Risk Education

A review of the literature shows two dominant paradigms in health and safety promotion.³ One is underpinned by the medical view of health and is focused mainly on individual behaviours and lifestyles. The approach taken in this model of health promotion has arisen from the fields of medicine and psychology, in particular socio-cognitive theories of behaviour. This approach has traditionally underpinned many MRE programmes. The second approach takes a broader view of health and tries to address structural issues such as the social, political and economic determinants of health. This approach has been influenced by the principles of the Ottawa Charter for Health Promotion (World Health Organisation, 1986).

Under the socio-cognitive theory of behaviour change the responsibility for behaviour change is seen to reside primarily within the individual and is influenced by several different factors. Some of these factors include:

The Rational Factor: People are expected to behave rationally if they have sufficient knowledge about something. If people know about the potential harm of unsafe behaviours and know how they can avoid harm, they are more likely to adopt a new behaviour.

The Practical Factor: People will practice the new behaviour if they feel competent in practicing the new behaviour.

The Social Network of Interpersonal Communication: People change their behaviour if they can associate with, and be supported by, others to share their behaviour. A member of a group is more likely to accept and follow a safe behaviour because other members are practicing that behaviour.

The socio-cognitive theories to behaviour change recognise that behaviour change is not a one time event, but is a process with people moving through several intermediate stages between behaving one way to behaving consistently in another way. A person's decision to change their behaviour depends not only on their own ability, but also on the extent to which the environment supports positive behaviour change. People are also more likely to accept and apply recommended risk reduction behaviours if they perceive themselves to be susceptible to a problem and if they feel the recommended behaviour change will not only reduce their susceptibility to the problem, but that the changed behaviour will bring about other benefits that will be at least equal to the effort expended in adopting the new behaviour.

Research has shown that shows that an individual will take preventive health action based on the interaction between four different types of beliefs as shown in the Figure 1 below (Nutbeam & Harris, 1999), thus behaviour change is a complex incremental process, influenced by existing values, norms, and emotions.

³ Extracts for this section are largely sourced from the 2006 MAG/UNICEF [UXO Risk Education Needs Assessment](#).

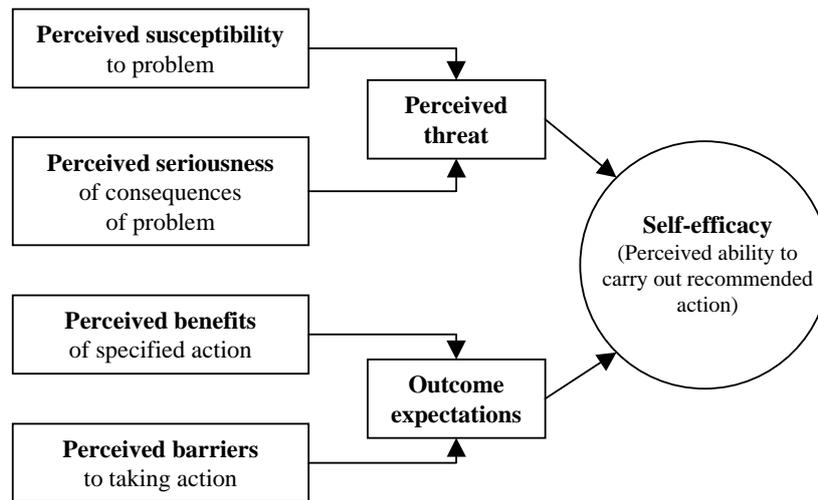


Figure 1—Preventive Health Action Process

Under the socio-cognitive paradigm, causal factors for unsafe behaviour are seen to be located primarily within the knowledge, attitudes, skills and beliefs of the individual. This places the main responsibility for change on the individual, and developing and disseminating culturally specific educational materials has been a key part of the strategy to promote safe behaviour (Durham, 2006:78).

There are, however, limitations to these socio-cognitive theories: first, they are focused primarily on the individual. Secondly, while it is true that an individual can exert some control over their behaviour and their immediate environment, they are not completely free agents. People may for example, suffer injury or death as a consequence of someone else's behaviour, or through the physical environment in which they live or the social environment in which they behave.

The second approach stems from systems approaches, particularly socio-eco systems models. Essentially, this approach recognises that for individuals to be able to sustain behaviour change the broader socio-economic environment also has to support this change. It highlights the need for a multi-sector approach to first raise awareness and then develop solutions and promote sustained change. Bandura (1977) points out that we do not suddenly begin to do something we have never done before; we learn and weigh the benefits of doing it or not doing it, we look around to see if anyone else is doing it. If it seems socially acceptable, valuable and practical, then we may apply it. This doesn't happen in a vacuum, but in a dynamic relationship with different societal external factors. The economic, social and political environment has to enable and reinforce risk avoidance behaviours.

Haddon (1980) incorporated these other non behavioural factors in the Haddon matrix which applied epidemiological principles to injury. More recently a systems approach to safety has been taken. This approach focuses on the milieu in which individuals behave and tries to make changes in the system. From this perspective, an injury event is rarely the result of an isolated behaviour error on the part of an individual, but is rather a combination of weaknesses in the system, triggering events and behavioural errors.

UNICEF Bosnia and Herzegovina (Lisica & Srnić 2005) applied a risk assessment model to analyzing UXO/mine risk which also takes into account the environment, economic conditions and public safety, human behaviour, social impact and economic impact. UNICEF developed a number of matrixes based on level of threat, level of impact and level of risk to develop a risk register and plan interventions. The matrixes are used to develop a picture of at risk groups which is followed by a SWOT analysis to further define at risk communities and devise appropriate interventions.

Green and Kreuter's (1999) social ecological model of health promotion also places health and safety within the context of the whole ecological system and provides a useful paradigm for understanding risk. The framework has been successfully used to better understand risk taking with UXO and landmines by establishing three main classes of contributing factors (Powell, 2001:58 and Moyes, 2004:176):

- *Predisposing factors*: The knowledge, attitudes, beliefs and values and the perceived needs and abilities. The predisposing factors may be psychological or related to the skills and resources people actually have. This can include the belief that they have the necessary skills to dismantle a UXO, or the belief some UXO are easier than others to handle.
- *Enabling factors*: Factors that facilitate the performance of an action. These may include the availability and accessibility of resources and the presence or absence of various social or environmental factors that make it more or less difficult to actually undertake handling ordnance. It could include insufficient reporting of UXO, the existence of a scrap metal trade, the lack of alternative income generation activities.
- *Reinforcing factors*: Consequences of action that determine whether the actor receives positive or negative feedback for an action. These factors may be positive or negative in effect and may include physical consequences, social support, peer influences, social and economic benefits. It could include a lack of fines or sanctions imposed on high risk activities or an increase in the price of scrap metal.

Based on this review of health models it is clear that any approach to UXO injury prevention and safety promotion needs to embrace a range of strategies which target not only individual behaviour but also communities as well as socio-economic, policy, legislation, environmental and technological interventions. Nevertheless, awareness and education remains a prerequisite for change and its importance in UXO risk reduction should not be underestimated. In mine/UXO programmes, communication and education can be used to raise awareness of the UXO threat, promote safe behaviour among people who are already aware of the threat, or may specifically target communities that have been identified as being particularly high risk due to the presence of a number of socio-economic and environmental indicators. Key to carrying out MRE effectively and strategically is careful targeting in terms of messages, media, population and communicators and an awareness of the broader socio-economic environment and the possibilities for integration with other mine/UXO action and development activities.

3. Messages and Media

MRE is about communication and communication is the process of sharing information and meaning. It is important to have a communication strategy that is based on the communication processes, techniques and channels that are most appropriate for the targeted audiences. Different communication processes and channels will reach different age and sex groups depending on the social, economic, political and geographic context.

UNICEF Vietnam (2002:16-17) outlines 4 principles for a successful communications strategy:

- **Focussed**: The target audience(s) must be clearly identified and sub-divided. The message content must be specific to each target group and to the purpose of the communication intervention.
- **Reinforcing**: The message content must be reinforced by being consistently delivered to the target audiences through different channels of communication.
- **Attractive**: The materials must be attractive in design, colourful, well presented, clear and entertaining.
- **Simple and sustainable**: The approaches used should be low cost so that production can be reasonably sustained.

3.1. Messages

Generally MRE practitioners stress the importance of messages being clear, simple and repetitive as people need to hear or see the same information reinforced through different channels. While the messages communicated will depend on the target audiences, the behaviour to be promoted and the factors likely to influence target audiences to adopt the desired behaviour, good messages should generally avoid simply stating “do not”. If these messages are used they should be accompanied with explanations explaining and helping to rationalise the reasons why. GICHD/UNICEF (2005:25) provides the following pointers for effective messages:

- Reinforce positive factors
- Address misunderstandings and areas of deficient knowledge
- Address attitudes
- Demonstrate the benefits of the behaviour being promoted
- Urge specific action
- State where to find the services being promoted
- State where to find help, if needed
- Address barriers to action

The problems faced due to UXO contamination require different messages compared to landmines. GICHD (May 2003:9-10) outlines some of the main points relating to the dangers specifically posed by UXO and ERW:

- Injuries and deaths can take place at a distance from the explosion. Depending on the ordnance involved, the danger area can vary from a few metres to several hundred metres.
- Items of UXO are generally more powerful, and therefore more lethal, than anti-personal mines
 - The power of the explosion and fragmentation effect often results in the death or injury of more than one person in the same accident
 - UXO incidents result in a greater proportion of deaths compared to incidents involving mines (mines are generally designed to maim, not kill)
- When UXO accidents do not involve deaths, they typically result in severe wounds.
- ERW are generally found on the surface and are therefore more visible, which can result in a higher interaction of people with ERW than with mines.
- But ERW can also be found sub-surface where clearance can be particularly difficult, for example, aircraft bombs can be found buried up to several metres.
- The fear of UXO is generally lower than the fear of mines, possibly because they are usually more visible than mines. This can increase the risk.
- ERW are unpredictable and can be detonated at any time under a variety of stimuli, by pressure, by hit or kick or simple touch.
- Unlike mines, UXO is an explosive ordnance that has failed to operate as designed, and only rarely is it possible to identify the reason for this failure.

Depending on the situation, MRE programmes should raise knowledge and awareness of groups at risk and/or provide information which allows people to change behaviour and look for alternatives.

Causes of Accidents	MRE to Provide Information
People are not aware of UXO/mines.	For people to know about UXO/mines.
People do not know the safest behaviour to	For people to know what to do about UXO

practice around UXO/mines. They may be aware but do not have the appropriate knowledge to avoid accidents.	and mines and how to behave.
People are aware of UXO/mines and they know how to minimise the risks mines pose, but they are still practicing high-risk behaviour.	To allow people to find alternative solutions. To help people to change their behaviour.

Source: GICHD, May 2003:20.

GICHD (2003:30-31) and Handicap International (2001:33-41) have provided guidelines on key messages and information that should be provided to affected communities. These messages fall within ten main groups, as follows:

- Basic safety messages
- How to recognise mines and UXO
- What are the effects of mines and UXO
- Profiles of risk taking behaviours
- Areas liable to be contaminated
- Warning signs and clues indicating contaminated areas
- How to protect yourselves and others
- Marking and reporting procedures
- Myths/misconceptions
- What to do in case of an accident

While these key messages can help to guide the process for MRE message development, ideally the messages will need to be adapted to the particular context and to the needs of the particular target group. In particular, there will need to be an understanding of the motivations behind any high-risk behaviour in order to address it effectively through MRE materials. As Wilson (1997:27) notes, “methods and approaches to persuading typically focus on getting a public to pay attention to a message, accept it and retain it. Yet the methods fall short if they do not address motivating behaviour.” In Lao PDR this is an important consideration when addressing the risk taken by scrap metal collectors and dealers for economic gain. As Moyes (2004:131) notes, “many children handling ERW items are motivated at least in part by possible financial gain – that is something rarely represented in MRE materials.”

Messages can be communicated through the spoken word, through pictures or through the written word. Even if messages are delivered in pictures or sound, the basis for any good communication activity is a good script.

The important qualities of good writing for communication are (GICHD/UNICEF, 2005:26)

- Use simple, everyday words and ideas
- Be concise
- Use terms “normal” people can understand
- Make it attractive and interesting
- Make it relevant
- Be culturally aware

In Lao PDR these demands are complicated by the number of different ethnic groups and languages⁴, the low levels of literacy and the lack of written script for languages other than ethnic

⁴ Lao has an ethnically diverse population of around 5.2 million. According to the official 1995 population census there are 47 different ethnic groups in Lao PDR although unofficially the number of ethnic groups is thought to be nearer 230.

Lao. While pictorial images may allow materials to be understood without the aid of the written word, care has to be taken to ensure that artists will draw designs which rural people can interpret. Visual literacy among people from remote communities may differ from our own expectation and levels of observation and interpretation that we often take for granted. As Burke (1999:29) points out, “perspective might not be understood and conventions like ticks or crosses can be meaningless to many.” An evaluation conducted in 2000 (Delneuve, 2000:12) found that during field visits many villagers reported that they could not understand the community awareness messages and further Holmes (1999:16) found that in Xieng Khouang province there was a wide lack of understanding of the red cross drawn on images, particularly in communities further from the main transport routes or market towns. Villagers respond more to material, either visual or oral, that has been adapted to reflect the particular circumstances of their ethnic group and location. Holmes (1999) found that illustrated posters were received with less comprehension and lucidity than photographs which appeared to have immediate visual impact.

Many MRE messages unintentionally stigmatise UXO accident survivors, depicting life with disability as severe. While it is important to stress to people that physical and emotional effects of a UXO accident will be strong, it is also important to show that a UXO survivor can still be a productive member of society. As Delneuve (2000:18) stresses, it is important to depict danger messages about the effects of UXO accidents on a person without stigmatising a UXO survivor and other persons with disability.

Opinions have been divided over the use of graphic images showing the aftermath of a UXO accident. In Lao PDR in the late 1990s MAG and the UXO Lao Community Awareness (CA) teams were using photographs which showed in graphic details people who had been killed and injured in UXO incidents. Following a number of negative comments from communities, the CA teams withdrew the pictures and an evaluation was conducted to try to gauge the response and feelings of local people to these images. The evaluation found that the villagers interviewed generally accepted that the images were a valid form of an illustrated warning concerning the dangers of UXO (Holmes, 1999:12), but that such strong materials were not suitable for using in an unregulated way. In addition there would need to be certain ethical guidelines to accompany their use, particularly in terms of respecting the identity of the image subject and gaining agreement from family members, and MRE staff would need training to ensure they could use the materials sensitively and effectively.

Delneuve (2000:20) mentions that UXO Lao teams were using cap explosives during their drama and puppet shows, and that although children remembered the performance, it was the BANG they remembered and not the safety message. Delneuve felt that “the use of fear can ‘frighten’ children so much that they are unable to absorb the safety message.” Although the use of fear to promote behaviour change has not been researched extensively in Lao PDR, the general consensus is that fear appeals are unlikely to result in any long term, sustainable change (Witte, 1999).

3.2. Media

A communication strategy is a combination of methods and approaches by which to achieve the communication objectives such as an improvement in knowledge levels or change in behaviour. Messages need to be reinforced through different channels of communication. GICHD (2004:7) identifies four main categories of media that can be used for MRE communication:

- Person to person: Direct contact between the communicator and the audience allows for questions and answers and clarification of meaning which can help to ensure mutual understanding.
- Small media: Small media can include posters, cassettes, leaflets, brochures, slide sets, flip charts, flash cards, T-shirts and badges and are useful to support larger communication initiatives or to illustrate interpersonal communication

- Traditional media: Performance arts that are used to illustrate and convey information in an entertaining way. This can include drama, puppetry and traditional forms of theatre.
- Mass media: Mass media includes community, national and international radio and TV as well as newspapers, magazines, billboards, cinema or other media where a large number of people can be reached with information without personal contact. Normally mass media provides indirect, one way communication, although community radio could allow for discussion on issues between the broadcaster and the target audience.

While the same messages can be repeated in different media forms, it is important to define which channels are the most likely to reach the intended target groups. Also important is that the media will allow for clear understanding and people will trust it as a source. The table below, adapted from (Burke, 1999:47) illustrates the generalised benefits and drawbacks of different kinds of media.

Generalised benefits and drawbacks of different media (from Burke, 1999:47)

	Potential to reach poorest	Participatory potential	Potential no. of people reached	Cost effectiveness
Leaflets, news sheets etc	+	+	++	+
Face to face meetings	+	++	---	-
Video	-	+	+	---
TV	---	---	++	---
Audio cassettes	+	-	+	-
Radio	++	+	+++	++
Slides etc	-	-	-	-
Posters	+	-	+	-
Theatre/puppetry	++	++	++	++
Email/internet	---	++	++	++

+++ Most likely to be applicable

--- Least likely to be applicable

Face to face communication is one of the most effective means of promoting behaviour change, although it is limited in terms of cost effectiveness and the potential number of people that can be reached. However direct communication between educators and target groups can provide highly relevant information with strong credibility, it can afford opportunities to discuss sensitive or personal topics and allow for immediate feedback on ideas, messages and practices. But it is time consuming, high cost per person/contact, typically reaches only a small number of individuals and demands practical skill training and support of field workers. In Lao PDR, differences in language and ethnicity can create a barrier between MRE message givers and villagers, or at least severely weaken the communication (Delneuve, 2000:13). While formal channels of communication, such as village meetings, tend to be a one-way, “downwards” form of information sharing, they can act as a gateway for programme communicators to reach the informal networks at the household and individual levels (UNICEF, 2002:17). Respected community people such as elders or village leaders can also be encouraged and trained as local level communicators as they tend to be literate and have high status in the community.

Small media can provide accurate standardised information in a handy and re-usable form that can be used as visual aids in workshops, discussions and teaching. They can easily be distributed to areas where mass media may be less likely to reach, although if they are used in isolation they have limited impact. According to GICHD (2004:25) posters can look attractive but have been found to be the least effective medium of communication for development, particularly among the poor and with those who have limited literacy skills. To be utilised fully posters must have a

specific purpose and by carefully integrated into communication activities. They can be designed, for example, to support a key message and to promote easier understanding of messages during person to person communication sessions. Often local people like to use posters to decorate their homes or work places, and so if the message is clear they can be effective as an ongoing reminder of a message. However, among many of the non-literate highland populations of Lao PDR, it is important to ensure clarity of the visual imagery which can then help to stimulate discussion. Reliance on written text will limit the number of people the message will reach.

Live entertainment has long been used in development as a way of encouraging behaviour change. By making the message entertaining large crowds can be drawn to see characters facing the problems and practicing the solutions. Although essentially a top-down form of dissemination, it can encompass participatory aspects and give the audience greater control so that they can explore their own realities. Because of its high visual and oral content, drama is a medium that is suitable for illiterate communities and can often be an appropriate method to bring sensitive subjects into the open. However, it can also be prone to trivialising a serious topic, stereotyping groups of people or being too enjoyable to produce a clear message that will help to engender a change in behaviour (Burke, 1999:55). Drama is often a one-off event, and although it can attract large crowds, its message may be short-lived without further follow up. In Lao PDR traditional approaches such as songs and dance may build on the desire of ethnic groups to maintain their cultural identity and to use familiar, entertaining methods. Developing such medium requires time and experienced facilitators to work with local communities.

While television is widely regarded as the world's most powerful media, it is not always appropriate for MRE for the simple reason that many people living in contaminated areas do not have access to electricity or a television set. TV can convey images and ideas in clear and visually striking ways and popular formats like soap operas can ensure a good audience for health promotion spots. While spots can be repeated regularly, it is very much a one-way form of communication. TV is quite an expensive media form and it largely excludes the poorer, marginalised communities who are often the most affected by mine or UXO contamination. Nielsen et al (2003:59) conducted a survey of media access and use in the provinces of Luang Prabang and Savannakhet and found that while TV was widespread, the penetration of television was much higher in the urban than rural areas due to better socio-economic conditions, access to electricity and better reception. Many communities with access to Thai television reception also seem to prefer watching Thai programmes rather than those offered by Lao TV. Delneuville (2000:22) also believes that the language, dress and mannerisms portrayed on television may convey social status so that targeted villagers would fail to identify with the message.

Radio is believed to reach a wider audience than any other medium. In 1999 Burke estimated that there were 94 radios per thousand people in the least developed countries, 10 times the number of TVs (Burke, 1999:69). Radio builds on aural/oral traditions and can stimulate the imagination better than radio or TV. Radio receivers are widely available and comparatively cheap, allowing it to reach people isolated by language, geography, conflict, illiteracy and poverty. While essentially a one-way form of communication, community radio can allow for a more two-way dialogue and radio listening can also be encouraged as a group activity with educational issues discussed after the broadcast. In Afghanistan, MRE volunteers used the BBC radio soap opera "New Home, New Life" as a focus of discussion sessions to talk about risk behaviour. Each volunteer was provided with a small radio to carry to MRE sessions in their target areas. However, like TV and theatre, radio is a transitory medium, and information may not be retained without follow-up. This again illustrates the importance of combining mass media with small media and person-to-person communication to ensure messages are reinforced and retained. Koch (2006) conducted a survey in Luang Prabang and Savannakhet on the reach of radio with very positive results. He found that radio is the only media device that most people have in their households and that it was reaching a good proportion of people who are not Lao speakers. He concludes, "radio is the most widespread medium in Lao PDR. Two thirds of all households have a radio, and in rural areas radio is the only medium with high penetration." Delneuville (2000:21) also agreed that radio is one medium with the most potential for reaching numbers of

people, both literate and non-literate. During a recent field visit (NRA, 2007) the radio station in Xieng Khouang province reported that it was able to have a broadcast coverage of 75% of the province and that certain programmes were broadcast in three languages, Lao Loum, Hmong and Khamu.

With all mass media it is important to know the target audiences preferences for programming style and listening/viewing patterns. This can vary substantially between women, men and youth and will often reflect where they live, their level of education, their occupation and their economic situation.

3.3. Roles and Responsibilities

Once MRE materials are developed it is important to have a clear strategy in terms of the roles and responsibilities of the different players in promoting, reinforcing and supporting behaviour change. This could include having legislation that supports mine safe behaviour or supporting communities to establish frameworks of what is and what is not considered acceptable and responsible behaviour in their villages.

Central coordination bodies such as the National Regulatory Authority in Lao PDR can ensure that messages and communication approaches are co-ordinated within the sector and that the use and impact of materials and messages is monitored and continually improved. The NRA can also help to develop broader strategies for reducing UXO risk which will complement and strengthen MRE strategies, including the development of legislation, improving roving response for clearance of spot UXO and reinforcing links with developing agencies to address the poverty and underlying vulnerabilities that lead to intentional risk taking.

Governments and their officials play important roles in successful behaviour change. If the local government is enthusiastic and involved, it is possible that local communities will notice and act accordingly. Authorities can help to provide an environment that supports safe behaviour around UXO – this could include enforcing legislation that supports mine safe behaviour or involving local or national political support and engaging actors such as the police. Local government, religious and community leaders can support mine-safe behaviour by promoting it within the community and by establishing local policies and regulations.

MRE field workers are usually responsible for conducting either “road show” awareness activities or community liaison in which the passing on of MRE information may be a key part. Sometimes these activities may take on the form of one-way communication similar to a lecture. While this method is frequently referred to disparagingly as “chalk and talk”, it is often the most common educational process in the developing world (Filippino, 2004), and may help to put people at ease and establish a certain amount of respect and authority which can give more weight to the messages. However, MRE programmes generally have moved towards more participatory approaches, which encourage local people to identify their problems and to undertake problem-solving exercises facilitated by the MRE field workers. These approaches help to better engage people in the issues by encouraging dialogue and analysis and highlighting individual and community responsibilities. Participatory techniques can include child to child techniques, focus group discussions and PLA activities. These approaches are particularly useful for settled communities facing a long-term contamination threat and exhibiting high-risk behaviours. MRE materials can be a part of this type of approach.

Communities should play the most important role in MRE as ultimately the responsibility for community behaviour should reside with the communities themselves. Communication initiatives themselves benefit from design procedures that include major inputs from the end user to help make the material more appropriate. If priority is placed on eliminating high risk behaviour, then it is vital that channels of communication involve those at risk. People need to be engaged from the beginning and supported to promote a mine safe environment. Discussions about the development of materials and messages with community groups, school teachers and community leaders and the inclusion of community ideas and needs will help to encourage

community engagement, the first step in behaviour change. Training community educators can also have a far reaching impact and can be relatively low cost. Community educators have advantages over MRE professionals in that they have a more constant presence in a community and can provide information and education in appropriate local languages and using culturally appropriate methods. However, problems may be encountered in that local people may pay less heed to information being passed on by an “insider” rather than an “outsider” and regular support may be required to maintain quality and clarity of information and the motivation of the local educator. But without establishing that communities themselves are responsible for managing ordnance handling behaviour, the MRE sector risks reinforcing and perpetuating dependency on outside assistance.

4. MRE Approaches in Lao PDR

4.1. Background to MRE Activities

MAG started its first HMA activities in Laos in 1994 with data gathering teams who collected initial information on the broad scope of the UXO problem to inform operations and Community Awareness (CA) teams. The CA teams were mobile teams that conducted week-long village visits, during which they used a range of techniques to gather qualitative data on the impact and motivators of risk taking behaviour and disseminated awareness messages to the villagers. These teams were the precursor to the current UXO Lao CA teams.

In February 1996 the Lao National UXO Programme (UXO Lao) was established as the first government structure in the area of humanitarian clearance. The first UXO LAO community education teams in the Lao programme were trained by personnel from a military psychological operations unit and the programme was primarily based on the premise that, by providing information and thereby increasing knowledge, targeted individuals would adopt low-risk behaviours. This model was then incorporated into the model being developed by MAG, who subsequently handed over all operations to UXO LAO. The UXO Lao community awareness teams are mobile teams, generally composed of 6 people, who have the responsibility to visit villages in contaminated districts. Usually staying for one week in each village, the team disseminate safety messages through community meetings, household and school visits using posters, silk screens, songs, videos, games and sometimes puppets and drama. On the last evening, a review in the form of a question and answer session, drama and puppet skits, songs and traditional Lao dancing is held. The teams also use historical video to highlight the cause and origin of the bombing and subsequent UXO contamination.

The CA team members are very competent in the work they do and are experienced performers, but while the activities and games do involve members of the community, they tend to lack the depth of involvement required to promote real engagement in the issue. The drama, puppetry and videos often simply disseminate messages rather than providing the opportunity for reflection, analysis and discussion as implied in a participatory approach. Although some members of the CA teams speak some of the ethnic languages, or are themselves from the minority ethnic groups, many of the materials and songs are in the Lao ethnic language.

The one-week CA visits cannot provide longer-term support and risk reduction strategies for local communities, and some of the more remote and highly contaminated areas are difficult for the CA teams to reach on a regular basis. To try to address these shortcomings, in 2003 the CA Unit developed a pilot project to train villagers to become UXO Lao CA volunteers in their villages. The village volunteer training is an approach that hopes to encourage local communities to take on responsibility for UXO awareness and reporting and that can provide ongoing MRE in local communities. The use of village volunteers is also expected to be a more cost-effective and sustainable option to the current mobile team structure and can help to address some of the language problems that the CA teams sometimes encounter, as the volunteers are able to pass on risk reduction messages in their own local language. While there has been no evaluation of the approach to date, initial problems identified by UXO Lao include the fact that villagers lacked

experience in passing on these types of messages to their peers and it is difficult for UXO Lao to provide the volunteers adequate ongoing support. However, the project is continuing and volunteer networks have also been set up in other provinces. Handicap International Belgium has also been developing a community-based approach to MRE in Savannakhet province, training village volunteers in MRE safety messages and reporting to clearance and victim assistance operators.

While the model originally developed by MAG has continued to be used by UXO LAO, MAG has moved to an approach known as Community Liaison. In Laos these are mobile two person teams who work with communities to identify and prioritise land, undertake risk assessments and work with communities to develop safer risk reduction strategies. MRE is a part of the work of the CA teams, although currently this is done through dialogue without materials. The local people recruited by MAG to undertake vegetation cutting before clearance also receive some training on UXO issues and risk education messages, which they may informally pass on to other villagers.

World Education/Consortium supports the Ministry of Education to implement a UXO supplementary curriculum in primary schools, covering grades 1-5, with 10 lessons for each grade. The programme concentrates on trying to use an activity-based student-centred approach whereby the teachers use questions, visual materials, activities, songs and group work and relate teaching and learning to daily life. The programme uses three MRE posters, one depicting the main types of UXO, one representing a painting of the war and the third showing five dangerous activities. They also use posters which have been drawn by children. The emphasis is very much on helping children to think through issues, why activities are dangerous and how problems can be solved. The programme currently works in 9 provinces and 33 districts.

From 2002-2005 UNICEF supported the Lao Youth Union (LYU) to implement the Sport in a Box project. Aiming at children living in contaminated areas the project promoted the idea of safe play alternatives combined with community education about the dangers of UXO. The project produced child-developed materials and activities for in-school and out-of-school youth, and developed safe play areas and activities in the community. The project was centred on the process of training volunteers in the village to facilitate drama, games, songs and other activities for children incorporating safety messages about UXO. The activities had the advantage of being conducted in appropriate ethnic languages, although the relevance and interest of activities was questioned by an evaluation (Maslen, 2005:19),

Radio station broadcasts have also been used for MRE messages in the past, with spots broadcast in different languages where appropriate. In Champassack in 2001 for example, the local radio station with UNICEF funding was broadcasting 12 spots between 9 and 9.30 every Wednesday and Sunday morning. As well as spots, the radio station held radio quiz shows in villages and transmitted a question and answer show in which listeners were invited to send in answers. Similar programmes were also used in other provinces including Luang Prabang, Khammouane and Xieng Khouang.

To date, messages tend to have been centrally developed, mainly by UXO Lao, and given to operators for dissemination. Messages have also been developed through the Ministry of Information and Culture (drama and puppetry), the Ministry of Education (provincial curriculum) and the Lao Youth Union (Sport in the Box). While messages do include “don’t touch UXO”, many of them do aim to promote safe practice and include recognition of suspect items, actions on finding a suspect item – not touching, marking and reporting to authorities - and give advice and safety precautions to follow when digging, burning land or making domestic fires. The utility of some of these messages has been questioned as they are often impractical and difficult to implement (Sisavath & Durham, 2002). Villagers for example, will often say the ground is too hard or too heavy to use a shovel and so continue to use their *saem* (pick). In 2006 UXO Lao developed some new posters touching on the scrap metal issue. The main message of these posters is that scrap metal collection can be dangerous and illustrations show people using

local metal detectors to hunt for scrap. A red cross over the image denotes that people should not do this activity, although without further explanation it may not be clear for what reasons.

Consistent with the risk avoidance /zero risk tolerance concepts which permeate the work and discourse of the HMA sector, all of the messages stress the non-negotiability of the danger of all UXO regardless of anecdotal history or appearance. This, however, often goes against the reality of people's collective beliefs – formed through over 30 years of living with UXO – which has taught them that some items can be moved from one place to another without detonating.

4.2. UXO Risk Education Needs Assessment

Despite over a decade of Humanitarian Mine Action in Lao PDR, there is no comprehensive nationwide UXO injury surveillance system. Nevertheless it is possible to identify some trends in injury rates. Immediately after the cessation of hostilities in 1975 there was an increase in injury rates which is most likely explained by people returning to their villages and a revival in agricultural activities and reconstruction. Increases in casualties in 1985 and in the last few years can be explained at least to a large part to increases in participation in the scrap metal trade where a large proportion of scrap metal comprises war scrap. People in Lao PDR have always collected scrap metal, but recent risk can be linked to the use of metal detectors, establishment of metal processing facilities, an expanding cash economy, and more UXO being sub-surface and so more difficult to find. Moyes (2005:9) notes that the actual cause of accidents is often related to the following activities:

- Danger of digging into items of live ordnance when investigating a signal
- Opening items and rendering them safe – removing explosives for sale, fishing, hunting
- Sacks of scrap being moved and thrown without checking the contents for dangerous items

While MRE alone cannot change this type of high-risk behaviour, particularly when it is economically motivated, it can be used as a supplement with high risk populations to identify appropriate levels or standards of risk and/or ways of mitigating risk.

In 2006 an UXO Risk Education Needs Assessment was conducted by MAG and the LYU, with support from UNICEF. The assessment confirmed that the presence of UXO is ubiquitous in many provinces and that the voluntary and deliberate exposure to live ordnance is a habitual and routine practice despite the many known risks. While contributing factors to voluntary exposure are often rooted in poverty, intentional UXO risk-taking is often found to be based on a rational decision-making process involving weighing up the potential costs and benefits of a range of available options (Durham, 2007). Voluntary exposure may include moving items of UXO from farmland or from areas where children regularly undertake daily activities. Other forms of voluntary exposure are often driven by economic imperatives, for example collecting scrap metal using a locally purchased metal detector. All sectors of affected communities are at risk, although some groups have been identified as being particularly high risk, especially those people engaged in the scrap metal trade. Children are also actively involved in scrap metal collection, often carrying out this activity with family members. UXO accidents often result in serious and long term injuries with physical and psychological impacts.

Unintentional exposure to UXO is when a person's exposure to live ordnance is unplanned and may include exposure due to inattention or lack of knowledge. This 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. The risk assessment noted that people sometimes voluntarily exposed themselves to UXO – for example, removing items from farming land – in order to avoid possible unintentional exposure later. Subsistence rice farmers and lower socio-economic groups with limited livelihood options living in contaminated areas were also found to be at risk, particularly when there was inadequate clearance provision.

The assessment noted that current messages are well received and understood but primarily target generic, at risk populations and are not specifically targeted at particular high risk groups, such as scrap metal collectors. Further, current approaches often fail to adequately provide realistic and feasible alternatives or solutions to high risk behaviour, or develop community resilience and sustainable coping strategies.

In terms of addressing risk exposure, the assessment suggested two approaches:

- A risk avoidance approach, based on traditional MRE and suitable for children or people with low/medium risk behaviours and those able to act on risk avoidance messages
- A risk minimisation approach, which, building on existing coping strategies is useful for high risk groups and those people unable to act on risk avoidance messages.

While the assessment recommended a move away from the standard, message-driven approach of MRE to an approach based on skill development, community involvement and risk minimisation, it did still recognise that MRE materials and messages can also assist in the process of promoting risk avoidance (for children or people with low/medium risk behaviour) and risk minimisation (for high risk groups and those unable to act on risk avoidance messages).

Strategies identified to reduce the risk to children included:

- Targeting of secondary groups who can influence children
- Parenting skills based on UXO awareness and parental responsibilities
- Peer group educators for parents
- Targeting of older children as peer educators for younger children

Strategies identified to target adults involved in scrap metal collection included:

- Identifying what is safe and unsafe to collect
- What to do if a UXO is found
- Messages focused on digging and safety precautions

References

- Bandura, A. 1977. Social Learning Theory. Upper Saddle River, New Jersey: Prentice Hall.
- Burke, Adam, March 1999. Communications and Development: A Practical Guide. London, UK: DFID
- Delneuveville, Amy, 2000. UNICEF Supported UXO Awareness Education Activities in Lao PDR: External Evaluation. Vientiane: UNICEF
- Durham, Jo. 2006. From Interventions to Integration: Mine Risk Education and Community Liaison, in *Journal of Mine Action*, Issue 9.2., pp.78-80
- Durham, Jo. 2007. Needs Assessment in Lao PDR, in *Journal of Mine Action*, Issue 11.1.
- Filippino, Eric M. 1998. The Effectiveness of Mine Awareness Programmes for Children. in Radda Barnen (Swedish Save the Children). 1998. Mine Awareness for Children: A Discussion of Good Practice.
- Filippino, Eric M. 2004. Mine Risk Education, in The Landmine Action Smart Book. Mine Action Information Centre, James Maddison University, pp.32-39
- GICHD, May 2003. Explosive Remnants of War (ERW) Warnings and Risk Education. Geneva: GICHD
- GICHD, March 2004. A Guide to Improving Communication in Mine Risk Education Programmes. Geneva: GICHD.
- GICHD, October 2005. An Evaluation of UNICEF-Supported UXO Risk Education Projects in the Lao People's Democratic Republic. Geneva: GICHD.
- GICHD/UNICEF, November 2005. Public Information Dissemination: IMAS Mine Risk Education Best Practice Guidebook 4. Geneva: UNICEF
- Green, L. and Kreuter, M.W. 1999. Health Promotion Planning: An Educational and Ecological Approach, 3rd Ed. California: Mayfield Publishing Company
- Hanbury, Clare The Child to Child Approach, in Radda Barnen (Swedish Save the Children). 1998. Mine Awareness for Children: A Discussion of Good Practice.
- HI, 2001. Mine Risk Education Implementation Guide. HI: Lyon, France
- HIB, November 2006. Community Based Mine/UXO Risk Education Training Program: Community Volunteer Guidelines. HI: Vientiane.
- Holmes, Jim, April 1999. Report for the Mines Advisory Group: The Use of Injury Photographs in Community Awareness Activities: The findings and analysis from field testing completed in Xieng Khouang Province, Lao PDR. Vientiane: MAG
- Koch, Wolfgang, 2006. Most Important Results, Conclusions and Recommendations on Two Radio Audience Research Projects in Luang Prabang and Savannakhet in 2006. Vientiane, UNICEF
- Laurange, Hugues, 1999. Tools for MRE in Mozambique: Capitalisation. Maputo, Mozambique: HI

Lisica, Darvin and Vukovic Suzana Srnić, November 2005. Mine Risk Education for Mine Affected Communities: Guidelines for Risk Assessment and Planning in Bosnia and Herzegovina. UNICEF Bosnia and Herzegovina

MAG, October 2006. UXO Risk Education Needs Assessment, Lao PDR. Vientiane: MAG, UNICEF, AusAID, LYU, CDC

Maslen, Stuart. 2005. An Evaluation of UNICEF-Supported UXO Risk Education Projects in the Lao People's Democratic Republic. Geneva: GICHD.

Moyes, Richard, August 2004. Tampering: Deliberate Handling and Use of Live Ordnance in Cambodia. Phnom Penh: HIB, MAG and NPA.

Moyes, Richard, August 2005. A Study of Scrap Metal Collection in Lao PDR. Geneva: GICHD, UNICEF, AusAID

Nielsen, Poul Erik; Khoun Sounantha; Wasserman, Eric, June 2003. The Listeners Talk Back: A Baseline Study of Media Access and Media Use in Luang Prabang and Savannakhet, Lao PDR. Lao National Radio and Danicom (SIDA).

NRA, June 2007. Minutes from NRA TWG MRE Workshop, 6th June 2007. Vientiane: NRA

Nutbeam, Don and Harris, Elizabeth. 1999. Theory in a Nutshell: A Guide to Health Promotion Theory. USA: McGraw-Hill.

Powell, Bruce. November 2001. Community Landmine/UXO Awareness Education in Cambodia: A Guide to Using Participatory Approaches to Plan, Monitor and Evaluate Mine/UXO Risk Reduction Education. Melbourne: Macfarlane Burnet Institute for Medical Research and Public Health.

Sisavath, B. and Durham, J. 2002. In Depth Study, Boulapha District, Khammouane. Vientiane: UXO Lao

Sisavath, Bounpheng. 2006. UXO Lao's Fight: Claiming the Future, in *Journal of Mine Action*, Issue 9.2., pp.28-29

UNICEF, 2004. A programme of Mine Risk Education: Danger – Beware! Land Mines and UXO: Mentor's Guide. UNICEF

UNICEF, 2002. Effective Information, Education and Communication in Mountainous Populations of Viet Nam. Hanoi: UNICEF

UNICEF, 2001. Sport in a Box: A Project for UXO Safety Education in the Lao PDR. Vientiane: UNICEF & LYU

Wilson, J. L. 1997. Strategic Program Planning for Effective Public Relations Campaigns. 2nd edition, Dubuque, Iowa: Kendall Hunt.

Witte, K. 1999. Evaluation of Risk Messages: Witte Report Theory-Based Interventions and Evaluations of Outreach Efforts.

World Health Organisation. November 1986. Ottawa Charter for Health Promotion. Ottawa: WHO