

CAMBODIAN MINE ACTION AND VICTIM ASSISTANCE AUTHORITY

# Evaluation of Mine Risk Education in the Kingdom of Cambodia



A MRE evaluation on behalf of Cambodian Mine Action and Victim  
Assistance Authority, October 2008

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### *Acronyms*

|       |   |
|-------|---|
| CMMA  | Cambodian Mine Action and Victim Assistance Authority |
| CBMRR | Community Based Mine Risk Reduction                   |
| CBURR | Community Based UXO Risk Reduction                    |

|        |   |
|--------|---|
| CL     | Community Liaison                       |
| CMAC   | Cambodian Mine Action Centre            |
| COMBI  | Communication for Behavioural Impact    |
| CRC    | Cambodian Red Cross                     |
| CMVIS  | Cambodia Mine Victim Information System |
| DoEYS  | District of Education Youth and Sports  |
| EOD    | Explosive Ordnance Disposal             |
| HIB    | Handicap International Belgium          |
| IEC    | Information Education and Communication |
| IMAS   | International Mine Action Standards     |
| KAP    | Knowledge, Attitude and Practice        |
| MAG    | Mines Advisory Group                    |
| MAPU   | Mine Action Planning Unit               |
| MoEYS  | Ministry of Education Youth and Sports  |
| NGO    | Non-Government Organisation             |
| PLA    | Participatory Learning and Action       |
| RR     | Risk Reduction                          |
| SOS    | Spirit of Soccer                        |
| TOR    | Terms of Reference                      |
| TWG    | Technical Working Group                 |
| UNICEF | United Nations Children's Fund          |
| UXO    | Unexploded Ordnance                     |

### ***Glossary***

This glossary provides a definition of key evaluation terms as used in this report.

***Evaluation*** is a systematic examination of a program, or aspects of a program, that aims not only to describe or analyse the present program, but also provide data that can be used to make decisions about the future of the program. Evaluations may also be undertaken to test the assumption that the intervention is contributing to solving the problem that has been identified as well as helping to better understand how to tackle a certain problem.

***Impact*** a lasting or significant change in program beneficiaries lives (positive or negative) as a result of a program's actions and activities.

***Indicator*** a signal that show progress or otherwise towards objectives; a means of measuring results. Indicators can relate to outputs, outcomes and impacts.

***Program*** or ***project*** is taken to mean an attempt to put certain policies or ideas into action by dedicating resources to a specified purpose and by creating roles of responsibility, a management structure and a form of organization and a timeframe in order to implement reform or innovation to promote learning.

***Outcomes*** results of a program relative to its immediate objectives can be an indicator towards impact.

***Outputs*** refer to tangible program products.

## **Evaluation of the Mine Risk Education Program in the Kingdom of Cambodia**

### *Executive Summary*

#### ***1.0 Introduction and background***

Mine Risk Education (MRE) has been implemented in Cambodia since 1993 with the aim of encouraging people to adopt mine/UXO risk avoidance behaviours to prevent mine/UXO injuries. Mine Risk Education is coordinated by the MRE Unit of the Cambodian Mine Action and Victim Assistance Authority (CMAA) and implemented through both government and non-government service providers. Key service providers are the Cambodian Mine Action Centre (CMAC), Cambodian Red Cross (CRC), CARE, The HALO Trust, Handicap International Belgium (HIB), Mines Advisory Group (MAG), Ministry of Education, Youth and Sports (MoEYS), National Police, Spirit of Soccer (SOS) and World Vision Cambodia.

Initial activities in the immediate post conflict phase, were primarily message based and focused on providing awareness and knowledge of the mine/UXO threat to returnees. Information was usually disseminated through the mass media and mobile teams promoting awareness of the different types of mines/UXO, the danger they posed, and the steps that could be taken to avoid or minimize the risk of accident.

In the immediate post conflict period, civilian mine/UXO casualty rates were particularly high and between 2000 and 2005 remained fairly constant. In 2006 and 2007 however, a significant drop in incidence rates was observed. The “Study on the Dramatic Decrease of Mine/UXO Casualties in 2006 in Cambodia” (Bottomley, 2006) found the decline in injury rates could be attributed to a number of reasons including increased awareness, increased food security and ongoing de-mining of highly impacted areas. Improved harvest was also identified as key factor. This evaluation builds on this study and hopes to inform the forthcoming revision of the national MRE strategy and help prioritise the increasingly limited resources available to the sector.

The Mine Action Technical Working Group decided at its meeting in January 2008 to conduct an external evaluation of MRE activities under the coordination of the National Mine Risk Education Technical Working Group (MRE TWG)<sup>1</sup> lead by the Cambodian Mine Action and Victim Assistance Authority (CMAA). The evaluation was funded by UNICEF with technical support provided by the members of the MRE TWG. One of the main aims of this evaluation is to “to inform and guide the review and development of the MRE approaches and strategies of the next MRE cycle”. The evaluation also aims to help in prioritising the increasingly limited resources available to the sector.

In discussions with the MRE Technical Working Group, the main evaluation questions emerged as:

- (i) What approaches to MRE are likely to be the most effective in the current context?
- (ii) What are current monitoring and evaluation systems and how can they be strengthened?
- (iii) What actions and support are required to prepare for a transition to national management of MRE?

The main objectives are to:

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<sup>1</sup> This should not be confused with being one of the 18 technical working groups established by the Royal Government of Cambodia. This term MRE Technical working group however is the term used in the CMAA reference documents and so is the term used throughout this report.

- (i) Provide recommendations of the most effective MRE approaches in the current context based on stakeholder interviews, analysis of injury data and the literature
- (ii) Provide recommendations for strengthening and developing results based monitoring and evaluation system
- (iii) Provide recommendations on actions and support required to enable a transition to national management of MRE

The emphasis of the evaluation therefore was primarily to identify appropriate future strategies and activities.

## ***2.0 Methods***

The evaluation reviewed the current MRE program over a period of two months between September and October 2008. For the purposes of this evaluation, it was felt that qualitative methods were the most appropriate. The initial stages of the evaluation included a literature review and using a semi-structured interview guide, interviews were conducted with a range of stakeholders including donors, service providers and regulators. The evaluator also drew on the UNICEF MRE Guidelines for Best Practice (Evaluation). Following these activities, the evaluator spent 2 weeks in the field, conducting in-depth and focus group interviews with program recipients and service providers.

### ***2.1 Limitations***

Heavy rainfall prior to village visits meant that selection of data collection sites at the village level was dependant to a large extent on access and it was not possible to include some of the more remote villages, where the situation may be different. Collecting information from multiple sites and sources, however, triangulation has been achieved. Returning to key stakeholders to get feedback on findings and results has also strengthened credibility.

### ***3.0 Structure of the executive summary***

The remainder of the executive summary first provides an overview of the reasons for mine/UXO injuries and provides a platform for evaluating the effectiveness of MRE. This is followed by key findings and key recommendations under each of the three evaluation questions.

### ***4.0 Situational Analysis***

While not a specific part of the TOR, an analysis of injuries and their direct and indirect causes was undertaken to better understand mine/UXO risk, identify general trends and appropriate MRE interventions. This highlighted that as Cambodia has progressed along the conflict- immediate, post-conflict stabilisation -reconstruction-development continuum, both the direct and indirect causes of mine/UXO injury have changed. For example, in the immediate, post-conflict stabilisation period, when people were returning home, direct causes of accidents were often a result of unintentional contact partly due to low awareness of the threat. The most pressing need in this phase therefore, was seen as informing people of the threat and providing basic information to help identify and avoid coming into contact with mines/UXO. Based on this, the MRE response was a large scale media campaign using a range of Information, Communication and Education (IEC) material including print, mass and traditional media aiming to reach large numbers of people and provide them with the knowledge to minimise risk. Coverage was broad rather than targeted at specific populations or specific behaviours. This was appropriate given the context at the time and was effective in raising awareness and concern for the problem.

As the situation progressed from immediate, post-conflict stabilisation period to early reconstruction phase, casualties were mainly civilian with approximately 800 reported casualties per year between 2000 and 2005. The direct and indirect causes of mine/UXO injury and risk behaviours were also different compared to the immediate post conflict phase.

In the early reconstruction phase, a key priority was access to land. In this phase, informal de-mining was widespread and a frequent cause of mine injury. Indirect causes of injury included the inability of mine clearance to keep pace with demand, increased pressure to return land to productive use and large numbers of demobilised soldiers with few livelihood options but some professional experience in dealing with mines. In addition, a global increase in the value of scrap metal contributed to people collecting and trading in war scrap. In the early reconstruction phase therefore, deliberate contact with mines/UXO was common (see Bottomely, 2003 and Moyes, 2004 for a more detailed discussion of this phase and appropriate responses).

As Cambodia has moved further into the reconstruction phase, the situation and response has again changed with a significant drop in reported mine/UXO casualties over the last two years. Informal de-mining and deliberate tampering, while continuing in some areas, is more localised and less prevalent. A number of reasons help to explain this including increased awareness, better risk management skills, increased clearance and improved access to land and food security. In one focus group it was reported that *'Apart from awareness raising, there has been lots clearance so people can go to cut woods and bamboos in areas which have been cleared already. Secondly, people have many livelihood options now. In the past, there were not many work opportunities. Thirdly, there are some NGOs providing assistance to enable high risk people to have livelihood option'*.

The introduction and dissemination of the Law on the Management of Weapons, Explosives and Ammunitions and increased monitoring scrap metal yards, linked with a more responsive EOD service has also been effective in reducing the demand for war scrap. According to one participant, *'there is a law banning mines and UXOs trading. The sellers dare not to sell and the buyers dare not to buy. We even dare not to keep them in our house'*.

While intentional handling of UXO, especially among adolescent males, is still reported as an issue and some people may move UXO to a perceived safe place, involuntary contact through routine livelihood activities is still one of the main reasons for accidents. Indirect causes of accidents are increasingly recognised as a result of livelihood issues and there is a general consensus that lack of awareness is no longer a major determinant of mine/UXO injury. Initial indigenous coping strategies have also evolved into more effective risk management strategies, described by participants as 'common sense'.

A key at risk group is boys and adolescents males and injury rates among these groups are not decreasing at the same rate as adults. Out of school youth maybe particularly vulnerable and often these are children who also migrate with their parents in seek of work opportunities. The International Women's Development Agency (IWDA) are planning with World Vision a more in-depth analysis of this which should also provide recommendations on appropriate strategies.

MRE service providers, coordinated by CMAA, have responded to the changing situation with a range of strategies. Direct MRE activities are still essentially awareness raising however with a focus on risk avoidance. The main strategy is information dissemination, targeting a broad target population although some specific risk behaviours have been incorporated into the messages. The approach has also been broadened to include an integration of MRE messages into the school curriculum, advocacy for and dissemination of legislation on the Law on the Management of Weapons, Explosives and Ammunitions and integrating MRE into wider Mine Action and community based livelihood activities.

Community Liaison (CL), Community Based Mine Risk Reduction (CBMRR) and where MRE staff live and work in target areas also provide more detailed, local knowledge and have strengthened linkages with clearance operations and Mine Action Planning Units (MAPU).

A key strength of the CBMRR approach is that it also leaves a volunteer with detailed information within the village. It also uses a District Focal Point who is embedded in the local government and generally seem accepted as credible sources of information by their particular communities. The CBMRR network is also seen by external stakeholders as a source of good and reliable information regarding mine/UXO related information. For example, where a CBMRR network exists, other service providers generally use the network although in some cases parallel networks have been established depending on agency specific criteria. An important factor in sustaining the volunteer network, however, is that benefits need to be seen to accrue to the volunteers. These are not necessarily financial benefits but can also relate to improved status for example, and being seen to bring services to the community. If the approach is expanded therefore, there will also need to be a corresponding capacity to respond to community requests generated by the CBMRR network. This is seen as a key factor in ensuring on-going relevance and credibility is the allocation of sufficient resources to address the prioritised needs of the community.

To sum up, the MRE sector in Cambodia has been remarkable in adapting its response to the different phases. Overall, coverage has been good with the most affected areas targeted. The program has also been effective in raising awareness and knowledge of risk avoidance strategies. Messages while relevant in the early stages of the program are less relevant in the current context and need some revision to ensure they are more contextually specific. Impact is harder to assess and it is difficult to gauge the extent to which MRE has resulted in changes to the reduction of mine/UXO risk taking behaviour. Lessons learned from other behavioural change programs and the underlying reasons for accidents, suggest that while MRE may provide the necessary awareness, knowledge and concern for the problem – the first steps in behaviour change - a more targeted and cross-sectoral approach based on principles of Communication for Behavioural Impact (COMBI) will be needed to change behaviour.

A key challenge for the sector will be to continue to demonstrate a flexible approach as Cambodia moves into a more traditional development phase. In this phase, as the target group becomes smaller, a more targeted behaviour specific approach, rather than simply awareness raising will be needed to encourage the up-take of less risky behaviours and/or risk minimisation behaviours. MRE should also increasingly be integrated into wider development and clearance interventions with the ultimate aim of mine/UXO risk being perceived as a cross-cutting issue, integrated into overall safety strategies and managed by existing local government structures. This is a key strength of the CBMRR approach which could potentially be expanded to aid the transition to national ownership. As a more integrated approach is pursued, it will also be important to integrate MRE information with a central CMAA database. Information in the database should be also be accessible and disseminated to stakeholders. It will also be important to monitor the situation east of the Mekong as these areas are opened up for development and people migrate there for work. Currently, while the actual number of accidents in these areas are small, proportional to population they are high.

## **5.0 Key findings and recommendations**

### **5.1 What approaches to MRE are likely to be the most effective in terms of delivering sustainable results in the current context?**

Mine Risk Education has been concentrated primarily on areas identified as in need based on injury statistics from the Cambodia Mine Victim Information System (CMVIS). It has been effective in disseminating information and raising awareness to the extent that mine/UXO awareness is no longer identified as a major determinant of injury. Even when equipped with mine risk information however, people may face considerable livelihood barriers in adopting risk avoidance behaviours. In this context, risk avoidance messages may be perceived to have limited relevance if people do not have the right skills and resources to uptake alternative behaviours. Another barrier to adoption of alternative livelihood options is if they do not have the same perceived advantages as existing, and potentially high risk livelihood options, for example, coal production provides easy access to the cash economy with minimal inputs compared to growing cash crops for instance. To enact the mine/UXO risk reduction messages people also need to have information about how to access agricultural inputs and services.

Within this context, an integrated approach which targets livelihoods and identifies specific populations and specific risk behaviours is likely to be the most effective. This includes further mainstreaming of clearance into development processes, with resources deployed to where they are most likely to impact positively on livelihoods. It can also include advocating for all development agencies to take mine/UXO risk into account where appropriate and being aware of and including vulnerability to mine/UXO exposure in routine risk assessments. In this way, where risk behaviours and risk factors are identified as prevalent, the agency could report these to CMAA to determine the most appropriate response. As the target group becomes smaller and more specific, focussing efforts on risk behaviours rather than simply injuries will allow a more proactive response.

To maintain relevance, MRE messages should also be revised further to provide more detailed information, better incorporate indigenous knowledge, recognise the day to day realities of maintaining livelihoods in contaminated environments and where appropriate focus on risk minimisation. For example, *‘when new migrants arriving in a new village remember to check with the mine/UXO volunteer networks, village head and any family members or neighbours the locations that are mined or are suspected to be mined’* or *‘when you work as a farm labourer for someone else check whether the land has been de-mined and if so, was the de-mining undertaken by a recognised operator?’* If not, they need to know the clearance might not be in accordance with national standards so they need to be vigilant. Or, *‘even if you have experience in moving UXO before they can still explode unexpectedly’*. Optimism, positive feelings about the future and a desire to provide a good future for children were also identified as contributing factors to changing risk behaviour. Messages could also focus on the future. For example, *‘Think of your future and that of your children do not let your children work in the forest’*.

Farmers with small amounts of land can potentially move away from high risk activities if they increase the productivity of available land. Messages and information for this population could focus on where farmers can learn about new techniques, how to maximise the potential of their land, availability of and how to access agricultural inputs and services, for example how to access credit for seeds and market prices.



The use of peer educators and volunteers also increases credibility and relevance. Given that even when an area is declared ‘impact free’ a residual threat will remain, ensuring mine/UXO risk becomes a cross-cutting issue and developing the capacity of communities and commune councils to manage community safety, are also crucial as Cambodia transitions from reconstruction into development.

#### ***5.1.1 Key recommendations***

As discussed, MRE in Cambodia has evolved as the situation has changed. The recommendations provided here are designed to support the transition to the next phase of ‘traditional’ development. Recommendations are differentiated into policy level and service provision. A difference is made between those service provision activities that it is recommended continue and activities which should be phased in during the implementation of the planned revised Strategy.

#### ***Policy/Central level:***

##### ***Immediate***

- Develop a holistic, integrated, program based Mine Action Policy and Strategy. To ensure integration, the strategy could be based on the core functions of the CMAA rather than having a separate strategy for each MA component. The strategy should develop realistic timelines for phasing in new activities;
- From the Strategy, a detailed plan and logical framework should be developed for MRE identifying key behaviours, target groups and activities.

##### ***Within 3 months of the Strategy being approved:***

- Develop core guiding principles and guidelines for MRE. These can be based on the IMAS UNICEF MRE Best Practice Guides and Communication for Behavioural Impact (COMBI) adapted for the Cambodian context.

##### ***On-going***

- Advocate for MRE to be integrated as a cross-cutting livelihoods issue at all levels with increased livelihood initiatives in areas identified as having high mine/UXO risk. This includes provision of livelihood support and skills building for at risk individuals/households/populations. It also includes raising awareness amongst non-mine actions service providers of risk behaviours/risk factors so these are included in agency needs assessments and monitoring. Where at risk populations are identified the agency should discuss with CMAA to determine the most appropriate response;
- Advocate for increased capacity to provide a timely response to UXO reports and small clearance tasks which will impact on safety and livelihoods.

#### ***Local Government level:***

##### ***To be included in Strategy, all new proposals and on-going after Strategy approval:***

- Increase strategic engagement and specific capacity building activities with Commune and Village Development Councils to strengthen the capacity of these Councils to manage and take responsibility for safety and to prepare for a transition to national management. This could also include developing and implementing ‘Safe Community Plans’ or ‘Codes of Conduct’. The CBMRR approach and HIB Codes of Conduct provide platforms for this. It also includes raising awareness amongst Commune and Village Development Councils of risk behaviours/risk factors so these are included in agency needs assessments and monitoring. Where at risk populations are identified the agency should discuss with CMAA to determine the most appropriate response.

***Within 3 months of the guiding principles and guidelines for MRE informed by Communication for Behavioural Impacts (COMBI) being drafted and approved:***

***Service providers:***

- Provide training in COMBI at all levels where people are involved in promoting behaviour change;
- Advocate for integrated approaches (on-going).

***Service provision: Strategic approach:***

- Implement a more targeted MRE approach based on COMBI to address specific behavioural goals, rather than awareness. This will:
  - Identify specific behaviours and specific target groups with approaches adapted for each behaviour/target group (behavioural analysis);
  - Select those behaviours/target groups that are most likely to be able to change and target these behaviours/groups;
  - Develop messages that are relevant and meet the target groups' needs;
  - Phase out generic messages and develop new messages for specific groups;
  - Ensure messages and recommended new behaviours are of equal or more perceived benefit to the target group compared to existing behaviours. New behaviours also need to be perceived as or more convenient and realistic for the target group compared to the behaviours the program wants to change;
  - Target different levels with different messages and activities, for example decision makers, service providers, local leaders as well as households and individuals.

The approach should be developed with the MRE TWG through a workshop approach facilitated by an expert in COMBI. The facilitator does not have to be experienced in MRE. The facilitator should first provide training in COMBI and then facilitate the development of the MRE communication approach and logical framework. Further workshops should be held with provincial and district level staff/volunteers and government partners to introduce COMBI.

***Service Provision: continue to:***

- Use local volunteers and CBMRR, extending where appropriate/possible including providing additional training to volunteers to further strengthen their capacity to implement Participatory Learning and Action (PLA), utilise tools of COMBI and adjust messages to provide detailed local, relevant and behaviour specific information. More local relevance will mean a decreased use of standardised IEC materials and require further capacity building to implement consultative, two-way communication processes; promoting for development of specific messages, for specific group in the specific targeted areas;
- Where a CBMRR/CBURR network exists, utilise these rather than establishing alternative structures;
- Integrate MRE and clearance with development and community needs to strengthen livelihoods and expand this and micro-credit where appropriate. Income generation activities need to have same perceived advantages as practices the program wants to change and not disadvantage the household in anyway. Household transitional strategies will also need to be developed to support the change;
- Disseminate the Law on the Management of Weapons, Explosives and Ammunitions and monitor the scrap metal trade;
- Provide MRE to school children through the school curriculum;
- Link MRE with clearance and spot tasks.

***Service Provision: Phase in:***

***Within 3 months of the guiding principles and guidelines for MRE informed by COMBI being drafted and approved:***

- Revise messages to ensure on-going relevance making them realistic, feasible and credible taking into account local risk management strategies and knowledge. MRE messages may also be able to incorporate, where appropriate, local information on determining activities.

***Within 3 months of the messages being revised:***

- Peer educators, for example out of school youth working with out of school youth, local community members who have adopted safer working practices working with other community members;
- A more targeted approach based on risk behaviours for youth, especially boys and adolescent males and out of school youth.

***Service Provision: Phase out:***

- Scale down/phase out generic messages which do not target a specific target group and behaviour and stand alone message based approaches;
- Scale down/phase out broad based poster/generic awareness raising campaigns.

***5.2 What are current monitoring and evaluation systems and how can they be strengthened?***

CMAA and most individual operator programs have some form of monitoring and evaluation processes and six monthly activity reports are provided to CMAA and UNICEF. CMAA also undertakes regular monitoring of service provider activities. Joint CMAA/ NGO/ UNICEF monitoring activities have also been undertaken but there has been no joint monitoring in 2008. Monitoring frameworks however are not fully comprehensive or integrated into a database. Currently, MRE information is stored in a paper based system making it difficult to use the data for analytical, planning, monitoring or evaluation purposes.

Strategy and program indicators are mainly quantitative, without specific target groups being described and focus primarily on program activities and outputs, rather than behavioural outcomes and impacts. While this may have been appropriate while the focus was primarily on raising awareness, as a more targeted behaviour change approach is phased in, a much stronger focus on behavioural outcomes is required. Outcome/ impact information is often available but is mainly based on anecdotal cases studies and is not captured or reported in a systematic way. Increasingly however, developing an evidence base for the effectiveness of MRE and its contribution to injury prevention is going to be important in order to advocate for and secure appropriate allocation of funding.

Injury rates are often cited as a key indicator, however as discussed, injury reduction is a result of a number of factors and therefore not necessarily a reliable measure of the effectiveness of MRE (UNICEF MRE Best Practice Guidelines, Evaluation). Monitoring of risk behaviours is more appropriate guide of effectiveness and consistent with the COMBI approach. As discussed, monitoring behaviours will also enable a more response, proactive approach rather than reactive.

Further, rarely has there been a systematic assessment to evaluate whether MRE interventions are impacting positively on injury rates. An exception is an HIB quantitative evaluation which compared the number of injuries in the project site compared with national trends and identified a decrease in accidents when compared with nationwide statistics. The study did

not however, control for confounding factors so it is not possible to assess to what extent the program intervention and to what extent other factors have contributed to this decline.

### **5.2.1 Key recommendations**

#### **Immediate**

- Plan for monitoring and evaluation in the revised Strategy. For example, ensure a monitoring and evaluation plan is developed and budgeted for.
- Recruit a social science expertise (such as a specialist in formative research and/or behavioural and process evaluations) to facilitate the design of the monitoring system and methods of collecting and analysing data. This does not have to be a MRE specialist. This should include developing monitoring and evaluation guidelines (refer also to the UNICEF MRE Best Practice Guidelines Monitoring and Evaluation);
- Develop a clear logical framework and monitoring and evaluation framework. Based on COMBI methods, this should describe the target populations and include quantitative and qualitative behavioural indicators (i.e. not increased awareness and knowledge/decrease of injuries or program activities). Indicators should be specific, measurable, appropriate, realistic, time-bound (SMART). This can be done as part of the above point;
- Integrate MRE monitoring and evaluation data (outputs, outcomes and impacts – quantitative and qualitative) into the national database in CMAA. The MRE Unit should have a read alone copy and be trained in how to query, analyse and use the data for planning. COMBI techniques such as the ‘day of life analysis’ for specific groups could be used for example to monitor behaviour. This will provide a more analytical tool than basing MRE on injuries alone;
- Develop a standard monitoring/reporting form to be used by all operators. CMAA MRE Unit, database staff officer and service providers should be involved in the design of the form.

#### **On-going:**

- Provide on-going technical support and training, documenting lessons learned, in implementing the framework;
- Use data from monitoring and evaluation system to plan response and investigate anomalies. Monitor population movements, injury rates and behaviours in contaminated areas where there are no MRE activities and be ready to respond in timely manner if injuries increase – possibly because of increased infrastructure development and new land being opened for development.

### **5.3 What actions and support are required to prepare for a transition to national management of MRE?**

Coordination by CMAA MRE Unit at the national level with service providers is generally good and appreciated. Further, opportunities for less formal CMAA coordination would also be appreciated and would further support a participatory approach in developing strategies. The MRE TWG meets regularly although the roles and responsibilities of the TWG are not clearly defined.

Increasingly, as MRE evolves into a broader activity than simply disseminating information, while maintaining the current management structure, increased coordination with the different units within CMAA will strengthen the MRE response. Increased strategic engagement with local government structures is also essential in ensuring a sustainable capacity.

Access to internet for CMAA is crucial for effective networking and accessing related documents. Further, key documents and resource materials are not consistently translated or disseminated. Increased translation and dissemination will increase access.

### ***5.3.1 Key recommendations***

The Policy and local government level recommendations provided above in section 5.1 are also relevant here and are not repeated. In addition:

#### ***Immediate***

- Maintain the current management structure but strengthen systematic coordination mechanisms within CMAA between MRE and other units in CMAA;
- Revise the TOR for the MRE TWG and disseminate to TWG members;
- Consider developing a rotational system whereby the TWG is Chaired and convened by the CMAA but with different operators taking turns to support the Chair and facilitate the meeting;
- Source funding and provide technical consultant support to the MRE Unit to assist in developing MRE guidelines, drafting and implementing the revised Strategy and developing and implementing the monitoring and evaluation framework;
- Clear indicators and competencies should be formulated for the technical consultant as part of the TOR so that capacity building can be monitored and used to plan a phased exit of the technical consultant;
- Provide the MRE Unit with appropriate electronic communication equipment and training so it can communicate easily with partners and source relevant information on the Web.

#### ***On-going:***

- Continue to translate and disseminate key documents and reference materials where appropriate and in discussion and agreement with the MRE TWG.

## **Evaluation of the Mine Risk Education Program in the Kingdom of Cambodia**

### ***Main Report***

#### ***1.0 Introduction and background***

Mine Risk Education (MRE) has been implemented in Cambodia since 1993 with the aim of encouraging people to adopt mine/UXO risk avoidance behaviours to prevent mine/UXO injuries. MRE is coordinated by the MRE Unit of the Cambodian Mine Action and Victim Assistance Authority (CMAA) and implemented through both government and non-government service providers. Key service providers are the Cambodian Mine Action Centre (CMAC), Cambodian Red Cross (CRC), CARE, The HALO Trust, Handicap International Belgium (HIB), Mines Advisory Group (MAG), Ministry of Education, Youth and Sports (MoEYS), National Police and Spirit of Soccer (SOS) and World Vision Cambodia.

Initial activities were primarily message based and focused on providing awareness and knowledge of the mine/UXO threat to returnees and internally displaced people. These people were often returning to their homeland and settling in contaminated areas after the end of civil conflict. Information was usually provided through the mass media and mobile teams using a variety of local and print media. The main aim was to increase awareness of the different types of mines/UXO, the danger they posed, and the steps that could be taken to avoid or minimize the risk of accident.

In the immediate post conflict period, civilian mine/UXO casualty rates were particularly high as people began the process of rebuilding their livelihoods in these contaminated areas. Between 2000 and 2005 casualty figures remained fairly constant, with approximately 800 recorded casualties per year. In 2006 however, a significant drop in incidence rates was observed and this downward trend was also reported in 2007. The “Study on the Dramatic Decrease of Mine/UXO Casualties in 2006 in Cambodia” was commissioned to better understand this decline in injury rates identified a number of contributing factors including increased awareness, increased food security due to good harvests and ongoing de-mining. The evaluation builds on this study.

The Mine Action Technical Working Group decided at its meeting in January 2008 to conduct an external evaluation of MRE activities under the coordination of the National Mine Risk Education Technical Working Group (MRE TWG)<sup>2</sup> lead by the CMAA. The evaluation was funded by UNICEF with technical support provided by the members of the MRE TWG. One of the main aims of this evaluation is to “to inform and guide the review and development of the MRE approaches and strategies of the next MRE cycle”. The evaluation also aims to help in prioritising the increasingly limited resources available to the sector.

Through a consultative process with key stakeholders and the MRE TWG, it was determined that the main purpose of this evaluation is to promote programme improvement. Specific purposes were to i) evaluate the effectiveness of different approaches to MRE in Cambodia; ii) provide information that can be used to inform and revise the MRE strategy; and iii) identify actions that can assist the transition to national ownership and management.

The main evaluation questions are:

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<sup>2</sup> This should not be confused with being one of the 18 technical working groups established by the Royal Government of Cambodia. This term MRE Technical working group however is the term used in the CMAA reference documents and so is the term used throughout this report.

- (i) What approaches to MRE are likely to be the most effective in the current context?
- (ii) What are current monitoring and evaluation systems and how can they be strengthened?
- (iii) What actions and support are required to prepare for a transition to national management of MRE?

The main objectives are to:

- (i) Provide recommendations of the most effective MRE approaches in the current context based on stakeholder interviews, analysis of injury data and the literature
- (ii) Provide recommendations for strengthening and developing results based monitoring and evaluation system
- (iii) Provide recommendations on actions and support required to enable a transition to national management of MRE

The emphasis of the evaluation therefore was primarily to identify appropriate future strategies and activities. The evaluation suggests an approach based on principles of Communication for Behavioural Impact (COMBI) is needed in future programming to provide a more specific and targeted approach.

### ***2.0 Structure of the report***

The evaluation took a program approach and the report considers different approaches to MRE and risk reduction rather than singling out individual projects or programs. The report is organised under the following sections: Methodology; Situational Analysis; Findings; Progress against Strategy; and Concluding Remarks.

### ***3.0 Methodology***

#### ***3.1 Data collection***

The evaluation reviewed the current MRE program over a period of two months between September and October 2008.

The evaluation began with an extensive program documentation review. This included a review of the different MRE projects coordinated by CMAA and implemented by different service providers. This involved examining different project designs, proposals, monitoring and evaluation reports and other project support documents (Annex 1 for a list of literature and documents reviewed). Based on these reviews, summaries of the different approaches to MRE in Cambodia were drafted and initial observations including strengths, weaknesses, opportunities, threats, effectiveness, relevance, impact, monitoring and evaluation and information management and use were drawn up and checked with stakeholders in a workshop with the MRE TWG in Phnom Penh on the 22<sup>nd</sup> September 2008 (Annex 2 for Minutes of meeting).

The evaluator also met with a range of stakeholders including donors, service providers and regulators to understand MRE activities from their perspective and determine how the evaluation could best meet their needs (Annex for list of people met). This resulted in a refining of the evaluation questions. The evaluator also undertook a literature review using key word searches with international databases to review current practice and theories of injury prevention and behaviour change. This provided an aid in evaluating current approaches and informing recommendations.

These activities, alongside the Terms of Reference (TOR) (Annex 4), initial observations and the UNICEF MRE Guidelines for Best Practice (Evaluation), were used to finalise the

evaluation questions, design and tools. The workshop on 22<sup>nd</sup> September also included a situational analysis. This enabled the evaluator and the MRE TWG to draw out current gaps, unmet needs and the extent to which current activities could reasonably be expected to contribute to behaviour change and a reduction in mine/UXO related injuries.

Following these activities, the evaluator spent 2 weeks in the field, observing activities and meeting with program recipients and service providers. Further information was gathered using a semi-structured interview guide (Annex 5) from a range of local government stakeholders (provincial and district level authorities, commune councillors, village leaders) and departmental officers and staff (provincial and district level DoEYS officers and teachers). Sites for the data collection were based on purposive sampling taking into account casualty statistics, range of service provision and wet season access.

The principle findings and recommendations were then compiled and presented in a MRE TWG via email for feedback and comments. Feedback from this process was used to compile the first draft of the final report which was circulated for comment. Comments were responded to and following final comments from UNICEF, the final report drafted and submitted to CMAA and UNICEF. Following this further revisions were made and the report submitted. A final presentation was held with a broader stakeholder group on the 28<sup>th</sup> October 2008 and further changes made to the final report.

### ***3.2 Limitations of the evaluation***

Due to the timing of the evaluation and heavy rainfall prior to the village based data collection, selection of data collection sites was dependant to a large extent on access. This means that more remote villages where the situation may be different from those with good access, were not included in the assessment. Nevertheless, the evaluator feels that a sufficient level of rigour has been applied to maximise credibility of data. Further, by collecting information from multiple sites and sources, triangulation has been achieved. Other strategies, such as returning to key informants with draft descriptions and conclusions to gain and document their impressions also help to ensure validity.

### ***4.0 Situational Analysis***

While not a specific evaluation question, a review of injuries and their causes was undertaken to help contextualise the evaluation. Understanding who is at risk and why also provides a platform from which to evaluate the likely effectiveness and impact of MRE interventions. While not a specific part of the TOR, an analysis of injuries and their direct and indirect causes was undertaken to better understand mine/UXO risk, identify general trends and appropriate MRE interventions. This section is presented under two headings. The first places mine/UXO injury on the conflict- immediate, post-conflict stabilisation - reconstruction-development continuum, highlighting how at the different phases, the nature of mine/UXO accidents has changed. The next section considers in more detail the current causes of mine/UXO accidents. This section highlights that in the current context, livelihood factors rather than awareness are the main cause of injuries.

#### ***4.1 The conflict-development continuum and mine/UXO injury***

The conflict/development continuum (GICHD, 2004) places Mine Action interventions along a continuum with four main stages:

- (i) Conflict
- (ii) Immediate, post-conflict stabilisation (including peacekeeping/peace-building)
- (iii) Reconstruction
- (iv) Traditional development



Traditional development refers to new investments in infrastructure, social services and private sector development compared to the reconstruction of basic infrastructure and public services. International donor funding and technical support is typically high in the reconstruction phase but as a country moves further along the continuum increasingly the national government takes ownership of the development effort.

The Geneva International Centre for Humanitarian Mine Action (GICHD, 2004) use the continuum to show how a Mine Action program can change over time with different inputs required at different stages. While it has not been used to specifically describe the nature of mine/UXO injuries and the MRE response, it provided a useful framework in this evaluation.

In the conflict phase, accidents were high and often affected combatants with the response the responsibility of the military. In the immediate, post-conflict stabilisation phase, accidents were high as people returned home. Direct causes of accidents were often a result of unintentional contact partly due to low awareness of the threat. As the situation progressed from immediate, post-conflict stabilisation period to early reconstruction phase, casualties were mainly civilian with approximately 800 reported casualties per year between 2000 and 2005.

The direct and indirect causes of mine/UXO injury and risk behaviours were also different compared to the immediate post conflict phase. In the early reconstruction phase, a key priority was access to land. In this phase, informal de-mining was widespread and a frequent cause of mine injury. Indirect causes of injury included the inability of mine clearance to keep pace with demand, increased pressure to return land to productive use and large numbers of demobilised soldiers with few livelihood options but some professional experience in dealing with mines. This phase also coincided with a global increase in the value of scrap metal which contributed to people collecting and trading in war scrap. In the early reconstruction phase therefore, deliberate contact with mines/UXO was common (see Bottomely, 2003 and Moyes, 2004 for a more detailed discussion of this phase and responses).

#### *Current situation*

As Cambodia has moved further into the reconstruction phase, the situation has again changed with a significant overall drop in reported mine/UXO casualties over the last two years. While the overall number has decreased however, the number of incidents related to UXO is higher than the number of mine casualties. For example in 2007, UXO related casualties accounted for 60.79% of casualties. Most of these were men and male adolescents. The age profile of landmine and UXO casualties are different however. The most affected by an UXO injury proportional to their demographic weight for example, are those in the age brackets 10-14, 15-19, and 35-39. In the case of mine injuries however, most casualties are males aged 25-49.

An important point to note in regard to the current situation is that particularly vulnerable populations are boys and adolescents males and injury rates among these groups are not decreasing at the same rate as adults. Out of school youth maybe particularly vulnerable and often these are children who also migrate with their parents in seek of work opportunities.

The International Women's Development Agency (IWDA) are planning with world Vision a more in-depth analysis of this which should also provide recommendations on appropriate strategies. As the table below indicates, while there has been a significant decrease in mine/UXO injuries, for both, seasonal trends have remained constant.

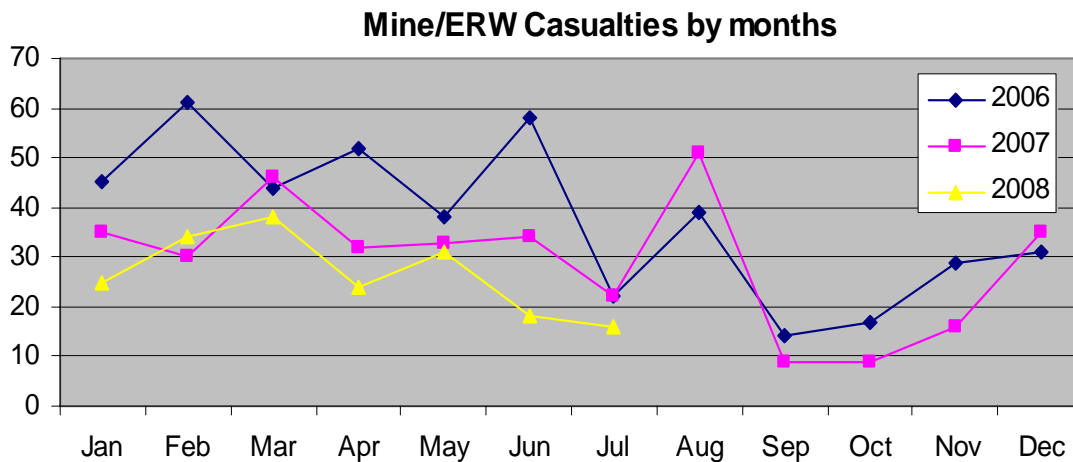


Diagram 1: *Mine/UXO casualties by month, 2006-2008 (CMVIS)*

To help highlight the complexity of mine/UXO related behaviour change in order to provide an appropriate response, a more detailed discussion of the indirect underlying causes of mine/UXO injury is provided.

#### ***Landmines***

The most affected mine casualties are males aged 25-49. The majority of landmine incidents are a result of involuntary exposure, for example while travelling or going about routine livelihood activities. Nevertheless, people reported working in areas they suspected to be contaminated based on an active consideration of risks and needs. As one person said ‘*We agree to take risk ourselves rather than sending our children*’ or as another person put it, summarizing the feelings of many, ‘*We need to take risk for our livelihood.*’

Predisposing (motivating) factors include risk assessment skills and perceptions of risk. Enabling factors (factors that enable a behaviour to occur) include the need to fulfil basic needs, lack of adequate marking or specific information of the mine threat and perceived advantages of activities considered to have a high mine risk, for example producing coal. Reinforcing factors (factors that provide incentives for positive behaviours to be maintained) include seasonal patterns and trends and lack of alternative livelihood activities with the same perceived benefits as some of the higher mine risk activities. The nature of the mine threat can also make accurate risk assessment problematic, as one person explained, ‘*Mines which were planted long ago are deep under the ground. When the rain comes, the land becomes soft. When tractor steps on it, it will explode. You know in O’Down Pov, the mine had been there long ago but just exploded last year.*’ As this quote helps to illustrate however, people are aware that mines can migrate and do take strategies to minimize risk in suspected areas. These strategies may include for example, avoiding suspected areas after heavy rain, using wood to form a pathway across the area and going by foot rather than using the heavier ox and cart.

#### ***UXO injury***

UXO incidents are often as a result of voluntary and deliberate behaviour. Amongst these, handling UXO is the most prevalent risk behaviour in the 10-14 and 15-19 age group. It is difficult to determine exact direct causes of injuries as commonly with children they are reported as ‘playing’. There is sufficient evidence to conclude however, that this age group

are generally aware of the risk even though they might not appreciate the validity of the messages. Out of school youth may be particularly vulnerable. Adult Risk behaviours include: fishing with explosives, deliberately handling UXO (for example dismantling or moving to a 'safe' place) and hitting UXO while investigating a signal from a metal detector.

Predisposing factors include misinformation or incomplete knowledge/skills, faulty risk assessment, curiosity, a desire to learn how to render UXO safe and differing perceptions of risk. Enabling factors include the pervasive presence of war scrap, a need to fulfil basic needs and demand for scrap metal. Reinforcing factors include increased cash needs, few community sanctions, seasonal patterns and trends and limited income generating opportunities with similar returns for initial investment. A significant number of UXO casualties however, are categorised as bystanders with many of the incidents occurring in a residential areas. In 2007, for instance, almost half the number of female casualties were reported as bystanders. The reasons for bystandering or how the term is classified are not always clear, nevertheless, this suggests that by isolating risk behaviours to less populated areas and reducing the number of bystanders, significant gains could be made in further reducing injury rates. As discussed later, the HIB project also provides some evidence to support this.

Many people however, reported that more recently the demand for war related scrap metal has decreased significantly due to increased awareness, monitoring of the Law on the Management of Weapons, Explosives and Ammunitions and the provision in the Law for heavy fines. In some areas, for example Rottanak Mondul people have been asked to sign contracts saying they will not trade in ordnance and, facilitated by HIB, some communities have developed Codes of Conduct. It was also noted however, that as a result of the Law some people are engaging in the risky activity of rendering explosive items safe and then trading in the fragments. Nevertheless, the fear of sanctions does seem to have moved this activity out of villages and could be contributing to a decrease in the number of people injured as bystanders.

As mentioned, young males and adolescent males are also a group which, despite reporting high levels of awareness, continue to voluntarily engage with UXO. Out of school youth may be particularly vulnerable. Underlying reasons for this were reported as a real or perceived increase in cash needs with more consumables available at the village level, livelihood activities, using money to buy a bowl of soup in the market was one example of how money earned from scrap metal was spent. Another example was using money to buy a packet of biscuits – similar findings were found in the Tampering Study (Moyes, 2003). Other motivating factors included a questioning of the messages and message source, a sense of 'bravado', stubbornness, poor role models, for example, one participant summarised a general theme thus, *'They (adolescent males) are curious to know. They try to imitate old people who process UXOs for fishing and hunting animals. They want to do the same.'* These are also similar to the Tampering Study (Moyes, 2003). This is often reinforced through experience as UXO do not always explode when handled. One young man also mentioned that once he was married and had children he felt more responsibility and is now less likely to deliberately engage with UXO.

A key difference between mine and UXO injury seems to be that often the direct cause of UXO injuries are deliberate and voluntary engagement with ordnance. Exposure to mines, on the other hand, is generally involuntary and a result of mines being in areas where people routinely work and travel. This is a shift from the immediate post conflict phase where

securing safe land was paramount and informal demining was more prevalent than today. Not surprisingly, participants reported being more concerned with unintentional exposure.

A population that were identified by some as being at risk was ‘newcomers’ or economic migrants. Interestingly, however while service providers frequently cited this group as being high risk opinion was split among the people interviewed at the village level. It is not possible to state definitively that there is a correlation between migration and mine/UXO injury. Key factors are likely to be the type of work these migrants engage in and the extent to which they are integrated into the wider village community, for example, through other family members. Sometimes migrants are clearing and for agricultural extension and this may involve clearing contaminated land which they may or may not be informed about. Other migrants may use the new location as a base for taking advantage of seasonal work in Thailand and be less likely to be exposed to mines or UXO. One village deputy head also noted that often in the first year or so of relocation newcomers tend to stay closer to the village area. As they become more accustomed to the area however, they may go further afield which may lead them into contaminated areas. Children also often migrate with their families to take up seasonal labour and a recurring theme was that often these children are out of school for long periods.

In summary, for most people, including children, lack of knowledge is not a primary contributing factors in accident rates. This knowledge comes from parents, teachers, friends, local authorities, MRE educators and real life experience. As one person said, *‘children have real experience. For example, in a community where a mine exploded, the information will be passed from mouth to mouth. Sometimes, children see the explosion with their eyes.’* An informed and educated individual is not necessarily a behaviourally responsive one however.

As well as information people need the necessary resources to apply that knowledge in a consistent and sustainable manner. Having detailed local knowledge, rather than generic information is also crucial in minimising risk. Further, as Cambodia continues to move along the conflict/development continuum, where the mine/UXO threat remains, communities will continue to increase their local knowledge and refine their coping strategies. This in turn will further contribute to a decrease in injuries. It is also clear that people rarely willfully ignore MRE messages; more often they make pragmatic decisions based on an internal risk assessment process. Farmers for example, often continue to use their land and simply avoid certain areas of their fields that they know to be contaminated. When opening new land people may take more precautions, for example, in one focus group with men it was reported that, *‘We need to take risk. We don’t go very deep. If we touch any hard objects, we need to stop and check’* or *‘(in) suspected area, we do not use tractors.’*

From this perspective, it can be seen that awareness is no longer a primary determinant of mine/UXO accidents and that local people have developed considerable risk management skills. The diagram below is based on the DFID livelihoods framework. This framework proposes that a household’s livelihood outcomes depend on its assets (human, natural, financial, social and physical), the vulnerability context (shocks, trends, seasonality), livelihood strategies and transforming structures and processes (political and institutional).

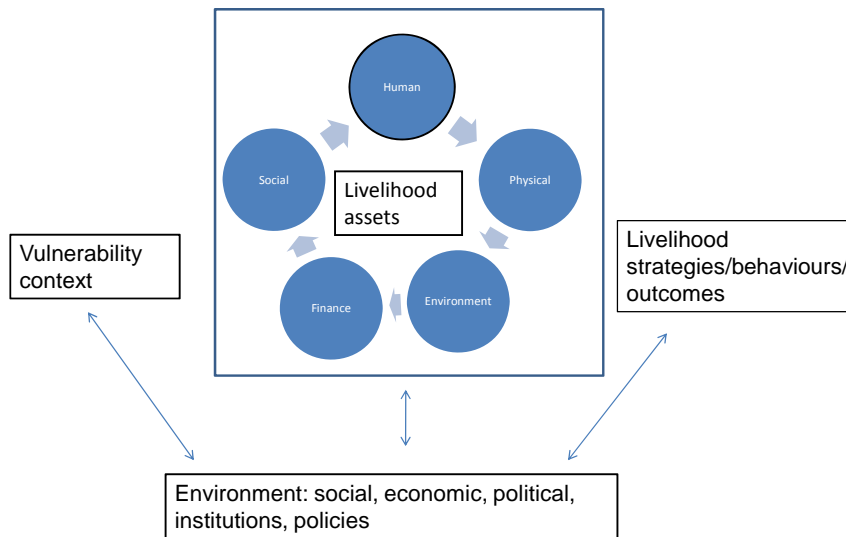


Diagram 2: *The livelihood asset pentagon (adapted DFID)*

The underlying reasons for mine/UXO injury can be categorised under the different livelihood assets and helps to illustrate how this influences livelihood activities and behaviours. This helps to highlight how mine/UXO risk is related to livelihoods and integrated, cross-sectoral livelihoods approach to risk reduction is likely to be the most effective. For example,

**Human**

- Skills, knowledge, information, attitudes, training, beliefs, attitudes, past experiences, supervision of children

**Physical**

- Access to markets, roads, irrigation

**Finance**

- Access to credit, savings, access to income, increased cash needs, access to capital assets, demand for scrap, coal, forest products

**Social**

- Legislation, community sanctions, role models, access to services (clearance, livelihood support), local leadership

**Natural**

- Contaminated land, forest

The livelihoods framework also recognises the importance of the broader environment including livelihood shocks, seasonal trends and the influence of political and socio-economic policies. A challenge for MRE is that unsafe practices, such as scrap metal collection and coal production can contribute a household's asset base. MRE therefore needs to work cross-sectorally in order to facilitate access to alternative and safer livelihood activities.

Factors that affect behaviour may also be broken down and categorised as predisposing, enabling and facilitating:

- Predisposing (motivating), for example, knowledge, beliefs, values and attitudes
- Enabling (facilitating), that is those factors that enable a behaviour or situation to occur.
- Reinforcing (maintaining or rewarding) these are factors that provide incentives for positive behaviours to be maintained. Reinforcement may come from an individual or group, from persons or institutions or society.

The table below provides a summary of some of the predisposing, enabling and reinforcing factors as described by participants. For ease, these factors are presented here in summary form. For planning purposes however, using the COMBI approach, these factors should be broken down further identifying specific demographic groups, risk behaviours and contributing factors.

| <b>Predisposing Factors</b>   | <b>Enabling</b>  | <b>Reinforcing</b>   |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Lack of knowledge/mis-information</li> <li>• Lack of/partial skills</li> <li>• Risk management skills</li> <li>• Lack of supervision of children/adolescents</li> <li>• Beliefs</li> <li>• Attitudes</li> <li>• Positive past experiences</li> <li>• Lack of consideration for others</li> <li>• Curiosity</li> <li>• Perceptions of the future</li> </ul> | <ul style="list-style-type: none"> <li>• Access to income</li> <li>• Markets demands</li> <li>• Need to use land</li> <li>• Familiarity with contaminated environment</li> <li>• Real/perceived increased cash needs</li> <li>• Lack of appropriate tools/skills training to minimise threat or take up new livelihood activities</li> </ul> | <ul style="list-style-type: none"> <li>• Legislation</li> <li>• Law enforcement</li> <li>• Commitment to safety</li> <li>• Access to clearance</li> <li>• Access to finance and credit</li> <li>• Livelihood shocks</li> <li>• Leadership</li> <li>• Seasonal trends</li> <li>• Risk behaviour does not always result in injury</li> <li>• Poor role models</li> <li>• Incentives for behaviour</li> <li>• Migration of mines/UXO</li> </ul> |

Table 1: *Summary of factors that contribute to mine/UXO incidents*

This section has demonstrated how the direct and indirect causes of mine/UXO accidents have changed over time as Cambodia has moved along the conflict/development continuum. It has discussed in more detail the current context and reasons for accidents demonstrating that awareness is no longer a major determinant of mine/UXO injury. As Cambodia has moved through the different phases, the MRE sector adapted its response as summarised in Table 2 below. As Section 5 will show however, the current response is still primarily focussed on increasing knowledge. The challenge for the MRE program in its next Strategy cycle, will be to adapt again with a stronger focus on changing behaviour rather than simply increasing awareness. It will also be important to monitor the situation east of the Mekong as these areas are opened up for development and people migrate there for work. Currently, while the actual number of accidents in these areas are small, proportional to population they are high. Monitoring population movements and seeing if there is a link between migration and accidents is also important as is using data from monitoring and evaluation system to plan response and investigate anomalies.

| Phase                                  | At risk population   | Mine/UXO Risk Factors   | MRE intervention and messages   |
|--|--|---|---|
| Conflict                               | Mainly combatants<br><br>Civilians living in and/or moving away from conflict  | Fighting<br>Demining<br><br>Lack of awareness<br>Limited coping skills  | Responsibility of military  |
| Immediate post conflict /Stabilisation | De-commissioned military<br><br>Returning civilians  | Partially trained<br>Lack of safety equipment<br>Informal demining<br><br>Lack of awareness<br>Limited coping skills/ risk management<br>Population movement/rebuilding<br>Meeting basic needs<br>Fighting/ relaying of mines/limited clearance   | Response driven by international community<br>Emergency awareness – one way, information giving<br>Use of mass media,<br>Message based, e.g. Recognition of mines/UXO; areas likely to be contaminated; safe behaviour; emergency minefield procedures  |
| Reconstruction                         | Civilians including children, more males than females<br>Casualties are children, contractors/casual labourers, farmers, internal migrants, ex soldiers, SM collectors<br>Number of casualties begin to decrease | Inadequate clearance/ clearance doesn't meet community needs/needs of high risk individuals<br>Increased familiarity with environment & deliberate risk taking<br>Developing risk management skills<br>Need land for food security/basic needs<br>Voluntary exposure to mines/UXO<br>Monetary value of war scrap & increased access to market<br>Increased cash needs | Emerging national capacity<br>Message based<br>Mass media<br>More face to face awareness<br>Messages more focussed on specific behaviours (e.g. tampering)<br>Linking livelihood activities with MRE<br>Community participation School curriculum<br>Developing and disseminating new laws and policies to respond to on-going threat |

Table 2: Summary of evolution of approaches to Mine Risk Education in Cambodia

## **5.0 Findings**

This section is organised under the three main evaluation questions.

### **5.1 What approaches to MRE are likely to be the most effective in the current context?**

This section reviews current approaches and considers these from the perspective of effectiveness, coverage, relevance and impact in order to make recommendations for the next phase. The discussion will show that the focus to date has been primarily on raising awareness and knowledge – prerequisites to behaviour change. In this respect the program has been effective in raising awareness and concern for the mine/UXO problem and laying the foundation for achieving behavioural results in the next Strategy cycle.

Currently there are four main approaches to MRE in Cambodia. These are:

- (i) Message based approaches: awareness raising, public information and education
- (ii) Livelihood/integrated mine action approaches
- (iii) Law enforcement and monitoring of scrap metal trade
- (iv) Community participation in mine action processes

As it is the intent of this evaluation to identify approaches that are likely to be the most effective going forwards, for ease of discussion, each of these approaches is discussed in turn under the headings of effectiveness, coverage, relevance and impact. In practice however, most service providers provide a combination of the MRE response discussed.

#### **(i) Message based approaches: awareness raising, public information and education**

Almost all service providers include a MRE message based component in their range of services. While there may be different modes of delivery, for example mobile teams with an EOD response, awareness raising days, volunteers, police, house to house or community meetings, radio spots the underlying approach is similar. Using posters, notebooks, T shirts and so forth messages are either delivered in community meetings, household/ face to face meetings. Reports on mine/UXO finds may also be collated and where linked to EOD disposal, providing a rapid response service to community reports and enhancing the credibility of Mine Action operators and the MRE teams. While the longer term aim is usually stated as injury reduction, the focus is primarily on increasing awareness.

As the situation has changed, messages have been adapted to a degree although the underlying messages are still generic and focus primarily on:

- Recognition of explosive ordnance;
- Recognition of areas likely to have landmine/UXO contamination;
- Safe behaviour in a landmine/UXO infested environment with a focus on avoiding contact, reporting items to the authorities, marking with local materials, promotion of alternative livelihood activities;
- Emergency procedures;
- Consequences of a mine/UXO accident; and more recently
- Law on the Management of Weapons, Explosives and Ammunitions dissemination.

#### **School curriculum**

MRE in the school curriculum is a project implemented by the Ministry of Education, Youth and Sports (MoEYS). The curriculum is integrated into and managed by MoEYS with funding support from UNICEF. MRE was introduced into the school curriculum in 2000 and has been implemented in the most affected provinces of: Battambang, Kampong Speu, Khampong Cham, Pursat, Pailin, Bantey Mean Chey, Odtar Mean Chey, Prey Vihear, Siem



Reap and Kratieh. The curriculum is also provided in some less affected communes in Kampong Cham, Kampong Chang, Kampong Speu and Koh Kong.

The curriculum is primarily message based with some participatory activities and uses the messages outlined above. The general approach is to mainstream messages or incorporate it into a more formal session with the teachers using different strategies for different age groups. For example, it may be mainstreamed into different subjects for grade 1-4 but for grades 5 and 6, maybe taught in a one-hour session to older children. An example of mainstreaming with younger children was given as *'For example, we teach them letter M. We ask them use M to form a word, say "Mine". Then we ask students what dangers are posed by mines. Some students have existing experience from the community. They can articulate mine dangers such as losing legs or arms. Then we can explain further.'* Or, *'a consonant "Ng" can be spelled to become "Ngab" which means dead. Dead of what? Dead of mines'.*

The program also aims to reach out of school youth and other community members through 'performance clubs' which provide drama and skits to different communities within the various clusters.

Recently, the curriculum has been revised to cover other common forms and causes of injuries including road traffic accident, drowning, falls and snake bites. A number of teachers noted however, that they are waiting for training the new curriculum and have some concerns of how this will be mainstreamed into the broader school curriculum.

#### ***Coverage***

In general, coverage of these message and education approaches has been targeted at the most affected areas based on contamination and injuries. A range of standardised MRE products have also been developed and disseminated widely in contaminated areas.

The approach has tended to try and reach everyone with a lot of generic information and in this sense they may have been some over-targeting. This could be justified however, given the information available, lack of stability and high population movements. In the current context however, continuing to target all those living in contaminated areas, regardless of behaviour, may result in over-coverage. A common sentiment was *'people are not interested in MRE messages because they think that they already received them many times by different MA operators.'*

Further, there is likely to be some bias in coverage as those who attend MRE sessions, tend to be women with lower risk behaviours. While women could be key communicators in their role as parents, the messages do not specifically address this aspect.

#### ***Effectiveness***

Effectiveness indicators relate primarily to outputs and activity objectives. Based on these indicators, MRE programs have generally achieved their outputs and activity objectives. There has not been a Knowledge Attitude and Practice (KAP) survey, nevertheless, there is sufficient evidence to conclude that MRE programs have also been effective in raising awareness, knowledge and a concern for adoption of safe behaviours - all prerequisites for change - among the target groups. Common reported behaviours which mirror messages were: reporting mine/UXO finds to authorities, using local materials to mark mines/UXO and not touching UXO or keeping UXO in the home. Parents also reported reminding their children of the messages.

There have been few deliberate attempts however, to incorporate and build on indigenous coping strategies or to recognise the immense experience and skills local people have developed to manage the mine/UXO threat on a day to day basis. Further, people living and working in contaminated environments know from experience that risk behaviour does not always eventuate in a landmine/UXO explosion or injury. Thus people's life experiences often contradict the content of the messages. Building on local skills and capacities and providing high risk groups with the easily teachable skills to minimise risk has been proposed before in Cambodia (e.g. Bottomley, 2003, Moyes, 2004) but has remained controversial. As discussed, a more targeted approach with more specific and relevant information is likely to be the most effective going forwards.

### ***Relevance***

In terms of relevance, an inherent weakness of the current messages is that they are often perceived as unrealistic or messages such as 'be careful' were described as 'common sense'. Often, even when people want to adopt the proposed messages, they are unable to do so. This is especially the case for male adults who carry much of the responsibility of providing for their families. Rarely do messages provide realistic alternatives and a recurrent theme was that despite having awareness, rarely, for adult males at least, are the necessary enablers in place to facilitate adoption of the risk avoidance behaviours promoted in the messages.

Further criticisms of the messages were that they tend to be generic, rather than related to the specific threat in an area. This was a recurring theme at the village level from teachers, volunteers, children, women and men. For people who have day to day experience of living and working in a contaminated environment and have developed skills and strategies to minimise the risk, the lack of specific information and realistic solutions, compromises the relevance of the messages. Further evidence for this, is the constant theme among service providers, including volunteers that it is hard to encourage people and men especially, to attend awareness raising sessions.

Migrants and their families were also identified as at risk. For this group, risk avoidance and recognition information would be useful if they have moved from uncontaminated areas. Where people have moved from a contaminated area however, and have previously received MRE, the most relevant information would be about the specific threat in the area they have moved to. Village volunteers where they exist would seem to be ideally placed to do this, especially with the detailed community maps they maintain. Currently, it is not clear that this happens in a systematic way.

To maintain relevance, MRE messages should also be revised further to provide more detailed information, better incorporate indigenous knowledge, recognise the day to day realities of maintaining livelihoods in contaminated environments and target specific behaviours and contributing factors. New messages need to be developed and tested with the MRE TWG and community but some examples include, '*when arriving in a new village remember to check with the village head and any family members or neighbours the locations that are mined or are suspected to be mined*' or '*when you work as a farm labourer for someone else check whether the land has been de-mined and if so, was the de-mining undertaken by a recognised operator?*' If not, they need to know the clearance might not be in accordance with national standards so they need to be vigilant. Or, '*even if you have experience in moving UXO before they can still explode unexpectedly*'.

Optimism, positive feelings about the future and a desire to provide a good future for children were also identified as contributing factors to changing risk behaviour. Messages could also

focus on the future. For example, *'Think of your future and that of your children – leave your children at home when you go to the forest'*.

Farmers with small amounts of land can potentially move away from high risk activities if they increase the productivity of available land. Messages and information for this population could focus on where farmers can learn about new techniques, how to maximise the potential of their land, availability of and how to access agricultural inputs and services, for example how to access credit for seeds and market prices.

It should also be noted that most people thought that education efforts which focus on raising awareness and knowledge with children should be continued. Children have grown up with limited if any experience of war and do not have firsthand experience to draw on in the same way that their parents often do. According to one women's focus group discussion, *'Mine risk education should continue. We still suspect and we still find mines when we go the forest. There are still mines under the surface. Mine risk education should continue because CMAC cannot clear all the land' and 'existing activities should be kept because there are children who do not understand about mines.'*

Another issue related to relevance is source credibility. Local people who live in contaminated environments have over time developed considerable knowledge and skills to enable them to live safely in a contaminated environment. In this context, people who share similar life experiences to program recipients may be more credible message carriers in the context of MRE. For an ex-soldier for example, to be told by a younger person with no or limited war experience that mines and UXO are dangerous and should not be touched, in the eyes of the ex-soldier, the MRE messenger may have little source credibility. Similarly, a salaried MRE messenger may also have little credibility from the perspective of a farmer trying to feed his family and meet basic needs. Peer educators on the other hand, for example CBMRR volunteers or farmers who have demonstrated success in new practices are likely to have more credibility.

#### ***Sustainability***

In terms of sustainability, message based approaches rely heavily on communication products including T shirts, notebooks, posters and so forth. These are seen not only in terms of awareness raising tools but also as necessary incentives. Further, staff and/or volunteers are often seen as functionaries of the supporting agency threatening long term ownership of mine/UXO safety. These raise concerns about longer term ownership and sustainability. More positively however, the MoEYS has responsibility for the school curriculum although UNICEF still provides financial support. Performance clubs were reported as being only sustainable with on-going external support.

Ultimately, local capacity and commitment needs to be built to ensure community members and leaders take ownership of and promote village safety. Without this community commitment, the ability to manage the residual risk will be compromised. Currently, however, few service providers include specific strategies to develop local ownership and skills or have clearly articulated exit strategies. Raising awareness within Commune and Village Development Councils of risk behaviours/risk factors and developing the capacity of these councils to monitor these can help identify at risk populations. Where identified, the Council should discuss with CMAA to determine the most appropriate response.

#### ***Impact***

As discussed, the program has been effective in raising awareness. Longer term behavioural change impact is difficult to measure partly due to the almost complete absence of

behavioural objectives. It is likely, however, that MRE has contributed to an uptake of risk avoidance behaviours and a decrease in injuries. As shown however, a number of factors contribute to mine/UXO injuries and it would be unrealistic to assume that on its own, message based MRE has resulted in sustained behaviour change. Nevertheless it may have helped create favourable conditions for change.

### ***(ii) Livelihood/Integrated Mine Action approaches***

As Cambodia has progressed along the continuum from immediate post conflict to development, the factors contributing to mine/UXO accidents has changed. Greater emphasis is now being placed on livelihood issues and clearance priorities are being integrated with community and development needs.

Livelihood/Integrated Mine Action programs generally aim to facilitate improvement to the overall socio-economic environment. They may also try and specifically identify and target individuals and/or households at risk of mine/ERW exposure and provide alternative livelihood support. The MRE message based component however is underpinned and implemented in a similar way as described above.

#### ***Coverage***

Coverage of these programs while limited compared to MRE message based programs, seems generally well targeted and focussed on areas with high contamination, high levels of injury and poverty. Risk profiles may be developed to identify people likely to be exposed to UXO although how these profiles are then analysed and used to inform targeting and outcome monitoring is not always clear or systematic. As with other message based approaches, however, in the current context there is likely to be over-coverage with all community members targeted and some bias. It was also noted by these operators for example, that *'mostly women and boys attend (MRE sessions).'*

#### ***Effectiveness***

Impact of the provision of alternative livelihood options on behaviour change is difficult to measure and generally operators do not collect information on this. Livelihood activities aim to reduce the need for cash to supplement diets and to increase income from safer livelihood activities. For example, to develop more efficient farming techniques and so increase production under cultivation (which could involve using contaminated areas). Anecdotal evidence suggests such approaches are likely to be effective in promoting positive behaviour change but need to be seen in terms of a longer term strategy rather than a 'quick fix' solution. Further, household strategies need to be developed to assist households manage the transitional period between adopting the new livelihood activities and when the benefits of the new activity start to accrue. Effectiveness of the message based component of these programs has been discussed above.

#### ***Relevance***

A key factor in relevance is ensuring that the livelihood activities offered have the same perceived benefits of the activities people are being asked to move away from, for example, producing coal, collecting scrap metal. Both these activities provide quick returns with minimal investment.

#### ***Sustainability***

To be sustainable, livelihood activities also need to include building advocacy, basic literacy and numeracy, management and community mobilisation including mobilisation of resources skills. As above the MRE component needs to shift its focus to specific behaviours. Using the participatory methodologies of these community development projects, Safe Community plans or Codes of Conduct could also be developed and implemented by the community.

### ***Impact***

It was not possible to assess livelihood impact and adoption of safer livelihood strategies as a result of livelihood diversification. Certainly however, such integrated programs are likely to impact on some of the factors that have been identified as contributing to risk taking behaviour.

### ***(iii) Law enforcement and monitoring of scrap metal trade***

These programs work with the police, scrap metal dealers and collectors in an effort to curb the number of injuries that result from participation in the scrap metal trade. Dissemination of the Law on the Management of Weapons, Explosives and Ammunitions and monitoring scrap metal yards through routine inspections are key strategies. CMAC also provides an EOD team to respond to finds reported through the scrap metal dealerships incentives to people who report UXO through the scrap metal dealer network. HIB's program includes developing with communities Codes of Conduct and identifying at risk individuals and linking them with development partners.

### ***Coverage***

Coverage is in seven provinces: Kandal, Kampong Speu, Pailin, Battambang, Banteay Mean Chey, Otdar Mean Chey and Siep Reap. These are areas with high UXO contamination, related injuries and scrap metal dealerships. As awareness of the Law increases, while geographical coverage may increase, the target population should be narrowed to a more clearly defined target group to avoid over coverage.

### ***Effectiveness***

This approach has been effective in disseminating information on the Law on the Management of Weapons, Explosives and Ammunitions. Most adults demonstrated and awareness of the law and were aware that fines that can be imposed. In one focus group discussion for example, it was reported that if people tampered with UXO, *'We would be fined millions of Riels. We are poor we do not have money to pay the fine'*. The approach also seems to have contributed to decreasing the demand for war scrap. A common theme summarised by one respondent illustrates this *'Scrap metal dealers are afraid to buy UXOs. There is a law banning mines and UXOs trading. The sellers dare not to sell and the buyers dare not to buy. We even dare not to keep them in our house.'*

The approach however is probably most effective with collectors who have alternative income generation sources or for whom scrap metal collection is not their main livelihood activity. For people with less choices, strict law enforcement may have pushed these people into other areas, increased the likelihood of people trying to render safe ordnance and break it into smaller pieces or pushed them 'underground' making them even harder to reach. Nevertheless, this modified behaviour does reduce the risk of large numbers of bystanders being injured while someone is tampering. Generally, children did not report being aware of the law and given the range of motivations, children and especially boys have for engaging with UXO, the approach may be less effective. Further, while the prevalence of local de-mining is reported to have decreased significantly, there were still some reports of this practice continuing.

### ***Relevance***

Ensuring people are aware of the law and penalties has relevance for most people living in affected areas and potentially gives them power to negotiate with risk-takers. Messages could however be more focussed and provide information about how people can access information and assistance to develop safer alternative livelihood activities. HIB does try to do this by working in partnership with World Vision and passing information of high risk households onto World Vision. The police as enforcers of the law are generally seen as

credible sources of information on the law and law enforcement. While appropriate and relevant for law enforcement activities,

#### ***Sustainability***

The current approach used by the police also relies heavily on the use and dissemination of communication products and incentives. Sustainability will be achieved through institutionalisation of reducing the trade in war scrap as a police issue and it is essential that policy makers and service providers work with the police to develop a concept and sense of ownership and obligation among the police.

#### ***Impact***

Messages on the illegality and large fines imposed for handling and/or trading in explosive war scrap do seem to have resonated with people engaged in the trade. There is evidence that suggests that this approach has had a positive impact on high risk behaviour. As discussed in more detail below, it also seems that the approach may have contributed to a decrease in the number of people injured as a result of being a bystander. While not conclusive, this may be partially as a result of people who continue to engage in high risk practices moving out of residential areas as well as the overall decrease in people engaging in this practice.

#### ***(iv) Community participation in mine action processes***

These approaches are mainly implemented either through community volunteers as in the Community Based Mine Risk Reduction (CBMRR) concept, or through Community Liaison (CL). The aim is to involve communities in the Mine Action process and selection and prioritisation of tasks to provide more localised responses. CBMRR employs locally recruited staff at the district level. These staff work with a network of volunteers using participatory methodologies to identify clearance priorities and where possible to advocate for and link vulnerable people with development and income generation initiatives.

The CL approach also relies on the use of participatory methodologies to identify community clearance priorities but uses salaried staff rather than volunteers. In both CBMRR and CL, these priorities are then fed into operational planning and clearance team workplans. Both the CL and CBMRR are therefore integrated into other areas of operations in a much more comprehensive and systematic manner than other approaches to MRE with the exception of CMAC's MRE/RR and scrap metal teams.

The CBMRR approach has several distinct differences from the CL approach. Some of its key strengths are that by using village volunteers it leaves a more permanent Mine Action focal point in the village with detailed village maps showing areas known to be mined, suspected to be mined and cleared/reclaimed. It is also intrinsically linked to local networks such as the village development council and commune council with planning linked to broader community planning processes and aims to develop the communities planning and management skills. Through a process of Participatory Learning and Action (PLA) village needs are identified, recorded in a detailed book and advocated for at commune and district level. CBURR is a version of CBMRR with a focus on UXO and uses the police as the main source of awareness messages and is under the line management of the EOD unit rather than MRE. The MRE messages and method of dissemination in both CBMRR and CL is similar to those outlined above.

#### ***Coverage***

Coverage is generally good targeted at the most affected villages and districts and also based on injury rates. Not all highly contaminated areas have CBMRR networks however and the approach could be extended provided it would also be possible to provide adequate clearance

services in support of the CBMRR. As above, however, within each target village there is over coverage of MRE messages.

#### ***Effectiveness***

The approach has been effective in raising awareness and more specifically, where volunteers are used provides a more detailed and credible source of information. The approach has also been effective in securing community based clearance and in some development initiatives. This however, is more effective when specifically integrated with a development program. Local volunteers can also be more effective in terms of reaching newcomers and migrants but insufficient information is currently available to reliably assess the extent to which this has been done to date.

#### ***Relevance***

The approach is relevant due to its localised nature, its focus on community needs and its potential to provide more relevant and detailed local information. Where village volunteers are used, there is also likely to be increased source credibility. Nevertheless, the limitations of the messages provided already discussed does potentially negate some of their relevance.

#### ***Sustainability***

The ability to sustain motivation and commitment of volunteers is an issue with several instances reported where volunteers have left, often due to economic migration to other areas. The ability to maintain these volunteers as well as building their technical, management and communication skills are crucial in achieving sustainability. While it was not possible to undertake an in-depth assessment, benefits accrued to the volunteer appeared to be a key factor in maintaining the sustain motivation and commitment of volunteers. Benefits do not necessarily involve incentives or financial gain but can include increased status within the community by being perceived for example, to have facilitated benefits to the community, for example, through clearance and links with development projects. As envisioned in the CBMRR approach, further developing the capacity to manage and advocate for their own safety, is also crucial.

#### ***Impact***

It is hard to assess the impact these approaches are having on sustained behaviour change for reasons already outlined. Nevertheless, the approach is having an impact in terms of facilitating community priorities for clearance. The approach also aims to link communities to develop agencies and gain livelihood support which is also likely to impact positively on behaviour change. This has been more effective when specifically linked to a development program.

CBMRR also aims to develop advocacy and self-efficacy – crucial for sustainability - but it is unclear the extent to which the approach is having an impact at this level.

In summary, the current approach to disseminating MRE messages has been effective in raising awareness – essential steps for behaviour change. A key challenge for MRE now is to focus on identifying and changing specific behaviours. This will involve developing specific behavioural strategies and then monitoring change. It will also require a cross-sectoral approach. This has already begun with good linkages established with the police and integrated mine action.

### ***5.2 What are current monitoring and evaluation systems and how can they be strengthened?***

CMAA and most individual operator programs have some form of monitoring and evaluation processes and six monthly activity reports are provided to CMAA and UNICEF. CMAA also investigates accident reports. Joint CMAA/NGO/UNICEF monitoring activities have also been undertaken in 2006 and 2007 but not in 2008. Further, there are no standard

reporting formats, monitoring and evaluation guidelines or a robust information management system. Currently, MRE information is stored in a paper based system making it difficult to use the data for analytical, planning, monitoring or evaluation purposes.

Strategy and program indicators are mainly quantitative, without specific target groups being described and focus primarily on program activities and outputs, rather than focussing on behavioural outcomes and impacts. While this may have been appropriate while the focus was primarily on raising awareness, as a more targeted behaviour change approach is phased in, a much stronger focus on behavioural outcomes is required. Outcome/ impact information is often available but is mainly based on anecdotal cases studies and is not captured or reported in a systematic way. Increasingly however, developing an evidence base for the effectiveness of MRE and its contribution to injury prevention is going to be important in order to advocate for and secure appropriate allocation of funding.

In order to measure impact however, first however, it is important to determine exactly what behaviours the MRE program is trying to change. These can then inform the monitoring and evaluation plan so that behavioural results can be monitored and where necessary changes made to the program (this also maximises efficiency). It also increases accountability and can provide evidence of program success.

Currently, injury rates are often cited as a key indicator, however as discussed, injury reduction is a result of a number of factors and therefore not necessarily a reliable measure of the effectiveness of MRE (UNICEF MRE Best Practice Guidelines, Evaluation). Further, rarely has there been a systematic assessment to evaluate whether MRE interventions are impacting positively on injury rates. An exception is an HIB quantitative evaluation which compared the number of injuries in the project site compared with national trends and identified a decrease in accidents when compared with nationwide statistics.

While, there is a general consensus that MRE on its own cannot reduce, it is still the key indicator of most MRE programs reviewed. Despite this, few attempts have been made to systematically analyse injury data in project areas compared to non-project areas. An exception is Handicap International Belgium (HIB) (HIB, 2008). HIB evaluated its work in Pailin (Pailin municipality and Sala Krao district) and Battambang (Rottanak Mondul and Samlout districts) based on an analysis of injuries. A comparison between injury rates in the project area and national rates suggests that injury rates in the project sites have decreased significantly more than the national trend. Further, in the HIB project areas:

- The number of accidents involving boys decreased while it slightly increased nationally;
- The number of accidents reported as a result of deliberate handling decreased in the project site while it remained constant nationwide;
- The cases of injuries reported as by-standing/passersby decreased;
- The number of injuries reported as a result of making a fire (an activity often associated with the scrap metal trade) disappeared

While the HIB evaluation did not attempt to control for confounding factors or investigate further with a qualitative analysis, it seems reasonable to conclude and based on these figures, and this evaluation, that the project has had an impact in reducing injuries in the project sites. Further evidence to support this comes from a comparison of injury rates at the commune and village level. At the commune level while there was an overall decrease in injuries there



were no significant differences between target and non-target communes. Nevertheless, in the target communes there was a reported decrease in accidents due to making a fire, deliberate handling and by-standing/passersby. At the village level the decrease in injuries is significant although this was offset slightly by an increase in injuries in non-target villages. Nevertheless, the overall figures are still better than nationwide statistics. A possible explanation for the increase in injuries in non-target villages is that while the project has reduced high risk-taking behaviour, a core population are continuing such practices but have shifted their activities outside of the project's target villages (HIB, 2008).

A major weakness in terms of monitoring and evaluation is the lack of a MRE database. Further, there are no linkages or analysis between MRE information and information collected by other Mine Action components, nor is it possible to easily map MRE interventions with other interventions and injury rates as information is not in one central database.

The CMAA should also advocate for all development agencies to take mine/UXO risk into account where appropriate and being aware of and including vulnerability to mine/UXO exposure in routine risk assessments. In this way, where risk behaviours and risk factors are identified as prevalent, the agency could report these to CMAA to determine the most appropriate response. This will allow a more proactive response than responding to accidents.

### ***5.3 What actions and support are required to prepare for a transition to national management of MRE?***

It is clear that within the MRE sector, the CMAA and all MRE partners have made considerable attempts and shown a strong commitment to improving and maintaining coordination and information sharing. In terms of information sharing, building a shared understanding of MRE and issues surrounding mine/UXO risk and promoting standardised messages, coordination at the national level, facilitated by CMAA has been effective. Coordination between service providers at this level is now well established and valued by service providers and is likely to be sustained.

At the provincial level, coordination seems less systematic however, and there may be instances of overlap. For example, as not all operators use the same criteria for volunteers or networks, some villages may have different MRE/Mine Action focal points being utilised by different agencies. Further, where the CBMRR network exists and where there is already extensive information on not only mine/UXO contamination, but also community needs, it is not clear that the volunteer is always the first port of call for agencies outside of the sector for mine/UXO related information. Where a CBMRR network does not exist, alternative systems may be established.

Coordination of MRE processes at the provincial, district, commune and village level is also less systematic. Collaboration and coordination with government partners is largely dependent on providers contributing to staff salaries, provision of incentives, per diems and travel costs. Without institutionalisation and national commitment at all levels of government to the issue of MRE and Mine Action more generally, there is a risk that once withdrawn or decreased this collaboration will cease. To ensure that MRE/Mine Action is mainstreamed and viewed as a cross cutting issue, it remains essential that organisations maintain and strengthen their collaboration with local government structures.

Currently, within CMAA, MRE as well integrated as it could be into other components of Mine Action. While this may have been appropriate in the awareness raising phase, where MRE has been mainly information focussed, increasingly, it should be coordinated with other components. Conversely, Mine Action operators who undertake both MRE and clearance operations, generally have well integrated programs at national and provincial levels. The extent to which providers of standalone MRE however liaise and coordinate with clearance providers is less clear.

There are few indicators that attempt to assess capacity or analyse training and professional development needs at any level. Committing time and resources to this is essential in gaining national ownership and management capacity. It is important that agreed capacity building needs are systematically incorporated into program design including monitoring and evaluation of outcomes and impact and appropriately budgeted for.

A major limitation for CMAA in terms of ability to network within Cambodia and the region and with operators and donors as well as being able to access relevant material, is the lack of internet access. Another concern is that currently, MRE is perceived by many as a UNICEF activity with UNICEF appearing to be often involved in day to day operational decision making.

#### ***6.0 Progress against the national Mine Risk Education strategy***

The national MRE strategy (2006) aims to ‘reduce the number of mine/UXO casualties by empowering affected communities to identify appropriate and effective risk education/reduction approaches, and by coordinating and integrating all risk reduction efforts with broader humanitarian and development activities.’ The strategy has four objectives and as outlined below, good progress has been made against each.

##### ***Objective 1: Promote the roles and responsibilities of affected communities in providing risk education and risk reduction strategies for their communities.***

Under this objective, activities include promoting participation of communities in Mine Action processes, examples of this include participatory, community based approaches to task selection and prioritisation illustrated by approaches such as CBMRR, CMURR approach and CL. While there is still no national reporting mine/UXO reporting system as advocated for in the strategy, agencies have tried to better link roving tasks with community requests.

Thus progress has been made under this objective and to a large extent planned activities are being implemented or developed.

##### ***Objective 2: Advocate to Mine Action, community development, relevant ministries and other social services to contribute more effectively to risk reduction.***

This includes strengthening coordination mechanisms, developing MRE policies, guidelines and standards, documenting lessons learned and best practice and advocating for the integration of MRE and risk reduction activities in Mine Action sectors, social services, relevant ministries and community development programmes. Coordination at the central level is on-going with regular information sharing meetings held. The extent to which information is analysed, used and integrated with other Mine Action units, for example the socio-economic unit, to ensure an appropriate, flexible and coordinated response is a little unsystematic. While appropriate when the focus was on awareness, as the emphasis moves to behaviour change, better integration and coordination is required.

While individual service providers may coordinate with other providers in and external to the sector, this coordination is at times a little ad hoc and relies. Some joint CMAA NGO monitoring has taken place and as mentioned, regular reports are provided, although again, the focus is primarily on outputs and processes.

***Objective 3: Continue to develop appropriate and effective MRE approaches targeting high-risk communities and individuals.***

As seen, direct MRE in Cambodia is still conducted largely through presentations to mine-affected villages, through village level volunteers, CMAC MRE/RR teams, household visits and through the primary school curriculum implemented by MoEYS, including drama skits to reach out-of-school children. There has been an attempt to improve targeting and provide messages for high risk groups, such as scrap metal workers alongside increased law dissemination. Examples of this include the HIB project and the CMAC scrap metal dealers' project. Service providers have also tried to link vulnerable individuals/households more specifically with livelihood activities in an attempt to address the underlying determinants of mine/UXO injury. Messages continue to focus on risk avoidance. One group – adolescent boys – are identified in the casualty data as being particularly vulnerable to mine/UXO injury but few attempts seem to have been made to meaningfully engage with this group.

***Objective 4: Strengthen national coordination***

As mentioned earlier, national coordination is reported to have improved and CMAA regularly hosts meetings and collects output data from operators. This information however, is not fed into the national database. Work on developing policies, guidelines and national standards have not started yet.

**4.0 Concluding remarks**

To conclude, MRE in Cambodia has developed along the conflict/development continuum. As Cambodia progresses further along this continuum, a new approach is required with a stronger focus on specific behaviours and target groups. This will include a revision of activities and messages to ensure they remain relevant, credible and targeted and based on communication for behavioural impacts.

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*Annex 2: Minutes of Meeting, 22 September 2008*

**KINGDOM OF CAMBODIA**

**Nation Religion King**

Minute of Mine Risk Education Technical Working

Group (MRE TWG) Meeting, Chaired by H.E. Sam Sotha, Advisor to the Prime Minister, Ambassador of Mine Action, ERW, Cluster Munitions and Disarmament and Secretary General of the CMAA, at CMAA Meeting Room, 8:30-12:00 22 September am 2008

On 22 September 2008, in the CMAA Meeting Room at 8:30 am, with full participation of 18 MRE TWG members from: CMAA, UNICEF, CMAC, MoEYS, RCAF, HI-B, CMVIS, CRC, MoI, WVC, and CARE, H.E. Sam Sotha, Advisor to Samdach Akeak Moha Sena Padei Techo Hun Sen, Prime Minister of the Royal Government of Cambodia, Ambassador of Mine Action, ERW, Cluster Munitions and Disarmament and Secretary General of the Cambodian Mine Action and Victim Assistance Authority (CMAA) presided over the gathering.

He welcomed all participants who participated in the meeting. Thereafter, the meeting discussed the following topics with brain storming.

- 1- Present and finalise evaluation question.
- 2- Present data gathering tools and obtain TWG feedback and suggestions.
- 3- Clarify with TWG conceptual framework.
- 4- Finalise areas for data collection and agree on which operator can contact village.
- 5- Any other business.

The meeting discussed and reviewed the evaluation question drafted by Ms. Joanne Durham consultant of CMAA. She highlighted that the questionnaires which will interview in the province are different from those that were used in Phnom Penh.

And then she writes 3 main questions on the flip chart to meeting for consideration:

- 1- What approaches to MRE likely to be the most effective to the current context.
- 2- What is feasible and practical ways of measuring result
- 3-What are capacity building needs of sustainability and transit coming at of international support

She also shows the 5 detailed questions on the chart:

- 1-Information sheet
- 2-Consent form
- 3-Indept interview operator
- 4-Indept interview teacher
- 5-Community mapping

All these questions can help us to know about MRE activities which we do so far, and then she divided the meeting as 3 small groups to discuss and revise on the meaning of all

questions. After discussion and revision, the meeting has discussed on the conceptual framework. In the Geneva International Centre for Humanitarian De-mining (GICHD) , they use a conceptual framework from conflict to peace and mine action as 4 periods or phases:

- 1- Period conflict
- 2- Period conflict has powerless
- 3- Period re-construction of the country
- 4- Period of development of the country

GICHD has put mine action in all periods. As we look at accidents we can see that in Cambodia in the 90s, during peace talks, the accident rate decreased a little, during the time there was also more conflict again mine accidents increased, and in the period of reconstruction and development, the accidents have continued to decrease, therefore, in order to know clearly the MRE tasks, we should know clearly mine accident in each duration and adjust our MRE strategy accordingly.

In Cambodia from one duration to another period the MRE activities are always change. The meeting identified the type of persons who had accident into each period of the mine action. The meeting also identified what activities caused accidents in each period, who was responsible for MRE in each period and what the appropriate interventions or MRE messages were. This resulted in the following (after the meeting the Consultant has out it into a table to help see the different periods better):

| Phase                                     | Characterisation  | Mine/UXO Risk Factors  | MRE intervention   |
|---|---|--|--|
| Conflict                                  | Displacement<br>Changing livelihoods<br>Socio-economic disruption<br>High percentage of combatant and non-combatant<br>mine/ERW incidents                             | Military: De-mining, fighting<br>Civilians: Lack of awareness<br>unfamiliarity Limited coping skills<br>Meeting basic needs<br>Fighting<br>Movement  | Decided by military  |
| Immediate post conflict/<br>Stabilisation | Situation moving towards peace<br>Still some insecurity/renewed fighting<br>Gradual return of displaced population<br>Increase in non-combatant<br>mine/ERW incidents | Civilians returning home<br>(refugees/IDPs) and military<br>Activities include movement, rebuilding, people are uniformed, may be on-going fighting, relaying of mines<br>Inadequate clearance | Mass media communications campaign<br>Awareness raising, risk avoidance messages<br>One way communication – information giving<br>Education in refugee camps |
| Reconstruction                            | Increased security and stability<br>Increased return of displaced<br>Return to previous   | Casualties are children, contractors/casual labourers, farmers, internal migrants, ex  | MRE response needs to be two way, participatory, situation/behaviour specific, focus on at   |

|             |   |   |  |
|-------------|---|---|--|
|             | livelihood activities and/or diversification<br>More confidence in peace process<br>Increased need for safe land so people can rebuild lives<br>Casualties are more civilians than military, but numbers decrease year by year<br>Civilians developing coping skills<br>Emerging national MA capacity | soldiers, SM collectors.<br>Underlying factors relate to economic pressure, inadequate clearance response/doesn't meet community needs/needs of high risk individuals, deliberate risk taking – e.g. adolescent boys. Village based de-miners, have some knowledge but maybe incomplete | risk households/ individuals.  |
| Development | Increased awareness and stability<br>Casualties likely to decrease further  | High risk groups ex soldiers, adolescent boys, the poor   | MRE response needs to be integrated, devolved to government, exit strategies for MRE providers |

And next, Ms. Consultant call on the meeting for consideration the conceptual framework, according to her idea, the conceptual framework has 3 main concepts those are:

- 1-Pre-disposing
- 2-Enabling
- 3-Reinforcing

After divided as 3groups the meeting filled on the flip chart the natures of challenges and impact of the conceptual framework. This framework was agreed.

| Predisposing Factors   | Enabling  | Reinforcing   |
|--|---|---|
| Lack of knowledge/mis-information<br>Lack of/partial skills<br>Culture<br>Beliefs<br>Attitudes<br>Positive past experiences<br>Lack of consideration for others<br>Curiosity | Few income generating opportunities<br>Demand for scrap metal/explosives<br>Desire to use land or other blocked resources<br>Lack of supervision of children/adolescents<br>Familiarity with living in contaminated environment | Legislation<br>Inconsistent law enforcement<br>Poor community commitment to safety<br>Clearance service unable to keep pace with demand<br>Clearance has to respond to multiple request & community priorities/risk reduction does not always get |



|  |   |   |
|--|---|---|
|  | <p>Education system tends to promote rote learning, rather than developing life skills<br/>         Informal cross border trade</p> | <p>prioritised<br/>         Focus of clearance for development rather than RR<br/>         Lack of access to finance and credit<br/>         Livelihood shocks<br/>         Leadership<br/>         Seasonal trends (economics, food security, labour)<br/>         Risk behaviour does not always result in injury<br/>         Poor role models</p> |
|--|---|---|

The meeting then discussed concerns about the duration and places of the evaluation. It would be better if the places of the evaluation could be extended to Battambang, Banteay Meachy and Pailin provinces. Finally, the meeting agreed to follow the initial plan, duration and places of the evaluation as what Consultant initially proposed with full endorsement of CMAC and CRC.

The meeting adjourned at 12.15pm. The next meeting was not yet fixed, however.

Minute taker: Mr. Kuon Pheng, Director Department of Victim Assistance and MRE Officer

Seen and approved

Ambassador, Secretary  
 General of the CMAA and  
 Chairman of the meeting

Sam Sotha

***Annex 3: People met***

**AusAID**

Belinda Mericourt

**Austcare**

Anna Roughley

**Australian Red Cross**

Teresa Carney

**Cambodia Mine Action and Victim Assistance Authority**

HE Sam Sotha

HE Leng SocheaIm Channa

HE Nut Sophall

Koung Pheng

Eang Kamrang

Chan Rotha

**Cambodia Mine Action Centre**

Chansabath

Ung Kor

Battanbang:

Net Nath

Phan Bunroeun

Thong Pisal

Yeng Sokunthea

Him Vandy

Yurn You

**Cambodia Red Cross**

Chiv Lim, CMVIS

Mon Phireak

Pailin:

Sokang

**CARE**

Joseph Kodamanchaly

Ann-Marie McCabe

Nem Phal

**Handicap International Belgium**

Hugo Hotte

**HALO Trust Cambodia**

Chhith Samorn

**International Women's Development Agency**

Catherine Cecil

**Japan Mine Action Service**

Touch Borith,

**Mines Advisory Group**

Rupert Leighton, Country Programme Manager

**Ministry of Education, Youth and Sport**

Pem Saroem

Ourk Sokha

Soun Sok (Department of Education, Youth and Sport, Battanbang)

**Ministry of Interior**

Thean Bunseny

**Spirit of Soccer**

Soun Sokhorn

Scott Lee

**UNDP**

Steve Munro

**UNICEF**

Plong Chaya

Lesley Miller

**World Vision Cambodia**

Leng Vireak

Sun Malin

Chim Rithy

Focus group discussions with men, women and children and key informant interviews in Borvel District, Battanbang

Focus group discussions with men, women and children and key informant interviews in Malai District, Banteay Meachy

Focus group discussions with children in Rottanak Mondul

Key informant interviews and interviews with police and scrap metal dealers in Rottanak Mondul

Key informant interviews in Pailin with Cambodian Red Cross

Key informant interviews and focus group discussions with police, scrap metal dealers in Khampong Speu

## *Annex 4: Terms of Reference*

### **Cambodia Mine Action and Victim Assistance Authority (CMAA)**

#### **TERMS OF REFERENCE FOR CONSULTANT TO CONDUCT AN EXTERNAL EVALUATION OF MINE RISK EDUCATION ACTIVITIES TO PREVENT MINE/UXO INCIDENTS IN CAMBODIA**

##### **1. Background**

Mine Risk Education has been implemented to prevent mine/UXO accidents since 1993 by a variety of mine action activities and agencies. The initial activities focused on providing knowledge about mines and UXO to returnees and internally displaced people who were settling in often heavily contaminated areas after the end of civil conflict. At that time knowledge was usually provided by roving educational teams who gave presentations in villages outlining the different types of mine and other ordnance, the danger they posed, and the steps that could be taken to avoid or minimize the risk of accident.

In 2006, 450 casualties reported by the Cambodian Mine/UXO Victim Information System (CMVIS), this representing a decrease of 49% (335) compared with the 875 casualties reported in 2005. Moreover, in 2007, only 350 casualties reported this representing a decrease of 22% (100) compared with the 450 casualties recorded in 2006.

The Mine Action Technical Working Group decided at its meeting in January 2008 to conduct an external evaluation of MRE activities under the coordination of the **National Mine Risk Education Technical Working Group lead by the Cambodian Mine Action and Victim Assistance Authority (CMAA)** with financial support from UNICEF and technical support of all relevant MRE operators. An external evaluation of Unicef-supported activities to prevent mine incidents had been conducted in July 2000. However, there have never been any justifications of what types of MRE are most suitable and most effective in which contexts.

The evaluation will cover MRE interventions by both Government and NGOs operators over the past years by breaking down two different periods 1) from 2000 to 2005 while the number of mine casualties was on the plateau and 2006 to date while the number of casualties was decreased drastically and propose strategies for the way forward. This should build on the 2007 “Study on the Dramatic Decrease of Mine/UXO Casualties in 2006 in Cambodia”.

This external evaluation will be a good opportunity to analyze progress against the national MRE strategy planned results, with a view to strengthen the impact and effectiveness of MRE operations, while adjusting the different MRE components to reflect the current landmine/UXO situation and country’s development. The lessons learned of this evaluation will inform and guide the review and development of the MRE approaches and strategies of the next MRE cycle toward the aim of zero casualties by 2012. It will also help in prioritising the increasingly limited resources available to this sector.

##### **2. Purpose and Objectives:**

The purpose of this external evaluation will be to support the Cambodian Mine Action and Victim Assistance Authority (CMAA) as well as MRE operators to evaluate the effectiveness and impact of their work and through this to review and revise the current MRE strategy in order to meet the timeline of Government plan to reach zero casualties by 2012. More specifically, the consultant will:

- Determine the impact that MRE activities have had to date;(within the timeframes mentioned above and in relation to the areas identified in the work assignment and with reference to the Strategy
- Determine what types of MRE are most suitable and most effective in various contexts;
- Identify the appropriate national entity(ies) to lead the MRE sector in developing and implementing an MRE transition plan to promote national government ownership and long term sustainability.
- Document best practices as well as lesson learned.

### **3. Work Assignments/TOR**

1. Desk review of existing MRE documents and other background materials over the past years and synthesize documented achievements and identified constraints;
2. Field research in areas covered by mine risk education in order to qualitatively:
  - Assess the knowledge and understanding of schoolteachers and affected communities trained by MRE operators;
  - Identify coordination between MRE and other mine action activities and any benefits that may bring;
  - Assess national staff capacity in providing MRE directly, in training teachers and in facilitating the establishment of community networks;
  - Assess the prioritisation mechanism to select villages and schools for MRE;
  - Assess the strategies for reaching children not attending schools by analysing work done in collaboration with NGOs on non formal education and peer education;
3. Dialogue with key stakeholders to:
  - Determine a set of indicators to regularly measure the progress of MRE activities;
  - Review the MRE methodologies used over time and the rationale for their evolution
  - Assess the material used and the capacity to design new materials;
  - Assess the coverage of MRE to date and determine whether it should be adjusted;
  - Assess the rationale for introducing MRE in the National Curriculum;
  - Assess further technical assistance requirements (profile, duration);
  - Assess the effectiveness of national MRE coordination and monitoring mechanisms and the steps required to shift to full government ownership and leadership of MRE;
4. Prepare draft report and give presentation of the key findings at the Mine Action Technical Working Group.
5. Prepare a final report and outline key recommendations for improvement of the MRE programme activities

### **4. Qualifications or Specialized Knowledge/Experience Required**

- 1). Extensive experience in mine action in Cambodia and **outside of Cambodia** and in mine action survey, research and data collection,
- 2) Experience in evaluating mine action programs, producing publications, excellent communication skills and fluent in written and spoken English language, and knowledge of Khmer will be an advantage,
- 3). Strong in strategy and policy development

**5. Duration of Contract (date and period)**

Two months, 01<sup>st</sup> of September 2008 to 31<sup>st</sup> October 2008

**6. Work Schedule:**

01 - 14 Sep 2008 = Meet with MRE relevant operators, conduct preliminary desk review of key documents and develop conceptual framework, evaluation methodology and draft data collection instruments

15- Sept 2008 = Presentation of conceptual framework, methodology and data collection instruments to MRE TWG advisory group

16 – 19 Sep 2008= Revise framework and tools as necessary and arrangement field interviews with partners

20 – Sep- 05 Oct 2008= Field data collection at provinces

06 – 19 Oct 2008= Data analysis, generating the key findings, preparation of tables, charts and case studies and report writing

20 Oct 2008 = Submit and present draft report to MRE TWG advisory group

21 – 30 Oct 2008= Revision and finalisation of report based on comments

31 Oct 2008 = Submission of final report, power point presentation and final presentation to broader mine-action and donor community

**7. Deliverables with Due Date:**

1. ( 15 Sep 2008)= Presentation of conceptual framework and methodology , including data collection instruments (guide, questionnaire etc)
2. ( 20 Oct 2008)= Draft report presented and submitted
3. (31 Oct 2008)= Final report and final presentation

**8. Deliverables with Due Date:**

30% upon presentation of conceptual framework and methodology

30% upon submission of draft report

40% upon submission of final evaluation and presentation

**9. Contract Supervisor:**

H.E Sam Sotha, Mine Action Ambassador and Secretary General of CMAA with support of the **National Mine Risk Education Technical Working Group**

**10. Type of Supervision that will be provided to consultant:**

Supervisor will help to facilitate the meetings and will ensure compliance with the TOR and progress being made as per the agreed work-plan; and provide regular feedback throughout the contract.

**11. Consultant's Work Place/ Any facilities to be provided by CMAA Office:**

During time in Cambodia, the consultant will be provided with a desk, internet connection, and other office facilities. It is expected that the Consultant will bring his/her own laptop for this assignment

*Annex 5: Information and question guides for interviews/focus group discussions*

**Information Sheet for Participants**

**PROJECT: An external evaluation of MRE activities in Cambodia**

**INFORMATION SHEET FOR INTERVIEW MRE PROGRAM RECIPIENTS**

**ENGLISH VERSION**

My name is Jo Durham. I am helping the Cambodia Mine Action Authority (CMAA) evaluate the Mine Risk Education activities in Cambodia. I am asking for your help in my project which is to understand the problem and why there is a need for these activities, the kind of MRE projects that are being implemented and how and to what extent these are expected to impact on the problem. This information will help CMAA and operators to better develop, implement and monitor MRE programs to maximize benefits of the program for affected communities.

You can stop taking part in the interview at any time. Your help with this project is completely voluntary. It is important for you to know that if you decide NOT to take part in this project, the Mine Action and MRE services in your community will not be affected in any way. You will continue to receive the same services that you have been getting. There will NOT be any money paid to you for helping me. Nor should you give food or gifts to the research team.

The interview may take 1 hour. (name of assistant) will record all your answers. Please answer truthfully. There are no wrong answers to the questions that will be asked. Your answers will be kept very safe in a locked cupboard, and I will be the only person who has a key to the cupboard. I will enter your answers into my computer but your name will not be entered. No-one will be able to match your name to the answers. If you are willing to help me with the interview, I will ask you to sign the consent form or make your mark.

Do you have any questions?

Thank you very much for your time