Assessing community communication needs on post-awareness campaigns in mine risk education in the Lao People’s Democratic Republic (Lao PDR or Laos)

By

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Abstract

Laos has been severely impacted by unexploded ordnance (UXO), a major threat to the safety of the civilian population, with 98 percent of casualties caused by cluster bomb munitions affecting civilians. The government has started mine risk education programs, targeted at triggering behaviour change in the communities at risk by generating awareness, raising the levels of information and through education. Despite the work that these programs have done so far, research shows that persons living in high UXO infested areas still engage in behaviours predisposing risk even with the knowledge on the health risks posed by UXO.

The objective of this research project was to assess the communication and information needs of the local communities in UXO contaminated areas and to contextualize these needs within the daily routines of the people through communicative and participatory location-based approaches while at the same time taking into consideration the economic imperatives.

The data collection methods included non-participant observation, in-depth semi-structured interviews, communicative ecology mapping, and focus groups. Ethnographic non-participation research tools were adopted in order to study the community and better understand it in its natural setting without interfering in people’s day-to-day life. The research was conducted in Phaxay District, Xiengkhouang Province, Lao PDR. The research area was selected based on its relevance to the UXO communication needs study. Relevance was determined on the basis of previous UXO community awareness programmes and nature of the awareness programme in terms of media used as well as the frequency of UXO related accidents in the past and currently. The choice of participants was based on a number of factors including previous
participation in a UXO community awareness programme and having lived in the community for more than five years. The other requirements were age, gender, occupation, and level of education.

Key findings indicate that models of communication used in the community are face to face, mobile phone, newspapers, television, radio, and the internet as well as loudspeaker broadcasts. Motorbike, bicycle, pick-up truck and minibus are the common modes of transport in the village and between the villages. Information regarding UXO risk was received in various ways including mine risk education (MRE) programmes, village chief officer and family members. Children age from 6 to 10 years old would receive information about and study UXO risk and safety behaviours in one of their classes from their teacher in primary school. The Mine Advisory Group (MAG) is responsible for designing MRE contracts and implemented as per plan with the donor, contained in the MOU with the government. MAG has a pre and post evaluation form that is used to evaluate the impact of a programme every time an awareness campaign is implemented. UXO in Lao PDR is highly entangled with certain socio-economic factors making it a challenge to community members on a daily basis. Land is the primary resource in farming so high UXO contamination of land poses a risk to community members. Currently, there is no active scrap metal collection in the village.

The primary aim of the mine risk education is to prevent risk behaviour while at the same time teaching community members what to do when they come across a UXO item. Several methods are used to communicate a message, with the edutainment model being key. In addition, mine risk education is carried out in the local community in different physical settings. MRE has been
responsible for changing the day to day risky behaviour of the villagers. These include such practices as how to go about farming new land, burning trash in their homes and farms, and how to go about grazing their animals. The community awareness programmes caused a slowdown of scrap metal trade in the village. However, there are still instances of risky behaviour that include children playing with UXO items, and villagers moving UXO items. Additionally, villagers still take it upon themselves to determine which UXO items are worth reporting to the authorities.
Letter of Declaration

Name of candidate: Vannida Dejvongsa

This thesis entitled: “Assessing community communication needs on post-awareness campaigns in mine risk education in the Lao People’s Democratic Republic (Lao PDR or Laos)” is submitted in partial fulfilment for the requirements for the Unitec degree of: Master of International Communications

CANDIDATES DECLARATION

I confirm that:

- This thesis/dissertation/research project represents my own work,
- The contribution of supervisors and others to this work was consistent with the Unitec Regulations and Policies,
- Research for this work has been conducted in accordance with the Unitec Research Ethics Committee Policy and Procedures, and has fulfilled any requirements set for this project by the Unitec Research Ethics Committee.
  Research Ethics Committee Approval Number: 2014-1047

Candidate signature:................................................. Date: 16 February 2016

Student number: 1419498
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Chapter 1: Introduction

1. Introduction

During the second Indo-China war of 1962, more than half a million bombing missions were executed in the Lao PDR. Over two million tons of explosive ordnance was dropped in Laos, leaving a legacy of unexploded ordnance (UXO), or “bombies”, as they are popularly known as Laos, which present an ongoing serious public safety and health issue. About 30% of ordnances failed to detonate, resulting to Laos being one of the countries that are severely impacted by UXO (Sisavath, 2006). According to research and as shown by the MAG and the NRA for the UXO Sector in the Lao PDR (2007), UXO are a major threat to the safety of the civilian population in Laos with 98 percent of the casualties caused by cluster bomb munitions affecting civilians. In the district of Nonghet between 1964 and 2008, there were 390 casualties including 175 deaths caused by UXO accidents. This number is expected to be more given the communication challenges that hinder reporting from remotely located communities.

This thesis assesses the communication and information needs for the people living in the UXO infested regions in Laos by contextualizing them through their day to day lives. UXO affect the people living in an infested area mainly because of the people being uninformed on the behaviours that expose them to risk from UXO. Over the years, communication through MRE programmes has been done and this has led to a significant reduction of the casualties and injuries caused by UXO (MAG and the National Regulatory Authority, 2007; Sisavath, 2006). The study was conducted by collecting data through observation and interviews with people living in an area with the high infestation of UXO through a participatory observation and communicative ecology method. The key findings of the research are that UXO-related
accidents and incidences in the village have significantly gone down, which is to be considered a success attributable to the communication of previous MRE programmes towards informing the people on the risks posed by UXO. However, not all villagers are reporting UXO sighted to the clearance team or chief officer in the village as required, and children are still playing with UXO. These two behaviours are considered to be risky and an indication of unawareness of the risks these behaviours pose to the community and in the fight towards clearing the region of UXO. This therefore indicates a need for further communication oriented towards the practised risk behaviours.

1.2. Significance and Purpose

In addition to causing high casualty numbers, UXO contamination in Laos is the leading cause of poverty and one of the principal factors that limit long-term development plans of the country (MAG and the NRA, 2007). UXO contamination is the major hindrance towards land use and it prevents public access to basic services (MAG and the NRA, 2007). UXO cause physical and mental health problems in the various areas of contamination. Therefore, with the high infestation in Laos, they are a major health problem in the country (Sisavath, 2006). Of the UXO related accidents and incidents in the country, the majority were and still are from the rural areas. One of the reasons for this is considered to be lack of sufficient awareness of the effects of UXO in the rural areas. To tackle this problem and reduce the number of UXO injuries and deaths, the government of the Lao PDR started mine risk education programs (MAG and the National Regulatory Authority, 2007).

The mine risk education program in Laos is meant to educate the general public on matters related to UXO and the program is core to the UXO clearance program (UNICEF, 2005; MAG and
the National Regulatory Authority, 2007). Mine risk education is targeted at triggering behaviour change for the communities at risk through generating risk awareness, raising the levels of information and education. Behavioural change in the case of mine risk education refers to a change in the physical activities that result to UXO casualties, for example, touching UXO, striking UXO in farms, children playing with UXO, and introduces other safety measures, for example, reporting UXO to the nearest and available authority, and producing safety guidelines to observe when preparing land for farming (Durham & Ali, 2008).

Despite the work that the mine risk education program has done so far, research shows that persons living in highly UXO infested areas still do engage in behaviours predisposing to risk even with knowledge of the health risks posed by UXO (Durham, Gillieatt & Sisavath, 2005; Moyes, 2004). Poverty has been cited as being the cause of this ‘forced engagement’ as UXO provide an easy and fast, albeit deadly, source of income (MAG and the NRA, 2007). Persons living in UXO infested areas collect the UXO and sell it as scrap metal for easy cash from the scrap metal dealers. The price of scrap metal in Lao and the neighbouring countries is relatively low, but for the rural poor, it provides an additional source of income to augment such other income generating activities as rice and sorghum farming (NRA, 2013). To curb the problem of engaging in risky activity in search of scrap, the government issues “provincial decrees” to regulate the scrap-metal trade (GOL, 2005).

Previous study findings on UXO communication needs have been essential in the reduction of UXO casualties in the Lao PDR. Such studies have been responsible for the identification of the areas where MRE is particularly required. As a result, new MRE programmes have been designed to address risky behaviours previously witnessed in the village. One of these has been
scrap metal collection (MAG and NRA, 2007). Given the high poverty level in Laos especially in the remote locations, communities have been forced to venture into forests to collect scrap metal, which is an easy and fast source of alternative income (MAG and NRA, 2007). In the National Regulatory Authority annual report (NRA, 2012) the authority reports that 25 percent of the country villages are contaminated with UXO and more than 50,000 casualties have been reported since 1964 with about 56 of these being fatal. Of the fatal incidences, 40% were children.

Given this scenario, it is essential to address coping strategies to better inform the public, as well as tackle the economic motivation that drives persons to engage in risky behaviour. This thesis therefore is an essential contribution to the body of knowledge on dealing with UXO-risk predisposition behaviour. The report adds new findings on how to deal with the risk of UXO by changing the behaviour of people in the Lao PDR through the establishment of community needs related to the communication of UXO information. In addition, the report provides a basis for further research, especially concerning the economic and commercial solutions to dealing with UXO risks. Lastly, the report makes recommendations about how mine risk education can be remodelled to address the current information gaps with relation to the current day to day activities of people in remote communities in Laos.

1.3. Background

UXO related accidents often occur during farming exercises or in undertakings meant to supplement rural incomes, for example while collecting products from the forest or scrap metal. Research findings (Moyes, 2004; Durham et al., 2005) show that the majority of people
involved in UXO accidents are aware of the risks associated with UXO but are forced to engage in the risks activities by poverty as they feel that doing so is the only option they have.

Mine Advisory Group began the first Humanitarian Mine Action (HMA) in Laos in 1994 (MAG and NRA, 2007). Activities began with collection of data to establish the real scope of the UXO problem so as to develop appropriate solutions and work plans for the Community Awareness (CA) teams. CA teams were the mobile teams that undertook fieldwork which included collection of qualitative data on the impact of mine risk education and the factors that motivated risk behaviour, and disseminated information to villagers in UXO infested areas (Durham & Ali, 2008). CA awareness teams had first-hand contact with villagers. According to the NRA (2007), these first CA teams were the precursors of the current UXO Lao CA teams. The current UXO program in Laos, the Lao National UXO program (UXO Lao) was established in February 1996 and it is the first Lao government initiative in the area of humanitarian UXO clearance.

UXO Lao’s first education teams were trained by military psychological personnel and they were based on the premise that providing information would increase knowledge and the recipient members of the community would adopt low risk behaviours in their day to day activities. Just like the CA teams, UXO Lao CA teams are mobile – they move from one village to another with no stationary office for operations. They are made up of on average 6 persons and they are tasked with the responsibility of visiting residents at the village level of UXO contaminated districts (MAG and NRA, 2007). The teams stay in a given village for a week, a time which they disseminate information about the appropriate safety measures. This is done through community gatherings or meetings, school and household visits, posters, films, silk screens,
games, drama and puppet shows among other media depending on the message being communicated and the audience (MAG and NRA, 2007). In addition to the safety messages, the teams use videos to show the villagers the historical events that led to the bombing and subsequent contamination of their land with UXO. On the last evening, the team engages the community through a participatory platform of question and answer (HIB, 2006).

According to Durham & Ali (2008), while the UXO Lao CA team members are highly experienced in performing and public speaking, and are competent in their work, they are not effective in involving the community and promoting full uptake of MRE preventive strategies taught in the programmes. Laos has a number of minority groups and some of the CA team members are from these minority groups and can fluently speak the ethnic dialects, however the content of the materials used in the mine risk education program is mainly from the predominant Lao ethnic group. Durham (2007) states that the one week period that the CA team visits is not enough to provide the community with the long-term strategies required for risk reduction for the local community as well as support for risk reduction strategies. These were some of the challenges that were indicated and led the CA Unit to develop a pilot project on the training of villagers to become CA volunteers for the UXO Lao program in 2003.

The village based volunteer training program is aimed at encouraging members of the local communities to take up the responsibility of creating UXO awareness among themselves as well as reporting and therefore creating a continuous mine risk education initiative for the community by the community (HIB, 2006). The use of volunteers was a cost-cutting measure as well as a solution to the language barriers that were earlier experienced by the CA teams. The village-volunteers based program has shifted to the community liaison initiative. The liaison
program in Laos has two-person mobile teams whose work is to connect with the community and identify and prioritise land, take the relevant risk assessment and then, working in liaison with the community, develop safer risk reduction strategies. Mine risk education is therefore a responsibility of these CA teams and is currently done through dialogue between the two-member CA teams and community members with no materials as it was in the earlier years (UNDP, 2013). During clearance, the people who are involved in the vegetation cutting process are trained on UXO issues and they may informally pass this information to other members of the community.

The primary school system in Laos has been used by the ministry of education with support from the World Education Consortium to implement a UXO supplementary curriculum which covers grades 1-5 with ten lessons in each year level (NRA, 2012). The NRA is also involved in the program by virtue of being the UXO regulatory authority in Lao PDR. The NRA is supported by the United Nations Development Program (UNDP) in conjunction with other donors (UNDP, 2013). The program makes use of child-friendly demonstration and learning methods that are all meant to trigger the child to think things through on matters UXO (Durham & Ali, 2008). This involves explaining which items are dangerous, why certain activities are risky, and how problems can be solved.

Despite more than a decade of Humanitarian Mine Actions in the Lao PDR, a comprehensive nationwide UXO injury surveillance system is still lacking (UNDP, 2013). Nevertheless, based on the available data, it is possible to establish some trends in the injury rates, as discussed below. Immediately after the second Indochina war in 1975, there was an increase in casualties which has been attributed to people returning to their villages after the war and the revival of
agriculture and reconstruction activities. The other trend is an increase of casualties since 1985 to the last few years and this has been attributed to the increase of scrap metal trade as a supplement to farming for income (MAG and NRA, 2007). In the case of scrap metal, Moyes (2004) notes that the actual accidents are often related to digging into an item of live ordnance when investigating a signal (signals are established through metal detectors), rendering items safe by opening and removing them for sale, soil disturbance by grazing animals and agricultural practice and moving and throwing of sacks carrying scrap without thoroughly inspecting the contents for live ordnance.

MAG and NRA (2007) reckon that mine risk education alone can’t change this high risk behaviour, especially when the motivation behind engaging in the activities is economic. This acknowledgement of the worrying trend of increasing UXO casualties in the recent years has necessitated research to identify the communication needs so as to reduce or, better, fully eradicate the risks of UXO.

1.4. Research location - background

During the second Indo-China War Xiengkhuang province, the focus of this study, was considered to be one of the strategically important geographical areas. According to NRA (2013), fighting in the province began at the occupation by the Japanese during the Second World War and continued after the return of the French and into the time when the US replaced the French in supporting the Royalist Government and the start of the second Indo-China War (Vietnam War). Even though other areas in the country were affected by the war, in Xiengkhuang province, the ongoing conflict from Japanese occupation onwards covered almost the entire territory of the province.
Figure 1. US data on bombings in Phaxay District, Xiengkuang Province (Adopted from NRA, 2013)

The map above (figure 1), shows the bombing in Phaxay District, XiengKhuang Province. The US had more than 600,000 bombing missions in Laos between 1964 and 1973 (NRA, 2013) and each of the red dots in the map represents a bombing mission. The district was the second most bombed in the province. Figure 2 shows the location of Xiengkhuang Province in the Lao PDR.
During the war, intense ground and air battles were regular between the Pathet Lao (PL) and their allied forces from Vietnam with the Lao Lane Xang Group (Vang Pao) forces allied with the Royal Lao Government (NRA, 2013). The Plain Of Jars (PoJ), a central plateau area overlooked by hills and mountains was a strategic location for battle, and each side sought to control it by controlling the entire Xiengkhuang province and the northern military theatre (NRA, 2013). Controlling the province and the plain itself would mean control of the surrounding mountains and hills and transit routes. PL and their allies, primarily the People’s Army of Vietnam (PAVN), used National Route 7 which crossed from near the Vietnamese border in the east to the Luangprabang border in the west, and National Route 6 which travelled from Huanphanh in the
south to connect with Route 7 on the north-eastern part of the PoJ (MAG and NAR, 2007; NRA, 2013). In addition to the two main transit routes, there were also other minor routes that criss-crossed the province and these were targets for aerial bombing. Other bombing targets included military camps, Lima sites (clandestine U.S. military installations for conducting covert paramilitary and combat operations), and airbases, which were often located on mountainous and hilly positions, providing them with the ability to better control their surroundings (NRA, 2013).

A survey conducted by Handicap International in 1996 and 1997 on UXO contamination showed that the majority of the villagers in Xiengkhuang province reported moderate to severe intensity of military activity near their villages during the war (NRA, 2013; Handicap International, 1997). A total of 498 villages were surveyed and two-thirds of these reported the presence of UXO. 129 of the surveyed villages were severally contaminated and only 76 villages to have never had a UXO related problem (NRA, 2013). Of the reported UXO items, the most common types in the province were antipersonnel BLUs (cluster bomb sub-munitions), then mortars and projectiles (NRA, 2013).

Unlike other UXO contaminated areas in Lao PDR, the province of Xiengkhuang has UXO in many locations and not only limited to specific areas around the villages. UXO contamination is found in village centres, lowland rice fields and grazing fields, with a significant number of villagers reporting UXO contamination in the upland fields. The province of Xiengkhuang ranks second among the nine provinces of Lao PDR severely impacted by UXO (NRA, 2013).
1.5. Research objective

Lao PDR has for the past over 40 years suffered from UXO contamination as a result of the war discussed above, with the US being the primary user of the bombs. As a result, there have been many awareness campaigns with the aim of educating people living in the rural UXO contaminated remote areas (as described above). These campaigns are geared towards informing and educating people living in UXO contaminated areas about the risks they face on a day to day basis. Despite the efforts being made by the government of Laos through the National Regulation Authority, there still are casualties from UXO being reported in the country. This means people are still exposing themselves, and the risks they face may be as a result of other factors such as economic pressure to earn supplementary income through the trade in scrap metal, and related activities. Research shows that some of the main factors causing people to engage in risky behaviour are economic pressures and family safety. Due to the pressure to provide for a family, persons are forced to engage in risky behaviour such as farming in uncertified lands, or opting to move UXO out of their farms so as to continue their farming. Family safety on the other hand forces people, especially parents and guardians, to engage in risky behaviour where they opt to move UXO to avoid their children coming in contact with it (MAG and NRA, 2007).

An outcome of the fact that mine risk education program has been active in Lao for over a decade is that there has been a considerable reduction in UXO related casualties. However, and as argued by MAG and NRA (2007), the reduction has not been commensurate with the
community awareness efforts. It is therefore puzzling as to why UXO related casualties are still reported (NRA, 2013).

This insight indicates that the current program, as it is, does not effectively meet the set objectives, and that perhaps not all the needs of the people are being met by the mine risk education program. The program educates and informs the public about the dos and the don’ts of matters UXO with the aim of preventing community members from engaging with UXO items. The continued UXO caused injuries and death in some cases indicates that to reduce the occurrence of UXO related casualties more, or a different approach is required than the current communication program. The program designers therefore might not be fully aware of the attitudes, needs, and opinions of the local people, factors that are causing them to ignore the program’s teachings and still engage with UXO items, apart from the economic forces that ‘force’ persons to engage in risky scrap metal collection. The primary objective of the report was therefore to assess the communication and information needs of the local communities in
UXO contaminated areas, and to contextualize these needs in the daily lifestyles of the people through communicative and participatory location-based approaches, while at the same time taking into consideration the economic imperatives.

The majority of mine risk education programs done elsewhere, for example in Afghanistan, Vietnam, Cambodia, and Kosovo among others, have degraded and their significance in that society faded by not adopting the participatory approach. As a result, such programs have been viewed negatively by the communities, who see them as forced initiatives that do not take into account their opinions (Moyes, 2004; Durham et al., 2005; UNICEF, 2005). As a result, the majority of these programs end up failing by not delivering on the objective of reducing UXO casualties. Therefore the second objective of the research was to identify the perceptions of the local community and their feedback can then be used in designing a suitable mine risk education program in the future.

1.6. Research questions

The research objectives were guided by a key research question and a set of sub-questions. The primary objective of the research was to establish the communication needs of the communities in UXO contaminated areas in the context of the mine risk education campaign in Lao PDR. As a result, the primary research question of the research was;

*Key R.Q: What are the community communication needs in the context of post-awareness mine risk education campaign in the Lao PDR?*

In order to effectively and sufficiently answer the main research question, a set of sub-questions was necessary. First, given the changing trend and the increasing number of UXO
casualties in Laos, it is essential to determine what the local community members want the mine risk education program to address.

*R.Q 1: What are the local people’s values and attitudes with regard to UXO risks?*

Given the mine risk education program has been active in Laos for about a decade, the perceptions of the target community members of the awareness material disseminated in their communities was important to identify in this research. Is the information useful and therefore applicable in the everyday life of the community in general?

*R.Q 2: How do people and the community in general apply the information that is received from the mine risk education program?*

The primary aim of the mine risk education is to prevent risk behaviours while at the same time teaching community members what to do when they come across a UXO item. This program is based on the assumption that community members come across UXO items on the farm or in the forest when going about their normal day. The program does not however take into consideration any other relevant issues or factors, such as actively seeking UXO for economic reasons. This research therefore sought to establish;

*R.Q 3: What are the social and economic issues and any other issues that affect community ability to manage the risks of UXO as per the stated mine risk education program guidelines?*

In mine risk education programs, several methods are used to communicate a message. As stated earlier, in the majority of current programs the method of communication is mainly dialogue. However, the program has outlined a wide number of communication methods to be
used. These methods are used in different scenarios as determined by the target audience. However, little is known about the effect of the communication method on the community members with relation to taking up the message.

**R.Q 4: How can the method/process of communication used contribute to addressing UXO risk issues and lead to a meaningful reduction of risk?**

Lastly, mine risk education is carried out in the local community in different physical settings. However, there are no literature or study findings to establish how a venue is set to promote effective communication. According to Tharp, Estrada, Dalton & Yamauchi (2000), teaching a diverse population requires effective design of the ‘classroom’. MRE programmes involve diverse populations in terms of ethnicity, background, education level, IQ, religion, and age. To create harmony for all the participants, it is essential that the setting of the “classroom” environment be accommodating to all, and the methods used reach all the participants (Tharp et al., 2000).

**R.Q 5: How does the mapping of communicative ecology inform the process?**

Communicative ecology mapping is a powerful research tool used in ethnographic research as it provides insights into the everyday networks and functioning of the research subject. In communication research, this instrument is vital in that it provides information on communication networks, communication tools and methods used, and the culture and traditions attached to communication (Dutta, 2011; Foth, 2006). Nevertheless, communicative ecology is a complex research instrument that requires considerable time (more than a year) and that the researcher be part of the research subject. This research was done for only a
month, and still communicative ecology was used despite the time constraint. This research question therefore seeks to justify the use of communicative ecology mapping as an instrument in this study.

1.7. Summary of the chapter

The chapter introduces the topic by presenting the background and cause of UXO contamination in the Lao PDR. The chapter also introduces the community awareness programmes in the country and the governmental agency that is tasked with the job of overseeing UXO education and clearance activities. Mine risk education programmes are discussed further in the context of community needs and their impact on reducing UXO related accidents. The location of the research, Phaxay District, Xiengkhuang Province is discussed in this chapter. The chapter then presents the research objectives and the research questions that are to guide the realization of the research objective.
Chapter 2: Literature review

2. Introduction

Mine risk education or risk education began in late 1980s as a modern humanitarian and development discipline in Afghanistan (Landmine Monitor Report, 2009). At its establishment, mine risk education was referred to as mine awareness. MRE was established from the understanding that a number of interventions would be required to reduce a community’s exposure to the threat of landmines and ERW (Explosive Remnants of War) in the short term and in the medium term. The main focus of early MRE programmes was to disseminate information among the affected communities to increase knowledge of the threats of mines, (and UXO to a lesser extent), typical locations of mines, and provision of suggestions on how to minimise exposure to the risk (UNICEF, 2005). The need to undertake MRE emerged from the experience of countries, among them Northern Iraq, Afghanistan, Angola, Mozambique, and Cambodia, each of which experience very different mine threats.

Initial mine risk education approaches tended to be one-way and largely non-participatory using a variety of small media among them billboards, posters, leaflets, and printed T-shirts. With time and as mine action matured and learned from other humanitarian and relief development sectors, there have been changes instituted to reflect the improved practise regarding coordination, prioritisation, ownership of activities, and communication (UNICEF, 2005). MRE was established from the understanding that, even though mine clearance was the ultimate solution to mine contamination, it was also slow and posed a risk even to the clearance operatives let alone the local community members (Geneva International Centre for Humanitarian De-mining, 2003).
Over the last few years, the trend among the more established organizations has been an evolution of MRE activities from narrow educational function towards one of the community liaison. This new approach involves development of information-gathering capacity, the sharing of information with key stakeholders, and assistance with the development of a community’s sense of mine action (UNICEF, 2005). The community liaison approach, according to Geneva International Centre for Humanitarian De-mining (2003), appears to be the way forward for MRE. The new approach is a reflection of how the traditional approaches have failed to link well with clearance organizations and have overlooked elements in the new approach, particularly prioritisation and sharing of data gathered from the communities. However, and as noted by UNICEF (2005), there are still some organizations that continue to use the inappropriate “traditional” approach with questionable impact and value.

Challenges that face clearance include the costs involved, inaccessibility of the contaminated areas as a result of terrain or continuing conflict, and a lack of political will or funding (MAG and the NRA, 2007). Facing these challenges, a quick intervention to reduce the risk and the exposure of the community to the threat was understood to be dissemination of information to the affected community with the objective of increasing knowledge of the threat (Wolf, 2001). In February 1996, the Lao National UXO programme (UXO Lao) was created and it became the first government structure that dealt with humanitarian clearance in the area. In the same year, the first community education team in the Lao programme was trained by personnel from a military psychological operations unit. The information given by the team was primarily about how to minimize exposure to danger mines, and in the context of Lao PDR UXO, by preventing risky behaviour (Wolf, 2001).
As stated by Durham, Gillieat and Sisawath (2006), the need to undertake more precise implementation of mine risk education was identified from the experiences from some of the UXO contaminated countries among them Angola, Cambodia, Afghanistan, and northern Iraq. At the start of the first risk education programme in Afghanistan in the end of the 1980s, the approach was mainly one-way with no participation by the target community (HIB, 2006). The methods used for communication with the affected communities would be referred to as small media, for they included posters, billboards, leaflets, and printed t-shirts. However, with time and as the programme implementers started to understand the needs of the target community, mine education action has been improved to reflect the community needs and the experiences of relief and development sectors (MAG and NRA, 2007). According to Durham and Sisawath (2002), the changes to mine risk education have been institutionalised to reflect improved practice with regard to prioritization, communication, coordination, and activity ownership.

As argued by Durham and Sisawath (2002), in the 21st century the predominant trend among the most established organisations running risk education programs has been to evolve their activities from a narrow and simple education function to one that embraces liaison with the community. This liaison aspect in the participatory approach has led to the development of information gathering capability, the sharing of information with the key stakeholders in mine activity, and the development of community initiative in the mine action which improves community uptake of initiatives due to the sense of ownership of the program (MAG and NRA, 2007). Durham and Sisawath (2002) argue that the liaison approach is the way forward for mine risk education programs as it is able to engage the community and succeeds in creating threat awareness. According to Wolf (2001), the participatory approach is a reflection that the
traditional approach overlooks many of the aspects of the participatory approach, particularly prioritisation, and it (the traditional approach) fails in linking with clearance organisations by not sharing information from the community.

Since the Mine Ban Treaty was brought into force in 1999 (MAG and NRA, 2007), mine and explosive remnants of war risk education has evolved greatly. Many of the risk education programs were purely message based but they have changed to bring about broader behavioural change and risk education. In general, there has been a marked change, even though not universal, from simple mine awareness in 1999 to mine risk education in 2008 (Landmine Monitor Report, 2009).

Mine Risk education programmes are aimed towards reducing incidents caused by mines, explosive remnants of war (ERW), and victim activated improvised explosive devices. According to Wheatley (2005), for risk education to be done well, it requires that a set of actions be used. These actions include raising awareness of threats posed by UXO, working in conjunction with the community at risk to reduce the risk by promoting changes in behaviour, provision of the relevant information to clearance operators, identification of development interventions to reduce risk, contribution to victim assistance through support of casualty data collection and provision of information to survivors about the best available services for psychological, medical, and financial support.

UXO contamination is not only a problem in Laos but also in other countries in the world and risk education programs are also run in these countries. The Landmine Monitor Report (2009) has identified various risk education initiatives that were running by 2008 in six states, namely Angola, Colombia, Cambodia, Sri Lanka, Vietnam, and the Lao PDR. In these states, the
programs were working with local community members to explore the behaviour-change options available, to improve the input into clearance decision-making, and to create links with other development sectors of the country to establish ways to decrease the impact of mines and ERW. According to Shaw (2012), support for risk education and mine action through community liaison initiatives has increased. For effective risk education, the programs should be customized as per the needs of the target group and the reason they are at risk. According to the Landmine Monitor Report (2009), thorough analysis of risk education programs has been lacking. For instance, in 2008, in at least 26 states and areas where risk education was operational, the program was implemented without a comprehensive assessment of the needs of the target community (Gibson, Rowe, Stone & de Bruin, 2013). For example, in Afghanistan where the oldest risk education program runs, an evaluation by the European Union in 2008 established that the program was not based on a good understanding of the community’s needs.

Mine risk education is a part of the five components of Humanitarian Mine Action (HMA) (The umbrella body concerned with UXO education and support in Lao PDR) with others being; mine/UXO survey and clearance, stockpile destruction, survivor and victim assistance, and advocacy (Wheatley, 2005). Mine risk education is made up of a number of initiatives and programmes that are designed and geared towards prevention of deaths and injury from UXO and this is achieved through promotion of safe behaviour through education, communication, and information (Servaes, 2008).
2.2. Public communication campaigns

According to Rice and Atkin (2013), “public communication campaign are purposive attempts to inform or influence behaviours in large audiences within a specified time period using an organised set of communication activities and featuring an array of mediated messages in multiple channels generally to produce non-commercial benefits to individuals and society” (p.3)(Roger & Storey, 1987). Campaigns are used for various purposes for diverse target audiences ranging from city to countryside populations, men and women, adults and adolescents, developed and developing countries, majority and minority and so on (Rogers & Storey, 1987; Windahl, Signitzer & Olson, 2009). Similarly, public communication campaigns are defined as the intention of one group to change another group’s beliefs, perceptions, behaviour, attitudes and understanding with the object of social change across several media channels over a certain time period (McQuail, 2000; Paisley, 2001). It is crucial to notice that campaigns typically deal with well-established behaviours that are in-line with individual norms and values (McQuail, 2000).

According to various literatures, there are two distinctive types of public communication campaign (non-commercial) based on their objectives, individual behaviour change and public will or political change (Coffman, 2002; Dorfman, Ervice & Woodruff, 2002; Paisley, 2001; Roger & Storey, 1987; Windahl et al., 2008). The individual behaviour change campaigns aim to bring about change in individuals that cause social problems or behaviour that will enhance individuals and social welfare (Coffman, 2002; Rogers & Storey, 1987). Associated campaign categories include smoking, HIV/AIDS prevention and seat-belt usage, which mostly come from health related issues, but campaign activity can also be extended to other areas such as
education, legal practice and accident prevention (Coffman, 2002). Public will campaigns aim to focus public attention toward a particular social problem so as to lead to a change of policy or law (Paisley, 2001; Rogers & Storey, 1987). In some cases, public will campaigns result from individual behaviour change campaigns (Atkin, 2001).

Public communication campaigns are comprised of three phases, planning or designing, implementation and evaluation. Prior to the campaign design, good research on the particular topic is fundamental to the achievement of socially approved goals (Parkinson & Ekachai, 2006). Campaign planning is when objectives, strategies and tactics are identified (Parkinson & Ekachai, 2006). In addition, the campaign practitioner has to consider different approaches of communication, message and channel, in bringing social change, for instance individual approaches, top-down approaches and participatory approaches (Dutta, 2011). However Windahl, Signitzer and Olson (2008) argue that the target population, the receiving group, the message, the medium or media and the communicators of the campaign should also be defined clearly to make sure the team members are aware of the direction (Klingemann & Rommele, 2001).

Once campaign design finishes and the implementation process is underway, evaluation of the campaign effectiveness is the next step. Evaluation of the campaign can be done at every stage using different evaluation methods. Formative evaluation represents front-end evaluation, whereas process evaluation and outcome evaluation represent the back-end evaluation (Coffman, 2002; Rice & Atkin, 2013). Formative evaluation (also known as front-end evaluation) is the most commonly used evaluation method to assess the strength and weaknesses of campaign objectives, strategies and tactics at the early stage of campaign design, or during the
campaign’s implementation (Coffman, 2002; Rice & Atkin, 2013; Windahl et al., 2008). Process evaluation (measures effort) is assessment while the campaign is on-going to make sure that the designed elements are implemented according to the plan and how much has been accomplished. Outcome evaluation (measures effect) is used after the campaign has been implemented. However, the process should be planned and included from the beginning of the campaign design (Bales, Gilliam Jr., Patrizi, Sherwood & Spector, 2004; Rice & Atkin, 2013). This evaluation process is aiming at assessing changes as a result of the campaign within the target populations and communities based on the campaign objectives (Bales et al., 2004; Coffman, 2002).

2.2.1. Public communication campaign – theory and model

Windahl, Signitzer & Olson (2008) state that the notion of ‘campaign’ is where the communication theory meets practice. According to Dutta (2011), Communication is theorised in two main frameworks which are the message-based framework and the process-based framework. The message-based framework is the transmission of the message from sender to receiver while the process-based framework focuses on how individuals and the community interpret the meaning of the message, and their reaction (Dutta, 2011). Throughout the period of campaign design, implementation and evaluation, there are several theories and models that ought to be considered by campaign practitioners in order to meet the strategic goals of cognitive, action, behaviour and value change (Windahl et al., 2008). Here are some theoretical frameworks and models that can be utilised and best explain individual and social behaviour.

*Stage of change theory* is based on the principle that behaviour change is a psychological process from people’s experiences that motivate them to change (Serveas, 2008). The author
also suggests that campaign design should match the stage of change of each individual. Behaviour change consists of five stages, namely pre-contemplation, contemplation, decision/determination, action and maintenance (Serveas, 2008).

*Theory of reasoned action (TRA) and Personal behaviour (TPB)* is based on the principle that individuals will perform a desired behaviour according to their behaviour intent (Serveas, 2008). The influence of behaviour intent is a combination of personal attitudes and perceived social pressure/norms (Rice & Atkin, 2013; Serveas, 2008).

*Social cognitive theory (SCT)* is based on the principle that mechanisms of people’s thought and action are significantly influenced by mass media or public communication. Consequently, this theory provides a conceptual framework that helps to examine the factors and mechanisms of such effects (Bandura, 2002). The author also argues that human behaviour is shaped and controlled by external influences or by internal natures (Rice & Atkin, 2013).

*Social network and social support theory* is based on the principle that social relationships between family, friends and other important people in our lives and how they interact and share such relationships can affect individual behaviour. In developing appropriate campaigns, these characteristics should be taken into consideration: size, frequency of contact and level of relationship (Serveas, 2008).

*Health belief model (HBM)* is based on the principle that individual thought and feeling control behaviours. Those behaviours originate from two influences, internal factors (perceptions or beliefs) and external factors (reaction from family or friends, or mass media campaigns). In
recent revision of the theory, the concept of self-efficacy has been added, the individual’s belief or perception of his/her capacity to undertake the change (Serveas, 2008; Rice & Atkin, 2013).

**Integrative theory of behaviour change** is the multidimensional model that combines health belief model (HBM), social cognitive theory (SCT) and theory of reasoned action (TRA) to postulate how external variables, human differences, and beliefs effect outcome behaviours, goal, attitudes, and norms (Rice & Atkin, 2013).

The **Elaboration likelihood model (ELM)** and the **Heuristic systematic model (HSM)** are based on the principle that the level of audience engagement with the given message or campaign will shape cognitive responses, thought creation and central versus peripheral routes to persuasion of people’s behaviour (Rice & Atkin, 2013; McQuail, 2000). McQuail (2000) explains further that people process received information in two interrelated processes which are ‘information provided’, and ‘memory-based’. In response to these processes, information given during the campaign needs to activate the memory-based function as it gives a greater chance to affect the behaviour change (McQuail, 2000).

**Diffusion of innovations (DOI)** is based on the principle that change in society or individual behaviour change can be implied from individual and group response to new or different ideas and behaviour being introduced (Rice & Atkin, 2013). The theory also suggests that adopting change is a process which is consisting of five stages: (a) awareness of new or different ideas and behaviour, (b) interest in it, (c) trying it out, (d) making a decision to accept or reject and (e) applying the ideas and behaviour to their daily lives (Servaes, 2008).
2.3. Communication for development and social change

According to Shaw (2012), to influence risk-taking behaviour in a community is very difficult, because it is often related to complex cultural, social, and economic factors. Any behaviour in a society according to Servaes (2008) has a social, economic or political meaning. For example engagement in UXO risk behaviour has some economic meaning in cases where the purpose is to generate additional income through sale of scrap metal. UXO contamination has a direct effect on the social life of the villagers of Phaxay District, Xiengkhoang province, Laos.

In the literature review, there is no theory or model that specifically formulates the conduct of public communication campaigns in developing countries. According to Melkote and Steeves (2001), theory and practice about communication for development and social change has commonly been used as a guide for public communication campaign design and evaluation. Nevertheless, western theories that are designed to deliver active communication in third world countries are still coming under a lot of criticism (Melkote and Steeves, 2001). Referring to lessons learned in mine risk education programmes in Afghanistan and Angola, the authors state that the programme will not fully efficient if the programme manager fails to take into account local responses, local knowledge, local experience and local norms of everyday practice regarding mine threats (Anderson, Swaminathan, Whitaker & Roche, 2003). Many development communication campaigns succeed in raising awareness about the particular issues, according to the campaign objective, however they mostly fail to bring about the sustainable behavioural change that the campaign is supposed to generate (Servaes, 2008).

This research is founded on the communication for development framework. Communication media are commonly used to support development initiatives by distribution of messages that
inspire the public to support development projects (Servaes, 2008). The ideal of this strategy sees the communication process primarily as top-down approach to circulate one-way information vertically from sender to receiver, which is called the diffusion of innovation model (Servaes, 2008).

As argued by Servaes (2008), the participatory framework supports a need to pay extra attention to the community’s involvement, together with the building of effective and responsive communication elements into the development programme right from the start of the project. Gumucio-Dagron and Servaes (2008) states that, “without people’s participation, no project can be successful and last long enough to support social change” (p.70). Community involvement and ownership in design, decision-making, implementation and assessment of development projects is fundamental for sustainability (Baulch, 2008; Quarry & Ramírez, 2009).

2.4. Outlook for mine risk education operations

Evaluation of the effectiveness of mine risk education programmes has been conducted in Afghanistan and Angola. In Afghanistan, the assessment observed the impact of two main methods, direct training programmes operated by Handicap International, the Organisation for Mine Clearance and Afghan Rehabilitation and Save the Children Federation US, and the BBC radio programme called ‘New Home, New Life’ through a radio soap opera (Anderson et al., 2003). While in Angola, the evaluation looked at the impact of school interventions focused on the Education Programme for the Prevention of Mine Accidents (Anderson et al., 2003). The findings showed that in Afghanistan, people who are exposed to the direct training are more likely to go into mined areas and be injured or killed after programmes began. This was mainly because of the feeling that they were sufficiently trained to handle landmines for scrap metal
extraction (Anderson et al., 2003). However, the evaluation showed that people who had been exposed to both interventions, direct training and BBC radio programme, took fewer risks and changed their behaviour (Anderson et al., 2003).

Therefore, the combination of both programmes had a beneficial effect. In Angola, the findings showed that people changed their behaviour after training but children who were trained were highly likely to enter known mine fields, mainly because of ignorance and the desire of children for adventure (Anderson et al., 2003). Referring to lessons learned from mine risk education programmes in Afghanistan and Angola, Anderson et al. (2003) point out that the development programme will not be fully effective if the programme manager fails to take into account local responses, local knowledge, local experience and local norms of everyday practice in relation to mine threats, an aspect that is relevant to the case in Afghanistan and Angola. Many development communication campaigns succeed in raising awareness about the particular issues, according to the campaign objective, however they mostly fail to bring about the sustainable behavioural change that the campaign is supposed to generate (Lennie & Tacchi, 2013; Servaes, 2008).

According to Durham et al. (2005), mine risk education programmes commonly use message-based frameworks across two main approaches: public awareness approaches (use of traditional and mass media communication and mobile community liaison) and educational approaches (developing school-based curricula). The majority of mine risk education programmes are based on the medical model of injury prevention in individual behaviour and daily life activities (Durham, 2007; Durham & Ali, 2008; Durham et al., 2005). These methodologies and theoretical frameworks of providing information and raising awareness are
vital and a necessary part of achieving change (Dutta, 2011), however the individual level focus may not bring a sustainable change to the affected communities as a whole (Anderson et al., 2003; Durham & Ali, 2008; Durham et al., 2005; Servaes, 2008). With the inclusion of the participatory approach, the mine risk education programme sees people as the nucleus of development which means they are active participants rather than passive recipients (Anderson et al., 2003; Servaes, 2008). This approach means individuals are actively involved in the programme and they tend to own the programme, therefore promoting its success.

2.5. The Lao PDR context

In The Lao PDR, MRE is faced with particular challenges. Over two million tons of ordnance was dropped in the country. Many of the bombs were filled with anti-personnel cluster bomblets (commonly known as bombies) and meant to explode on or shortly after impact (MAG and the NRA, 2007). However, over 30 percent failed to explode and this presents the challenge specific to the Lao PDR, that the amount of UXO is higher than any other areas in the world. UXO related accidents do occur often in Laos in the course of day-to-day activity, mainly farming and the collection of forest products, where contact is unintentional (HIB, 2006). However studies by Moyes (2004) and Durham and Sisawath (2002) reveal that there are some people, though aware of the threats posed by UXO, still go ahead and engage in risky behaviour, mainly due to pressing socio-economic needs and therefore intentionally undertake risky activities.

Handicap International Belgium (HIB) (2006) challenge the messages provided to the local communities by the community awareness teams. The HIB bases its argument on the fact that prevailing local knowledge which is based on over thirty years of living with UXO doesn’t concur sometimes with the information provided through the UXO community awareness
programs. For example, the blanket assertion that all UXO is dangerous and can explode when disturbed may not concur with the local knowledge or experience that sometimes ordnance can be safely handled (HIB, 2006). In the Lao PDR, information dissemination is further complicated by the factors including remoteness, language barrier between the community awareness teams and the locals, illiteracy, social isolation of communities, and poor transport networks. According to the Durham and Sisawath (2002) even though some of the awareness team are members of the local communities and fluently speak the local dialect, the message content is not always in the local dialect which limits comprehension by the target local community members.

It is a fact that UXO clearance in the Lao PDR will take many years before there is complete removal of ordnance from the contaminated areas. Therefore, for people who live in the contaminated areas, mine risk education will help them to protect themselves and negotiate the threats posed by the ordnances (Nielsen, Khoun & Wasserman, 2003). This can be achieved by addressing behaviour and advocating for a behavioural change, which is the aim of mine risk education. However, and as argued by Moyes (2004), this creates the risk of not realising the intended goal, especially reduction of intentional engagement in risk activities by people.

It has been noted that after an awareness programme is successfully conducted, there still are UXO-related accidents and incidents which are due to engagement in risky behaviour. Note, one of the areas of focus in MRE programmes is the practises that community members should avoid, but members still go ahead and engage in such risky behaviours. According to Moyes (2004), UXO accidents in Laos before the use of MRE programmes were due to ignorance, but in the post-awareness context, community members engaging in risky behaviour do so
intentionally. Some of the risky behaviours common in a post-awareness context are scrap metal collection, moving of UXO found in rice farms, children playing with UXO in school, at home, or in the forests, and lighting of fire contrary to MRE suggestions that fire be lit on rocks when burning rubbish or at the same specific area, and that fire not be used as a bush clearing method when clearing new farming land.

It is therefore necessary to undertake an analysis of the contemporary approaches used in UXO mine risk education for safety and health promotion and their relevance to MRE.

2.6. Paradigms of safety and health promotion

This literature review identifies two dominant paradigms in safety and health promotion in MRE programs. One is underpinned by the medical view that health is focused primarily on a person’s behaviour and lifestyle (MAG and the NRA, 2007). The approach used in this health promotion model according to Wolf (2001) is adapted from the field of medicine and psychology with specificity to socio-cognitive behaviour theories. The second approach takes a broader perspective of health and is meant to tackle structural issues, for example political, social, and economic determinants of health (Windahl et al., 2008). This approach is as a result of the principles of the Ottawa Chapter for Health Promotion (World Health Organization, 1986).

In the socio-cognitive theory of changing behaviour, the responsibility for change is considered to be primary to and residing within the individual, and whether or not the individual changes his or her behaviour is determined by a host of other factors. Some of these include;
Rational factors; It is expected that, as a person has sufficient knowledge concerning an issue, they ought to behave rationally. If anyone has knowledge of a potential harm, then it is expected that they should avoid the risky behaviour and adopt the safe behaviour regarding the potential harm. Moreover, with knowledge about an evident harm, then a person is rationally expected to adopt new behaviour (Baulch, 2008).

Practical factors; after introduction of a new behaviour supposed to protect them from the potential harm; they will adopt and practice it if they are confident and competent in practicing the new behaviour (Baulch, 2008; Windahl et al., 2008).

The social network of interpersonal communication; a people will change their behaviour if they can associate with or are supported by others in sharing their behaviour. To this end, the argument is that the community or a group of people practicing a new behaviour have a coercive force that encourages and carries every member of the group to practicing the behaviour (Durham et al., 2006; MAG and the NRA, 2007; Baulch, 2008).

The social-cognitive behaviour change theories are founded on the understanding that behaviour change is not a one-off event but it is a process that involves various intermediate stages that involve a shift from behaving from a given way to behaving constantly and continuously in another given way (Windahl et al., 2008; MAG and the NRA, 2007). For a person to change fully therefore requires an interplay of the various factors and it is not only their own ability that is required, but also to an extent that the entire environment around them should support them for positive and long-term behaviour change. Therefore for UXO Lao PDR MRE programs to make full impact and ensure intentional engagement in risky behaviour is counteracted, the program, according to the social-cognitive approach, should bring on board
the entire environment and ensure political, social, and economic issues surrounding UXO risky activities are addressed.

According to Durham et al. (2006), the causal factors for undertaking unsafe behaviour are considered to be primarily within the attitudes, skills, beliefs, and knowledge of the individual. Based on this understanding, the responsibility for change lies solely with the individual. MRE materials have therefore been developed to disseminate culturally specific information that will promote the adoption and development of safe behaviour by an individual. However, once an individual adopts the change, the factors mentioned above must come into play to sustain the new behaviour and develop it to be a continuous behaviour. In the case of UXO awareness, and for the realization of maximum success for a MRE programme as well as after the programme, focusing on an individual as part of the community is essential. This creates a sense of responsibility for an individual to adhere to the agreed safety norms, and the community acts as the check to encourage adherence.

2.7. The Edutainment model

This model incorporates both education and entertainment, hence the two syllables in the word. The edutainment model as described by Papa, Singhal, Law, Pant, Sood, Rogers and Shefner-Rogers (2001) is founded on three assumptions with regard to their appeal to cognitive aspects of learning and entertainment. The first assumption is that positive feelings have the potential to accelerate the process of learning whereas negative feelings slow down and obstruct the learning process. The second assumption is that if an individual involved in the learning process can use his or her intellect and emotions accurately, then he or she can learn far more than might have been expected. Lastly, if every person involved in the learning
process can be motivated and taught using a method that respects their way of learning, then they all have the ability to achieve optimized learning results.

2.8. MRE messages

MRE is all about communication, which involves the community awareness teams and the members of the community in various platforms of association. For effective communication, it is important that the communication method used be based on communication processes, channels and techniques that are suited for the target audience (HIB, 2006). There are different communication methods and techniques and each will be best suited for a specific audience depending on age, gender and political, social, economic, and geographical factors. According to the Servaes (2008), there are four principles that have been outlined by the United Nations for a successful communication strategy in the case of MRE with specificity to UXO.

*Focus*; the message being delivered should be well focused for the target audience. To realise this, Servaes (2008) suggests that the audience should be clearly identified and sub-divided as need be. The message content should then be well customised for the specific audience and in line with the communication intervention objectives.

*Reinforcement*; the message being communicated should be reinforced to ensure the audience clearly understands it, is able to easily remember it, and identify with the message content. This should be done through the message content being consistently delivered through varied channels of communication. In the UXO Lao PDR context, the message was delivered through various channels including plays, posters, songs, and poems, but according to MAG and the NRA (2007), it is currently being done primarily through dialogue.
Attractiveness; the materials used for communication must be made attractive through the use of colour, design, presentation, and by being entertaining. Through these attractiveness attributes, the message becomes interesting, so triggering increased involvement of the audience, and easy to remember.

Simplicity and sustainability; the approaches used in developing the communication materials should be of relatively low cost which ensures sustainable production, circulation, and use. The National Regulatory Authority for UXO in MRE lays emphasis on the messages used being simple, clear, and repetitive. The same information is heard and seen through different channels, which reinforces it. The authority also stresses the avoidance of simply stating “do not” when chatting and in cases where the words are used, then it is important that an explanation is provided almost in the same breath as if to answer the question “why?” (MAG and the NRA, 2007). Even through the comprehension of the message will generally depend on the audience, when the reason is provided it serves to drive the message home better than when the statement containing “do not” is made.

2.9. Communicative ecology

Tacchi et al. (2003) describe communicative ecology as “the whole structure of communication and information in a people’s way of life” (p. 15) which is unique for each community (Tacchi & Watkins, 2007). To ascertain it in the unique context of a researched community it is important to address the sources, activities and channels of communication that people use, and more importantly to understand “how communications fit into other things” (Tacchi et al., 2003: 15) in their daily lives. Understanding the local context and culture is important, as Lennie and Tacchi (2013) point out, and can lead to the success of a development project aiming to bring
social change to the community. Communicative ecology study is done to establish how community awareness programmes are conducted and the process in which communication occurred (Wilkin, Ball-Rokeach, Matsaganis & Cheong, 2007). MRE programmes involve communication and this communication is dependent on the environment in which it is done as well as the social interactions of the community determined by culture, traditions, and ethics (Foth & Hearn, 2007).

Given the fact that the awareness programmes are conducted in the village, communicative ecology mapping of the communication process is done by asking the participants to describe how the operators of the awareness program communicated with the villagers, the medium they used and how the communication space was prepared (Foth, 2006). Communicative ecology data collection method is essential to understanding how the communication happened and how the ecology might have helped in effective communication. The design, setting, and environment for learning, which is what MRE session are, is important as it affects how learning occurs, for example, it determines how comfortable the session participants are to open participation in the session (Foth & Hearn, 2007).

2.10. Summary of the chapter

The chapter reviews previous research works on the topic of community awareness and community needs. While the first part of the chapter explores the literature available on community awareness from the various regions in the world that are UXO contaminated, the second part narrows down to UXO contamination in the Lao PDR context with reference to awareness communication. This section addresses awareness communication and the various options available as a solution to the UXO problem. Next the chapter discussed the various
paradigms that are used in UXO awareness communication programmes. The paradigm used for the Lao context is adopted from medicine and psychology, so it effectively addresses the psychological and health problems related to UXO. Lastly the chapter discusses the message contained in the MRE programme in Lao PDR.
Chapter 3: Methodology

3. Introduction

This chapter presents the data collection process used in the study. Qualitative research design is used, with the instruments used being in-depth semi-structured interviews, focus groups, ethnographic non-participant observations, and communicative ecology. The chapter explains why each of the instruments used was necessary and how data collected through the instrument would help in answering the research questions as well as the research objective. Next, the participants in the study are presented in coded format (avoiding use of real names), the participant selection method and the selection of the study location, Phaxay District, is also discussed, and then the data collected through each instrument is presented. The chapter also discusses the limitations of the research methods, especially the communicative ecology, and how the research was designed through other research methods to compensate for these limitations and ensure effective and substantive data collection.

3.2. Research design

To ensure effective data collection, a selection of research tools were used in the methodology; ethnographic non-participant observation, in-depth semi-structured interviews, communicative ecology, and focus groups. These methods are chosen so as to gain understanding of the communication situation regarding UXO in the community from previous MRE programmes and establish the current areas where the community feels they need educating about UXO. To this end, in-depth semi-structured interviews and focus groups were used to get first hand information from community members while communicative ecology and ethnographic non-
participant observation were used to collect data from the lifestyle and status of community members. The status in this case is the education level of the members as this is an important aspect of the success of MRE programmes.

The ethnographic non-participation research tool was adopted so as to study the community and better understand it in its natural setting without interfering in people’s day-to-day life (Reeves et al., 2008). Ethnographic non-participation observation method involves observing the participants in their day-to-day activities, during individual interviews, and during the focus group discussion. This method is useful because it involves observation of the day to day activities of community members in their natural setting with a view to determine the behaviour that might expose them to UXO risk as well as how risky behaviour applies to their day to day activities (Alcadipani & Hodgson, 2009). UXO contaminates the community’s land and because land is an integral part of the community socially and economically, it’s important to determine the situation on the ground by observing the community’s day to day land use and also to understand how the locals communicate about it with each other and with agencies.

The in-depth semi-structured interview tool was adopted because of its effectiveness in getting the participants’ views and ideas on the issues affecting them. Interview is a method suited for learning what the locals think about UXO and their opinion of community awareness programmes that have been already conducted in the village (Creswell, 2013). The views and ideas collected are then compared with the researcher’s own observations and information provided by the awareness raising agencies working in the area. In addition, the semi-structured interviews were used for the purpose of understanding how and to what extent any
UXO has affected them or their families in general (McIntyre, 2008). The participants in the semi-structured interviews included community members, the chief officer in the village, and officials of the UXO agency involved in past awareness campaigns. These were selected through purposeful sampling so as to ensure that each met the qualifications which included age, education, residence in the community for the last five years, and participation in a previous MRE programme. They were identified through the chief officer and then asked to participate after being informed of the objective of the study and what would be required of them. They were recruited to the study after each made an informed consent, as per the ethics of the study.

The other tool used for data collection was the focus group. The participants in the focus group were the same used in the semi-structured interview. The focus group was done before the semi-structured interviews. While the focus group engaged all the participants, semi-structured interviews were done at an individual level, with the aim being to get the experiences, opinions, and expectation of each participant. This allowed the researcher to get more information about issues raised during the focus group session (LeCompte & Schensul, 2010).

The last tool used for the research was communicative ecology. According to Foth (2006), communicative ecology is a conceptual model that is used in communications and media research to analyse and represent the relationship that exists between the discourse, the social interactions, and the communication media and technology being used by individuals, networks and collectives in the digital and physical environments. This tool was essential for understanding the community environment in which MRE was done. It was essential to
determine how appropriate the communication methods used in the programme were and how well the locals were placed to understand UXO-related communication (Dutta, 2011). The various issues considered in communicative ecology include the literacy level of the community members, the methods used to communicate in the MRE sessions, the settings for a MRE session, and the communication methods available and used in the community. The purpose of communicative ecology is to establish the likelihood of success for the MRE programme and to make suggestions about how the programme can be improved in the future.

3.3. Research area selection and participants selection

The research was conducted in Phaxay District, Xiengkhouang Province, Lao PDR. The research area was selected for its relevance to the UXO communication needs study. Relevance was determined by previous UXO community awareness programmes and the nature of the awareness programme in terms of media used as well as the frequency of UXO related accidents in the past and present (NRA, 2013). The decreasing UXO related accident frequency indicates the positive impact of community awareness programmes as well as the effectiveness of mine clearance work. The latest UXO community awareness programme in the district was over a three-year period. Since the start of the UXO community awareness programme in the Lao PDR, the community has had three to four programmes (NRA, 2013). More than 50,000 casualties have been reported in Laos from 1964 to 2008 (NRA, 2013), but as shown in figure 4 (above), the majority of these were in the period before 1970, with 1969 recording the highest number of casualties, more than 5000. Over the last decade, these numbers have significantly lowered, with the accidents reported causing only injury and no deaths.
The three programmes in Phaxay District have been conducted by three operators; the Mine Advisory Group (MAG), the Association for Aid Relief (AAR), and the World Education (WE) (NRA, 2013). The operators used varying methods to communicate with the locals of Phaxay including posters, direct training for villages, village meetings, and puppetry as well as having UXO educational information included in the school curriculum (NRA, 2013).

The province of Xiengkhouang was a suitable study area based on the fact that it was among the second most bombed regions during the Indo-China war. As a result, it is one of the areas where the effects of UXO have been most widely felt in the entire Lao PDR. In addition, the region has experienced, since the start of community awareness initiatives, a high level of UXO clearance, given that clearance is part of the UXO initiative in the Lao PDR (NRA, 2013). In 2012, Xiengkhouang province was the highest ranked in the number of UXO awareness activities and clearance efforts with the highest number household beneficiaries of UXO Lao services (ibid).

The choice of participants was based on a number of factors with the primary one being their previous participation in UXO community awareness programme. People who were selected to participate in the various data collection processes, (in-depth semi-structured interviews and focus group), were required to be people who have lived in the community for over five years and participated in an awareness programme at least once before. This was to ensure that the participant had a first-hand experience with MRE programme done in the village. The other requirements were the age of the participant (preferably 18 years and above), occupation, level of education, and gender. The age qualification for participants was an ethical requirement that demanded that only adults participate in the research. Occupation was to ensure a variety of economic engagements (different economic activities are carried out by different people),
which are affected different by UXO are well represented. As well as formal education level, different people have different perceptions and communication needs. Gender because men and women are affected by UXO differently. These conditions were also used because, as established from literature review (Gumucio-Dagron & Servaes, 2008; HIB, 2006; GOL, 2005), they are also used in MRE programmes to separate the participants (in MRE session, these factors are used to separate the participants into groups for effective communication). The objective of these was to ensure that diverse opinions were acquired especially in focus groups. For ethnographic observations and for the communicative ecology mapping process, data was collected relative to how communication takes place within the community. These involved the market place, farming fields, the village health center, local offices, the temples, and other communal public places.

The sample was made up of people who met the above criteria, and even though the process of identifying the representative sample is essential for successful research, given that this was qualitative research the sample did not have to be statistically representative of the entire population (Robson, 2002; Silverman, 2010). The research involved engaging and studying the identified sample intensively in their natural social settings so as to collect as much information as possible (Robson, 2002). The participants in the various research methods (the participants in the focus group were the same who participated in interviews) were identified with help from the local chief who better understood the locals, who was a symbol of credibility and were also vital in providing access to the local community. The chief was made aware of the research and the selection criteria of the required participants, a list of the potential participants was
selected and each contacted for personal confirmation of their participation in the research. At the final stage only those who confirmed and signed the consent form were selected.

The participants who consented to participate in the research were used to form the focus group and for the in-depth semi-structured interviews. A total of six members of the local community participated in the focus group session with four of them offering to be interviewed.

<table>
<thead>
<tr>
<th>Participants Code</th>
<th>Gender</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male</td>
<td>Chief Village Officer</td>
</tr>
<tr>
<td>P2</td>
<td>Female</td>
<td>Retired</td>
</tr>
<tr>
<td>P3</td>
<td>Male</td>
<td>Doctor</td>
</tr>
<tr>
<td>P4</td>
<td>Female</td>
<td>Teacher</td>
</tr>
<tr>
<td>K1</td>
<td>Male</td>
<td>Community Awareness Officer</td>
</tr>
<tr>
<td>FG1</td>
<td>2 Males &amp; 2 Females</td>
<td>Farmers</td>
</tr>
<tr>
<td>FG2</td>
<td>2 Males &amp; 2 Females</td>
<td>Elderly, one community leader, house wives</td>
</tr>
</tbody>
</table>

Table 1: Profiles of participants

3.4. Data collection

The data collected was about awareness of UXO risks and the objective was to establish the information needs of the community. To answer the key research question; what are the
community communication needs in the context of post-awareness mine risk education campaign in the Lao PDR? O’Leary (2010) claims that ethnographic methodology requires the researcher to use several methods for gathering information. Using various methods of data collection helped the researcher to gather enough information and led to reliable and valid research results (Bryman, 2012; Neuman, 2011). According to Bogdan & Biklen (2006), this method of research is used in social science research and it is known as triangulation of research methods.

3.4.1. Ethnographic non-participation observation

Ethnographic research takes a highly participatory approach, which is based on a systematic approach (Lennie & Tacchi, 2013). This model is important for understanding the communication structure and information flow of people’s lives within the community (Lennie & Tacchi, 2013). Simply exploring the communication activities, the use of communication technologies and the availability of communication channels within the community allows the researcher to gain a better understanding of the community structure and the social interaction of community members (Lennie & Tacchi, 2013). Ethnography as a research methodology is a highly valued research approach when assessing communication for development research. This methodology however requires time that exceeds a month, as argued by Dutta (2011) who states that ethnographic non-participation observation is a time consuming method.

In this research, a period of less than one month was used because of time constraints. This research therefore borrowed ethnographic non-participant observation as a tool of data collection but because of the time limitation we cannot call this ethnographic research. Non-participant observation is a systematic method of data collection that is conducted in the real
community to learn about the social and cultural life of the community without interrupting or intervening in the people’s way of life (LeCompte & Schensul, 2010; O’Leary, 2010). The purpose of using this method is to provide insights into communication needs of the community living in the UXO contaminated area. Since the researcher was not part of the community, the community locals did not freely share ideas about whether the programme implementation was actually meeting their needs or not. (This is because the community members are not open to sharing with persons they consider strangers.)

Ethnographic research is a long-term process and the duration of time needed is difficult to determine (LeCompte & Schensul, 2010), but it runs for more than one month. Nevertheless, due to the time constraints of this research, the researcher spent four weeks in the community while collecting data. In order to achieve high-quality ethnographic research with a short period of research time, the research objectives needed to be narrowed and focused to address specific issues (LeCompte & Schensul, 2010). The community leader, who is respected by the community members and acts as a gatekeeper to the community, was well informed and had an opportunity to discuss the aim of the research before the research commenced. Consent or verbal agreement was also required. The ethnographic research process combined observational interaction with people in the researched community and the use of such tools of data collection as field notes and photographs (LeCompte & Schensul, 2010). These research techniques permitted the researcher to determine the communication needs of the community by observing the communication processes and their day-to-day activities. Every interaction made with the community members or community leaders during the observation period was noted or recorded precisely for data analysis later.
The ethnographic non-participation method has challenges and limitations that have the potential to affect the results of a research project negatively (Riemer, 2009; Fuller, Hodkinson, Hodkinson & Unwin, 2005). This method has four main limitations. The method takes time, up to more than a year, and the researcher is required to be present in the study location for all this time. Moreover, it doesn’t only take time in the collection of data, but also in the analysis and writing up of the data (Fuller et al., 2005). Even though the time was insufficient to carry out ethnographic non-participation, the method was used because of its potential to provide useful and insightful data for the study. To counter the challenge of time, the study focused on data specific to the research objective, that is observation of community members’ behaviour with regard to UXO. Behaviour was observed as it is determines the success of previous MRE communication, and any current behaviour determines the communication needs of the community for future MRE programmes. In addition, methods like focus group and interviews were used to add to the data gathered.

The second limitation is that since ethnographic methods uses triangulation methods, the data collected needs to be validated and verified and if it is insufficient, it can negatively affect the results, mainly through inconsistencies (Fuller et al., 2005). To overcome this challenge, the data collected through ethnographic observation was qualified against the data collected through interviews, the focus group, and through the literature reviewed. Third, since ethnography is about a particular context, it is limited in that it is difficult to produce any generalization (Riemer, 2009). Like other qualitative research methods, this method can’t be extrapolated to other areas. This limitation, however, doesn’t have a negative impact on the research results. Lastly, the ethnographic method is limited in that there is no way to check the
validity of the researcher’s conclusions, as normally there is no numerical data (Riemer, 2009: Fuller et al., 2005). This limitation was overcome by using information provided through the reviewed literature.

In addition, ethnographic non-participatory observation added to the understanding of how local media are being employed by the current mine risk education programme. The researcher spent approximately one week mapping the community setting to fully evaluate the surrounding environment of the community, such as the village office, temple, village health centre and school. A hand-drawing of the community map (social mapping) (Nielsen et al., 2003) with assistance of community members was made by the researcher and become an important part of the research analysis.

Reeves et al. (2008) state that the typical ethnographic research method requires more time invested in the collection of useful data. The time suggested by Reeves et al (2008) and LeCompte & Schensul (2010) as the minimum for an ethnographic research method is one month. However, given the time this research project allowed, ethnographic observation was focused mainly on public areas for the collection of maximum data, and to accommodate the time-limitation, focus groups and interviews were used to compensate for any lack of time with additional data. Observation was done by taking a non-participatory role in the community’s day-to-day activities in the village public areas such as the village centre, the temple, farms, and in the market.

In the market, observation was done to establish if there was any trade in UXO as scrap metal, and the various communication methods used. In the temple, observation was done to establish if there was UXO communication done during worship. On the farms, observation was
done to establish whether villagers were involved in risky behaviour and how they handled an encounter with UXO. In the village center, which is mainly administrative in nature, observation was to establish the information available concerning risky UXO behaviour and how the village administrators communicated information about UXO.

### 3.4.2. Focus groups

A focus group was made up of community members who have similar experiences with UXO. The objective of the focus group was to gather thoughts, opinions, views, beliefs, needs, and concerns related to UXO and related communications. To ensure that maximum information was collected from different perspectives, the focus group participants were selected from people of different age, educational level, occupation, and social standing. As stated by Silverman (2010), and as required of focus groups, the group was involved in an informal discussion on the topic of communication of UXO awareness to the community with regard to avoiding dangerous activities. The group was made up of six persons and each of them had been affected by UXO related accidents.

Discussions in the group were non-structured and informal. The researcher’s role was only directing the conversation by asking the introductory question and asking for more information about issues that were interesting and relevant to the research objective. The focus group meeting was on a Saturday, a day chosen through pre-consultation with the group participants, and it lasted for forty-five minutes; fifteen minutes short of the projected one hour. The researcher was a passive participant in the conversation and concentrated on observing and listening to the conversation.
3.4.3. In-depth semi-structured interviews

Semi-structured interviews were used to allow flexibility in the interview and the collection of as much information as possible. Data was collected from adult members of the community about how UXO has affected them personally, a member of their family, or any one they know in their community. Information gathered was mainly about how the UXO accident(s) happened to the person, what they were doing when the accident happened, and if the accident had been fatal or not, how many people were involved in the accident, how many accidents caused by UXO had happened in the community that the participant knew of, what benefits previous community awareness programmes had produced, what previous awareness programmes taught them and how community awareness programmes had been conducted in the community.

The interviews were conducted after the focus group. This provided an opportunity to single out the weighty issues related to UXO raised during the focus group then follow them up for more in-depth information with individuals. The location for the interviews was in the participant’s home or in Chief village officer’s office compound. A suitable location was chosen by the participant away from the chief’s office to avoid any fear or feelings of intimidation. The interview session was done at the participant’s chosen location as to promote openness and ensure the participant was comfortable. The session would start with the interviewer creating rapport with the participant and stating the confidentiality of information shared. After the first question was asked, each new line of information introduced by the interviewer was explored to its satisfactory end if it is related to the research objective before the next question was asked. The interview was done personally by the researcher and this allowed questions to be
asked that would provide additional information for the paper. The interview was recorded using a digital recorder.

3.4.4. **Communicative ecology**

Mapping the communicative ecology (social mapping) of the researched community allowed me to explore the local people’s lives, to develop an understanding of social life in community (Kumar, 2002), apprehend the local context and culture (Barker, 2006; Tacchi et al., 2003), figure out the possible development issues and interact with people and build relationships with them. Moreover, I used it to identify how the local media (such as radio, television using ethnic language) have been involved in the project as part of Plan’s communication strategy in reaching the villagers (Tacchi et al., 2003). Analysing the media content was not part of this research paper.

This task took me one week and helped me identify the surrounding environment and public assets of the community, such as the children’s playgrounds, the communal meeting house, water source, local market, the schools, the health service centre and the rice fields. I also took photos of these places and hand drew the maps of some participating villages with the assistance of people in the community. The maps are presented in Chapter 4 as part of the communicative ecology exploration while the photos are placed in Chapter 1 and Chapter 4 to enhance the reader’s understanding of the community.

The application of this method to the study was limited in that there was no active MRE programme in the village to participate in and observe the design, setting, and the general environment of the ‘classrooms’ (Foth & Hearn, 2007). This limitation was overcome by
collecting data through interviews where the interview participants described how the MRE sessions were organised and what tools were used for communication in the MRE classes. In addition, observation of the communication and social interactions of the community was used to add to the communicative ecology data collected through interviews. These observations were mainly done by determining the communication methods used in the community and how communications about UXO are done through these methods as well as the potential of each method for the communication of UXO information.

3.5. Data collection, preparation and process

Preparations for data collection were done to ensure the maximum data collection. Preparations began immediately after the research proposal was accepted by research ethics committee. These involved communication with the local authority in Phaxay district, especially the local chiefs of the areas where study was conducted, and the National Regulatory Authority (NRA) which is the body governing UXO activities in the whole of Lao PDR. The various data collection tools prepared included the semi-structured interview questions, focus group guiding questions, and a list of features and items to observe in the ethnographic non-participation observation.

The researcher stayed in the research area for a whole month and was in the area for two weeks before the actual data collection began. This was done to enable the community members to get acquainted with the researcher, which is essential for maximum collection of data as it ensures trust and understanding is built between the researcher and the community (Robson, 2002). During the two weeks period prior to the start of data collection events, the researcher gathered understanding of the various study parameters by visiting locations,
contacting the participants, and planning for meetings, and learning, for example, the appropriate time and day for meeting, and the duration for the session.

The preparation of open-ended questions used in the focus group and in the interviews was based on literature review, but for the interviews, further questions where added from issues not clear from the focus group discussion. The interviews were used for understanding controversial issues raised during the focus group. This was done by following up the issue at an individual level. Literature including previous materials related to UXO communication needs in Lao PDR were used. These included materials from other authorities as well as established organizations that are involved in UXO community awareness programmes including the NRA, the MAG, UNDP, and UNICEF. The primary reference materials used are those from the NRA which is the national body responsible for UXO related issues including awareness campaigns and clearance (NRA, 2013). NRA materials were used to create a background to the UXO issues on the ground, previous and current communication programmes, and to identify various issues related to UXO communication.

The initial meetings with the individual participants were done in the presence of the local chief or after introductions by the local chief. It was during these meeting that the researcher explained to the participants the research objective, the information required from them and the confidentiality accorded their information. This was done so that each participant could make an informed decision about signing the consent form (LeCompte & Schensul, 2010).
3.6. Limitations and challenges

The instruments used for data collection have varied limitations which have the potential to compromise the quality of data collected. Of major concern in this case are ethnography and communicative ecology.

The primary limitation is that the period of time spent in the research area and used for data collection was only a month. Both ethnography and communicative ecology require more than a year for the researcher to completely and fully understand the community so that quality data is collected. However, these methods were used as data collection instruments in the current study despite the limitation, because I considered that the amount of data to be collected even within the one month can potentially inform the research, given that it is based on communication (Riemer, 2009: Wilkin et al., 2007). According to Fuller et al. (2005) and Wilkin et al. (2007), ethnographic non-participatory observation and communicative ecology are vital research instruments for studies related to communication.

To address this limitation, and ensure the quality and validity of data collected for the study, the researcher used available literature and other research methods to further inform these two instruments and help in narrowing down on the observations made in the ethnography study as well as the communicative ecology. This, according to Burns (1994), is referred to as triangulation and it involves verification and validation of qualitative data analysis. Triangulation helps in addressing the internal validity of data and this is done by following the same procedure in data collection as in other previous studies. Triangulation assesses the sufficiency of the data collected by using different data collection methods and in this case,
these methods included focus groups and in-depth interviews. If the data collected through the various methods is not consistent, then it is deemed to be insufficient (Burns, 1994).

3.7. Summary of the chapter

The chapter addresses the method used for data collection in the study. The qualitative method was used and it involved various tools namely ethnographic non-participation observation, in-depth semi-structured interviews, focus groups, and communicative ecology. The chapter also covers the selection of the research area and participants in the research. Lastly, the chapter presents the data collection process used by the researcher, and the various ethical considerations affecting actual data collection.

The aim of the research project was to establish the communication needs relating UXO in Phaxay District, Lao PDR. To realize this, the study used communicative ecology and ethnographic non-participatory observation. These methods generally require considerable time, more than a year. Given that the time available for data collection in the current study was only a month, other methods, focus groups and in-depth interviews, were used for triangulation so as to address the above limitation. These methods helped to collect reliable data that is valid for the determination of the study’s objective.
Chapter 4: Findings

4. Introduction

This chapter presents the findings based on the data collected from semi-structured interviews and focus groups with community members who have participated in the mine risk education programme, and core informants of the programme (See table 1: Profiles of participants for details of the core informants). In addition, these findings are enhanced by data collected from personal observation notes, creating a more holistic community research approach. The core data comes from five in-depth interviews of four villagers and one key informant, and two focus groups with four participants in each group. All 13 voluntary participants live in a community in Phaxai District, Xiengkhouang Province. Residents of this community have been affected by UXO contamination for more than 40 years. The findings from communicative ecology show that the main form of communication in the community is face to face communication. Other tools that are popular are the radio, television, and newspapers. One striking finding is that locals are not so open with strangers as to share information fully, comfortably, and to detail. Without preparation, locals don’t even talk to strangers. The chapter organizes findings through four emerging themes; values and attitudes toward the UXO risks, UXO risk and safety practices, socio-economic factors related to UXO risks, and scrap metal collection. These themes were derived from existing literature on the topic and an assessment of the data that was gathered from the various data collection tools; personal observations, semi-structured interviews, and focus groups.
4.2. General Observations: the challenges of field work

The study was designed to assess not only the information and communication needs of people living in a community which is heavily affected by UXO, but also to put these needs in the context of their everyday lives by using some of the tools of the participatory and communicative ecology approaches. To achieve this goal, the study focused on villagers’ perspectives on their community’s information and communication needs, and 13 participants from varying occupations, genders, and age groups available within the community were selected to participate in this project.

All the 13 participants shared similar opinions about their communication needs. This is probably due to the fact that all the participants are from the same region, they have similar experiences related to UXO, they share resources, and they have informed opinions of what should be done with regard to sensitising the community to UXO dangers. For example, despite the fact that all the participants are different in age, gender, and occupation, they have a noticeable similarity in that they all practice some form of subsistence agriculture. Also, all participants have other primary sources of income, for example, P1 who is a government officer, P3 a doctor and P2 a retired person, all expecting to be settled comfortably enjoying their pension. However, they are all engaged in some form of agriculture as a form of additional income. As a result of this cross-cutting involvement in agriculture, they all have similar views and opinions about UXO risks that locals are exposed to while on their farms. This direct engagement in agriculture by each participant shows the community’s involvement in agriculture, and therefore the extent of the UXO risk in the Lao PDR. The research paper was designed so that four to six semi-structured interviews, one or two in-depth interviews with key
informants, and two focus groups with four to six participants were to be conducted. However, this could not be achieved on the field because not enough participants were available. The majority of the identified and selected participants would leave for their work early in the morning and return late in the evening and even though the study period in the field ran for a whole month, efforts to recruit all the desired participants were futile. Moreover, the target for semi-structured interviews with villagers who have been directly affected by UXO accidents was not realised because villagers were unwilling to share their experiences with a stranger, in this case the researcher who, despite being a Laotian, was considered an outsider by the research community. UXO incidents are highly sensitive and emotional events and it is against the locals’ culture to share such information with a stranger – a stranger being an outsider who doesn’t share in the culture, beliefs, and traditions of the community. Faced with this challenge, the best option was to ask for volunteers who have participated in mine risk education. Despite this shortcoming, the information provided by these participants substantially advanced the realization of the research objectives.

Ultimately, two males and two females participated in semi-structured interviews, one male being a key informant for a semi-structured interview, and four people participated in each of the two focus groups, two males and two females. These provided quantifiable information that was considered sufficient for effective determination of the research question. In addition to this material, personal observations made by the researcher in the field have been used as a source of data.
4.3. Communicative ecology of the community

During my first week in the community (see Chapter One, section 1.1.1 for community background), a detailed map of Namoun-Ladkhai Village was developed using a Google maps equivalent. The hand-drawn map was developed with the assistance of the community central to the research, particularly children, who volunteered to show the researcher around their community.

Figure 4. Detailed Hand-Drawn map of Namoun-Ladkhai Village
The research location, Phaxai district, is located in the south of Phonesavanh district (central district) Pek district is 27km to the north, Xaysomboun district and Vientiane district lie south, and Khoun district is to the east. Total area of Phaxai district is 1,332 km$^2$ and most of the district area is a plateau with cool climate. A number of rivers pass thorough it, making it suitable for agriculture and livestock. The main occupations are rice and livestock cultivation. Apart from these, they also make spoons, mops, handicrafts, and woven products (it is interesting that UXO, which have been a major health risk in the village, are now being used for an economic activity as the metal from neutralized UXO is being used to make spoons). The area has a population totalling to 12,813 people with 6,155 of these being women. The district
has a total of 32 villages. In Namoun-Ladkhai village, the specific village of data collection, there is one primary school, one secondary school, and a high school. Other landmarks are the government district office, the post office, the market, the district hospital, and two guest houses.

This district and the village were chosen for the paper because of its relevance to the UXO communication needs study. Relevance was determined by previous UXO community awareness programmes and nature of the awareness programme in terms of the medium used, and by the frequency of UXO related accidents in the prior to and during the study period (NRA, 2013). A high frequency of UXO accidents in the past and decreased contemporary frequency illustrates the positive effect of community awareness programmes. The latest UXO community awareness programme in the district was three years before this research paper was done (June 2014). Since the start of the UXO community awareness programme in the Lao PDR, the community has had three to four programmes (NRA, 2013).

The three programmes in Phaxai District have been conducted by different operators, the Mine Advisory Group (MAG), the Association for Aid Relief (AAR), and the World Education (WE) (NRA, 2013). The operators used various methods to communicate with the locals of Phaxay and these included posters, direct training for villagers, teachers, UXO clearance personnel and village meetings, puppetry, and including UXO information in the school curriculum (NRA, 2013).

The communicative ecology map was based on data gathered during the month that the researcher stayed in the village. Data was based on personal observation and communication with the local people. The data categories have been illustrated in figure 2 below. As expected
in small communities, face to face communication is the most common, popular, and basic form of communication between community members. This form of communication provides the locals with a wide variety of communication practices including chatting, singing, gestures, and emotional expression. Mobile phone communication is the next most common form of communication and involves calls and texting services. Even though this medium of communication is available to many, it is not free, as the users have to load airtime to access the available services.

Newspapers form part of the print media available in the area but were not widely available as they were only found at the local government office. Television, on the other hand, is widely available, as almost every household owns a set. This medium offers a variety of content including news, drama, and educational programmes. The main TV station available in Xiengkhouang province is Lao National Television, which was launched in the province in 2001. Radio, as medium closely related to television in that it has the capacity to reach large audiences, is not popular among the locals. There are both national and local stations and they provide news, drama, educational and socially oriented programmes.

The internet as a medium of communication was also present in the community. This medium of communication requires internet enabled devices, the most popular being 3G enabled mobile devices or 3G dongle. It costs money and is therefore not easily accessible by locals.
During my month there, I found that face-to-face communication forms the core communication practice. Community members usually interact with family members, friends and neighbours about things that happened in the village and to its people. Often they share information gathered from watching television. Communication, for the majority of the community, normally happens in the private space of their home, in the daily local market, or Sunday market, where people from other villages come to buy and sell food on every Sunday morning, or in local grocery stores and in small restaurants. For local government officials, communication generally occurs in their office during business hours. Within the researched community, the Lao language is mainly used in their daily communication and official
documents, but people do sometimes communicate in their own ethnic languages, in this case Hmong and Khmu.

Television is another primary source of information within the community because it is widely used in every household. I personally observed that people usually turn on television whenever they are home but usually watch it during lunch and dinner-time. There are free-to-air television channels including Lao National Television (LNTV1 and LNTV3) which reports the latest national news, government activities and announcements in Lao, English, French and Ethnic (Hmong and Khmu) languages, Lao Public Security Television (Lao PSTV) which reports news related to the Ministry of Public Security and Lao Star Channel which is an entertainment channel. These Television channels – LNTV1 and LNTV3, Lao Star, and Lao PSTV - are not very popular in the researched community (as well as the Lao community in general). Nonetheless, members of the community do watch the national news broadcast from time to time in order to receive updated news, but not on a regular daily basis. People seem to prefer watching news and entertainment programmes from neighbouring countries, particularly Thailand. This is due to a number of factors including language similarity, a bigger variety of channels, fresher news and a more desirable mixture of entertainment (movies, dramas, songs, game shows, talk shows and etc.). While the national broadcaster, LNTV1 and LNTV3, is mainly used for government activities and public relations, the other upcoming broadcasters, e.g. Lao Star, are more diverse and include more entertainment programmes.

Another main channel of communication within the researched community is the mobile phone which almost every adult owns. There are basic functions of the mobile phone such as calls and texting mostly used to stay connected with family members, friends, neighbours, buyers and
suppliers. Mobile SIM cards and refill cards are widely available at grocery stores and restaurants. Some mobile users occasionally use other functions such as music player and camera. Only a few people have Internet connection on their mobile due to the expensive rate and slow speed of 3G networks. Mail and postal services are also available in the village but are increasingly displaced by mobile phones.

When compared to the provincial centre, newspapers are hardly seen anywhere in the community except in the district office and some local government offices to which they have been sent from the provincial centre. The researched community or province does not have its own newspaper. I did not see even one national newspaper available at the village office. Newspapers were not sold in the village which means the number of community members who read newspapers is low when compared to people in urban areas. The articles covered by the newspaper ranged from the latest national news, national cooperation, government activities, job vacancies and some government announcements. Occasionally, there would be an article about UXO or related issues in a general context, but it would not usually relate to the researched community or discuss local circumstances.

During the month I stayed in the community, I did not see or hear people listening to a radio when I visited some of the families more than once at different times of the day. When I mentioned this to community members, people would usually tell me that they would listen to the radio when they worked in their rice field or their garden. People do not generally listen to the radio at home but prefer to watch television because there are more channels to select from and because of its visual appealing aspect. According to a discussion with one of the key informants, the NRA used to run a radio programme by buying radio airtime in Xiengkhoang
Province to provide information about and discuss UXO related issues in 2013, but the project ran for only a year. The project was reasonably successful, according to the listening statistics (UNICEF, n.d), but needed to cease due to difficulties between the provincial radio station and the information provider and for the evaluation process of the project. Nevertheless, according to the NRA plan, this radio project is expected to be potentially re-launched in 2016.

There is no internet café in the village, no computers available in schools or the village chief’s office, which means people have limited access to information on the internet. The district office, some local government offices and district hospital are places where limited wired internet could be accessed. The 3G network is available within the community but only benefits those villagers who can afford to pay a relatively high price for a comparatively low speed connection. Therefore, the large public in Phaxai District does not have frequent, ready access to the internet. This information is from people who live in the community centre.

Printed advertising material such as posters and billboards are also used in the community. There are two billboards available at the community centre; one is located in front of the market and another in front of the district office. The billboard located in front of the district office was a map of roads linking each village of Phaxai district while the billboard in front of the market was left blank at the time of my visit. Posters were not often seen around the researched community and many of the surrounding villages. Only a few posters were seen in front of the market and village chief’s office but they looked old because the colour and wording were fading. The information on the poster was about health related issues such as tuberculosis and avian influenza. There were no posters related to UXO issues around the village.
Loudspeaker is another commonly used channel in the community, mostly used near the area of the UXO blasting by the UXO agencies. There are a number of UXO agencies with operations in Phaxai district including UNICEF, UNDP, and World Relief. These agencies are based in Vientiane and only have their officers on the field. Additionally, standing boards (figure 7) are used to indicate the area where the UXO agency is working to clear UXO.

Figure 7. Photo of standing board of UXO agency (Source: Author)

Motorbike, bicycle, pick-up truck and minibus are the common modes of transport in the village and between the villages. Motorbikes are most commonly used by the majority of adults in the village to visit family members and friends, attend meetings at the village office and deliver goods to and from market. Bicycles are widely used by children to go to school and visit friends. Pick-up trucks are only used by some families who usually work in the provincial centre. Also,
there is a minibus leaving the village every morning and returning in the afternoon for villagers who need to travel to the provincial centre to buy food and go to the provincial hospital. There is only one unsealed road that links Phaxai District and the provincial centre and it takes approximately 40-60 minutes depending on the road condition of each season.

The communicative ecology of the community in Phaxay village is, just like every other, highly networked. The main form of communication is face-to-face communication, with other forms of communication being the television, radio, and newspapers. Communication is highly connected to culture of the people. For example, locals don’t share with strangers and if they do, it is shallow and the information scanty. Mapping the communicative ecology of the people was essential for this paper because the research is related to communication, and because it is useful to inform the researcher about communication processes are in the region and what to expect therefore, and situate the research for the successful determination of the research objective.

4.3.1. UXO information within the community

The participants interviewed said they received information regarding to UXO risk in various ways including mine risk education programmes, the village chief officer and family members. The mine risk education programme (MRE) employed various communication techniques in order to cover every audience and draw their attention to the issue. Participants in the focus group preferred that mine risk education ran for a whole week in one area/village before moving on to the next. Previous MRE programmes have been organised and funded by various organizations among them the European Union, World Relief, UNICEF, and UNDP but each program is run according to the guidelines provided by the NRA. The operators are locals who
are selected and trained by the sponsoring organisation. As a result, the community locals - who formed the greater percentage of the research participants - couldn’t say who the project sponsors were. The majority of participants interviewed recalled some of the techniques and tools used while the community awareness team ran the programme. As one of them said:

*The programme used a video spot to indicate different type of UXO. After that, we would be allocated into small group and discuss about what we have just learned from the video and how to deal with UXO in the real situation. Posters and flipchart were also used as a demonstrator in between the discussion. The programme did sometimes use role-play and puppet show.* (P2)

This account of MRE was also supported by another respondent who could recall the programme in a more detailed way:

*They use sound system with video projector, sing songs (both children and adult), puppet show, storytelling, and play games with children with small rewards (book, pen, pencil...). They try to educate and entertain at the same time. Villagers are separate into group based on gender, age and availability on that day (men, women and children). Then, everyone attend the same session at the end for questions and answers session. The programme also makes a separate session for elderly at their home* (P1).

Children aged from 6 to 10 years old would receive information and study materials about UXO risk and safety behaviour in one of their classes from their teacher in primary school. However, and as found through the research, some children still do engage in dangerous behaviour such as playing with UXO.
Yes, it is easy to understand for children and easy to apply to real life except naughty children. Even though they know about the UXO, they still play with it. For example, last year children play with UXO in the school playground and it blast, which made everyone shock. I will keep reminding the children before they go home not to touch and play with the UXO. If they are going to forest, they should be aware of an accident when cutting grasses and digging hole (P4).

4.3.2. Literacy level in the village

UXO communication in Phaxai District was carried out through the use of audiovisual and text content. The success of these materials in delivering the message to the locals in the community largely depends on the ability of the locals to receive and understand the information correctly, and this depends on its turn on the literacy rate of the locals. According to the education division in Phaxai District, the district was declared by the Ministry of Education to have a zero illiteracy rate for primary school in 2012 and for secondary school in 2014. This means that every adult above the age of 15 years is literate and can understand and write basic sentences about their daily life and have the ability to make an arithmetic calculation.

The literacy rate in the village is therefore considered to be sufficient for the communication methods used in MRE programmes and participants in each programme can easily understand the content and context of the communications made. Even through the last MRE programme in the village was some years back – three years before this research paper, hence 2012 - it could be comfortably assumed that each adult participant in the programme was able to
understand the contents of the communication because, by 2012, the Phaxai District had already been declared to have a zero illiteracy for people with a primary education.

4.4. MRE programme design, implementation, evaluation, and recommendation for improvement

The findings under this section were mainly from the Community Awareness Officer (K1), who participated in the focus group and the in-depth interviews, and from the awareness office in the district. This section of the chapter is considered essential in that it provides information about how the MRE sessions in the village were organized and implemented. This helps the researcher to decide if the MRE sessions are effective in communicating education to the village, or otherwise. Poor organization of the sessions would mean the MRE is not effective or not entirely passed to community members.

4.4.1. Design and implementation

The Mine Advisory Group (MAG) is responsible for designing MRE programmes. Designing a specific programme requires that a number of issues which are considered to be the ground rules for designing and implementing MRE programmes are factored in. Primarily, the MRE ground rules from the NRA should guide MRE in the Lao PDR. In addition to the ground rules, design of a MRE programme is based on ‘indicators and targets’ that are stated in the Memorandum of Understanding (MoU) with the government. Indicators and targets are basically the goals that the donors seek to realize in terms of preventing UXO related accidents and incidents as per the contract with MAG, and they are informed by the nature of the accidents and incidents that are common before that MRE programme. The third consideration
focuses on the target group. The target group for a MRE programme is the group of the villagers in the area who need to alter behaviour and life style, grouped to ensure that an optimum and well designed programme is developed. Fourthly, the programme is shaped by the UXO accident or incident frequency in the target area. Lastly, the process involves consolidation of UXO risk and protection lessons into the primary and secondary school curriculum according to guidelines provided by the government.

After the programme design is complete, it is implemented as per the donor’s plan, contained in the MoU with donor. The community liaison then collects data from the community and provides information about risks and impacts and how to villagers are protecting themselves from UXO accidents or incidents. The third step in the implementation process is to identify village volunteers who can be employed to promote awareness of UXO risks and teach locals about basic first aid.

4.4.2. MRE evaluation and community response to the MRE programme

MAG has a pre and post evaluation form that is used to evaluate the effect of a programme every time an awareness campaign is implemented. The form is designed to evaluate how well community members understand UXO risks and how to correctly protect themselves from UXO incidents and accidents. The evaluation is a survey to gauge villagers’ knowledge before a MRE programme is implemented, and after, to establish the impact of the programme in changing the villagers opinions regarding UXO risks and their adoption of the right protective and preventative measures.
The attitude and behaviour of the community members towards MRE programmes suggests that they are happy to participate. An example of these behaviours is observed when organising a risk awareness session in primary schools. Children show keenness and enthusiasm to participate as well as active engagement during the question and answer segment of the session. Additionally, during the post evaluation process, students, and village members are able to recognise and remember the names of the community liaison officers who conducted the risk awareness programme in their respective schools and/or villages. It has been established that villagers are able to accurately recall the lesson when MRE officers visit their villages during evaluative community visits.

The participants in the focus group had some suggestions about how MRE programmes can be implemented.

4.4.3. Challenges for conducting MRE programmes and recommendations for improvement

The implementation of MRE faces a number of challenges, the first being the number of people who participate in a session. The proportion of villagers who participate in a session is small compared to the village population. The second challenge is that during the farming season fewer people participate in the programme. For people living in remote areas there is limited access, as the roads become impassable during rainy seasons. For ethnic groups, there are some cultural beliefs, for instance that women are weak and better for house chores like serving tea, that prevent women from participating in MRE programmes. Lastly, according to interview findings, promotional materials used in the programme have not been updated and the materials used for motivation are not adequate.
To improve the MRE programme, the first recommendation is that the agency be asked to increase funds specifically for the MRE programme. Secondly, the central and local governments should emphasise the importance of rising awareness about UXO issues more broadly, and lastly, each and every sector, government department, and private company should promote UXO risk awareness and the methods for prevention of UXO-related accidents and incidents.

The finding of this section of the chapter is that the design and implementation of MRE programmes is dependent on the ground rules set by the NRA and the targets determined by the donor of the financial support for the programme. The programmes are run by Laotians who are mainly members of the community. MAG carries out pre and post evaluation for every MRE programme. Some of the issues raised here are that the number of people who participate in MRE programmes is still low, gender bias is a problem as women are sidelined in the programmes, and promotional materials used for the programmes are old and outdated.

4.5. UXO community communication structures, processes and tools

Participants in both the focus groups and the interviews identified a number of community awareness communications. According to the Laos UXO communication framework, UXO programmes have to use the guidelines of the NRA and should be conducted with permission from the NRA. Therefore UXO and MRE activities in Laos are conducted through the government. It was observed that the village chief officer was actively involved in UXO activities and this signified the high level of involvement of the governmental hierarchy in UXO communication and programmes.
The formal communication process that involves the government structures was also identified as the entry point for informal structures. As observed and as established by Durham (2006), once UXO programmes have been allowed by the NRA and are in accordance with the NRA guidelines, the programme operators are at liberty to plan and implement the program mainly depending on the requirements of the locals and the target population. As a result, the choice for an informal programme setting is a determination of the programme operators. (An informal programme is that which is done outside the official government authorities in the village level.)

There are however a number of issues that affect the implementation of UXO communication strategies within Phaxai District community. These include socio-economic status and the ethnicity and language of the community. In Phaxai District, the main ethnic languages used are Hmong and Khmu. However, other languages are also used by the UXO programmes including Lao, English, and French. The research area, Namoun-Ladkhai Village, has only one ethnic group, Lao, as participants confirmed: “People who live in this village are all Lao (lowland Lao). No ethnic minorities live in this village” (P1).

Communication by UXO programme operators was through a variety of channels including posters, songs, drama, and educational talks. Songs used were designed by the MRE trainers and they coached the participants of the session then they all participated in the songs. In addition, drama was performed by the trainers as the pierces were simple and very short. For both songs and drama, the content was about the risks associated with UXO for each of the various groups in the community, that is, farmers, children, and scrap metal collectors. Figure 10 and 11 are a sample of posters used in MRE targeting farmers. While figure 10 shows the
risky behaviour for farmers, figure 11 shows the risky behaviour for adults and children, and stress the fact that after floods, UXO can be washed to areas where it is not expected.

Figure 8. Poster for Farmers (Adopted from NRA, 2012)
They use sound system with video projector, sing songs (both children and adult), puppet show, storytelling, and play games with children with small rewards (book, pen, pencil...). They try to educate and entertain at the same time (P1).

UXO communication is designed to suit the target audience. However, as communication programmes are done a community at a time, and a session at a time during village sessions where the audience is mixed, the sessions are divided into those for special groups and general groups, reading ability, gender, and age groups in order to communicate relevant and appropriate UXO information to the right audience.

Target audience will be divided into two groups, special group audience and general audience. According to my previous sample, our team will also provide UXO information during the general village meeting and special groups, such as scrap metal collectors,
which will account about 5-6 families within the village. For this special group, the discussion we make with them will be in depth and not only general information. The information we provide is not only for reading because we do aware of the ability to read of each villager, therefore, we will do more on small group discussion, 5-6 small groups of male, female and children. We will discuss based on particular topic rather than showing the poster and discuss about what is on it (K1).

UXO communication is done within specific structures that have been set out by the NRA. Before a communication programme is initiated, it has to be certified by the NRA for compliance with the set out guidelines. The guidelines are considered the ground rules for designing and implementing MRE campaigns. The content for these guidelines is background information for educators and facilitators and include what needs to be done, the target groups, the methods and approach to be used and rules for cooperation with other third parties. Next the guidelines provide activities for each of the target groups such as scrap metal collectors, adults, children, and farmers. Lastly, the guidelines offer metrics for determining change achieved through the campaign.

In the field, the communication event employs various tools. These tools are determined by suitability for the target group. The tools include posters, chats, songs, videos, games, puppet shows, and stories. The choice of a tool is mainly determined by the age of the target group. For example, songs, storytelling, and games are mainly used for children groups while videos, chats, and posters are used more with adults even though there is not a specific boundary to the use of a tool. The communication process is determined too by a number of factors
including age, the particular needs of a group like scrap metal collectors, the literacy level of the group, and gender.

The nature of the communication can be seen to be dependent on the values and attitudes that a given group has towards the risks associated with a UXO. UXO contact risks that are faced by particular groups, for example farmers and scrap metal collectors, differ, so the communication needs for each group are specific. To this end, further findings are presented under thematic categories. These themes are developed from the core issues which are of primary concern in MRE programmes in Lao PDR.

4.6. Emerging themes

This section of the chapter presents thematic categories. Five themes are developed; values and attitudes towards UXO risks, UXO risk and safety practices, socio-economic factors related to UXO risks, scrap metal collection, and the communication status of the community.

4.6.1. Theme 1 – Values and Attitudes toward the UXO risks

Different people and groups have differing attitudes and values concerning the risks of UXO. While some are purely ignorant, especially children, others simply disregard known threats, for example scrap metal collectors. Also, some are cognisant of the threat posed by UXO, especially mature adults and people who are survivors of UXO incidents or have a family member who has been injured or killed by UXO (Wilkin et al., 2007). Values and attitudes held by the locals are therefore important factors in UXO communication.

Values and attitudes held by people towards a particular issue inform the fundamental structure of their daily life (Brady, 2006). Before UXO awareness education was launched in
Namoun-Ladkhai Village, the locals were misinformed about the various issues surrounding UXO. They therefore attached misleading values to UXO and to the countries assumed to be responsible for UXO contamination. Research has established that community members attached the wrong values to the right country (many Laotians blamed the US for the UXO situation in their country, but while the US was responsible for the deposition of UXO in Laos, their own country was also responsible as it was part of the war). However, after the launch of community awareness programmes, they were able to fully and correctly understand the origin of UXO contamination in their land. This understanding changed the value and meaning they attached to UXO with the primary alteration being how to protect themselves and handle any UXO items they come across.

The fact that the locals were not aware of the real reason for the existence of UXO on their land hindered a cohesive acceptance of the situation. Without knowledge of the UXO history, many misinformed theories existed and these prevented a common and solid point of acceptance of the situation, which according to MAG and NRA (2007) is essential for acceptance of the UXO situation and therefore participation in MRE programmes. The US was responsible for the UXO, but attributing responsibility and blaming the US for the contamination isn’t enough. Understanding that it was the war that led to the UXO contamination leads to a better approach to promoting acceptance of the situation.

Yes, the programme does help me to understand the whole situation of the conflict that led to the existence of the UXO in our country better than before. In the past, I was always blaming to the USA on their action but actually it was because of the effect of war and fighting for power (P4).
This changed knowledge alters the values and attitudes attached to UXO which promotes participation in MRE programmes. When discussing general attitudes towards and practices of the participants regarding UXO risk, it was established that all villagers were well aware that all unexploded UXO are dangerous as they can explode any time. All the participants in the research had heard of UXO accidents and well understood the need to be more careful about accident risk because UXO explosion can result in injury or death of individuals including their family members. All participants described their attitudes toward the UXO risk by comparing their present experience to the past. As one of them explained:

*During the Vietnam War, I was a little boy. My parents originally lived in this village but had to evacuate to Vientiane during the Wartime for safety reason. UXO had given me a lot of pressure. At the time, I did not know and understand about its risks toward life and properties of the community members. The majority of the existing UXO were underground and on the surface which was life threatening. However, I feel safer now and more able to do things such as looking for food, working on the paddy field and safe to graze animals anywhere that has been cleared of UXO.* (FG1P1)

Another respondent provided examples of the past accidents related to the UXO presence in the community:

*In the past, the risk of UXO was high not only for people but also animals. At that time in our village, an animal would sometimes be hit by the UXO, which on exploding it killed the animal. The animal’s body would be completely shattered. Without knowledge and understanding about the effects of UXO, sometimes villagers moved the bomb or hit the
UXO, especially children, while walking to school or work on a farm. As a result, during this time there were many fatal accidents from these activities. (P1)

Before MRE was started in the community, there was hardly any science-based information to explain the problem. As a result, it was difficult for villagers to understand or explain the problem, leading to engagement in risky behaviour due to misinformation. For example, the research established that when digging new land for cultivation, knowing that such items would explode resulting to injury or death, villagers would avoid digging near the item. Nevertheless it could still explode leading villagers to think that such items had timers.

When the villager working in a group in their rice field... suddenly the UXO explodes without touching or hitting by the villager. I don't know, maybe the UXO has a time machine installed that make it explode. (P1)

I previously believed not to stay in a close proximity of UXO under hot sunlight because the heat from the sun could activate the UXO. I want to know if this is true. This makes me really scared but I do not feel this way during rainy or cloudy day. In addition, is there a time line for UXO to explode? If yes, what is the time line? How many years it takes for the UXO to explode by itself? (FG1P4)

Another perspective regarding UXO risks came from a teacher who works at the village primary school:

In the past, this village was very small and the area where I lived was still a forest and did not have many houses. I usually found a lot of UXO and ammunition on the ground around my village. At the time, children had been killed and injured by playing with UXO
due to their curiosity and not knowing the effect of the UXO. When I was young, I did go to search for scrap metal for selling in the forest because I was invited by a group of friends. My parents did tell me about the risk of the UXO, however I still did it and tried not to touch the UXO and only collect the scrap metal. I was naïve at that time but I understand the danger of UXO now and how much my parents were worried about me when I have my own kid. (P3)

At the time this research took place, and after the community has been exposed to several (3 to 4 times) MRE education programmes, all the participants in the study seemed to be aware of the risks posed by UXO. Each participant understood the basic information about the origin of UXO in their community, the effects of UXO and what everyone should do if they come across UXO items. (It is acknowledged that the participants were educated professionals and not the ordinary villager, however and as established in the communicative ecology of the community, the illiteracy rate of the village is zero for primary and secondary educated people as at 2012 and 2014 respectively. This means the use of professionals as the sample representatives for the community is representative enough for the community population in terms of education and cognitive abilities.) However, it was established that there were still some information gaps related to UXO illustrated by the request by all the participants to have the MRE programme visit their community again and the fact that there are still UXO related casualties in the community.

The values attributed to a product, a person, an object or anything affect the relationship between them (Brady, 2006), for example the attitude that Laotians have concerning the cause of UXO on their land, will determine how they react to MRE programmes. Before MRE
programmes began in the village, there were several misconceptions about the cause and the effects of UXO. This misleading information affected the attitudes the locals had towards UXO which predisposed them to the risks associated with UXO including deadly accidents. MRE provided the locals with correct information regarding UXO, for example the cause and source of UXO, which helped the villagers to accept the situation and, rather than blaming those who contaminated their land with UXO, focus on ways to protect themselves from the threats of UXO and the eradication processes. The main focus of MRE was to equip the locals with the information they need to avoid exposing themselves to the risks of UXO in every aspect of their day-to-day life. As a result, for each of the threats posed by UXO a safety practice was provided.

4.6.2. Theme 2 - UXO risk and safety practices

The community members who work on farm land and the household garden tend to be exposed to UXO risks accidentally, especially when they are digging land, lighting a fire, cutting grass, collecting forest products and grazing animals.

Among the respondents some stated that using a hoe when farming is faster and digs deeper, but there is high chance of hitting UXO and causing an explosion. When the MRE programme began in the village, and for the 3-4 sessions that the programme ran, the community members were advised on the safe ways to dig to avoid risks of hitting a UXO when working in the farm, home garden and high risk areas by digging with a shovel or a spade. This indicates that farmers are aware of the UXO risks but occasionally continue to take risks. The participants for instance said that when working in the farm or home garden, they know they should dig slowly and carefully to avoid risk of hitting a UXO but it was time consuming and restricted the depth to which they could dig.
The other risky behaviour is when school pupils find UXO items and start to play with them.

*For the mine risk education team, since we had established the village, as from my memory it was around 4-5 times that they came to promote in our village. First, when they came into the village, they try to persuade villager to attend the session and explain their purpose and objectives. The lesson would include what should the villager do when going to the rice field, how to dig the hole in the rice field, how to clear their land for framing, how to cut the grass. The team explain to the villager that they should not dig or hit too hard into the ground as there might be an UXO under the ground and made it blasts (P1).*

*There are activities like clearing rubbish, trash burning (due to heat and unseen bomb under the ground). Some kinds of bomb cannot be detected by normal UXO detector because of the depth of the bomb under the ground (P2).*

*Some people die by accident and unaware of the UXO. Children are playing with the UXO (Throw the bomb to the wall) (P3).*

Another unsafe practice that causes UXO explosions relates to the way of building a fire. The researcher was interested to learn how community members light fires in their homes, in the farmland and in the forest areas. Fire is used as the primary method of bush or trash clearing in the farms especially when clearing a new piece of land for farming or when preparing land for a new planting season. The participants commented that they usually light a fire on a mound of dirt, on the place where they always do and on rocks, techniques they practice as a way of avoiding UXO explosion while lighting a fire. These techniques of lighting fire were taught by
the MRE operators who advised that they collect the rubbish being burned then light the fire on a specific place where it has always been burned (with no explosions) or on a rock. This advice is based on the assumption that the place where burning happens is safe, like on a rock.

The information provided from the mine risk education programme is very useful and can be used in real life. For example: what are the effects from UXO? What to do when you see UXO while working in the rice field? And some basic skills I have mentioned early such as when doing gardening or working in the rice field, you should cut grass 20-30cm above ground and should not dig the ground at new place. Moreover, you should not create fire near old bomb craters or directly above ground. You should create fire on flat stone to avoid any active UXO underground (P4).

Grazing animals for farmers is also a hassle in the UXO contamination area, for people who have buffalos, cows or goats, for example. Some respondents claim that putting a stake in the ground to which to tie the animal carries a risk of hitting UXO if the area is contaminated. The participants knew that tying their animals to a tree is a safer technique when grazing animals. Before the MRE programme in the village, UXO accidents affected both people and animals when grazing in the field. However, the awareness education programme taught them how to be careful with some techniques, using the tethering method to graze animals as this restricts the animals to an area in which the UXO status is known. In addition, instead of driving a peg into the ground to use it for tethering the cow, they tie them to trees or other firm-enough vegetation.

In the past, the risk of UXO was high not only for people but also animals. At that time in our village, an animal would sometimes be hit by the UXO, which on exploding it killed
the animal. The animal’s body would be completely shattered. Without knowledge and understanding about the effects of UXO, sometimes villagers moved the bomb or hit the UXO, especially children, while walking to school or work on a farm. As a result, during this time there were many fatal accidents from these activities. (P1)

Clearing farmland and cutting vegetation can also cause UXO explosion without the correct practice. The participants had learned to cut grass and vegetation around 20-30cm above the ground instead of cutting downward in order to avoid hitting UXO. This is an indication of how even the simplest and most common practices have been affected by UXO contamination issues in the village. As the villagers acknowledge, before the UXO awareness programme was begun in the village, many UXO casualties happened as a result of ignorance and unawareness of the presence of UXO in the ground. The MRE programme taught them a number of safe methods for going about their day-to-day activities without endangering themselves.

The lesson would include what should the villager do when going to the rice field, how to dig the hole in the rice field, how to clear their land for framing, how to cut the grass. The team explain to the villager that they should not dig or hit too hard into the ground as there might be an UXO under the ground and made it blasts (P1).

Participants also identified that the collection of forest products for food put them at risk from UXO. The respondents understand that UXO cannot be touched or moved and cannot be opened. Nevertheless, in a situation where UXO threatens their lives and those of their family members, they believe that UXO can be touched or moved with careful precautions to a safer place. Such a case is when children have found UXO and are playing with it. Otherwise, moving
or touching UXO is something of the past as whenever villagers find UXO even in their rice paddy farms, they inform the clearance team who do the clearing.

*One of the good indications about change in behaviour and attitude of villagers toward UXO is in the past when villager found UXO in their rice field, they will attempt to move them to the safe place by themselves but they will not do it now. Villager will report their finding to the clearance team or authorities as soon as they found UXO and let the UXO clearance team to do their job* (K1).

The majority of participants interviewed said that they would report to the village chief officer or UXO agency when they find a UXO because the reporting process is easy and convenient. The process of reporting requires that after a villager has found UXO, they should report it right away to the nearest authority - the Village Chief or the clearance office. One of the participants mentioned:

*Around 10 days ago, I found one UXO in my paddy field so I decided to report to authority. I called directly to the UXO agency in the early morning and around 10am they arrived. The action was prompt as they went to mark the area for safety purposes and now the UXO has been cleared.* (FG1P3)

However, some participants said that they saw UXO but they did not do anything with it, including informing the UXO clearance team, because of the item’s small size and the forest location and thus remoteness from village and farming land. Sometimes they would tell family members and friends, indicating an informal system of sharing information about UXO that would protect community members. This is considered to be one of the key issues of the study
as it indicates a contribution to the continued problem of UXO and the unsafe behaviour that still exists among the community members.

*There are many times when I went into the forest to look for bamboo shoots, I found a cluster submunition on the ground. I did not touch or move it because I was afraid so I would just ignore it. On coming back into the village, I thought it was too small so I decide to not to report to the authority but told my family members and friends about it.*

(FG2P4)

The risk of UXO runs through almost every aspect of the community’s day to day life, from farming and grazing, to children playing with UXO in the fields and in schools. For the majority of these threats, the community didn’t have risk prevention strategies before the start of MRE programmes. However, the programme has successfully educated the locals about various ways to protect themselves from the risks of UXO and still go about their day-to-day activities successfully. For each of the specific threats, a working solution has been provided. These include where to light fire when burning rubbish, not using fire to clear bush on the farm, and not driving pegs to the ground when tethering livestock in the field. The UXO threat has some very costly socio-economic repercussion to the community.

4.6.3. Theme 3 – Socio-economic factors related to UXO threat

UXO in the Lao PDR is highly entangled with certain socio-economic factors making it a challenge to community members on a daily basis. UXO littered on the ground, as established in the chapters above, is one of the major sources of income to local community. Land is used in a variety of ways to generate income, especially through subsistence farming. So far as it was
established through this research project, each family in the research village is engaged in some form of farming, mostly crop farming, mainly rice, and livestock farming.

Land is the primary resource in farming and so high UXO contamination poses a risk to community members. As established, before awareness programmes were established in the village, UXO presented a major challenge as the villagers did not understand what UXO is, or how to handle it. This problem was exacerbated by the fact that villagers had to use their farms as the only means to generate income. As it was established through the participants, UXO contamination is everywhere, including the rice fields, farming and household areas, ponds, and lakes.

> In the past, UXO has affected our life significantly. However, it is nearly 10 years now that our safety has been improved after the UXO organisation came into our community. Prior our understanding of UXO situation and learned about effects of UXO, accidents are occurred more frequently around rice field, farming area, pond, lake and household area (FG1P2).

The villagers put themselves in danger from UXO as they look for food and as they work on the farms, especially by cultivating the land with animal driven ploughs. Before the UXO clearance programme was initiated, villagers could dig into UXO causing them to explode. However, they cannot avoid this because they have to work on their farms and graze their livestock. After the MRE team came into the village, villagers became aware of the problem and they were able to take better care when farming or grazing. With the clearance programme, community members are now able to engage freely with their farms and whenever necessary, take the right precautions.
The majority of the existing UXO are underground and on the surface which is life threatening. However, I feel safer now and convenience to do things such as looking for food, working on the paddy field and safe to graze animals anywhere that has been UXO cleared (FG1P1).

Namoun-Ladkhai village is located in Xiengkhouang province which is one of the main maize producing regions in Laos (Ahmed & Hirsch, 2000). Moreover, every villager is involved in some form of farming be it subsistence and small-scale crop farming or livestock keeping. The presence of UXO on the land therefore has major social-economic implications. Before the start of MRE programmes in the village, the locals had few alternatives, especially those who have their land as the main source of income or food for their families. They had to overlook the presence of UXO on the land and use it. This caused a large number of UXO related injuries and deaths. MRE programmes have educated the locals by equipping them with preventive strategies for using the land and avoiding UXO related accidents. Nevertheless, scrap metal collection has been identified to be one of the most persistent social-economic factors that, through not directly related with land use, is still a threat to the community.

4.6.4. Theme 4 - Scrap metal collection

In addition to UXO contamination being directly related to such aspects of the community as land use, it is also directly related to the general income-generating activities practised in the village. The reviewed literature indicated that scrap metal collection is one of the unsafe behaviours that directly result in UXO related casualties. In the past, scrap metal collection has been one of the most dangerous factors. Metal collection was a major source of income not only in the Lao PDR, but all low-income areas that are contaminated with UXO. Scrap metal is a
business that involves collection of waste metal in villages and selling it to scrap metal dealers with the chain ending with metal processing firms who recycle that metal. The research material established that scrap metal collection was once a major activity in the village especially before the awareness programme was started.

> When I was young, there were a lot of UXO lying on the ground and in the forest when I go looking for bamboo shoot with my parents. At that time, there were a lot of people who looking to buy scrap metal so a lot of family especially children were searching for metal to sell in order to grain more income. Compare to this day, there is no selling and buying of scrap metal in the community anymore (FG1P1).

The amount gained from scrap metal is not sufficient to sustain the individual collecting the scrap metal in the forest or in the village, but it provides a worthwhile side income. When scrap metal collection was active in the village, it posed a threat to participating villagers in that the UXO collected would explode when being collected in the field, being moved, or being opened so as to extract the saleable scrap metal. The awareness programme in the village, educated the villagers about the risks of scrap metal. One participant recollected how the programme ran;

> Target audience will be divided into two groups, special group audience and general audience. According to my previous sample, our team will also provide UXO information during the general village meeting and special groups, such as scrap metal collectors, which will account about 5-6 families within the village (K1).
After the awareness programme, involvement in scrap metal business began to decline. When this paper was researched, it was established that there was no active scrap metal collection in the village. For the month the researcher was in the research location, no scrap metal activity was observed. That is, no collection, scrap metal transportation, or scrap metal heaps. The village chief officer stated that;

*Since the programme has been run in our community, villagers are feeling much safer. People are no longer searching for scrap metal anymore. UXO lay on the ground or highly visible has already been destroyed by the UXO clearance team. Accidents from UXO also decrease* (P1).

The only known cases of scrap metal collection in the region are from the neighbouring villages, which have also undergone through MRE programmes but used different materials, i.e. the neighbouring villages didn’t participate in the same MRE sessions as Namoun-Ladkhai Village, the village under study. The scrap metal business starts with the collection process and no strangers can collect in any village. The fact that there is no scrap metal collection in the village means that there is no scrap metal business in the village. However, the lack of scrap metal in the village could be attributed to the fact the price of scrap metal is too low or that there are no more UXO items lying on the open ground as they have been collected and blasted by the clearance team.

*Regarding these activities of selling scrap metal, aluminium and copper that were left over from the bomb, the villagers from our village did not join the activities, only people from other villages did it. There were mostly people from Samthong village, LongChang*
village and other nearby villages that participate in the scrap metal selling which sometimes causing dead or never return (P1).

The key informant says that in this village, education on the risks of scrap metal collection started in 2009. The programme began with the Knowledge, Attitude and Practice (KAP) survey, conducted in five districts and was intended to inform the various parties in scrap metal business, collectors, workers, and traders, about how to avoid high-risk behaviour in the business.

The project starts with Knowledge, Attitude and Practice (KAP) survey in 5 districts in Xiengkhouang province, which Phaxai is one of the target districts. The information gains from the survey are number of scrap metal traders, movement of scrap metal trading. After the survey finish, a meeting with each scrap metal trader to promote awareness has been planned for the duration of 9 months with 24 scrap metal traders. The information provided to the scrap metal trader, including workers, sellers and buyers, is how to distinguish between scrap metal and UXO (K1).

Scrap metal collection is a major threat to the efforts to completely eradicate UXO related accidents. The practice attracts the poor in the community because of the amount they receive for selling the collected scrap metal. Even though this amount is not large enough to sustain an individual and their family/dependants, it is considered worthwhile compared to nothing at all. Even though the interviewees indicate an absence of scrap metal collection in the village, given the income-driven aspect that causes an individual to engage in dangerous behaviour, it is important that the MRE curriculum places more emphasis on this area.
4.6.5. Theme 5 - Communication settings in the village

To undertake communication related research involves an exploration of the communicative ecology (Servaes, 2008). Durham (2006) states that the success of a communications programme depends primarily on the degree to which its organization is appropriate to the communication settings of the target group. Communicative ecology of the locals of Namoun-Ladkhai Village has a pivotal impact on the result of MRE programmes.

The communicative ecology conducted in the field was limited by time, of which this research tool requires much more. Nevertheless, it was important in that in situ observations were made of the communication settings of the village and how they contributed toward determining the research objective.

First, it was established that the locals are not open to strangers and therefore, they may not speak to strangers or, if they do, provide very limited information. This character of the locals is important - they may choose to not open up to MRE communication events. However, it was also established that, to overcome this limitation, MRE programmes recruit locals of the village as field technicians. The locals can then identify with the MRE officials and thus open up about day to day encounters with UXO.

For this research paper, to overcome this limitation, the researchers first made contact with the Chief Administrative Officer in the village who then introduced the research project and the researcher to the locals. In addition, the chief officer was one of the participants in the study especially in interviews and in the focus group.
Second, face-to-face communication is the primary form of sharing information between the villagers. The face-to-face communication method is used for both formal and informal communication. It was also observed that the Chief Administrative officer of the village uses face-to-face communication as the primary form of making official government communications. The method is cheap as it requires no medium and it lends credibility to the communication being made. In addition to face-to-face communication, other methods of communication used in the community are television, radio, and newspapers at a national level, and posters and loudspeakers at the local level. These forms of communication all provide a platform through which UXO risk awareness communication can be made to the public. In addition to these, mobile phones and the internet, even though minimally used in the village, are also additional platforms which can be used. To this end, mobile phones are highly useful in that they are used for reporting sighted UXO to the clearance teams. It is however noted that, these two platforms – mobile phones and the internet - have limited use in UXO and MRE communication.

Communication in the village is compiled and delivered depending on the target group. The primary categorizations are gender and age. Age is mainly used to differentiate between children and adults, with the children being further subdivided into levels based on the education level of the participants. Adults are sometimes further divided by gender. For effective communication, it is important that the right message packaged appropriately for the target group.

In addition to the setting and tools available for communication, a vital question to consider in communicative ecology is the ability of the target group to fully comprehend the
communication being made. Bogdan & Biklen (2006) argue that this is dependent on the literacy level of the community. It was established that (as discussed in Section 4.2.2.) the Lao PDR and in particular Phaxai District was declared by the Ministry of Education to have a zero illiteracy rate for primary school leavers in 2012 and for secondary school participants in 2014.

4.7. Summary of findings

MRE programmes have been conducted in the village three times with the last programme having been conducted three years before this research was conducted, that is in 2011. According to the Education Division in Phaxai District, the district was declared by the Ministry of Education (the Government of Lao PDR) to have a zero illiteracy rate for primary school leavers by 2012 and for secondary school students by 2014, and literacy level is a vital factor in determining the success of a communication campaign. However, as communication programmes are done one community at a time, and one session at a time, during village sessions where the audience is mixed, the sessions are divided according to special groups and general groups, ability to read, gender, and age groups in order to communicate relevant and appropriate UXO information to the right audience. These tools are determined by suitability with the target group. The tools used include posters, chats, songs, videos, games, puppet shows, and stories. The choice of a tool is mainly determined by the age of the target group. For example, while songs, storytelling, and games are mainly used for children’s groups, videos, chats, and posters are common with adults even though there is not a specific age boundary on the usage of a tool.

The communication process too is determined by a number of factors including age, the needs of a group such as scrap metal collectors, literacy level of the group, and gender. MRE
programmes are based on indicators and targets provided in MoU with donors, based on the at-risk group, behaviour and lifestyle of villagers in the area, and on incident/accidents that frequently happen in the area. The implementation of a programme involves a consolidation of the UXO risk and protection lesson into the teaching and learning plan of the primary and secondary school curriculum according to the government plan/ guideline and the (MoU) with the donor. Evaluation plans involve pre and post evaluation forms for surveys every time a programme is conducted, to evaluate the understanding of community members regarding UXO risks and how to prevent UXO incidents and protect themselves.

The major challenge facing MRE programmes is low turnout, but those who participate are highly motivated and enthusiastic. To improve MRE programmes the agency should increase funds or allocate them specifically for MRE programmes with both government and private enterprises involved in awareness campaigns. The majority of participants interviewed said that they would report to the village chief officer or UXO agency when they find UXO because the reporting process is easy and convenient. However, some participants said that they saw a UXO item but they did not do anything with it because of its small size and the forest location and thus remoteness from village and farming land. In addition to UXO contamination being directly related to such aspects of the community as land use, it is also directly related to general income-generating activities practised in the village. Findings show that, even though scrap metal collection has been eradicated in the village; it is one of the dangerous behaviours that directly result in UXO related casualties.
Chapter 5: Discussion

5. Introduction

This qualitative research paper sets out to examine the communication needs regarding UXO risks for the locals at Namoun-Ladkhai Village. The findings suggest that even though significant strides have been made in informing the locals of UXO risks, there are still some locals who are not observant of the MRE teaching and therefore are practising some dangerous behaviour. The participants in the research project expressed gratitude for the previous MRE interventions that have been conducted in the village because, thanks to these interventions, the locals have been able to avoid most of the risky behaviour they used to ignorantly practise before MRE programmes. This is in line with statistics from the Lao PDR government (National Regulatory Authority, 2012; 2013; MAG and NRA, 2007) that show significant reduction of UXO related accidents and incidents over time.

5.2. Success of previous UXO awareness education campaigns

Whether a MRE programme is a success or not is determined by a subsequent reduction in the number of UXO related incidents and accidents (National Regulatory Authority, 2013). Successful MRE programmes result in a direct reduction in the number of incidents and accidents caused by UXO from the date the programme begins. Other indicators of success used in this study include the ability of the participants to remember what was taught in the programme.

The success of the UXO awareness education in the village is to be attributed to a number of factors. Firstly, the village was ready, highly receptive to a solution to bombies accidents. Since
the end of the second Indo-China war, The Lao PDR has been contaminated with UXO and majority of the locals did not understand the material, except for a few of those who participated in the war (NRA, 2013). However, they did not know how to avoid setting off the *bombies* and causing casualties. By the time when MRE programmes were introduced in the village, the villagers were ready for and highly receptive to the message.

Secondly, the awareness program has been successful due to the fact that the operators used various methods to communicate the message. The methods used included demonstrations, posters and participation of the community members in discussion groups. This way, the community members were better able to understand and apply the learnt material into their everyday life. The study established that the community members could still remember what they were taught.

Thirdly, MRE education in the village was successful because it sought to address the day-to-day activities of the community. Before MRE took place in the community, such day-to-day activities of the community as farming, grazing, and burning trash were compromised. By addressing these activities and advising the community members on what behaviour to drop and which to adopt, it was relatively easy for community members to take these practises up and incorporate them into their day-to-day activities.

Lastly, and in line with the findings of Durham et al. (2005), the goals of MRE programmes in the Lao PDR are informed by socio-cognitive theory. This method seeks achievement in three areas; the rational factor, the practical factor, and the social network of interpersonal communication. The rational factor means that if the locals are informed about UXO and how to protect themselves from it, they will avoid the casualties because essentially, a person will
practise that which they are aware of. The practical factor implies that a person will adopt actions which they consider themselves able to do. MRE was formulated to inform the locals of the various ways in which they can avoid high-risk behaviour in their day-to-day activities. The interconnected social network of communication means that each and every person would look out for each other to ensure that risky behaviour is avoided. One such behaviour is scrap metal collection which, observers have established, has been eliminated through the community initiative.

In addition to the general social network, coercive restriction of scrap metal collection is another factor. For example, the price of scrap metal was observed to have been hit by a significant price drop in the recent years. As a result, a collector might not consider it worth taking the risk for the lower price. With a lucrative price, community members are eager to engage in scrap metal collection, despite being aware that it is dangerous behaviour. It is therefore probable that once scrap metal prices are high enough, scrap metal collection might increase in the village.

One of the major indicators of the success of the awareness programme in the community is the decline in scrap metal trade. Scrap metal, in various other sources referenced in this research paper, has been indicated to be a major motivator for people to intentionally engage in UXO risky behaviour (Moyes, 2004; Moyes, 2005; Sisavath, 2006; and UNDP, 2013). Scrap metal collection is established to be non-existent in the village. This has been attributed to the MRE that has been done in the village but it could also be due to the fact that the amount of scrap metal is low due to increased activity of the clearance programmes. These successes have
not been without challenge. There are a number of challenges, as discussed below, that the UXO campaign in Laos faces.

5.3. High-risk behaviour being practised by the locals

The first behaviour is that villagers still take it upon themselves to determine which UXO items are worth reporting and which are not. As discussed by Dorfman et al. (2002) and Durham (2006), one of the major threats to safety is assumption. All UXO items are dangerous, but it may seem that the locals are simply not aware of this as some still assume, or believe, that UXO items that are small in size and are found in the forest might not be worth reporting. The other dangerous behaviour is the practice of moving UXO items that are considered to be risky and inconvenient. This is done if the ordnance is in a space wanted immediately for some purpose. NRA guidelines for UXO safety established that all sighted UXO should be left untouched for the clearance teams to move (NRA, 2013). If a farm-owner sights a UXO, he would prefer to move it off the farm and whenever children are found playing with a UXO item by an adult, the adult will prefer to move it to a “safer” location. Moving is done to keep the UXO away from people until the clearance team can dispose of it. This behaviour is mainly caused by the fact that when a UXO-sighting is reported, it takes a while for the clearance team to arrive and the farmer doesn’t want to wait or cannot wait. This is in contravention of the MRE requirement to cordon off (NRA, 2013) any area where UXO has been sighted and leave it for the clearance team. Moving UXO is risky and it can result in the item exploding to cause casualties, even fatalities.
5.4. The communicative ecology

Mapping of the communicative ecology of the village was of great importance to this research, despite the challenges discussed (section 3.3.4.). Wilkin et al. (2007) and Foth (2006) argue that the understanding of communicative ecology played a key role in understanding the communication environment of the community. The locals of Namoun-Ladkhai Village have a rather conservative communication setup that is wrapped around culture and tradition. For the UXO communication to reach its targets and achieve the desired goals, it is important that it works within the communication norms of the village. Wilkin et al. (2007) also argue that there are some challenges to communication which if not observed can render an entire communication programme ineffective. One of these is the villagers not being open or refusing entirely to communicate with a stranger.

In line with the statement by Foth (2006), it would seem that the previous MRE programmes in the village were designed with knowledge of the communicative ecology of the village. This is because to counter the challenge of reluctance to speak with and to strangers, the programmes used locals as the field operatives (NRA, 2013). In addition, the model used for the MRE session was the edutainment model, which uses a variety of communication platforms intertwined with entertainment. According to Papa et al. (2001), such a strategy has a positive impact at a psychological level in that it makes the communication memorable and therefore the content is remembered for longer.

In addition to making the content of the programme memorable, the edutainment model is a strongly motivating factor in encouraging the locals to participate in the MRE programme. It is noted that there is mandatory requirement for community members to attend these MRE
programmes. The entertainment factor in the programmes therefore serves to attract the village members for the fun and happiness they would get from the session. The designer of the MRE edutainment model aimed at creating a learning system that is interactive, open, fun, and friendly to use, and involves a two way learning model. The model is designed for the learner, who in this case is the local village member affected by UXO, and its application involves the relationship between the locals and the programme operators at the field level, a learning process and a learning environment.

In addition to age differences among the locals and therefore different comprehension levels, gender bias and male chauvinism are also practised in the village. To counter these challenges and ensure the success of MRE campaigns, the locals are divided into various groups according to age, special groups, and gender. Even though these categorizations are mainly to ensure that each session addresses the particular UXO risks that each group faces, they are also an opportunity to customize the edutainment model to suit each group. For example, the entertainment part of the model used for children might be expected to be different from that used for the adult men (Landmine Monitor Report, 2009). The Landmine Monitor Report (2009) also agrees that the edutainment model is among the best for social education programmes like MRE.

Even though it is evident that MRE programmes in Laos and in particular in Phaxai District, Namoun-Ladkhai Village have had significant success in the reduction of UXO accidents, risky behaviours are still practised. These include movement of sighted UXO, mainly by farmers, small UXO sighted in the forest which is not reported, and children are still playing with UXO. As
MRE programmes are designed and implemented to counter the popular risky behaviours, it is evident that there is an information gap, hence the practise of these risky behaviours.

5.5. Further research

One of the main challenges of this research was the short time spent in the research location. This compromised the amount of data collected through ethnographic non-participation observation and mapping of the communicative ecology study. It is suggested that future research in this area should consider that more time be spent, probably more than twelve months, to enable thorough collection of data through these two tools.

This study focused on only one village, Namoun-Ladkhai Village. UXO contamination is a major problem throughout of Laos and it would be statistically useful to study other areas to provide a better and more representative view of the communication needs of Laos. Also, participants in the focus group in the current study indicated that scrap metal collection was being practised in the neighbouring villages. Since scrap metal collection is critical risk behaviour in UXO clearance initiatives, including the neighbouring villages in the study would provide a better understanding of the practice because these villages have also been covered by MRE programmes.
Chapter 6: Conclusion and recommendations

The primary objective of the research paper was to establish the communication needs of communities in UXO contaminated areas in the context of the mine risk education campaigns in Lao PDR. As a result, the primary research question of the research was;

Key R.Q: What are the community communication needs in the context of post-awareness mine risk education campaign in the Lao PDR?

In order to effectively and adequately determine the main research question, a set of sub-questions was necessary. Data collected helped answer the more specific sub-questions, which enabled me to answer the key question at the end of this chapter. First, given the changing trend and the increasing number of UXO casualties in Laos, it was essential to determine what the local community members want the mine risk education program to address.

R.Q 1: What are the local people’s values and attitudes with regard to UXO risks?

The mine risk education program has been formally active in Laos since 1996, with Mennonites having began in 1975 (Wiebe and Peachey, 2011) so it was important to identify the perceptions of the target community members about the awareness material disseminated in their communities in this research paper. Is the information useful therefore applicable in the everyday life of the community in general?

R.Q 2: How do people and the community in general apply the information that is received from the mine risk education program?
The primary aim of mine risk education is to prevent high-risk behaviour while at the same time teaching community members what to do when they come across a UXO item. This program is based on the assumption that community members come across UXO items in the farm or in the forest when going about their normal day. The program does not however take into consideration any other causative issues or factors. This research therefore sought to establish;

**R.Q 3: What are the social, economic and other issues that affect a community’s ability to manage the risks of UXO as stated in mine risk education program guidelines?**

In mine risk education programs, several methods are used to communicate a message. As stated earlier, in the majority of current programs the method of communication is mainly dialogue. However, the program has outlined a wide number of communication methods used. These methods are used in different scenarios as determined by the target audience. However, little is known about the effect of communication methods on the community members with relation to taking up the message. The issues that affect the community’s ability to follow safe behaviour taught through MRE programmes are mainly financial and social. In the case of moving UXO on farms instead of waiting for a UXO clearance team farmers need to continue with farm work. Parents, guardians, and teachers who move found UXO do so to avoid their children coming into contact with it later. Some locals don’t report sighted UXO because of ignorance and the assumption that small sized UXO is not a threat.
R.Q 4: How can the method/process of communication used contribute to addressing UXO risk issues and lead to a meaningful reduction of risk?

Mine risk education is carried out in the local community in different physical settings. However, there is no literature to establish how the ecological setting of the communication interacts with information processing for community members.

R.Q 5 How does the mapping of communicative ecology inform the process?

The previous MRE programmes in the Lao PDR have had considerable success in that they have led to a dramatic reduction of risky behaviour and therefore UXO casualties. MRE has been responsible in changing the risky day-to-day behaviour of the villagers. This behaviour includes strategies for farming new land, burning trash in their homes and farms, and grazing their animals. The community awareness programmes resulted to decreased scrap metal collection and going by the findings of this research, the end of the scrap metal trade in the village.

However there are still informal requests from the locals for the MRE programme to be reintroduced within the community because there are still instances of risky behaviour that include children playing with UXO items, villagers moving UXO items from areas they consider to be of higher risk or inconvenience to areas they consider safer and less inconveniencing. This is despite the fact that it is dangerous to handle UXO. There are children, especially those under the age of eight who were not covered by the MRE programme, and these groups are at risk from UXO because they engage in risky behaviour. So the introduction of a new MRE
programme would be of great assistance in communicating the necessary information required by the locals to avoid the risky behaviour being practised in the village.

Additionally, villagers still take it upon themselves to determine which UXO items are worth reporting to the authorities. The awareness programme requires villagers to report any cases of UXO to the authorities for clearance. However, still having to make up one’s mind which UXO to report is risky behaviour that would indicate a need for further education. Each and every piece of UXO is a risk not only to humans but also to animals. The decision to report or not based on the size of the UXO is a risky behaviour that needs to be corrected and MRE is the best option for this.

Based on the high-risk behaviours observed, this study concludes that the communication needs of the locals of Namoun-Ladkhai Village are; (1) for farmers, parents, and teachers who move UXO to ‘safer’ areas - how to manage or handle discovered UXO as they await the UXO clearance team so as to avoid any accidents, (2) for people who don’t report finding UXO – the threat posed by UXO regardless of their size, and (3) for school children playing with UXO – how to identify UXO of various sizes and shapes and the need to avoid touching them, playing with them, or throwing them. These communication needs would require that community members be informed about the various risks based on the recommendation made below. To meet these communication needs, it is recommended that the community awareness programme should focus on the young children in primary school and especially those aged eight years and below. These children lack sufficient information about the threats posed by UXO which is why they will often play with UXO items especially at school. In addition to addressing the threat posed by UXO to primary school pupils, the programme should also incorporate the entire awareness
programme especially for children younger than eight years. Secondly, the communication programme should focus on reinforcing awareness of the threat posed by the unpredictability of UXO and that the size of UXO does not matter if it has not been de-activated, as it remains live and potentially dangerous. Thirdly, the community awareness team should make it clear that handling a UXO device, regardless “good” intentions is a risky behaviour. It is recommended that the CA team should include the previous communication content which introduced the UXO context to the community. It is also important that the researcher spends more time in the research area so that the quality and amount of data is sufficient for ethnographic and communicative ecology mapping.

Based on the above conclusions, the following recommendations are made:

The first recommendation is that the community awareness programme focus on young children in primary school and especially those aged eight years and below. These children lack sufficient information about the threats posed by UXO. This is why they will often play with UXO items especially at school. To communicate the message effectively, it is recommended that the programme be done in schools and the content of the communication be directed towards addressing the dangerous behaviour that the children might be involved in both at school and in their homes. The communication needs to involve participatory strategies, especially team events and pictorial text, for example posters, which have been used before with significant success.

In addition to addressing the threat of UXO to primary school pupils, the programme should also incorporate the entire awareness programme especially for children younger than eight. These children were not part of the previous UXO communication programmes. This project
found that the major risky behaviour in which children engage in is playing with UXO. This is attributed to the fact that those who know the threat posed by UXO might be overlooking it and those who have not heard of UXO are simply unaware. Communicating the entire communication programme to these children again would be useful to the two groups of children as it would reinforce the group older than eight and inform the younger group too.

The second recommendation concerns the fact that community members still have to make up their minds about whether to report a found UXO or not. This is done on the basis that small UXO devices may not be so dangerous and so may safely be ignored. The communication programme should focus on reinforcing the perception that UXO explodes. This should include a clear and detailed message that the size of UXO does not matter. So long as it has not been disposed off, it remains active and can potentially cause casualties. The target audience for this communication is to be the entire community and the content should include samples of UXO devices of various shapes and sizes. It would be even better if the awareness communication team had some shells (scrap metal) of the disarmed small bombs as example. It is also recommended that the team should have a bomb expert among them to explain to community members the damage that would be caused by the so called small UXO were it to explode. Community members are likely to trust a speaker introduced as an expert in unexploded ordnance.

Thirdly, the community awareness team should make it clear that, handling a UXO device is risky behaviour regardless of whether it is based on “good” intentions. Community members move UXO devices under the presumption that they are moving it to safer location for the UXO clearance team. The CA team should make it clear that, by doing so, they can cause the device
to explode causing injury or even death. The team should emphasise the need to leave a found UXO device alone for the clearance team to dispose of safely. It is the sole responsibility of the clearance team to decide whether the UXO needs to be moved and then do it. Once a UXO is sighted, the area should be cordoned off to await the clearance team.

Lastly, it is recommended that the CA team should include the previous communication content which introduces the UXO context to the community. This is for the purpose of reinforcing the message to the community. The continuity of MRE programmes is important so as not to make the locals feel as if they are being confronted with totally new information. However, this does not have to be as intensive and detailed as the previous awareness programmes. Alternatively, the CA team can adopt a question and answer programme to establish how well the community understands the UXO situation in their village. It is also important that the CA team, if made up of non-locals, spend considerable time in the communities so that relationships of trust can be established so that villagers can feel free to ask questions. It is also important that participatory practices are adopted for the MRE campaign so that the community defines their information needs and the most appropriate ways of receiving this information. This would be a suitable option as it would provide opportunities for the CA team to correct any misconceptions as well as establish the areas that require in-depth communication.

Key limitations with regard to the participants

The primary limitation encountered in the course of the research with regard to the research participants, especially those who participated in interviews, was the culture-related issue of not feeling able to share information fully with strangers. Even though I was introduced officially to the village by the chief officer as a student conducting part of her study, the
villagers, and therefore the participants, regarded me as a stranger. It therefore took a lot of warming up questions and ‘conversation’ to make them relax and comfortable with sharing in-depth information. This was the primary reason why the focus groups were done prior to interviews to help the participants open up and become more acquainted with me, the researcher.

The other limitation encountered was the fact that participants were mainly from the middle class of society. These included teachers, farmers and a doctor, but not the poor who practise subsistence agriculture on small-scale rice farms. The poor of society face more and greater UXO risks than the middle class. The selected participants therefore didn’t effectively represent the entire population of the village in terms of the challenges faced by each with regard to UXO, which are related to economic activities undertaken. The participants therefore didn’t properly raise the issue of the society’s poor who are more prone to UXO risks. This limitation was, however, examined through non-participant ethnographic observation of the community.
References


Coffman, J. (2002). Public communication campaign evaluation. *Communications Consortium Media Center, Washington, DC.*


Appendices

Appendix 1: Draft questions for individual in-depth interview and focus groups

The researcher shall ask some warm-up questions in order to make participants feel more comfortable prior to the start of the formal interview or focus group and audiotape run.

The researcher will introduce herself and express appreciation for participation.

The researcher will then ask participants to introduce himself/herself in a culturally appropriate manner, such as occupation, family size and role within the village.

In individual interviews this set of questions will be explored in more detail to better understand the UXO impact on individual lives, allowing the privacy of face-to-face communication with the researcher to share more sensitive views on the matter.

In focus group, group member shall answer these questions one by one.

1) Can you describe the UXO situation in your village? Is it different from the past? If yes, how? If no, why?

2) How does it affect you, your family and your community?

3) Are you or other people from the community involved in high-risk activities? What are they? Why do you/they do so?

4) When was the last time you participated in a mine risk education programme? Can you tell me 2-3 things you have learned from the programme?

5) What kind of methods/tools did the programme use to communicate with your community? Can you tell me more about that?
6) How long have the programme been run in your community? Do you think it is enough?

7) How easy is it to apply the information received from the mine risk education programme? If yes/ no, why? How do you apply it?

8) What stops you or your family or members of your community from applying information received from mine risk education programme into your daily life?

9) Overall, do you think the mine risk education programme is useful for you and your community? In what ways?

10) What do you think can be done to improve the programme?

11) If the UXO organisations run the mine risk education programme again in the future, what kind of information you and your community would need to receive? Why? How?
Appendix 2: **Draft questions for key informants interview**

The researcher shall ask some warm-up questions in order to make the interviewee feel more comfortable prior to the start of the formal interview and audiotape run.

The researcher will introduce herself and express appreciation for participation.

The researcher will then ask the interviewee to introduce himself/herself, such as role within the mine risk education awareness programme.

1) Could you please describe the current activities used in mine risk education in this community/area/region?

2) What kind of methods/tools does the programme use to communicate with the community? Can you tell me more about that? How were they chosen? Were they piloted? What is the level of participation from the community with the programme? Was the community or specific members of the community involved in designing the programme? Which members of the community were engaged in acting as local facilitators?

3) How often/long is the programme being run in one community? Do you consider this enough time?

4) What do you think of the villagers’ perceptions toward UXO risks?

5) Do you think the mine risk education programme meet the needs of the people? How do you know that?

6) How do you identity/evaluate people’s perceptions and reactions before and after attending the awareness programme? Can you tell me more about that?
7) Do you know whether the villagers still engage with high risk activities after participating in the programme? If yes, is there a follow up to the programme to identify causes of this repeated behaviour?

8) If the programme may be amended in the future, what do you think can be done to improve it?
I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I do not have to be part of this research if I do not want to and I may withdraw at any time prior to the completion of the research project.

I understand that everything I say is confidential and none of the information I give will identify me and that the only person who will know what I have said will be the researcher and their supervisor. I also understand that all the information that I give will be stored securely on a computer at Unitec for a period of five years.

I understand that my discussion with the researcher will be audio taped and transcribed.

I understand that I can see the finished research document.

I have had time to consider everything and I give my consent to be a part of this project.
UREC REGISTRATION NUMBER: 2014-1047

This study has been approved by the UNITEC Research Ethics Committee from ... to ... If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 4: Participants Information Sheets – Villagers

My name is Vannida Dejvongsa. I am currently enrolled in the Master of International Communication degree in the Department of Communication Studies at Unitec New Zealand. I seek your help in meeting the requirements of research for a thesis course, which forms a substantial part of this degree.

The aim of my project is to assess the information and communication needs of people living in a community that is affected by unexploded ordnance (UXO) in Lao PDR. I am interested in your experiences and views about mine risk education programme.

There will be an audiotape recorded during the interview/focus group, which is for the research’s purpose only, including the master thesis, conference, international journal publishing. If you are not comfortable with the audiotape record, alternative solution can be negotiated.

Your name and information that may identify you will be kept completely confidential. All information collected from you will be stored on a password protected file and only you, the researcher and the supervisors will have access to this information.

If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project. However, because of our
schedule, any withdrawals must be done within two weeks after you have participated (interview/ focus group) in the study.

I hope that you will agree to take part and that you will find your involvement interesting. If you have any queries about the research, you may contact my supervisors at Unitec, New Zealand.

My principal supervisor is A/Prof Evangelia Papoutsaki, phone 09 815 4321 ext 8746 or email epapoutsaki@unitec.ac.nz

My associate supervisor is Dr Giles Dodson, phone 09 815 4321 ext 8798 or email gdodson@unitec.ac.nz

UREC REGISTRATION NUMBER: 2014-1047

This study has been approved by the UNITEC Research Ethics Committee from ... to ... If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 6162). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.
Appendix 5: Participants Information Sheet – Key Informant

Participants Information Sheet – Key Informant

My name is Vannida Dejvongsa. I am currently enrolled in the Master of International Communication degree in the Department of Communication Studies at Unitec New Zealand. I seek your help in meeting the requirements of research for a thesis course, which forms a substantial part of this degree.

The aim of my project is to assess the information and communication needs of people living in a community that is affected by unexploded ordnance (UXO) in Lao PDR.

I request your participation in the following way: participating in the interview. This interview shall be audio recorded for purpose of the research only, including the master thesis, conference, international journal publishing. If you are not comfortable with the audiotape record, alternative solution can be negotiated.

Neither you nor your organisation will be identified in the thesis. The results of the research activity will not be seen by any other person in your organisation without the prior agreement of everyone involved. All information collected from you will be stored on a password protected file and only you, the researcher and the supervisors will have access to this information.
If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project. However, because of our schedule, any withdrawals must be done within two weeks after I have interviewed you.

I hope that you will agree to take part and that you will find your involvement interesting. If you have any queries about the research, you may contact my supervisors at Unitec, New Zealand.

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