

# **A STUDY OF**

EXPLOSIVE REMNANTS OF WAR ACCIDENTS AND
THE KNOWLEDGE – ATTITUDES – PRACTICES - BELIEFS
OF PEOPLE IN QUANG TRI PROVINCE, VIET NAM

Quang Tri, Viet Nam

# A STUDY OF EXPLOSIVE REMNANTS OF WAR ACCIDENTS AND THE KNOWLEDGE – ATTITUDES – PRACTICES - BELIEFS OF PEOPLE IN QUANG TRI PROVINCE, VIET NAM

(Third edition with supplements and adjustments)



# A Study of Explosive Remnants of War Accidents and the Knowledge – Attitudes – Practices - Beliefs of people in Quang Tri Province, Viet Nam

Tran Kim Phung
Hoang Nam
Data analysis and report writing:
Tran Kim Phung
Hoang Nam
Truong Xuan Nhuan
Le Viet
Phan Van Hung
Dang Quang Toan
Le Thi Thuy Hang
Data in much and a management
Data input and processing:
Phan Van Hung
Truong Huu Vy
Field study coordination:
Phan Van Hung
Dang Quang Toan
Mai Nam
English translation:
Le Huu Phuoc
Phan Van Hung
English language editing:

**Presiding Board:** 

**Jennifer Elizabeth Matthews** 

# **CONTENT**

Fore	ewords	5
PAR	RT I: THE PROBLEM OF LANDMINES/EXPLOSIVE REMNANTS OF WAR	
	IN QUANG TRI PROVINCE	7
1.	Brief Introduction of Quang Tri Province	7
2.	A Snapshort of the Legacy of Landmines/ERW in Quang Tri Province	8
PAR	RT II: RESEARCH METHODOLOGY	9
1.	Rationale for conducting research	9
2.	Research methodology	9
2.1	Research methodology applied to victims of Landmines/ERW	9
2.2	Research methodology of the Knowledge – Attitudes – Practices – Beliefs Survey	10
3.	Limitations of the study	12
PAR	RT III: STUDY RESULTS	14
ı.	SITUATION OF LANDMINE/ERW VICTIMS FROM 1975-2010 AND 2006-2010	14
1.	Overall description	14
2.	Major findings regarding Landmine/ERW casualties	18
II.	MAIN CAUSES OF LANDMINE/ERW ACCIDENTS IN THE LAST 35 YEARS	31
1.	Activities at the time of accidents	31
2.	Areas where Landmine/ERW accidents happened	34
3.	Victims' recognition of the dangerous areas before their accidents	39
4.	Factors motivating victims to partake in dangerous activities	41
5.	Landmine/ERW marking	41
6.	Sighting Landmines/ERW before the accidents	41
7.	Victims' access to MRE information prior to their accident	42
8.	Types of Landmines/ERW that caused accidents	46
III.	KNOWLEDGE, ATTITUDES, PRACTICES AND BELIEFS WITH RESPECT TO	
	THE DANGERS OF LANDMINES/EXPLOSIVE REMNANTS OF WAR	48
1. TI	he existence of Landmines/ERW	48
1.1	Landmine/ERW Encounters	48
1.2	Frequency of encountering Landmines/ERW	49
1.3	Activities when encountering Landmines/ERW	50

2. Kı	nowledge, Attitudes, Practices and Beliefs of People				
W	rith respect to the dangers of Landmines/Explosive Remnants of War	55			
2.1	General impacts of Landmines/ERW on the population	55			
2.2	Landmine/ERW impact on daily interactions	55			
2.3	Areas thought to be contaminated with Landmines/ERW	56			
2.4	Recognizing areas contaminated with Landmines/ERW	56			
2.5	Causes of Landmine/ERW explosions	57			
2.6	Prevention of Landmine/ERW accidents	58			
2.7	Knowledge of activities leading to Landmine/ERW accidents	59			
2.8	Reasons for entering Landmine/ERW contaminated areas	60			
2.9	Groups most likely to experience Landmine/ERW accidents	61			
3. Pı	ractices regarding Landmine/ERW threats	71			
3.1	Practices when discovering Landmine/ERW items and accidents	71			
3.2	Practices of people with regards to anti-personnel mines	73			
4. A	ccess to (Landmine/ERW) Mine Risk Education	77			
4.1	Sources of Mine Risk Education	77			
4.2	Most notable sources of Mine Risk Education	78			
4.3	Impact of Mine Risk Education information	78			
4.4	Information regarding local humanitarian mine action	78			
PAR	T IV: CONCLUSION	86			
ANI	ANNEX				
	Annex 1: Survey Questionnaires 9 Annex 2: List of studied communes				
	of Knowledge – Attitudes – Practices – Beliefs 2010 Survey	100			
Ann	ex 3: List of countries or territories received funding from international community				
	in solving Landmine/ERW problem in 2009, 2008, 2007, 2006 and 2005	101			
Bibli	ography	103			

# **Forewords**

More than thirty five years after the war ended, Vietnamese citizens, particularly those in Quang Tri Province, are still threatened by the devastating aftermath of landmines and explosive remnants of war (ERW). Landmines/ERW not only endanger Quang Tri inhabitants in their daily interactions, but they also hinder community development efforts. The total number of landmines/ERW since 1975 is equivalent to 1.12% of the Quang Tri population between based on 2010 data and approximately two thirds of the land remains contaminated with landmines/ERW. Despite efforts by the local government, the provincial military, and international non-governmental organizations to solve this problem, landmines/ERW contamination in Quang Tri Province remains a very serious issue requiring strategic and long-term interventions.

To improve the effectiveness of mine action programs and to comply with readers' requests, the 3rd edition of "A Study of Landmines/ERW Accidents and the Knowledge, Attitudes, Practices, and Beliefs" (KAPB) has been produced by Project RENEW in cooperation with the Quang Tri Provincial Department of Health and with support from Tromsoe - Norway (Trauma Care Foundation -TMC).

This study provides the latest findings on circumstances faced by landmine/ERW victims over the past 35 years (1975-2010), as well as recent findings regarding the KAPB of people toward the dangers of landmines/ERW. It also contains further analysis and updates of data gathered from the first KAPB and Victims Study conducted in 2002 and the second conducted in 2005.

# The study contains two parts:

- 1) A study of the circumstances of ERW victims in Quang Tri Province. The study was conducted through a comprehensive survey of all ERW victims in the province during December 2002 (first study), with subsequent analysis from January 1<sup>st</sup> 2003 to December 31<sup>st</sup> 2005 (second study) and January 1<sup>st</sup> 2006 to August 28th 2010 (third study). The database was continuously updated until December 31<sup>st</sup> 2010.
- 2) A study of the Knowledge, Attitudes, Practices, and Beliefs regarding ERW in Quang Tri Province. The sample population for the conducted survey was randomly selected.

Survey questionnaires for the KAPB Study were designed with the support of UNICEF in 2002 and appropriately adjusted for the practical context of the locality in 2010. Collected data was processed using Epi Info and Microsoft Access 2007 software.

Findings in this study provide systematic and practical evidence of the lasting consequences of landmines/ERW in Quang Tri Province and their continual impact on Quang Tri inhabitants.

The Project RENEW Coordination Office would like to express appreciation and special thanks to the People's Committee of Quang Tri Province, Quang Tri Provincial Department of Foreign

# **Forewords**

Affairs, Quang Tri Provincial Department of Health, and other cooperating local agencies as well as the Quang Tri people who participated in and actively supported this study. Our gratitude also goes the Trauma Care Foundation for their practical support for this study.

Readers are welcome and encouraged to provide feedback for future editions of this report.

Quang Tri, May 2011
The Project RENEW Coordination Office

#### PART I

# THE PROBLEM OF LANDMINES/EXPLOSIVE REMNANTS OF WAR IN QUANG TRI PROVINCE

# 1. Brief Introduction of Quang Tri Province

Quang Tri Province is located in Central Vietnam. It borders Quang Binh Province to the north, Thua Thien Hue Province to the south, Lao PDR to the west and the Eastern Sea in the east. The province has 10 administrative units: Vinh Linh, Gio Linh, Cam Lo, Trieu Phong, Hai Lang, Huong Hoa and Dakrong districts, an the island district of Con Co, Dong Ha City and Quang Tri Town. The provincial administrative capital is Dong Ha City, located 598km south of Hanoi and 1,112km north of Ho Chi Minh City. The Ben Hai River and the Hien Luong Bridge located in Quang Tri Province served as the provisional demarcation line separating the Democratic Republic of Vietnam (North Vietnam) and the Republic of Vietnam (South Vietnam) from 1954 to 1975.

The land area of Quang Tri Province is 4,744.15 km², of which approximately 80 percent is hill or mountainous terrain. At the end of 2009, the population of Quang Tri Province was 599, 221 people. The majority Kinh ethnic group accounted for 92 percent of the population and the ethnic minority Van Kieu and Pa Co groups constituted 6.4 percent



and 1.52 percent respectively. Approximately 24.53 percent of the population inhabits urban areas, and the remaining 75.47 percent reside in rural areas. The average population density is 127 people/km<sup>2</sup>. The majority of the population reside in urban, coastal and rural areas, with a smaller proportion of the population scattered throughout the western mountainous areas. (2)

Apart from the continuing legacies of war, Quang Tri Province also suffers from frequent natural disasters, including seasonal floods and droughts that often result in the loss of life and property, yet another obstacle for local socio-economic development.

Since the re-establishment of Quang Tri Province after the division of consolidated Binh-Tri-Thien Province in 1989, the provincial authorities and people have made significant efforts to implement socio-economic development policies and poverty alleviation programs. Despite some encouraging gains, poverty and underdevelopment remain substantial challenges for provincial authorities and residents.

According to the World Bank report on poverty in Vietnam in 2003, Quang Tri Province is located in one of the three poorest areas in Vietnam (the other two are the Northwest Region and the Central Highlands)<sup>(3)</sup>. The total provincial GDP in 2010 was approximately 3,008 billion VND (about \$ US150 million). The average income per capita of Quang Tri Province in 2010 was approximately \$US 845 (the exchange rate VND/\$US), below the national average of \$US 1,200. Based on Vietnam's poverty line of 5.4 million VND per year, approximately 13 percent of the households in Quang Tri Province were living in poverty from 2005-2010.<sup>(4)</sup>

<sup>(2).</sup> Quang Tri Statistic Office, Annual Statistical Book, 2009

<sup>(3).</sup> IFPRI, IDS, Labor & Social Publishing, Poverty and Inequality in Viet Nam, 2003, Ha Noi, Page 23

<sup>(4).</sup> PPC of Quang Tri "Report of Socio-Economy 2010"; Website of Vietnamese Communist Party and of Government of Vietnam and Website of Quang Tri Newspaper

#### The Problem of ERW in Quang Tri Province

#### 2. A Snapshot of the Legacy of Landmines/Explosive Remnants of War in Quang Tri Province

The war left behind lasting and tragic consequences that continue to impact the land and the people of Vietnam. Since the end of the war landmines/ERW contamination has been one of the country's most severe problems, impeding socio-economic development, threatening the safety of the population, and damaging the environment. According to figures from the Vietnam Ministry of Defense, U.S. military forces deployed approximately 15 million tons of bombs, landmines, shells and other weapons during the Vietnam War, three times the amount used in the Korean War<sup>(5)</sup>. The U.S. Department of Defense estimates that approximately 10 percent of this ordnance did not detonate as designed, resulting in hundreds of thousands of tons of ERW, landmines and other lethal weapons still scattered across Vietnam.

Quang Tri Province witnessed some of the most severe fighting during the Vietnam War (1954 - 1975), at such well-known sites as Khe Sanh, Lang Vay, Camp Carroll, Fairy Hill, Doc Mieu, the Rockpile, La Vang, Ai Tu, and the Quang Tri Citadel. The most notorious battle sites in the province include Khe Sanh, where in 1968 "the U.S. Army launched more than 8,000 air strikes deploying 20,000 tons of bombs"  $^{(6)}$ , and the Quang Tri Citadel, where, in 1972, the amount of bombs and weapons used by the U.S. totaled the equivalent firepower of seven nuclear bombs of the type dropped on Hiroshima, Japan in World War  $II^{(7)}$ .

According to the survey report done by BOMICEN and VVMF in 2009, nearly 84 percent of the land in Quang Tri Province is contaminated by ERW and landmines left from the war<sup>(8)</sup>.

After the war, the provincial army and local residents mobilized 2,838 people to conduct clearance operations over an area of 6,710.263m<sup>2</sup>, removing and destroying 113,248 ERW and landmines of various types<sup>1</sup>. However this advancement did not come without terrible loss. Up to 17 people were killed in a single day undertaking clearance efforts $^{(9)}$ . The army and local people continued to conduct small-scale landmine/ERWclearance operations until recently. Since 1996, Quang Tri Province has been assisted by international organizations in implementing humanitarian mine action activities. The primary operations conducted by international organizations have been landmine/ERW clearance, assistance for landmine/ERWvictims, education initiatives increasing landmine/ERW awareness and injury prevention knowledge, post-clearance support for communities, and survey and assessment of landmine/ERWcontamination. As a result of these operations, 140,000 items of landmines/ERW of various types were found and safely disposed of, and over 1,500 hectares of heavily contaminated land has been cleared. International organizations set up five resettlement villages, improved the living conditions of numerous landmine/ERWvictims and their communities, and built up the local capacity to effectively deal with landmines/ERW issues. In addition, a large database of landmine/ERW information was collected, organized, analyzed, and made available for use by interested parties<sup>(10)</sup>. Although there have been great efforts to resolve problems associated with landmines/ERWthey remain a serious threat in Quang Tri Province. Between April 30<sup>th</sup> 1975 and December 31<sup>st</sup> 2010, there were 7,075 landmines/ERW victims province wide, accounting for 1.12 percent of the provincial population (2009 statistics) out of which 2,635 people were killed and 4,435 people were injured (for 5 cases, information is not sufficient). From January 1<sup>st</sup> 2005 to December 31<sup>st</sup> 2010, there were 181 landmine/ERW victims, and 59 victims were killed<sup>(11)</sup>. Evidently, the risk of ERW/landmine accidents is still present even though war ended in Quang Tri more than 35 years.

<sup>(5).</sup> ICBL, Landmine Monitor Report, 2002, (www.icbl.org)

<sup>(6).</sup> Ronald B. Frankum& Stephen F. Maxner, The Vietnam War for Dummies, Wiley Publishing, Inc, 2002, page 114

<sup>(7).</sup> http://www.vietnamtourism.com/e\_pages/country/province.asp?mt=8453&uid=1271

<sup>(8). &</sup>quot;Report on Viet Nam Unexploded Ordnance and Landmine Impact Assessment & Rapid Technical Response in six provinces of Nghe An, Ha Tinh, Quang Binh, Quang Tri, Thua Thien Hue and Quang Ngai" Ha Noi, 2009, page 8

<sup>(9).</sup> National Political Publisher, History of Quang Tri Provincial Party Committee, Book 3, Ha Noi 2005, page 21

<sup>(10).</sup> Reports on NGO activities, Quang Tri Provincial Department of Foreign Affairs, 2010

<sup>(11).</sup> Project RENEW statistics, 2010

#### **PART II**

#### RESEARCH METHODOLOGY

# 1. Rationale for conducting research

In 2002 and 2006, Project RENEW and the Quang Tri Provincial Department of Health coordinated to conduct the study "Knowledge-Attitudes-Practices (KAP) Survey of Landmine/ERW Accidents and Threats in Quang Tri Province". The results of this study contributed considerably to the humanitarian efforts to resolve landmines/ERW issues in Quang Tri.

The research compiled in this study further develops the above mentioned analysis. It aims to update and complete the database and reflect upon the overall landmines/ERW situation in Quang Tri Province. Quang Tri has suffered the serious consequences of landmine/ERW contamination for over three decades, even with the earnest endeavors of government authorities, the military, local people, and international organizations in carrying out humanitarian mine action activities. Until recently only a small amount of correct, reliable, and verifiable information was available and limited data analysis had been conducted regarding the landmine/ERW situation and humanitarian operations in Quang Tri Province, specifically, and throughout Vietnam in general.

The research conducted in this study focuses on:

- The situation of landmine/ERW victims in Quang Tri Province from 1975 to 2010.
- The status of knowledge, attitudes, behaviors and practices of residents of Quang Tri Province with respect to landmine/ERW issues at the time of this research, and the impact of public communication campaigns on landmine/ERW accident prevention from 2006-2010.

# 2. Research methodology

# 2.1 Research methodology applied to victims of Landmines/Explosive Remnants of War

The subjects of the study are all victims of landmine/ERW incidents in Quang Tri Province from 1975 until the date of study. The identification of landmine/ERW victims was carried out in each village, through family records retained by village Chiefs.

A list of all deaths and injuries including landmine/ERW casualties as well as all available details of these incidents were provided to the study implementers by the village Chiefs. Surveyors then correlated these lists with data from local community healthcare centers to verify the information. By contacting the victim's families and people in nearby communities, the surveyors further checked the reliability of the information to account for all potential victims.

Through this method, surveyors were able to verify the victims who were not included in the list and cross-check data with information provided by the victims or their families. With support from local guides, surveyors interviewed victims' families selected from the addresses provided through the completed questionnaires. When possible, surveyors conducted interviews directly with living victims in order to assess their actual injury state. In fatal cases, surveyors interviewed those who were also involved in the accident or the victim's family members.

After data from landmine/ERW victims had been collected, surveyors arranged the information by commune or administrative unit and then placed it in district order. All files regarding victims were submitted to Quang Tri Provincial Department of Health and Project RENEW in order from the district down to the commune and village levels.

In addition to the general information on landmine/ERW victims from 1975 to 2010 included in this document, more specific data may be obtained by request to the Information Management Section of Project RENEW.

# 2.2 Research method of the Knowledge – Attitudes – Practices – Beliefs survey Research design

The random sample selection was conducted in nine rural and mountainous districts and towns of Quang Tri Province. The population and sample size for the research was selected using the method of accumulating population, iterated addition and division into 30 random groups. The research subjects were all family members from 7 to 70 years old who could answer the contents of a pre-defined questionnaire.

# Sample size and selection method

# Sample size

Sample size is calculated by this formula:

 $n = Z^{2}_{(1-\alpha/2)} P(1-P)/d^{2}$ 

Of which:

n: sample size

 $\alpha$ : statistical meaning, degree of confidence 95%,  $\alpha$ =0.05, therefore Z= 1.96

d: expected preciseness (d= 0.014)

P = 0.5 (relevant to the biggest sample size)

Therefore, the projected sample size for the research was at least 4,900 subjects.

With the provisional alternative of plus 5 percent sample size, the increased sample size was estimated at 5,100 subjects.

# Sample selection

In each district, the method of selecting the probability sample relevant to the population at random was used (Probability Proportion to Size). Following the method of accumulating population and iteration addition, 30 random groups were selected in the province, where each group was a commune/ward (see annexes). Therefore, each group had at least 170 research subjects.

#### Field Survey Method

The selection of households covered a village from one end to the other. If there were not enough households in one village, the households in an adjacent village were selected, and the process continued until 170 samples were selected in one commune. (In mountainous areas where villages had fewer households, it was necessary to select adjacent villages, and not select villages of easier access for surveying).

#### **Interviewees**

Surveyed unit: households

- A household is defined as a group of people living together, sharing meals and inhabiting the same house for at least three of the most recent 12 months.
- A family member refers to a person who lived with the family for at least three of the most recent 12 months

Surveyors interviewed all family members age seven or older, who did not suffer from mental illness and who volunteered for the interview. If they were not at home at the time of the interview, they were passed over and not re-interviewed. If there were no family members available, the surveyors moved on to the next household. Interviews were conducted individually to avoid the exchange of information among family members.

After the completion of the survey, survey sheets were collected at communes in each district and the group leader submitted them to the Provincial Department of Health and Project RENEW for processing and management.

# Method of collecting information

Surveyors directly interviewed members of each family following the pre-defined questionnaire. To ensure the preciseness and uniformity of data, researchers were fully trained before conducting interviews.

#### Personnel

#### Surveyors:

Qualified and experienced medical staff members from provincial health care units, including those from district and commune levels, were selected to take part in the field survey. The majority of surveyors had taken part in the previous KAP survey in 2002 and in 2006.

Surveyors received training in the following topics:

- > Presentation of content, purpose, meaning and methodology of the research.
- ➤ Introductions and guidelines for using the research questionnaire.
- ➤ Skills necessary to interview and gather data.
- ➤ Skills to facilitate group discussion at community level.
- ➤ Responsibilities of group leaders and members.
- ➤ Notes on landmines and ERW safety.

# Supervisors:

During field surveys, surveyors were supported and managed by nine provincial supervisors. The supervisors' responsibilities were:

- ➤ To select households for survey: supervisors arranged the collection of data from 30 communes, chosen at random, to form the sample.
- ➤ To implement research activities at households: guiding the surveyors and monitoring their collection of data at households by directly interviewing family members.
- ➤To monitor and guide surveyors to determine if there were weaknesses in performance such as communication skills, investigative skills, accurate reporting of information, and the verification of information provided by family members for quality assurance.
- ➤To complete a random check of 5 percent of the samples to verify whether the surveyors had conducted interviews properly and filled in the questionnaire with correct information, as it formed the basis for the survey assessment.

# Constructing the database and analyzing research data

After being reviewed, the data was processed into the Project RENEW™ computer system using TechBase software in Microsoft Access 2007 (additional component is designed). Data collected in 2002 and in 2005 which was processed using Epi Info 2002 software was converted into Access 2007 for analysis. Parameters requiring analysis were determined by statistical algorithms run on the database.

#### Research schedule

Specific activities were carried out according to this schedule:

No.	Activities	Schedule		
1	Discussion to plan the research	3 days	August 19 to 23, 2010	
2	Workshop and basic training	1 day	August 27, 2010	
3	Field survey	11 days	August 28 to December 12, 2010	
4	Data inputting and processing	5 days	August27 to December 12, 2010	
5	Analysis, reporting	15 days	December 13, 2010-January 10, 2011	

# 3. Limitations of the study

Every research design has its strengths and limitations. In this study, among the latter is the possibility that the respondents did not tell the truth by either exaggerating or simplifying the problems they encounter in their daily lives.

The comparison of knowledge, attitudes, behaviors and practices between studies could be improved and provide more accurate information if the two sampling areas were identical. Unfortunately this was not possible because of minor changes in the field survey. However, these issues did not have a significant impact on the results as they had been taken into account by the implementation team.

Additionally, Quang Tri Province still has no provincial monitoring system for landmine/ERW victims, thus the data regarding landmine/ERW victims may not be as precise as expected, particularly in respect to previously collected data.

#### **PART III**

#### STUDY RESULTS

# I. SITUATION OF LANDMINE/ERW VICTIMS FROM 1975-2005 AND 2006-2010

# 1. Overall description

Between 1975 and 2010 there was a total of 7,075 landmine/ERW victims in Quang Tri Province, equivalent to 1.12% of the total provincial population in 2009 (according to results of the population survey in April 1st 2009 - the provincial population is 597,985). Out of these casualties, 2,635 people (37.2%) were killed and 4,435 people (62.7%) were injured (for 5 cases, information is not sufficient).

From 1975 to 1979, landmine/ERW accidents resulted in 3,194 casualties, accounting for 45.1% of the total number of victims since 1975. Out of these casualties, 1,026 people (32.1%) were killed.

The number of casualties reduced significantly in the next five years (1980-1984), however the fatality rate of victims increased. During this time period there were 983 casualties, accounting for 14.2% of the total figure from 1975-2010 and 420 victims (42.7%) were killed . The number of victims rose considerably from 1985-1989 to 1,091 casualties, 15.4% of total figure, and 475 (43.5%) of the victims were killed. From1990-1994, there were 913 casualties accounting for 12.9% of victim from 1975-2010. Out of this figure, 397 victims were killed accounting for 43.5% of victims during this time period.

Since the 1990s the number of annual landmine/ERW casualties has again declined (see Table 1, Page 15).

From 1995-2005, the number of landmines/ERW incidents again decreased (see Table 1, Page 15). The number of accidents resulting in fatalities also decreased during this time period. From 1995-1999, there were 485 victims accounting for 6.9% of the total victims from 1975-2010. Out of these casualties, 182 victims (37.5%) were killed. From 2000-2005, there were 283 victims accounting for 4.0% of the total figure. Out of these casualties, 97 victims (34.3%) were killed. In 1996 Quang Tri Province began cooperating with international NGOs to neutralize the lasting impacts of landmines/ERW. In addition, Mine Risk Education (MRE) activities were implemented in various locations throughout the province. This may have been a factor in reducing the number of landmine/ERW victims in Quang Tri Province.

Since the expansion of MRE activities in 2002, the average annual number of landmine/ERW victims has been 30, a drop of approximately 88% from the average between 1975-2001(250 victims per year) and a decrease of 50% compared to the average number of victims during the previous five years (1997-2001, 70 victims per year).

From 2006-2010, there were 126 victims in Quang Tri Province and 38 victims were killed.

Table 1. Victims Statistics by Year

Year	Total Number of	Yearly Percentage	Total Number	Fatality
	Victims	/Grand Total	of Fatalities	Percentage
1975	762	10.77%	248	32.55%
1976	1152	16.28%	335	29.08%
1977	548	7.75%	178	32.48%
1978	460	6.50%	158	34.35%
1979	272	3.84%	107	39.34%
1980	228	3.22%	105	46.05%
1981	157	2.22%	72	45.86%
1982	248	3.51%	102	41.13%
1983	170	2.40%	63	37.06%
1984	180	2.54%	78	43.33%
1985	272	3.84%	115	42.28%
1986	238	3.36%	100	42.02%
1987	204	2.88%	82	40.20%
1988	171	2.42%	72	42.11%
1989	206	2.91%	106	51.46%
1990	214	3.02%	99	46.26%
1991	165	2.33%	76	46.06%
1992	185	2.61%	83	44.86%
1993	178	2.52%	69	38.76%
1994	171	2.42%	70	40.94%
1995	134	1.89%	52	38.81%
1996	91	1.29%	39	42.86%
1997	90	1.27%	26	28.89%
1998	101	1.43%	37	36.63%
1999	69	0.98%	28	40.58%
2000	29	0.41%	6	20.69%
2001	59	0.83%	24	40.68%
2002	46	0.65%	16	34.78%
2003	41	0.58%	11	26.83%
2004	53	0.75%	19	35.85%
2005	55	0.78%	21	38.18%
2006	35	0.49%	12	34.29%
2007	28	0.40%	8	28.57%
2008	32	0.45%	12	37.50%
2009	14	0.20%	4	28.57%
2010	17	0.24%	2	11.76%
<b>Grand Total</b>	7,075		2,635	

Chart 1. Total Provincial Landmine/ERW victims by 5-year period (1976-2010)

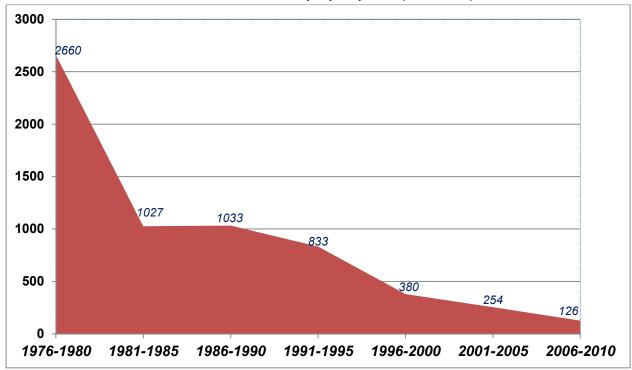


Chart 2. Total Provincial Landmine/ERW victims by 5-year period (1975-2005)

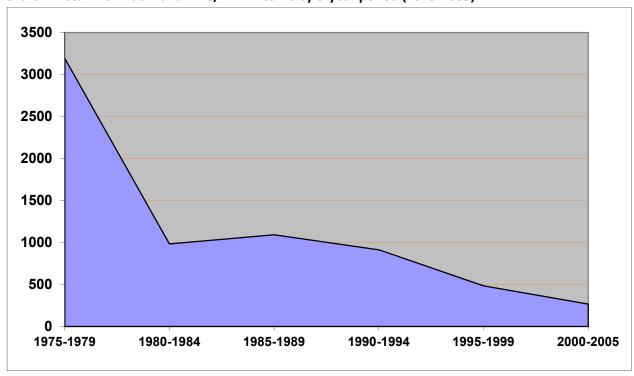


Chart 3. Victim Injury Status (1975-2010)

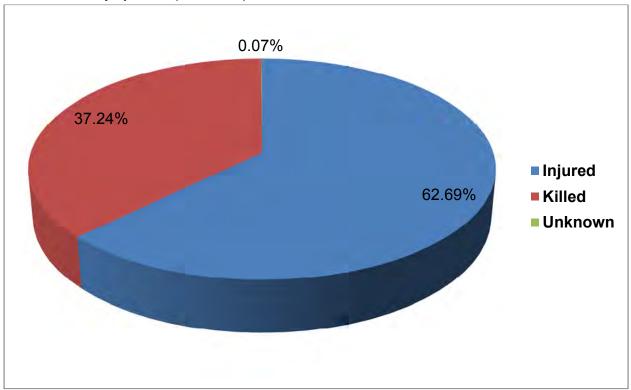
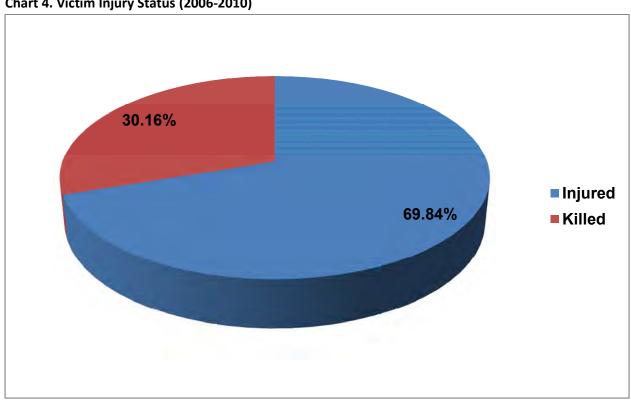


Chart 4. Victim Injury Status (2006-2010)



# 2. Major findings regarding landmine/ERW casualties

#### 2.1 Inhabitant areas

#### **1975-2010 Survey Period**

From 1975-2010 the four districts with the highest number of landmine/ERW casualties were Trieu Phong (1,297 casualties, 18.3% of the total provincial victims from 1975-2010), Hai Lang (1,124 casualties, 15.9%), Huong Hoa - a mountainous district (1,103 casualties, 15.6%) and Gio Linh (1,081 casualties, 15.3%).

Districts experiencing a lower rate of casualties include Vinh Linh (812 casualties, 11.5% of the total provincial victims from 1975-2010), Cam Lo (783 casualties, 11.1%) and Dakrong - a mountainous district (411 casualties, 5.8%)

The majority of landmine/ERW victims reside in rural areas. Dong Ha City and Quang Tri Town are the localities with the lowest landmine/ERW casualty rates (297 and 167 victims, respectively). The population of Dong Ha makes up 13.84% of total the provincial population while the total number of its victims only account for 4.2% of the total landmine/ERW casualties (ranked eighth out of nine districts and town).

People living in mountainous areas had a higher landmine/ERW accident rate per capita than those living in flat regions. Cam Lo and Huong Hoa have experienced the highest rate of victims per capita at 1.76% and 1.46% of their total populations, respectively.

(Victims as a percentage of the population (by district): the total number of victims over the past 36 years in a district divided by its population at the end of 2009).

#### 2006-2010 Survey Period

Out of 126 victims, the majority of victims reside in the four districts as Huong Hoa, Hai Lang, Dong Ha City and Dakrong.

Updated data from 2006-2010 shows that more landmine/ERW victims lived in rural and mountainous areas in comparison to urban areas. Huong Hoa District experienced the largest number of victims(29 victims) accounting for 23.02% of the provincial total, closely followed by Hai Lang and Dakrong districts, with 20 (15.8%) and 17 (13.49%), respectively.

Casualty rates in Dong Ha City have changed significantly in the past 5 years as there have been 18 victims in the city, accounting for 14.29% of the total provincial victims between 2006-2010. The average rate of victims in Dong Ha City during the past 35 years was 4.20%, thus the rate has increased by 3 times. Out of 18 victims, 15 were scrap metal collectors who account for 83.33% of the city's total victims.

Chart 5. Total Landmine\ERW Victims by District (1975-2010)

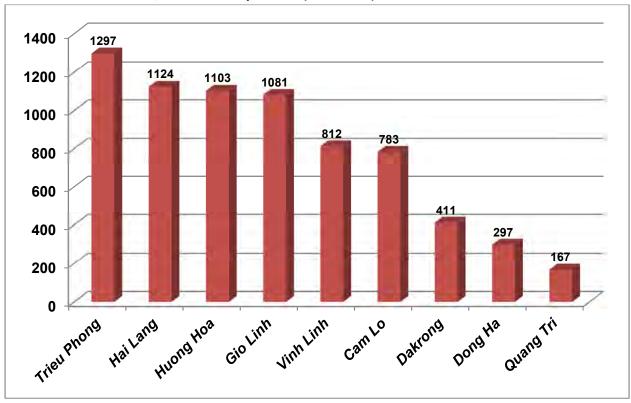
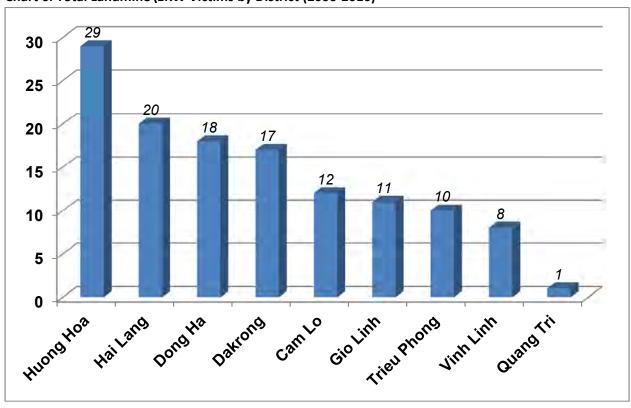


Chart 6. Total Landmine\ERW Victims by District (2006-2010)



# 2.2 Ethnicity

# 1975-2010 Survey Period

Survey results show that victims of Kinh ethnic origin account for 83.41% (5,901 victims) of the total number of provincial victims. However, members of ethnic minority groups are more likely to be involved in landmine/ERW accidents than members of the Kinh ethnic majority. While the ethnic minority groups (Van Kieu and Paco) comprise only 12.6% of the total population, they account for 16.59% of the total landmine/ERW casualties since 1975.

The majority of the population in Quang Tri Province is of Kinh origin (87.4%). Members of the ethnic minority groups mainly inhabit the mountainous and forest areas of Huong Hoa and Dakrong districts, which were home to many military bases, and experienced fierce battles and heavy U.S bombing over the Ho Chi Minh Trail during the war.

## 2006-2010 Survey Period

Of the 126 landmines/ERW victims, 93 (73.81%) were of the Kinh majority group and 33 (26.19%) were members of the ethnic minority groups.

The rate of ethnic minority victims increased significantly during the past 5 years in comparison to the number of total casualties between 1975 and 2010.

Between 1975 and 2005 there were a total of 1,133 (16.34%) landmines/ERW victims from ethnic minority groups. However, the rate of ethnic minority victims increased by 9.86% during the 2006-2010 time period.

#### 2.3 Gender

# 1975-2010 Survey Period

There were 5,878 male casualties accounting for 83.08% of victims during this time period. There was a lower number of female casualties, 1,197 victims, accounting for 16.92% of casualties despite the fact that the population was fairly balanced in terms of gender (female: 50.36%; male: 49.64%). Males in Quang Tri Province are the main labor force in cultivation and are considered to be the primary breadwinners in the family.

## 2006-2010 Survey Period

Of the 126 landmine/ERW victims, 113 (89.68%) were male and 33 (10.32%) were female. During the last 5 years (2006-2010), the rate of male victims increased by 6.6% in comparison to the total rate from 1975-2010.

#### 2.4 Age

#### 1975-2010 Survey Period

Landmine/ERW victims came from all age groups, but the vast majority were between the ages of 16-55 at the time of their accident, which account for 65.06% (4,525 victims) of the total victims. The age range with the lowest number of victims was those above the age of 55, which make up approximately 3.49% (243 victims) of the total number of victims. It should be noted that children under 15 years of age constituted a rather high proportion of the total number of victims at 31.45% (2,187 victims). In addition, 120 victims (1.7%)could not be verified due to insufficient records of date of birth. The majority of these cases involved illiterate individuals and persons of ethnic minority groups.

#### 2006-2010 Survey Period

Landmine/ERW victims came from all age groups. Of the 126 landmine/ERW victims, the vast majority were in the age range of 16-55, accounting for 66.7% (84 victims) of the total number of victims . The victims under 15 years of age accounted for 29.37% (37 victims), and victims over the age of 55 accounted for 3.9% of total victims during this time period.

Chart 7. Total Landmine/ERW Victims by Ethnicity (1975-2010)

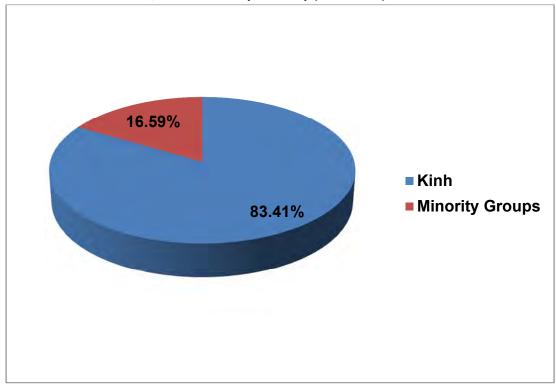


Chart 8. Total Landmine/ERW Victims by Ethnicity (2006-2010)

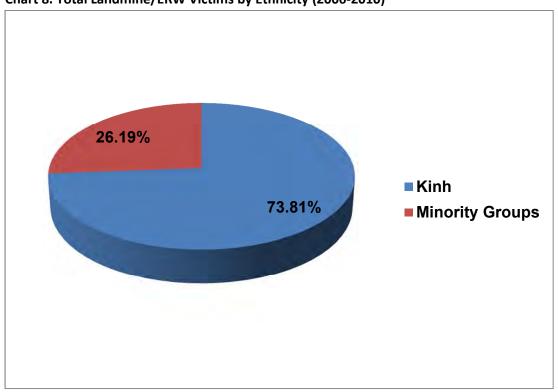


Chart 9. Total Landmine/ERW Victims by Gender (1975-2010)

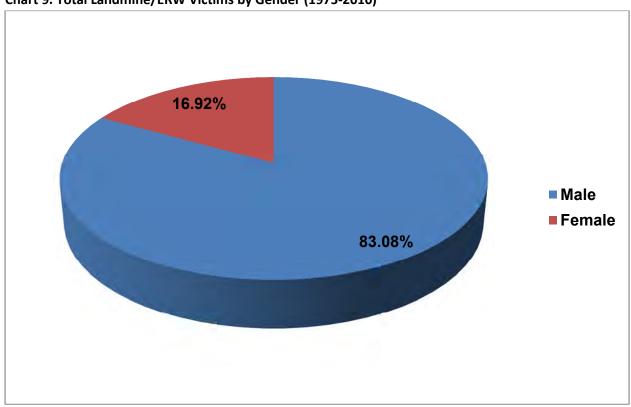


Chart 10. Total Landmine/ERW Victims by Gender (2006-2010)

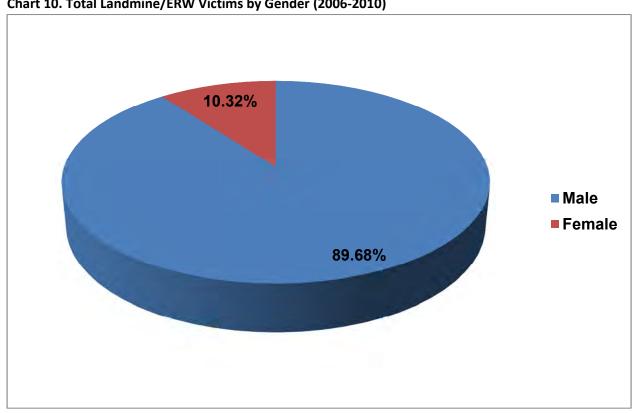
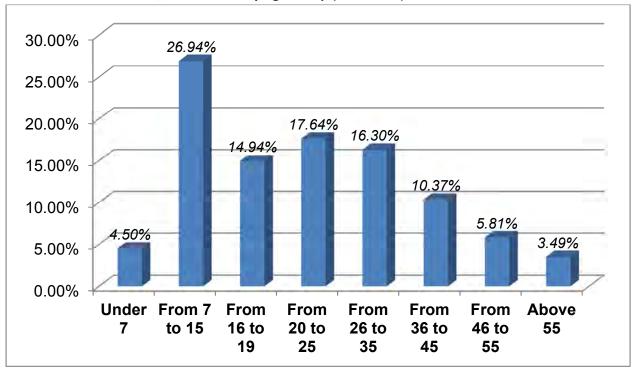


Chart 11. Total Landmine/ERW Victims by Age Group (1975-2010)



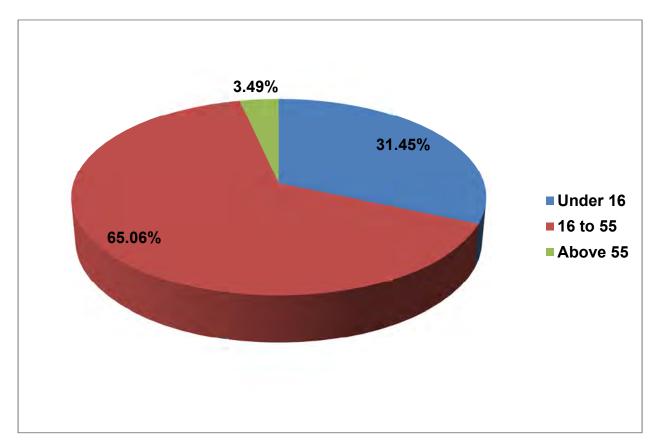
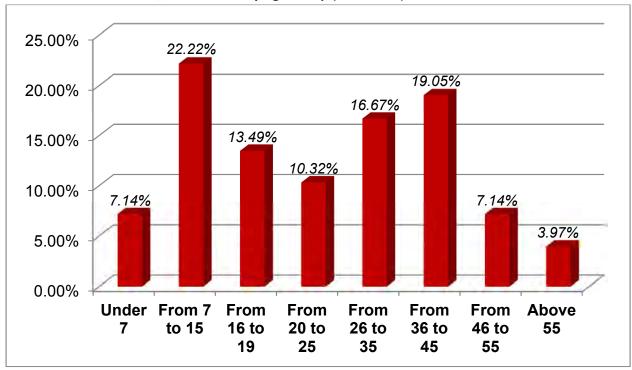
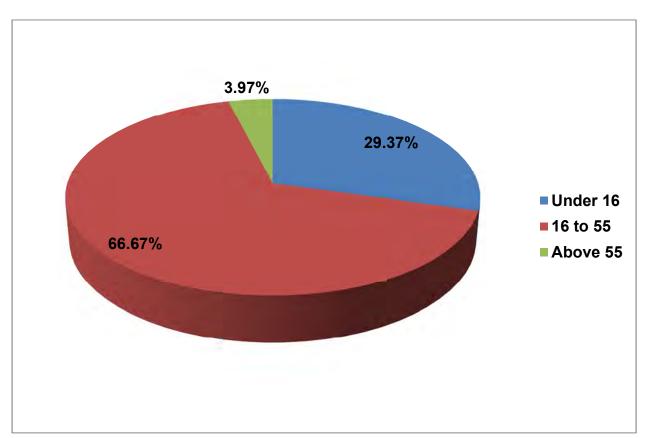


Chart 12. Total Landmine/ERW Victims by Age Group (2006-2010)





#### 2.5 Education

# 1975-2010 Survey Period

Study results show that those with less education are more likely to be involved in a landmine/ERW incident as 9.07% (642 victims) were illiterate. Of the victims, 38.25% (2,706 victims) had only received primary education, 26.52% (1,876 victims)had received secondary education , 6.28% (444 victims) received high school education and the number of victims that had college or university education was negligible (0.03% and 0.10% respectively). In addition, 19.76% (1,398 victims) of cases causality education level was not clear.

# 2006-2010 Survey Period

There have been changes in the relationship between education level and landmine/ERW incidents during the last 5 years. Of the 126 victims, 11.1% (14 victims) were illiterate, 43.65% (55 victims) had received primary education; 35.71% (45 victims) had received secondary education and 9.52% (12 victims) had received high school education. There was no record of victims who had received college or university education.

#### 2.6 Socio-Economic situation

# 1975-2010 Survey Period

The link between poverty and landmine/ERW accidents had not changed in the last 5 years, as there was still a strong correlation between the two. The number of victim families whose average annual income was below 5 million VND (below \$US 250) accounted for 95.74% of the total victims in this time period. The families obtaining more than 5 million VND only made up 4.26%.

## 2006-2010 Survey Period

Of the 126 cases, the average household income was as follows:

Household income before the incident

- 43.65% (55 cases) obtained a household income below 5 million VND/year
- 32.54% (41 cases) obtained a household income between 5 to 15 million VND/year
- 12.70% (16 cases) obtained a household income between16 to 25 million VND/year
- 1.59% (2 cases) obtained a household income above 25 million VND/year
- 9.52% (12 cases) did not provide information

# Household income after the incident:

- 44.44% (56 cases) obtained a household income below 5 million VND/year
- 34.13% (43 cases) obtained a household income between 5 to 15 million VND/year
- 13.49% (17 cases) obtained a household income between 16 to 25 million VND/year
- 4.76% (6 cases) obtained a house hold income above 25 million VND/year
- 3.17% (4 cases) did not provide information

Compared to the average GDP per capita nationwide of approximately SUS 1,200 (25.2 million VND) in 2010 (SUS 1 = 21,000 VND), most victim families both prior to and following the incident had considerably low incomes.

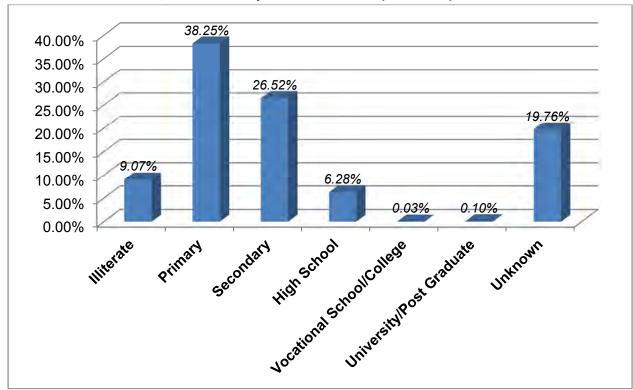


Chart 13. Total Landmine/ERW Victims by Level of Education (1975-2010)



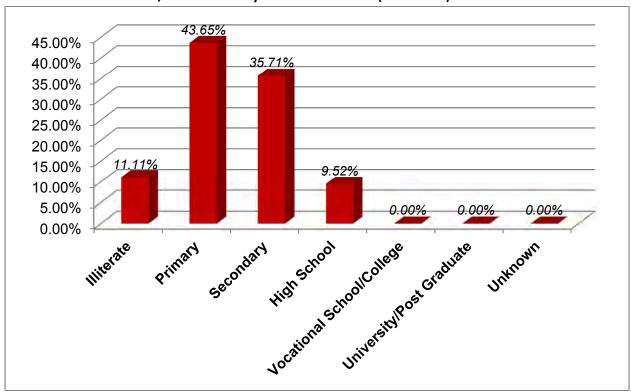


Chart 15. Annual income of victim families at the time of accident (2006-2010)

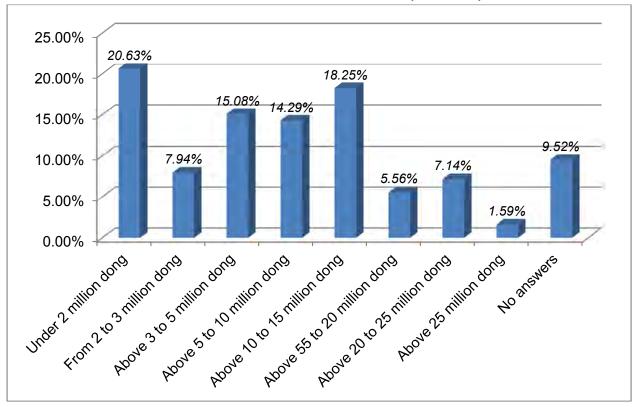
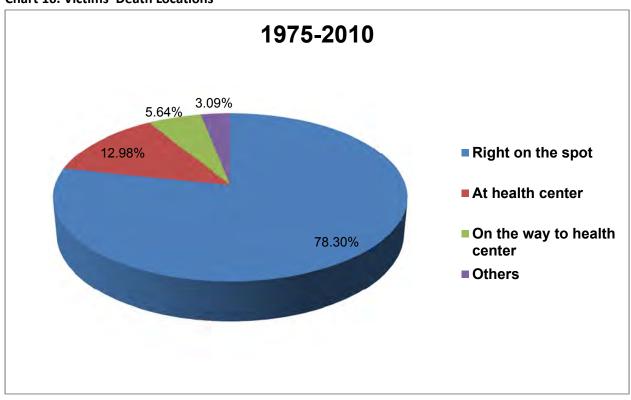


Chart 16. Victims' Death Locations



# 2.7 Needs of victim families

# 2006-2010 Survey Period

The 126 victim families made 206 requests summarized in the following list:

- 46.83% (59 victim families) requested direct support
- 42.86% (54 victim families) requested loans
- 33.33% (42 victim families) requested scholarships for their children
- 15.08% (19 victim families) requested vocational training
- 4.76% (6 victim families) requested injury treatment
- 2.38% (3 victim families) requested rehabilitation and prosthetics
- Victims also made 23 other requests accounting for 18.25%

Chart 17. Needs of victim families (2006-2010)

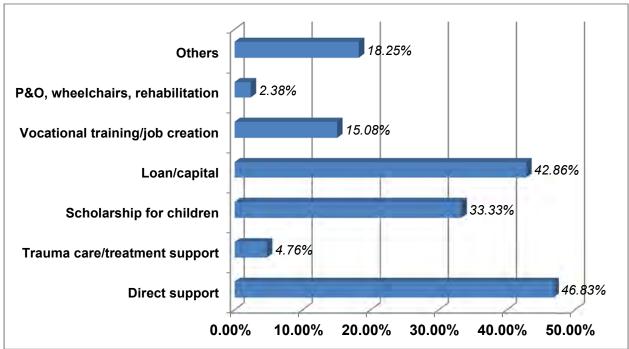
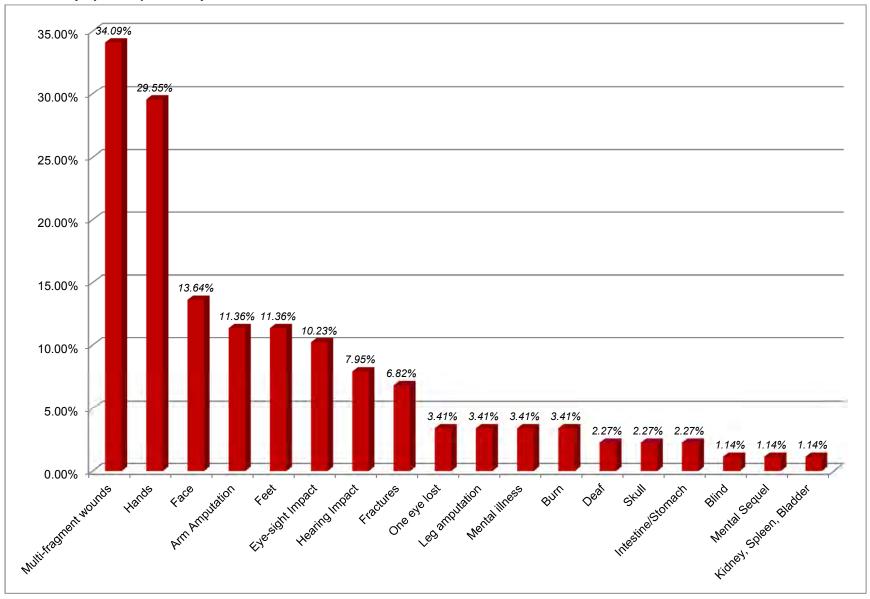


Chart 18. Injury Descriptions - Injured Victims from 2006-2010



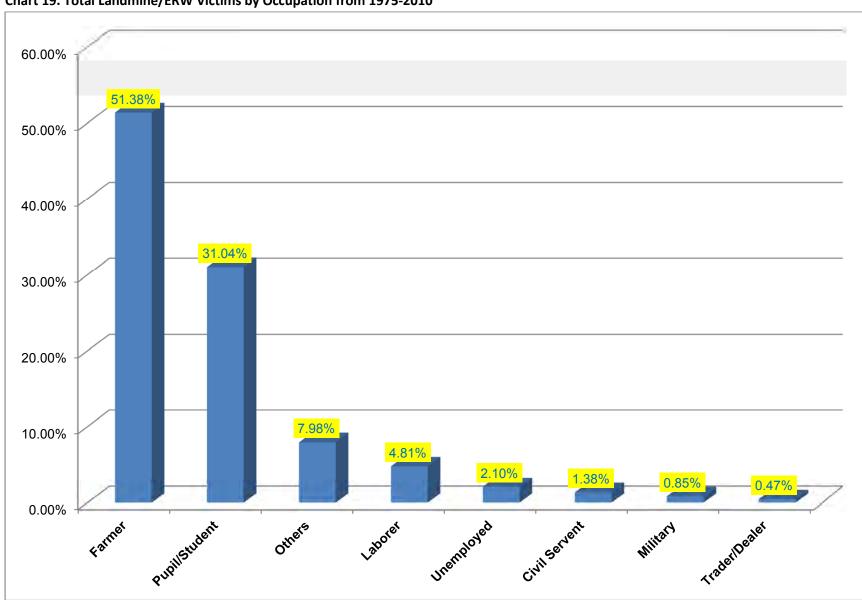


Chart 19. Total Landmine/ERW Victims by Occupation from 1975-2010

# II. MAIN CAUSES OF LANDMINE/ERW ACCIDENTS IN THE LAST 35 YEARS

#### 1. Activities at time of accident

Exempting the cases without detailed information about activities at time of the landmine/ERW accidents (14.06% of the total casualties between 1975-2010) there are 4 prominent activities related to landmine/ERW accidents. They include farming (37.99%), scrap metal collection (11.42%), tending to livestock (8.33%) and using ERW for recreational purposes (6.29%).

During the last 5 years (2006-2010), there were some changes in the activities related to accidents. Exemptint the cases that did not provide details, activities at the time of accident include; scrap metal collection (26.19% of total casualties or 33 victims), farming (11.11%), tending to livestock (8.73%) and searching for food (7.14%).

When comparing the two periods, it is evident that accidents related to farming have recently reduced. In the last 5 years, scrap metal collection has been the number one cause of accidents, followed by farming. Recreational use of or playing with ERW was ranked as the fourth highest activity causing accidents between 1975-2010, however, this has decreased during the last 5 years. The rate of victims searching for food has increased from 0.47% between 1975-2010 to 7.14% during the past 5 years.

#### 1.1 Inhabitant area

In the past 35 years, the districts with the highest number of landmine/ERW victims were Trieu Phong (18.33% of the total provincial casualties or 1,297 victims), Hai Lang (15.89%, 1,123 victims), Huong Hoa (15.59%, 1,103 victims), Gio Linh (15.28%, 1,081 victims). Quang Tri Town had the lowest number of victims (2.36%, 167 victims).

During the past 5 years (2006-2010), the three administrative units which experienced the highest rate of victims were Huong Hoa (29 people), Hai Lang (20 people) and Dong Ha (18 people). Between 2002-2006, the districts with the highest number of victims were Gio Linh (44), Huong Hoa (39) and Trieu Phong (39).

This demonstrates that while the total number of victims decreased during the past 5 years, the administrative units experiencing the highest number of casualties have changed. The casualty rate increased in both Dong Ha and Hai Lang while the casualty rate decreased in Gio Linh and Trieu Phong. Notably, there were only 10 casualties in Trieu Phong and 11 casualties in Gio Linh during the past 5 years.

Between 1975-2010 the activity most common activity related to landmine/ERW accidents was farming, accounting for 37.99% (2,688 victims) of the total provincial casualties. The highest proportion of victims related to farming was 60.65% of the total district casualties in Huong Hoa district, followed by 51.09% in Dakrong and 46.88% in Trieu Phong. Activities related to scrap metal collection were the second highest cause of landmine/ERW causalities, accounting for 11.42% (808 victims) of the total number of victims. The highest proportions of victims related to scrap metal collection were18.68% of the total district casualties in Hai Lang District, 18.52% in Dong Ha City and 16.09% in Cam Lo District. Cattle rearing and playing with ERW caused a significant number of casualties as well, accounting for 8.33% and 6.29%, respectively. With regards to cattle rearing, 14.99% (162 victims) of victims in Gio Linh had been taking part in related activities at the time of accident, 14.56% (114 casualties) in Cam Lo district, and 13.67% (111 casualties) in Vinh Linh.

Casualties resulting from using ERW for recreational purposes were of rather high percentage of the total provincial casualties, accounting for 6.29% (445 victims) of the total. In Hai Lang 12.09% (145

causalities) of the total number of victims resulted from playing with ERW, also accounting for 7.40% (80 victims) in Cam Lo District.

# 1.2 Ethnicity

During the past 5 years (2006-2010), scrap metal collection resulted in the highest number of casualties among the Kinh ethnic group (30.11%, or 28 out of the total number of Kinh victims) The percentage increased by 11.31% in comparison to figures regarding scrap metal collection between 2000-2005 (18.8%) and has risen considerably when compared to the rate of 13.39% between 1975 and 2010.

From 2000-2005, farming was the most common activity related to landmine/ERW accidents among the Kinh ethnic group (19.2%). However, from 2006-2010, this rate decreased nearly 10% to 9.68%, a significant decline from the total figure between 1975 and 2010 (24.18%).

The casualty rate among ethnic Kinh resulting from playing with ERW was 2.15% during the last 5 years. It was a decrease of 14.75% from the rate in the 2000-2005 time period and 4.71% from the total rate during the past 35 years (6.86%).

Considering the different circumstances experienced by ethnic minority groups in Quang Tri Province, searching for food resulted in a higher number of casualties among the ethnic minority groups during the past 5 years (18.18%). Farming and scrap metal collection resulted in the second highest number of casualties (both accounting for 15.15%) among the ethnic minority populations (Van Kieu and Pa Co). Casualty rates among the ethnic minority population related to farming was significantly reduced during the past 5 years when compared to that rate between 1975-2010 (58.77%). However, the rate of casualties related to scrap collection doubled during the last 5 years when compared to the total from 1975-2010 (6.65%).

The casualty rate among ethnic minority groups related to playing with ERW was 6.06% during the past 5 years, decreasing from the 2000-2005 figure (11%). Although this figure has decreased during the past 5 years, it is still significantly higher than the total rate between 1975-2010 (3.41%).

#### 1.3 Gender

Since 2006, scrap metal collection has caused the most casualties among males (28.32%). Farming caused the second most casualties (11.50%) and cattle rearing the third (8.85%).

The casualty rate for scrap metal collection increased by 10% during the last 5 years as this rate was 18.30% between 2000-2005. The rate of male victims resulting from farming decreased to 14% during the last 5 years from 25.50% between 2000 and 2005. The casualty rate related to farming activities decreased significantly while casualties related to scrap metal collection increased considerably when figures are compared to the past 35 years (The 1975-2010 victim figure resulting from farming: 34.69%, scrap metal collection: 13.20%).

The gender distribution of landmine/ERW victims in Quang Tri Province over the past 5 years has changed considerably in comparison to the 1975-2010 figures. In the past 5 years, the percentage of male victims increased to 89.68%, while the percentage of female victims fell to 10.32%. The major activities related to female accidents were farming (54.22%), grass cutting (4.26%) and cattle rearing (4.26%).

Because the male casualty rate is higher than the female casualty rate, the comparison between activities related to the two genders is not necessary. The study shows that males are at higher risk of landmine/ERW accident due to the collection of scrap metal.

# 1.4 Age

In the last 35 years (1975-2010), victims from ages 7 to 15 years made up the highest proportion (26.94% or 1,874 of the total number of victims) of victims. Victims from 20-25 years of age were the second largest age cohort (17.64%, 1,277 victims). The third largest age cohort was victims ages 26 to 35 years (16.30%, 1,134 victims) and the fourth was ages 16-19 years (14.94%, 1,039 victims).

During the past 5 years, most victims were between the age of 7 and 15, accounting for 22.22% (28 victims) of the total casualties. The second highest age cohort were victims between 36-45 years, constituting 19.05% (24 victims) of the total, followed by victims between 26-35 years (16.67%, 21 victims) and between 16 and 19 years (13.49%, 17 victims).

From 1975-2010 the main activities at the time accident for individuals from 7-15 years of age were farming (20.86%), cattle raising (20.60%) and playing with ERW (13.34%). During the past 5 years, casualties resulting from cattle rearing accounted for 28.57% while figures for food searching and playing with ERW were each 25%.

Compared to the 2000-2005 figures, activities related to accidents for the age cohorts changed. In particular, victims resulting from playing with ERW decreased to 13.40% while the figure related to cattle raising increased 8.07% during the past 5 years (the total figure from 1975-2010 was 7.97%).

In general, children under 15 years of age are at greater risk of landmine/UXO accidents when playing with ERW. The number of victims between 20-25 years of age reduced, however the number of victims resulted from playing with ERW between 35-45 increased.

# 1.5 Socio-economic situation

In the past five years, families with a yearly average income below 10 million VND were most commonly involved in landmine/ERW, accounting for 57.94% (73 victims) of the total casualties, and 43.06% (55

victims) earned an average income of below 5 million VND. For families with a yearly average income of more than 10 million VND, there were 41 victims accounting for 32.54%.

The main activities causing landmine/ERW accidents in families with a yearly average income below 5 million VND include collecting scrap metal (40.32% of total victims) while the rate of accidents resulting from this activity was 11.80% between 1975-2010.

For victims from families earning an average annual income between 10-15 million VND, the main activities leading to landmine/ERW accidents in the last five years include collecting scrap metal (20.93%), and searching for food (18.60%) while these figures were 8.70% and 0.10% respectively between 1975-2010.

The main activities resulting in accidents among families earning incomes both below and above 5 million VND have changed in the past 5 years. From 2000-2005, the main activity leading to landmine/ERW accidents in families with an income below 5 million VND was farming (25.2% of total victims) while cattle rearing was the main activity for victims from families with an income greater than 5 million VND (15%). However, during the past 5 years, the main activity leading to landmine/ERW accidents for victims from both families with income below and above 5 million VND per year was scrap metal collection, accounting for 40.32% and 20.93%, respectively.

Study data provides evidence that members from low-income families are at a higher risk of landmine/ERW accidents due to their higher level of involvement in collecting scrap metal in comparison to those from higher income families. In addition, the number of casualties as a result of this kind of activity has sharply increased among low-income families in recent years when contrasted with total figures from 1975-2010.

# 2. Areas where landmine/ERW accidents happened

During the last 5 years, the areas where the most landmine/ERW accidents occurred were hilly regions (45 victims of 31.25%) and near the victim's home (29 victims of 20.14%). Other high risk areas included cultivated farmland (9.72%), and forests (6.25%).

Areas with the most landmine/ERW accidents between 1975-2010 were cultivated farmland (26.49%), hilly areas (24.82%), near homes (15.79%), and on former military bases (6.25%). In recent years, the proportion of landmine/ERW accidents occurring in cultivated fields and in former military bases has reduced. Accidents in cultivated fields also decreased 16.77%, however, accidents in hilly regions and near homes has increased by 6.43% and 4.34% respectively when compared to the percentages between 1975-2005.

Chart 20. Activities at the time of accident (1975-2010)

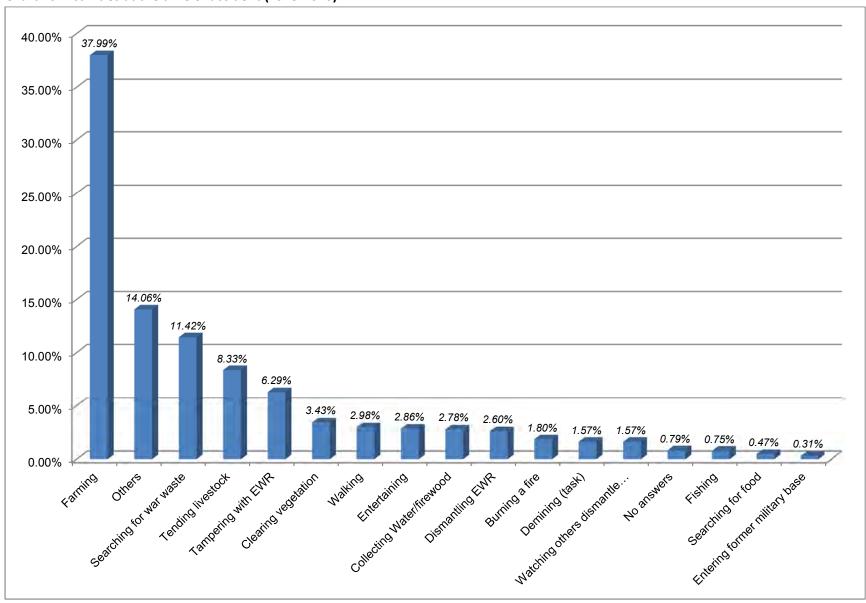


Chart 21. Activities at the time of accident (2006-2010)

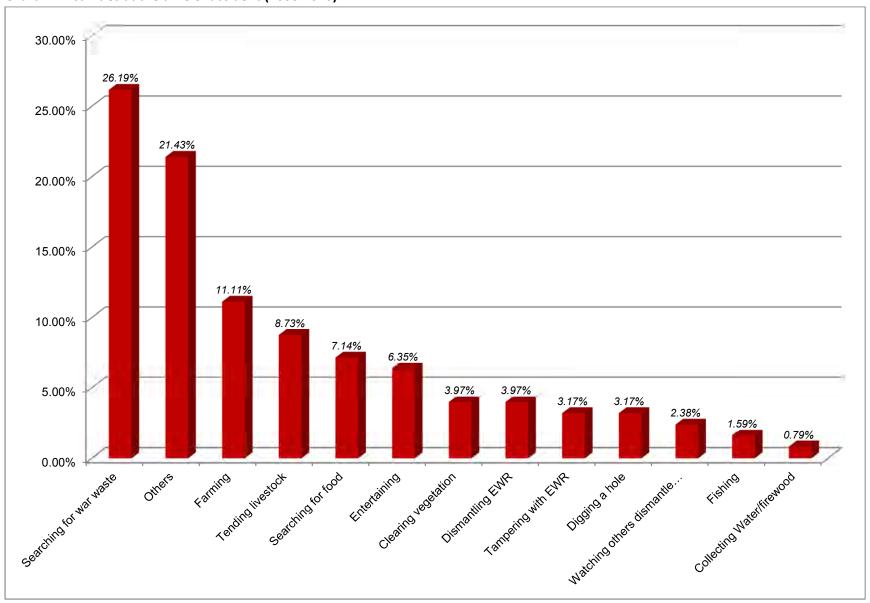


Chart 22. Locations of Landmine/ERW accidents (1975-2010)

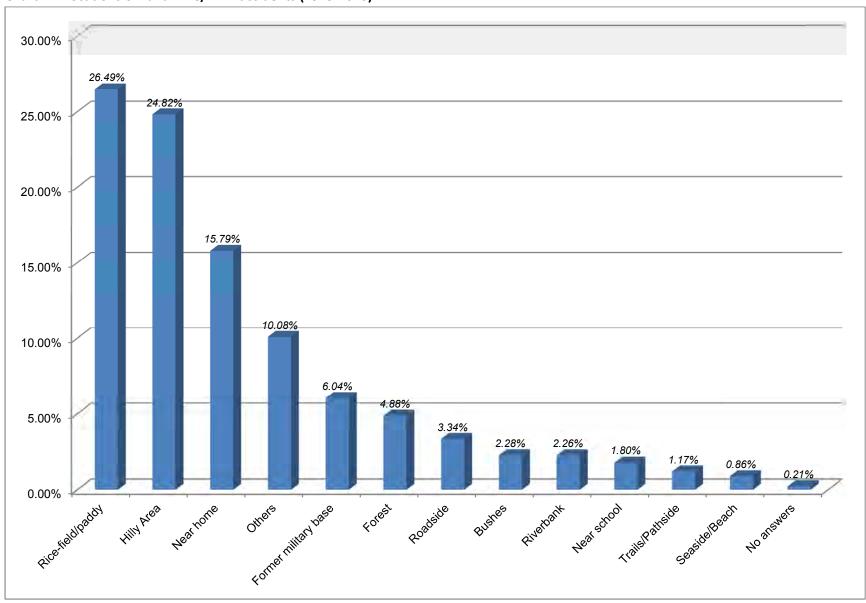
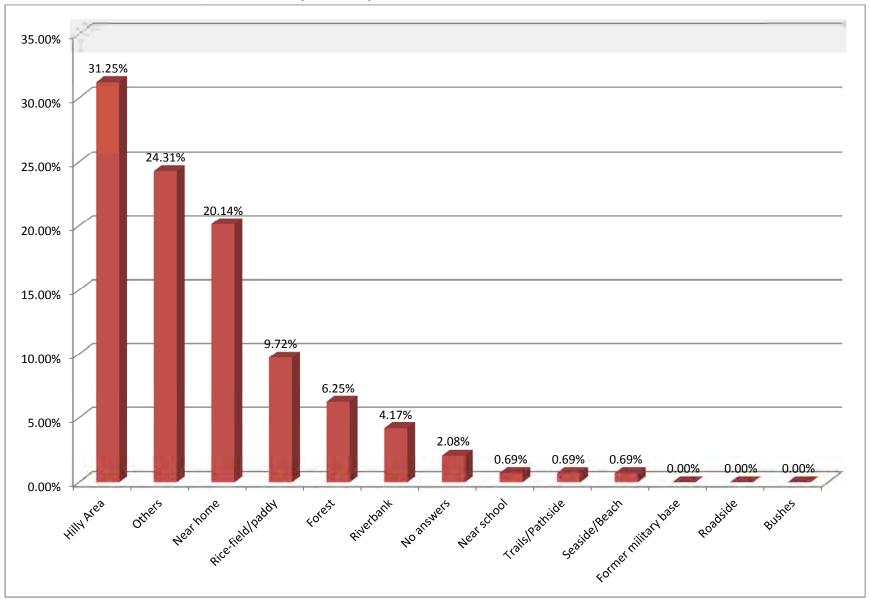


Chart 23. Locations of Landmine/ERW accidents (2006-2010)



### 3. Victims' recognition of the dangerous areas before their accident

Between 2006 and 2010, 35 out of the 126 victims (23.02%) knew that the area in which their accident occurred was contaminated with landmines/ERW. The remaining subjects provided no response to this question.

Compared to the figures from 1975-2005 (9.18%), the number of victims who knowingly entered a landmine/ERW contaminated area when their accident occurred increased significantly (14%).

#### 3.1 Ethnicity

In the past five years, the proportion of ethnic Kinh victims who knew the area of their accident was dangerous (30.11%) was 10 times greater than that of victims belonging to ethnic minority groups (3.03%). These figures are comparable to those of the total 35-year post war period: Kinh (10.72%), ethnic minority groups (2.9%), and for the period 2000-2005 (12.30% and 2.80% respectively).

Therefore, the proportion of ethnic Kinh victims who knew the area of their accident was dangerous increased as they engaged in activities related to collecting scrap metal, while the percentage of victims from ethnic minority groups who knowingly entered a dangerous area at the time of their accident remained relatively unchanged .

#### 3.2 Gender

During the past 5 years, the proportion of males who knew the area was dangerous prior to their accident (24.78%) was considerably higher than that of their female counterparts (7.67%). The same relationship was observed during the entire 35-year postwar period (males: 8.49%, females: 4.34%) and respectively for the 2000-2005 period (11.20% and 3.80% respectively). Thus, the proportion of male victims who knew the area of their accident was dangerous increased due to scrap metal collection activities undertaken by males.

### 3.3 Age

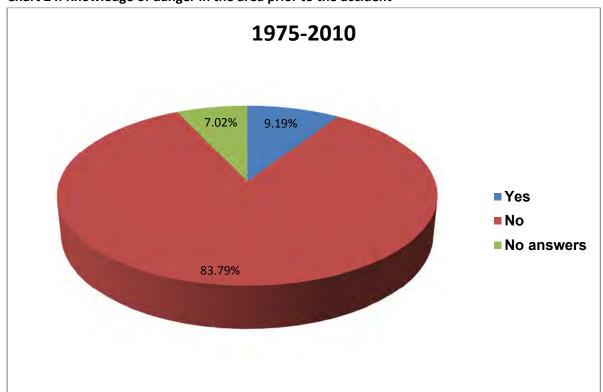
The percentage of middle-aged victims who knew the area was dangerous prior to their accident was higher than the corresponding percentages of children and teenagers. In the past five years, 5.43% of the victims under 17 knew the area of their accidents was dangerous while 70.59% of victims above 18 were aware of the danger. The total figures between 1975-2010 were 6.33% and 11.01% respectively. The percentage of adults over 18 years of age who knowingly entered a dangerous area at the time of their accident increased 7 times.

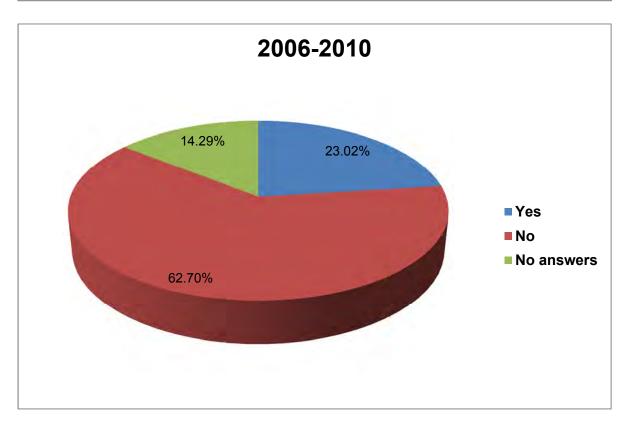
#### 3.4 Socio-Economic situation

Even though the link between poverty and the awareness of dangerous areas has not been proven, data demonstrates that victims who knew the area was contaminated prior to their accident tend to come from families with higher levels of income. During the past five years, 25.81% of victims from families earning less than 5 million VND per year knew that the area of their accident was dangerous. This rate was 28.57% for victims from families earning more than 5 million VND per year.

Between 2000-2005, 8.9% of victims from families earning less than 5 million VND per year knew that the area of their accident was dangerous, while this rate was 20% for victims from families earning more than 5 million VND per year. Between 1975-2005 (prior to the 3<sup>rd</sup> survey), these figures were 8% and 16.9% respectively.

Chart 24. Knowledge of danger in the area prior to the accident





#### 4. Factors motivating victims to partake in dangerous activities

In the past 5 years, the main motivation for victims to consciously enter unsafe areas was the collection of scrap metal. 41.37% (24 victims) of the total victims who knowingly entered a dangerous area entered for this kind of activity. Following this was farming, constituting 12.06% (4 victims). The main motivations for consciously entering landmine/ERW contaminated areas in Quang Tri Province from 1975 to 2010 were, in declining rank order, collecting scrap metal (34.21%), farming (15.36%), clearance/demining tasks (7.68%) and herding cattle (5.76%).

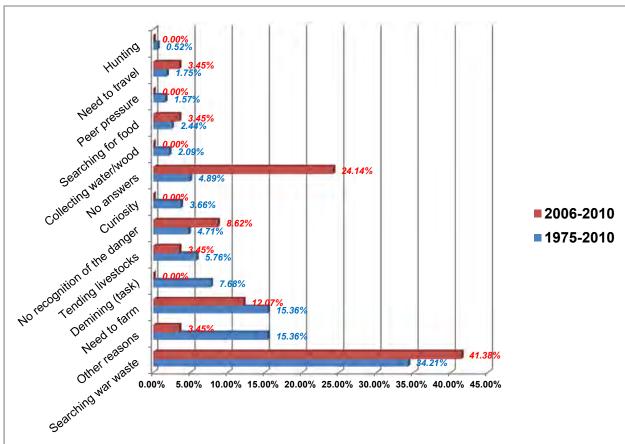


Chart 25. Motivation to enter accident area

#### 5. Landmine/ERW marking

During the past 5 years there were 82 incidents causing 126 casualties. 10 of these landmine/ERW incidents occurred in clearly marked areas, while 71 incidents took place in areas without proper landmine/ERW contamination warning signs. Data shows that between 1975-2010 92.74% of landmine/ERW incidents happened in areas without proper landmine/ERW contamination warning signs.

### 6. Sighting landmine/ERW before the accidents

During the past five years, 32.54% of landmine/ERW victims reported seeing the actual landmine/ERW device prior to their incident. This figure was 22.30% between 1975 and 2010. Consequently, the rate of victims seeing the landmine/ERW device prior to the accident but still touching the object increased more than 10% during the past 5 years compared to the total 1975-2010 figure.

#### 6.1 Ethnicity

During the past 5 years, the proportion of Kinh victims who saw the landmine/ERW device prior to their accident (30.11%) was much higher than that of ethnic minority victims (3.03%). The figures for the total postwar period (1975-2010) are 10.72% and 2.90% respectively.

#### 6.2 Gender

During the past 5 years, the number of landmine/ERW incidents caused by a deliberate and direct encounter with landmines/ERW was significantly higher for males (24.78%) than for females (7.69%). The figures were 9.95% and 5.31% respectively between 1975 and 2010.

## 7. Victims' access to MRE information prior to their accident

During the past 5 years, 30.16% of all landmine/ERW victims in Quang Tri Province have reported receiving MRE information prior to their accident. Thus, the majority of the victims (55.56%) had not received any type of MRE information. This figure is lower than that of the total 35-year postwar period (89.34%). This discrepancy indicates that MRE information has been more thoroughly disseminated throughout the province in recent years.

Nevertheless, MRE does not always create the desired outcomes. Some people, despite having received MRE information, were still involved in landmine/ERW accidents. There were various reasons for this, but the main motivational factor was the need to earn income.

Victims who had received MRE information prior to their accidents were farming land (8 cases) and collecting scrap metal (8 cases) at the time of accident.

#### 7.1 Ethnicity

During the past five years, the percentage of Kinh landmine/ERW victims with previous access to MRE information (30.11%) was nearly equal to that of victims from ethnic minority groups (30.30%).

### 7.2 Age

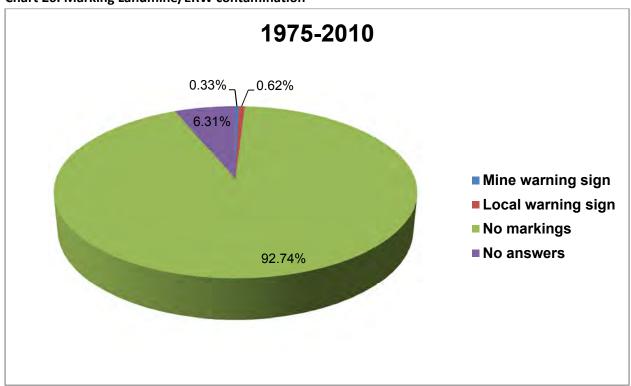
During the past 5 years, there was a difference in accessing MRE information between those above and below the age of 55, as the rate of access increased significantly in comparison to figures from 1975-2010. The percentage of victims possessing some MRE knowledge was 27.03% among those under 16, 30% in the 16 to 30 age cohort and 27.27% for people between 31 and 55. Four out of 5 victims above 55 accessed MRE knowledge (80%). However it is difficult to analyze the situation according to age group because there were few victims during the last 5 years.

#### 7.3 Socio-Economic situation

From 2000-2010, the higher the income of the victims' family, the more likely it was that they had received MRE information. 19.18% of all families with an annual income below 10 million VND had been exposed to MRE information, compared to 46.34% of victim families earning more than 10 million VND per year.

If income is divided into smaller sums, the exposure rate to MRE information was 15.38% for victims whose family earns below 2 million VND per year, 5.26% for families earning an income between 2-3 million VND; 10.53% for families earning an income between 3-5 million VND; 10.53% for families earning an income from 5-10 million VND; 23.68% for families earning an income between 10-15 million VND; 13.16% for families earning an income between 15-20 million VND and 13.16% for families earning an income between 20-25 million VND per year.

**Chart 26. Marking Landmine/ERW contamination** 



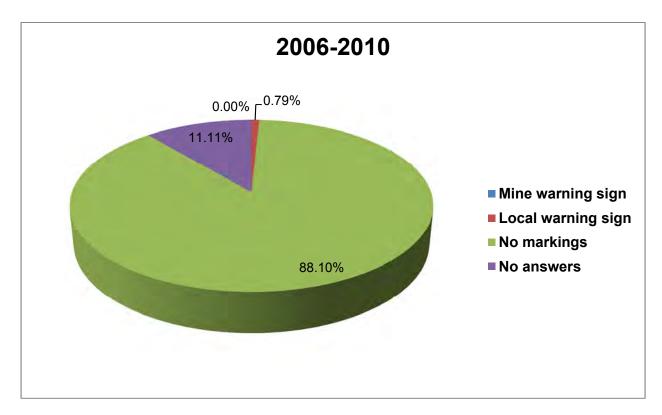
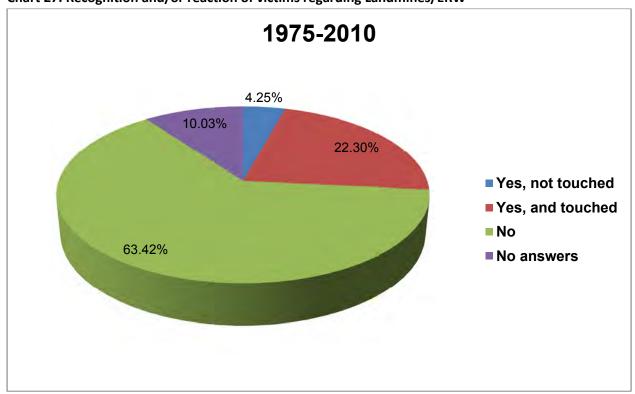


Chart 27. Recognition and/or reaction of victims regarding Landmines/ERW



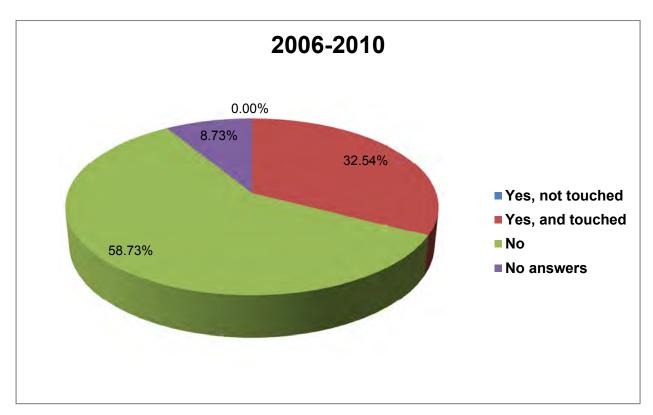
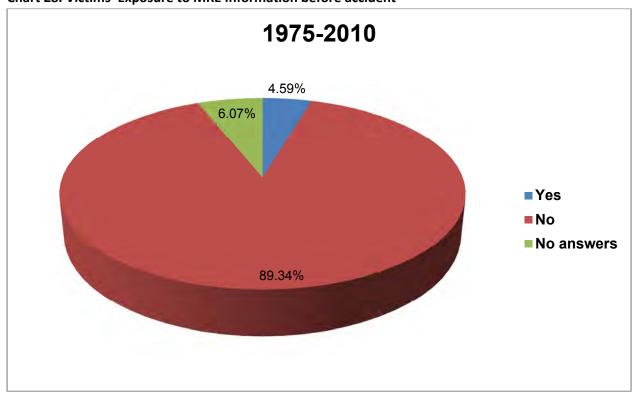
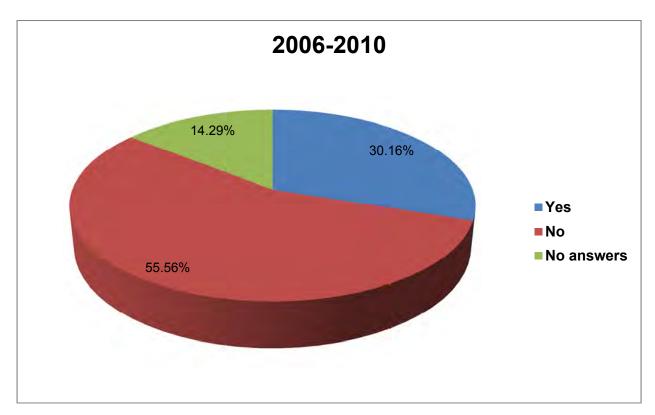


Chart 28. Victims' Exposure to MRE Information before accident





#### 8. Types of Landmines/ERW that caused accidents

During the past 5 years, for identified cases, the types of landmine/ERW devices causing bodily harm in Quang Tri Province were, in rank order: sub-munitions or bomblets (56.76%), mortars and shells (13.51%), projectiles (2.70%), landmines (6.76%) and other types of ERW (20.27%). These figures in the 35-year postwar period were 44.53%, 3.16%, 13.32%, 9.79% and 29.69% respectively.

The study results show that landmines cause a much smaller percentage of casualties in Quang Tri Province compared to ERW, and the number of landmine victims continues to decline. On the contrary, sub munitions and bomblets have caused the majority of incidents for the people in Quang Tri Province.

Casualties resulting from sub munitions and bomblets have increased by 12% in the past 5 years compared to the total 1975-2010 figure.

### 8.1 Ethnicity

During the past five years, the proportion of Kinh ethnic casualties resulting from landmines was 8.62% (for received answers). The percentage of the victims from ethnic minority groups resulting from bomblets was higher than that of Kinh people (75% in comparison to 52%) in the same time period.

Also from 1975-2005, the percentage of casualties resulting from landmines was roughly equal for both the Kinh group (9.1%) and ethnic minority groups (9.7%). However, the proportion of casualties caused by sub-munitions or bomblets among the Kinh people (38.86%) was lower than that of the Van Kieu and Paco groups (49.24%), while rifle grenades caused a greater percentage of casualties among the Kinh population (13.29%) in comparison to the Van Kieu and Paco groups (9.70%).

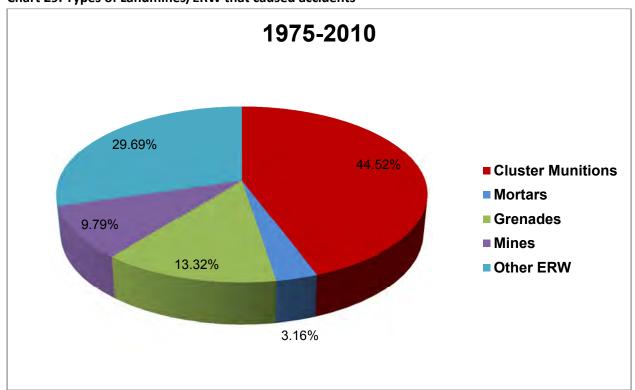
### 8.2 Age

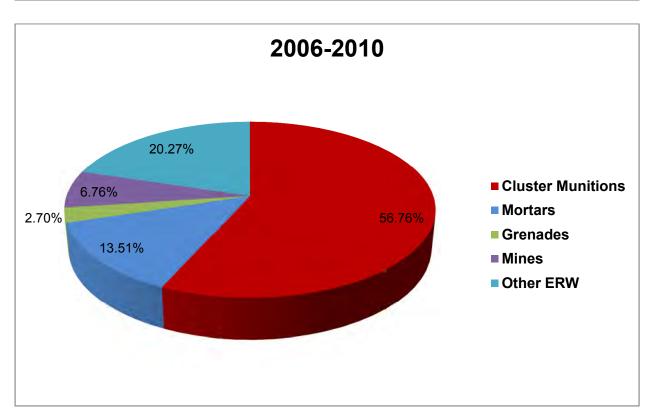
The statistics for the past 5 years (2006-2010) demonstrate that children under 16 years of age are more commonly involved in landmine/ERW accidents (69.57% of the total) compared to other age groups. This was closely followed by the 16-30 age cohort (68.18%).

The proportion of casualties resulting from landmines who were teenagers/youth and adults above 30 years were nearly the same (9.09% and 10.34% respectively).

From 1975-2005 the proportion of child casualties resulting from sub-munitions or bomblets (46.47%) was the highest while the percentage of casualties resulting from landmines above 18 years was 11.28%. From 1975-2005 the sub-munitions or bomblets resulted in the highest number of child causalities (46.47%), while landmines accounted for 11.28% of victims above 18.

Chart 29. Types of Landmines/ERW that caused accidents





# III. KNOWLEDGE, ATTITUDES, PRACTICES AND BELIEFS WITH RESPECT TO

# THE DANGER OF LANDMINES/EXPLOSIVE REMNANTS OF WAR

1. The existence of Landmines/ERW

# 1.1 Landmine/ERW Encounters

Study results in 2010 show that landmines/ERW contaminate many areas in Quang Tri Province, as indicated by the large percentage of respondents who had heard of landmines/ERW (91.99%). 51.50% of all respondents in Quang Tri Province reported a direct encounter with a landmine/ERW device. 14.67% of respondents from Vinh Linh reported a direct encounter with a landmine/ERW device while the percentage of respondents in Trieu Phong, Cam Lo, Gio Linh and Hai Lang districts that reported a direct encounter were 13.81%, 13.95%, 13.19% and 12.12% respectively. The majority were from the Kinh ethnic group (92.21%).

People at different ages experienced direct encounters with landmines/ERWs. Nearly a half (49.87%) were between the ages of 31-55 and one third (31.89%) were below the age of 30. A large number of children under 15 years (8.63%) reported a direct encounter with a landmine/ERW device as well.

Most of the encountered devices were located in cultivated fields, hilly or mountainous regions, forests, bushes and former military bases (27.49%, 26.13%, 11.87%, 10.09% and 6.21% respectively). An equivalent proportion of respondents also encountered landmine/ERW near their homes (5.19%), on trails (4.26%) and by river banks (4.13%). In addition, main roads and schools were also places where people had encountered landmines/ERW.

#### **Cultivated fields**

Residents of flat regions encountered landmines and bombs on cultivated land more frequently than those in hilly and mountainous areas. Residents of Trieu Phong District had the highest rate of encounter at 18.23%, while the rate for residents in Vinh Linh was 16.25%; 15.08% in Cam Lo, 13.34% in Hai Lang, 12.29% in Gio Linh compared to 5.45% in Huong Hoa and 4.01% in Dakrong. Data shows that residents in Dong Ha City and Quang Tri Town also have lower levels of landmine/ERW encounters on cultivated lands (Dong Ha City 8.08% and Quang Tri Town 5.94%).

The vast majority of landmines/ERW found in cultivated fields were encountered by Kinh residents (93.09%) compared to the ethnic minority people (6.91%). The highest proportion of respondents who had encountered landmines/ERW on cultivated fields were between the ages of 30 and 55, accounting for 48.88%.

The occupational groups who most frequently encountered landmines/ERW in cultivated fields were farmers (49.37%), laborers (14.04%) and pupils (10.89%). These figures are not surprising as farmers and laborers take part in activities associated with agriculture while pupils in rural areas usually assist their families with household farms. Thus, these groups are more likely to encounter landmines/ERW on cultivated fields.

### Hilly and mountainous areas

It is very surprising that respondents from Dong Ha City reported the highest percentage (13.37%) of encounters with landmines/ERW in hilly and mountainous areas. Other respondents who had encountered landmines/ERW in hilly and mountainous areas were from the districts of Vinh Linh (14.74%), Cam Lo (12.59%) and Gio Linh (11.47%). Similar to those encountering landmines/ERW in cultivated land, occupational groups encountering landmines/ERW in hilly and mountainous areas included farmers (44.3%), laborers (12.11%) and pupils (10.04%). 51.47% of respondents between 16 and 30 years of age encountered landmine/ERW on hilly and mountainous areas while the percentage of respondents between 31 and 55 as well as greater than 55 were 49.62% and 47.50% respectively.

#### Near home and school

Regarding the Trieu Hai area, 30.12% of respondents in Quang Tri Town, 20.08% in Trieu Phong and 13.90% in Hai Lang have encountered landmine/ERW near their homes or schools. For other districts, the proportions of encounters in these areas were 12.36% in Dong Ha City, 9.27% in Gio Linh, 5.79% in Cam Lo, 5.41% in Huong Hoa, 2.32% in Dakrong and 0.77% in Vinh Linh. Most respondents who encountered in these areas were farmers (28.96%), laborers (26.64%) and pupils (14.29%) and almost half were below the age of 30, and most (23.17%) were pupils under 16.

#### Other areas

Residents in Cam Lo and Gio Linh districts constitute the highest proportion of those who encountered landmines/ERW on former military bases, and residents in Hai Lang and Cam Lo districts account for a high proportion of those who encountered landmine/ERW in forests.

### Never encounter landmine/ERW before

Nearly a half (45.20%) of ethnic Kinh respondents and two thirds of respondents from ethnic minority groups (69.94%) said they had never directly encountered landmines/ERW. Males, as compared to females, make up a smaller percentage of respondents who had never encountered landmines/ERW (39.30% male to 57.55% female). Residents in Dakrong District account for the highest proportions of those who had not encountered landmine/ERW (70.50%), followed by residents living in Dong Ha City and Huong Hoa (61.28% and 58.95% respectively). The percentage of respondents who have never encountered landmines/ERW decreases according to ascending age (77.52% of respondents between the ages of 7-15, between the ages of 16 and 30: 57.68%, between the ages of 31 and 55: 35.91% and those above 55 years old: 20.79%).

#### 1.2 Frequency of encountering landmines/ERW

The frequency of landmine/ERW encounters again affirms the widespread existence of landmines/ERW in the province. Over one third of the interviewed residents said they see landmines/ERW at least once a year (39.72%). Additionally, one out of every nine respondents encounters landmines/ERW every month (11.29%), one out of every 30 respondents encounters landmines/ERW every week (3.34%) and one out of every 36 respondents stated they encounter landmines/ERW every day (2.74%).

# Encountering landmines/ERW on a daily basis

Residents in the administrative units of Gio Linh District, Quang Tri Town and Dakrong District have the highest frequency of encountering landmine/ERW on daily basis (48.61%, 19.49%, and 11.11% respectively); followed by residents living in Hai Lang District (6.94%). The percentage in the remaining districts was below 5%. The majority of residents who encounter landmines/ERW on a daily basis were farmers and pupils.

Residents between the ages of 31 and 55 make up the majority of the labor force and therefore most frequently encounter landmines/ERW on a daily basis (45.83%). This figure is followed by respondents between 16-30 (20.83%) and respondents under 15 (19.44%). Respondents above 55 rarely encountered landmines/ERW on the daily basis.

The study also shows that citizens with an annual household income between 5-10 million VND were more likely to encounter landmines/ERW on a daily basis (45.83%), followed by respondents whose household earned below 5 million VND per year (34.72%). Compared to other income groups, those earning more than 10 million VND per year were less likely to encounter landmines/ERW daily. Males account for a higher proportion of respondents who encounter landmines/ERW every day, compared to their female counterparts (57% male, 43% female).

#### **Encountering landmines/ERW on a weekly basis**

Respondents from Trieu Phong District most frequently encountered landmines/ERW on a weekly basis (45.45%). Also respondents residing in Dong Ha City and Quang Tri Town reported encountering landmine/ERW every week more frequently than other districts. Farmers and laborers account for two thirds of those who encountered landmines/ERW on a weekly basis.

Residents between 31 - 55 most frequently encountered landmines/ERW weekly (54.55%) followed by those above 55 years of age (30.68%).

Those earning a smaller income were more likely to encounter landmines/ERW on weekly basis. The percentage of respondents who encountered landmines/ERW weekly with a household income of less than 5 million VND per year was 52.27%, followed by those earning between 5 and 10 million VND per year (36.36%) and more than 10 million VND per year (3.41%). Males also account for a higher proportion of respondents who encounter landmines/ERW on a weekly basis (64.77% of males, 35.23% of females).

#### Encountering landmines/ERW on a monthly basis

Residents of Gio Linh, Dong Ha and Trieu Phong account for the highest proportions of respondents who encounter landmines/ERW monthly (33.67%, 34.34% and 12.46% respectively). Other districts had lower proportions (below 7%). When comparing figures of those who encounter landmines/ERW on a monthly and weekly basis, other indicators related to age, occupation, income and gender do not reveal significant differences.

#### Comparison with the 2006 study results

The 2010 survey illustrates that the number of respondents that have heard of landmines/ERW decreased 2.21% and the number of respondents encountering landmines/ERW also decreased 11.8% compared to the 2006 figures. There was also a decline in the number of respondents who encountered landmine/ERW on a daily, weekly, monthly or yearly basis in 2010 compared to the numbers in 2006.

There were few differences in locations where respondents encountered landmines/ERW. Cultivated fields became the most common locality in which respondents encountered landmines/ERW, followed by mountainous areas, forests, bushes and abandoned military bases. The 2010 data shows that proportion of respondents encountering landmines/ERW near homes and schools had slightly declined since 2006.

The likelihood of encountering landmines/ERW across age, occupation and income groups have not significantly changed since 2006. Nevertheless, respondents from families earning less than 5 million VND per year have the highest possibility of encountering landmine/ERW. Those between the ages of 31-55 encountered landmines/ERW most frequently in 2010 compared to those at the age of 46 in 2006. Farmers, laborers and pupils still encountered landmines/ERW most frequently, and males still encountered landmines/ERW more commonly in comparison to their female counterparts.

There were changes in the districts where landmines/ERW were encountered. Vinh Linh, Trieu Phong and Cam Lo districts had higher proportions of landmines/ERW encounters in 2010, compared to Gio Linh, Huong Hoa and Dakrong districts in 2006.

### 1.3 Activities when encountering landmines/ERW

A near majority of respondents said that they encountered landmines/ERW while working on agricultural fields (34.36%) as well as looking for firewood and collecting water (22.92%). Other activities which led to an encounter with landmines/ERW included herding livestock (16.34%), walking (13.68%), playing around (11.71%), searching for scrap metal (10.98%), cutting grass and trees (10.38%), digging holes (7.83%) and burning bushes to clear land for cultivation (7.79%).

Encountering landmines/ERW while herding livestock was common for those between the ages of 31 and 55 (46.05% of the total), followed by the 16 - 30 age cohort (30.23%) and the respondents above 55 of age (14.65%). Children under 15 years also made up a notable proportion (9.07%).

Encountering landmines/ERW while burning bushes is not only a problem among the ethnic minority groups, as is usually assumed, but was also widespread among the majority Kinh group with rather high proportion of 22.79%.

#### Comparison to the 2006 study results

Notably, in both studies the highest proportion of respondents who reported encountering landmines/ERW were working in cultivated fields, raising cattle, or collecting firewood and water. The majority of these people were farmers, laborers and pupils. It is also remarkable that the proportion of respondents encountering landmines/ERW while searching for scrap metal decreased from 14.41% in 2006 to 10.98% in 2010. There were also fewer encounters while walking in the abandoned military bases when compared to 2006 figures.

Chart 30. Locations of Landmine/ERW encounters

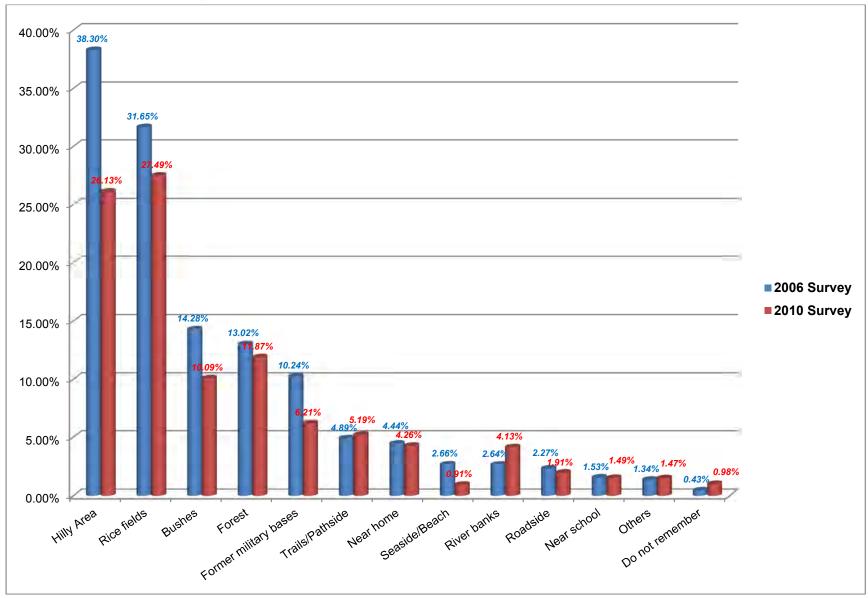


Chart 31. Frequency of Landmine/ERW encounters

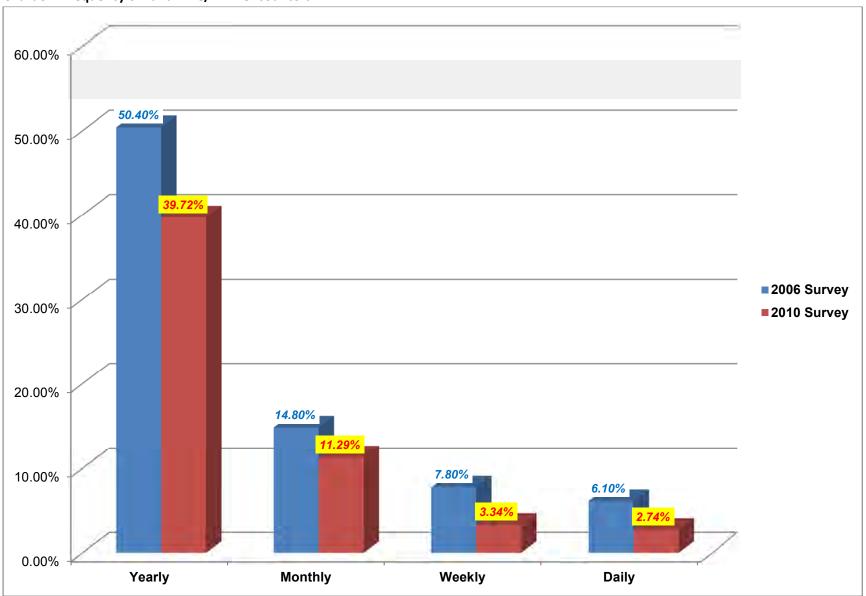
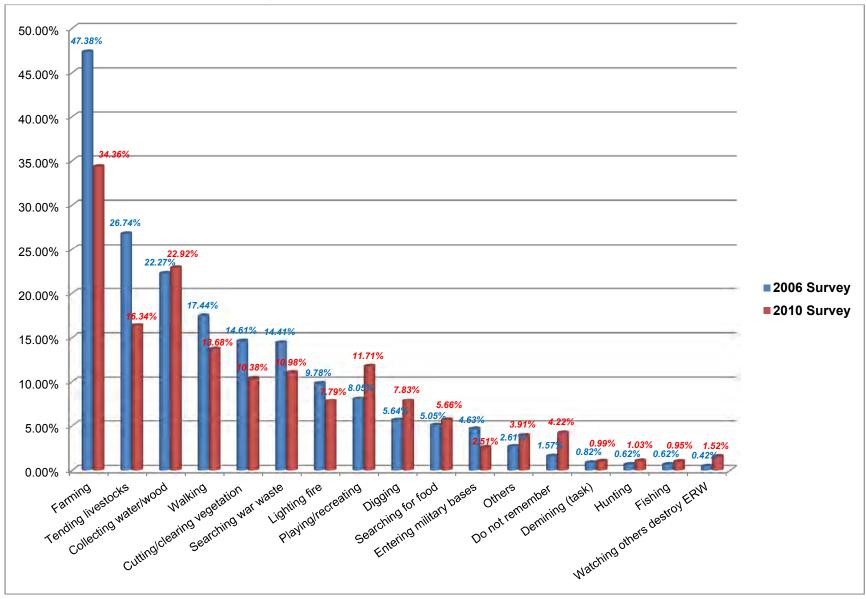


Chart 32. Activities at the time of Landmine/ERW encounters



# 2. Knowledge, Attitudes, Practices and Beliefs with respect to the dangers of Landmines/ERW

# 2.1 General impacts of Landmines/ERW on the population

Study data shows that the majority of the respondents understand that landmines/ERW can kill (81.26%) or injure (75.23%) human beings. Some respondents also thought that landmines/ERW are harmful to the environment, threatened feelings and have a negative impact on the economy. A small number of respondents (0.87%) do not understand the effects of landmine/ERW accidents and an even smaller number thought that landmines/ERW have no impact (0.47%). These respondents vary in age. Respondents under 15 make up the highest proportion of respondents who have no knowledge or incorrect knowledge of landmine/ERW consequences (41.27%), however this figure has decreased since 2006 (44.2%) Farmers and pupils were also among the respondents who had no or incorrect knowledge regarding landmine/ERW consequences.

A high proportion of respondents (42.86%) living in Dakrong District were unaware of or misunderstood the impacts of landmines/ERW. The proportion of these respondents in Quang Tri Town and Vinh Linh District was also rather high at 17.46% and 11.11% respectively. For all other districts, the percentage was lower than 9.52%. In Hai Lang and Trieu Phong districts, there were only a total of 2-3 respondents who were unaware of or misunderstood the impacts of landmines/ERW. Furthermore, there were no such cases in Cam Lo District. Hai Lang, Trieu Phong and Cam Lo districts have all carried out substantial MRE initiatives in recent years.

The proportion of Kinh respondents who did not properly grasp the landmine/ERW problem was only 11.11% more than respondents from ethnic minority groups. However, the Kinh people make up the majority of the provincial population. Also, 60.32% of respondents without proper knowledge of the consequences of landmines/ERW were female, and 39.68% were male.

## Comparison to the 2006 study results

The number of people unaware of the consequences of landmine/ERW incidents had not significantly changed since 2006. The percentage of respondents who thought that landmines/ERW do not impact their livelihood increased from 0.76% in 2006 to 1.55% in 2010. The majority of these respondents were pupils and youth under the age of 15.

Respondents still lacking proper levels of mine awareness knowledge mainly reside in Vinh Linh District and Quang Tri Town. Although the incident rates in Cam Lo, Trieu Phong and Hai Lang districts remained high, the percentage of people without proper knowledge of the consequences of landmine/ERW was quite low.

Children account for a high proportion of respondents unaware of landmine/ERW consequences in both studies (41.27% in 2010 and 42.6% in 2006). Gender issues should also be taken into consideration with regards to MRE initiatives, as females generally had less knowledge of the consequences of landmines/ERW in comparison to their male counterparts.

#### 2.2 Landmine/ERW impact on daily interactions

Survey results show that 77 out of 100 respondents said that their lives had been affected by postwar landmines/ERW (77.10%). Although these respondents live throughout the province, most reside in Dong Ha City and Trieu Phong District. Farmers, laborers and pupils account for a significant proportion of these respondents.

Most respondents said landmines/ERW can cause death or injury (60.93%). Respondents also stated that landmines/ERW cause fear and worry over the possibility of relatives and friends becoming involved in a landmine/ERW accident (32.80%) and negatively affect peoples' agricultural activities (28.15%). Other problems included the restriction of travel (23.79%), the demands of caring for injured/disabled relatives (10.13%), limitating land for construction (9.39%) and the extra danger of firewood/water/food collection activities (7.74%).

Many respondents who recognized that landmines/ERW limit land for agricultural cultivation were farmers (48.85%) living in Hai Lang (18.09%), Cam Lo (16.25%) and Vinh Linh (15.52%) and those whose families had a annual household income between 5-10 million VND (43.16%).

Respondents who stated their lives were not affected by landmine/ERW were university students, pupils and traders (32%). These respondents earned below 10 million VND per year (44.66% respondents below 5 million VND per year 40.71% between 5-10 million VND per year). Most resided in Vinh Linh (21.28%), Quang Tri Town (15.28%) and Dakrong (13.92%).

#### Comparison to the 2006 study results

There was no significant change in the respondents' thoughts about the impact of landmines/ERW between the two studies. The notions that landmines/ERW affects respondents' relatives and/or friends as well as restrict the size of available agricultural land were common. Almost all respondents in Quang Tri Province expressed concern about these problems.

The most remarkable finding was the fact that the proportion of respondents who reported that landmines/ERW restricts their travel and access to sources of water, firewood and food has increased since the 2006 study. It can be said that the socio-economic development and the infrastructure construction in Quang Tri Province have made people more aware of the constraints landmines/ERW place on land usage.

### 2.3 Areas thought to be contaminated with landmines/ERW

Inhabitants of Quang Tri Province were most likely to encounter landmines/ERW in the following areas: hilly and mountainous area (55.57%), forests (31.51%), former military bases (22.43%), arable fields (19.77%) and bushes (14.43%). Places usually considered safe, such as home or school, were also occasionally contaminated by landmines/ERW.

According to the above results, hilly and mountainous areas are most likely to be contaminated with landmines/ERW. Notable from the 2010 survey was the dramatic increase in respondents who indicated that they thought forests were the most contaminated areas (from 11.6% in 2002 to 36.4% in 2006 and 31.51% in 2010). There was an increase in the number of respondents who reported that landmines/ERW still exist along the river banks and paths. However, there was a decline in the proportion of respondents who thought landmines/ERW still contaminated fields, down to 19.77% in 2010 from 36.42% in 2006. Other areas such as former military bases, bushes, homes, schools and roadsides were still thought to be contaminated by a small number of respondents.

# 2.4 Recognizing areas contaminated with landmines/ERW

Many respondents viewed various indicators as helpful when attempting to identify contaminated areas. Nearly a half of respondents (43.49%) thought that if there were standardized landmine/ERW warning signs, the area was definitely contaminated. 38.40% of respondents thought that if they saw a landmine/ERW device on the ground, that area would definitely be contaminated. About a third of respondents believed in rumors discussed by surrounding residents about the presence of landmines/ERW in certain areas (31.40%). A small percentage of respondents recognized contaminated areas because of makeshift warning signs made by local residents, the presence of professional landmine/ERW detectors, bomb craters, former military battles or signals from metal detecting machines.

A small proportion (4.38%) of respondents could not recognize dangerous areas, thus one of every 16 respondents could not recognize places contaminated with landmines/ERW. Most of these respondents lived in Dakrong (36.86%), Hai Lang (18.43%) and Huong Hoa (13.99%). It should be noted that most of these respondents were primary and secondary pupils under the age of 15 (41.89%), and the rates respectively decline in the age groups of 26-30 (27.65%), 31-55 (23.98%) and above 55 (6.48%).

Recognition of contaminated areas was positively associated with levels of education. Respondents with low levels of education were typically unable to recognize dangerous areas. 73.38% of those who could not recognize dangerous areas were illiterate or had only primary education (illiterate respondents: 35.84% and primary education: 37.54%). 35.58% of respondents unable to recognize dangerous areas had a secondary-level education. Respondents with high school and university education account for a much smaller percentage, 11.06% and 3.07% respectively.

School pupils were the largest group (44.71%) among those who could not identify contaminated areas, followed by farmers (18.77%). Meanwhile, traders, laborers, the retired and the unemployed account for very small proportions (6.38%, 3.75%, 1.02% and 0.68% respectively). Residents in the army make up a minute proportion, and in this study there were no civil servants unable to identify contaminated areas.

#### Comparison to the 2006 study results

There are two notable changes since 2006. Firstly, the proportion of respondents who had seen a landmine/ERW device on the ground has decreased considerably from 53.24% in 2006 to 38.40% in 2010. Secondly, the number of respondents who have observed standardized landmine/ERW warning signs had nearly doubled from 23.85% in 2006 to 43.49% in 2010. This partly reflects the results of landmine/ERW clearance activities in Quang Tri Province. In addition, there was a considerable increase in the number of makeshift warning signs which indicate contaminated areas. Impressively, the proportion of people who could not recognize areas contaminated with landmines/ERW sharply decreased. Evidently respondent's awareness of contaminated areas had increased and they practice save behaviors when encountering landmines/ERW.

# 2.5 Causes of Landmine/ERW explosions

According to respondents, the main activities leading to the unintentional detonation of landmine/ERW devices were attempting to disassemble (44.57%), physical touch (43.53%), intentionally hitting (41.36%), stepping on (40.55%), throwing hard objects at (34.55%), and setting off the tripwire of the device(15.02%).

A small number of respondents did not know what could cause a landmine/ERW device to explode (2.77% or 1 out of every 36 people). Many respondents in this category resided in Cam Lo and Dakrong districts (27.34% in each district). Other districts account for smaller proportions, in declining order; Hai Lang (9.38%), Vinh Linh (7.81%), Dong Ha City (6.25%), Quang Tri Town (4.69%), Trieu Phong (3.91%), Gio Linh (1.56%). The majority of respondents lacking this knowledge belong to the Kinh ethnic group (73.44%). Also, there were more female respondents (58.59%) unaware of what can cause unintentional detonation in comparison to their male counterparts (41.41%).

Respondents lacking knowledge in regards to unintentional detonation were often under 15 years of age (35.16%), and most were pupils (32.81%) and farmers (20.31%).

Respondents who could not identify the causes of a landmine/ERW explosion generally earned lower levels of income. 36.72% of respondents lived in a household that earned less than 5 million VND per year, 32.03% earned between 5 and 10 million VND per year. Only 9.38% of respondents from families with higher household incomes could not identify the causes of a landmine/ERW explosion.

#### Comparison to the 2006 study results

There are few differences between the 2006 and 2010 studies. It is notable that 11.06% of respondents in 2010 study thought landmine/ERW explode without human interference. This was an additional question on the 2010 questionnaire.

There was a positive change in respondents' knowledge regarding causes of unintentional landmine/ERW detonation, and the proportion of respondents lacking this knowledge decreased

from 3.28% in 2006 to 2.77% in 2010. Regardless, there were still respondents lacking this knowledge, primarily youth under the age of 15 and farmers from low-income households living in Cam Lo, Huong Hoa and Dakrong districts.

# 2.6 Prevention of landmine/ERW accidents

Study data demonstrates an impressive trend: the majority of residents have adopted the right knowledge of and attitude towards the prevention of landmine/ERW incidents. Participants' responses highlight some solutions including avoiding dangerous areas (chosen by 74.98% of respondents), and not playing with or touching landmines/ERW (45.46%). Other responses included avoiding an area where other people are playing with landmines/ERW (13.06%), taking care when clearing bushes and grass (17.34%), avoiding unfamiliar objects (13.06%), walking on safe trails/roads (11.98%) and asking other people about landmine/ERW contaminated areas for prevention (6.47%).

However, there remains a proportion of the population (1.98% or 1 out of every 50 respondents) that was unaware of how to avoid landmine/ERW accidents. The majority of respondents in this category live in Dakrong District (57.61%), and the rate is similar in other districts. Trieu Phong and Huong Hoa districts have the lowest proportions of respondents who do not know how to avoid accidents (2.17% each). Alarmingly, data shows that a majority of respondents (56.52%) who do not know how to avoid landmine/ERW accidents belong to the ethnic minority groups, in comparison to the proportion of Kinh (43.45%). Of the respondents who did not know how to avoid landmine/ERW accidents, 58.7% were female and 41.3% were male.

Similar to figures regarding landmine/ERW awareness education, pupils under 15 and farmers were among the highest percentages of respondents who did not know how to avoid landmine/ERW accidents (40.22% and 21.74% respectively). Data shows that the proportion of respondents lacking knowledge pertaining to avoiding landmine/ERW accidents decreased in older age cohorts. Regarding educational attainment, most residents who have no knowledge of risk avoidance strategies or the causes of landmine/ERW explosions have only primary (46.64%) or secondary education (26.59%), followed by illiterate respondents (18.48%). Those attaining a college education or higher account for only 1.09% of respondents in this category. The proportion of respondents lacking information about landmine/ERW accident avoidance sharply decreases in higher income groups. Respondents from families with household incomes below 5 million VND per year account for 45.65% of this group, while respondent from household earning between 5 and 10 million VND per year account for 14.13%, and only 5.43% earn over 10 million VND per year.

### Comparison to the 2006 study results

Data show that the public's knowledge of accident prevention techniques has improved in the last two survey periods. The majority of respondents know a variety of methods to prevent landmine/ERW incidents. Only 2% of respondents were unaware of how to prevent landmine/ERW accidents.

A significant finding in both KAPB studies was younger respondents tend to know less about accident prevention. Also, more males than females were aware of incident prevention techniques. Respondents of Kinh origin account for a higher proportion of participants aware of prevention techniques in comparison to the ethnic minority groups. Dakrong District remained a target region for awareness initiatives as a high proportion of inhabitants demonstrated a lack of knowledge regarding landmine/ERW accident prevention.

### 2.7 Knowledge of activities leading to landmine/ERW accidents

The study shows that activities most likely to result in landmine/ERW encounters and accidents were those associated with scrap metal collection (56.77% of respondents). In addition, other activities commonly resulting in accidents included disassembling landmines/ERW (49.96%), playing with landmine/ERW (22.43%), and watching others dismantle landmines/ERW (19.13%). The study indicates that the majority of respondents think agricultural cultivation is one of the activities which often results in landmine/ERW accidents. However, the number of respondents that consider field cultivation and cattle rearing activities that could potentially lead to landmine/ERW accidents declined two to three times in comparison to the 2006 figures. Specifically, the rate of respondents that considered farming to be a dangerous activity was 22.34% in 2010 and 40.63% in 2006. The percentage of respondents that thought there were dangers related to raising cattle was 4.23 in 2010, and 13.12% in 2006. According to survey data, the majority of victims between 1975 and 2010 were farmers (51.48%). Data collected in 2006 and 2010 demonstrates that the number of farmers involved in a landmine/ERW accident remained high, accounting for the second largest proportion of victims (26.39%). In addition, victims taking part in the cultivation of fields still account for the largest proportion of victims (37.99%) since 1975. Thus farmers remain an at risk group as cultivation is still the primary activity supporting their livelihood and there are few income-generating alternatives.

The study also noted other activities that are likely to result in landmine/ERW accidents, such as burning bushes for farming and digging holes to plant trees for reforestation (13.47% and 16.23% respectively). In recent years more and more households have participated in reforestation activities or have expanded land for cultivation. Observing landmine/ERW disassembly was also one of behaviors likely to lead to accidents as the proportion of respondents related to this behavior was 7.30%. A few respondents said that other activities causing accidents include playing/recreation, cutting grass, walking within former military bases, foraging for food, catching fish and hunting. These activities each account for less than 7.3% of the total.

According to data collected the main activities which led to landmine/ERW accidents in Quang Tri from 2006 to 2010 changed in comparison with those between 1975 and 2006 and 1975 and 2010. The number of accidents related to field cultivation declined while the figure for accidents resulting from scrap metal collection increased during recent years. Therefore, the victim data from 2006 and 2010 demonstrates that landmine/ERW incidents occurring in Quang Tri Province made people more aware of the behaviors that could potentially result in accidents.

### Comparison to the 2006 study results

There was no significant change in people's awareness of behaviors causing landmine/ERW incidents. Collecting scrap metal and farming were considered to be the leading causes of landmine/ERW incidents. This is shown in the survey data from 2006 and 2010 as the highest proportion of victims resulted from scrap metal collection activities (26.29%).

There were more respondents in 2010 who perceived activities such as disassembling landmines/ERW, digging holes for trees, and observing landmine/ERW detonation as dangerous in comparison to 2006. Previously, farming and raising cattle were seen as dangerous activities often leading to accidents but now they are regarded as less so. Data collected in 2006 and 2010 also demonstrates this change of awareness.

#### 2.8 Reasons for entering landmine/ERW contaminated areas

The majority of respondents indicated that searching for scrap metal was the leading motivation for knowingly entering dangerous areas (66%). Also, the need to travel was another leading motivation to knowingly enter contaminated areas (21.66%). Respondents also highlighted professional demining work as another significant reason to enter such areas (20.26%). Working in rice fields was also listed as main reason why people put themselves in danger (19.23%).

Other income-generating and related activities such as looking for food (5.87%), collecting firewood/water (3.23%), and catching fish/hunting (1.83%) were listed as reasons for entering contaminated areas. Some respondents considered curiosity to be a reason that encourages people to enter landmine/ERW contaminated areas (10.66%). A small number of respondents (1.79%) thought group pressures (namely peer pressure) was a factor.

According to data collected between 1975 and 2010, the collection of scrap metal for monetary purposes was the leading motivation to knowingly enter contaminated areas. Additional motivational income generating activities included farming, tendering cattle, looking for food, travelling and fishing. Data also shows in some cases group pressure or curiosity were considered motivational factors as well. It can be said that reasons for entering the contaminated areas truly reflect an individual's personal circumstances.

Surprisingly, 16.62% (1 out of every 6 respondents) of respondents did not know why people enter into landmine/ERW contaminated areas. These respondents mainly reside in Dakrong (56.50%), Trieu Phong (27.43%), Hai Lang (22.42%) and Huong Hoa (20.52%). The majority of respondents unaware of reasons for entering dangerous areas belong to ethnic minority groups (43.44%) a rate three times higher than respondents of Kinh origin (12.96%). More females than males were unaware of the reasons why people enter dangerous areas. The gender distribution of this group was: 17.08% female, 15.88% male. With respect to age, respondents under 15 account for the highest proportion of respondents unaware of the reasons for entering a contaminated area (25.03%), followed by respondents between 26 and 30 (18.94%). The data shows that respondents in higher age cohorts were less likely to lack this knowledge. Illiterate respondents or those attaining only primary education represent a relatively high proportion of these respondents (27.78% and 9.56% respectively). In general, those with higher levels of education were more likely to be aware of the motivations to enter landmine/ERW contaminated areas. Farmers and pupils were most likely to be unaware of motivational factors to enter landmine/ERW affected areas (32.69% and 26.94% respectively).

Respondents from families with lower household incomes were also more likely to lack this knowledge: A considerable amount of respondents (47.80%) unaware of the reasons for entering dangerous areas earned less than 5 million VND per year. 31.91% of these respondents earned between 5 and 10 million VND per year and 6.85% of these respondents earned more than 10 million VND per year.

### Comparison to the 2006 study results

There is no distinct discrepancy between the two studies in listing the reasons which motivate people to enter landmine/ERW contaminated areas. Scrap metal collection was the leading reason, followed by other income-generating activities. The proportion of respondents that respondents highlighted professional demining work as one of the main reasons to enter such areas increased. Dakrong remained the district with the highest proportion of respondents unaware of motivational factors. Trieu Phong, Hai Lang and Huong Hoa districts also had a significant number of respondents who reported lacking this knowledge.

Compared to the 2002-2006 figures, there were fewer respondents who lacked this knowledge decreasing from 22.4% in 2002 to 7.6% in 2006. However, this figure increased from

2006-2010, and many of these respondents were under the age of 15 and living in Dakrong. This is potentially the result of a reduction in MRE activities throughout Quang Tri Province between 2006 and 2010.

# 2.9 Groups most likely to experience landmine/ERW accidents

Scrap metal searchers are considered most likely to endure landmine/ERW accidents according to respondents (54.19%). The second ranked group was children under 16 years of age (42.62%), followed by adults (25.43%), farmers (23.19%) and teenagers (23.19). Males are believed to be more likely to experience landmine/ERW accidents than females (12.17% males - 7.87% females). Meanwhile, the demining staff and soldiers were believed to be the least likely involved in landmine/ERW accidents. In reality, scrap metal collectors were most involved in landmine/ERW accidents (26.39%) during the 2006-2010 time period. Children at school age also accounted for a large proportion of victims between 2006-2010, as well as the second highest proportion of total victims from 1975-2010. There was no significant discrepancy in people's awareness of high risk target groups and data collected.

Children and youth are target groups requiring continued intervention activities for preventing landmine/ERW accidents in Quang Tri Province. Children were aware that they are part of the high risk groups as 42.89% of youth respondents indicated this in their response.

#### Comparison to the 2006 study results

Relevant data drawn from survey responses about potential landmine/ERW victims shows little change between the two studies. Those searching for scrap metal continue to be thought of as most likely to suffer landmine/ERW accidents since 2002. Meanwhile, children are still categorized as a highly vulnerable group which may increase in the coming time. Some respondents also indicated that farmers and the elderly should also be target groups from MRE initiatives.

Chart 33. Awareness of Landmine/ERW Impact on humans

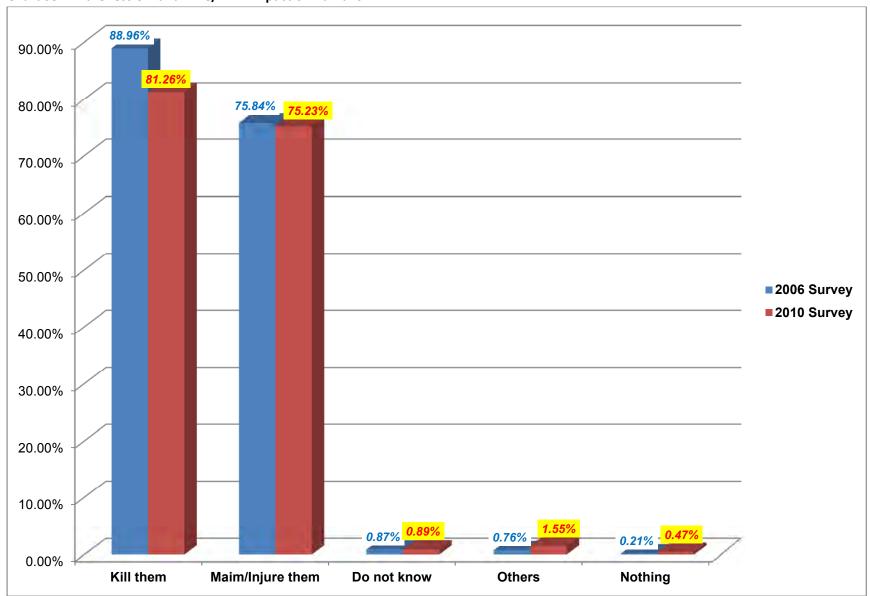


Chart 34. Impacts of Landmines/ERW on local population

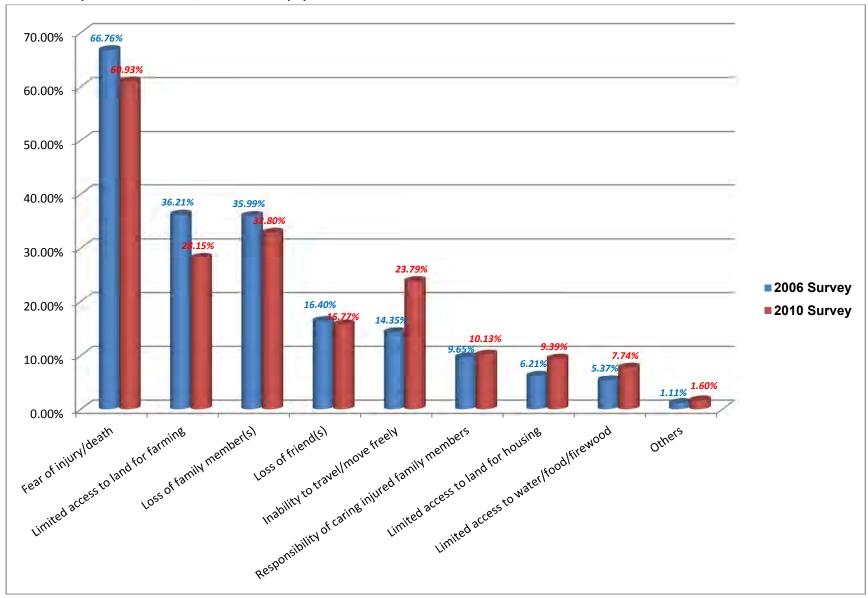
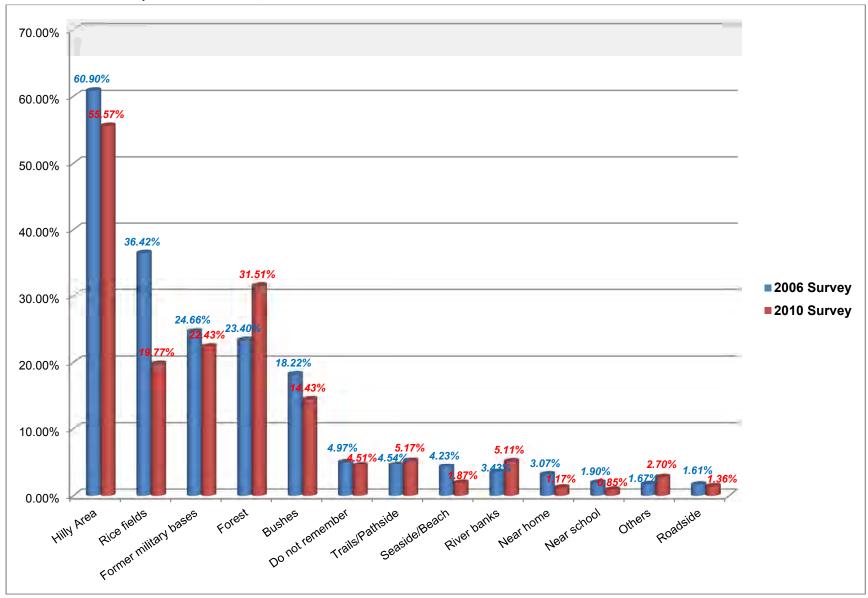


Chart 35. Locations of potential Landmine/ERW encounters



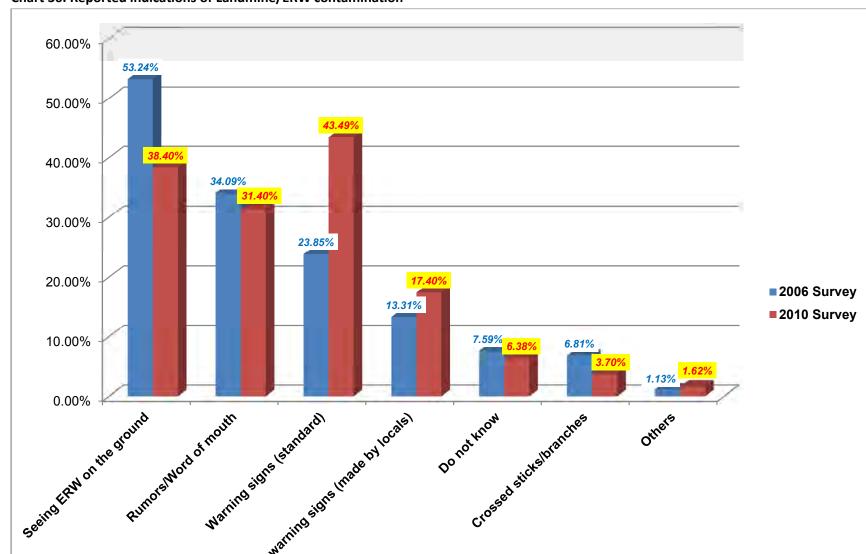
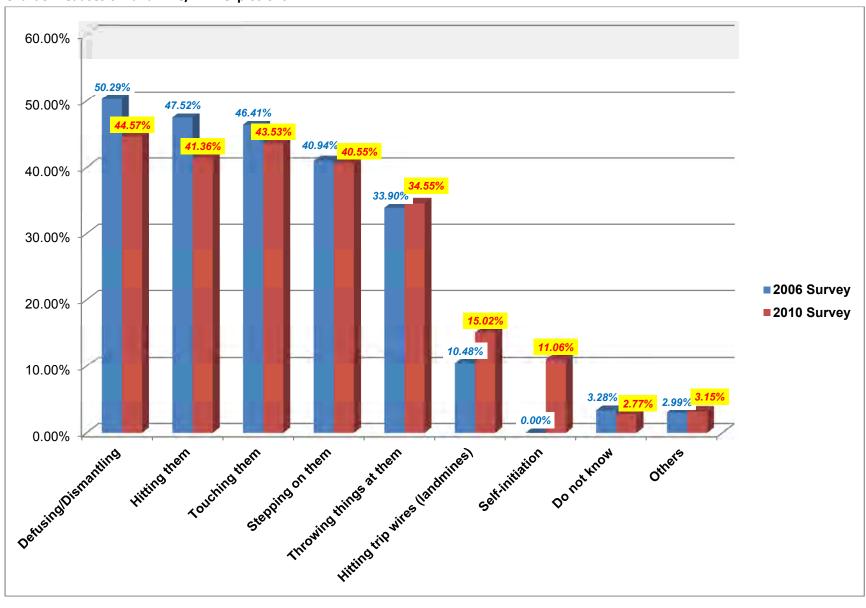


Chart 36. Reported indications of Landmine/ERW contamination

Chart 37. Causes of Landmine/ERW explosions



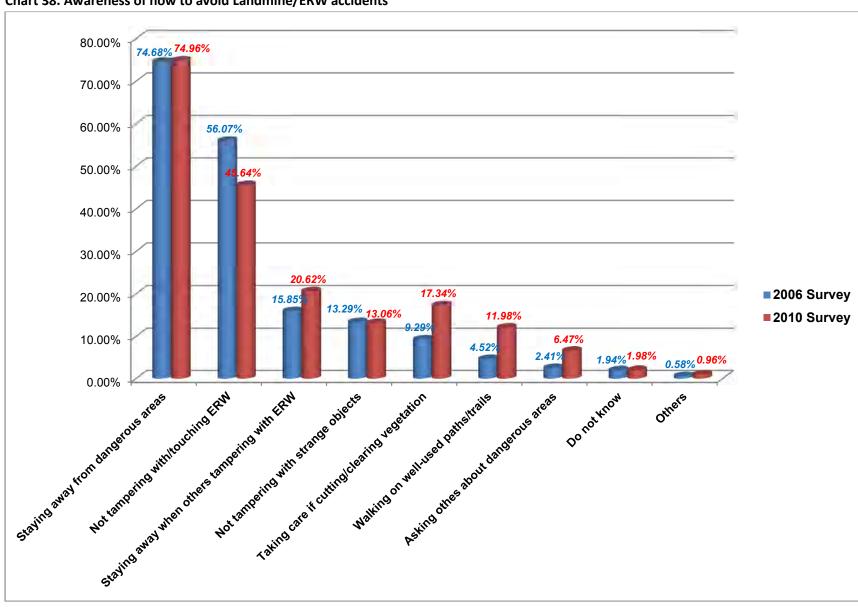
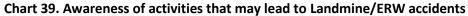


Chart 38. Awareness of how to avoid Landmine/ERW accidents



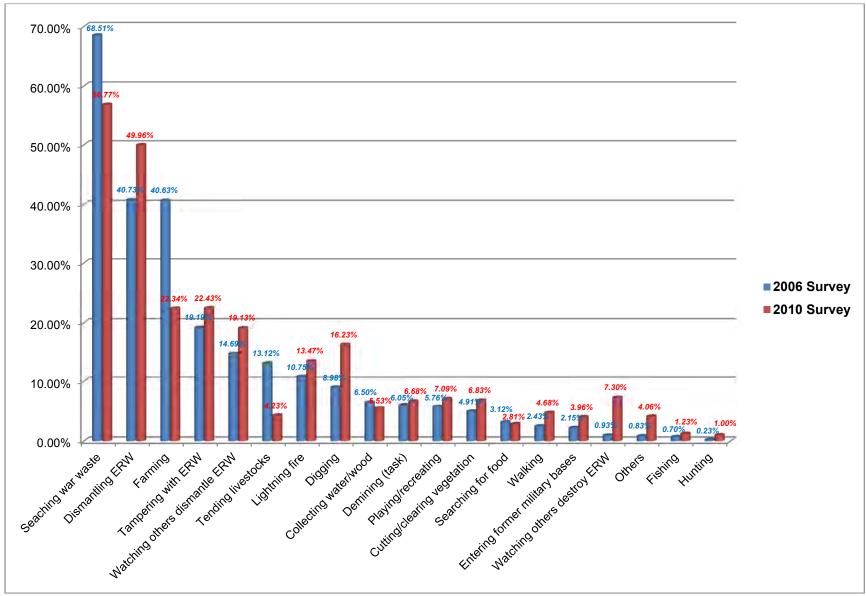
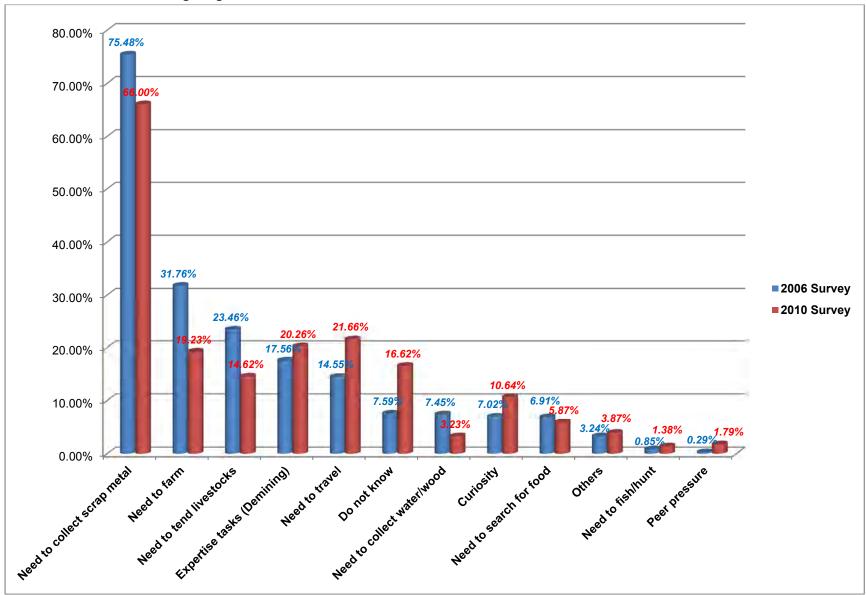


Chart 40. Reasons for entering dangerous areas



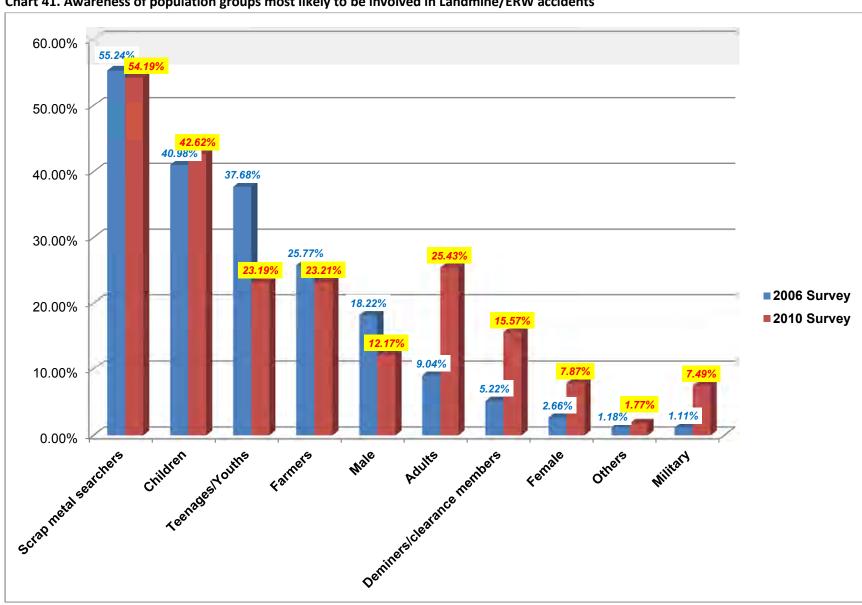


Chart 41. Awareness of population groups most likely to be involved in Landmine/ERW accidents

# 3. Practices regarding landmine/ERW threats

### 3.1 Practices when discovering landmine/ERW items and accidents

The majority of respondents showed constructive behavior when asked how they would respond to a landmine/ERW encounter. 90.34% would report the landmine/ERW encounter, 56.77% of respondents would report to their community representatives, 33.96% would inform their relatives for prevention purposes, 17.98% would notify friends/neighbors for prevention purposes, 13.85% of respondents chose to report to local landmine/ERW clearance teams in the province and 5.66% of respondents would report the sighting to schools, mass organizations and Youth Unions. 23.66% of respondents preferred to keep themselves safe by leaving the dangerous area.

Percentages of respondents selecting positive solutions to landmines/ERW encounters were similar between districts. With the exception of Dong Ha City, which had a relatitively large proportion of highly educated inhabitants, most districts in which respondents practiced safe behaviours (such as Vinh Linh, Trieu Phong, Hai Lang and Cam Lo) are regions where ERW clearance is currently taking place. In Quang Tri Town and Dakrong, the proportion of respondents who selected positive solutions was lower. With regards to age cohorts, the proportions were as follows: 7-15: 93.58%; 16-30: 88.68%; 31-55: 90.05%; and 55 - 90: 90.99%.

Those respondents who selected the option of reporting to landmine/ERW clearance teams mainly resided in areas where there are currently or have been past mine risk education programs and/or mine clearance operations. This includes the districts of Cam Lo (17.86%), Vinh Linh (16.77%), Hai Lang (14.29%), and Gio Linh (12.11%). Dakrong District had the lowest proportion of respondents who would report to landmine/ERW clearance teams (4.81%). 93.32% of Kinh respondents selected the option of reporting to landmine/ERW clearance teams, while only 6.68% of respondents from ethic minority groups chose this option.

Dong Ha City boasts the most impressive proportion of respondents who chose to report landmine/ERW to schools/mass organizations (24.81% of the total). Surprisingly, the proportion of respondents selecting this option was considerably high in Dakrong and Huong Hoa districts. The predominant age of those that would take this action was respondents under 15 (58.66%).

Apart from the above positive practices, some respondents selected unsafe courses of action in the event of a landmine/ERW encounter, including retrieving the landmine/ERW object (1.4%), removing and selling the landmine/ERW device (0.7%), approaching to observe others disassemble the landmine/ERW object (0.55%), transporting the landmine/ERW device home or to local authorities (0.4%) and even throwing hard objects at the landmine/ERW device (0.11%).

Notably, a large number of respondents that selected removing and selling the landmine/ERW device inhabited urban areas in Quang Tri Town and Dong Ha City. A smaller proportion of respondents were from Dakrong, Huong Hoa, Hai Lang and Trieu Phong districts. This selection was made by respondents of Kinh origin (78.79%) as well as respondents from ethnic minority groups (21.21%). More male respondents selected this practice in comparison to their female counterparts (69.7% males, 30.3% females). Most respondents that selected this risky action were between the ages of 31 and 55 (45.45%). Respondents between 7-15 years of age accounted for the smallest proportion of respondents (9.09%). Most of respondents that selected **selling ERW** were members of households earning low and middle range incomes, as respondents from households earning less than 5 million VND per year and from households earning between 5 and 10 million VND per year each accounted for 39.39%.

The majority of respondents that selected unsafe behaviors were male (73.91%). Youth also accounted for a rather high proportion of these respondents (26.09%), followed by respondents between 31 and 55 years of age (39.13%). Respondents selecting unsafe behaviors primarily resided in Dong Ha City (30.30%). No respondents from Cam Lo and Trieu Phong districts selected these actions. The percentage of respondents who selected retrieving the landmine/ERW object was similar to the percentage of respondents that selected to sell the landmine/ERW device. Males accounted for the majority of respondents that selected to retrieve the device (60%) and most were between the ages of 16-30 (43.08%) and 31-55 (49.23%). Respondents that chose this behavior were also predominantly from families with lower household incomes as those from household earning below 5 million VND per year accounted for 33.85% and respondents from household earning between 5-10 million VND per year accounted for 51.54%.

There remained some respondents who selected taking landmine/ERW home, defusing the device, or bringing landmines/ERW to local authorities as the safest course of action. These respondents account for only a small proportion, however respondents of all ages selected such behaviors including children (0.25%), youth (0.51%), middle aged respondents (0.36%) and the elderly (0.87%). Respondents selecting these options were of both Kinh and ethnic minority origin. The number of respondents from ethnic minority groups who selected taking landmine/ERW home or bringing devices to local authorities was four times greater than the number of Kinh respondents (1.29% and 0.34% respectively).

#### Practices when encountering landmine/ERW accidents

When faced with the hypothetical situation of witnessing a landmine/ERW accident, nearly half of respondents chose to take the victim to the nearest health care provider (46.55%). Other popular choices included calling neighbors for help (37.81%), reporting the incident to local authorities (36.96%), entering accident site to help (22.38%) and taking the victim to his or her respective home (5.6%). Apart from those who selected the constructive responses listed above, some respondents reported that they would avoid the scene of the accident (0.87%) or did not know what course of action to take (1.32%).

Those who chose to avoid the accident site altogether were mainly females (67.5%) of both Kinh and ethnic minority origin. Younger female respondents more commonly selected this course of action, and most were pupils (47%), traders (22.5%) and farmers (17.5%).

The majority of respondents who chose to take no action in the event of a landmine/ERW incident were pupils (54.84%) and farmers (14.52%). Most were female respondents, and again younger respondents more commonly chose inaction (58.84% were between the ages of 7 and 15). These respondents were from both the majority Kinh group as well as the ethnic minority groups residing in Dakrong (30.65%), Cam Lo (14.52%) and Vinh Linh (11.29%) districts.

### Comparison to the 2006 study results

Data in the 2010 survey confirmed that respondents in Quang Tri Province generally select safer and more community-focused behaviors when encountering landmines/ERW. Study data shows the vast majority of respondents (90.34%) chose to inform local authorities, professional ERW/mine clearance teams and social organizations, such as schools. Respondents that chose to report landmine/ERW reside in all districts; however there were higher proportions in districts with an active MRE presence. Notably, the majority of respondents who chose to inform social organizations and schools were younger respondents in the two mountainous districts Huong Hoa

and Dakrong. Thus, schools and mass organizations can be considered positive channels for local youth.

The majority of respondents who selected dangerous behaviors were males from all age cohorts, particularly between 31-55, and there were an equal proportion of respondents from households earning under 5 million VND per year and between 5-10 millions VND per year. In the 2006 survey, the majority of respondents were from households earning less than 2.5 million VND per year and most were young men.

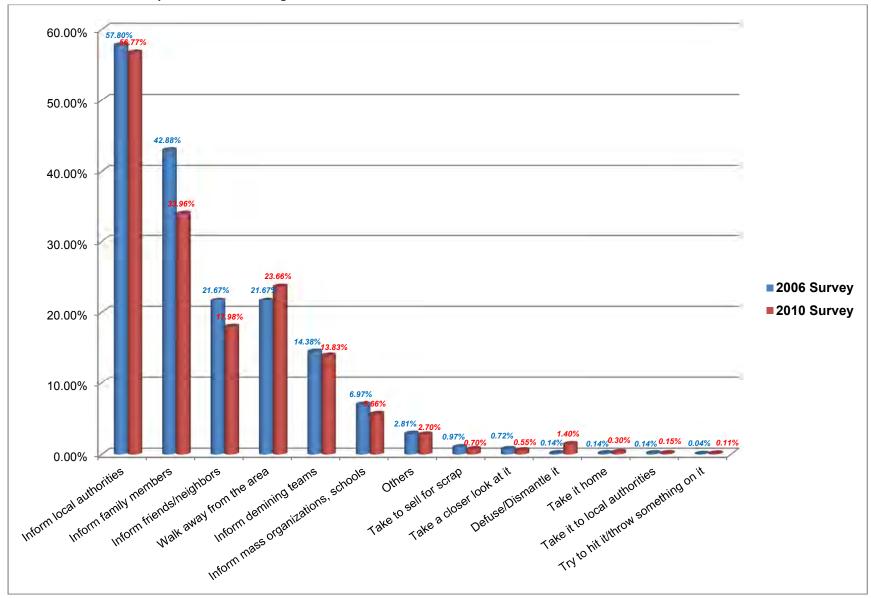
Reactions when encountering accidents were different between males and females in the 2010 survey. Most females respondents chose to react in a passive manner, such as staying away from the accident site or taking no action. However, data collected during the 2006 survey showed no difference in the reactions of male and female respondents.

Children and pupils under 15 remain a major target group for MRE activities and injury prevention education programs as a large proportion of these respondents selected they were unaware of how to respond appropriately, or would stay away from a landmine/ERW accident site in both 2006 and 2010.

## 3.2 Practices of people with regards to anti-personnel mines

While bomblets, projectiles, and other ERW still pose a serious threat to the population of Quang Tri Province, anti-personnel landmines pose a significantly smaller threat. According to Project RENEW's statistics, casualties resulting from anti-personnel mines account for 9.8% of total landmine/ERW casualties since 1975 and 3.4% of casualties during the last 5 years.

Chart 42. Behavior in response to encoutering ERW



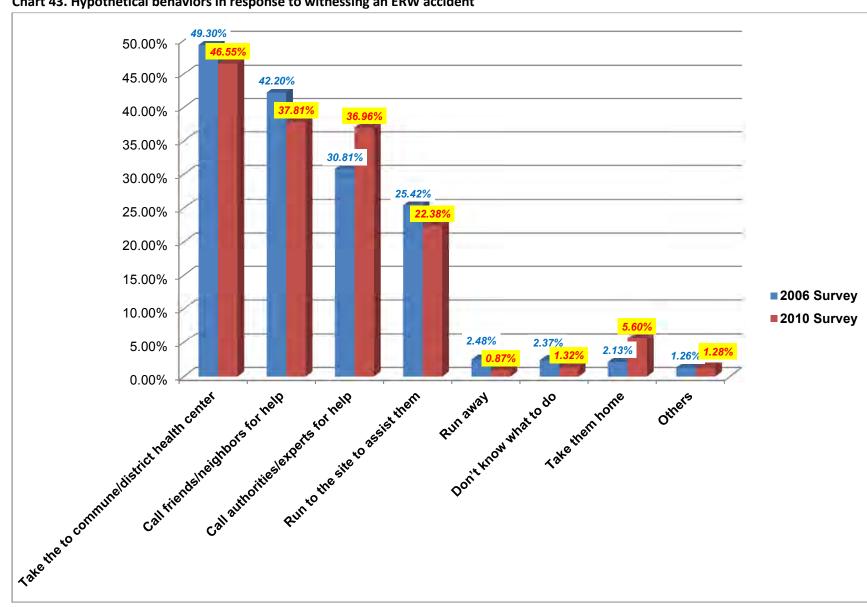


Chart 43. Hypothetical behaviors in response to witnessing an ERW accident

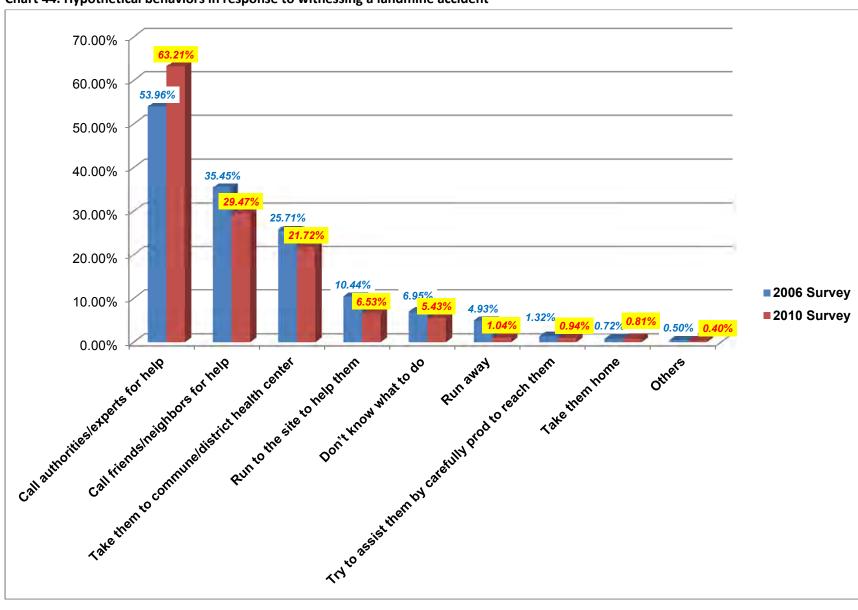


Chart 44. Hypothetical behaviors in response to witnessing a landmine accident

### 4. Access to (landmine/ERW) Mine Risk Education

### 4.1 Sources of Mine Risk Education

Quang Trị Province has an impressive number of residents able to access landmine/ERW risk prevention information, demonstrated by the vast majority of respondents (80.83%) who reported having been exposed to such information. Nearly all of these respondents had received information from TV programs (82.89%). Other sources of landmine/ERW risk prevention information include schools (21.26%), broadcast programs (20.01%), neighbors/friends (16.38%), landmine/ERW clearance teams (14.77%), local representatives (13.32%), internet and newspapers (11.19%), family/relatives (7.84%) and other sources such as panels/posters, public advertisement, as well as local Youth Unions and Women's Unions (each accounts for 2-3%).

The highest proportions of citizens able to access risk prevention information were recorded in Dong Ha City (15.46%) and the districts of Vinh Linh (15.43%), Trieu Phong (13.72%) and Cam Lo (12.78%). Respondents from Quang Tri Town and Dakrong and Huong Hoa districts reported the lowest percentages of access to MRE (5.2%, 6.29% and 9.33% respectively). Generally speaking, respondents attaining higher levels of educational were more likely to have access to risk prevention information. Only 11.75% of illiterate respondents had access to risk prevention information, 30.79% of respondents attaining primary education and 40.66% of those attaining secondary education had access to such information.

Residents gaining access to risk prevention information from TV broadcast mainly resided in Vinh Linh, Trieu Phong, Cam Lo districts and Dong Ha City. Respondents from Quang Tri Town and Dakrong were the least likely to access MRE information through this method. Respondents from all age groups demonstrated an interest in televised risk prevention programs. No significant variation in interest levels was observed across occupational or gender groups able to access televised landmine/ERW risk prevention information.

Local radio programs were accessed by a lower proportion of respondents (20.01%) in comparison to televised programs. The majority of respondents making use of information from radio broadcasts resided in Dong Ha City (53.26%), followed by Hai Lang (28.29%) and Gio Linh (27.88%) districts. The respondents that most commonly accessed MRE information through radio broadcast were between 31-55 (24.09%), followed by those between 16-30 (23.83%), those above 55 (19.50%) and those between 7-15 years of age (11.22%). Military personnel accounted for 46.15%, the highest proportion of respondents accessing risk prevention information through radio broadcast, followed by civil servants (32.86%) and laborers (28.30%). Kinh residents accounted for twice as many respondents accessing prevention information through the radio when compared to respondents from ethnic minority groups (22.16% and 11.89% respectively).

85.21% of Kinh respondents accessed risk prevention information through television and radio broadcast, while 77.97 of respondents from the ethnic minority population utilized these sources. Not surprisingly, the second most common means of accessing risk prevention information in Quang Tri Province was school. Risk prevention information has also been accessed through landmine/ERW clearance teams primarily in Cam Lo, Gio Linh and Trieu Phong districts. This source was utilized by respondents from all age groups, however the majority were farmers, laborers, civil servants and retired citizens over the age of 36.

Notably, 20.27% of respondents also accessed landmine/ERW risk prevention information via pictures, leaflets, posters and public advertisements, namely in Huong Hoa (33.05%), Hai Lang (31.46%) and Cam Lo (25.62%) districts.

The proportion distribution across age cohorts was as follows: 22.76% between 16-30 years of age, 22.61% between 7-15, 15.18% between of 31-54 and 13.69% above 55.

Civil servants constituted the highest proportion of respondents accessing landmine/ERW risk prevention information (31.3% of the total), followed by university students (29.48%) and pupils (23.38%). Unsurprisingly, 88.68% of female respondents accessed information from Women's Unions. The proportion of respondents receiving landmine/ERW risk prevention information through Youth Unions was fairly insignificant in comparison. Most respondents who accessed these programs were youth and adolescents (4% of respondents between 16-30 years old, and 3.26% of these respondents reside in Dong Ha City).

#### 4.2 Most notable sources of Mine Risk Education

Of the available landmine/ERW risk prevention sources in Quang Tri Province, respondents were most attentive to information disseminated through television programs (68.54%), followed by schools (9.69%), local representatives (6%) and landmine/ERW clearance teams (3.95%). Information in newspapers, on the internet, in pictures/posters and relayed through radio broadcast programs are also notable sources.

Those who selected televised programs as their most significant information source were evenly distributed across districts and towns, as well as across age, occupation and gender. However, Kinh respondents accounted for a significantly larger portion of these respondents in comparison to those of ethnic minority origin. Also, respondents of older generations prefer information distributed through TV and considered this to be an important source.

Those who selected schools as their primary source of MRE education were mainly inhabitants of Huong Hoa (18.83%), Cam Lo (16.89%), and Vinh Linh (15.92%), Dong Ha City (15.38%) and Hai Lang (14.06%). In regards to age, the majority of respondents accessing this source were pupils under 15 years of age (65.78%).

Pupils, youth and civil servants between 16 and 30 considered newspapers and the internet to be the most important sources of risk prevention information (57.14%). Farmers also utilized information from newspapers (22.87%).

Information from landmine/ERW clearance teams is mainly provided to those who live in the districts of Cam Lo (14.05%), Gio Linh (10.82%) and Trieu Phong (2.86%). This rate was relatively low in all occupations, however, the highest proportion was 6.81% among laborers.

### 4.3 Impact of Mine Risk Education information

89.1% of respondents reported that receiving MRE information had positively changed their awareness and practices vis-à-vis the landmine/ERW issue. However, a small number of respondents reported that the information had little impact (0.66%) or had a negative impact (1.9%) on their awareness and practices. 4.03% of respondents provided no opinion on this issue.

Regarding other responses, respondents under 16 years were typically afraid of landmines/ERW, respondents ages 16-30 were concerned with their own protection, while respondents over 31 were more concerned about the safety of their children and relatives.

### 4.4 Information regarding local humanitarian mine action

There have been many initiatives in Quang Tri Province that aim to neutralize the consequences of post-war landmines/ERW contamination. Over half of the respondents reported that they knew of one or more of these programs.

Specifically, 68.64% of respondents reported they knew of MAG, 54.28% knew Project RENEW™, 12.81% knew SODI and11.3% knew Peacetrees Vietnam. The humanitarian efforts of CPI and CRS were each recognized by 1-3% of respondents. Demonstrated through the results of some references and group discussions, residents are unable to distinguish between the different landmine/ERW projects. Most respondents knew of these projects via television programs (48.61%) and specific activities carried out in their communities (landmine/ERW clearance: 42.07%, Mine Risk Education: 13.48%, Mine Victim Assistance: 12.05% and through posters and leaflets: 11.46%).

## Comparison to the 2006 study results

There was not much variation in respondent's access to landmine/ERW prevention information between the two surveys (2006, 2010).

Among the 80.81% of respondents who reported having accessed landmine/ERW information, the most common source of information by far was television programs, schools and local representatives. Posters and public warnings were also main sources. Generally, information on landmine/ERW threats from social sources had increased considerably in recent years, particularly newspaper and the internet (from 4.67% in 2006 to 11.19% in 2010). Television in particular and mass media in general were main sources for information regarding landmine/ERW prevention and the percentage of respondents accessing these sources is similar in all localities. The proportion of respondents accessing MRE information from posters and leaflets increased considerably from 9% in 2006 to 14.5% in 2010. The proportion who received information from clearance teams also increased from 10.54% in 2006 to 14.77% in 2010.

The number of respondents who received information from Youth Unions and MRE advisory offices decreased considerably from 8.75% in 2006 to 3.45% in 2010. This is partially the result of the recent closure of many MRE programs in Quang Tri Province. There is a corresponding relation between the scale of MRE activities and the population's access to information about this issue.

Chart 45. Sources of Mine Risk Education

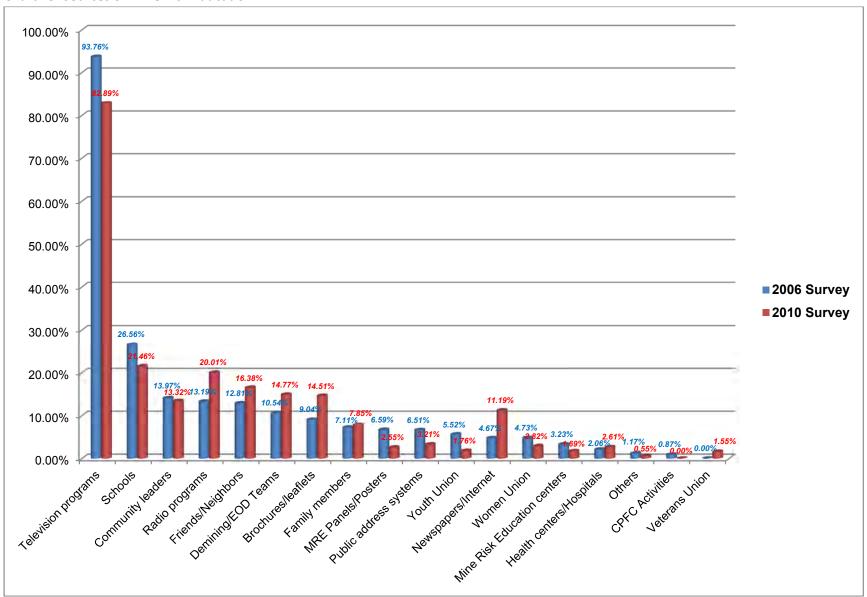
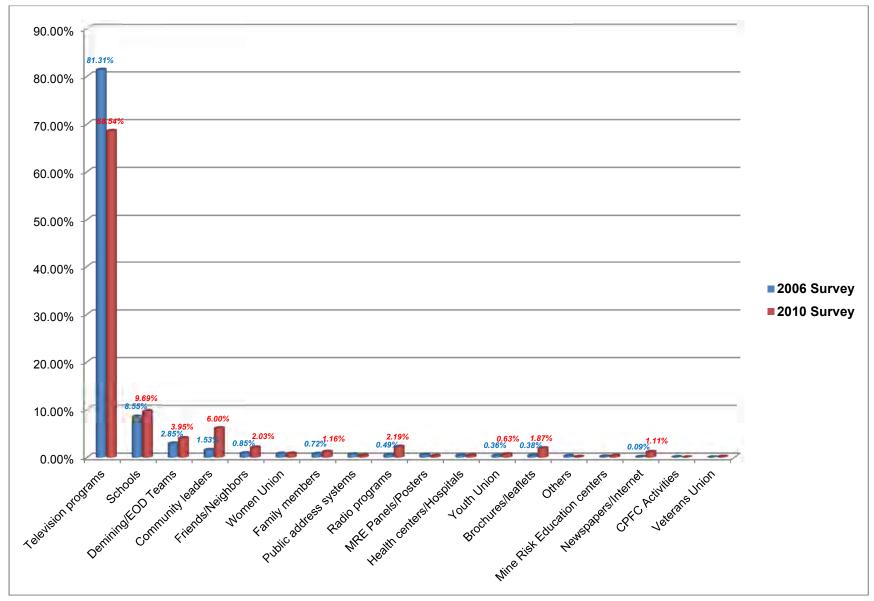
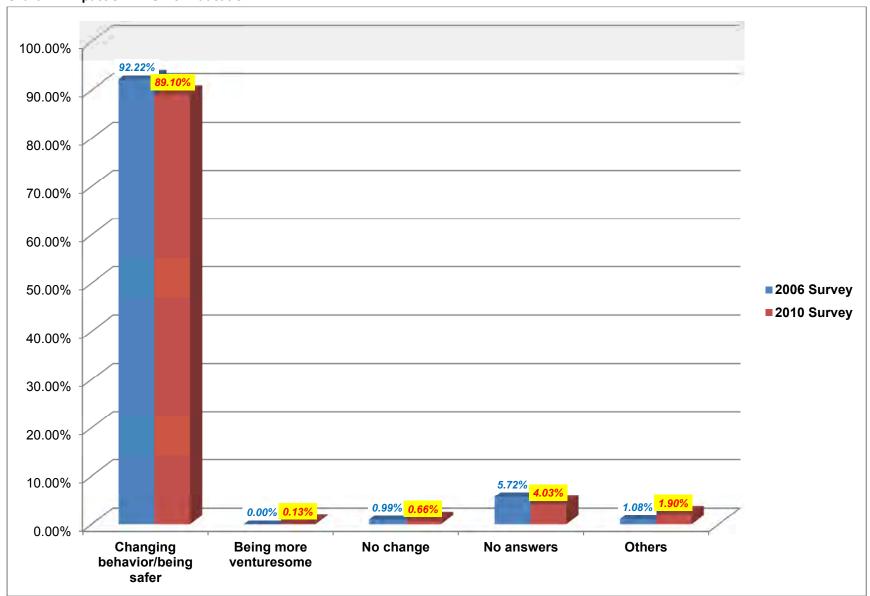


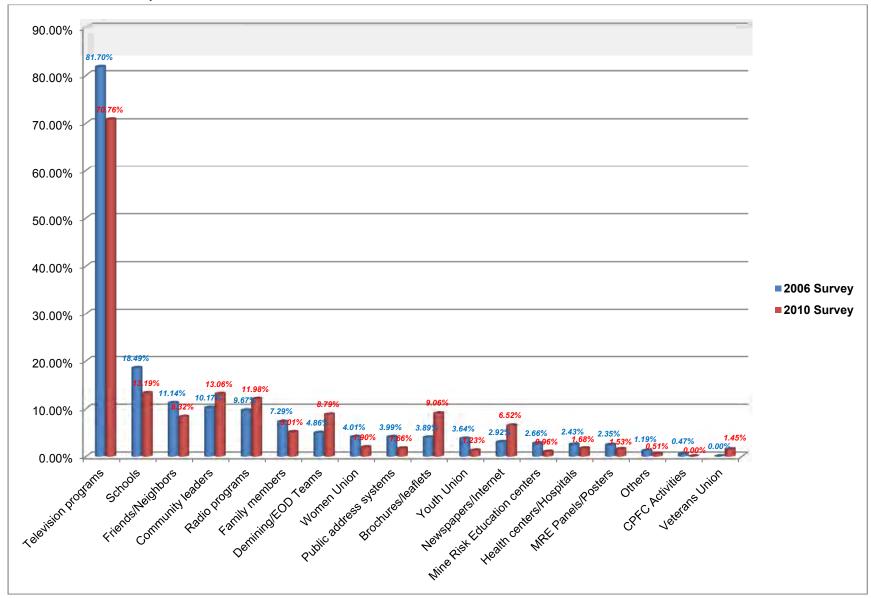
Chart 46. Most notable sources of Mine Risk Education

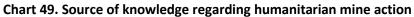


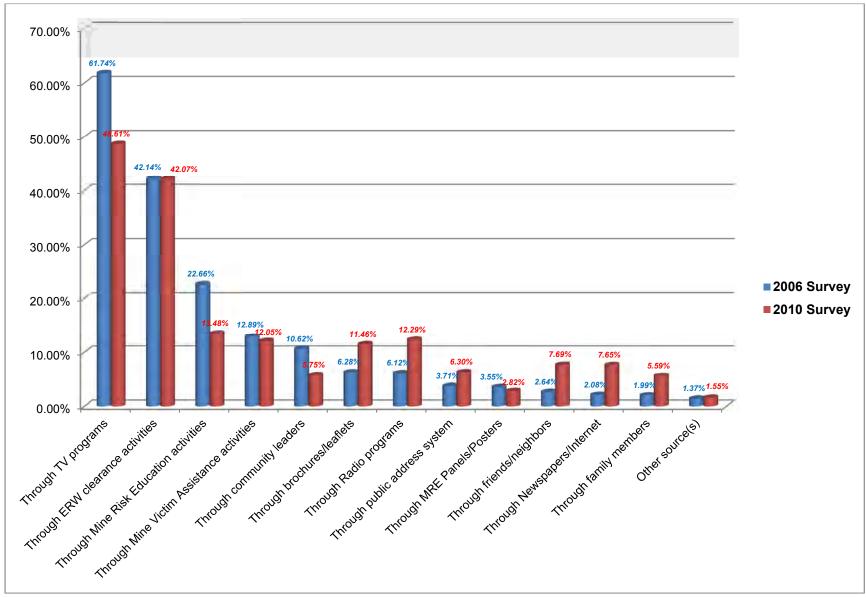
**Chart 47. Impact of Mine Risk Education** 



**Chart 48. Sources of important information** 







# PART IV CONCLUSION

The findings of this study demonstrate that postwar landmine/ERW contamination is still a very serious problem in Quang Tri Province. Landmines/ERW continued to directly and indirectly produce negative consequences for the local population. Landmines/ERW had varied impacts on different groups, however in general, they obstructed the socio-economic development efforts of localities. Consequently, efforts to neutralize post war landmine/ERW contamination are essential in Quang Tri Province, which remains one of the most impoverished provinces in Vietnam.

The number of landmine/ERW victims in Quang Tri Province between 1975 and 2010 is higher than that of the total number of victims in many other countries. Since the end of the war, there have been 7,075 landmine/ERW victims accounting for 1.12% of the provincial population (based on 2009 population statistics). 2,635 of these victims were killed during their accident and 4,435 victims suffered from injuries (5 cases without proper information). During the past 5 years (2006-2010) the number of victims decreased to 126, averaging 26 victims per year (the average victim rate was nearly cut in half in comparison to the previous 5 years). This is a significant reduction from the total yearly victim rate of 170 from 1975-2010. However, this figure is still higher than many other contaminated countries and territories.

There are no official national statistics regarding landmine/ERW accidents in the 63 provinces and cities throughout Vietnam, however, during 2006 there were a total of 35 landmine/ERW casualties in Quang Tri Province. This figure is equal to or more than the annual number of casualties in many countries and territories such as Abkhazia (1), Belarus(2), Armenia (2), Kosovo (11), Croatia (12) Jordan (16), Azerbaijan (17) Tajikistan (20), Thailand (26), Eritrea (32), Ethiopia (34), Bosnia Herzegovina (35) and Mozambique (35). In comparison to Laos and Cambodia, the number of victims in Quang Tri during 2006 was half of that in Laos (59) and one thirteenth of that in Cambodia (450) during the same year<sup>(1)</sup>.

Although not the focus of this study, when considering the severity of landmine/ERW issues, as well as international monetary support to neutralize landmines/ERW specifically in Quang Tri and generally in Vietnam, the provision of international support is on a short-term basis and modest when compared to programs in other countries with similar contamination rates (see annex 4: list of countries and territories receiving support from the international community to neutralize the effect of landmines/ERW in 2009, 2008, 2007, 2006 and 2005)

The majority of victims were farmers (51%) and pupils (31%). Male victims accounted for 84% of victims, a significantly larger proportion compared to their female counterparts. Children under 16 constituted a high percentage of the total landmine/ERW victims. The accident rate among ethnic minority groups was twice the rate of the Kinh ethnic majority.

Most landmines/ERW accidents took place when people were farming (38%). Other activities frequently undertaken at the time of landmine/ERW accidents included cattle rearing, scrap metal collection and playing with landmine/ERW objects. During the past 5 years, most accidents occurred when people deliberately entered contaminated areas to look for scrap metal.

Most victim families were impoverished earning an annual household income of less than 5 million VND per year (44% during the past 5 years). 47% of these families requested direct financial support and 43% requested loans (for victim households from 2006-2010). In addition to the linkage demonstrated between income and landmine/ERW incidents, the study data also illustrates a correspondence between levels of educational attainment and landmine/ERW accidents. A greater proportion of landmine/ERW accidents involve citizens with lower levels of education.

Landmines/ERW were still present in localities without warning signs and the percentage of accidents near homes continued to increased compared to the total postwar figure. 26% of respondents encountered landmine/ERW in hilly and mountainous areas and 27% had such encounters in cultivated fields. More than half the respondents said they encountered landmine/ERW at least once a year and 4% of respondents did on a daily or weekly basis. 93% of the sites where accidents took place were not properly marked as contaminated areas. Areas where most accidental detonations of landmines/ERW took place included fields, mountains, hills, residential areas and former military bases. Alarmingly, the rate of accidents close to residential areas increased during the past 5 years (2006-2010) compared to the 1975-2010 total figure (20% and 16% respectively). Activities involving scrap metal collection resulted in the highest number of casualties (31%) during the past 5 years.

The three districts with the highest number of landmine/ERW victims were Trieu Phong, Hai Lang and Huong Hoa. However, districts with the highest number of victims as a percentage of their population were Cam Lo, Gio Linh and Huong Hoa.

Injuries caused by ERW occurred significantly more often than those by anti-personnel landmines, and this trend continued to increase. During the last 35 years, accidents resulting from anti-personnel landmines accounted for approximately 10% while those resulting from ERW accounted for 90% of all related accidents. During the past 5 years, these proportions were 7% and 93%, respectively. Accidents were predominantly caused by bomblets (45% from 1975-2010, and 57% from 2006-2010).

Reports from humanitarian demining programs working in Quang Tri Province also indicate that the number of ERW devices detected and destroyed significantly outnumbers that of landmines.

The majority of landmine/ERW victims (78%) died at the scene of the accident. Another significant proportion of victims (19%) died at or in transport to community healthcare centers.

Those who had access to MRE programs were less involved in accidents than those who did not. Access to MRE programs is closely linked to the prevention of future landmine/ERW accidents. The majority of people (90%) who were involved in landmine/ERW incidents had not received MRE information prior to their accident. Awareness regarding the dangers of looking for postwar scrap metal has declined in comparison to 2005 survey data. The proportion of accidents involving postwar scrap metal searching increased from 11% for the total postwar period (1975-2010) to 26% during the last 5 years.

**Most people have access to MRE information** however the number decreased from 93% in 2005 to 81% in 2010. Television is considered one of the most effective means of disseminating MRE information when used in conjunction with other community activities that raise public awareness of the danger of landmines/ERW.

However, the proportion of respondents accessing MRE information via television decreased from 94% in 2005 to 83% in 2010 and via schools from 27% in 2005 down to 21% in 2010.

In comparison to the 2005 survey the proportion of respondents with positive awareness, attitudes, practices and beliefs with regards to landmines/ERW declined. Although the number of landmine/ERW victims throughout the province decreased considerably in recent years, a certain proportion of people still possess insufficient knowledge and do not know how to effectively prevent landmine/ERW accidents. Data compared between the three studies (2002, 2005 and 2010) shows both positive and negative trends in people's awareness and practices, however, the percentage of positive indicators remains high This is partially the result of a reduction in MRE activities, fewer existing ERW as a result of clearance activities, and also the decrease in the number of ERW accidents through out the province.

The proportion of respondents unaware of landmines/ERW consequences decreased from 1.27% in 2002 to 0.9% in both 2005 and 2010. The proportion of respondents unable to recognize contaminated areas decreased from 22% in 2002 to 7.6% in 2005 and 6.3% in 2010. However, the proportion of respondents that understood the dangers of disassembling landmines/ERW decreased 5% from the 2005 survey. Awareness of the deadly risks associated with landmines/ERW also decreased by 9% from 2005. The figure of those unaware of how to prevent landmines/ERW accidents was 1.9% in both 2005 and 2010. is the same as that in the 2005 survey (1.9%.)

# **ANNEX**

**1. Accident ID** (created by Information Manager):

# VICTIM AND VICTIM ASSISTANCE FORM

# A. ACCIDENT INFORMATION

2. Date of	Surve	<b>y:</b> daymonth	year 2	2010							
3. Date of	Accid	ent: daymon	ethyear	r							
4. Accident Addr	ess:										
Address (below v		level):									
Village/Equivaler			Commun	e/War	d:		X Coordinate:				
District:			Province:	Quan	ıg Tri		Y Coordinate:				
5. Accident Locat	ion:										
Rice-field/paddy		Hilly area		Bead	ch		River bank				
Roadside	side $\square$ Pathside $\square$ Bushes $\square$			Former military base							
Near home		Near school		Fore	est		Do not remember				
Others		Specify:									
6. Accident Ordn	ance:										
Bomb	Clus	ter munition (bor	nbee)		Small bulle	t (sub/l	ight/machine gun's)				
Rocket	Proj	ectile (105-107	′mm)		AP Mine						
Handgrenade	Mor	tar (60-82mm.	)		AT Mine						
Fuse $\square$	Grer	nade (M79)									
No answers		Others			Specify:						
7. Was there anyt	thing	to mark the dan	gerous are	ea?							
Mine warning sig					g sign (impro	ovised) 🗆					
No markings	•		No ansv				Other markings				
of the same accide	nt mu	st be attached tog  B. VICTIM	gether, the first vi	A. Ac	<b>cident Infori</b> orm)	<b>mation</b> ne	ation form. All victim f ed to be appear only or				
1. Victim ID (cre	eated i	by Information M	(anager):								
2. Full name:					3. Date of I	Birth: day	year	••••			
							*				
4. Sex:	Male	☐ Female ☐	No anwer	rs 🗆							
5. Marital Statu	s: N	Married □ Sing	gle 🗆 N	o ansv	vers 🗆   5a	. Number	of children:				
6. Ethnicity:	Kinh	□ Pa-co □	Van Kieu		Others 🗆	Specify:.					

Illiterate		Pri	mary Scho	ol 🗆	Secon	dary Sch	nool 🗆	High S	School		1
Vocational High S	School 🗆	Co	llege		University/Above □ No answers □						
											_
8. Occupation bef		t:					T				
Farmer $\Box$	Labourer				er/Deale		Military				
Civil Servant	Student				<u>(&lt;=18)</u>		Unemploy				
Retired	Others			Spec	<i>ify</i> :						
0 Family yearly i	naama hafa	<b>W</b> O 00	aidant.								
<b>9. Family yearly i</b> Under 2 million d		re ac	From 2 to	3 mi	llion do	ng 🗆	From 3	to 5 mil	lion dong	g 🗆	7
From 5 to 10 mill			From 10						nillion de		-
From 20 to 25 mi			From 25						ininon <b>a</b> v		-
110111 20 to 22 1111	mon dong		11011125	1111110	ii doiig		110 4115	V C15			J
10. Address of vic	tim/victim	fami	ly:								
Address below vi											
Village/Equivaler							rd:				
District:					Provin	ce: <b>Quả</b> i	ng Trị				
11 4 1 .											
11. Any photos:											
	C VIC	TIN	I INEOD	NAA	TION	A ETEI	R ACCID	FNT			
				AIVIA .	HON	AFILI	K ACCID	LINI			
1. Was the victin	ı killed or i	njur	ed?	Inju			Killed				
					(If kill	led then .	skip 2, 3, 3	a, 3b; Ij	finjured	then skip	<i>4</i> )
4 I ' D ' '	• (4.1.4	,	·, 11	C	`						
2. Injury Descript  Left hand amputation			Right hand			Left for	e arm amput	. 🗆	Dight for	e arm amp	out D
Left arm amputation			Right arm a				t amput.			ot amput.	
							•	_		•	
Left leg amputation			Right leg a	пригаг			gh amput.		Left thigl		
Hands/fingers			Feet/toes				agment wour		Mental il		
Hearing Impact			Deaf			Mental	Sequel		Skull		
Eye-sight Impact			Blind			Fracture	es		Burn		
Facial wounds			Tissue/Mus	scle		Intestine	e/Stomach		Cardio-F	Pulmonay	
Liver			Spleen			Kidney			Spine		
No answer			Others			More d	escription:.				
3. Was the victim	still alive a	t the	Survey tir	ne?							
			swers $\square$		If No	or <i>No ar</i>	nswers, then s	kip <b>3a, 3l</b>	b		
3a. Current occupa	ation.										
Farmer      Substitute   Control   C	Labourer			Trade	er/Deale	er 🗆	Military				
Civil Servant	Student			Pupil			Unemploy				
Retired	Others										
	O HIOLD		П	-rec	9,5 *****						

No □

Yes □

2. Has the victim (or family) received any type of assistance?:

No answers

П

# 2a. Fill in Table 3 to specify the types and organizations of assistance (you need only to use ID)

<b>Table</b>	1:	<b>Type</b>	of	assistance
--------------	----	-------------	----	------------

Assistance ID	Assistance Name
HTTT	Direct support
DTYT	Trauma care, treatment support
VAVO	Loan/capital
DNVL	Vocational training/job creation
HOBO	Scholarship for children
XBPG	P&O, wheelchairs, rehabilitation
НТКН	Others
Specify:	

**Table 2:** Organizations of assistance

Organzation ID	Organization Name
CPI	Clear Path International (CPI)
CRS	Catholic Relief Service (CRS)
ICR	International Crescent and Red Cross (ICRC)
KID	Kid First
LAU	State/Authority Org.
MAG	Mine Advisory Group (MAG)
MCN	MCNV
NPA	Norwegian People's Aid (NPA)
PLA	PLAN
PTV	Peace Trees Viet Nam (PTVN)
REN	RENEW/VVMF
SCH	Save the Children
SOD	Solidarity International (SODI)
TCF	Trauma Care Foundation (TCF)
UNC	UNICEF
GNB	Family, relatives, friends
OTH	Others
Specify:	

**Table 3:** Specification of assistance

STT	Assistance ID	Organization ID	Assistance level in USD
1			
2			
3			
4			
5			
6			
7			

•	_	1 4	e 41	• 4
•		I nartnar	At tha	assistance
J.	inuca	ı <i>va</i> lukt	VI LIIC	assistance

Provincial Health Service	Provincial Women Union	Provincial Farmer Union
District Health Center of	District Women Union of	District Farmer Union of
Commune Health Center of	Commune Women Union of	Commune Farmer Union of□
Others	Specify:	

4	•	 • 4	•			• • •		· • 1	.1	, ,	1	•	•, 11	, ,	`
/	Current need	AN ACCICTANAA	At t	$\mathbf{h} \mathbf{o} \mathbf{v}_{11}$	otim 1	amı	<b>T7</b>	tial	tha a	naab	havag	t 11 11	CHITANIA	OHOL	0001
4.	· III I PIII IIPPI	 III		11 <del>C</del> V I		и	v	III N	THE C	npin	IIIIXPX		NUITHINE		$P \setminus I$
	Cull till little	 or appropriate	<b>UI</b> (			CLILIA	. , ,	LLCIV	uite ci		OUNCE	, •	Sullingic	CILOI	

Direct support	Loan/capital		Vocational training/job creation	
Trauma care/treatment support	P&O, wheelchairs, re	ehabilitatio	on 🗆	
Scholarship for children	Others		Specify:	

# SURVEY ON THE KNOWLEDGE – ATTITUDES – PRACTICES - BELIEFS OF THE LOCAL PEOPLE OF QUANG TRI PROVINCE REGARDING THE DANGER OF EXPLOSIVE REMANTS OF WAR

\_\_\_\_\_

	A. GEN	ERAL IN	FORM	IATION	Ī		
1. Code of the form:							
2. Name of Interviewer:					ine/Ward/To	wnship:	
· ·		2010		District			
2. Name of Interviewer: 3. Date of surveying:			7.	Provinc	e: Quang Tri	į	
of this interview. It is important to name will not be asked.	explain tha	ut all inform	nation ga	ithered is	confidential –	the interviev	
8. Year of Birth:			Th	e intervi	ewee must be	in the age o	of 7 to 70
	emale	Refus	e to ans	wer 🗆			
	married	2. Marı	ried 🗆	3. Dev	orced 🗆	4. Single	
If Single than skip question 11							
11. Number of children:	1.	2. Numbe	r of fan	nily mer	nbers:		
13. Ethnicity: 1. Kinh   14. Education Level:	2. Pa-c	o 🗆 .	3. Van I	Kieu □	4. Others		
1. Illiterate	2. Prima	ry 🗆	3. Seco	ondary	□ 4. Hig	hschool	
5. Vocational School	6. Colleg	ge 🔲	7. Univ	ersity, P	ost-graduate		
15. Occupation:							
1. Farmer □ 2. Labour	rer 🗆	3. Tradei	/Dealer		4. Military		
5. Civil Servant ☐ 6. Studen	t 🗆	-	`		8. Unemploy	yed	
9. Retired □ 10. Other	s 🗆	Specify:					

16. Approximate family yearly income (currency unit: million VND):.....

## C. MAIN INFORMATION OF KNOWLEDGE - ATTITUDE - PRACTICES - BELIEFS

17. Have you ever h	eard of bomb, unexp	olode	ed ordnance or la	ndmi	nes (ERW)?		
			then skip all the				
18. (Since the war e	nded), have you ever	r seei	n ERW?				
1. Yes □ 2	2. No □	If No	then skip the que	estions	18a, 18b, 18	Bc	
18a. Where have yo	ou seen ERW?  ex more than one answ	er.					
1. Rice fields □	2. Hilly Area		3. Seaside/Beach	П	4. River ban	ks	
5. Roadside □	6. Trails/Pathside		7. Bushes			ilitary bases	
9. Near home □	10. Near school		11. Forest		12. Do not r		
<u> </u>	13. Others	_	Specify:				
101 II C 41							
	y do you encounter I				T		
1. Daily			3. Monthly				
4. Yearly □	5. Others		Specify:				
-	been doing when you more than one answ		counter ERW?				
1. Walking □ 2.	Farming [	3	B. Playing/recreation			16. Do not rer	nember
	Collecting water/wood	_	6. Searching war was	te		17. Others	
		_	D. Demining (task)			Specify:	• • •
			2. Entering military		_		•••
13. Fishing □ 14	I. Tending livestocks		5. Watching person	dismai	ntle ERW □		•••
	e <b>more than one</b> ansv						
1. Kill them	2. Maim/Injure the	m_[	☐ 3. Nothing				
4. Do not know $\Box$	5. Others		] Specify:				
Inverviewee may give	V most likely to be en			Ţ			
1. Rice fields □	2. Hilly Area	]	3. Seaside/Beach		4. River ban	ks	
5. Roadside □	6. Trails/Pathside	]	7. Bushes		8. Former m	ilitary bases	
9. Near home □	10. Near school		11. Forest		12. Do not r	emember	
	13. Others □	]	Specify:				
·	cognize places that ne more than one ansv	•	contaminated wit	h ER	W?		_ <b>_</b>
1. Warning signs (s							
1. Waiming signs is	tandard)	] 2	. Seeing ERW on	the gr	ound		

Questionnaire for interviewee	rs of random selection
-------------------------------	------------------------

					T =		
6. Crossed sticks/	branches	7. Ot	thers		Specify:		
22. What would y	ou do if you s	saw an item of El	RW?				
Inverviewee may g	ive <mark>more than</mark>	one answer:					
1. Inform family 1	nembers	☐ 2. Inform frie	nds/neig	hbors 🗆	3. Inform m	nass organizations,	schools 🗆
4. Inform local au	thorities	☐ 5. Take to sel	l for scra	<b>ap</b> □	6. Defuse/D	Dismantle it	
7. Inform deminir	ng teams	□ 8. Walk away	from th	e area	13. Others		
9. Take it home		□ 10. Take a clo	oser look	at it $\Box$	Specify:		••
11. Take it to loca	al authorities	□ 12. Try to hit	it/throw	sth on it □			• • • •
23. What would y							1
1. Stop/Stand still			_		he area while		<u> </u>
3. Carefully retract					from where I	came from $\Box$	
5. Keep on going			☐ 6. Do	on't know w	hat to do		<u> </u>
7. Others $\Box$	Specify:.						
24 What makes E	DW avelada	0					
<b>24.</b> What makes Enverviewee may g	-						
1. Stepping on the		. Throwing things	at them		3. Hitting t	them $\square$	]
4. Touching them		. Hitting trip wires				g/Dismantling	
7. Self-initiation				Others $\Box$	_		
/. Self-illitiation		S. DO HOUKHOW	<u> </u>	Juleis	Specify		]
25. How can you a	void an ERV	V accident?					
Inverviewee may g							
1. Staying away f				2. Taking	care if cutting	clearing vegetation	n 🗆
3. Not tampering						trange objects	
5. Staying away w			W $\square$		g on well-use		
7. Asking othes al		<del>-</del>		8. Do not			
9. Others							
	, =						
26. What are peop			re injure	ed by ERW	?		
Inverviewee may g						1 - 1	
1.Walking	2.Farming			ng/recreation		4.Dismantling ERW	
5.Lightning fire ☐ ☐ 9.Digging ☐	6.Collecting w 10.Searching f			ing war waste iining (task)		8. Watching others d	
13.Hunting		aring vegetation $\Box$		ring old milita		19.Others	
16.Fishing	17. Tending liv				estroy ERW	Specify:	
	3,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				<u> </u>	1 33	
27. Why do people	e in your com	ımunity enter int	to dange	rous areas?	•		
Inverviewee may g	ive <b>more than</b>	one answer:	C				
1. Need to travel		2. Need to collect	scrap me	etal 🗆	3. Expertise	e tasks (Demining)	
4. Need to farm		5. Need to tend liv	estock		12. Others		
6. Curiosity		7. Need to search	for food		Specify:		
8. Peer pressure		9. Need to collect	water/w	ood 🗆			
10. Do not know		11. Need to fish/h	unt		<u> </u>	<u></u>	· · · · · · · · · · · · · · · · · · ·
	<u> </u>	<del></del>	<del></del>				

28. What would you do if you Inverviewee may give more than				d in an E	RW explosion	?	
1. Run to the site to assist them				them hon	ne 🗆	3. Run away	
4. Call authorities/experts for h	elp		5. Take	them to c	ommune/distric	ct health center	
6. Call friends/neighbors for he	elp		7. Don'	t know wł	nat to do		
8. Others $\Box$ <b>Specify</b> :							
29. What would you do if you or in a place you think mi Inverviewee may give more than	ght be a	min	e field?	d by a mi	ne		
1. Run to the site to help them				1 to comm	une/district hea	alth center	
3. Call authorities/experts for h	nelp 🗆	4. 7	Γry to ass	ist them b	y carefully pro	d to reach them	
5. Call friends/neighbors for he	elp 🗆		Γake then			7. Run away	
8. Don't know what to do		9. (	Others	□ Speci	<i>ify</i> :		
30. Have you ever received an	y inform						
1. Yes  2. No	<u> </u>	]	If <b>No</b> then	n skip the	question <b>30a,</b> 3	30b, 30c	
30a. If yes, where did you rece Inverviewee may give more than  1. Television programs  4. Health centers/Hospitals  7. Demining/EOD Teams  □  10. Fig. 1. (No. 1)	2. Radio 5. School 8. Com	swei o pro ols mun	r: ograms nity leader	TS	9. Family men	Education centers mbers	
10. Friends/Neighbors □ 13. Women Union □	11. Farr 14. Vete				12. Youth Un		
13. Women Union □ 16. Brochures/leaflets □			ddress sy	retome $\Box$	15. MRE Pan 18. Others □	Specify:	
30b. Of these sources, which o	ne you p	ay y	your mos	t your at	tention?		
1. Television programs	2. Radio		ograms		3. Newspaper		
4. Health centers/Hospitals	5. School		:411			Education centers	
7. Demining/EOD Teams			ity leader		9. Family men		
10. Friends/Neighbors	11. Farr				12. Youth Un		
13. Women Union ☐ 16. Brochures/leaflets ☐			s Union	gatama 🗆	15. MRE Pan	Specify:	
30c. How do the Mine Risk Ed	lucation	Info		affect yo			
1. Changes my behavior/act sa				more vent		3. No change	
4. No answers	П	- 1	5. Others	П	Specify:		

31. From which sources do <i>Inverviewee may give more t</i>	•			out in	portant matters?
1. Television programs		Radio pro			3. Newspapers/Internet □
4. Health centers/Hospitals		Schools	grams		6. Mine Risk Education centers
					9. Family members
					12. Youth Union
		1. Veteran			15. MRE Panels/Posters
			ddress syster		18. Others     Specify:
32. Do you know any victin	ns of H	ERW?	, and the second		To. Culcis   Specify
1. Yes □ 2. No □		If <i>No</i> then	skip questic	n 32a	
32a. How many ERW victin  1 victim   2 to 3 v		•	v? 4 to 5 vio	atima	☐ More than 5 victims ☐
$\square$ victim $\square$ 2 to 3 v	icums	<u> </u>	4 to 5 VI	cums	☐ More than 5 victims ☐
33. Which objective groupInverviewee may give more t1. Children□2. Teer5. Males□6. Fem	han o	•	3. Adults 7. Farmers		4. Deminers/clearance members □ 8. Scrap metal searchers □
9. Military □ 10. Oth	ners		Specify:		
34. Do ERW affect your da		e?	X0.3X1		
1. Yes □ 2. No	<u> </u>		If No th	ien skij	p question 34a
34a. If yes, how do they affer Inverviewee may give more to 1. Limited access to land fo 4. Limited access to land fo 6. Inability to travel/move for 8. Fear of injury/death	than o r farm r hous	ne answer	<ul><li>2. Loss of fa</li><li>5. Limited a</li></ul>	ccess to	nember(s)
o. I car of figury/acath			J. Others L	,	Specify
35. Do you know any mine	action	nroiect(s	s)/nrogram(s	s) in O	ouang Tri Province?
1. Yes □ 2. No □			skip questic		
35a. Which project(s)/prog Inverviewee may give more t	ram(s	) do you l	know?	/	
Project RENEW					
			PTVN (Peac	e Tree	s Viet Nam)
MAG (Mine Advisory Grou	ıp)				/
MAG (Mine Advisory Grou SODI (Solidarity Internation	*		PTVN (Peac CPI (Clear F CRS (Catho	Path Int	ternational)

## 35b. How do you know of that (those) project(s)/program(s)?

Inverviewee may give more than one answer:

1. Through TV programs	2. Through Mine Risk Education activities
3. Through Radio programs □	4. Through Mine Victim Assistance activities
5. Through Newspapers/Internet □	6. Through ERW clearance activities
7. Through MRE Panels/Posters □	8. Through public address system
9. Through brochures/leaflets □	10. Through family members □ 11. Through friends/neighbors □
12. Through community leaders □	13. Other source(s)

\*\*\*\*\*\*\*\*\*\*\*

The questionnaire is now finished.

Thank the interviewee for her/his time and patience before moving on.

\*\*\*\*\*\*\*\*\*\*

# List of studied communes of Knowledge – Attitudes – Practices – Beliefs 2010 Survey

(Selected by random methodology)

	N 60 /W	Number of	Population at the end
No.	Name of Commune/Ward	studied commune	of study period
	Dong Ha City	4	
1	Dong Giang Ward		5,016
2	Dong Le Ward		7,486
3	No. 4 Ward		4,404
4	No. 5 Ward		21,426
	Quang Tri Town	2	
5	No. 1 Ward		3,847
6	Hai Le Commune		4,040
	Vinh Linh District	4	
7	Vinh Tu Commune		3,160
8	Vinh Long Commune		6,009
9	Vinh Lam Commune		5,090
10	Vinh Giang Commune		4,504
	Gio Linh District	3	
11	Trung Hai Commune		4,235
12	Gio Hai Commune		3,045
13	Gio Hoa Commune		1,527
	Cam Lo District	3	
14	Cam Lo Township		6,069
15	Cam Thanh Commune		2,292
16	Cam Nghia Commune		5,354
	Trieu Phong District	4	
17	Trieu Phuoc Commune		7,017
18	Trieu Dai Commune		5,216
19	Trieu Long Commune		6,700
20	Trieu Ai Commune		4,290
	Hai Lang District	4	
21	Hai An Commune		4,066
22	Hai Vinh Commune		4,569
23	Hai Lam Commune		3,872
24	Hai Tho Commune		5,537
	Huong Hoa District	3	·
25	Khe Sanh Township		10,281
26	Huong Son Commune		1,775
27	Tan Lap Commune		3,646
	Dakrong District	3	,
28	Da Krong Commune		4,756
29	Ta Long Commune		2,927
30	A Bung Commune		2,267

# List of countries or territories received funding from international community in solving Landmine/ERW problems in 2009, 2008, 2007, 2006 and 2005

## Data from "Landmine Monitor Report 2010", page 45-46 (International Campaign to Ban Landmines Copyright of Mine Action Canada. 2010)

6 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Funding received (US dollars in million)				າ)	<b>T</b> !
Countries/Territories	2009	2008	2007	2006	2005	Total
Afghanistan	106.60	105.10	86.30	87.50	66.80	452.30
Iraq	34.70	35.90	37.30	35.30	27.80	171.00
Cambodia	33.30	28.10	30.80	29.60	23.90	145.70
Sri Lanka	24.80	8.20	7.60	9.90	19.50	70.00
Sudan	23.00	39.10	29.20	28.90	46.90	167.10
Lebanon	21.20	27.80	28.30	68.80	6.30	152.40
Angola	18.80	22.10	19.80	48.10	35.80	144.60
BiH	18.50	24.60	17.10	15.40	15.00	90.60
Lao PDR	11.00	12.70	12.20	13.30	7.20	56.40
Colombia	10.50	9.10	8.80	4.30	2.30	35.00
Ethiopia	7.60	9.50	7.10	7.90	2.60	34.70
Chad	7.10	2.10	0.70	2.40	1.10	13.40
Mozambique	6.50	3.20	3.50	6.20	10.00	29.40
Jordan	6.40	7.10	5.70	5.60	2.00	26.80
Croatia	4.60	6.60	8.80	8.90	11.50	40.40
Vietnam	4.20	7.60	3.90	8.30	5.70	29.70
DRC	3.60	12.40	5.90	5.10	4.80	31.80
Cyprus	3.50	0.00	5.50	1.30	0.00	10.30
Tajikistan	3.50	1.90	1.30	1.10	0.90	8.70
Somaliland	3.00	3.80	1.90	2.90	3.70	15.30
Peru	2.70	1.30	0.30	1.60	0.00	5.90
Somalia	2.60	0.80	3.20	1.80	1.00	9.40
Albania	2.20	5.70	1.20	2.30	5.30	16.70
Azerbaijan	2.20	1.70	3.70	4.50	4.10	16.20
Nagorno-Karabakh	2.20	2.70	1.90	1.20	1.40	9.40
Georgia	2.10	8.70	0.00	0.00	0.00	10.80
Guinea-Bissau	2.10	1.70	1.90	0.90	0.30	6.90
Nicaragua	2.00	3.30	4.50	5.50	3.50	18.80
Pakistan	1.80	0.00	0.00	0.00	0.00	1.80
Palestine	1.70	5.10	0.00	0.00	0.00	6.80
Kosovo	1.60	2.00	0.50	2.00	1.90	8.00
Serbia	1.40	2.80	2.70	2.60	1.50	11.00
Abkhazia	1.30	0.70	1.80	3.10	3.30	10.20

## **Annex**

Global Total	62.10	43.10	66.10	35.60	47.50	254.40
Gambia	0.02	0.00	0.00	0.00	0.00	0.00
Ukraine	0.04	0.00	0.00	0.00	0.00	0.00
Belarus	0.04	0.00	0.00	0.00	0.00	0.00
Palau	0.09	0.00	0.00	0.00	0.00	0.10
Thailand	0.11	0.00	1.60	0.80	0.61	3.10
Niger	0.14	0.00	0.00	0.00	0.00	0.10
Senegal	0.34	0.66	4.60	0.92	0.81	7.30
Eritrea	0.38	0.34	0.00	0.00	0.00	0.70
Ecuador	0.45	0.66	0.20	0.95	0.82	3.10
Philippines	0.57	0.00	0.00	0.00	0.00	0.60
Uganda	0.57	0.78	1.80	1.70	1.76	6.60
Myanmar	0.80	1.02	0.18	0.00	0.00	2.00
Nepal	0.83	1.10	1.76	0.21	0.09	4.00
Yemen	1.00	1.00	1.10	4.10	2.50	9.70
Western Sahara	1.20	0.30	0.90	0.00	0.00	2.40

### **BIBLIOGRAPHY**

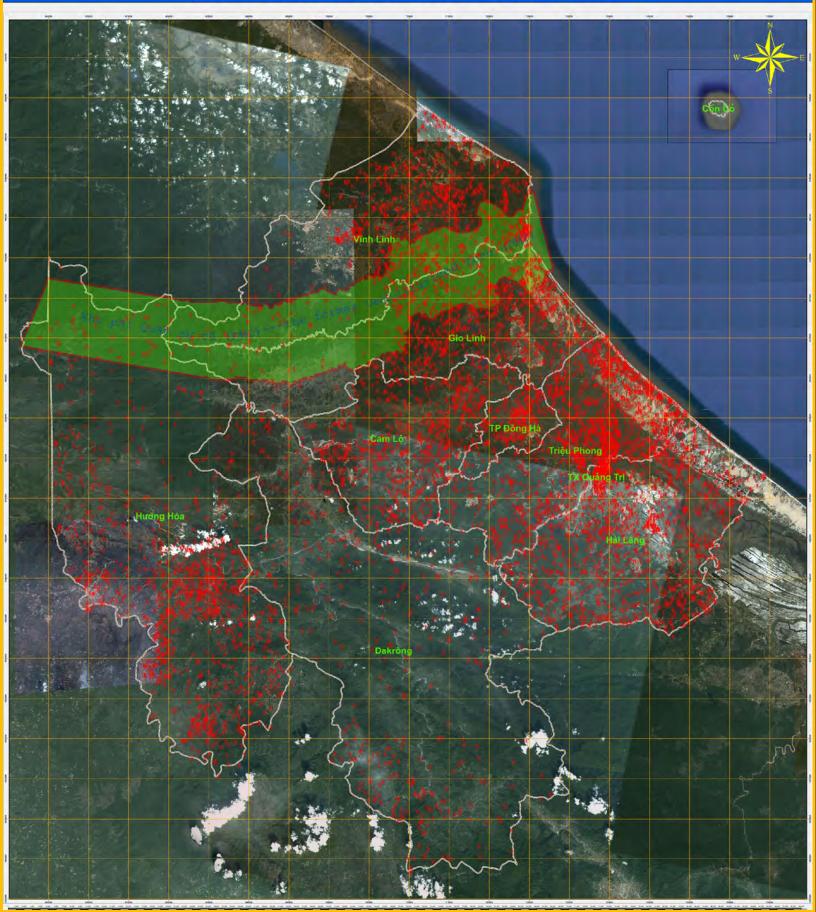
- 1. National Political Publisher, *History of Quang Tri Provincial Party Committee*, Book 1, 2 and 3, 2005
- 2. Quang Tri Provincial Statistics Department, Quang Tri Statistics Yearbook, 2009
- 3. International Campaign to Ban Landmines, *Landmine Monitor Report*, 2005, 2006, 2007, 2008, 2009, 2010
- 4. UNICEF, International Mine Action Standards, Mine Risk Education, 2005
- 5. Geneva International Center for Humanitarian Demining, A Guide to Improving Communications in Mine Risk Education Programs, 2004
- 6. Handicap International, Mine Risk Education, Implementation Guide, 2001
- 7. Ronal B. Frankum, Jr. and Stephen F. Maxner, *The Vietnam War for Dummies*, Wiley Publishing, Inc, 2003
- 8. UNDP, Study of Socio-Economic Approaches to Mine Action, 1999
- 9. IFPRI, IDS, Labor & Social Publishing, Poverty and Inequality in Vietnam, 2003, Hanoi
- 10. World Bank, Vietnam Development Report in 2004
- 11. People's Committee of Quang Tri Province, Report of Socio-Economy of Quang Tri Province in the period of 2006-2010, 2010
- 12. Quang Tri Department of Foreign Affairs, Reports of mine action programs in Quang Tri Province, 2010

# © A Study of Explosive Remnants of War Accidents and the Knowledge – Attitudes – Practices - Beliefs of people in Quang Tri Province, Viet Nam

Published in 2011
Responsible for publication:
Hoang Nam
Designed by:
Phan Van Hung
Photo/images by:
Project RENEW Coordination Office
<ul> <li>Map Source:</li> <li>U.S. Bombing Data on Viet Nam and Laos (U.S. Department of Defense)</li> <li>Data of ERW Victims Survey in Quang Tri Province 1975-2010 (Project RENEW</li> <li>Digital Administrative Map of Quang Tri (Project RENEW)</li> <li>Google Earth Satellite Images</li> </ul>
Printing of 1,000 copies of 21cm x 29,7cm. Printing by

# BẢN ĐÒ MẬT ĐỘ TAI NẠN BOM MÌN 1975-2010, TỈNH QUẨNG TRỊ, VIỆT NAM

1975-2010 ERW ACCIDENT DENSITY - QUANG TRI PROVINCE, VIETNAM



Project RENEW Coordination Office
103 Nguyen Binh Khiem St.
Dong Ha City, Quang Tri Province, Viet Nam
Tel.: (+84) 53 3 858 445
Fax: (+84) 53 3 858 442
Email: projectrenewvietnam@gmail.com
Website: www.landmines.org.vn