POST WAR LEGACY AND POVERTY
CASE STUDY OF THE LANDMINE/UXO PROBLEM IN RURAL COMMUNITIES IN QUANG TRI PROVINCE, VIETNAM
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ABRIVIATIONS, TERMINOLOGIES AND EXPLANATIONS

DMZ  Demilitarized Zone
FDI  Foreign Direct Investment
Laos PDR  People Democratic Republic of Laos
Mine Action  The activity includes a range of efforts aimed at protecting people from danger of landmine/UXO, helping victims become self-sufficient and active members of their communities and advocating for a mine-free world
Mine Clearance  Actual clearance of landmine and unexploded ordnance from the ground, sometimes referred to as "demining"
Mine Risk Education  Educational activities aimed at reducing the risk of injury from landmine and unexploded ordnance by raising awareness and promoting behavioral change through public-information campaigns, education and training
ODA  Official Development Assistance
US  United States
USD  US Dollar
UXO  Unexploded Ordnance
VND  Vietnamese currency (15,500VND ~ 1USD, year 2004)
EXECUTIVE SUMMARY

Quang Tri Province, located in the center of Vietnam, is one of the poorest provinces with an economy mainly depends on agriculture. During the Vietnam War (1954-1975), the province was the focal point of heavy fighting and bombardments. After the war ended, the province was almost destroyed and endured a huge number of landmine and unexploded ordinances. The remaining weapons bring negative impacts to not only rural people everyday life but also to rural community development programs. Yet, war related issues have not been carefully examined until recently. This case study attempts to provide an examination, which aims at describing the impacts of postwar landmine and UXO and illustrating their linkages with poverty in rural communities. The study took place at Vinh Truong Commune and Hai Hoa Commune in Quang Tri Province.

Vinh Truong is a poor mountainous community in the North and was heavily bombed and mined during the wartime. The existence of landmine/UXO is thick; eight percents of people have been killed and injured since the war ended (1975). Many people have encountered landmine/UXO on daily and weekly bases. The percentage of people vulnerable to landmine/UXO danger is very high and farmers are among the most vulnerable groups. Landmine/UXO impacts on community by limiting access to land for farming, for basic natural resources such as water, food and wood. Many families need more land for farming activities and the majority confirmed that landmine/UXO affect their use of land. Families affected by the problem have income lower than the non-affected group. The problem is seen as one of the major factors leading to unemployment and the leaving of the young people. To improve the quality of life, many people have ideas for income raising but they can not bring about. Some poverty reduction programs have been introduced; however, they are affected by the problem as well. No mine action program has been launched in the commune. Meanwhile, Hai Hoa is a plain commune in the South and suffers landmine and UXO problems only at small scale. There has not been any mine incident in Hai Hoa in the recent five years. Groups vulnerable to landmine/UXO incidents are lower and farmers are not among the most vulnerable groups. Landmine/UXO did not affect the free use of land of the majority people. The majority of people have received supports to increase their income. None of the community development program is hindered by landmine and UXO. The commune also receives supports to educate people to avoid mine accidents and to clear landmine/UXO. All of these elements contribute to the pretty well off situation of this commune.

Comparison between two communes illustrates the linkage between the problem of postwar landmine/UXO and community poverty. The problem is one of the main concerns in constraining the development of rural communities both in economic and social aspects as in Vinh Truong Commune. Poverty is increased due to the insufficiency of safe land for farming, inaccessibility of basic living resources (water, food, and wood), unsafe feeling to implement the development activities. The problem is also seen as partly responsible for social issues such as unemployment, adults and youngsters leaving communities, risk-taking career (scrap metal hunters) and more handicaps resulted from landmine/UXO incidents. Besides, community development programs implementing in the areas are also affected by the problem. Mine action programs help to create favorable conditions for other community development programs as in the case of Hai Hoa commune. As a result, development programs in mine-contaminated communities need to consider the war-affected issues in their plan of action prior to launching the activities. The linkage between the mine action programs and development programs is complementary for improving the quality of life, creating the social economic opportunities as well as promoting rural community development.

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PART I: GENERAL INTRODUCTION

1. Location, population of Quang Tri Province

Vietnam is the country in Southeast Asia, which has 63 provinces and population of over 80 millions people. Quang Tri Province, located in the center of Vietnam, is bordered by Quang Binh Province to the North, Thua Thien-Hue to the South, Laos PDR to the West, and to the East is the ocean. The 17th paralle l is in the middle of Quang Tri Province and the great Truong Son mountain chain spreads along its western side. The area of Quang Tri Province is 4,746 square kilometers. The province has nine administrative units consisting of seven districts: Vinh Linh, Gio Linh, Cam Lo, Trieu Phong, Hai Lang, Huong Hoa and Dakrong; and two towns: Dong Ha and Quang Tri. After the war, Quang Tri Province was joined with its two neighboring Provinces, Quang Binh and Thua Thien-Hue, into Binh Tri Thien Province (1976-1989). However, in 1989, Quang Tri Province was split again and Dong Ha was designated as the provincial town center.

Quang Tri Province has approximately 80 per cents of geography of mountain where the land is infertile, steep and very often insufficient of clean water. The province usually suffers adverse weather including strong, hot and dry wind in the summer while in the winter, typhoons and floods comes almost every year, causing losses of human lives and infrastructures as well as agriculture crops.

Population of Quang Tri Province in 2004 is 616,930. The male stands for 49.46 percents in comparison to 51.34 of female. Three main ethnic groups inhabit in the province include the Kinh, the largest ethnic group accounted for 92.08 percents of total population, the Van Kieu is the second largest group with 6.4 percents, and the Paco group takes 1.52 percents. Approximately 41 out of a total 136 communes in the province have the two minority groups living. While 23.8 percents of population living in urban area, 76.2 percents remain in the rural areas. The Van Kieu and Paco group inhabit in the western areas of the province, which contains mountain chains and the border with Laos PDR. Population density is 130 people/sq.km and mostly concentrate in the two townlets, the coastal and plain areas, whereas the west mountain areas are scarcely inhabited.[1]

2. Socio-economic situation

Since Quang Tri was recognized as a province in 1989, the provincial authorities and the people have dedicated much effort to carry out policies of socio-economic development, hunger elimination and poverty eradication and also to implement policies of industrialization and modernization. Nevertheless, despite encouraging improvements, the poverty situation and moderate development of the provincial socio-economy still remain challenging to the authorities and people in the province.

According to World Bank poverty report in 2003, three poorest regions in Vietnam comprise of the Central Highland, the Northern Mountain and the Northern Central Coast. As part of the last mentioned region, the poverty rate in the Quang Tri Province is estimated to be ranked 13th from the poorest provinces.[2] The Gross Domestic Product in 2003 of the province is 1,496,272 millions VND (~ 95,304,000 USD) and annual income per person is 230 USD (~ 51 percents of the annual national average income 450
USD). While the country poverty line corresponds to 1,790,000 VND/person/year (~120USD), the annual income of the people in Quang Tri Province still lies within the overall poverty line. There are 50.44 percents of the households in the province fall in income poverty in comparison to 30 percents average national income poverty.\[3\]

Only 3.28 percents of population work in Government sectors, in which education and healthcare hold the highest governmental occupations with 1.44 percents and 0.34 percents respectively while financial intermediation and scientific, technology activities are the lowest with 0.01 percent for both. The rest majority population earns living on activities involving agriculture, forestry, fishery and informal sectors, which remain the basic means of livelihood of the local people for a longtime.\[4\]

Agriculture is the main domain that contributes to provincial income. It is accounting for 41 percents of total provincial GDP while industry and construction takes 38.5 percents and services account for only 20.5 percents.\[5\] Paddy rice is the main product of the rural areas in the province plus few additional grains such as pepper, cassava, and corns...

Development of a provincial industrial base is difficult since natural resources are scarce and investments in the province are still very low. Foreign Direct Investment (FDI) in the province is limited because of unfavorable investment environment, adverse weather, location far from industrial cities and zones and small trade market. Total FDI in the province remain at 12.7 millions USD in 2003.\[6\] The province is trying to encourage more FDI base on the newly East-West corridor project to establish the Trans-Asia route running from Myanmar, to Thailand, Laos PDR and across the province to the East Sea.\[7\]

Since 1993, Quang Tri Province has received Official Development Assistance (ODA) projects implementation value at 108.34 millions USD, in which 45.3 percents are non-refundable expenditure while long-term payment are 54.7 percents. Asian Development Bank is the biggest donor with 39.8 percents of total funding followed by World Bank, and the Government of Finland and Sweden. Most ODA projects however are concentrated on transportation and infrastructure construction and only two projects at the moment are carrying out the poverty reduction programs with the implementation value at 29.76 millions USD (27.47 percents).\[8\] In 2003, the province is still subsidized by the Central Government with 418,409 millions VND, (~26,650,255 USD) while the revenue of budget in the province is only 253,920 millions VND (~16,173,248 USD). It is notable that the tax from foreign invested economic sectors in 2003 is only 10 millions VND (~637 USD) with three major FDI projects.\[9\] This is reasoned by the fact that only one project is operating, the other two are just on the way. This amount is too small in comparison with 425 FDI projects with billions of USD in Hanoi.\[10\]

Although Quang Tri Province has make an impressive progress in spreading primary education to all communes in the recent years (1989-present), an approximate 26.5 percents of the communes are still lacking of secondary school and higher education. There is no university or technology college in the province and quite a few percents of people in the province are still illiterate. Most of them are the old and middle-age people in the minority group communities. In addition, the whole province possesses only nine libraries with very moderate number of book collections.\[11\]

Healthcare is another aspect worth paying attention to in the province. Although some achievements have been made such as the decrease of child mortality rate with 2.8
percents in 2003 (comparison with the average 3.8 percents in the country) and the increase in healthcare workers at communities, the province continue to face difficulties. The number of beds in 2003 is 1,447 and the only one provincial hospital is usually overloaded with patients, many of them are transferred from the district and commune clinics to the provincial hospital where treatment is considered better with qualified doctors and adequate medical equipment. Numbers of doctors in the province in 2003 is 361, which represents averagely one doctor over 1,708 people.\[12\]

3. History and Legacy of The War

Quang Tri Province was the site of some of the fiercest battles during the Vietnam War. Especially from 1954 to the end of the war in 1975, Quang Tri Province was the focal point of heavy fighting, with each square meter of land contested between the two sides. Quang Tri was also the target of some of the most destructive bombardments in the history of the world, in which even more tonnages of weapons were used than in Europe during the Second World War. According to Marilyn B. Young, a historian of the war, “Quang Tri Province was bombed daily by 40 special-assigned B-52s, each carrying 30 tons of bombs. Flying in cells of three, the B-52s flattened a “box” two miles long, one-half mile wide”.[13]

American and former Southern Vietnam Government military units established a series of forts, bunkers and military bases along the length and the width of the province, especially the DMZ, along the 17th parallel of the Ben Hai River, famous for the Hien Luong Bridge – a benchmark of the former borderline between the North and the South for nearly 20 years. Battles well known to the world occurred from along the Laos PDR border to coastal Quang Tri, such as La Vang Church, Quang Tri Old Citadel, Ai Tu Airbase, Camp Carroll, the Rockpile, Khe Sanh Marine Base, the McNamara electronic fence and Vinh Moc Tunnels... Inside and outside military bases and posts, mines were densely laid and tons of barbed wire fence were strung. Aircraft including B-52s pounded the area with massive bombs, often 5,000-pound bombs, plus ship artillery bombardments, which were fired into the province.[14] This amount of weapons, plus numerous types of ammunition used in land battles by infantry forces, resulted in an incredible amount of ordnance rained on Quang Tri Province.

In 1972, the Americans and former Southern Vietnam Government mobilized a huge army force, including soldiers and heavy weapons, to recapture Quang Tri Citadel. In 81 days of continuous bloody struggles, the U.S. Air Force dropped in this two-square-kilometer town an estimated tonnage of bombs equal to the size of eight atomic bombs of the type used in Hiroshima, Japan.[15]

After the war ended in 1975, Quang Tri Province was almost destroyed, and most of the people had evacuated to other places. Quang Tri Town and Dong Ha Town both were severely damaged, reduced to ashes. Local people’s houses were ruined and remained as bomb craters, or were riddled with bullet holes. Most villages were devastated. Blast bombs, chemical and napalm bombs, all were tested in this province, resulting in blackened vegetation and huge craters. Nothing existed but a few remote forests close to Laos PDR. [16]

The U.S. Department of Defense stated that the most affected portions of the country were the central provinces from the former DMZ southward including Quang Tri
province. They estimated that as much as 10 percents of American ordnance used did not detonate as designed, meaning that numerous dangerous items still remain on or under the ground throughout Quang Tri Province.[17] According to the latest landmine and unexploded ordnances victim survey of Project RENEW, a non-government mine action project implemented in Quang Tri Province, since the end of the war in 1975, there have been 2,540 people who have died from landmine and unexploded ordnances encounters, another 4,248 people who have been injured in landmine and unexploded ordnances incidents in Quang Tri Province – 6,788 victims in all. The number of landmine and unexploded ordnances victims represents 1.2 percents of the provincial population.[18] Children have become orphans because their parents died in left-over landmine or UXO accidents, women became widows, and adults lost their ability to work, resulting in the problem of increased numbers of persons with disabilities. The loss of human lives, the poor economy, and the continuing threats posed by landmine and unexploded ordnances have become a heavy burden on the shoulders of the local people who have long suffered the consequences of war and natural disasters.

After 1975, the army and people of Quang Tri Province launched extensive emergency clearance activities in order to reestablish the livelihoods of the people, to meet the urgent needs of development and resettlement, and to ensure optimum safety for people’s lives and their work in Quang Tri Province. However, most of these efforts concentrated on the clearance of landmine and UXO remaining on the surface, which were easier to discover and dispose.[19] Due to the shortages in necessary resources and equipment, the removal of landmine and UXO remaining a few centimeters underground and focused only at target priorities, mostly infrastructure projects. Since 1996, Quang Tri Province has received support from the international community for mine action projects. However, these new efforts can only respond to limited requirements and address a very small extent of the needs to remove landmine and UXO and to return safe land to the people, to rehabilitate the environment, to provide for resettlement, and to support sustainable livelihoods.[20]

4. Landmine/UXO problem and poverty in Quang Tri Province

The link between under-productive and impoverished population and the continuing impact of post-war legacy with millions of landmine and unexploded ordnances uncovered in the Quang Tri Province is manifested through the denial of access to land, the constant threats to human lives and the deprivations of resources.

Landmine and unexploded ordnances have been extensively used in most modern warfare and they can exist for a very long time even after the war ended.

“Landmine are explosive charges laid in the ground with the object of delaying the advance of the enemy by impairing his morale, destroying his personnel and transport, or interrupting his communication after evacuated terrain has fallen into his hands”.[21]

“Unexploded ordnance can be defined as any object containing explosive of any kind which has been deployed and failed to detonate, or has only partly detonated, or such objects which have been abandoned in any condition, normally the term is shortened to UXO”.[22]
Landmine and UXO are not indiscriminate weapons by nature because they do not distinguish between a soldier’s footstep and a human’s footstep. The toll of human lives in the landmine and UXO affected community is devastating and the consequences remain years after hostility ceased. In addition, landmine and UXO have been internationally recognized as “weapons impede long-term reconstruction in war-torn societies, the return of displaced people to their home”.\[23\] Importantly, they also deny people the opportunities of social and economic development and integration, limiting the land for agricultural cultivation, constraining the access to natural living resources, decreasing income and burdening the society with more handicaps every year. All of the above factors unquestionably lead to a state of deprivation of the opportunity of the people to lead the lives people want.

The World Bank report of poverty in 2003 has defined poverty as “a state of deprivation of multi-dimension, limited income, lack of opportunity to generate income, lack of assets to afford difficult time and vulnerable to disadvantaged changes...”.\[24\] With an economy largely depends on agriculture and land is the major property of the poor people, Quang Tri Province has a lot of difficulties in facing poverty when 45 percents of total area still contaminated with landmine and UXO.\[25\] Rural people in the province, as a result, have been lacking land as a primary asset to afford living and become more vulnerable to poverty should calamities take place. If people want to reduce poverty and develop their communities, they then need support to get rid of all landmine and UXO existing in areas where income can be generated, resettlement programs can be set up, primary living resources (wood, water, fruits) can be accessed and paddy rice and grains can be reproduced. Moreover, the effectiveness of the poverty reduction programs implemented in the communities can also be affected with the danger and constraints imposed by landmine and UXO.

5. Reason for the study and objectives

As illustrated above, the poverty in Quang Tri Province is linked to multi-dimensional aspects, and war consequences are often referred to as one of the main reasons. However, war related issues, particularly the existence of landmine and unexploded ordnances has not been carefully examined until recently. This case study attempts to provide an examination, which may reveal how the relationship between the postwar landmine/UXO and poverty. Major issues are expected to be analyzed and understood in this case study include:

- How is the socio-economic situation in Quang Tri Province?
- How is the problem of landmine and unexploded ordnances to rural communities?
- What are the main linkages and impacts of the landmine and UXO problem to the poverty situation and to development programs in the rural communities of the province?

Seventy-six percents of population in Quang Tri Province live in rural areas and their socio-economic lives largely depend on agriculture. To them, land is the priceless asset for living. Vietnam’s recent economic development strategy, population growth and the policy to return land to the ownership of the individuals are the main actors that lead to the need for more land to secure food and generate income. A lot of economic development ideas also depend on the increase of the land area.
The objectives of this study therefore is to document the phenomenon of landmine and UXO in large rural settings in Quang Tri Province, Vietnam and more specifically to:

- Provide an overview of the social economic situation of Quang Tri Province nowadays;
- Provide a description of the problem of post-war landmine and UXO in the studied rural communities including the impacts on people’s lives; and to
- Identify the linkages and the impacts of landmine and UXO to poverty situation and development programs in the areas through concrete comparisons.

6. Methodology

The case study looks at the issues in two communes in Quang Tri Province for comparison and highlight of the problem. One commune is believed to be among the most heavily war affected ones and the other is believed to be in a better situation.

The study took place in two communes Vinh Truong and Hai Hoa, which respectively belong to Gio Linh District and Hai Lang District of Quang Tri Province. During the wartime, Vinh Truong was part of the Demilitarized Zone, separating Vietnam into two parts North and South. Meanwhile, Hai Hoa belonged to the South and was the logistic base of the former Southern army. The study began at Vinh Truong at the beginning of December and at Hai Hoa by the mid of December 2004. Methodology applied for this case study include:

- Desk review of available data and description: Data and facts regarding what happened to the province during and after the war and data on the latest available socio-economic situation are reviewed to introduce the studied issues.
- In-dept interviews and focus group discussions using semi-structured questionnaires are used to document relevant information. Questionnaires are design for two types of object:
  - Questionnaires/interview with community leaders: The interviews are conducted with the communities representatives, which aim at collecting relevant general community data involving village background data, landmine and UXO related data and socio-economic data including poverty reduction programs.
  - Questionnaires/interview with community members: The interviews are conducted with the community members who daily lives and activities may lead to encountering with landmine/UXO and who are the subjects of the poverty reduction programs. The data gathered from this source are very much involving in assessing the linkages of the landmine and UXO problem and poverty in the area.

The first nine questionnaires are designed and distributed in the meetings with the representatives of nine villages in two communes. The second form of questionnaire is distributed to 75 people out of 5,158 total populations of the communes (1.45 percent).

Two small group discussions were held in two communes with the support from the local Youth Union under the approval of the Commune’s People Committee.
All the ideas gathered from the group discussions are written down and all the answers to the questionnaire forms are recorded on the “Epi Info 2002” software. This is a standard program for use by public health professionals in conducting outbreak investigations, managing databases for public health surveillance and other tasks, and general database and statistics applications. Epi Info 2002 software is in the public domain and freely available for use, copying, translation and distribution. Epi Info 2002 is a product of the Centers for Disease Control and Prevention (CDC).

7. Limitations of the study

Every empirical research design has its strengths and weaknesses. In this study, among the latter are methodological problems as well as the possibility that the respondents did not tell the truth or exaggerated the problems they encounter in their daily lives.

The “causality and viability” could probably be improved by comparing the statistics and findings of one of the affected communes in Quang Tri Province with that of a commune in another province which was not subjected to the same background of war legacy but that has the same level of other economic potential and development background. However, due to time constraints, it was not possible to carry out the study this way.

Although the experience and observations in the communities suggest that people were generally prepared to truly state the situation, attention to the level of accuracy of some responses need to be taken. Given the nature of this topic, there may be exaggerations in the responses from the participants. Some people may either exaggerate in order to get more aid or just say the right thing in order to be seen to reflecting what they think is the party line. The respondents in this study might also be aware that the student currently works in community assistance and development program and this could initiate some overstatements.
PART II
FINDINGS AND ANALYSIS

I. COMMUNITY BACKGROUND
1. Vinh Truong Commune

Vinh Truong is a mountainous commune in the West of the Quang Tri Province. According to the result from the discussions with the community representatives, minority group, the Van Kieu, have been living here for a long time. However, until the war was over (1975), the administrative areas known as thon (village) were then established. Vinh Truong has 4 villages in which 3 were established 28 years ago and one was established 27 years ago. One leader has been in position for 1 year, two for 2 years and one for 26 years.

Total population of Vinh Truong is 470 people, female takes 48.25 percents and male takes 51.75 percents. The general rate of population increase is 2 percents annually. A total of 7.67 percents of the population in the commune are Kinh ethnicity (the largest group in Vietnam), the rest 92.33 percents are Van Kieu. The major means of livelihood in the commune, according to the representatives, are farming, some practice trading and some are still unemployed. Half of the population has the annual income varied from 0 to 2 million VND, the other half earns a little bit more with annual income fluctuates from 2 to 3 millions VND. The annual income in the commune, to a general understanding, stays at 100 to 150 USD.

The commune was heavily bombed and mined during the wartime since it was part of the former DMZ. The U.S Army built combat bases and laid mines densely along the 17 parallel, which run almost across the commune. All the representatives confirm the fact that landmine and UXO exist in different places in the commune including forest, mountain, old military bases, rice field, river banks, and particularly near their community members’ homes. Three representatives recognize the appearance of landmine and UXO in the roadsides and old trails. Three representatives also express that their communities had a quite large areas of land contaminated with landmine and UXO (above 1.000m$^2$), the other confirmed the medium contamination (from 100m$^2$ to 1.000m$^2$).

In the recent five years, there have been 7 victims of landmine and UXO in Vinh Truong Commune, 2 fatal (1 male, 1 female), 3 injured (all were men). Since the war ended (1975) until 1998, there was 31 people fell into victims of landmine and UXO in which 22 were injured and 9 were dead.

Activities related most with landmine and UXO incidents are collecting scrap metal from war debris, farming, cultivation in wild area, collecting wood, water or food, watching others defuse bombs and playing/recreation. Major effects of landmine and UXO in the commune specified by the community representatives are limitation of access to land for farming, limitation of access to natural resources (water, wood, food), fear of injury or death, inability to move freely, limitation of access to land for housing and economic burden from medical bill or loss of income.

All village representatives in Vinh Truong Commune agree that landmine and UXO is one of the major factors that hinder their economic development by increasing the
poverty. Three fourth representatives agree that landmine and UXO also result in the decline of the community economy as a consequence of land abandon. Besides, they perceive landmine and UXO contamination as one of the causes leading to the leaving of the young people to look for jobs in other areas because they cannot afford land for cultivation or economic planning. The problem also results in unemployment (2 out of 4 communities), and more handicaps (1 out of 4 communities).

There are some poverty reduction and community development programs presently in Vinh Truong Commune. Three programs, which currently support the community, include the clean water wells project funded by Oxfam Hong Kong, the national poverty reduction program 135, and the Swedish ODA project “Share”, which has just been introduced recently and involved the majority part of Vinh Truong Commune.

However, despite the level of contamination of landmine and UXO in the commune, there has been no support to solve the landmine and UXO problem recorded so far. According to the representatives, the poverty reduction programs are very much affected because most of the development activities introduced in the commune are relevant to the use the land or to resources that come out of or depend on the land.

“Program 135 is a national socio-economic development program, implemented in 2,235 most disadvantage communities, which aims at helping the population renewal, stabilizing and developing agriculture and forestry attaching to manufacture and consumption, building basic infrastructure including kindergarten and primary school, digging irrigation ditches, providing small funding for people to raise farm animals and fruit trees”.[26]

“Share” is a cooperated program between Swedish and Vietnamese Government to alleviate poverty and decentralization with a total funding of 13 million dollars from the Official Development Assistance source, the main part comes from Swedish Government. “Share” is implemented in 5 years in two districts Gio Linh and Vinh Linh of Quang Tri Province. At the moment, “Share” is supporting the people in Vinh Truong Commune with the revolving fund project and provision of vocational training on agriculture for local people.[27]

2. Hai Hoa Commune

Hai Hoa is a plain commune in the center of Hai Lang District, Quang Tri Province. During the wartime, Hai Hoa was used by the military forces for logistic area to provide food, medicine to the fighting areas. Hai Hoa was therefore less damaged than some other communes. All villages of Hai Hoa was founded some hundred years ago (300-500 years). The population basically comprises of the Kinh without any other ethnicity group.

Hai Hoa Commune has 5 villages, 4 village representatives have been in position for 3 years, the other with 2 years experience. Total population of the commune is 4,688 people, 43 percents are male and 57 percents are female. Population increases at 1.4 percent annually. Major means of livelihood in the commune was farming and small trading. Annual income of the commune varied from 5 to 10 million VD (~300-600 USD). This is an average income in comparison to the national index (450USD).
Similar to Vinh Truong Commune, all villages in Hai Hoa Commune were also bombed and shelled during the wartime. However, the numbers of time when battles taking place were much lower than that in the former commune. Only one out of 5 villages was recognized as being bombed and shelled more than 2 times. According to the representatives, landmine and UXO existed in the old trails, rice field (1 village), near people’s home (1 village), forest (1 village). Only one village is defined with the scale of landmine and UXO contamination at small level, lower than 100m², 4 other representatives do not acknowledge how much of their land are currently having the problem. In the recent 5 years, there has not been any incident involve post war landmine and UXO in the commune although in the past (1975-1998) there were 12 victims in which only one was recorded as dead.

Activities documented as leading to landmine and UXO incidents are cultivation in wild area (2 villages), collecting scrap metal (2 villages) and farming (1 village). Major effects of landmine and UXO problem are limitation of land for farming, economic burden from bill or loss of income (2 villages) and the fear of death and injuries is also noted from village representatives.

Four village representatives agree that the problem of landmine and UXO is one of the reasons leading to impeding their economic development by stagnating the economy (3 villages) and by increasing poverty (1 village). Landmine and UXO are also recognized as one of the reasons for other social problems including adult leaving (2 villages) and more handicaps (1 village).

However, recently Hai Hoa Commune has received the support to solve the problem of landmine and UXO including the Mine Clearance Program in 4 villages and the Mine Risk Education Program in all villages of the commune. These supports come from the Non-Government Organizations and are perceived as very effective in solving the problem.

Currently, Hai Hoa Commune is supported with some economic development programs to increase the income and raising the productivity of the crops including the micro-credit program, the grass-cow herding, tree diversification program and vocational training. All of these supports come from the Government and Program 135. Thanks to this significant and effective development activities and an advantaged land fertility background, despite the large percents of communities living on farming, the income and living standards of people in Hai Hoa are still in a much better situation than those in Vinh Truong Commune.

Only one village representative think that landmine and UXO affect the developments programs listed above, further discussion with him provides the ideas that some of the areas in the village need to be expanded for fruit trees growing but still partly contaminated with UXO. Through the ideas of the representatives; however, this impact to the commune generally does not prove to be as serious as in the former commune.
II. INTERVIEWEES BACKGROUND

1. Vinh Truong Commune

There are 35 members in Vinh Truong Commune participated in the interviews. There is one person age within 10-18 years old (teenager), 24 people from 19-35 (adult), 8 people from 36 to 60 (middle age) and 2 people over 60 years old (old). Twenty-nine cases are married while 6 cases are single, with 28 cases are male and 7 are female. The rate of giving birth is quite high as with 17 cases have more than 3 children and 28 out of 29 married cases have children. Most of the interviewees are Van Kieu ethnicity with 91.4 percents (32 people). Three interviewees are recorded as landmine and UXO victims (8.6 percents of total interviewees).

Education

Education level remains quite low in the commune, as 17 percents of the interviewees are illiterate, 46 percents completed primary school, and 26 percents finished secondary school while only 11 percents completed high school.

![Education Levels in Vinh Truong Commune](Image)

Source: Author’s survey 2004

Occupation

Farming is the basic means of livelihood in Vinh Truong Commune with 53 percents, plus 13 percents of people working as laborers, basically to help with manual work. Quite a few people work as scrap metal collectors with the same 13 percents. Scrap metal collecting is an improvised job to seek the war wastes, which can easily lead to landmine and UXO encounter. A worrying 11 percents are unemployed, this figure unsurprisingly falls on the category of young people who are out of school and are unable to seek for jobs and have not enough safe land to do farming. Only 6 percents work in government offices, which basically the administrative management units and unions such as the People’s Committee, the Youth Union and Women Union... The rest 4 percents are equally divided for those who consider trading as major careers and school pupils. Trading and service in this area are still very undeveloped and mostly focus on informal sectors.

![Occupation in Vinh Truong Commune](Image)

Source: Author’s survey 2004
**Annual income**

In Vinh Truong Commune, 50 percents of the people earn from nothing to 2 millions VND per years (~130 USD/year). While 47 percents of people have a slightly higher income from 2 to 3 million VND (~130-200USD/year), only 3 percents of people making more than that, from 3 to 5 million VND (~200-300 USD). The highest income earners fall in the category of government workers and members of Kinh ethnicity group. In general, in considering the standard income poverty line of the country (120USD), more than half of the population in Vinh Truong Commune has still been striving to earn enough income for basic living and the Van Kieu group are likely to be vulnerable to income poverty more than the Kinh group. The small income earners are usually persuaded to the little profit from selling war waste, including dismantling landmine and UXO.

### Annual Income in Vinh Truong Commune

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 millions VND</td>
<td>47%</td>
</tr>
<tr>
<td>2-3 millions VND</td>
<td>50%</td>
</tr>
<tr>
<td>3-5 million VND</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Source: Author's survey 2004*

2. **Hai Hoa Commune**

There are 40 members in Hai Hoa Commune participating in this case study. Three interviewees are under 18 years old (children and teenagers), accounting for 7.5 percents, 27.5 percents are adults whose age varies from 19 to 35 years old and the rest 65 percents are in middle age. A number of 85 percents of the interviewees are married in contrast to 15 percents single, 67.5 percents are male and 32.5 percents are female. Quite a few of the interviewees have more than 2 children with 60 percents; only 10 percents have from 1 child to 2 children (6 percents of the singles had no children). All people in Hai Hoa Commune belong to the largest ethnicity group in Vietnam, the Kinh ethnic group. Two interviewees are recorded as landmine/UXO victims (5 percents of total interviewees).

### Education

Impressively, all people in Hai Hoa can read and write with 20 percents finished primary school, 50 percents completed secondary school and 30 percents graduated high school. Education has generally been disseminated and accessible to all people in the commune.

### Education Levels in Hai Hoa Commune

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>30%</td>
</tr>
<tr>
<td>Secondary school</td>
<td>50%</td>
</tr>
<tr>
<td>High school</td>
<td>20%</td>
</tr>
</tbody>
</table>

*Source: Author's survey 2004*
Occupation

Similar to Vinh Truong commune, farming is the basic occupation of the majority of people living in Hai Hoa commune, with 64 percents of people. Government workers take 13 percents while laborers take 10 percents, trading and school student take 5 percents respectively and only 3 percents remain unemployed. Notably, there is not any case referred to their occupation as scrap metal collector who carries out the search for war wastes including landmine and UXO for metal and explosive to sell for income increase.

Annual income

People in Hai Hoa Commune in deed have the income average quite high in comparison to other rural areas in the province. This is illustrated by 20 percents of people earned from 5 to 10 million VND (~350 to 600USD), 35 percents earned from 3 to 5 million VND (~200 to 350USD), and 37 percents made from 2 to 3 million VND (~130 to 200USD). Only a small proportion of people in Hai Hoa Commune earn less than 2 million VND, unemployed people and school students are much more likely to fall into this category than other groups as is shown from the data collected.

III. LANDMINE AND UXO PROBLEM

1. The existence of landmine and UXO

For the vast majority of Vinh Truong Commune population, landmine and UXO problem is not new to them. A total of 97 percents of the people have heard about landmine and UXO, they also have seen landmine and UXO with their own eyes; only one person has not heard about nor seen them (2.9 percents). Meanwhile, although all people in Hai Hoa commune have heard about landmine and UXO, a lower proportion of people has seen them directly with 82 percents while 18 percents have not witnessed any landmine or UXO.

The greater part of people in Vinh Truong Commune, 43 percents say they see landmine and UXO almost every month, another 29 percents see landmine and UXO on a weekly bases. A dangerous 14 percents encountered with landmine and UXO every day. Only
11.4 percents do not report to see landmine/UXO, these people mostly fall on the school pupils and women.

Responses in Hai Hoa Commune are remarkable in showing a better and safer situation in the commune in comparison to the former commune. None of the interviewees have encountered landmine or UXO every day or every week. Only 30 percents of interviewees encounter landmine and UXO on monthly bases and another 42.5 percents do on yearly bases. Notably, 2.2 percents (one person) even report as has not encountered with landmine and UXO at all.

2. **Where are the landmine and UXO?**

In Vinh Truong Commune, landmine and UXO exist respectively in rice fields (97,1 percents), forest (94,3 percents), mountains (80 percents), old military bases (51,4 percents) and riverbanks (20.4 percents). Meanwhile, in Hai Hoa Commune, the places people would find landmine and UXO are rice fields (40 percents), forest (27.5 percents), mountains (25 percents) and old military bases (7.5 percents). This is explainable if tracing back to the history of the two regions since fighting took place more extensively and fiercely in the former DMZ areas than in the Southern area of the province. Despite the existence of old military bases in Hai Hoa Commune, they had different functions: to provide food and equipment for the other military troops in the frontier but not strategic fighting position. This explains why the frequencies and places of encountering landmine and UXO are more various in Vinh Truong Commune than in the other one.

3. **Landmine and UXO victim members in the communities**

In Vinh Truong Commune, 63 percents of the interviewees know other members in the same communities that were involved in landmine and UXO incidents and were injured. However, dead victims are much well known with 77 percents of people said they knew the dead victims in their areas. This is understandable as 38 out of 470 community members (8 percents of total population) are victims of landmine or UXO since the war ended (1975. Especially, 8.6 percents of the interviewees are landmine or UXO survivors themselves while 17 percents report that they have someone of closed family who were injured by landmine or UXO accidents. To make the matter worse, 14.3 percents report that they have people of closed family who were killed in landmine and UXO incidents.

In remarkable contrast, the figure of people who know of landmine or UXO victims in Hai Hoa Commune is much smaller with 62.9 percents of respondents confirm that they know there are victims in their communities. Meanwhile, only 7.5 percents know dead victims involving landmine or UXO incidents. This can be reasoned by the fact that in the recent five years, none of the people in the commune become landmine and UXO victim. Even before this period (from 1975-1999), only a moderate proportion of people befall into victims with 0.95 percent of total population, whereas death resulted in only one single case. A number of 5 percents of the interviewees admit that they are landmine and UXO survivors. Only 2.5 percents of the interviewees have someone of closed family
who were injured by landmine and UXO and no respondent has family member killed by landmine and UXO accident.

4. Who are the vulnerable groups to landmine and UXO incidents?

In Vinh Truong Commune, due to the urgent need for income while little profit can be yielded from farming products, a quite high proportion of people have chosen collecting scrap metal left under the soil as a means for earning income. To do this, they equip themselves with homemade metal detectors, digging hoax and sandbags. They then travel around the villages, forest and old military bases to seek and hunt for metal pieces. No one can be sure what lied under the soil, whether it is a metal piece or a mine or other kinds of UXO. Usually, when the landmine or UXO is hit or impacted upon, they would blow up and this may result in deaths or serious injuries for the victims. Due to the hazardous characteristics of the job, 91.4 per cents of the interviewees in Vinh Truong Commune agree that scrap metal collectors would be the serious vulnerable group to the incidents involving landmine and UXO. Adults, teenagers and farmers also receive high attention of interviewees to be among the vulnerable groups with 80 percents, 71.4 percents and 57.1 percents respectively. Children, women and military soldiers are the least affected groups with 17.1 percents, 11.4 percents and 2.9 percents correspondingly.

In Hai Hoa Commune, scrap metal collector is not the highest group recognized as vulnerable to landmine and UXO incidents with 37.5 percents but children with 45 percents. Adult is ranked the third and notably, only 17.5 percents of interviewees answered that farmers would be vulnerable to landmine/UXO incidents. Some 10 percents and 7.5 percents considered teenager and women among the vulnerable groups to the incidents of landmine and UXO in their communities.
IV. THE LINKAGE BETWEEN LANDMINE/UXO AND POVERTY

1. Direct impacts of landmine and UXO to community members

Landmine and UXO are considered to impact on everyday life of 91.4 percents community members. Only 8.6 percents of interviewees have not been impacted by the problem in Vinh Truong Commune. In this commune, land is a serious issue since people need land for livelihood activities while trading and service opportunities are usually not available. This primary resource in the commune is constrained in its utility for people’s farming as 85.7 percents of respondents confirm that landmine and UXO limit their access to land for farming. While 37.1 percents report that landmine and UXO limit their access to land for basic natural resources of living such as water, food and wood, 28.6 percents admit that this problem also deprives them from using the land for housing and construction. Economic losses, inability for free movement, and being obliged to care for injured family members received 25.7 percents, 20 percents and 17.1 percents of responses respectively.

There is also strong and direct linkage of landmine and UXO threats and the psychological life of the local community since 31.4 percents of respondents fear that their family members might get injured or killed by landmine/UXO. The majority 57 percents of women said that they worried of their family members might get injured or killed by landmine/UXO in comparison to 25 percents of the total male respondents who said the same thing. Nevertheless, the amount of male worrying about themselves getting injured or killed by landmine or UXO is high with 32 percents out of the total male respondents while none of the female interviewees did. This can be easily explained by
the figure of male dealing with activities that can lead to encountering with landmine or UXO such as cultivating in wild areas, laboring around the communities, and particularly searching for war wastes.

People in Hai Hoa Commune, on the other hand, have been impacted by landmine and UXO with more psychological issues than physical issues. This was shown by 47.5 percents of the interviewees said they worried that landmine and UXO might cause accidents to their family members. There is only one percent worry of himself getting injured or killed by landmine and UXO. It is not surprising to reason this phenomenon as the Mine Risk Education program has been launched in this commune.

Some 27 percents of interviewees agree that landmine and UXO limit their access to land for farming. This figure is far lower in comparison to that of Vinh Truong Commune. This can also be understood as Hai Hoa Commune has been assisted with an NGO mine clearance program.

2. **Do people need more land for cultivation and farming?**

As stated above, land is an important resource to rural communities. However, this crucial asset may sometimes be deprived because of different reasons. This study as is presented earlier, focuses on the reason of post war consequences. A number of 91.4 percents of the interviewees in Vinh Truong Commune said that their families need more land for farming activities while only 8.6 percents said the opposite. Out of the community member percentages for whom land is a pressing demand, 93.3 percents confirm that postwar landmine and UXO is one of the main actors that involves in affecting their use of land. The impact is depicted by the hidden and constant threats from the landmine or UXO lying in the soil.

Land is also a quite demanding issue in Hai Hoa Commune with 80 percents of the interviewees admitted that their families need more land for cultivation and farming activities. However, the reason for their demand of land expansion is different from the former commune. While 25.7 percents agree that landmine and UXO hinder their use of
land to implement cultivation, 74.3 percents believe that their need for land is not because of the reason imposed by landmine and UXO but purely due to population growth.

Postwar landmine and UXO continue to be major obstacles for farmers in Vinh Truong Commune to make the best use of their land.
Dec 2004

3. Landmine/UXO and people income

Out of the majority part of people in Vinh Truong Commune whose land is limited due to landmine and UXO threats (88.6 percents), 54.8 percents of people had annual income under 2 million VND (~120USD), 38.7 percents made from 2 to 3 million VND (~200USD) and only 1 interviewee made from 3-5 millions VND (~200-350USD). Meanwhile, interviewees whose land is unaffected by this problem do not fall into the lowest income category. Similar situation is found in Hai Hoa Commune as the minority proportion of people whose land affected by landmine and UXO (27.5 percents) also has income lower than the other non-affected group. Apparently, there is a connection between the deprivation of land use due to the danger posed by postwar landmine and UXO for farming activities and the annual income of rural people.

When farming cannot afford the economic life of the people, different kinds of income raising activities would usually be mentioned as mitigation to the poverty status and to the security of living resources in rural communities. Consequently, 70 percents of the interviewees in Vinh Truong Commune said they already have some kinds of income raising ideas but they cannot realize because of the problem of landmine and UXO. Most of the ideas listed concentrate on cultivating more tracts of wild land to expand their rice and grain fields, raising livestock primarily cows and pigs, growing fruit trees and some other small businesses requiring traveling through the mine contaminated areas.

Income of people whose land is affected by mine in Vinh Truong Commune

Source: Author’s survey 2004

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In Hai Hoa Commune, the picture is very much in contrast when only 6 percents respondents think that their income raising generation ideas are constrained by the problem of landmine and UXO although the ideas for activity are pretty much closed to that of the people in the former commune.

4. Supports received to increase the income

Many families in Hai Hoa Commune have received supports to increase their income (80 percents). The supports mainly focus on micro-credit program, productive-cows raising and new grain seeds. However, the amount of support is adequate for local people to start the business with an average amount of 7 million VND per each household. All of these supports come from the Government through the Bank for the Poor.[28] Small scale of landmine and UXO problem and fertilized soil allow the agriculture and fruit trees with new seed grains of the people in the commune gathered higher productivity. This is very much linked to the annual income of the people in the commune as stated above with 55 percents of interviewees earn more than 200 USD per year.

Vinh Truong Commune also receives some kinds of support to increase the income generation activities. The supports so far include the national poverty reduction program 135 and a small project of Oxfam Hong Kong, an NGO, which helps people digging wells for clean water. In 2004, the commune received the ODA project “Share”. However, the amount of support from these programs is still moderate in comparison to the difficulties that life treats the people in this area. An average of 1.5 million VND (100USD) for each household participated in the program 135, another average 2 millions VND (150USD) for household participate in “Share” Program and a moderate small support from Oxfam Hong Kong. The majority people have received poverty reduction Program 135 (95 percents of commune population) and recently more people have received funding from Share (50 percents). Only 35 percents of commune households own clean water well with assistance from Oxfam Hong Kong.[29]

It is obvious that the Bank for the Poor has played a key role in providing fund and training to people in Hai Hoa community. Thanks to the involvement of this actor, people in Hai Hoa have effectively increased their income though different activities. By contrast, the Bank for the Poor is not active in Vinh Truong community. Minority group people are unaware of the existence of this financial mechanism at district level and are not used to borrowing money.[30]

The common practices from backward habits and underdeveloped production have held minority group people in Vinh Truong commune to poverty as is identified by local authority and development programs. To make the matter worse, as is found in this study, the problem of landmine and UXO contributes to prevent community members from making the best use of the supports received to effectively increase their income. Representatives from both communities have confirmed this fact. It is thus evident that poverty reduction and development programs cannot avoid the postwar legacy issues in areas where the arm conflict has gone by. The mission of socio-economic development would continue to be challenged for Vinh Truong community in the coming years when the lingering effects of the war is still here and there.
PART III
CONCLUSIONS

There are several reasons which set constrain to the effort to alleviate poverty such as underdeveloped agriculture background, disadvantaged topography, low education, small informal trading sectors, poor natural resources and heavy consequences of the war... as has been stated by the representatives in communities. The existence of landmine and unexploded ordnances is considered one of the major constraints not only to poverty alleviation but also to development programs that are trying to improve situation in the mine contaminated communities.

Comparisons of the two communes through the data gathered in this study show clearly the differences between communities involving the problem of post war legacy although they stay in the same province in the Northern Center Coast. Vinh Truong Commune is in the North-West of the province, with mountainous topography and populated with most ethnic minority group (Van Kieu) while Hai Hoa Commune is in the South of the province, plain topography and populated with the ethnic majority group (Kinh). The problem of landmine and UXO proves to be one of the major concerns in restricting the development of community both in social and economic aspects as illustrated in the Vinh Truong Commune. The commune has undoubtedly been enduring with the problem of landmine and UXO and consequently faces more social-economic issues. Poverty alleviation task becomes more challenging due to the lack of safe land for farming, the incapability to get access to available natural resources and the feeling of unsafe of local people to implement the development activities according to their wills. In both communes examined, the income of households of which farming land is contaminated with landmine and UXO is apparently lower than the non-affected group. The problem is also recognized partly responsible for social issues such as unemployment; adults and youngsters leaving communities for opportunities in other areas, risk taking career (scrap metal hunters) and more handicaps and burden to society resulted from landmine and UXO incidents. Mine action programs including landmine and UXO clearance and Mine Risk Education contribute to poverty reduction mission in these communities by retrieving the safe land for agricultural activities, decreasing landmine and UXO accidents through educating people of the safe attitudes and behaviors and to create favorable conditions for other social economic development programs. Vice versa, development programs in landmine and UXO contaminated society need to take into account the war-affected issues prior to launching the activities. The linkage between the mine action programs and development programs is complementary for increasing the quality of life, creating the social economic opportunities as well as promoting the community development. The case of Vinh Truong Commune is highlighted in contrast to the latter commune which suffers less problem of landmine and UXO (Hai Hoa Commune) to present the arguments concluded in this case study.

First of all, Vinh Truong Commune definitely faces not only with the danger imposed by the post war landmine and UXO but also from the negative impacts derived from their existence. The existence of these dangerous items is confirmed by the fact that a lot of people have heard and/or encountered landmine and UXO. Places likely to encounter landmine and UXO are usually in farming land on which people depend for food (rice and grains) and water, in forest where people look for wood and/or food, or mountain where there might be scrap metal pieces which help the unemployed and the out-crop season
farmers earn some small proportions of income. Consequently, the majority of the people in Vinh Truong Commune are denied of the opportunity to use the land effectively and adequately, of the total freedom to get access to natural resources and of the basic privilege to ensure the safety of individuals in the communities in the attempt to reach for a decent living.

The majority of people in Vinh Truong Commune live on farming but their opportunity to use or to expand the land is seriously denied by the threat from landmine and UXO. The farming area and productivity in Vinh Truong can in fact be further increased and improved if the landmine and UXO problems are completely solved. Looking at the annual income of the two communes, it is not hard to point out which one is more well off. Hai Hoa Commune obviously has higher income richness than Vinh Truong Commune. On the contrary, Vinh Truong population suffers income poverty when their average income is much lower than the national average annual income (450 USD and is also set about the poverty line in Vietnam (150 USD/year). Especially, it is very clear that households whose farming land is contaminated with landmine and UXO earn much lower income than the non-affected households. Most of people whose farming land is limited had annual income under 2 million VND (~120USD) while no people with land free from the problem falls into the lowest level of income. Although agricultural productivity can be decided by different factors such as land fertility, bio-technique... but one of the most vital issue would be the safety that allow people to get access to using the land. This explains that even though farming is the major means of livelihood in the two communes, Hai Hoa farming activities provides much more productivity.

The threats posed by these war remnants deprive people in this commune from looking for more living resources such as food, water and wood. While mountainous minority group people usually lived on hunting and gathering, this deprivation certainly imposed further difficulties to the Van Kieu group. “All civilizations have depended on an adequate supply of food, water and energy. The ancient Greeks considered that the basic elements for life were land that produced food, water that purified and gave health, and fire that provided power for human activities. In their view, without food, water and energy source, there was no viability, either personal or collective, in their polis. This fundamental truth still holds in our time”.[31] Even though modern living style starts to squeeze in the villages through the scattered appearance of motorbikes, televisions in some households, people in Vinh Truong Commune are still very far from the modern economic development. Certainly, the more backward a society is, the more people have to rely on agriculture land and natural resources for existence.

“The people have to look for wood in the forests but there are a lot of unexploded ordinances littered on and under the land, especially the cluster bombs left by the U.S Army,” said Mr. Ho Van Son, representative of Vinh Truong Commune. The fear of getting injured or killed by landmine or UXO has held people back from cultivation and realizing other basic living activities. The denial of economic opportunities through the obstacle of postwar landmine and UXO actually can be a form of unfreedom. While people do not enjoy the security protection as instrumental freedom, they would certainly not be free to fully integrate into the process of development.[32]

Similarly, the denial of access to land for farming, for housing and living activities is one of the reasons that aggravated the unemployment in the commune. Unemployment, by nature, could be pointed out as reason for loss of income. However, “there is plenty of
evidence that unemployment has many far-reaching effects other than loss of income, including psychological harm, loss of work motivation, skill and self confidence, increase in ailments and morbidity, disruption of family relations and social life...”.[35] In this view, it is perceived by both communes that their villages have to face some social problems such as the leaving of the adult and youngsters out of the villages to look for opportunity in other areas because they cannot afford land for cultivation or economic planning. Unemployment in Vinh Truong Commune is higher than in Hai Hoa Commune and there are many more scrap metal collectors in the former commune. Regarding the scrap metal collectors in Vinh Truong Commune, they accept to take risk in search for war waste and explosive as a means for daily income. The penalty of this economic driven activity through the form of poverty might easily turn out to be deaths or injuries. It even increases the number of handicaps in the communities. As one family member is injured, the burden will be put on the shoulders of the rest in the family to take medical care, to work harder for replacement of the injured who often are the breadwinners.

Most of the income generating ideas are not delayed by landmine and UXO in Hai Hoa Commune and people thus could turn their ideas into reality. In other words, the economic opportunities of the rural people in Hai Hoa Commune is more secured and enabled by both physical and psychological conditions as the threats posed by postwar landmine and UXO are lessen in the community. The situation is contradictory in Vinh Truong Commune as many income generation projects of rural people are born but unable to be implemented due to the limitation of arable land caused by mine contamination.

Secondly, it is positive to confirm that the efforts to solve the landmine and UXO problem have certain impacts on social economic activities. Example from Hai Hoa Commune proved that the Mine Clearance program and Mine Risk Education program have helped people to retrieve land for daily livelihood activities and to stabilize their psychology. The demining program actively contributes to the minimizing of land affected with landmine and UXO and thus provides people with more choices to cultivate on their land according to their wills because there would not be the threats of death and injury due to landmine and UXO incidents. The Mine Risk Education program helps educate the people understand the scale of danger and recognize the shape and area of landmine and UXO to avoid and also to cooperate and report the landmine and UXO to the demining team. When these two programs are implemented together, the solutions to the problem of landmine and UXO are even more effectively. The mine action programs, in this view, serve to facilitate economic development in rural mine contaminated communities and also create favorable circumstances for the reduction of poverty rate and for the expansion of productivity.

Finally, despite the supports from the Government (program 135), the non-government organization (Oxfam HK) and ODA funding (Share), economic activities in Vinh Truong Commune change slowly. The ideas of the majority in this commune are to receive help to eliminate the landmine and UXO so that they can implement the development activities that they are now supported. As discussed above, mine action programs including clearance and education could help to foster economic development activities. Thus, it is important to look at the relevance between community development activities and mine action activities in landmine and UXO contaminated areas. While people in Vinh Truong Commune have to struggle with landmine and UXO dangers to carry out the development activities, most people in Hai Hoa Commune feel the ease in doing the same kind of activities. In fact, people in Hai Hoa achieve higher productivity and income on a similar
agricultural economic background. While other concerns such as land fertility, accessibility to new seed grains and methodologies of cultivation... are carefully considered in the process of community development; post-war landmine and UXO have not been fully taken into account even though they bring obstacles to the efforts of development in communities. Most people in Vinh Truong Commune provide feedback that the mine contamination hinder their development activities supported by the development programs. Importantly as a consequence, community development programs need to look into the existence of this problem as challenges and threats to the effectiveness and outcomes of their programs right at the program designing step.

The concept of land expansion and the freedom to get access to natural resources without the threats of landmine and UXO are vital to the people in Vinh Truong Commune while waiting for positive changes in the economic development programs backed up by Government and NGO programs. The efficient contributions of land and other natural resources can hardly be doubted and traditional rural societies such as Vinh Truong and Hai Hoa communities would continue to depend on the availability of these resources for a long time. These resources remain crucial to primary economic activities and the progress of poverty reduction in disadvantaged, mine-affected communities in Quang Tri Province.
NOTES
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[4]. Ibid.
[5]. Ibid.
[6]. Quang Tri Provincial Department of Planning and Investment, *Report on the use of ODA funding in Quang Tri*, 2003
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Annex A

RECOMMENDATIONS

Faced with the consequences and constraints imposed by the problem of landmine and unexploded ordnances, communities in former war battled areas such as Vinh Truong Commune, as we have explored, can easily be barred in slow reduction of poverty, insecurity of food and low quality of life. Importantly, other communities development programs are also affected from achieving the expected positive results. These communities thus could remain poor for a significant period and eventually contributes to the inequality of social economic development in the whole national economy. It is thus possible to propose recommendations from the perspective of this case study.

First, interventions on solving the problem of landmine and UXO should be considered and where possible the interventions should be integrated into development activities. Land should be cleared of landmine and UXO to return to the people for farming and livelihood activities. Hence, landmine and UXO safely removal will reduce the risk for farmers to get access to land for farming, for housing, living resources and income raising activities. One of the basic activities of “national program 135”, for example, is distributing wild land for the people and encouraging them to grow forest. However, in communities like Vinh Truong, the chance of getting involved in landmine and UXO incidents is very high (93.4 percents respondents in Vinh Truong encountered landmine and UXO in the forest). The forestation policy, despite its usefulness in nature, unexpectedly causes potential hazards to people in mine contaminated communities such as Vinh Truong.

It takes a great amount of budget and time to find and safely remove the landmine/UXO. The sad truth in war-torn societies remains obstacle to most development attempts nowadays. Therefore, efforts on calling for funding to provide solutions to landmine and UXO should be strengthened to insure the feasibility of the mine clearance activities. Besides, priorities should be set up to focus resources, funding and activities in most needed communities/areas. Priorities should not only base on the superficial number of victims but also base on interdisciplinary examinations regarding other dimensions of poverty such as social opportunities (education, healthcare...), economic facilities (farming, income raising activities...) and protective security (no more psychologically anxiety of landmine and UXO threats).

Secondly, given the quite high number of landmine and UXO figure in Vinh Truong Commune, mountainous, minority group communities in former war zone should be supported with the victim assistance program. At the same level of poverty but landmine and UXO survivors certainly suffer severe impacts from losing their capacity to work contributively for the family income. Thus, their families are very much affected in economic life, especially for those that lost the main source of labor and breadwinners due to amputees and handicaps. The survivors need to be treated, in poverty reduction programs and/or community development projects, in a way that well fits their situation. Activities should be adapted to their physical conditions and should play the role of reintegrating the survivors as part of the community development. In short, careful examinations should be considered when implementing poverty reduction and/or development programs in order to insure the landmine and UXO survivors are not excluded from the community development process.
There are currently quite a number of people in Vinh Truong Commune work as scrap metal collectors and disposing or cutting landmine or UXO to sell for income (17.14 percents). This is one of the main reasons for continuing landmine and UXO accidents in Vinh Truong Commune in the recent five years. According to the local people, each scrap metal collector could earn 15,000 to 30,000VND per day (~1–3USD). This amount is significant in considering their total monthly income. It thus triggers more people to join the group, especially when the crop season is over. However, the job also put the scrap metal collectors at severe threats of mine accidents. When driven by poverty and inspired by easy raising income work, scrap metal collectors would not much bother of the potential threat of explosion as long as they keep the hunger and poverty at bay. However, as feedbacks from the community representatives, one of their worries is that there would be more amputees/handicaps in the commune, which put burdens to family and hinder community development process. It is therefore significant to include this group into the poverty reduction programs in one hand and educate them about the danger of their jobs on the other hand. If landmine and UXO clearance programs are not yet deployed, mine risk education activities should be considered to provide safety messages and information of dangerous areas to local people, especially to the most vulnerable groups such as scrap metal collectors, farmers and children.

Last but not least, Vinh Truong Commune in particular and other community groups in Quang Tri Province in general are now standing at the new opportunity of surpassing poverty and joining the economic integration into international community. This is possible because the new Ho Chi Minh highway had been constructed by the Government and ODA fund through Vinh Truong Commune, linking itself to other neighborhoods and countries including Laos, Thailand and Myanmar, creating a special commercial and trading opportunity for the whole region. The highway is believed to play an important role in the poverty reduction strategy of the area. People in Vinh Truong Commune and others in the vicinity can then profit in a more sustainable way of agriculture, trade and services if they can eliminate the threat of landmine/UXO out of their daily lives. The security of livelihood and the freedom to get access to the means of development will obviously enhance the growth process in the rural community.
Annex B

QUESTIONNAIRE FORMS

COMMUNITY REPRESENTATIVE QUESTIONNAIRE
(For community representatives)

1. General Information
   Date: 
   Location/village: Commune: 
   District: Province: 

2. How long has the community been located here?
   # Years: 

3. How long have you been in the position of community leader?
   # Years: 

Socio-economic information

4. Population data
   Total population of community: % Male: % Female: 
   Ethnicity □ Kinh: % □ Vankieu: % □ Paco: % □ Others: % 

5. Income data
   Major means of livelihood: Approximate family income/year (VND)
   □ Farmer □ Labourer □ Trading □ 0-2 million □ 2-3 million 
   □ Student □ Government □ Unemployed □ 3-5 million □ 5-10 million 
   □ Other (specify): □ 10-15 million □ 15 million+ 

Landmine/UXO data

6. Was the community bombed/shelled/mined in the war?
   □ Yes □ No If yes, what year(s)? □ 1-2 times □ Many 

7. (If yes) Where do the landmine/UXO exist the most in your community?
   □ Rice paddies/fields □ Old military bases □ River banks 
   □ Seaside □ Trails □ Forest 
   □ Roadside □ Mountains □ Near people's home 
   □ Other(s) (specify): 

8. How much land in your community is contaminated by landmine/UXO?
   □ Small (<100m²) □ Large (>1,000m²) 
   □ Medium (100-1,000m²) □ Don't know
9. UXO/mine accident figure of the commune

<table>
<thead>
<tr>
<th>Year</th>
<th>Total of victims</th>
<th>Gender</th>
<th>Age group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>1-6</td>
</tr>
<tr>
<td>1999-2003</td>
<td>Fatal</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Injured</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total 1975-1998

10. What have been the activities of community members leading to mine incidents?

☐ Farming
☐ Collecting scrap metal
☐ Collecting wood/water/food
☐ Playing/recreation
☐ Cultivation in wild area
☐ Tending to livestock
☐ Entering into old military base
☐ Fishing/hunting
☐ Watching person defuse bomb
☐ Don’t remember
☐ Other(s) (specify):

11. What have been the major effects of landmine/UXO in the community?

☐ Limit access to land for farming
☐ Limit access to land for housing
☐ Limit access to water/wood/food
☐ Death/disability
☐ Fear of injury/death
☐ Inability to travel/move freely
☐ Economic burden from medical bills/loss of income
☐ Other(s) (specify):

12. Do you think that landmine/UXO hinder the development of the community?

☐ Yes
☐ No

If Yes, they impact on

☐ Economic stagnation
☐ increasing poverty

☐ Hinder social development
☐ Yes
☐ No

If Yes, they impact on

☐ Adults leaving community
☐ Young people leaving
☐ More handicaps
☐ Lack of work (limited land) lead to social problems

13. Has your community received support for solving the landmine/UXO problem?

☐ Yes
☐ No

If yes, how did they support?

☐ Mine Awareness program
☐ Mine victim support
☐ Survey/mark dangerous areas
☐ Demining
☐ Don't know

The support come from:

☐ Government
☐ NGOs
☐ Others (specify):

14. Has the support(s) above been effective?

☐ Yes
☐ No

If No, Why?
15. Has there been any poverty reduction/development program in your commune?

- [ ] Yes
- [ ] No

If yes, please specify:

16. Do you think that landmine/UXO problem affect the above programs?

- [ ] Yes
- [ ] No

If Yes, how did affect the above programs?
## COMMUNITY MEMBER QUESTIONNAIRE

(For community members)

### 1. General Information

<table>
<thead>
<tr>
<th>Date:</th>
<th>Quest No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location/village:</td>
<td>Commune:</td>
</tr>
<tr>
<td>District:</td>
<td>Province:</td>
</tr>
</tbody>
</table>

### 2. Information about interviewee

<table>
<thead>
<tr>
<th>Age:</th>
<th>Sex:</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status:</td>
<td>Married</td>
<td>Single</td>
<td>Other</td>
</tr>
<tr>
<td>Number of children:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity:</td>
<td>Kinh</td>
<td>Paco</td>
<td>Vankieu</td>
</tr>
<tr>
<td>Education level:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation:</td>
<td>Farmer</td>
<td>Labourer</td>
<td>Trading</td>
</tr>
<tr>
<td>Approximate family income/year (VND):</td>
<td>0-2 million</td>
<td>2-3 million</td>
<td>3-5 million</td>
</tr>
</tbody>
</table>

### 3. Have you ever heard of landmine or unexploded ordnance (UXO) in this community?

| Yes | No |

### 4. Have you ever seen mines or UXO in your area?

| Yes | No |

a. If yes, where have you seen mines/UXO in this community?

*Interviewee may give more than one answer*

| Rice paddies/fields | Old military bases | River banks |
| Seaside | Trails | Forest |
| Roadside | Mountains | Near home |
| Other(s) (specify): | |

b. How frequently have you encountered landmine/UXO in this community?

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other (specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5. Do you know if a member of this community has been injured or killed by mine/UXO?

| Injured | Yes | No |
| Killed | Yes | No |

### 6. Which subjects are usually landmine/UXO victims?

<table>
<thead>
<tr>
<th>Children</th>
<th>Women</th>
<th>Farmer</th>
<th>Military</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>Teenager/youth</td>
<td>Scrap metal searcher</td>
<td>Sapper</td>
</tr>
<tr>
<td>Others (Specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 7. Have you been injured by landmine/UXO?

| Yes | No |
8. Has someone of your close family been injured/killed by landmine/UXO?

<table>
<thead>
<tr>
<th></th>
<th>□ No</th>
<th>□ Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Yes, how many?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Killed</td>
<td>□ No</td>
<td>□ Yes</td>
</tr>
<tr>
<td>If Yes, how many?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Do landmine/UXO affect you in your daily life?

<table>
<thead>
<tr>
<th></th>
<th>□ No</th>
<th>□ Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, how do they affect you? (Interviewee may give more than one answer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Limit access to land for farming</td>
<td>□ Fear of loss of family member</td>
<td></td>
</tr>
<tr>
<td>□ Limit access to land for housing</td>
<td>□ Fear of myself getting injured/death</td>
<td></td>
</tr>
<tr>
<td>□ Limit access to water/wood/food</td>
<td>□ Inability to travel/move freely</td>
<td></td>
</tr>
<tr>
<td>□ I have to care for injured family member?</td>
<td>Fear of my animals being killed</td>
<td></td>
</tr>
<tr>
<td>Lead to economic losses in my job (as farmer)</td>
<td>□ Other(s) (specify):</td>
<td></td>
</tr>
</tbody>
</table>

10. Does your family need more land for development activities?

<table>
<thead>
<tr>
<th></th>
<th>□ Yes</th>
<th>□ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, do the landmine/UXO limit your economic development?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Do you have any income generation ideas that are now hindered by mines?

<table>
<thead>
<tr>
<th></th>
<th>□ Yes</th>
<th>□ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Yes, what are they?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. Do you receive any support to increase income?

<table>
<thead>
<tr>
<th></th>
<th>□ Yes</th>
<th>□ No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Yes please specify from who, how often, how much:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Other comments collected from the interviewees
Annex C

MAP OF RESEARCH SITES

Source: Map courtesy of Project RENEW™