Landmine Impact Survey

Kingdom of Thailand

Certified by the United Nations Certification Committee

Implemented by the Survey Action Center and

Norwegian People's Aid

Executive Summary

PROJECT ABSTRACT

The *Landmine Impact Survey* in Thailand summarizes the results of a nationwide socio-economic survey of the effects of landmines and UXO on communities in Thailand. This survey was conducted over a fourteen-month period, ending in June of 2001. This document is only one in a series of reports, which collectively constitute the *Global Landmine Survey Initiative*. This initiative aims to catalog the socio-economic impacts caused by landmines and UXO and to store this data in a manner that supports strategic national planning and resource allocation decisions. The report on Thailand is designed to be read in conjunction with a document entitled *The Global Landmine Survey Initiative*, which describes the global project as well as the general methodologies used to conduct impact surveys.

The following governments and organizations provided contributions to the survey:

Funding was matched in part by the United Nations Foundation.

Introduction

Growing out of the wide collaborative efforts of the International Treaty to Ban Landmines, Landmine Impact Surveys are executed to meet the needs of all members of the international humanitarian mine action community including donors, national authorities and mine action implementers.

The overall vision for Landmine Impact Surveys is to *"facilitate the prioritizing of human, material and financial resources supporting humanitarian mine action at the national, regional and global levels."* To fulfill this vision, Landmine Impact Surveys are executed across the globe to the same uniform high standard.

Landmine Impact Surveys provide the three major partners of mine action—national authorities, donors and implementing agencies—with a common dataset. This data, as collected during the impact survey, offers clear improvements of past efforts in that it:

- *Defines* the entire problem in terms of scale, type, location, hazard and social and economic impacts experienced by local communities.
- *Improves* national planning efforts by allowing for clear prioritization of resources
- *Fosters* development of national plans with well-defined immediate, intermediate and end-state objectives
- *Establishes* baseline data for measuring performance

In sum, this implies nothing short of a major revision of how mine action programs are managed and how resources for such programs are allocated. Impact surveys are the first and most vital step in the overall transformation of humanitarian mine action. Impact surveys dramatically improve the quality of information available to support management decision making at all levels.

The findings and information presented in this report are stored in the Information Management System for Mine Action (IMSMA) database and are intended to be descriptive in nature, providing the best and most comprehensive picture of the nature of the mine and UXO threat experienced by communities in Thailand. While essential for national planning, this report is *not* a substitute for a national plan. It does not relieve national authorities or mine action professionals from their collective responsibility to gain a full understanding of the results of the survey and to use these results to set priorities, mobilize funding and allocate resources in the most effective and rational manner. The survey has transformed the unknown into information and knowledge. The challenge now is for others to use this knowledge to bring about positive, constructive action.

As a global initiative with a stated goal of standardizing information across countries, Landmine Impact Surveys make a concentrated effort to ensure conformity of methods, procedures and processes. These are based on best practice in the fields of social science research and mine action. To ensure confidence in

the results, impact surveys are supported by both internal and external quality control mechanisms. All surveys executed with the involvement of the Survey Action Center measure and score impacts in affected communities in a generally uniform manner. This being stated, the true value and nature of the impacts can not be ascertained by a quick tallying of colored dots on a map; instead readers should make a concentrated effort to understand all aspects of the problem.

Executive Summary

SUMMARY OF CONCLUSIONS

The Landmine Impact Survey conducted in the Kingdom of Thailand from May 2000 until June 2001 conclusively identified 530 mine-impacted communities that contain 933 distinct mine and UXO contaminated sites. Of these communities, 297 are located along Thailand's border with Cambodia, 139 along the border with Myanmar, 90 in the areas adjacent to the Thai-Laos border, and four near the border with Malaysia. The estimated 2,557 square kilometers of contaminated land in Thailand directly affects the livelihoods and safety of 503,682 persons. A thorough verification exercise suggests that the survey was successful in reaching at least 95 percent of the contaminated communities in Thailand.

The data collected afford extensive opportunities for research, analysis, and project planning, and lead to several key conclusions:

- Thailand's border area with Cambodia is the most seriously affected region in the country. It contains three quarters of the contaminated land and the majority of highly impacted communities. More than half of the mine incidents in Thailand have occurred on this border.
- Hunting and the collection of forest products such as foodstuffs or wood are the most frequently reported activities at the time of a mine incident.
- Surveyed communities reported that large swaths of forested land are mine- and UXO-contaminated and that the loss of access to this land is the greatest adverse impact. This creates a severe dilemma in that low density or poorly defined contamination in such areas poses severe and costly technical challenges to clearance activities. One possible solution would be to selectively target for clearance only a portion of high-value areas within the forest confines, and to rely on risk-reduction and mine-awareness efforts to reduce impacts in other areas.
- The profile of the average mine incident victim in Thailand is a working-age male engaged in some form of income-generating activity. The data indicate that very few victims are children and that very few victims are engaged in either tampering or informal demining at the time of injury.
- Over one third of the mined areas in Thailand are easily accessible and have a clearly delineated boundary on all sides. This facilitates rapid marking and subsequent clearance activities.
- Communities that suffer multiple blockages of forests, cropland, and water sources have a higher rate of incidents than other communities do. They also tend to be clustered close together.

BACKGROUND AND PROJECT OVERVIEW

Thailand was the first nation in Southeast Asia to sign and ratify the *Convention on the Prohibition of the Use, Stockpiling, Production, and Transfer of Anti-Personnel Mines and On Their Destruction*. In 1998, the Office of the Prime Minister established the National Mine Action Committee (NMAC) as the mine action policy body within Thailand. It then established the Thailand Mine Action Center (TMAC) to implement and coordinate mine action activities. The Humanitarian Mine Action plan that TMAC currently uses envisions the creation of up to seven multi-skilled Humanitarian Mine Action Units (HMAU) to work in the most affected sections of Thailand's borders.

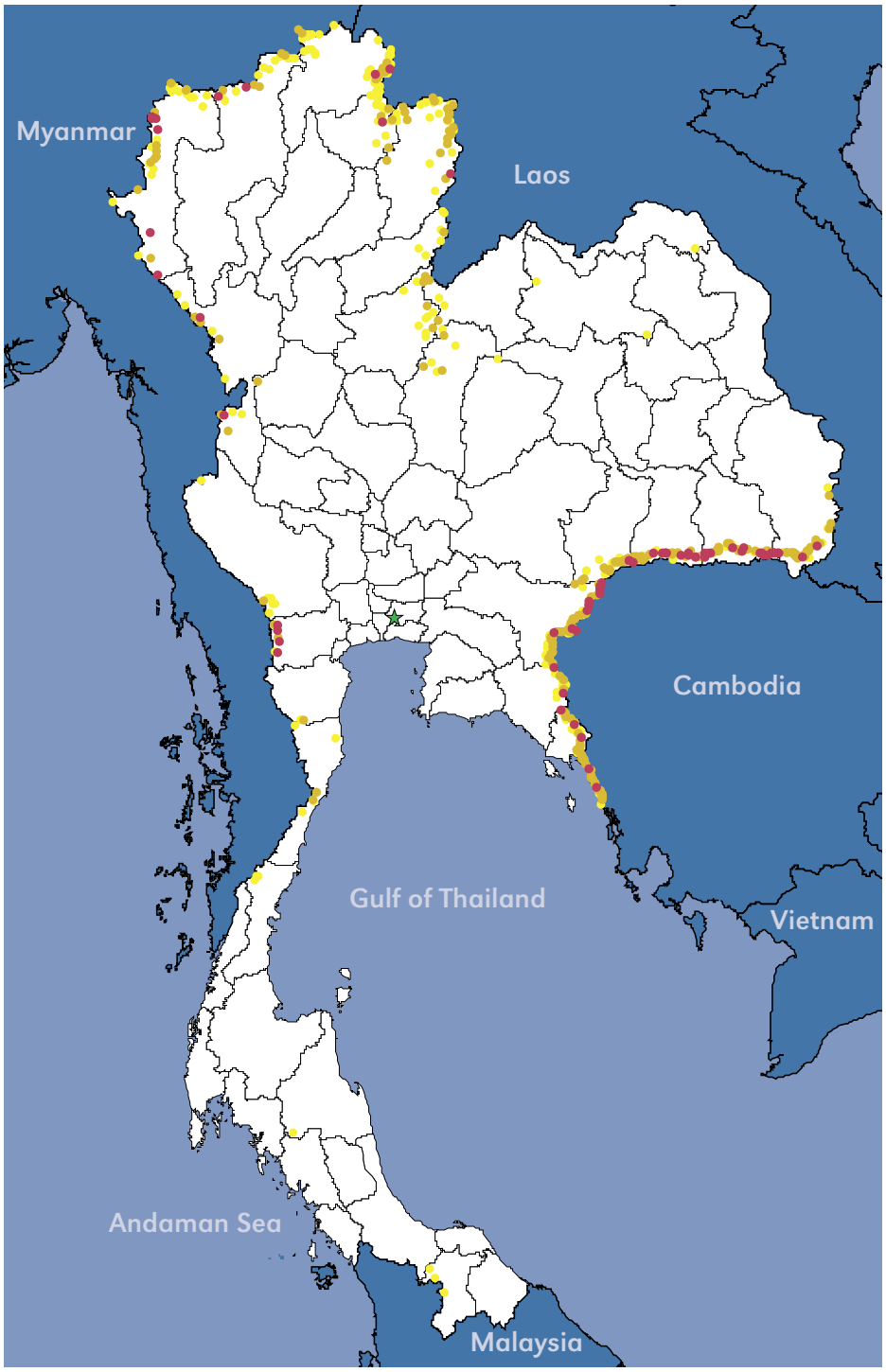
The Landmine Impact Survey in Thailand began in May 1999 when the United Nations Mine Action Service (UNMAS), at the behest of TMAC, requested that the Survey Action Center (SAC) undertake the survey. Following two preliminary missions to Thailand, Norwegian People's Aid (NPA) was selected to execute the survey. It established a full-time presence in Thailand in May 2000. NPA executed the survey in accordance with the principles and operating protocols established by the Survey Working Group (SWG) as well as the UNMAS Certification Guidelines. The data collection phase was completed in May 2001 and the office closed shortly thereafter.

The governments of Norway, the United Kingdom, the United States, Finland, Australia, and Canada, as well as the United Nations Foundation, provided funding for the survey. A portion of these funds was made available through a contracting mechanism managed by the United Nations Office for Project Services (UNOPS).

NPA executed the survey with four international staff members and more than 80 Thai nationals. The survey staff was organized into four field groups that moved throughout the country, coordinating their movements through one central office in Bangkok. Data collected was entered into the Information Management System for Mine Action (IMSMA). The TMAC provided the NPA team with extensive support including office space, use of heavy-duty vehicles, and indispensable coordination and liaison with Thai military commands.

SCOPE OF THE PROBLEM

The survey conclusively identified 27 mine-affected provinces out of the total of 76 provinces in Thailand. Within these provinces, a total of 530 communities were identified as mine-affected. Thailand's border with Cambodia has 297 impacted communities with 473 mined areas that cover an estimated surface of 1,943 square kilometers. There are 139 mine-affected communities on Thailand's border with Myanmar and a total of 240 reported mined areas covering 400.5 square kilometers. The Laos border region contains 90 affected communities, with 213 distinct mined areas covering 211.6 square kilometers of surface area. Near Thailand's border with Malaysia, the survey found only four mine-affected communities with seven mined areas that cover just 1.15 square kilometers of land.



MAP 1

THAILAND—LOCATION AND IMPACT OF LANDMINES/UXO AT VILLAGE LEVEL

Village impact
- High
- Medium
- Low

The communities in all regions were close to the respective borders, averaging just 7.1 kilometers from the border with Cambodia, 12.8 kilometers from the border with Myanmar, 14.1 kilometers from the border with Malaysia, and 24.3 kilometers from the border with Laos. The much higher average distance for communities on the Laos border reflects the fact that a fair degree of contamination exists farther inland in the vicinity of old insurgent bases and battlefields. The

933 contaminated areas range in size from one square meter to several square kilometers. The survey collected information on these mined areas, including boundary definitions (none, some, and all), topographic features, vegetation cover, and type of ordnance present, and used this information to assess the associated difficulty of clearance. Based on this assessment, roughly 60 percent of the contamination in Thailand, measured in terms of area, is found in large, undefined, and difficult-to-clear sites. Yet, when contaminated areas are assessed in terms of socio-economic impacts, smaller, more defined and easier-to-clear areas stand out. Indeed, it is predicted that 26 percent of the sites in Thailand can be cleared in a short time period, given standard clearance methods.

IMPACT ON COMMUNITIES

Using the Impact Survey standard scoring mechanism to rank communities in broad categories reflecting the degree of mine impact, the NPA team determined that Thailand contains 69 "highly impacted" communities, 233 "medium-impacted" communities, and 228 "low-impacted" communities. The indicators used to determine this ranking include the number of victims in the past 24 months, blocked access to facilities or livelihood areas, and the nature of the contaminating ordnance. In Thailand, 134,320 people live in highly impacted communities, 162,114 in medium-impacted communities, and 207,248 in communities where impact is low. Of the border regions, the Thai-Cambodia border has 51 highly impacted communities, 161 medium-impacted communities, and 85 low-impacted communities. The Thai-Myanmar border area has 16 highly impacted communities, 38 medium-impacted communities, and 85 low-impacted communities. Thailand's border area with Laos contains two highly impacted communities, 34 medium-impacted communities, and 54 low-impacted communities. The border with Malaysia has four low-impacted communities.

TABLE 1

IMPACTED COMMUNITIES, BY BORDER REGION

	Cambodia	Myanmar	Laos	Malaysia	TOTAL
High	51	16	2	–	69
Medium	161	38	34	–	233
Low	85	85	54	4	228
TOTAL	**297**	**139**	**90**	**4**	**530**

IMPACT ON SECTORS

The survey collected extensive information regarding the types of livelihoods that are denied local populations because landmines and UXO are present. Forest area is the most frequently reported blocked resource type—61 percent of all communities indicate some loss in this regard. Blocked access to cropland is the second most commonly reported loss, followed by pastureland and then water resources. In Thailand, mines and UXO rarely affect roads, housing areas, and other major types of infrastructure.

MINE INCIDENTS

The survey identified 346 persons that had come to harm or death due to a mine incident in the 24 months preceding the survey. A further 3,122 victims were recorded from incidents in earlier years. Incidents took place in 131 out of the 530 impacted communities in Thailand, and the highest rates of injury were along the Cambodian and Myanmar borders. At least 80 percent of all recent victims are males, mostly clustered into the prime working years of between 15 and 30 years of age (33 percent), and 31 to 44 years of age (51 percent). The most frequent activity at the time of injury was reported to be the collection of forest products (43 percent), followed by military border duties (15 percent), traveling (10 percent), and farming (5 percent). Tampering caused only two recent incidents and informal demining caused just three incidents. These rates of injury due to tampering are extremely low by comparison to rates found in other countries. In the most general terms, the typical profile of an average mine incident victim in Thailand is a working-age male, engaged in an income-generating activity.

CAUSALITY

Statistical analysis of the survey data, particularly that relating to community attributes, allows one to see relationships between a variety of factors and the risks that mines pose to specific communities. In Thailand, survey teams found that those factors most associated with past conflict, particularly a community's proximity to a border, outweigh other factors that might allow the community to adapt to the risk that it faces. Massive resettlement programs are not feasible and demining resources alone are insufficient to meet the need. For these reasons, mine action efforts will have to focus on spot clearance, other circumscribed clearance projects, and marking if they are to make a noticeable difference to the lives of most of the population of concerned communities. The data also suggest that certain economic policies, particularly those that reduce the reliance on forest products, may have the potential to facilitate community adaptability.

BUDGET AND EXPENDITURE

The final expenditure for the Impact Survey in Thailand was $1,565,000. Of this amount, $239,000 was spent on non-expendable equipment that was provided to TMAC and is now available to support other mine action efforts.

CONCLUSION

The results of the Impact Survey plainly indicate that Thailand suffers a number of adverse impacts caused by the presence of landmines and UXOs along its border regions. Clearly, the extensive contamination that exists in Thailand's dense forestlands will pose a hazard for many years to come. Yet, the information gained during the Impact Survey process will allow for the development of an appropriate, well-targeted response that combines marking, area reduction, spot clearance, large-scale clearance, and mine awareness education in a manner that will produce positive and immediate results.

The successful completion of the Landmine Impact Survey in Thailand and the publication of this report would not have been possible without the input and effort of a large number of people and institutions. With respect to this, we would also like to acknowledge the invaluable contributions of the following:

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