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Bosnia and Herzegovina Mine Problem: Priority Setting

With so many tasks to complete and limited resources with which to complete them, the importance of proper priority setting to mine action continues to be overstated. The author describes how priority setting relates to mine action in Bosnia and Herzegovina and suggests how to go about setting such priorities.

by Darvin Lisica, BHMAC Deputy Director

Bosnia and Herzegovina Mine Action

Bosnia and Herzegovina's minefield information is not completely accurate. There are 18,609 minefield records in the Bosnia and Herzegovina Mine Action Centre (BHMAC) database, but 25 percent of these records are believed to be partially incorrect or up to 40 percent are not available. The suspected risk area in Bosnia and Herzegovina is estimated to be at least 2,160 sq km, which is some 4.3 percent of the total Bosnia and Herzegovina territory. Since the beginning of the war in Bosnia and Herzegovina, there have been 4,798 mine victims, 1,452 of whom have occurred since the cessation of hostilities; 402 of these were fatalities.

The approval of the Bosnia and Herzegovina Demining Law in February 2002 stimulated the transformation of the entire mine action system, and by the end of 2002, the original complex and disunited management structure was integrated into a single BHMAC. At the beginning of 2003, the Council of Ministers adopted the Bosnia and Herzegovina Demining Strategy until 2010. The Strategy is based on the estimated size of the suspected risk area and ways of reducing it in relation to the demining resources in Bosnia and Herzegovina. The estimated financial requirement to fully implement the Strategy is in the order of $333,800,000 (U.S.); most of which should be provided through donations. The high level of dependence on donations was the main reason why a revision of the Strategy was planned for 2004. A second important reason for a revision was the availability of information from the Landmine Impact Survey currently being carried out in Bosnia and Herzegovina. This survey should provide significant new input when it is consolidated and analysed toward the end of 2003.

The humanitarian demining dynamics and flow of funds are insufficient to accomplish the goal, i.e., Bosnia and Herzegovina being free from the effect of mines by 2010. The main reasons for this lack of funds are a deep economic crisis in Bosnia and Herzegovina (although the government managed to invest approximately $2,800,000 in 2002, which was four times more than planned!) and unexpectedly low funding from donors. This financial reality has brought greater attention to risk management since the beginning of 2003, in conjunction with preparations for more intensive implementation of emergency and permanent marking, mine risk education and technical survey.

Regardless of the fact that all the elements of mine action are in place in Bosnia and Herzegovina, it cannot be expected that such a huge mine problem be resolved quickly and simply.

New Priority-Setting Model to be Developed

"Priority setting is necessary when money, time and staff are limited." This statement clearly defines the nature of the problem that confronted participants in mine action in Bosnia and Herzegovina, where the slow pace of humanitarian demining operations frustrates not only the experts, but also the people, the authorities and the donors, all of whom expect visible results in a short time.

The priority-setting model used so far suffered from several disadvantages: there was no finite sequence in the priority list, the procedure for decision making on how to treat the risk was complex, and the final choice was relatively subjective as it is simply difficult to separate the highest priority from a large group of generally important risks. In this environment, the first objective was to provide continuity within mine action in Bosnia and Herzegovina, and a third objective was based on the need to apply scientific methods of qualitative and quantitative measuring of priority setting. These techniques are mutually conditioned and linked and cannot be applied separately.

The subject of our research is the mine problem, and with "risk management," establishment of the registry of affected communities and the registry of mined locations grouped by priority, and development community action plan). Determination of priority level is achieved through qualitative measurement. The basis for applying qualitative prioritisation as a means for prioritising risk levels is qualitative risk management information and reaching the priority level is achieved by dividing the mine problem into more specific problems and their main characteristics.

If priority evaluation is looked upon as a part of risk management, then it can be defined as a comparison of priority levels with the previously established criteria for evaluating the contamination problem. These criteria may vary from country to country depending on the strategic goals, country policy, economic situation, resources available and other factors. There are different quantitative methods of multi-criteria analysis for measuring and evaluating risk defined in different software packages, but these shall not be separately addressed in this article.

In this complex context, the decision makers should have a clearer picture of the options open to them in the sequence of risk management and reduction. For this reason, priority setting is the central issue in managing the mine problem.

Impact analysis matrix

In decision-making processes, the matrix is used to evaluate the consequences of each available strategy. The impact analysis matrix is presented below.

Potential benefits

Impact analysis matrix - priority level

Current negative impact

- High
- Low

Priority

1. Very high
2. High
3. Low

Impact level

Spot risk

- Very high
- High
- Medium
- Low

Location classification

- Very high
- High
- Medium
- Low

Classification is a type of measuring, meaning that the scale must be based on the risk levels and established based on instruments of information collected. Qualitative classification cannot be a substitute for quantitative measuring, but it does precede in principle. The value of qualitative classification is multiple. Apart from providing the starting rank list of locations, according to the priority groups, it comprises within itself all the criteria that actually cannot be measured in the process of risk evaluation and determination of the individual rank for every location.

By identifying and analysing a mine problem, a choice can be made based on the most important mine risk indicators and socio-economic impact and the scales for each indicator are defined separately. Characteristics and instruments for gathering information about chosen indicators for qualitative classification condition the construction of the scale.

The choice of matrices for qualitative measurement and analysis is not accidental; rather, it is recommended by different risk management standards. In this case, the matrices represent the modified application of the Australian and New Zealand Standards

The threat level is determined by threat analysis matrix. This matrix is obtained by combining the scale of qualitative and quantitative analysis for the scale of likelihood of existence of minefield.

The level of socio-economic impact is assessed by using the impact analysis matrix. This matrix is obtained by combining the scale of current negative impact on communities with the prioritised scale of potential benefits.

The level of threat is determined by threat analysis matrix. This matrix is obtained by combining the scale of current negative impact on communities with the prioritised scale of potential benefits.

The level of socio-economic impact is assessed by using the impact analysis matrix. This matrix is obtained by combining the scale of current negative impact on communities with the prioritised scale of potential benefits.

The level of threat is determined by threat analysis matrix. This matrix is obtained by combining the scale of current negative impact on communities with the prioritised scale of potential benefits.
Demining in Bosnia
With 5 Korpusa of the Bosnian Army

Despite the end to years of brutal fighting in Bosnia, landmines left behind from the war still threaten the safety of local populations. The following article gives a firsthand account of a former Canadian soldier's demining experience in Bosnia alongside the Bosnian Army.

by Peter Hindy, Former Canadian Soldier

Introduction

On September 12, 2001, I arrived under guard at work and made my way to the hill of the Cekijte, Bihać, Bosnia. I had a very strange, yet distinct sinking feeling from the tragedies of the terrorist attacks of the previous day. As I walked up the hill, I felt that I would have to somehow prove past the usual morning smile and cheerfulness that I was not personally angry and vengeful at the Muslim world for the actions taken by the poor excuses for soldiers who committed the attacks against the innocent people of New York City and other places and these brave men fought for the 5th Corps of the Bosnian Army (BSSWJ) and for what they thought was right. They were the finest people I have ever known.

At first, the deminers would not initiate the usual conversation and a few were unharmed at the ground. I explained to the other deminers that it was normal to feel tentative today towards me. As the one thing that had happened. After a short period of hesitant conversation, I was presented with the following statement, "Now people in America know they are like in my town every day." The remark was not spoken in a harsh tone, but rather was relayed in a tender respectful manner. After all, those men had been surrounded by landmines for several months, and the pride that they had to kill and bring to Bosnia and

Every risk micro-location where general survey was conducted is subject to qualitative classification. The ultimate result will be the initial list of priorities grouped in order by priority and ready for quantitative analysis.

Final Considerations

Mine action in Bosnia and Herzegovina is a process with a large number of interested parties participating at the same time, offers with different and conflicting interests and aims. Therefore, it is necessary to establish a hierarchy within mine action goals. This hierarchy is not only strategic, but also includes the goals and the interests expressed at a lower level, down to the local community. It is at the basic level of the local community that the most misunderstood and subjective in priority selection appear. Correct priority setting is a transparent process where the choice of areas and activities that will most efficiently reduce the risk and bring benefit to Bosnia and

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