



Mine Fields and UXO Contamination in Croatia: Summary for 2008

On 31 December 2008, the overall mine suspected area of the Republic of Croatia totaled 954.5 km² (including 4.7 km² of areas contaminated with cluster ammunition of KB-1 and MK-1 type that is not classified as mine suspected area according to the valid regulations and standards), extended through 111 towns and municipalities and was marked with 14,986 mine warning signs (Fig. 1)



Figure 1. Mine suspected areas in Croatia

Mine search and demining operations in 2008 resulted in releasing the area of 33,109,979 m² out of which 20,883,364 m² through mine search and 12,226,615 m² through demining (Fig. 2).

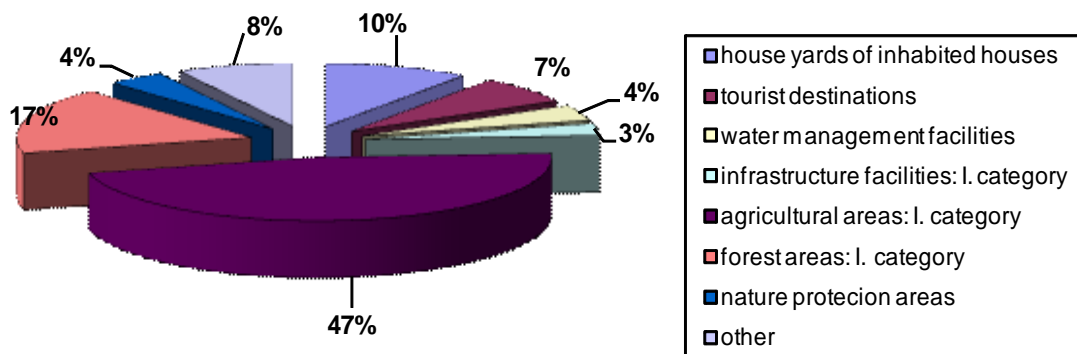


Figure 2. Structure of searched and cleared mined areas

Parallel to the operations of mine search and demining of mine suspected areas performed by accredited legal entities and non-governmental organization "Norwegian People's Aid", survey teams of the Croatian Mine Action Centre performed in 2008 the revision of general survey of the entire mine suspected area in the Republic of Croatia. On 1 October 2008, the revision of the entire mine suspected area was finished. By applying criteria determined by Standard Operating Procedures (SOP 01.01.) mine suspected area was reduced for 9.4 k m². These activities resulted in reduction of mine suspected area of the Republic of Croatia in 2008 in the size of 42.5 km². Average weekly realization amounted to 662,200 m². There were 1,805 pieces of antipersonnel mines, 2,617 pieces of antitank mines and 3,402 pieces of unexploded ordinances found and destroyed.

Quality assurance over completed mine search and demining operations in 2008 was conducted by 12 Quality Control Officers and 23 Quality Assurance Monitors performing the control sample search. There was the total of 338 quality controls over completed mine search and demining operations performed on 3,778 control samples totaling 587,939 m² equal to 1.68% of the total searched and demined area. Also, there was the total of 918 quality assurances during the execution of mine search and demining operations performed.

Financial resources for mine search and demining operations, in total 43.5 m € have been contributed from State Budget, donations and IBRD loan. Average price of all mine search and demining operations contracted in 2008 was 1.06 €/m² + VAT, what represents a decrease of 8.1% in relation to 2007. The reason for the price decrease is projecting bigger projects on agricultural areas where demining machines can be used intensively.

In 2008, there were 6 mine incidents registered involving 7 persons (Fig. 3). During 2008, there were incidents registered involving 3 deminers of commercial companies. Two persons were killed out of which one deminer while 4 persons suffered major bodily injuries.

Relevant state administration authorities were involved in solving the problems of mine victims relating to medical rehabilitation. Other forms of assistance were conducted mostly by nongovernmental sector and financing was ensured by different donations of the international or domestic subjects. In 2008, there were different one-time projects of financial support and education (scholarships, legal and psycho-social and medical support, orthopedic aids) realized with the purpose of mine victim assistance. There were also summer and winter workshops organized for children and young people mine victims.

Mine victims are entitled to health care and acquisition of orthopedic aids to the amount covered by the Croatian Health Insurance Institute. However, there are certain problems detected in the programs of psycho-social rehabilitation of victims and their employment.

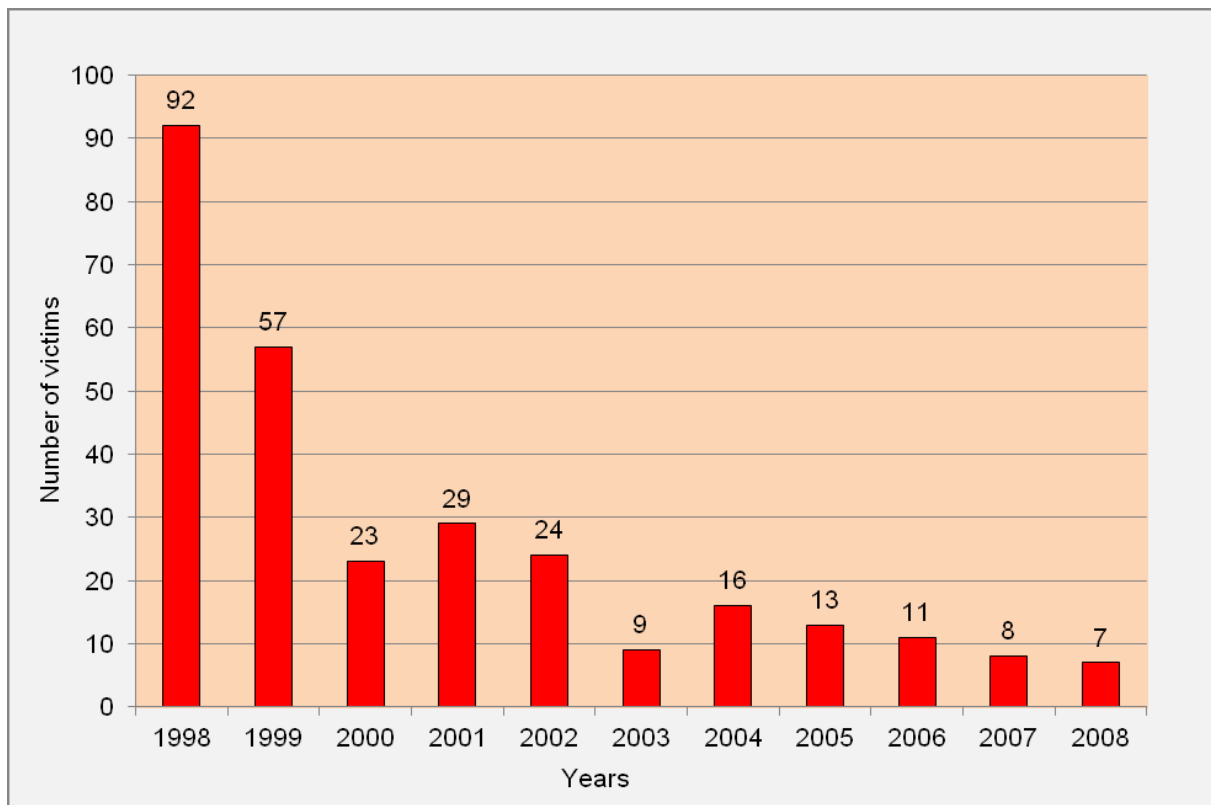


Figure 3. Number of mine victims in Croatia (1998-2008)

In 2008, the emphasis was put on presentation of Croatian experience in mine action within the international mine action community and diplomatic posts in the Republic of Croatia. Establishment of the cluster that integrates experience and capacities of the Croatian Mine Action Centre, CROMAC-CTDT, commercial demining companies and equipment manufacturers resulted in realization of an initiative of the Croatian Mine Action Centre, Ministry of Foreign Affairs and European Integration and Trade and Investment Promotion Agency. Uniting all demining subjects in the Republic of Croatia opened the door to exporting the Croatian know-how and technologies to foreign markets i.e. countries facing the mine problem. First results became evident through expressing interest by Turkey, Yemen, Georgia and Egypt in strengthening of co-operation.

The position of mine warning signs is one of the basic elements of mine information system presented on mine-contamination maps (<https://misportal.hcr.hr>) submitted to state administration bodies, local and regional self-administration, police administrations and other natural and legal entities upon request.

Pursuant to the official data, there are still a lot of forest areas which are contaminated with land mines and unexploded ordinances.

Because of that a great forest areas are not covered with management activities and their degradation process is still going on. Also, in context of forest fires, in contaminated areas of high fire danger, because of the lack of preventive measures in these areas, forest fires are very frequent. The biggest problem on these areas is forest fires suppression. It is made only with the air forces. As suppression on contaminated areas is not very effective without use of ground forces, in "fire years" Croatia has very, very big burnt areas. Fires are also damaging mines (a few of them are activated by fire) what is very dangerous for demining operators.

Table 1. State-owned forest areas contaminated with mine fields and UXO

Regional Forest Office	Mine Field Area (MFA) (ha)	Timber volume on MFA (m ³)	10 year felling on MFA (m ³)	Forest roads (km)	Total forest/forest land area (ha)	Mine field areas (%)
Koprivnica	0	0	0	0.00	135,718	0.00%
Buzet						
Vinkovci	6,178.67	873,907	162,711	0.00	72,344	8.54%
Osijek	11,908.38	1,437,674	516,980	0.00	77,159	15.43%
Našice	3,556.52	940,545	101,410	0,00	82,997	4.29%
Požega	461.65	71,793	2,412	0.00	51,450	0.90%
Bjelovar	2,792.01	641,384	32,444	0.00	131,664	2.12%
Zagreb	94.41	24,714	2,560	0.30	81,154	0.12%
Sisak	10,265.94	1,917,816	245,534	0.00	87,935	11.67%
Karlovac	2,379.41	428,779	13,289	0.00	82,883	2.87%
Ogulin	5,721.82	1,588,386	245,427	29.10	60,580	9.45%
Delnice	55.22	22,290	3,440	0.00	96,293	0.06%
Senj	65.52	18,627	--	0.00	109,659	0.06%
Gospić	36,351.62	6,664,546	965,666	11.10	315,141	11.54%
Split	50,982.27	312,203	--	0.00	559,974	9.10%
Nova Gradiška	10,341.00	3,339,486	410,280	48.20	74,036	13.97%
Total	141,154.44	18,282,150	2,702,153	88.70	2,018,987	6.99%

To help solving problems with contaminated forest areas and protect naturally regenerated forest areas, Croatian Forests Ltd., as the enterprise which is managing 2.7 million ha of state-owned forest, are contributing annually with 5-7 m €.

Sources

- (1) Croatian Mine Action Center (www.hcr.hr)
- (2) Ministry of Regional Development, Forestry and Water Management

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