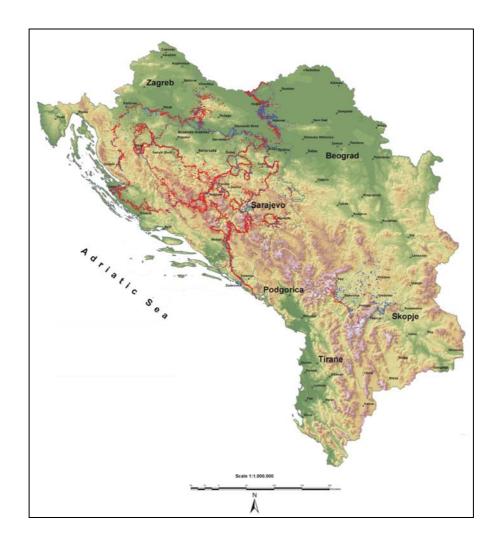
# A comparative analysis of demining in the Balkans:

## **Findings from Landmine Monitor Report 2007**



Belgrade, 12 November 2007
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#### Introduction

This report focuses on progress in the Balkans in ridding the land of mines and explosive remnants of war. It covers Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia (FYR Macedonia), Montenegro, and Serbia (including the province of Kosovo). Clearance of antipersonnel mines from mined areas is required by the Mine Ban Treaty to which all of these States are party. The overview of planning, implementation and management of the different demining programs is based on data collected by Landmine Monitor for the whole of 2006 and the first half of 2007. Detailed reports on each of the Balkan countries can be found in the *Landmine Monitor Report 2007* (www.icbl.org/lm).

### Mines and explosive remnants of war in the Balkans

Mine contamination in the Balkans is a legacy of conflicts in the 1990s related to the break-up of the Socialist Federal Republic of Yugoslavia. Even in Albania, though not part of Yugoslavia, the mine problem is still connected to the Yugoslav crises, specifically the armed conflict in neighboring Kosovo in 1998–2000 when the Yugoslav Army laid minefields along the border with Albania. All parties in the Yugoslav conflict laid mines, however, mostly on the confrontation lines and border areas.

As a result, **Bosnia and Herzegovina** and **Croatia** still face a significant problem from antipersonnel and antivehicle mines. In contrast, **Albania** and the **FYR Macedonia** are mostly dealing with unexploded ordnance (UXO) and **Serbia**, **Montenegro** and **Kosovo** with submunitions from cluster bombs.

It is not known exactly how much land remains contaminated. Government estimates from the seven countries suggest that almost 3,000 square kilometers are contaminated with mines and explosive remnants of war (ERW, which covers both unexploded ordnance and abandoned munitions). As Table 1 shows, the suspected areas are mostly in Bosnia and Herzegovina and Croatia, though the true extent of contamination in both is likely to prove to be far lower than current estimates. United Nations Mission in Kosovo (UNMIK) has not provided an estimate of suspect land in square kilometers, identifying only the number of dangerous areas (58), so the total estimated size of remaining contamination is not known.

Table 1: Residual size of suspected area

	Estimated size of suspected area	
	km²	
Albania	2	
Bosnia and Herzegovina	1,820	
Croatia	1,044	
Kosovo	No estimation in km <sup>2</sup>	
FYR Macedonia	0	
Montenegro	0.5	
Serbia	3.5	

A lack of record-keeping of mine-laying during the region's conflicts has further complicated demining work, prompting the affected countries to invest considerable effort in surveys in a bid to release land more efficiently and focus precious clearance resources on land that is truly contaminated.

In most Balkan countries the extent of contamination is closely linked to the duration of the conflict that occurred there, as the map of contamination on the front cover illustrates. FYR Macedonia is an exception, with a greater amount of suspect land than Serbia although the conflict in Serbia lasted longer, because conflict in FYR Macedonia was characterized by mainly air-ground battles with no direct confrontation between ground forces.

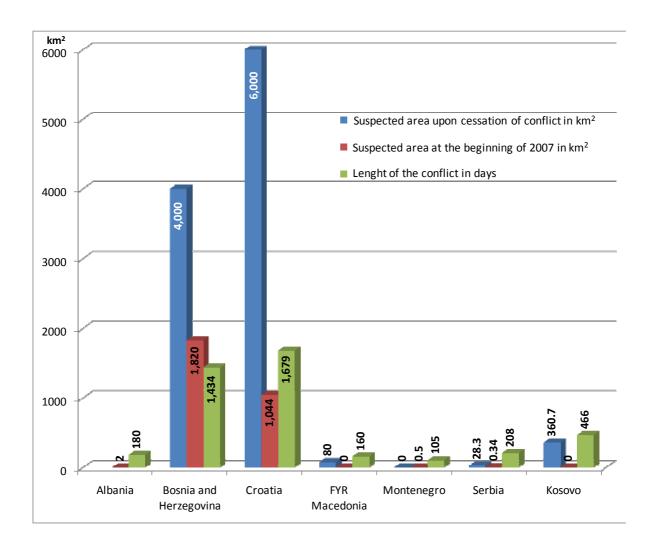


Figure 1: Comparison of the length of the conflict and size of contaminated area<sup>2</sup>

Although conflicts in the Balkans ended 13 years ago, mines and ERW still have a serious impact on human security and the region's economic development. Overall, the total number of casualties in the region has decreased significantly, but in Bosnia and Herzegovina casualties doubled in 2006 compared to the previous year (35 casualties in 2006 and 19 casualties in the previous year, half of

whom were killed). In Kosovo and Croatia the casualty toll remained unchanged (albeit very low: Kosovo had 11 and Croatia 12 casualties in 2006, each including one fatality). Most casualties occurred in marked mined areas where the warning signs were often ignored by people engaging in economic activities.

## Comparative country performances in demining

The Mine Ban Treaty requires that States complete clearance of all antipersonnel mines in mined areas under their jurisdiction or control as soon as possible and no later than 10 years from becoming a party to the treaty. Four Balkan countries will hit their deadlines for clearance on or before 2010, but of the six countries only **FYR Macedonia** has declared completion of its Article 5 deadline and two other with relatively small levels of contamination (**Albania** and **Montenegro**) are confident of meeting their deadlines (*see Table 2*).

Table 2: Article 5 deadlines for States Parties in the Balkans

	Article 5 deadlines	
Albania	1 August 2010	
Bosnia and Herzegovina	1 March 2009	
Croatia	1 March 2009	
FYR Macedonia	1 March 2009	
Montenegro	28 June 2016	
Serbia	1 March 2014	

Demining in the Balkans is conducted by a mixture of manual deminers, mechanical demining equipment and mine detection dog teams from government agencies, non-governmental organizations (NGOs) and commercial companies. Several operators are active in more than one country.<sup>3</sup> Although Balkan countries have the capacity to raise the rate of clearance, financial constraints have kept productivity in the region at about the same level for three years, while many mine action workers seek employment opportunities outside the region.

In 2006, Balkan countries cleared a total of 17 square kilometers of mined and battle areas, but more than half that amount (9.5 square kilometers) was in a single country, Croatia (see Figure 4). In 2007, **Bosnia and Herzegovina** started revising its mine action strategy for 2007-2010 in a bid to increase efficiency. The new strategy will adjust priorities on the basis of new assessment of impacted communities. For Croatia, the Croatian Mine Action Center will, upon approval of new criteria for priority setting, draft a three-year plan for 2008–2010 also with the aim of increasing efficiency. Serbia is starting a survey of areas contaminated by cluster munitions and will then draw up a plan aiming to clear all mines and cluster bombs by 2012.<sup>4</sup>

At the present pace of demining, however, the Balkans will still face a mine problem in 70 years. Countries state they have sufficient trained capacity for the task and that funding remains the main obstacle to their progress. For 2006, Landmine Monitor estimates international donors

provided Balkan countries with some \$33.7 million, which is broadly similar to the previous year's funding, but in the case of Croatia represents a drop of 31 percent (*see Table 3*). However, financial shortfalls are threatening the region's efforts to comply with the Mine Ban Treaty.

Table 3: Mine Action funding in 2005 and 2006 (US\$)

Γ	2005	2005
	2005	2006
Albania	5,316,712.00	3,656,363.00
Bosnia and Herzegovina	15,262,225.00	18,764,851.00
Croatia	9,491,287.00	6,543,964.00
FYR Macedonia	30,000.00	52,682.00
Montenegro	35,818.00	176,182.00
Serbia	1,490,104.00	2,552,291.00
Kosovo	1,895,252.00	2,007,518.00
Total US\$:	33,521,398.00	33,753,851.00

Still today, clearance focuses on housing areas even though the main blockages are of agriculture land and forested areas. New strategies are required to make sure demining supports the development needs of the local people. Greater use of "bottom-up" priority-setting, where municipalities prioritize clearance on the basis of the express needs of the affected communities, would lead to a better use of precious resources.

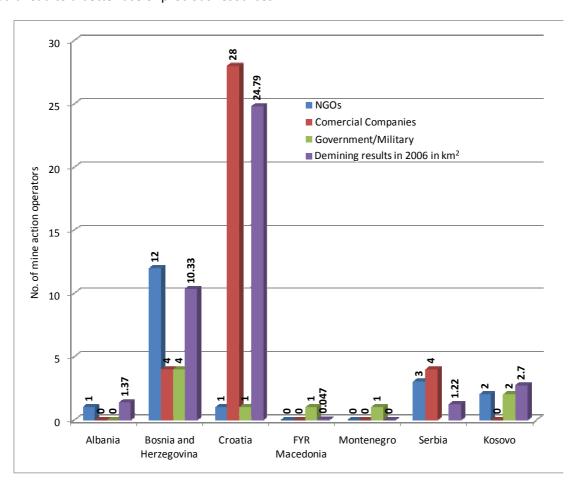
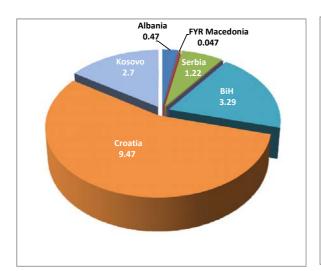


Figure 2: Number of different mine action operators and demining results in 2006 by country/territory

Resource constraints and looming clearance deadlines have encouraged the Balkan countries, particularly those with the biggest mine/ERW problem, to step up area reduction and cancellation by means of different forms of survey. These are procedures for collecting and evaluating data to better define land that is actually contaminated and thereby to deploy clearance assets more effectively. In addition to clearance, three countries released nearly 23 square kilometers of formerly suspected land in 2006, mainly in Croatia (15 square kilometers), and Bosnia and Herzegovina (seven square kilometers) and Albania (less than one square kilometer).

Bosnia and Herzegovina, beside clearance and technical survey, makes significant efforts to reassess the threat, size, shape and characteristics of the suspected hazard areas through different forms of survey. In addition to its clearance and technical survey outputs, in 2006 BHMAC reported reduction of the overall suspected area in the country through what it terms "systematic" survey to a total of 228.9 square kilometers. As part of its plan for 2007 and 2008, Bosnia and Herzegovina will hire up to eight additional survey teams to strengthen efforts to reduce the size of suspected areas close to the former confrontation lines.<sup>5</sup>

Serbia is in process of preparation for a general survey that will start soon, as, since the completion of this year's Landmine Monitor, NATO has begun providing Serbia with air strike data from the 1999 conflict. Montenegro, in cooperation with the Croatian Mine Action Centre (CROMAC), has also conducted survey on its suspected areas to prepare tasks for demining. Croatia conducted general survey (a basic assessment of the location of contaminated areas and the type of explosive threat they contain) on 76 percent of its suspected territory in 2006. As a result, the suspected area was reduced by 78 square kilometers. CROMAC'S Center for Testing, Development and Training (CTDT) is running an experiment using honey bees for area reduction. Currently, the bees are being used mainly to check areas that have already been cleared by deminers in case any mines have been overlooked.





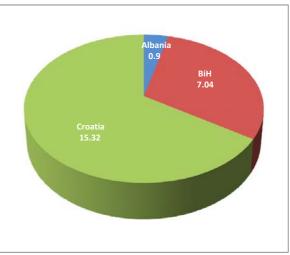


Figure 4: Area reduction in 2006 in km<sup>2</sup>

Survey activities are mainly conducted by governmental bodies, usually through the national mine action centers. During survey, the implementing organizations are responsible for marking of suspected areas. Fencing of areas that could not be cleared during a specific demining task is typically the responsibility of the demining organization that has been conducting clearance operations nearby. In Croatia, however, the government has put the responsibility for marking on CROMAC. All the Balkan countries continue to face the problem of mine warning signs being removed by local populations or destroyed by severe weather conditions. To deal with this problem, Croatia is adopting new methods of marking in remote areas, such as painting warning signs on rocks.

Community liaison is used throughout all stages of the mine action process and helps ensure affected communities are fully involved in and informed about mine action activities. In Bosnia and Herzegovina, for example, communities are actively contributing to the development of "Community Integrated Mine Action Plans".

### Trends in national ownership and regional cooperation

Primary responsibility for compliance with the Mine Ban Treaty's Article 5 lies with the affected State itself and growing competition for donor dollars among mine affected countries has added impetus to regional trends towards increasing national ownership of mine action.

Croatia has taken a lead in national ownership in the Balkans and in 2006 met 82 percent of the cost of its demining program from national sources (the national budget, state and local administrative bodies and public donations). However, Croatia also warned that without continued international donor support its ability to comply with its legal obligations will be notably postponed. National and local authorities contributed to the BiH Mine Action Programme with about 45 percent of total funding for mine action in 2006.

Other countries in the region received mostly in kind assistance from their governance through provisions of the mine action centers' office facilities, employee salaries and insurances and relied mostly on international donations. Kosovo was one of the few territories receiving in excess of the mine action funding requested. Funding from national public donations only occurs in Croatia, through mine action projects mainstreamed with development.

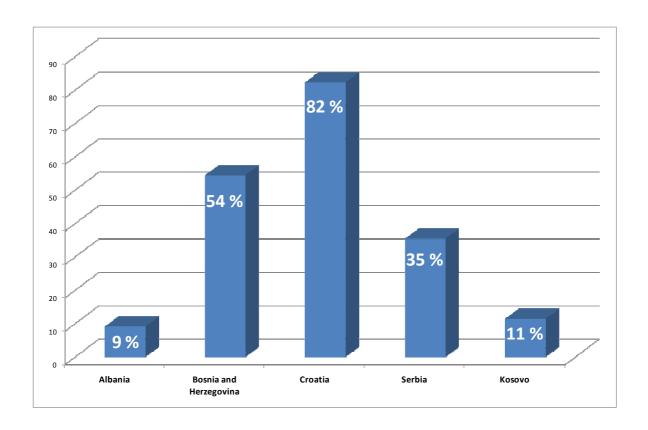


Figure 5: National contribution to mine action program

Regional cooperation is seen by donors and mine action operators in the Balkans as one of the solutions to the problem, particularly in view of the region's common history, similar government structures, similar languages and parallel mine action activities. Moreover, all the Balkan mine action programs are under civilian control – **Bosnia and Herzegovina's** Demining Commission under the BiH Ministry of Civil Affairs and Communication supervises the state-wide BiH Mine Action Centre; the **Croatian** Mine Action Center Council acts as the national authority coordinating the work of CROMAC; and the **Albanian** Mine Action Committee (AMAC), an inter-ministerial body, serves as the "executive and policy making body for mine action" which is implemented by the Albanian Mine Action Executive (AMAE).

In FYR Macedonia, the Protection and Rescue Directorate conducts mine clearance and explosive ordnance disposal (EOD), through the Ministry of Defense's Unit for Humanitarian Demining and Ministry of Interior Fire Fighting Units. The Office of the Kosovo Protection Corps Coordinator is responsible for mine action and all matters related to explosive ordnance disposal (EOD), under the direct authority of the Special Representative of the UN Secretary-General. Montenegro, as part of its still emerging system of government, is creating a "department for extreme situations and civil safety" in the Ministry of Internal Affairs that is expected to have responsibility for coordinating mine action, hitherto implemented by the Regional Center for Underwater Demining (RCUD), set up in 2002.

Regional cooperation will require time to mature in view of the conflicts experienced by Balkan countries in the past two decades. Balkan countries have yet to harmonize operating

standards of work, strategies and data management, which would facilitate accreditation of operators and joint activities leading to cost sharing and financial savings.<sup>8</sup> A review of labor legislation in Croatia, for example, is expected to facilitate exchange of demining resources with its neighbors.

However, some building blocks are already in place. The Southeastern European Mine Action Coordination Committee (SEEMACC) formed in 2000 expedites cooperation, albeit mainly at a political level. The International Trust Fund for Demining and Mine Victims Assistance (ITF) has introduced a new element to the situation in the Balkans and opened the area of regional cooperation through its funding and tendering procedures - mainly due to the dollar-for-dollar matching arrangement with the United States.

Several demining organizations are active on the regional level. Norwegian People's Aid works on clearance on both sides of Croatian-Serbian border with deminers from both countries. CROMAC provided support to Montenegro's RCUD in conducting the survey on Albanian border. The NGOs Stop Mines and UXB Balkans from Bosnia and Herzegovina, and Enigma and DOK-ING Demining from Croatia were working on minefield and battle area clearance tasks in Serbia and Montenegro. CROMAC's CTDT undertakes the regional role for testing of demining equipment, RCUD from Montenegro plays a regional role for underwater demining, and MDD Konjic is training dogs both for the region and countries outside it.

The regional approach in Balkans has helped to bring down demining costs dramatically as well as to reduce the incidence of land being cleared that proved to have no explosive contamination on it at all. In 1996, costs per square meter were typically around €3 (though sometimes considerably higher). They have now come down to €1-2 in BiH, and €1.1 in Croatia. Further building of regional cooperation could bring the Balkans closer to the aim of ridding the region of the mine and ERW threat.

#### **Endnotes**

<sup>1</sup> 

<sup>&</sup>lt;sup>1</sup> Map provided by the International Trust Fund for Demining and Mine Victims Assistance (ITF). The mine situation data on the map has not been updated since 2004 as country mine action centers from the region have not provided updated information since then. Information provided in telephone interview with Iztok Hočevar, ITF, 21 September 2007.

<sup>&</sup>lt;sup>2</sup> No data existed on the size of the suspected contaminated area in Albania and Montenegro at the end of hostilities and so it is shown as zero. Data on the estimated size of suspected area upon the cessation of conflict taken from "Risk Management in Mine Action Planning", Darvin Lisica, 2006, p. 107.

<sup>&</sup>lt;sup>3</sup> These include Norwegian People's Aid (NPA), Stop Mines and UXB Balkans from Bosnia and Herzegovina; and Enigma and DOK-ING Demining from Croatia.

<sup>&</sup>lt;sup>4</sup> Telephone interview with Miljenko Vahtarić, Assistant Director, Croatian Mine Action Center, 26 October 2007.

<sup>&</sup>lt;sup>5</sup> Mine Action Report 2006, Bosnia and Herzegovina; Bosnia and Herzegovina Mine Action Plan for 2007 – Draft.

<sup>&</sup>lt;sup>6</sup> Telephone interview with Sladjana Kosutic, International Cooperation Advisor, Republic of Serbia Mine Action Center, 30 September 2007.

<sup>&</sup>lt;sup>7</sup> http://news.sawf.org/Lifestyle/40894.aspx, accessed on 15 August 2007.

<sup>&</sup>lt;sup>8</sup> Ian Mansfield, "Opportunities for Regional Cooperation in Mine Action in Southeastern Europe", Journal of Mine Action, Issue 7.2, August 2003

<sup>&</sup>lt;sup>9</sup> Prices per square meter data drawn from BHMAC and CROMAC annual reports.