

Republic of Croatia
Ministry of Foreign Affairs
and European Integration

Note Verbale no. 2517/08

The Ministry of Foreign Affairs and European Integration of the Republic of Croatia presents its compliments to the Geneva International Centre for Humanitarian Demining and has the honor to request the latter to forward the present Note Verbale to His Royal Highness Prince Mired Raad Al-Hussein of Jordan, President of the Eight Meeting of the States Parties to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction and Chair of the Coordinating Committee.

The Republic of Croatia has the honor to officially submit the request for an extension of the deadline for completing the destruction of anti-personnel mines in mined areas by another ten-year period starting from 1 March 2009, in accordance with Article 5, paragraph 1 of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction.

Attached herewith is the Croatia's request for extension of the deadline, including tables, schemes and maps.

The Republic of Croatia submits the request for extension of the deadline for the purpose of its formal consideration at the Ninth Meeting of the States Parties to be held in Geneva in November 2008.

The Ministry of Foreign Affairs and European Integration of the Republic of Croatia avails itself of this opportunity to renew to the Geneva International Centre for Humanitarian Demining and to His Royal Highness Prince Mired Raad Al-Hussein of Jordan, President of the Eight Meeting of the States Parties and Chair of the Coordinating Committee the assurances of its highest consideration.

PS

Zagreb, 30 May 2008



**Geneva International Centre for Humanitarian
Demining,
His Royal Highness Prince Mired Raad Al-Hussein of
Jordan, President of the Eight Meeting of the States
Parties and Chair of the Coordinating Committee**



REPUBLIC OF CROATIA

**The Convention on the Prohibition of the Use,
Stockpiling, Production and Transfer of Anti-Personnel
Mines and on Their Destruction**

**REQUEST
for an extension of the deadline for completing
the destruction of anti-personnel mines in
mined areas in accordance with Article 5,
paragraph 1**

May 2008

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TABLE OF CONTENTS

- I. Executive summary of Croatia’s request for an extension of the deadline for completing the destruction of anti-personnel mines in mined areas in accordance with Article 5, paragraph 1 of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction

- II. Croatia’s request for an extension of the deadline for completing the destruction of anti-personnel mines in mined areas in accordance with Article 5, paragraph 1 of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction
 - 1. Origins of the Article 5 implementation challenge..... 8
 - 2. Nature and extent of Croatia’s challenge: quantitative aspects..... 8
 - 3. Nature and extent of Croatia’s challenge: qualitative aspects..... 9
 - 4. Methods used to identify areas containing AP mines and reasons for suspecting the presence of AP mines in other areas..... 10
 - 5. National demining structures..... 11
 - 6. Nature and extent of progress made: quantitative aspects..... 13
 - 7. Nature and extent of progress made: qualitative aspects..... 17
 - 8. Methods and standards used to release areas known or suspected to contain anti-personnel mines..... 19
 - 9. Methods and standards of controlling and assuring quality..... 20
 - 10. Efforts undertaken to ensure the effective exclusion of civilians from mined areas..... 21
 - 11. Resources made available to support progress made to date..... 21
 - 12. Circumstances that impede compliance in a 10 year period..... 25
 - 13. Humanitarian, economic, social and environmental implications..... 25
 - 14. Nature and extent of the remaining Article 5 challenge: quantitative aspects..... 28
 - 15. Nature and extent of the remaining Article 5 challenge: qualitative aspects..... 30
 - 16. Amount of time requested and a rationale for this amount of time..... 33
 - 17. Detailed work plan for the period of the requested extension..... 34
 - 18. Institutional, human resource and material capacity available..... 39

- III. Annexes
 - 1. Glossary of terms
 - 2. List of acronyms
 - 3. Tables and Shemes
 - 4. Maps

I. Executive Summary

With the beginning of conflict in 1991, the Republic of Croatia started facing the mine problem as one of the most difficult consequences of war operations conducted on its territory and became one of many countries worldwide with severe mine and unexploded ordnance (UXO) contamination.. Contamination caused and continues to cause humanitarian, economic, developmental and social disturbances. Between 1991 and 1995, 1280 people were involved in 1016 mine incidents resulting in 270 deaths. In 1995, the largest number of casualties – 332 persons – was recorded. High numbers of casualties were also recorded in the years immediately prior to entry into force the Convention, with another 337 casualties recorded between 1996 and 1998. Large agricultural areas, parts of infrastructure facilities, forest complexes and river banks remain inaccessible today due to the presence or suspected presence of mines and UXO.

The Republic of Croatia confirmed its resoluteness in solving the mine problem by passing the Law on Humanitarian Demining in 1996, establishing the Croatian Mine Action Centre in 1998, fulfilling the commitments undertaken by joining the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction as well as providing for permanent and stable sources of financing in the State budget, in the World Bank loans and from public companies in the Republic of Croatia. Croatia ratified the Convention on 28 May 1998 and submitted its initial transparency report, on 3 September 1999, providing information on areas that contain or are suspected to contain anti-personnel mines. Croatia has a deadline of 1 March 2009 for destroying or ensuring the destruction of all anti-personnel mines emplaced within these areas.

Since 1991, Croatia has precisely defined mine suspected areas (MSA), considerably reduced these areas and seen a reduction of mine incidents and number of mine victims:

- Originally mine areas were located in 14 of Croatia's 21 counties. This has now been reduced to 12 counties.
- Shortly after entry into force, the total amount of mine suspected areas amounted to over 1,700 square kilometres. Through the application of improved survey methods, this was reduced to 1,147 square kilometres in 2005. Today the estimated total amount of mine suspected area amounts to 997 square kilometres.
- Between 1998 and 2007, almost 226,6 square kilometres were demined and over 583 square kilometres were released through technical survey and other land release methods.
- Demining operations carried out under the auspices of civilian authorities have resulted in 46,430 mines (26,570 anti-personnel mines and 19,860 anti-tank mines). and 202,166 UXO destroyed. At the same time, the Croatian Army destroyed 1,826 anti-personnel mines, 2,473 anti-tank mines and 44,406 pieces of UXO on the area around military facilities. In total Croatia has destroyed 28,396 anti-personnel mines, 22,333 anti-tank mines and 246,572 UXO.
- In 2007, there were 8 mine casualties – the lowest annual number since entry into force and a dramatic reduction from 55 casualties recorded in 1999.

Croatia has developed sophisticated methods and standards for demining, technical survey, quality assurance and quality control. These methods and standards are based on the International Mine Action Standards, modified in accordance with Croatian national circumstances, and have been established pursuant to a legislative framework for humanitarian demining which has been codified by

the Republic of Croatia. In addition, Croatia has established a method used for cancelling, with confidence, mine suspected areas which are ultimately considered not to be dangerous.

Croatia has marked all mine suspected areas with over 14,500 warning signs. In addition, it is estimated that over 1,000,000 persons have undergone some form of mine risk education since entry into force. Mine risk education activities continue to be conducted through lectures and presentations, exhibits, TV and radio spots, theatre plays, art workshops, as well as one-time special activities such as selling demining coupons, collecting waste paper, distribution of educational notebooks to all first grade pupils of elementary schools and other projects at the state and local level.

Croatia can account for over € 317 million having been invested in humanitarian demining activities in Croatia since entry into force. International donors have contributed over € 53 million. However, it should be emphasised that Croatia itself has provided the majority of funds for Article 5 implementation in the country, with over € 173 having been obtained from Croatia's State budget. In addition, Croatia has been a leader in accessing funds for demining from World Bank and from State enterprises.

As noted, the estimated total amount of mine suspected area remains 997 square kilometres. This includes 994 square kilometres that have been identified through general survey operations and 3.24 square kilometres reported by the Croatian Army around military barracks, training grounds, warehouses, radar stations and air fields.

The circumstances that impede Croatia from complying with its Article 5 obligations within 10 years of entry into force are as follows:

- The breadth of the challenge: At one time the United Nations estimated that there were over 13,000 square kilometres of potentially dangerous area in Croatia. While by 2005 Croatia had, through the application of improved survey methods, had reduced to this 1,147 square kilometres, Croatia has remained one of the States Parties with the greatest amount of area either known or suspected to contain mines.
- Competing demand for resources: Entry into force of the Convention occurred soon after conflict had been concluded in Croatia. War damage was enormous, with cities and villages levelled, communication and utilities infrastructure destroyed, industrial plants unusable. Humanitarian activities were only part of a broader set of reconstruction efforts that had to be undertaken.
- The nature of the mined areas: Conflict resulted in minefields that were not marked and with few useful records of their placement retained. The borders of minefields were not marked and data from minefield records were inaccurate and incomplete. The number of mines was unknown. In addition, mines may have moved due to weather conditions and erosion.
- Environmental challenges: Minefields are uneven and cluttered with obstacles due to the nature of the terrain (mountains, rocky terrains, river banks were used as confrontation lines during the war operations). Furthermore, heavy vegetation has been a major circumstance impeding more rapid progress. Many minefields lie in the type of hot, wet environment that promotes the rapid growth of foliage.
- The need to simultaneously address problems caused by unexploded ordnance: UXO are integral part of the broader challenge of explosive hazards. Explosive ordnance disposal (EOD) requests place additional demands on finite human and financial resources.

Croatia is requesting a 10 year extension of its deadline for completing the destruction of all anti-personnel mines in mined areas (i.e., until 1 March 2019) on the basis that this is a realistic but not unambitious amount of time given the extent of the remaining problem and the human, materiel and financial resources available or expected, and the demining and survey capacity available.

In terms of humanitarian, economic social and environmental implications, the effort to implement the Convention to date and to more generally address problems associated with explosive remnants of war in Croatia has resulted in a decrease in the number of new victims, facilitated the return of displaced persons, and freed land for socio-economic gains. However, humanitarian, economic social and environmental implications remain and it is expected that these will have been addressed during the extension period:

- Mine suspected areas continue to be found in or near 112 municipalities in 12 of Croatia's 21 counties. A total of 834,000 inhabitants – 18 percent of the population of Croatia – continue to be affected.
- Up to 22,000 persons remain refugees or internally displaced. The return of many of these individuals to their homes is affected by the presence or suspected presence of mines.
- Mined agricultural areas and forest areas represent a big problem for the economy. The total loss because of mined agricultural areas per year is estimated at € 44.0 million and according to the Croatian Forest Ltd. the value of wood wealth that can not be used because of mines is € 178.0 million. Additional losses flow from the inability to maintain and renew forests.
- While Croatia has placed a priority on creating safe conditions for tourism, some subsectors continue to be affected, particularly hunting tourism given the nature of remaining mine suspected area.
- Mine suspected areas account for over 100 square kilometres of national park land or nature reserves.

Croatia has a credible plan for fulfilling its obligations by 1 March 2019 with some of the main features as follows:

- Croatia has prioritised the remaining mine suspected areas according to: those which affect safety, those which pose barriers to the socio-economic development of Croatia, and, those which affect the ecology in other ways. While priorities at the operative level will be elaborated in annual demining plans, Croatia has goals of having eliminated by 2010 the mine danger from areas intended for human habitation or for infrastructure, and, by 2013 to have released all areas intended for agriculture.
- Croatia has projected that the 410 square kilometres of mine suspected area will be released by demining, 210 square kilometres through general survey and 377 square kilometres through technical survey. Croatia has developed annual timelines for the release of area according to each method. These annual milestones will provide a benchmark for Croatia to report to the States Parties on progress made in implementing Article 5 during the extension period.
- On the basis of an analysis of the potential of current capacities, Croatia has projected annual increases in the amount of mine suspected area to be released by demining, from 44 square kilometres to be released in 2008 rising up to 56 square kilometres to be released in 2010.

- Given that the majority of mine suspected area can be found in forested area, Croatia will apply the new standing operating procedures it has developed for the general survey of such areas. In applying these procedures along with cancellation practices, Croatia expects to release a significant amount of this area through the determination that it is indeed not a “mined area” as defined by the Convention. Research and development activities will also focus on more rapidly releasing forested areas.
- During the realisation of Article 5 implementation efforts during the extension period, Croatia will continue to comply with its obligations under Article 5, paragraph 2, by maintaining marking of all mine suspected areas, replacing existing markings or placing additional markings as required, and, covering the entire population in mine suspected areas with mine risk education.

It is estimated that fulfilment of Article 5 obligations in the Republic of Croatia will cost a total of € 740.0 million. Annual projections for funding needs are based on sound formulas regarding extensive experience Croatia has with the real costs for releasing mine suspected areas through the full range of methods (e.g., demining, technical survey, general survey and cancellation). It is expected that the Croatian State Budget will continue to finance the majority of humanitarian demining activities with it projected that State funds will increase over time from € 44,5 million in 2009 to € 59 million in 2012. State funds will be complemented by funds provided by or obtained from other levels of government, State enterprises, European Union pre-accession funds, the World Bank and other financial institutions, and domestic and foreign donors.

II. Request for an extension

1. Origins of Croatia's Article 5 implementation challenge

Anti-personnel mines (and other mines) were emplaced in Croatia's territory during the conflict that took place between 1991 and 1995. During these four years, mines were emplaced by all warring parties along lines of confrontation which changed frequently. Mines were also emplaced in areas of strategic importance, including railway lines, power stations, pipelines and military installations.

The use of antipersonnel mines along with the general consequences of war resulted in the presence of significant numbers of other explosive remnants and left Croatia severely contaminated. This contamination originally located in 14 of Croatia's 21 counties, caused and still causes economic, developmental and social disruptions and affects human safety. Large agricultural areas, parts of infrastructure facilities, forest areas and river banks were made and remain inaccessible due to known or suspected emplacement of mines and the presence of other explosive remnants of war (ERW).

Croatia signed the Mine Ban Convention on 4 December 1997 and ratified it on 28 May 1998. The Convention entered into force for Croatia on 1 March 1999. On 3 September 1999, Croatia submitted its initial transparency report in accordance with Article 7, paragraph 1 of the Convention. In this report Croatia provided information on "mined areas that contain, or are suspected to contain, anti-personnel mines under its jurisdiction or control." Thus, Croatia signalled to the other States Parties that it had an obligation under Article 5, paragraph 2, "to destroy or ensure the destruction of all anti-personnel mines in mined areas under its jurisdiction or control, as soon as possible..." and that its deadline for fulfilling this obligation is 1 March 2009.

2. Nature and extent of Croatia's challenge: quantitative aspects

Since the beginning of efforts to address the problems caused by mines and other explosive remnants of the war, Croatia has faced challenges in defining mine suspected area. During the period between March 1996 and June 1998 the United Nations Mine Action Centre (UNMAC), office in Croatia played a leading role in collecting data on contaminated areas. UNMAC assessments resulted in an estimate that approximately 13,000 km² of Croatian territory was suspected to contain mines¹. This was considered to be a gross overestimation of the actual amount of potentially dangerous areas.

In 1996 Croatian Parliament passed the Law on Demining. In 1998, the Croatian Mine Action Centre (CROMAC) was established and amendments were made to Croatia's Law on Demining. Following these events, funding of humanitarian demining activities increased dramatically as did efforts to develop a more precise estimate of areas suspected to contain mines and knowledge of areas known to contain mines. When Croatia submitted its initial transparency report on 3 September 1999, it was able to reduce the original UNMAC estimate of a total of 13,000 km² of potentially dangerous area to a total of 5,980 km²². This included the total area represented by 11,228 minefield records obtained by CROMAC and with potentially or known dangerous areas located in 14 of Croatia's 21 counties. This was further reduced on 4,000 km² in 2001.

As a result of general and technical surveys, the methodologies of which are described in Section II.4 of this document, and the systematic removal of the unlogical data of the potentially dangerous area from the data base (potentially dangerous area covers cities close to the confrontation line, rivers, lakes etc.)

¹ The estimate was based on the safety zone couple km wide on both sides of the former confrontation line made by UN

² The reduction was made by using general survey methods and by thorough analysis of the data handed over by UN

at the beginning of the 2002 potentially dangerous area was estimated on a total 1,700 km². This included the total area represented by 8620 minefield records obtained by CROMAC with potentially or known dangerous areas remaining in 14 of Croatia's 21 counties.³

It should be noted that obtaining clarity regarding the exact size and location of both, areas suspected to contain mines and areas known to contain mines, particularly in a case like Croatia which experienced such widespread mine use, is necessarily an ongoing task. In 2003, Croatia developed national methods and procedures for humanitarian demining based on the International Mine Action Standards (IMAS). This included the establishment of standing operating procedures (SOPs) for undertaking general and technical survey operations and for verifying such operations in order to develop more precise estimates and increase knowledge. During 2003 and 2004, the entire territory of the Republic of Croatia was surveyed based on these SOPs resulting in, by the end of 2004, a significantly better estimate of the total potential or known dangerous area 1,174 km². Continuous survey was done during the 2005 and 2006 that resulted with the additional reduction of the potentially dangerous area to the total size of the 1,044 km² at the beginning of the 2007. Information related to this baseline estimate is provided in detail in Annex II.

The number of records reported to CROMAC makes it impractical to attach to this document information on the status of each record. Nevertheless, Croatia wishes to make it clear that it manages information related to these areas in a highly professional and sophisticated manner, including through the use of geographic information systems. Croatia is willing to provide information on specific areas to States Parties should such information facilitate their understanding of Croatia's request for an extension of its Article 5 obligations.

3. Nature and extent of Croatia's challenge: qualitative aspects

Between 1991 and 1995, 1280 people were involved in 1016 mine incidents resulting in 270 deaths. In 1995, the largest number of casualties – 332 persons – was recorded. High numbers of casualties were also recorded in the years immediately prior to entry into force the Convention, with another 337 casualties recorded between 1996 and 1998.

In addition to the direct humanitarian impact of mines, Croatia suffered from a multitude of socio-economic impacts. The first priority from the beginning of the systematic process of demining was clearing of land for the reconstruction of the houses and clearing the transport infrastructure, power lines and water supply system. Now, less than 1% of the area important for the return of the displaced persons is mine suspected and this problem will be solved in next 3 years.

The next priority was to demine all destinations important for tourism as a main economic activity in Croatia. In order to do that, there were areas along the tourist road communications demined. In this way, mine suspected area has been moved away from the above-mentioned road communications what made it possible for tourists to safely come to their destinations. Parts of national parks and parks of nature have also been demined. The problem that continental counties are now facing is mine suspected area that had been used, prior to the war, for hunting tourism because it was one of the most important sources of income for certain towns and municipalities. Out of total demined areas in the period from Ottawa Convention's entrance into force, 1/3 of demining has been referring to 4 tourist counties along the coast of the Adriatic Sea. Demining of agricultural areas is also a priority from the viewpoint of a sustainable return of war-affected people. However, in the early years, due to limited and insufficient funds, the emphasis was put on the above-mentioned priorities. In the last 4 years, the share of agricultural areas in the total realization ranged between 40 to 50% of planned demining operations.

³ It should be noted that some records do or may overlap. This is taken into account in calculating a total area figure.

In the forthcoming years, this percentage is going to be on the increase to the advantage of agricultural areas.

4. Methods used to identify areas containing AP mines and reasons for suspecting the presence of AP mines in other areas

Right upon the establishment, CROMAC started taking over the data from the Ministry of Interior, Ministry of Defence, the company "AKD Mungos" and UNMAC but also with establishing its own database. Concurrently with data takeover, started the activities of general survey, but only on the areas defined as priorities in terms of reconstruction of houses, traffic and other infrastructure. In 1998, 9,889 minefield records were taken over from UNMAC out of which most of them were incomplete or with data entered incorrectly. Next year, additional 2 471 minefield record was taken over from the Croatian army. Upon the establishment of the database started the development of mine suspected area maps and minefield records review (considerable number of duplicates established).

In the next two years, there was a considerable increase of a number of CROMAC employees due to the program of looking after deminers of the Ministry of Interior what resulted in the intensive general and technical survey activities, especially on the Zagreb-Split highway route what accelerated the said operations. As a result, mine suspected area (MSA) was reduced to estimated 1 700 km².

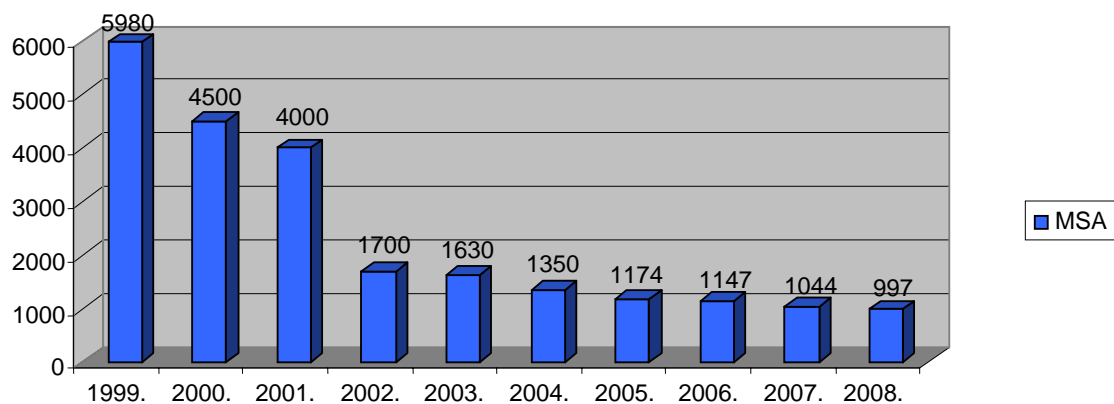
The new CROMAC management organization rendered the beginning of systematic reconnaissance possible due to precise establishment of the status and size of mine suspected area (MSA). The administrative boundaries of municipalities i.e. counties were taken as basic territorial unit for general survey activities. In order to execute the above-mentioned activities with quality, there had been certain preliminary work done such as acquisition of portable IT equipment for surveyors, drafting of SOP "General Survey" and training of surveyors. As a result of these activities that lasted for two years, in 2005, there was the size of mine suspected area (MSA) defined and, at the end of the year, it amounted to 1 147 km². The entire area was marked with 10.000 mine warning signs and the data on MSA boundaries and locations of warning signs placed entered into the maps and submitted to all municipalities, counties, police administrations, public companies and institutions in need for such information. There was the reconstruction of all minefield records entered as polygons to the database carried out.

Based on the analysis of all information and mine contamination data available, analytic evaluations carried out and general survey of the entire area of mine-contaminated towns and municipalities conducted, the following was established:

- the size and dispersion of mine suspected area per municipalities, towns and counties
- the structure of mine suspected area according to intended use of areas
- information on minefields placed
- the structure of mine suspected area according to method of conducting demining operations

Because of good results achieved with the above-mentioned activities, experience gained and problems observed, there were the amendments of SOP "General Survey" made and the analysis of completed projects resulted in obtaining information that confirmed the data about the area collected, but what the most important is, new information on the area next to the realized projects were also obtained.

Diagram 1: The course of MSA size



5. National demining structures

Demining during the war period was carried out by the Croatian Army engineers and the Civilian Protection branch of the Ministry of Interior. In December 1995, the United Nations Protection Forces (UNPROFOR) command established a mine action centre with the aim of supporting UNPROFOR operations, but it was not authorised to establish a humanitarian demining program. This organization was soon dissolved. The United Nations Department for Humanitarian Affairs (DHA) took over responsibility for the mine action centre (UNMAC) from the UN Department for Peace Keeping Operations (DPKO) in June 1996. The UNMAC headquarters were located in Zagreb, with international staff filling the positions of a Programme Manager, Quality Assurance Officer, and Regional Officers in Vukovar, Knin, Karlovac and Daruvar, supported by 7 national staff members. The role of the UNMAC was to co-ordinate international assistance to the Croatia mine clearance programme and to provide specialist advice and assistance in order to develop Croatia's mine clearance capacity and an effective mine awareness training programme. In addition UNMAC was to support the operations of UN agencies, international development organisations and non-governmental organisations.

In the summer of 1995, first contacts were established with international financial institutions and with representatives of different international humanitarian organizations, including with the International Bank for Reconstruction and Development (World Bank). As a result of these contacts with the World Bank, in March of 1996 the Croatian Parliament passed the Law on Humanitarian Demining. The Law stipulated that the Ministry of Interior would implement a Demining Plan, with demining to be carried out by a commercial company established by the Croatian Government. In accordance with the law, quality assurance (QA) would be carried out only by persons authorized by the Ministry of Interior. On 1 June 1996, the Croatian Government established the commercial company – AKD MUNGOS - to carry out demining in Croatia. It was planned that the company would employ around 2000 deminers, primarily former Croatian Army soldiers.

On the basis of the Law on Demining, the Ministry of Interior passed regulations regarding the: carrying out of demining activities; criteria establishing mental, physical, and medical capability of deminers; training courses and exams for deminers; testing deminers' knowledge and abilities; and, licensing of deminers and the identification of QA officers. On 19 December 1996, the Croatian Government

established a Committee for demining issues as an advisory body whose basic task was to harmonise, manage and improve the demining system.

In February 1998, the Croatian Government proclaimed a decree establishing the Croatian Mine Action Centre (CROMAC) responsible for managing all mine action operations in Croatia. The need for UN assistance was however reaffirmed, and the UN Mine Action Service (UNMAS) of the DPKO designated UNOPS as the executing agency by signing a Memorandum of Agreement for the provision of management services in respect to the project "Support to the Mine Action in Croatia". On 1 January 1999, in recognition of the existence of a functioning CROMAC, the UN program changed its name to the UN Mine Action Assistance Programme (UNMAAP) and continued to work with CROMAC to build up its capacity. Later in 1999, a memorandum of understanding was signed between the Croatian government and the DPKO outlining the intention of the UN to transfer the responsibility for the project to the United Nations Development Programme (UNDP) during the course of 2000. On July 22, UNMAAP was officially transferred to UNDP, and a project document was signed between the Croatian Government and UNDP. UNOPS was kept as an executing agency for this UNDP Project.

From the outset, the UN and CROMAC worked together to develop a functioning operational body. The programme was successful in fostering a close relationship with CROMAC and in providing important technical advice with regard to developing CROMAC's capacity to undertake technical surveys and quality assurance. In addition, the project enabled the launch of mine risk education activities in 1999, later adopted and further elaborated by CROMAC. Finally, the project was able to mobilize resources for many mine clearance projects.

The establishment of CROMAC in 1998 marked the beginning of a systematic and integrated approach to mine problem. CROMAC tasks are as follows:

- collecting and processing data about the MSA and database management,
- planning of demining operations and organizing public tenders for awarding demining operations,
- MSA marking,
- drafting of demining and technical survey projects,
- quality assurance and quality control over demining operations,
- issuance of demining certificates,
- co-ordination of MRE and MVA activities,
- international co-operation.

The Croatian Mine Action Centre is directly liable to the Government of the Republic of Croatia. The Government appoints the representatives of ministries to CROMAC Council that acts as a mediator between the Government of the Republic of Croatia, ministries dealing with mine problem as part of their scope of activities and CROMAC.

In the Republic of Croatia, planning is conducted according to «National Mine Action Strategy» adopted by Croatian Parliament in 2000. It is based on priorities and requests of counties that are compliant to their development programs, programs of reconstruction and return of displaced people, needs and requests of public companies owned by the Republic of Croatia and other demining beneficiaries, defined mined and mine suspected area and financial means secured.

The Plan is made by the Croatian Mine Action Centre on the basis of priorities and harmonizes the strategy with financial means available. The proposal of the Plan is submitted to the authorised ministries for consideration (Ministry of Interior, Ministry of Defence, Ministry of Sea, Tourism, Transport and Development, Ministry of Agriculture, Ministry of Finance) and after that to the

Government for adoption. After the adoption, the Demining Plan becomes the basic document in terms of planning for next year (see annex II)

Out of 21 counties, 12 counties are affected by mine problem i.e. 112 towns and municipalities inhabited by 1/5 of the total population of the Republic of Croatia. Total mine suspected area of the Republic of Croatia at the beginning of the 2008 comes to 997 km². Starting point for planning are towns and municipalities as basic organizational units of the county.

Towns and municipalities with the mine problem are divided into polygons that make logical geographical entities in order to make planning of tasks more easy. According to proposed polygons of the municipality or town, counties make the list of priorities per municipalities and polygons. The Plan also defines the time schedule of activities. Considering geographical and climatological conditions, demining operations in the Republic of Croatia are conducted during the entire year. In the continental part of the country, operations are conducted in spring, summer and autumn. In the south, operations are conducted during late autumn, winter and spring.

Upon the adoption of Annual Plan, CROMAC makes quartal and monthly operative plans and keeps records of their realization on a weekly basis.

Upon the completion of the current year, CROMAC drafts a Report on the Realization of the Plan of the Government of the Republic of Croatia and submits the same to CROMAC Council and the ministries following the same procedure. Upon obtaining the consent, the Government of the Republic of Croatia seeks from the National Assembly the adoption of the Report.

The Law on Demining introduced the market model to demining in Croatia rendering the establishment of closed commercial companies for conducting demining operations possible as a precondition for the realization of the World Bank loan and opening of the market to foreign companies. By the end of 1998, 4 legal entities were accredited for conducting humanitarian demining, by the end of 1999 there were 12 entities accredited. In 2000, there were 13 accredited entities, in 2001, 23 entities, in 2002 the number increased to 39, in 2003 to 48. Today, 59 legal entities are accredited for conducting humanitarian demining out of which 58 are commercial companies and one non-governmental organization (Norwegian People's Aid - NPA). Of these 59 entities accredited for conducting demining operations, 27 commercial companies and one non-governmental organization (NPA) are currently conducting mine search and demining operations and they employ 610 deminers and 91 auxiliary workers who dispose of 69 mine detection dogs, 45 demining machines and 653 metal detectors.

On the basis of thus acquired knowledge and experience, on 7 October 2000, the House of Representatives of the Croatian Parliament proclaimed the National Mine Action Program in the Republic of Croatia for the period 2000 – 2010.

6. Nature and extent of progress made: quantitative aspects

In the period from 1991 until 1997, there were ca. 40 km² of the territory of the Republic of Croatia demined. Demining was being conducted by the Croatian Army, Special Police, UN engineering troops, company AKD Mungos and private companies registered in the sector East. No quality control over said operations, in terms of implementation of humanitarian demining standards, was performed what resulted in an inclusion of certain areas to the MSA during the general survey execution due to considerable probability for the existence of residual mines.

In the period from 1998 to the end of 2007, registered demining companies demined 226,5 km². Quality control over demined areas was carried out and corresponding demining certificates were issued.

The most extensive demining activities were conducted in the period between 2002 and 2004 due to the project of rapid Zagreb-Split highway construction. The largest part of the highway route passes through mine suspected areas in Lika-Senj County, Zadar County and Šibenik-Knin County. In those years, apart from the state budget, the Croatian Highways, the state-owned company responsible for highway construction, allocate the biggest demining funds. Another big investment projects in the sphere of infrastructure reconstruction started in 2002 such as, for instance, the reconstruction of Ernestinovo transformer station (the transformer station that links the South Eastern Europe to the shared electro-energetic system of Europe, the reconstruction of electro-energetic network, Zagreb-Split railway, embankments and canals in eastern Slavonia etc.

At first, the emphasis was put on demining in Zagreb County and, a year later, in Bjelovarsko-Bilogorska County as well.

Table 1: Demined area per County and year

County \ Year	1998.	1999.	2000.	2001.	2002.	2003.	2004.	2005.	2006.	2007.	Ukupno
Bjelovarsko-bilogorska	25.000	0	0	0	33.968	679.778	54.864	30.587	0	0	824.197
Brodsko-posavska	17.220	298.429	469.332	895.387	325.653	571.816	947.255	1.977.351	585.662	2.186.157	8.274.262
Dubrovačko-neretvanska	113.468	190.704	0	362.612	813.617	573.026	236.766	1.943.349	2.241.158	977.188	7.451.888
Karlovačka	709.509	412.921	1.236.910	1.591.433	3.173.154	2.178.627	2.511.908	2.826.907	1.642.267	2.513.805	18.797.441
Ličko-senjska	668.725	1.109.185	120.598	670.097	3.334.456	5.564.850	1.121.027	2.164.688	3.344.472	3.162.270	21.260.368
Osječko-baranjska	4.106.129	718.741	1.436.005	1.764.438	6.913.414	3.887.778	5.549.176	4.217.465	3.453.090	4.896.888	36.943.124
Požeško-slavonska	101.414	557.470	171.571	276.935	349.266	1.177.099	472.227	927.850	932.333	1.942.807	6.908.972
Splitsko-dalmatinska	0	0	412.636	131.990	772.980	1.116.981	1.805.043	3.409.441	1.285.106	594.098	9.528.275
Sisačko-moslavačka	830.725	2.240.964	2.114.039	1.049.624	3.090.508	2.717.652	2.244.315	386.419	2.707.959	2.970.080	20.352.285
Šibansko-kninska	522.321	309.390	910.206	1.353.546	2.808.900	3.039.485	5.589.654	856.749	1.042.492	2.060.031	18.492.774
Virovitičko-podravska	0	0	36.100	0	114.670	1.147.422	347.555	508.370	524.345	321.979	3.000.441
Vukovarsko-srijemska	3.691.962	5.552.323	998.351	2.597.882	5.519.512	4.374.992	4.203.656	3.429.870	3.000.593	3.399.942	36.769.083
Zadarska	3.511.536	2.919.735	1.900.142	1.993.176	3.480.093	4.611.407	8.564.627	4.501.587	4.015.547	2.093.167	37.591.017
Zagabačka	0	21.000	0	0	115.259	194.050	36.859	0	0	0	367.168
Total	14.298.009	14.330.862	9.805.890	12.687.120	30.845.450	31.834.963	33.684.932	27.180.633	24.775.024	27.118.412	226.561.295

During the execution of demining operations, there were 46.430 mines detected and destroyed out of which 26.570 anti-personnel mines and 19.860 anti-tank mines and 202.166 miscellaneous unexploded ordinances (UXO). At the same time, the Croatian Army destroyed 1.826 anti-personnel mines, 2.473 anti-tank mines and 44.406 pieces of UXO on the area around military barracks, polygons and facilities.

Table 2: Number of mines and UXO destroyed in the period 1999-2007

Year	Anti-personnel Mines	Antitank Mines	UXO
1999.	3.160	2.597	13.851
2000.	1.173	710	789
2001.	1.877	1.640	3.124
2002.	4.177	3.690	87.095
2003.	7.680	4.481	58.247
2004.	3.353	2.857	5.850
2005.	2.187	1.018	24.870
2006.	1.514	1.184	5.409
2007.	1.449	1.683	2.931
Total	26.570	19.860	202.166

Area reduction with the General and Technical Survey

Until 2003, general survey was being executed on target areas that were subject to the Demining Plan. At the time, there was no way to establish the actual mine contaminated area of the Republic of Croatia. Therefore, the estimates were made. The biggest activities undertaken were linked to putting the database in order and production of MSA maps. Upon the transfer of deminers from the Ministry of Interior to CROMAC and reorganization of operations within CROMAC, there were survey teams established whose main task was to identify the exact mine contamination status of the Republic of Croatia according to valid SOPs. Having completed the process of systematic general survey in 1995, due to equalization of general survey results with the database, the reduction of MSA was not presented. At the end of 2005, the MSA was estimated to 1 147 km² and marked on the maps together with positions of mine warning signs. The total of 10.000 big mine warning signs were placed along the boundaries of mine suspected area. For the purpose of putting the database in order and equalization of the size of mine suspected area among the final general survey reports and the status presented on the maps, there was no reduction of the area by general survey presented in 2005.

At the end of 2005 started the revision of mine suspected area due to the following reasons:

- from the archive of the Ministry of Defence of the Republic of Croatia, there was a considerable quantity of documents relating to mining collected that the Croatian Mine Action Centre did not dispose of until then (maps, minefield records and military demining). It required additional time for them to be processed, analyzed and compared to the existing data available at the Croatian Mine Action Centre,
- The number of contacted persons acquainted with mine situation was increased. It also required additional time for contact establishment, running and recording interviews, verification of data obtained etc. (over 1 000 interviews held),
- The scope of activities relating to preservation of marking of the entire MSA of the Republic of Croatia with mine warning signs due to modifications of boundaries of mine suspected area and established disappearance of mine warning signs as a result of stealing or natural disasters (current status – 14.521 mine warning sign).

- New database was established in Mine Information System of the Croatian Mine Action Centre. Additional training and education of staff were required as well as certain graduality and adjustments to the novelties.

Paralell with updating mine suspected area, the self-administration units and police administrations were submitted updated maps representing current mine situation, all for the purpose of informing the citizens about the mine problem in time.

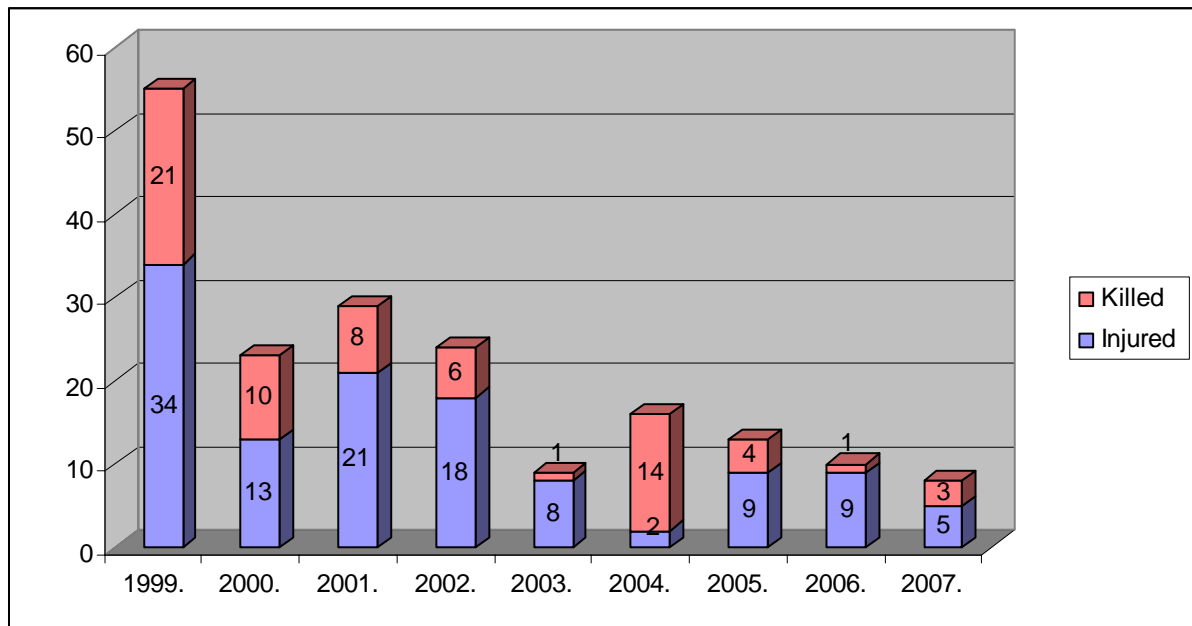
Table 3: Area reduced with the General and Technical Survey methods

County \ Year	1999.	2000.	2001.	2002.	2003.	2004.	2005.	2006.	2007.	Total
Bjelovarsko-bilogorska	0,0	0,0	0,0	0,0	8,3	0,0	0,0	0,0	0,0	8,3
Brodsko-posavska	0,0	0,0	0,0	0,1	64,4	23,7	0,0	13,0	3,3	104,5
Dubrovačko-neretvanska	0,2	0,0	0,8	2,0	5,7	1,5	0,0	0,8	0,2	11,2
Karlovačka	0,0	0,2	1,4	0,9	41,1	19,7	0,0	10,8	2,8	76,8
Ličko-senjska	3,1	16,7	12,0	2,4	14,5	13,8	0,0	7,6	1,9	72,1
Osječko-baranjska	2,3	0,7	7,0	8,7	15,7	11,8	0,0	6,4	1,6	54,3
Požeško-slavonska	0,0	0,2	0,1	0,2	0,3	9,9	0,0	5,4	1,4	17,6
Splitsko-dalmatinska	0,0	0,1	0,0	0,8	16,9	2,2	0,0	1,2	0,3	21,6
Sisačko-moslavačka	0,9	0,5	0,6	1,6	11,8	16,8	0,0	9,2	2,4	43,8
Šibansko-kninska	0,1	1,7	1,1	0,3	11,3	3,5	0,0	1,9	0,5	20,3
Virovitičko-podravska	0,0	0,0	0,1	0,1	0,0	10,0	0,0	5,5	1,4	17,2
Vukovarsko-srijemska	1,4	0,1	1,4	0,3	21,9	18,7	0,0	10,3	2,6	56,7
Zadarska	1,3	2,9	4,2	12,1	37,9	10,7	0,0	5,9	1,5	76,5
Zagabačka	0,0	0,0	0,0	0,0	2,3	0,0	0,0	0,0	0,0	2,3
Total	9,3	23,2	28,7	29,6	252,2	142,3	0,0	78,0	19,9	583,1

7. Nature and extent of progress made: qualitative aspects

Efforts to implement Article 5 of the Convention and otherwise address the problems caused by mines and other explosive hazards have produced significant humanitarian, social and economic results; annual casualty rates have been reduced steadily and dramatically compared to the period prior to entry into force of the Convention. This is depicted in Diagram 2 below. A further breakdown of mine casualties can be seen in Annex II, Tables 9A and 9B.

Diagram 2: Mine casualties in MSA in the period 1999-2007



The number of mine victims decreased every year as a result of the demining of the priorities related to the return of the displaced persons, good marking of all mine suspected area (more than 14.500 big warning signs is placed along the borders of the mine suspected area) and the systematic program of mine risk education.

In the period from 1998-2007 some 40 road and railway bridges were demined, 200 km of the area for building a highway Zagreb-Split, 350 km of state and local level roads and 200 km of railway lines with the 21 railway stations. In same period more than 300 km of channels and dikes was cleared for the reconstruction. There was the area for the reconstruction of existing infrastructure facilities such as electro-distribution network, water supply systems, oil pipeline, telecommunication facilities and oil wells on the east of Croatia demined. At the same time, there was the area around new major facilities such as Ernestinovo transformer station with corresponding power transmission lines, Bosiljevo-Split gas pipeline demined as well. Tourism as one of the most important industrial branches of the Republic of Croatia was, together with reconstruction process, the biggest priority. At the beginning of systematic demining process the emphasis was put on demining of tourist destinations and accessory roads. Associated with tourism started the demining for tourism most important parts of National Parks and Parks of Nature. At the moment, the area of the National Park Paklenica and 4 Parks of Nature (Lonjsko polje, Kopački rit, Papuk, Velebit) are contaminated with mines while the mine danger has already been removed from the area of the National Parks Plitvička jezera and Krka and Park of Nature Lastovo. Since 2002, a state-owned company responsible for management of forest resources the Croatian Forests has started with considerable investments into demining of forest areas for the purpose of exploitation of forests. Today, Croatian Forests are the biggest investor in demining in the Republic of Croatia.

8. Methods used to release areas known or suspected to contain anti-personnel mines

Following methods were used to release areas known or suspected to contain anti-personnel mines:

General survey is a procedure of collection, collation, analysis and interpretation of information on the mine and UXO contamination and socio-economic characteristics of the area and/or building. Data collecting process is performed without the usage of any mine and UXO demining procedures such as terrain search, disablement, or destruction. The General survey is conducted from the safe area.

Surface area and building can be cancelled out of MSA when the following criteria and methods of General Survey are confirmed by the analysis procedure:

- there are no original data on mine-laying and demining,
- there were no mine incidents,
- there are no fortification facilities and barriers showing mine and UXO existence,
- analysis that area or buildings were not used for military purposes or have not had any military significance
- there were no explosions of ERW in area previously affected by fire,
- there were no indicators of mine-laying (discarded packing, wrapping and military debris, minefield marking etc.),
- the above criteria are confirmed by field data collection and through conversations with contact persons or other General Survey methods,
- and other special criteria described in CROMAC SOP 01.01 General Survey

Technical survey - represents a collection of organizational, demining operations and security procedures to define sufficient the information gained through general survey, and verification of existence of mine and UXO contamination in that particular area and/or a building. Technical Survey is performed by identification and marking in accordance with the execution plan

Using methods of General and Technical Survey in period 1998-2007 mine suspected area was reduced for 583,1 km².

Demining - the procedure of finding and marking, as well as incapacitating and destroying mines and UXO at the worksite.

The tasks of searching and/or mine clearance was performed using the following methods:

- Manual mine detection;
- Using mine clearance machines, and
- Using dogs for locating mines and unexploded ordinances.

The tasks of mine clearance were performed:

- By manual mine detection, or
- Using the combination of mine clearance machine and manual mine detection after the machine has been used, or
- Using the combination of mine clearance machine that achieves the depth as determined by the project and manual mine detection with the use of dogs for locating mines and unexploded ordinances.

The tasks of searching were performed:

- By using manual mine detection;

- Using the combination of mine clearance machine that achieves the depth as determined by the project and manual mine detection in the area previously searched by the machine, or
- Using the combination of mine clearance machine that does not achieve the depth as determined by the project and manual mine detection, or
- Using the combination of mine clearance machine that does not achieve the depth as determined by the project and dogs for locating mines and unexploded ordinances after the machine has searched the area, or
- Using the combination of dogs for locating mines and unexploded ordinances and manual mine detection.

Using this two methods in the period 1998-2007 was demined 226,5 km².

9. Methods of controlling and assuring quality

CROMAC performs quality assurance operations prescribed by the Law on Demining and Book of Rules and Regulations on Methods of Conducting Demining Operations through its Quality Assurance and Quality Control Department. Quality control procedure did not exist until the establishment of CROMAC. The importance of quality control is based on a fact that the previous Law on Demining from 1996 but also the current Law on Humanitarian Demining from 2005 do not allow the use of demined surface area without quality control over executed demining and demining certificate issued.

Quality assurance operations were being improved in line with CROMAC development. In the early years, demining operations were supervised by 5 quality assurance inspectors visiting work sites from time to time and performing quality control using method of sampling 0,5% of project size. With the employment of new staff, the number of quality assurance officers increased. In 2003, deminers-QA Officers were introduced. The work of QA Officer assumed establishing the status of capacities at the work site, whether the operations were being executed according to the execution project, whether prescribed safety measures were implemented and other facts specified by the execution project. At the beginning, they were obliged to visit each work site twice a week and establish the actual facts. At that time, quality assurance was performed by 9 QA Officers and 9 deminers-QA Officers. Upon the completion of general survey, additional 14 deminers were retrained for quality assurance operations what increased the quality assurance capacities to the total of 11 deminers-QA Officers and 23 deminers-QC Monitors. According to provisions of the Book of Rules and Regulations on Method of Conducting Humanitarian Demining from 2007, apart from supervising the demining operations on a daily basis, the monitor is obliged to perform at least 3 samplings in the total size of 450 m². The sample size in the quality control procedure is increased to 1% of the project size.

Quality assurance presumes a continuous supervision of work of the demining companies and quality control over executed operations. However, in order to issue a certificate, it is not enough to only supervise the quality of conducting the operations. In CROMAC, quality control-related work starts with issuance of Competence Assessment (accreditation) to a certain company. In this phase, the companies are obliged to submit all relevant data about the capacities they own such as: number of deminers, machines, dogs, equipment type and age and information about the last time the same were tested and certified. Testing and certification is conducted by the company CROMAC-CTDT in charge of testing machines, dogs and metal detectors, issuance of usability assessment that has an important role during the control of the quality and results of tested equipment and machines. When the company applies for tender, the representative of QA and QC Department, as Committee member, checks if the bidder understood the task and if he/she stated the capacities in his/her bid based on which he/she obtained an accreditation. Upon the approval of company's Execution Plan and signing the contract on the execution of operations, QA and QC Department is obliged to control via its QA officers and

monitors whether the contractor abides by the procedures prescribed by the Book of Rules and Regulations on Method of Conducting Humanitarian Demining. When the operations are completed starts the testing of quality over executed operations using sampling procedure. In case of ordinance detection, the company is obliged to repeat demining operations on the entire project at their own expense. In the period of 1998-2007 total 16.530 samples were taken on 2.053 projects on the surface of 3.017.599 m².

Administrative and inspection supervision over the application of the Law on Humanitarian Demining is done by the Ministry of Interior. In case of establishing shortcomings in the work of the demining company, QA officers and monitors or deminers, the Ministry is authorised to issue a writ prohibiting the continuation of their work until the removal of shortcomings.

10. Efforts undertaken to ensure the effective exclusion of civilians from mined areas and to otherwise reduce the risks posed by mined areas for which the destruction of mines found within is pending

Article 5, paragraph 2 of the Convention requires each State Party to “ensure as soon as possible that all anti-personnel mines in mined areas under its jurisdiction or control are perimeter-marked, monitored and protected by fencing or other means, to ensure the effective exclusion of civilians, until all anti-personnel mines contained therein have been destroyed.” As the fulfilment of the obligation to destroy or ensure the destruction of all anti-personnel mines in mined areas will take a considerable amount of time, Croatia has marked all mine suspected areas with over 14,500 warning signs and continually undertakes work to maintain such signage.

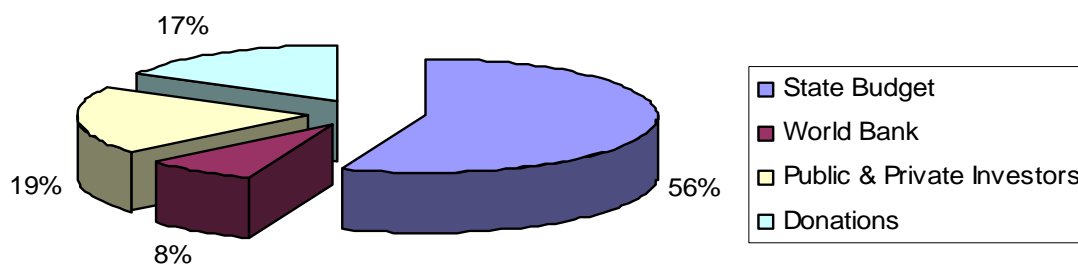
In addition, mine risk education efforts have been undertaken going back before entry into force of the Convention. Mine risk education until 1999 was conducted by the Croatian Red Cross (CRC) and the International Committee of Red Cross (ICRC), and from 1998 by CROMAC, the Ministry of Interior, the Ministry of Science, Education and Sports and non-governmental organizations such as the Croatian Mine Victims Association (CMVA), Mine Aid, the Association of Civilian Victims of Homeland War, Norwegian Peoples Aid (NPA), MINES Association, RECOBOT Trust Fund, SOROPTIMIST, DASKA theatre and BEMBO and friends. It is estimated that over 1,000,000 persons have undergone some forms of mine risk education since 1996.

Mine risk education programmes have been or are conducted through lectures and presentations, exhibits, TV and radio spots, theatre plays, art workshops, as well as one-time special activities such as selling demining coupons, collecting waste paper, distribution of educational notebooks to all first grade pupils of elementary schools and other projects at the state and local level. Taking into the consideration that demining is a time consuming process, it is important to focus on the constant risk that threatens the population living in the mine/UXO contaminated areas. Learning how to live and work as well as how to alleviate the suffering caused by mines is process that goes along with demining activities.

11. Resources made available to support progress made to date

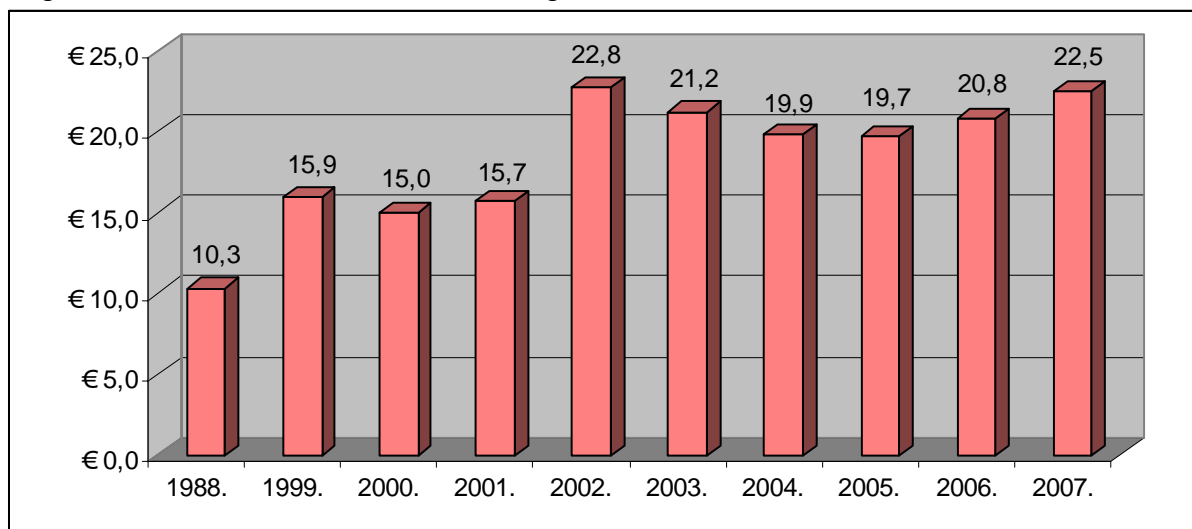
Financing of mine action in Croatia has been derived from four sources: the State Budget of the Republic of Croatia, the World Bank, public companies and other legal entities, and international donors.

Diagram 3: Investment in demining 1998-2007



The Republic of Croatia's State Budget has been the most important source of financing of demining in Croatia. Between 1998 and 2007, State Budget funds for demining have totalled € 183.8 million.

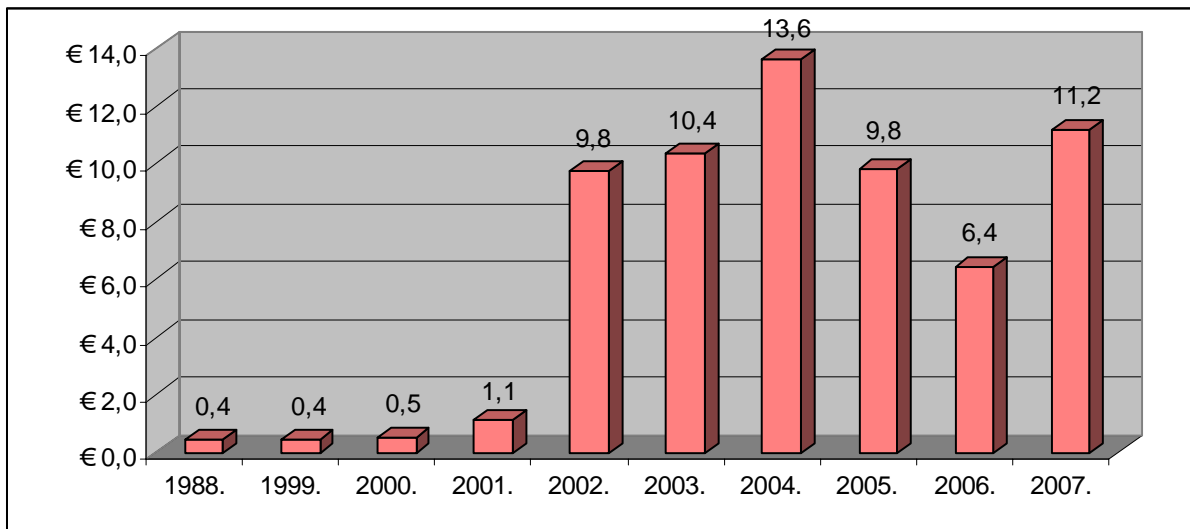
Diagram 4: Total investments from State Budget



Year 2002 was the year with the biggest contribution of State Budget so far because with the direct transfer of the funds Croatian Government had obligation to insure additional funds as the contribution of the Republic of Croatia in the World Bank Loans. In that year direct transfer of Government to demining was € 15.0 million and a contribution for the loans was € 7.8 million.

The second most important source of funding has been public companies and private investors that finance demining of their own infrastructure. Public companies and private investors have so far invested 63,7 million EUR for demining, mostly during the period from 2002 to 2005.

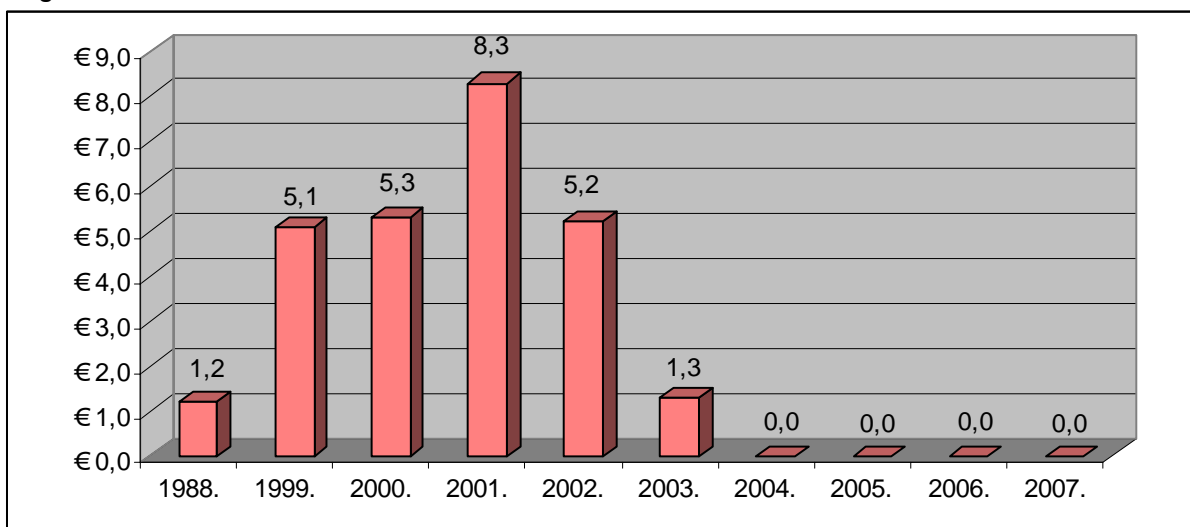
Diagram 5: Investments of the Public and Private Companies



The significant investment from the Public and Private Companies started in year 2002 with the beginning of the large infrastructural projects as construction of the highway Zagreb-Split, reconstruction of the Lika railway etc. In the following years the biggest investor is “Croatian Forest” company that will, because of the fact that the largest MSA is in the forest areas, continue to invest in demining till the end of the demining programme in Croatia.

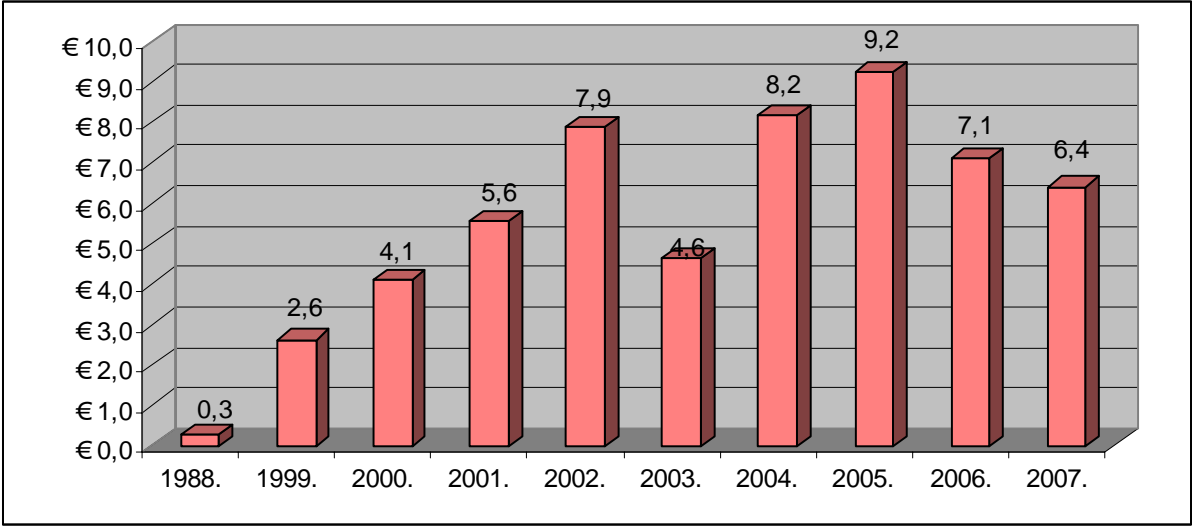
Thirdly, funds have been obtained from the World Bank. On 4 December 1996, an Agreement on the Loan for the Emergency Transport and Demining Project was signed, between Croatia and the International Bank for Reconstruction and Development: Of the total € 65.0 million, € 15.5 million was allocated for demining operations. The loan was approved by the Croatian Parliament on 7 February 1997. In addition, a new loan for Reconstruction of the Eastern Slavonija, Baranja and West Srijem was approved on 1 June 1999. The implementing agency was public company “Croatian Waters” and a part of the loan (\$ 10.0 million) was for demining of channels and dikes in Eastern Croatia. In total, € 27.8 million in World Bank financing was received between 1998 and 2003. In May 2005 the loan for the Project of Socio-economic Recovery of the Area of Special State Concern was signed. The part for the demining is € 17.0 million.

Diagram 6: Funds secured from the World Bank loans



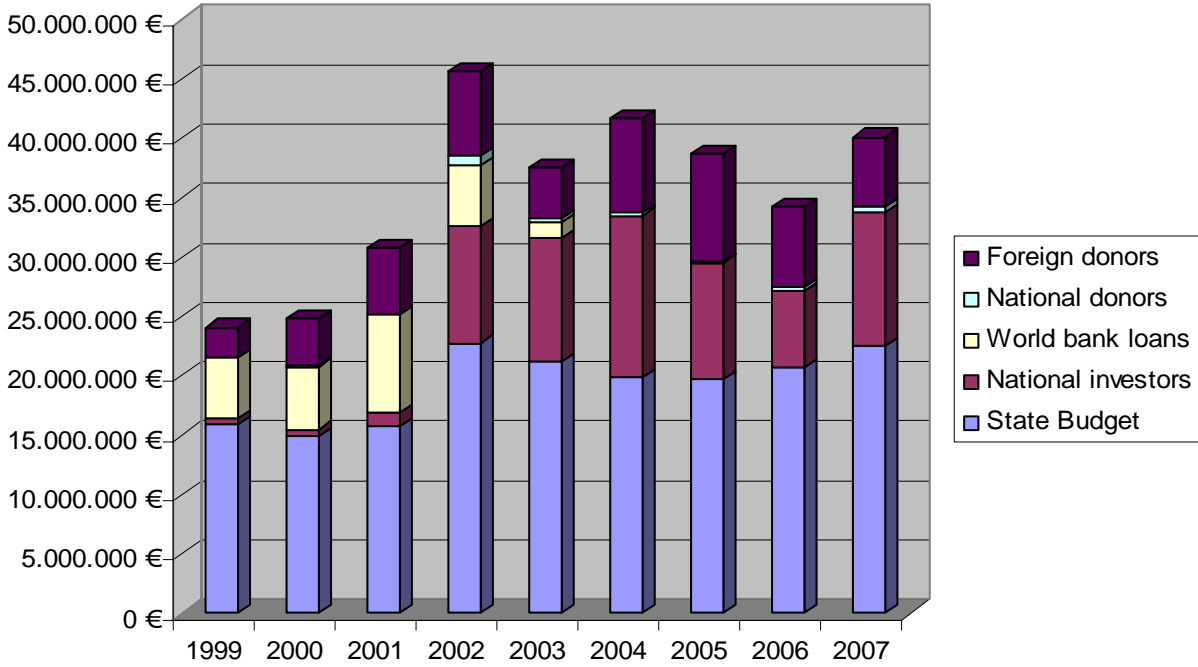
Donor funding is the fourth source accessed by Croatia for demining. Between 1999 and 2007, € 55.7 million have been obtained from donors, principally from foreign governments but also from international and Croatian non-governmental sources.

Diagram 7: Demining funds from the donors



In total, € 328.8 million have been invested in demining in Croatia since 1998, including € 317.7 million since 1999, the year of entry into force of the Convention. As can be see in Diagram 8 below and in Annex II, a majority of the funds invested came from the Croatian State Budget and funds from this source have steadily increased over time.

Diagram 8: Investments in Demining in Croatia 1999-2007



12. Circumstances that impede compliance in a 10 year period

At the time the first assessment of the mine contamination situation was conducted in 1996 the Republic of Croatia had just concluded a war. The war damage on over ¼ of the territory was enormous, cities and villages were leveled communication and utilities infrastructures were destroyed, industrial plants were unusable. In order to start with any type of reconstruction it was necessary to conduct a mine survey and clearance. Along side all the other expenditures Croatia was faced with it had to additionally set aside funds for demining. At the time the Ottawa Convention was signed the MSA was estimated to cover 5.980 km² which at an average price of € 1.86 amounted to €11.1 billion and significantly exceeded the total budget of the Republic of Croatia in that period.

Great problems are caused by the fact that minefields have not been planted in accordance to principles and standard procedures (marking system and keeping minefield records). As a result, the borders of minefields are not marked as well as data from minefield records are inaccurate and incomplete. Number of mines have unknown location, they are not registered because they are planted by non-professionals, or they have moved due to weather conditions and erosion. Additional difficulty is that minefields are uneven and cluttered with obstacles due to the nature of the terrain (mountains, rocky terrains, river banks were used as confrontation lines during the war operations). Furthermore, heavy vegetation, especially covering continental part of the country, arable lands covered with mines. Minefields are not harvested or grazed, and many lie in the type of hot, wet environment that promotes the rapid growth of foliage. UXOs are integral part of the mine situation and explosive ordnance disposal (EOD) requests additional efforts as well as financial resources (when removing from huge depths). They are mostly covering the ex warring zone, confrontation lines and could be found on numerous microlocations as a result of warehouse explosion or retreat.

The main task of CROMAC during this period of 9 years since the signing of the Ottawa Convention was to demine priority areas and to define the actual state of mine contamination. On the basis of the collected data and the established true state of mine contamination that equaled 997 km² at the beginning of 2008 it is estimated that the complete demining of the Republic of Croatia will cost a total of € 700.0 million.

13. Humanitarian, economic, social and environmental implications

On mine suspected area of the Republic of Croatia covering the area of 12 counties, i.e. 112 municipalities, 834.000 inhabitants live being directly exposed to mine threat. That makes 39% of the total population living in counties with MSA problem i.e. 18% of the total population of the Republic of Croatia.

Table 4: Number of inhabitants in towns and municipalities with mine suspected area (MSA)

County	No. of towns and municipalities with MSA	No. of inhabitants in towns and municipalities with MSA	No. of inhabitants of the County	Share of a no. of inhabitants in towns and municipalities with MSA in relation to the total no. of inhabitants of the County
Brodsko-posavska	5	13.777	176.765	7,8
Dubrovačko-neretvanska	5	19.734	122.870	16,1
Karlovačka	13	48.637	141.787	34,3
Ličko-senjska	10	41.191	53.677	76,7
Osiječko-baranjska	17	193.918	330.506	58,7
Požeško-slavonska	4	25.445	85.831	29,6
Sisačko-moslavačka	12	124.205	185.387	67,0
Splitsko-dalmatinska	4	10.895	463.676	2,3
Šibensko-kninska	6	76.633	112.891	67,9
Virovitičko-podravska	5	28.041	93.389	30,0
Vukovarsko-srijemska	18	139.259	204.768	68,0
Zadarska	13	121.653	162.045	75,1
	112	834.388	2.133.592	39,1

Source: List of inhabitants from 2001.

The above-presented data undoubtedly indicate the danger a considerable number of inhabitants of the Republic of Croatia is exposed to on a daily basis and at the same time set one of the most important mine action priorities in the period until 2019.

In the period so far, demining priorities have been the reconstruction of houses, traffic and utility infrastructure, canals, embankments and areas in the close vicinity of settlements. Based on the analysis of MSA structure according to allocation of areas, mined agricultural areas and forest areas represent the biggest problem for the economy. Total loss because of mined agricultural areas per year is estimated on € 44.0 million and according to the „Croatian Forest“ Ltd. the value of wood wealth that can not be used because of mines is € 178.0 million. Indirect loss is inability of maintaining and renewal of forests.

A significant part of agricultural area on mine suspected area is owned by the state so the program of managing the state-owned land wishes to improve the agricultural production and use EC funds for new plantations of wine grape, olive trees, fruit trees and other agricultural products prior to becoming a EU member state when the further development and increase of agricultural production will depend on the defined quotas. The share of agricultural area in the total MSA in the MSA-affected counties comes to 2.2% i.e. 1,5% of the total agricultural area in the Republic of Croatia.

Table 5: Agricultural area in the MSA

County	Total agricultural land in km ²	Agricultural land inside the MSA	Portion
Brodsko-posavska	573,6	5,6	1%
Dubrovačko-neretvanska	226,3	0,2	0%
Karlovačka	614,7	8,8	1,4%
Ličko-senjska	352,2	5,1	1,4%
Osiječko-baranjska	1.040,3	49,1	4,7%
Požeško-slavonska	383,7	11,2	2,9%
Sisačko-moslavačka	879,9	17,9	2%
Splitsko-dalmatinska	393,7	0,1	0%
Šibensko-kninska	193,2	1,3	0,7%
Virovitičko-podravska	654,4	0,2	0%
Vukovarsko-srijemska	896,7	31,3	3,5%
Zadarska	271,0	10,1	3,7%
	6.479,8	140,7	2,2%

Source: List of agriculture 2003

The second problem is the reconstruction of local infrastructure (water supply system, electrification) what is directly related to the reconstruction of houses and creating preconditions for the return of displaced people to their homes as one of the priorities of the Government of the Republic of Croatia. A big problem in the Eastern Slavonia is the mine-contamination of canals for land conservation and drainage but also impossibility of their maintenance what results in them being overgrown and problem of flooding the agricultural land. This problem is the most observable on the area along the Croatian-Hungarian border.

At the beginning of mine clearance process, one of the priorities was to create conditions for safe stay of tourists in the Republic of Croatia. In order to do that, there were areas along the tourist road communications demined. In this way, mine suspected area has been moved away from the above-mentioned road communications what made it possible for tourists to safely come to their destinations. Parts of national parks and parks of nature have also been demined. The problem continental counties are now facing is mine suspected area that had been used, prior to the war, for hunting tourism because it was one of the most important sources of income for certain towns and municipalities.

Because of all afore mentioned reasons Croatian Mine Action Centre has made the table of priorities in order to help municipalities and counties to prepare their proposals of priorities for demining plan. According to CROMAC's estimation out of total mine suspected area in the Republic of Croatia, first and second group of priorities in all three priority groups cover ca. 250 km². Solving this problems by 2014 there will be no direct treat to the safety of the citizen of Republic of Croatia, all area important from the socio-economic aspect will be demined and also all area important for the protection of the preserved nature, fire protection and sanation of wild depos.

Table 6: Demining priorities

Group	I Subgroup	II Subgroup	III Subgroup
SAFETY	Schools, hospitals, playgrounds	Areas near settlements	Forests near settlements
	Settlements		
	Turistic destinations		
	Safety area near factories		
	All known minefields		
SOCIO-ECONOMIC	Houses for reconstruction	Agricultural land II category	Agricultural land III category
	Agricultural land	Infrastructural objects II category	Infrastructural objects III category
	Infrastructural objects	Parts of forests	Parts of forests
	Parts of forests		
ECOLOGY	Nacional parks	Parts of parks of nature	Parts of parks of nature
	Wild depos	Forests for special purposes	
	Fire protection		

14. Nature and extent of the remaining Article 5 challenge: quantitative aspects

A revision of general survey operations was undertaken between 2005 and 2007. In addition, humanitarian demining operations described in Section II.6 have been undertaken for several years. On the basis the totality of these operations, as of January 2008 it was possible to define with greater precision of total of 994 km² of area in the Republic of Croatia (i.e., 1.78% of the entire land territory of Croatia) which is or may be dangerous due to mines. The Croatian Army reported that the size of the mined area under their jurisdiction is 3.24 km² and covers military barracks, training grounds, technical warehouses, radar stations and air fields. That means that the total mine suspected area in the Republic of Croatia is 997 km².

Twelve counties continue to contain areas which are potentially dangerous with 112 towns or municipalities (i.e., 21.6 percent of all towns and municipalities in Croatia) and over 834,000 individuals (i.e., one-fifth of the population of Croatia) live in towns or municipalities still affected by the presence or suspected presence of mines.

Based on the analysis of all information and mine contamination data available, executed analytic estimates and General Survey of the entire area of towns and municipalities contaminated with explosive ordinance carried out, the following was defined:

- Size and distribution of mine suspected area per municipalities, towns and counties,
- Data on minefields placed,
- Structure of mine suspected area according to intended use of stated areas,

See Table 7 for an overview of the remaining challenge per county in terms of total remaining mine suspected and mined area.

Table 7: MSA size and distribution per counties

No.	County	County area	County MSA	County MSA in relation to the MSA of the entire state (%)	County MSA in relation to the county area (%)
1.	Brodsko-posavska	2.034.000.000	33.154.414	3,3	1,6
2.	Dubrovačko-neretvanska	1.782.490.000	9.215.761	0,9	0,5
3.	Karlovačka	3.622.000.000	84.043.552	8,4	2,3
4.	Ličko-senjska	5.350.500.000	196.791.300	19,6	3,6
5.	Osiječko-baranjska	4.152.000.000	192.624.741	19,4	4,6
6.	Požeško-slavonska	1.821.000.000	59.979.313	6,0	3,3
7.	Sisačko-moslavačka	4.463.000.000	164.260.707	16,5	3,7
8.	Splitsko-dalmatinska	4.572.000.000	25.058.043	2,5	0,5
9.	Šibensko-kninska	2.994.000.000	55.446.084	5,6	1,9
10.	Virovitičko-podravska	2.023.000.000	24.079.712	2,4	1,2
11.	Vukovarsko-srijemska	1.860.760.000	80.728.120	8,1	4,3
12.	Zadarska	3.642.000.000	71.805.117	7,2	2,0
Total		38.316.750.000	997.186.864	100,0	2,6

According to the size of mine suspected area of the county, Osiječko-baranjska County, Ličko-senjska County, Sisačko-moslavačka County, Karlovačka County, Vukovarsko-srijemska County and Zadarska County are classified as the most mine contaminated counties.

Comparing the relation between the county size and the size of its mine suspected area, the most mine contaminated counties are: Vukovarsko-srijemska County, Osiječko-baranjska County, Sisačko-moslavačka County and Ličko-senjska County.

See table 8 for an overview of the remaining minefield records per county.

Table 8: Mine situation according to the types of minefields placed

No.	County	Minefield record no.	AT mines	AP mines	Total
1.	Brodsko-posavska	462	3.820	5.354	9.174
2.	Dubrovačko-neretvanska	112	109	2.564	2.673
3.	Karlovačka	805	5.303	15.118	20.421
4.	Ličko-senjska	973	8.261	32.051	40.312
5.	Osiječko-baranjska	987	27.927	20.914	48.841
6.	Požeško-slavonska	404	1.954	4.590	6.544
7.	Sisačko-moslavačka	1.405	5.955	27.682	33.637
8.	Splitsko-dalmatinska	40	104	712	816
9.	Šibensko-kninska	601	2.488	10.039	12.527
10.	Virovitičko-podravska	16	528	516	1.044
11.	Vukovarsko-srijemska	573	24.238	17.887	42.125
12.	Zadarska	869	4.843	14.982	19.825
Total		7.247	85.530	152.409	237.939

Total number of minefield records in mine affected counties is 7.247. This equals a reduction in the number of minefield records for 3.981 from the total number in 1998.

Taking into consideration the demining activities carried out in the previous period, 7.247 minefields with 237.939 mines out of which 85.530 antitank and 152.409 anti-personnel mines have so far been registered in mine-information system of the Croatian Mine Action Centre.

The biggest number of mines is registered in Osiječko-baranjska County (48.841), Vukovarsko-srijemska County (42.125), Ličko-senjska County (40.312) and Sisačko-moslavačka County (33.637).

Almost 40% of mines (90.966) out of the total number of mines are placed in Osiječko-baranjska and Vukovarsko-srijemska County.

The biggest number of antitank mines is registered in Osiječko-baranjska County (27.927) and Vukovarsko-srijemska County (24.238) what makes 61% of the total number of antitank mines.

The biggest number of anti-personnel mines is placed in Ličko-senjska County (32.051) and Sisačko-moslavačka County (27.682), what makes 39,1% of the total number of anti-personnel mines placed.

Besides the above-mentioned types and number of minefields placed, mine situation is also characterized by the following facts:

- In most cases, minefields are not placed according to adopted military systems of minefield placing and international standards (standards for marking, maintenance and keeping minefield records),
- Frequent relocation of minefields as well as their non-registered multiple supplementation, construction of false minefields etc.;
- Existence of a certain number of minefields for which there are no minefield records;
- Areas under mines neglected and overgrown for a long time;
- Dispersal of unexploded ordinance on wider areas of the battle area and zone of separation of forces whose removal and destruction requires additional procedures and considerable financial means;
- Dispersal of unexploded ordinance on a large number of micro locations as a consequence of explosions of military storage or leaving them during the retreat or abandoning the positions.

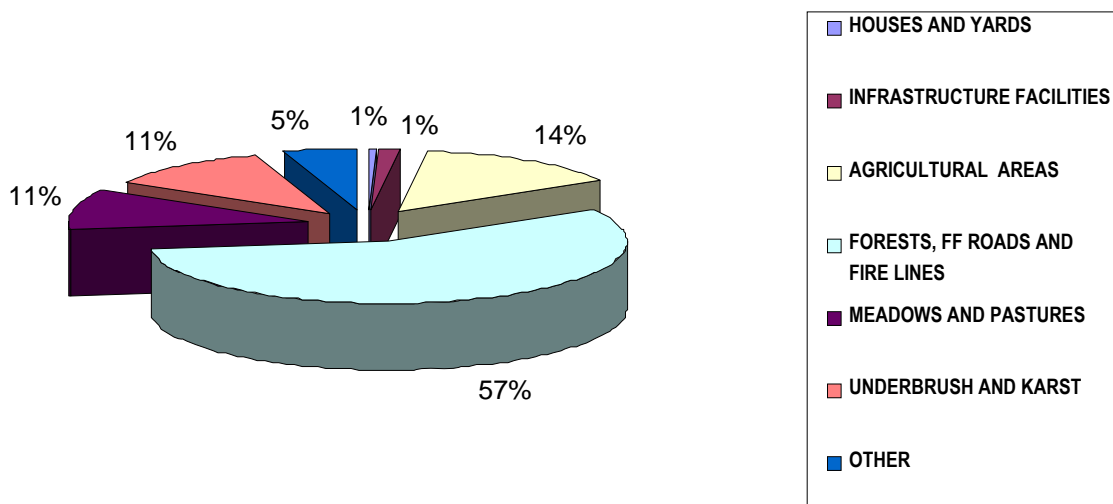
15. Nature and extent of the remaining Article 5 challenge: qualitative aspects

As a result of the systematic General Survey activities CROMAC was able to present the structure of mine suspected area according to intended use of stated areas. This information was very useful from the aspect of setting priorities and determining actual size of the mine impact on the safety of people and socio-economic implications of mine problem and it is basis for the preparation of the demining plans on the county and state level.

Table 9: Structure of mine suspected area according to allocation of areas

No.	County	MSA	MSA structure according to allocation of areas													
			Houses and house yards		Infrastructural facilities		Agricultural areas		Forests, fire fighting roads and fire lines		Meadows and pastures		Underbrush and karsts		Other	
			km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%	km ²	%
1.	Brodsko-posavska	33,2	0,1	0,2	0,2	0,5	5,6	16,9	21,6	65,2	0,9	2,6	0,0	0	4,8	14,6
2.	Dubrovačko-neretvanska	9,2	0,0	0	0,0	0	0,2	1,8	0,2	2,4	0,2	2,1	8,6	93,7	0,0	0
3.	Karlovačka	84	0,2	0,2	0,2	0,2	8,8	10,6	56,6	68,2	17,2	20,7	0,0	0	1,1	0,1
4.	Ličko-senjska	196,8	1,8	0,9	0,2	0,1	5,1	2,6	125,7	64,6	26,9	13,8	0,0	0	37,0	18
5.	Osiječko-baranjska	192,6	0,2	0,1	6,4	3,3	49,1	25,5	131,9	68,5	0,2	0,1	0,2	0,1	4,6	2,4
6.	Požeško-slavonska	60	1,0	1,6	0,0	0	11,2	18,6	41,1	68,5	3,0	5	0,0	0	3,8	6,3
7.	Sisačko-moslavačka	164,2	0,3	0,2	0,3	0,2	17,9	10,9	106,1	64,6	39,6	24,1	0,0	0	0,0	0
8.	Splitsko-dalmatinska	25	0,0	0,02	0,1	0,2	0,0	0,1	4,3	17,2	2,6	10,2	18,0	72	0,1	0,3
9.	Šibensko-kninska	55,4	0,7	1,3	0,5	0,9	1,3	2,4	1,6	2,8	3,0	5,4	47,5	85,7	0,8	1,5
10.	Virovitičko-podravska	24,1	0,0	0	0,0	0,1	0,2	0,8	22,5	93,4	1,3	5,5	0,0	0	0,0	0,2
11.	Vukovarsko-srijemska	80,7	0,1	0,1	3,6	4,5	31,3	38,8	44,9	55,6	0,2	0,2	0,0	0	0,6	0,8
12.	Zadarska	71,8	1,1	1,5	2,9	4	10,1	14	9,7	13,5	13,4	18,6	34,4	47,9	0,4	0,5
TOTAL		997	5,3	0,5	14,3	1,4	140,7	14,2	566,2	57,0	108,2	10,9	108,7	10,9	53,3	5,1

Diagram 9: Structure of mine suspected area according to allocation of areas



Forest areas with 566,2 km² or 57,0% of the total MSA have the biggest portion in mine suspected area of the Republic of Croatia. Agricultural arable areas cover 140,7 km² or 14,2% of the total MSA, underbrush and karst cover 108,7 km² or 10,9% of the MSA, meadows and pastures 108,2 km² or 10,9% of the MSA, houses and yards 5,3 km² or 0,5% of the MSA and other areas with 50,3 km² or 5,1% of the total MSA.

Counties with biggest portion of forest areas in mine suspected area are Osiječko-baranjska County with 131,9 km² or 23,3%, Ličko-senjska County with 125,7 km² or 22,2% and Sisačko-moslavačka County with 106,1 km² or 18,8%.

Counties with biggest portion of agricultural areas in mine suspected area are Osiječko-baranjska County with 49,1 km² or 34,9%, Vukovarsko-srijemska County with 31,3 km² or 22,2% and Sisačko-moslavačka County with 17,9 km² or 12,7%.

Counties with biggest portion of underbrush and karst in mine suspected area are Šibensko-kninska County with 47,5 km² or 43,7%, Zadarska County with 34,4 km² or 31,6% and Splitsko-dalmatinska County with 18,0 km² or 16,6%.

Counties with biggest portion of meadows and pastures in mine suspected area are Sisačko-moslavačka County with 39,6 km² or 36,6%, Ličko-senjska County with 26,9 km² or 24,9% and Karlovačka County with 17,2 km² or 15,9%, and

Counties with biggest portion of houses and house yards in mine suspected area are Ličko-senjska County with 1,8 km² or 28,3%, Zadarska County with 1,1 km² or 20,8% and Požeško-slavonska County with 1,0 km² or 18,9%.

16. Amount of time requested and a rationale for this amount of time

In line with the Article 5, paragraph 1, the Republic of Croatia requests an extension of deadline for the implementation of the Convention for 10 years. The main reasons for requesting the extension of the deadline are as follows:

- size of mine suspected area (MSA)

Although a lot has been done since the first estimates in 1996 until today in the sphere of reduction, defining and demining of mine suspected area (from 13.000 km² the area has been reduced to 997 km², i.e. 13 times), there is still a big part of the Republic of Croatia contaminated with mines. The biggest problem is non-existence of precise mine contamination data due to the nature of conflict itself during which mines were being placed without drafting minefield records or keeping any records at all. The records possessed by CROMAC cover ca. 100 km². However, there are enough indicators and information gathered by general survey for the remaining part confirming the doubt in the existence of mine danger, but for which there are no records of any kind. At the moment, there are no methodologies developed that would enable additional area reduction to the size of the actual problem. That primarily refers to the forest area of the Republic of Croatia participating with 57% in the total MSA structure. Considering the fact that the problem of mine contamination of areas important from the aspect of safety of citizens and return of displaced persons has been resolved in the previous period, in the forthcoming period CROMAC is going to put an emphasis on the development of methodologies enabling better quality analysis of mine contamination situation on the area.

- available financial resources

As stated in the chapter 11 of this Request for the extension, in the period 1998-2007 i.e. at the time of economic recovery of the Republic of Croatia, that is, when considerable funds were invested into reconstruction of devastated economy, infrastructure and housing units, the total of 328.8 million € were invested into demining operations. Further trend of increase of funds for demining is observable from the Proposal of the Croatia's State Budget Plan for the period 2008-2010. According to stated projection, in the next three years, from current 22.5 million € the demining funds will be increase to 33.0 million € in 2010. The considerable increase is also expected in the following years. The Republic of Croatia is considering some additional options for ensuring funds via World Bank loans, loans of commercial banks or increased allocations of public companies facing the biggest mine problem (Croatian Forests, Croatian Waters). The intention is to ensure complete safety of citizens of the Republic of Croatia and undisturbed economic development of the country as soon as possible. Apart from domestic funding sources, the Republic of Croatia keeps counting on continuation of co-operation with numerous donors for the purpose of solving the problem which directly reflects to the safety of people and socio-economic recovery of war-destroyed areas. Considering the fact that the Republic of Croatia is currently in the process of accessing the European Union, funds of certain European Commission pre-accession funds intended for development projects are already being used, out of which only one part is meant for demining as prerequisite of development projects realization. Only in the last 3 years, there have been 6.5 million € worth grant contracts signed with the European Commission. Parallel with resolving the projects relevant for economic development and safety of citizens of the Republic of Croatia, gradual loss of interest in demining is expected upon 2014, primarily of donors and investors after that. It is to be expected that the State Budget of the Republic of Croatia and the company "Croatian Forests" will be the only funding sources in the period 2015-2019 with occasional financing on behalf of private investors for the projects whose realization is dependent of demining.

- **demining capacities**

As described in the chapter 18 of this Request for the extension, demining capacities in the Republic of Croatia able to follow the realization of this programme are well developed. According to our estimates, the value of investments into training of deminers and their equipping, together with acquired material and technical means, comes to ca. 30.0 million €. In line with the Demining Plan for the period 2009-2019, the biggest volume of demining operations conducted will be up to 2014. After that, we can expect decrease of capacities due to the decrease of financial resources available. We will then have to find alternative capacities (State owned demining company, Croatian Army) for the completion of the humanitarian demining programme in the Republic of Croatia i.e. fulfilment of commitments from the Convention.

For all the above-mentioned reasons, we believe the requested deadline of 10 years to be justified and that the Republic of Croatia will be able to fulfil its commitments undertaken by signing the Convention in the stated period.

17. Detailed work plan for the period of the requested extension

Based on the analysis of the size and structure of mine problem in the Republic of Croatia, the analysis of use of the existing demining capacities and other relevant factors, in the period 2009-2019 the following goals will be realized:

1. Demining of all registered minefields and the ones yet to be discovered in the future period.

Minefields in the vicinity of settlements, road communications and infrastructure facilities will have the priority in terms of removal. In co-operation with the authorised institutions for the sphere of fire protection, minefields will be removed from the areas representing the potential danger for setting up and spreading fires as well as from areas potentially dangerous due to the possibility for ecological incidents. Establishing priorities at the operative level will be precisely elaborated by annual demining plans.

2. To completely remove mine danger from areas for the reconstruction of houses and infrastructure, agricultural areas, meadows and pastures.

This goal will be realized through direct co-operation with the authorised state administration bodies (Ministry of Sea, Transport and Infrastructure, Ministry of Agriculture, Fisheries and Rural Development and Ministry of Regional Development, Forestry and Water Management), local administration and self-administration. By the end of 2010, mine danger should be completely removed from the areas for the reconstruction of houses and infrastructure and, by the end of 2013, from the areas allocated for agricultural production and cattle breeding.

3. To maintain marking of mine suspected area through all phases.

During the realization of this Program, the Croatian Mine Action Centre will maintain marking of mine suspected area and, if needed, at the request of local administration and self-administration bodies, police, forestry, hunting societies and other, execute additional marking and replace destroyed or for any other reason missing mine warning signs.

4. Mine risk education programs should cover the entire population living and/or working in mine suspected areas or gravitate towards them.

In co-operation with authorised state administration bodies (Ministry of Science, Education and Sports), local administration and self-administration, public companies and non-governmental organizations (Croatian Red Cross) intensify the process of conducting mine risk education programs and adjust the programs to most endangered groups of population.

5. To continue providing care and rehabilitation including psycho-social rehabilitation and economic reintegration to all mine victims.

This task will be primarily performed by state administration bodies responsible for health and social care (Ministry of Health and Social Welfare) and other state administration bodies, local administration and self-administration that can contribute to the complete reintegration of mine victims to the social courses.

Realization Dynamics

- Demining

Table 10: Realization of Demining Plan per year

Year Category	Total MSA in km ²	Realization of demining plan in km ² per year											Total	
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Houses and house yards	5	3	1	1										5
Infrastructure facilities	14	3	4	4	3									14
Agricultural areas	141	26	30	30	25	20	10							141
Forests, fire-fighting roads and fire lines	566	5	5	5	6	7	9	11	10	6	5	4		73
Meadows and pastures	109	5	12	13	15	17	15	15	6	5	3	3		109
Underbrush and karst	109	1	2	2	2	3	7	10	10	3	1			41
Other	53	1	1	1	1	4	9	6	2	2				27
Total	997	44	55	56	52	51	50	42	28	16	9	7		410

Using demining methods in requested period, following goals are planned to be achieved:

- by 2010 completely demined area around houses planned for reconstruction and return of displaced persons,
- by 2011 completely remove mine threat form all infrastructural objects,
- by 2013 completely remove mine threat form agricultural land,
- by 2018 remove mine threat from the forest areas planned for the exploitation and afforestation according to the plan of public company "Croatian Forests",
- by 2018 completely remove mine threat form the area for pasture and farming,
- by 2017 demine area important for fire protection activities and parts of National Parks and Parks of Nature,
- by 2016 demine swamps, river banks and other unclassified area,
- in planned period remove all known minefields and one that will be discovered during the general and technical survey activities.

Total 410 km² is planned to be removed from mine suspected area by using demining methods. Demining will be done by the autorised demining companies.

- **Technical Survey**

Table 11: Realization of plan of reduction by Technical Survey per year

Year Category	Total MSA in km ²	Realization of plan of reduction by technical survey per year											Total	
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Houses and house yards	5													0
Infrastructure facilities	14													0
Agricultural areas	141													0
Forests, fire-fighting roads and fire lines	566			15	30	35	40	40	40	40	30	25	295	
Meadows and pastures	109													0
Underbrush and karsts	109			5	6	6	7	7	7	7	6	5	56	
Other	53			1	3	3	3	3	4	4	3	2	26	
Total	997	0	0	21	39	44	50	50	51	51	39	32	377	

By using technical survey methods it is planned to reduce area for the exploitation of wood, for the fire protection and parts of protected areas like National Parks and Parks of Nature. These are the areas for which there are no minefield records or any other record of mining but with the general survey activities is affirmed that there are no ground for the cancellation and declaration that area is safe. To be able to apply technical survey methods, it is necessary to adjust Croatian legislation according to IMAS and to prepare related SOP's. Technical survey is planned to start in 2010. Using technical survey methods it is planned to reduce mine suspected area for 377 km². Technical survey will be done by the authorised demining companies.

- **General Survey**

Table 12: Realization of plan of reduction by General Survey per year

Year Category	Total MSA in km ²	Realization of plan of reduction by general survey in km ² per year											Total	
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
Houses and house yards	5													0
Infrastructure facilities	14													0
Agricultural areas	141													0
Forests, fire-fighting roads and fire lines	566	8	15	20	25	25	25	25	20	20	15		198	
Meadows and pastures	109													0
Underbrush and karst	109	1	3	3	3	2								12
Other	53													0
Total	997	9	18	23	28	27	25	25	20	20	15	0	210	

With general survey it is planned additionally to investigate forest areas, karst and underbrush in order to reduce the mine suspected area to the size of a real problem. General survey will be done by CROMAC survey teams and with this method it is planned to reduce mine suspected area for 210 km². The biggest activities will be performed in period from 2011 to 2014. Because of increased activities on technical survey it is expected that the additional information will be collected that will result in further reduction of MSA.

Big forest complexes, the area of underbrush and karst at the south of Croatia call for special elaboration of mine danger assessment methods what in the forthcoming period will be one of more important CROMAC tasks to be realized in co-operation with Croatian Forests Ltd. and other area beneficiaries.

Financial Means

One of the basic preconditions for the realization of stated scope of operations and annual dynamics is securing necessary financial means. In line with planned annual realization, it is required to secure 740 million EUR for this purpose.

Table 13: Funds required for the realization of scope of operations in million EUR

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total mil. €
Funds required												
Demining and technical survey works	50	60	75	80	80	80	75	60	45	30	25	660
General survey	5,5	5,5	6	6	6	6	6	5,5	5,5	4,5	3,5	60
Geodetic measurement	1,5	2	2	2	2	2,5	2	2	1,5	1,5	1	20
Total mil. €	57	67,5	83	88	88	88,5	83	67,5	52	36	29,5	740

Current average price of demining per square meter is 1,35 €/m². In the period 2009-2010 Croatia is planning to finish demining of all houses and area around houses for the reconstruction that is the most expensive demining works. In the period till 2013 the majority of the demining activities will be on the agricultural land and meadows and pastures that are more suitable for the mechanical demining and thus cheaper. In the same period with increase of the funds, bigger projects will be offered on the public tenders that will lead to decrease of the prices per m². After 2013 there will be more technical survey works than demining what will lead to additional decrease in the price of the works. In the same time CROMAC will perform the general survey activities as well as usual activities such as preparation of the demining and technical survey projects, quality assurance and quality control etc.

Potential funding sources through which the realization of this program can be ensured:

Table 14: Potential funding sources

Funding source	Funds (estimate in million EUR)
State Budget	490,0
Funds of Public Companies and other legal entities	130,0
European Commission funds	40,0
World Bank loan and of other financial institutions	25,0
Domestic and foreign donors	30,0
TOTAL:	740,0

Just like in the previous period, state budget should bear the biggest brunt of financing mine action in the period 2009-2019. The continuation of financing demining operations from the budget funds of local administration and self-administration units in Osiječko-baranjska, Vukovarsko-srijemska and Karlovačka County is expected but also joining others to the projects of interest for the county, towns and municipalities.

Financing of public companies and private investors will depend on new development projects and the potential need for demining of areas those projects should be realized at. Due to a specific quality of the problem and a fact that no less than 57% of mine suspected area (MSA) is covered by forests, the Croatian Forests will have to increase their allocations for demining in the forthcoming period in order to create minimum conditions for the exploitation of wood and management of woodland resources.

There will be the funds of pre-accession and structural funds of European Union used in the above-stated period. In order to realize the plan of removal of mine danger until 2019, the share of donor funds should be the same in relation to the total demining funds i.e. at the level of ca. 10%. Bigger involvement of domestic donors is also expected but this requires passing legal regulations stipulating tax breaks for legal subjects to be donating the funds and exemption from VAT for donated funds. Precise plan and definition of the strategy for solving mine problem will ease the donors' decision on donating funds for a certain area.

Currently Croatia is using the funds of the World Bank Loan for the Project of Socio-Economic Recovery of the Area of Special State Concern in the amount of 15,5 mil. € and will be finished by the end of year 2009. There is also possibility for some particular projects to take loan from other financial institutions like EBRD or domestic commercial banks.

Sources and their portion in the total providing for funds at the annual level will be defined by annual demining plans passed by the Government of the Republic of Croatia according to the Law on Humanitarian Demining.

It is our estimate that we should secure funds at the level of 10% of the total funds planned for demining operations in order to realize the programs of rehabilitation and reintegration of mine victims in the period covered by this request.

Capacities

In the period from 2008 to 2018 with demining and technical survey it is planned to demine and reduce MSA for 787 km². The biggest activities will take place between year 2010 and 2014 in which the largest amount of funds will be required (430,0 million €). To achieve this goal it is necessary to increase number of deminers starting from year 2009. The largest increase of number of deminers is expected in year 2010 when the start of technical survey is expected. The largest number of deminers is expected in year 2013 (twice more than today). From year 2014 the number of deminers will gradually decrease. The number of required deminers is shown in following table:

Table 15: Required capacities

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of deminers	570	670	850	1000	1100	1200	1100	900	700	500	400

In the same time there is no need for increase of number of demining machines and mine detection dogs.

To be able to follow the achievements of demining companies in activities of technical survey and demining, CROMAC will conduct internal reorganisation and increase number of employees in Quality Assurance and Quality Control Department from teams that were engaged in general survey activities.

Research and Development

Based on the estimate of status of mine suspected area in the Republic of Croatia and in line with the structure of mine suspected areas where ca. 57% of the areas are forests, research and development activities in the future period will be focused on:

- Development of survey methods and techniques that will be reliable enough to be applied upon verification of operative value, all for the purpose of reduction of mine suspected area. The following activities will be conducted: inspection of terrain features, vegetation and indicators of mine contamination of areas for the purpose of establishing anomalies of their features in relation to the areas that are not mined;

- Testing and establishment of parameters of biological method and devices for the detection of explosive vapours as precondition for operative evaluation and introducing into operative use;
- Development of demining machines and their tools adjusted to demining of forest areas;
- Development of metal detectors with dual sensors and their use in the first phase of quality assurance operations and later on in demining too;
- Integration of sensors to the machines for the needs of quality assurance and quality control after mechanical demining;
- Development of methods and techniques for the use of mine detection dogs on forest areas.

All scientific resources and capacities, especially experts from the sphere of forestry and their institutions, should be included into all the above-mentioned researches and development.

18. Institutional, human resource and material capacity available

Currently 28 authorised demining companies and one non-governmental organization are taking part in mine search and clearance operations in the Republic of Croatia. Apart from that, another 30 authorised legal entities are accredited for conducting demining operations but currently have no capacities and do not participate in public tender procedures. General survey operations are conducted by deminers of the Croatian Mine Action Centre and their capacities are not included into the analysis. Besides, demining of military facilities is conducted by special unit of the Croatian Army Armed Forces (mine clearance battalion) according to special plan made by the Ministry of Defence of the Republic of Croatia. Demining capacities are defined by the procedure of accreditation of the authorised legal entities for conducting demining operations carried out by CROMAC.

Table 16: Capacities of authorised legal entities

CAPACITY		CURRENT SITUATION
Total number of deminers		610
Deminers	dog handlers	18
	machine operators	10
	worksite leaders	30
	operative	552
Total number of auxiliary workers		91
Metal detectors		653
Mine detection dogs		69
Demining machines		44
	heavy	6
	medium	9
	light	20
	excavators	9

The capacity of deminers is presented as the total capacity that also includes dog handlers and machine operators (presented separately) because they can perform deminer tasks when they are unable to work with mine detection dog or demining machine. Demining machines are classified according to the types in line with prescribed categorization. The capacity of mine detection dogs represents the total number of dogs registered in CROMAC in the process of establishing the level of competence and that underwent the prescribed testing. The team consists of a handler and two mine detection dogs. The number of metal detectors shows that each deminer disposes of a detector for

whose proper usage they have been trained for in order to use them in mine search and demining operations.

Potentialities of Current Capacities

It is clear from the analysis of mine search and demining projects completed so far that the portion of demining machines and supporting machines – vehicles in mine search and demining operations as first method comes to ca. 85% of the total area. Considering the fact that treated area requires the application of second method – manual method or mine detection dogs depending on the purpose and potentialities of a certain type of machine, the implication is that ca. 75 % of deminer capacities and all available capacities for detection of mines should be used for the inspection of areas after the machines.

The indicators of potentialities of capacities for mine search and demining are presented through below given tables.

Table 17: Potential demining machine performance

NO.	DEMINING MACHINES	PIECES	ESTIMATED PERFORMANCE m2/per year	
			OPTIMUM PER YEAR	IN CURRENT CONDITIONS
1	Heavy	6	24.634.368	18.662.400
2	Medium	9	18.035.740	13.663.440
3	Light	20	24.074.266	18.238.080
4	Excavators	9	6.166.036	4.671.240
TOTAL		44	72.910.410	55.235.160

Optimum demining machine performance is based on the performance achieved on polygon testings reduced for 30% relating to the requests at the worksite such as terrain configuration, vegetation, soil composition and other requests that can appear at the worksite but also realized daily performance on mine search and demining projects, all under the condition that the demining machine operates 8 working hours a day, 22 working days a month taking into consideration regular maintenance, repairs and servicing of the demining machine.

In addition, in order to calculate real demining machine performance, it is necessary to take into consideration operators' vacation and disturbances caused by weather conditions.

Recognizing all the facts and circumstances stated above, what results from them is the fact that during one year, it is possible to realize ca. 200 working days. Calculated with potential demining machine performance in current conditions it comes to ca. 55 km².

Table 18: Potential deminer performance

MANUAL METHOD OF MINE SEARCH AND DEMINING	POTENTIAL PERFORMANCE m²/DAY	NO. OF DEMINERS	POTENTIAL PERFORMANCE m²/PER YEAR
Manual mine detection, demanding terrain (vegetation, detections)	50	552	5.520.000
Manual mine detection, rare vegetation	100	552	11.040.000
Manual mine detection, rocky ground	150	552	16.560.000
Manual mine detection, mine search, inaccessible terrain	100	552	11.040.000
Manual mine detection, mine search, favourable terrain	200	552	22.080.000
Combined manual detection after heavy demining machines	300	552	33.120.000
Combined manual detection after demining machine	200	552	22.080.000
Combined manual detection after excavators	150	552	16.560.000

Potential performance m² represents upper border in each category, not stated size. The actual performance will depend on the conditions at the worksite taking into consideration the specifics on the same and all the actions deminer should undertake for m² of mine search and demining of the terrain (terrain detection, cutting the vegetation, excavating the ordinance detected, marking etc.).

For calculation purposes 552 deminers were taken and the potential annual performance was calculated based on 200 working days during one calendar year taking into consideration deminers' vacations and disturbances caused by weather conditions. Potential annual performance is calculated in order to be used by deminers according to separate methods. In the end, it will depend on estimated needs.

Table 19: Potential performance of mine detection dogs

MDDs-INSPECTION AFTER THE MACHINE	POTENTIAL TEAM PERFORMANCE m²/day	NUMBER OF TEAMS	ESTIMATED PERFORMANCE / m²	
			annual optimum	in current conditions
MDD team	1.500	34	13.464.000	10.200.000

Performance of mine detection dogs is based on dog team (two dogs) for the period of 22 working days during the period of one month. When the work of mine detection dogs is being considered, it is clear from capacities that the authorised legal entities employ the total of 37 dog handlers handling only one dog. Moreover, it should be emphasized that during the search of boxes, besides dog handler-auxiliary worker, a deminer should be present too for the purpose of verification of findings detected by the dog.

Recognizing all the facts and circumstances stated above, what results from them is the fact that during one year, it is possible to realize ca. 200 working days. Calculated with potential MDD performance in current conditions it comes to ca. 10 km² per year.

Potential of Capacities in Current Conditions

The analysis of potential of the existing capacities and their interrelatedness show that demining machines have the most important place when performance is concerned with their 55 km² and all other capacities are subordinated to the inspection of areas after the machines. The remaining capacities will be used for primary manual inspection of areas where the use of demining machines is not possible.

Table 20: Potential of Capacities in Current Conditions

	PLANNED METHOD	PLANNED CAPACITIES	ENGAGED CAPACITIES	ESTIMATED PERFORMANCE / m ²	
A	Demining machines individually	heavy machine	6	18.662.400	18.662.400
	Internal inspection 15% manually	deminer metal detector	55	2.799.360	
B	Combined, demining machines	machines medium and light	29	31.901.520	
	Deminers, preparation of boxes and inspection after the dogs	deminer metal detector	137	6.947.040	
	Mine detection dogs, inspection of boxes	dog team	34	10.200.000	17.147.040
C	Machines for soil preparation	excavator	9	4.671.240	
	Deminers, inspection after the machines	deminer metal detector	208	4.671.240	4.671.240
D	Manual mine detection	deminer metal detector	152	6.080.000	6.080.000
					46.560.680

From the analysis above it is clear that in current conditions of use, the capacities are at the level of 46,6 km² per year. With further optimization of their use (changes in planning and merging the project), the capacities could reach the level of 62 km² per year. To be able to realise demining plan by year 2019 it will be necessary to increase number of deminers according to the table 15.

The territory under the jurisdiction of the Croatian Army will be demined in next 10 years according to Army yearly plans.

ANNEXES:

1. Glossary of Terms

General Survey is the procedure of, from a safe surface, collecting and processing data on the pollution of an area and/or building with mines and UXO, as well as establishing the basic technical characteristics of an area and/of building and marking MSA.

Technical Survey is the procedure of determining whether collected data from general reconnaissance is correct, as well as the collection of data on the landmarks/characteristics of the area and confirming the existence of over portions of mine suspicious areas and/or buildings with mines or UXO.

Demining is the procedure of finding and marking, as well as incapacitating and destroying mines and UXO at the worksite.

Mine indicators are locations of mine explosions, fortified facilities or forts created and/or adapted for armed combat, military materials and equipment, as well as other signs that indicate the existence of mine danger.

Data collection is a group of organized and planned activities to establish sources (subjects) with information on mines and other elements of mine situations, contact establishment and the retrieval of data.

Records are the recording, storing and accessibility to data for operative use.

Assessment of mine suspicious area includes natural, infrastructural and social categories polluted by mines or suspect of being polluted by mines, monitored in the context of their influence on humanitarian demining planning, the social and economic situation and development plans of a community.

Polygon is a closed territorial whole with clearly determined geographic and topographic borders.

Mine polygon is the basic territorial whole for treating mine relations problems with characteristically dependable mine and UXO pollution levels with clearly determined geographic and topographic borders.

Reconstruction of mine situation is finalizing the overall activities that, through comparison, lining, interpreting, harmonizing and other forms of analysis of all available data, gives an impression of the pollution with mines and UXO situation of an area.

Detection is the procedure of establishing whether the data collected through general and technical reconnaissance is correct, as well as establishing the existence of mine and UXO pollution on the entire mine suspicious area and/or building as per the project it falls under.

Mine suspected area is any area contaminated with mines or UXO or where the suspicion of contamination, as well as when, due to existing doubts as to the safety of living and working in an area that is defined as a polygon.

Reconstruction of mine situation (RMS) is a finalization of overall activities in which comparison, linkage, interpretation, harmonization and other forms of analysis of all available information, providing the situation with mine contamination of an area with mines and/or UXO.

Exclusion from MSA is a process through which an area that was first considered contaminated with mines, after technical reconnaissance and analysis of other data, is rendered smaller than originally determined.

Standard Operative Procedures (SOP) are procedures through which an authorized legal entity, in detail, establishes the method of demining activities, drafted in accordance to international standard operative procedures prescribed by the United Nations.

Explosive Ordnance includes mines, ammunition, aircraft-projectiles and naval assets,

Mines are separated into: anti-personnel mines, anti-tank mines, detonators, special detonators, trap mines and other formational detonators,

Totally cleared (PO) is the state in which the entire worksite is clear of all mines and UXO up to the depth of 20 cm confirmed through quality control.

2. LIST OF ACRONYMS

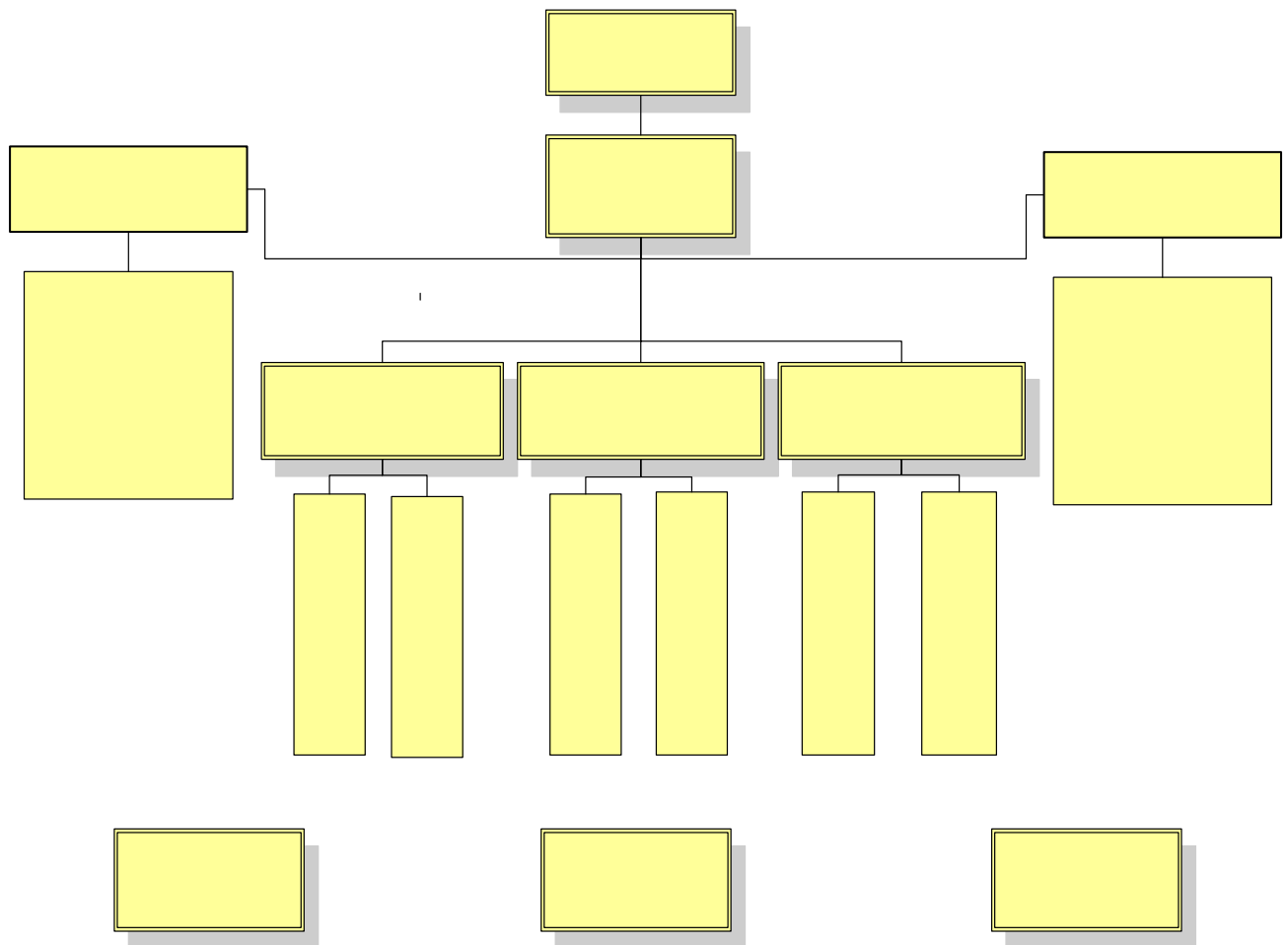
APM	Anti-Personnel mines
ATM	Anti-Tank mines
CMVA	Croatian Mine Victims Association
CRC	Croatian Red Cross
CROMAC	Croatian Mine Action Center
CROMAC-CTDT	Croatian Mine Action Center - Centre for Testing, Development and Training
EBRD	European Bank for Reconstruction and Development
EOD	Explosive Ordnance Disposal
ERW	Explosive Remnants of War
ICRC	International Committee of the Red Cross
IMAS	International Mine Action Standards
MRE	Mine Risk Education
MSA	Mine Suspected Area
MVA	Mine Victims Assistance
NPA	Norwegian Peoples Aid
QA	Quality Assurance
QC	Quality Control
SOP	Standard Operating Procedure
UNDP	United Nations Development Programme
UNDPKO	United Nations Department of Peace Keeping Operations
UNMAAP	United Nations Mine Action Assistance Programme
UNMAC	United Nations Mine Action Center
UNOPS	United Nations Office for Project Services
UNPROFOR	United Nations Protection Force
UXO	Unexploded Explosive Ordnance
VAT	Value Added Tax

3. LITERATURE

- Law on Humanitarian Demining (NN 153/05)
- National Mine Action Strategy 2000-2010
- National Mine Action Programme 2005-2009
- Regulation on the method of conducting the tasks of humanitarian mine clearance (NN 53/2007)
- SOP 01.01. General Survey– CROMAC July 2007
- SOP 04.01. Quality Assurance and Quality Control of Technical Survey and Demining – CROMAC September 2007
- Brochure „Mine Action in the Republic of Croatia“ – March 2006
- Guidelines for the preparation of the State Budget for period 2008-2010 – Ministry of Finance of the Republic of Croatia – August 2007
- CROMAC's yearly Reports on the implementation of the Humanitarian Demining Plans and resources spent for the period 1998-2007
- CROMAC's yearly Plans for the Humanitarian demining for the period 2002-2008
- Reporting Formats for Article 7 of the Convention – Ministry of Defence 2003-2006
- Land Release: A guide for mine and ERW affected countries – GICHD November 2007

4. TABLES AND SHEMES

Scheme 1: Organizational Scheme of the Croatian Mine Action Centre



Based on the Law on Amendments to the Law on Humanitarian Demining (Narodne novine (National Gazette) no. 63/2007), the Law on Humanitarian Demining (Narodne novine no. 156/2005) and the Rules and Regulations on Methods of Demining (Narodne novine no. 53/2007), the Croatian Mine Action Centre has made all the necessary approximations of the existing Standard Operating Procedures (SOPs) with legal and sub-legal acts with the purpose of raising the quality and safety of conducting humanitarian demining operations to an even higher level.

In line with the International Mine Action Standards (IMAS), CROMAC Standard Operating Procedures (SOPs) represent a set of prescribed operating procedures according to which CROMAC conducts: survey of mine hazardous areas and/or buildings (general survey, marking of mine hazardous areas and technical survey), project planning – project documentation development, eligibility assessment of the authorized legal entities for conducting humanitarian demining operations, quality assurance and quality control of mine search and demining operations in the Republic of Croatia.

- QUALITY ASSURANCE AND ACCREDITATION DIVISION
- QUALITY ASSURANCE DIVISION - Osijek
- QUALITY ASSURANCE

Form B: A detailed explanation of the reasons for the proposed extension

(i) The preparation and status of work conducted under national demining programmes

Table 1: Size of Mine Hazardous Area

	Name of county in which anti-personnel mines were or are known or suspected to be emplaced	Total area, as of December 31, 2004, in which anti-personnel mines were known/suspected to be emplaced (square meters)	Total area in which Croatia, since January 1, 1999 destroyed or ensured the destruction of all anti-personnel mines contained within (square meters)	Number of anti-personnel mines destroyed	Number of anti-tank mines destroyed	Number of other explosive ordnance destroyed	Remaining area, as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced (square meters)	Of the remaining area, as of 31 December, 2007, subtotal of area in which anti-personnel mines are suspected to be emplaced (square meters)	Of the remaining area, as of 31 December, 2007, subtotal of area in which anti-personnel mines are known to be emplaced (square meters)	Estimated date for completion of Article 5 obligations in this county
1	Bjelovar-Bilogorska	30.587	799.197	120	44	446	0	0	0	Completed in 2005
2	Brod-Posavina	100.330.487	8.257.042	1.034	764	1.070	33.154.414	29.733.151	3.421.263	2015
3	Dubrovnik-Neretva	18.229.774	7.338.420	394	17	3.427	9.215.761	8.200.759	1.015.002	2012
4	Karlovac	118.811.126	18.797.441	3.685	2.509	45.974	84.043.552	74.941.382	9.102.170	2017
5	Lika-Senj	200.764.385	20.591.643	2.997	1.771	29.690	196.791.300	179.481.898	17.309.402	2018
6	Osijek-Baranja	203.953.721	32.836.995	6.459	7.045	39.621	192.624.741	173.407.370	19.217.371	2017
7	Požega-Slavonija	26.118.266	6.807.558	145	67	1.387	59.979.313	57.531.039	2.448.274	2015
8	Split-Dalmacija	28.042.308	9.528.275	213	19	286	25.058.043	24.741.273	316.770	2012
9	Sisak-Moslavina	182.175.854	19.521.560	4.296	2.609	44.654	164.260.707	151.522.246	12.738.461	2017
10	Šibenik-Knin	60.803.609	17.970.453	1.737	529	7.019	55.446.084	50.728.741	4.717.343	2015
11	Virovitica-Podravina	43.374.248	3.000.441	45	22	471	24.079.712	23.687.096	392.616	2014
12	Vukovar-Srijem	107.270.524	33.077.121	4.535	5.926	68.930	80.728.120	64.128.933	16.599.187	2018
13	Zadar	84.169.397	34.079.481	2.673	989	3.546	71.805.117	64.314.551	7.490.566	2018
14	Zagreb	0	367.168	63	22	51	0	0	0	Completed in 2004
	TOTAL	1.174.074.286	212.972.795	28.396	22.333	246.572	997.186.864	902.418.439	94.768.425	

Table 2: Towns and Municipalities in MHA

	Name of county in which anti-personnel mines were or are known or suspected to be emplaced	Total number towns and municipalities] as of December 31, 2004 in which anti-personnel mines were known suspected to be emplaced	Total number of towns and municipalities as of December 31, 2007 released	Number of anti-personnel mines destroyed	Number of anti-tank mines destroyed	Number of other explosive ordnance destroyed	Total number of towns and municipalities as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced	Of the remaining towns and municipalities as of 31 October, 2007, subtotal of those in which anti-personnel mines are suspected to be emplaced	Of the remaining towns and municipalities as of 31 October, 2007, subtotal of those in which anti-personnel mines are known to be emplaced	Estimated date for completion of Article 5 obligations in this county
1	Bjelovar-Bilogorska	2	2	120	44	446	0	0	0	Completed in 2005
2	Brod-Posavina	5	0	1.034	764	1.070	5	0	5	2015
3	Dubrovnik-Neretva	6	2	394	17	3.427	4	0	4	2012
4	Karlovac	13	0	3.685	2.509	45.974	13	1	12	2017
5	Lika-Senj	10	0	2.997	1.771	29.690	10	4	6	2018
6	Osijek-Baranja	17	0	6.459	7.045	39.621	17	1	16	2017
7	Požega-Slavonija	4	0	145	67	1.387	4	0	4	2015
8	Split-Dalmacija	5	2	213	19	286	3	1	2	2012
9	Sisak-Moslavina	12	0	4.296	2.609	44.654	12	2	10	2017
10	Šibenik-Knin	6	0	1.737	529	7.019	6	1	5	2015
11	Virovitica-Podravina	5	0	45	22	471	5	2	3	2014
12	Vukovar-Srijem	17	0	4.535	5.926	68.930	17	4	13	2018
13	Zadar	19	3	2.673	989	3.546	16	6	10	2018
14	Zagreb	0	0	63	22	51	0	0	0	Completed in 2004
	TOTAL	121	9	28.396	22.333	246.572	112	22	90	

Table 3: Remaining problem

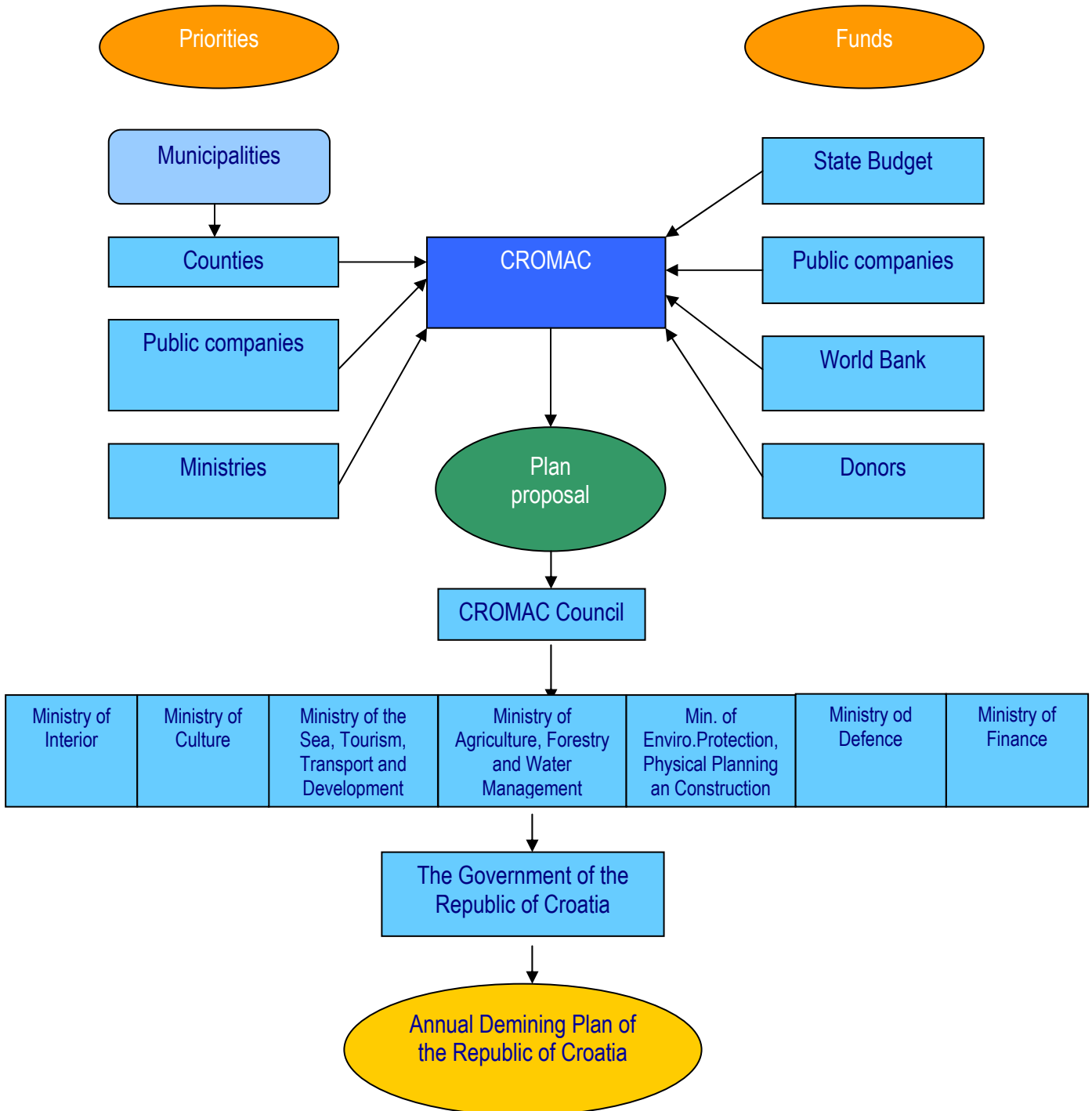
	Name of county in which anti-personnel mines were or are known or suspected to be emplaced	Total number of minefield records as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced	Reported number of AP mines awaiting removal and destruction	Reported number of AT mines awaiting removal and destruction	Remaining area, as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced (square meters)	Remaining area, as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced as a percentage of total remaining area	Remaining area, as of 31 December 2007, in which anti-personnel mines are known or are suspected to be emplaced as a percentage of the total county area	Number of towns or municipalities which remain affected	Population of towns or municipalities which remain affected	Population of towns or municipalities which remain affected as a percental of total county population
1	Bjelovar-Bilogorska	0	0	0	0	0	0	0	0	0
2	Brod-Posavina	462	5.354	3.830	33.154.414	3,3	1,6	5	13.777	7,8
3	Dubrovnik-Neretva	112	2.564	109	9.215.761	0,9	0,5	4	19.734	16,1
4	Karlovac	805	15.118	5.303	84.043.552	8,4	2,3	13	48.637	34,3
5	Lika-Senj	973	32.051	8.261	196.791.300	19,6	3,6	10	41.191	76,7
6	Osijek-Baranja	987	20.914	27.927	192.624.741	19,4	4,6	17	193.918	58,7
7	Požega-Slavonija	404	4.590	1.954	59.979.313	6,0	3,3	4	25.445	29,6
8	Split-Dalmacija	40	712	104	25.058.043	2,5	0,5	3	10.895	2,3
9	Sisak-Moslavina	1.405	27.682	5.955	164.260.707	16,5	3,7	12	124.205	67,0
10	Šibenik-Knin	601	10.039	2.488	55.446.084	5,6	1,9	6	76.633	67,9
11	Virovitica-Podravina	16	516	528	24.079.712	2,4	1,2	5	28.041	30,0
12	Vukovar-Srijem	573	17.887	24.238	80.728.120	8,1	4,3	17	139.259	68,0
13	Zadar	869	14.982	4.843	71.805.117	7,2	2,0	16	121.653	75,1
14	Zagreb	0	0	0	0	0	0	0	0	0
	TOTAL	7.247	152.409	85.530	997.186.864	100,0	2,6	112	834.388	39,1

National planning and mine action structures

Planning of mine action in the Republic of Croatia is conducted according to:

- Law on Humanitarian demining (NN 158/05),
- Book of Rules and Regulations on Methods of Conducting Humanitarian Demining (NN 53/07),
- State Budget Act (NN 96/03),
- Act on State Budget Execution (passed every year), and
- Other sub-acts stipulating conducting humanitarian demining and financing of the same

Scheme 2: The scheme of planning demining operations in the Republic of Croatia



(ii) The financial and technical means available to the State Party for the destruction of all the anti personnel mines

Table 4: Financial means made available since entry into force to conduct work under national demining programmes in EUR

Funding Source \ Year:	1999	2000	2001	2002	2003	2004	2005	2006	2007	Ukupno
State Budget	15.932.267	14.994.000	15.704.000	22.772.378	21.224.373	19.884.915	19.718.158	20.766.843	22.521.370	173.518.304
National investors	446.800	504.533	1.143.200	9.765.459	10.385.800	13.627.597	9.813.398	6.427.483	11.178.651	63.292.922
World bank loans	5.092.800	5.288.933	8.294.133	5.232.454	1.277.065	0	0	0	0	25.185.385
National donors	0	33.823	4.000	831.067	368.683	297.999	162.473	217.390	610.274	2.525.709
Foreign donors	2.624.133	4.048.044	5.573.867	7.036.169	4.262.075	7.869.734	9.082.552	6.879.481	5.795.989	53.172.044
Total:	24.096.000	24.869.333	30.719.200	45.637.527	37.517.996	41.680.245	38.776.581	34.291.197	40.106.284	317.694.364

Table 5: Financial resources required and/or available to conduct work under national demining programmes during the period covered by the extension request in EUR

Year: Funding Source	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
State budget	44.500.000	53.000.000	56.000.000	59.000.000	57.500.000	56.000.000	49.500.000	39.000.000	24.000.000	19.500.000
National investors	10.000.000	10.000.000	12.000.000	14.000.000	16.000.000	17.000.000	16.000.000	13.000.000	12.000.000	10.000.000
World bank and other financial institutions	5.000.000	5.000.000	5.000.000	5.000.000	5.000.000					
National and foreign donors	5.000.000	5.000.000	5.000.000	5.000.000	5.000.000	5.000.000				
EU-Funds	3.000.000	10.000.000	10.000.000	5.000.000	5.000.000	5.000.000	2.000.000			
Total projected financial requirements	67.500.000	83.000.000	88.000.000	88.000.000	88.500.000	83.000.000	67.500.000	52.000.000	36.000.000	29.500.000

Table 6: National and international (if applicable) mine clearance expertise and where appropriate national explosive ordnance disposal expertise employed in the demining programme of the State Party for the destruction of all anti-personnel mines since entry into force

Name of mine clearance organization	Type of mine clearance organization	Number of organizations	Number of demining teams, their size and type	Status of teams (operational, non-operational)	Supplementary information
Private firms - National	Trade association	52	N/A	operational	
Private firms - foreign	Trade association	16	N/A	operational	
Norwegian Peoples Aid	NGO	1	N/A	operational	
Foreign military units	Engineer units of Kingdom of Belgium and Republic of Slovakia	2	N/A	operational	
Croatian army	Engineer unit	1	N/A	operational	
Ministry of Interior	Special police	1	N/A	operational	
		Total: 73	Total:		

Remarks:

Due to the market model of awarding demining operations, there are certain changes in the number of companies registered for conducting demining operations. In the Republic of Croatia, 28 companies and one NGO (Norwegian Peoples Aid) are currently active. NGO does not take part in public tenders and is awarded the demining operations according to annual demining plans.

Table 7: National and international (if applicable) mine clearance expertise and where appropriate national explosive ordnance disposal expertise employed in the demining programme during the period covered by the extension request

Name of mine clearance organization	Type of mine clearance organization	Number of organization	Number of demining teams, their size and type	Status of teams (operational, non-operational)	Supplementary information
Private firms - National	Trade association	28	N/A	operational	
Private firms - foreign	Trade association	5	N/A	operational	
Norwegian Peoples Aid	NGO	1	N/A	operational	
Croatian army	Engineer unit	1	N/A	operational	
		Total: 35	Total:		

Remarks including expectations on increases or decreases:

Existing demining capacities accredited legal entities dispose of make the demining of Croatia possible by 2019 without any important increases and with certain adjustments.

Removal of UXO inside mine suspected area is an integral part of operations conducted by demining companies as part of the demining project. All UXO found outside the MSA defined is a subject of work of Anti-explosive Department of the Ministry of Interior

Table 8: Mine clearance equipment in the inventory to support work under national demining programmes during the period covered by the extension request

a) Protective equipment

No.	Type of equipment	Manufacturer	Year of production										Total
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
1.	Bulletproof vest	Borovo - Croatia			11	4	45	279	43	59	153	80	674
2.	Bulletproof vest	Hadžići – B and H				29	19	39	26	14	62	5	194
3.	Protective helmets	Borovo - Croatia					22	77	35	9	9		152
4.	Protective helmets	Hadžići - B and H					23		42	20	41	32	158
5.	Protective helmets	Velplas - Slovenia			5	5	20	5		5	7	8	55
6.	Protective helmets	Šestan Busch - Croatia						4	28	10	11	101	154
7.	Protective helmets	Rabintex - Izrael	109			20							129
8.	Protective helmets	Dieter Gromman - Germany							30				30

Remarks:

All protective equipment has to meet the standards stipulated by Law on Humanitarian Demining (NN 158/05) and Book of Rules and Regulations on Technical Requirements and Conformity Assessment of Devices and Equipment Intended for Humanitarian Demining Operations (NN 53/07).

b) Metal detectors

No.	Detector type held	Year of production										Total
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
1.	Vallon VMH 1		6	5	9	57						77
2.	Vallon VMH 2				10	10			2			22
3.	Vallon VMH 2.1					4	21	7	2			34
4.	Vallon VMH 3						2	37	30	9	44	122
5.	Vallon VMH 3 CS							1	20	36	51	108
6.	Vallon ML 1620 C	119		4	3	18						144
7.	Vallon ML 1614 C	1		6		1	4					12
8.	Vallon ML 1620 B				1		3					4
9.	Vallon VMM 1				1							1
10.	Vallon VMM 2					2						2
11.	Vallon VMM 3							4				4
12.	Foerster Minex 2FD 4.500			8	13	7	13	8	8	1		58
13.	Schiebel ATMID					10						10
14.	Schiebel AN-19/2						12	3				15
15.	Ebinger					4		20		16		40
16.	CEIA-MIL-D1						25					25

Remarks:

Prior to the use of metal detectors, there is a testing of metal detector performed and issuance of a certificate for the deminer confirming his competence for the work with metal detector he is responsible for. Metal detectors have to meet standards stipulated by the Book of Rules and Regulations on Technical Requirements and Conformity Assessment of Devices and Equipment Intended for Humanitarian Demining Operations (NN 53/07).

c) Demining machines

No.	Machine model	Type of machine	Year of production/seed processing of machine											Total
			Others	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
1.	MV-4	Light machine						3	2	1	4	2	3	15
2.	BOŽENA 3	Light machine							1					1
3.	BOŽENA 4	Light machine						1		1				2
4.	MINI MINEWOLF	Light machine										1		1
5.	RM-KA	Middle machine					1		1	1	1			4
6.	CASPER SMT	Middle machine											1	1
7.	BOŽENA 5	Middle machine											1	1
8.	MV-10	Middle machine								1				1
9.	SAMSON 300	Middle machine								1				1
10.	HYDREMA 910	Middle machine			1									1
11.	HYDREMA 910 MCV	Middle machine			1									1
12.	ZEUS	Heavy machine								1		1		2
13.	MINEWOLF	Heavy machine							1		1			2
14.	ORACLE	Heavy machine				1								1
15.	RHINO	Heavy machine		1										1
16.	GSV SENNEBOGEN	Dredger								1				1
17.	ORKA	Dredger									1			1
18.	MVB-001	Dredger			1									1
19.	MVB-005	Dredger					1							1
20.	MVB-006	Dredger						1						1
21.	ZNB LIEPHERR	Dredger						1						1
22.	HYDREMA 1000	Dredger	1 (1992)											1
23.	HYDREMA 1520	Dredger	1 (1996)											1
24.	HYDREMA M-900	Dredger	1 (1996)											1

Remarks: All demining machines must pass tests at the HCR – Center for testing, development and training Ltd., to grade their capacity and effect in real conditions. All machines that pass the testing get certificate, must pass technical inspection every year to identify differences in capacities and conditions that can result after one year of using the machine.

d) Demining dogs

	Dog age profile												
	2 years	2,5 years	3 years	4 years	4,5 years	5 years	5,5 years	6 years	6,5 years	7 years	7,5 years	8 years	9 years
Total number of dogs in use	2	4	8	8	1	17	1	10	1	11	2	2	2

Remarks:

Some dogs in the table above do not have a mark and will be tested again. Dogs that do not pass the test cannot be used in demining operations.

Form C: The humanitarian, social, economic, and environmental implications of the proposed extension

Table 9A: Mine & UXO casualties – type/sex, 1999 to 2007

	1999		2000		2001		2002		2003		2004		2005		2006		2007		Total by type
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
civilians injured	27	3	8	0	12	4	10	4	5	0	0	1	9	0	8	1	3	0	95
civilians killed	17	2	7	0	4	1	4	2	1	0	10	0	3	0	1	0	2	0	54
deminers injured	2	0	4	0	4	0	4	0	3	0	1	0	0	0	0	0	2	0	20
deminers killed	1	0	2	0	3	0	0	0	0	0	4	0	1	0	0	0	1	0	12
soldiers/police injured	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
soldiers/police killed	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
subtotal by sex	50	5	23	0	24	5	18	6	9	0	15	1	13	0	9	1	8	0	
Total	55		23		29		24		9		16		13		10		8		187

Table 9B: Civilian casualties by munition type by county, 1999 to 2007

	1999		2000		2001		2002		2003		2004		2005		2006		2007		Total
	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	AP mine	Other	
Bjelovar-Bilogorska																			0
Brod-Posavina	1	1									4	0			0	3			9
Dubrovnik-Neretva							1	0											1
Karlovac	2	0	4	0	6	0	1	0			1	0			1	0			15
Lika-Senj	0	2	0	2	0	1	1	2	3	0	1	0	0	1			2	0	15
Osijek-Baranja	1	2	1	3	2	0	2	2	1	0	1	0							15
Požega-Slavonija	2	0			0	4	0	1			1	0	0	1					9
Split-Dalmacija	4	0					0	1					4	0			1	0	10
Sisak-Moslavina	9	7	9	0	6	1	4	0			3	0			2	0			41
Šibenik-Knin					0	2	1	0					3	0			2	0	8
Virovitica-Podravina	0	10																	10
Vukovar-Srijem	5	2	1	0	2	3	0	2	0	4	4	0	3	1	1	3	2	0	33
Zadar	3	3	3	0	1	1	2	4	0	1	0	1					1	0	20
Zagreb	1	0																	1
Subtotal munitions	28	27	18	5	17	12	12	12	4	5	15	1	10	3	4	6	8	0	
TOTAL	55		23		29		24		9		16		13		10		8		187

Review of incidents by years – from 1999. to 2007.

Mine victims in 1999

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	<i>Total</i>	<i>Civilians</i>	<i>Deminers</i>	<i>MOI deminers</i>	<i>Men</i>	<i>Women</i>
34	8	21	26	55	49	4	2	50	5

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
01.01.1999	SM	PETRINJA	Anti-personnel	PMR-2A	24	M	Civilian	Lightly injured
20.01.1999	KA	KARLOVAC	Anti-personnel	PROM-1	46	M	Civilian	Killed
03.02.1999	LS	OTOČAC	Others ERW	Hand grenade	35	M	Deminer	Heavily injured
05.02.1999	SM	PETRINJA	Anti-personnel	PMA-2	22	M	Deminer	Heavily injured
05.02.1999	SM	PETRINJA	Anti-personnel	PMA-2	27	M	Deminer	Heavily injured
05.02.1999	PS	LIPIK	Anti-personnel	TMM-1	38	M	Civilian	Lightly injured
02.03.1999	BP	Dragalić	Anti-personnel	PROM-1	60	M	Civilian	Killed
08.03.1999	PS	PAKRAC	Anti-personnel	PMA-2	69	M	Civilian	Heavily injured
25.03.1999	OB	Šodolovci	Anti-personnel	Unknown	24	M	Civilian	Killed
29.03.1999	ZA	BENKOVAC	UXO	Unknown		M	Civilian	Killed
11.04.1999	VS	Tordinci	Anti-personnel	PROM-1	31	M	Civilian	Killed
11.04.1999	VS	Tordinci	Anti-personnel	PROM-1	26	M	Civilian	Heavily injured
11.04.1999	VS	Tordinci	Anti-personnel	PROM-1	35	M	Civilian	Killed
17.05.1999	VS	VUKOVAR	Anti-personnel	PROM-1	67	M	Civilian	Killed
11.06.1999	SM		UXO	Unknown	48	M	Civilian	Heavily injured
22.06.1999	OB	BELI MANASTIR	UXO	Unknown	10	M	Civilian	Killed
22.06.1999	OB	BELI MANASTIR	UXO	Unknown	8	M	Civilian	Heavily injured
20.07.1999	KA	Lasinja	Anti-personnel	PROM-1	66	M	Civilian	Heavily injured
07.08.1999	LS		Anti-tenk	Unknown	59	M	Civilian	Killed
18.08.1999	BP	Stara Gradiška	Others ERW	M-75	28	M	Civilian	Heavily injured
23.08.1999	ZA	Novigrad (ZA)	Anti-tenk	TMA-5	33	M	Civilian	Heavily injured
23.08.1999	ZA	Novigrad (ZA)	Anti-tenk	TMA-5	30	M	Civilian	Heavily injured
28.08.1999	SM	Jasenovac	Anti-tenk	TMM-1	11	M	Civilian	Lightly injured

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
28.08.1999	SM	Jasenovac	Anti-tenk	TMM-1	12	M	Civilian	Lightly injured
28.08.1999	SM	Jasenovac	Anti-tenk	TMM-1	39	M	Civilian	Lightly injured
28.08.1999	SM	Jasenovac	Anti-tenk	TMM-1	45	M	Civilian	Lightly injured
09.09.1999	SM	PETRINJA	Anti-personnel	PMA-3	57	F	Civilian	Heavily injured
10.09.1999	SM	PETRINJA	Anti-personnel	PMA-2	57	F	Civilian	Heavily injured
22.09.1999	SM	SISAK	Anti-personnel	Unknown	40	M	Civilian	Heavily injured
11.10.1999	VS	Jarmina	Booby-trap	Unknown	6	F	Civilian	Heavily injured
11.10.1999	VS	Jarmina	Booby-trap	Unknown	32	M	Civilian	Heavily injured
22.10.1999	ZG	Pokupsko	Anti-personnel	PROM-1	40	M	Deminer	Killed
30.10.1999	SD	Hrvace	Anti-personnel	PROM-1	35	M	Civilian	Lightly injured
30.10.1999	SD	Hrvace	Anti-personnel	PROM-1	31	M	Civilian	Heavily injured
30.10.1999	SD	Hrvace	Anti-personnel	PROM-1	32	M	Civilian	Heavily injured
30.10.1999	SD	Hrvace	Anti-personnel	PROM-1	60	M	Civilian	Killed
05.11.1999	SM	Dvor	Anti-tenk	TMA-3	27	M	Civilian	Heavily injured
05.11.1999	SM	Dvor	Anti-tenk	TMA-3	24	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	45	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	39	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	56	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	31	M	Civilian	Heavily injured
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	47	M	Civilian	Heavily injured
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	60	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	39	F	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	64	M	Civilian	Killed
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	54	M	Civilian	Heavily injured
13.11.1999	VP	Voćin	Anti-tenk	TMM-1	34	M	Civilian	Heavily injured
20.11.1999	VS	Vrbanja	Anti-personnel	PROM-1	31	M	Civilian	Heavily injured
07.12.1999	ZA	Škabrnje	Anti-personnel	PROM-1	27	M	MOI deminer	Killed
07.12.1999	ZA	Škabrnje	Anti-personnel	PROM-1	27	M	MOI deminer	Lightly injured
10.12.1999	SM	PETRINJA	Anti-personnel	PMA-3	29	M	Civilian	Heavily injured

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
24.12.1999	ZA	Novigrad (ZA)	Anti-personnel	PMA-2	47	M	Civilian	Heavily injured
29.12.1999	SM	PETRINJA	Anti-personnel	PROM-1	46	M	Civilian	Killed
29.12.1999	SM	PETRINJA	Anti-personnel	PROM-1	44	F	Civilian	Killed

Mine victims in 2000

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	MOI deminers	Men	Women
17	5	10	8	23	15	6	2	23	0

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
01.01.2000	LS	OTOČAC	Anti-tenk	Unknown		M	Civilian	Lightly injured
12.01.2000	VS	Stari Jankovci	Anti-personnel	PROM-1	48	M	Civilian	Killed
08.02.2000	SM	SISAK	Anti-personnel	PROM-1	53	M	Civilian	Killed
22.02.2000	ZA	BENKOVAC	Anti-personnel	PROM-1	24	M	Pripadnik SJP	Heavily injured
22.02.2000	ZA	BENKOVAC	Anti-personnel	PROM-1	26	M	Pripadnik SJP	Killed
01.03.2000	SM	PETRINJA	Anti-personnel	PROM-1	33	M	Civilian	Heavily injured
01.03.2000	SM	PETRINJA	Anti-personnel	PROM-1	52	M	Civilian	Heavily injured
02.03.2000	OB	Ernestinovo	Anti-personnel	Unknown	47	M	Civilian	Lightly injured
05.03.2000	SM	PETRINJA	Anti-personnel	PROM-1	32	M	Civilian	Killed
05.03.2000	SM	PETRINJA	Anti-personnel	PROM-1	37	M	Civilian	Killed
17.03.2000	KA	KARLOVAC	Anti-personnel	PMA-2	45	M	Civilian	Heavily injured
27.03.2000	OB	Semeljci	Anti-tenk	Nepoznato	59	M	Civilian	Lightly injured
21.05.2000	KA	KARLOVAC	Anti-personnel	PROM-1	41	M	Deminer	Heavily injured
21.05.2000	KA	KARLOVAC	Anti-personnel	PROM-1	27	M	Deminer	Lightly injured
21.05.2000	KA	KARLOVAC	Anti-personnel	PROM-1	27	M	Deminer	Heavily injured
01.07.2000	LS	OTOČAC	Anti-tenk	Unknown	62	M	Civilian	Killed
06.07.2000	SM	SISAK	Anti-personnel	PROM-1	39	M	Deminer	Killed
31.07.2000	SM	SISAK	Anti-personnel	PROM-1	43	M	Civilian	Heavily injured
31.07.2000	SM	SISAK	Anti-personnel	PROM-1	36	M	Civilian	Lightly injured
29.09.2000	OB	Draž	Others ERW	Unknown		M	Deminer	Heavily injured
15.10.2000	OB	Erdut	Others ERW	Unknown	40	M	Civilian	Killed
12.12.2000	SM	PETRINJA	Anti-personnel	PROM-1	28	M	Deminer	Killed
23.12.2000	ZA	BENKOVAC	Anti-personnel	PROM-1	60	M	Civilian	Killed

Mine victims in 2001.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
21	8	8	13	29	21	8	24	5

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
16.01.2001	SM	PETRINJA	Anti-personnel	PROM-1	54	M	Civilian	Heavily injured
22.01.2001	ZA	Zemunik Donji	Anti-personnel	PMA-2	64	M	Civilian	Heavily injured
23.01.2001	VS	Trpinja	Anti-personnel	PROM-1	55	M	Civilian	Killed
22.02.2001	SM	PETRINJA	UXO	M-60	33	M	Civilian	Heavily injured
20.03.2001	ŠK	Ružić	Others ERW	"topovski udar"	36	M	Deminer	Lightly injured
20.03.2001	ŠK	Ružić	Others ERW	"topovski udar"	48	M	Deminer	Heavily injured
21.03.2001	VS	Ivankovo	Anti-tenk	TMM-1	45	M	Civilian	Lightly injured
10.05.2001	VS	Nuštar	Anti-personnel	PROM-1	41	F	Civilian	Killed
23.05.2001	SM	SISAK	Anti-personnel	PROM-1	47	M	Civilian	Killed
23.05.2001	SM	SISAK	Anti-personnel	PROM-1	65	M	Civilian	Killed
26.06.2001	PS	PAKRAC	UXO	Unknown	23	M	Civilian	Lightly injured
26.06.2001	PS	PAKRAC	UXO	Unknown	24	M	Civilian	Heavily injured
23.07.2001	SM	PETRINJA	Anti-personnel	PROM-1	47	M	Civilian	Killed
30.07.2001	VS	Nuštar	Anti-tenk	Unknown	36	M	Deminer	Killed
30.07.2001	VS	Nuštar	Anti-tenk	Unknown	30	M	Deminer	Killed
10.08.2001	KA	Vojnić	Anti-personnel	PMA-3	41	M	Civilian	Heavily injured
10.08.2001	KA	Vojnić	Anti-personnel	PMA-3	40	F	Civilian	Heavily injured
19.08.2001	LS	GOSPIĆ	UXO	Unknown	35	M	Deminer	Heavily injured
02.10.2001	KA	Vojnić	Anti-personnel	PMA-2	51	F	Civilian	Heavily injured
02.10.2001	KA	Vojnić	Anti-personnel	PMA-2	50	M	Civilian	Lightly injured
15.10.2001	PS	LIPIK	Others ERW		21	M	Civilian	Heavily injured
15.10.2001	PS	LIPIK	Others ERW		18	M	Civilian	Lightly injured
20.10.2001	KA	Vojnić	Anti-personnel	PMA-2	41	M	Civilian	Lightly injured
20.10.2001	KA	Vojnić	Anti-personnel		36	M	Deminer	Heavily injured
23.10.2001	OB	Vladislavci	Anti-personnel		26	F	Civilian	Heavily injured

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
23.10.2001	OB	Vladislavci	Anti-personnel		7	M	Civilian	Lightly injured
08.11.2001	SM	PETRINJA	Anti-personnel	PROM-1	27	M	Deminer	Killed
08.11.2001	SM	PETRINJA	Anti-personnel	PROM-1	25	M	Deminer	Heavily injured
04.12.2001	ZA	Posedarje	UXO		66	F	Civilian	Lightly injured

Mine victims in 2002.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
22	8	6	10	24	20	4	18	6

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
21.01.2002	DN	Konavle	Anti-personnel	PMA-2	35	M	Deminer	Heavily injured
09.03.2002	VS	VINKOVCI	Anti-tenk	ETZ-40	35	M	Civilian	Lightly injured
09.03.2002	PS	LIPIK	UXO	RBR M-80	59	M	Civilian	Lightly injured
13.03.2002	SD	Hrvace	UXO	Unknown	75	M	Civilian	Heavily injured
28.04.2002	OB	Ernestinovo	Anti-personnel	PROM-1	27	M	Civilian	Killed
30.04.2002	SM	PETRINJA	Anti-personnel	PROM-1	56	M	Civilian	Killed
15.05.2002	ZA	BENKOVAC	Anti-personnel	PROM-1	51	M	Civilian	Heavily injured
28.06.2002	SM	PETRINJA	Anti-personnel	PROM-1	74	M	Civilian	Killed
01.07.2002	VS	Markušica	Anti-tenk	TMM-1	40	M	Deminer	Lightly injured
05.07.2002	SM	SISAK	Anti-personnel	PROM-1	4	M	Civilian	Lightly injured
05.07.2002	SM	SISAK	Anti-personnel	PROM-1	31	M	Civilian	Lightly injured
02.08.2002	ZA	Stankovci	Anti-personnel	PROM-1	42	M	Civilian	Heavily injured
23.08.2002	OB	Ernestinovo	Anti-tenk	TMA-1	29	M	Deminer	Heavily injured
07.09.2002	KA	KARLOVAC	Anti-personnel	PMA-3	73	M	Civilian	Lightly injured
13.09.2002	ŠK	DRNIŠ	Anti-personnel	PROM-1	52	F	Civilian	Killed
22.10.2002	LS	OTOČAC	Anti-personnel		25	M	Civilian	Killed
09.11.2002	ZA	Škabrnje	UXO	Tromblon	9	M	Civilian	Heavily injured
09.11.2002	ZA	Škabrnje	UXO	Tromblon	7	F	Civilian	Lightly injured
09.11.2002	ZA	Škabrnje	UXO	Tromblon	7	F	Civilian	Lightly injured
09.11.2002	ZA	Škabrnje	UXO	Tromblon	9	F	Civilian	Heavily injured
12.11.2002	OB	OSIJEK	UXO	upaljač PP mine	37	M	Deminer	Heavily injured
04.12.2002	OB	Šodolovci	Anti-personnel	PMA-1	42	M	Civilian	Heavily injured
31.12.2002	LS	Udbina	UXO	kazetna bomba	20	F	Civilian	Killed
31.12.2002	LS	Udbina	UXO	kazetna bomba	17	F	Civilian	Heavily injured

Mine victims in 2003.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
10	4	1	4	9	6	3	9	0

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
29.05.2003	LS	OTOČAC	Anti-personnel	PROM-1	35	M	Civilian	Killed
14.08.2003	ZA	BENKOVAC	UXO	M-60	18	M	Civilian	Lightly injured
09.09.2003	VS	Nijemci	UXO	M-79	37	M	Civilian	Lightly injured
09.09.2003	VS	Nijemci	UXO	M-79	34	M	Civilian	Lightly injured
09.09.2003	VS	Nijemci	UXO	M-79	33	M	Civilian	Lightly injured
05.10.2003	VS	Jarmina	Anti-personnel	PMA-3	53	M	Civilian	Heavily injured
25.10.2003	OB	BELIŠĆE	Anti-personnel	PMA-2	41	M	Deminer	Heavily injured
16.11.2003	LS	GOSPIĆ	Anti-personnel	PMA-2	31	M	Deminer	Heavily injured
02.12.2003	LS	Perušić	Anti-personnel	PROM-1	36	M	Deminer	Heavily injured

Mine victims in 2004.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
13	0	14	2	16	11	5	15	1

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
21.01.2004	BP	SLAVONSKI BROD	Anti-personnel	PROM-1	47	M	Deminer	Killed
21.01.2004	VS	Ivankovo	Anti-personnel	PROM-1	60	M	Civilian	Killed
21.01.2004	BP	SLAVONSKI BROD	Anti-personnel	PROM-1	32	M	Deminer	Killed
25.01.2004	OB	OSIJEK	Anti-personnel	PROM-1	46	M	Civilian	Killed
30.01.2004	ZA	BENKOVAC	Booby-trap	M-75	30	M	Deminer	Heavily injured
15.05.2004	SM	PETRINJA	Anti-personnel	PROM-1	46	M	Civilian	Killed
15.05.2004	SM	PETRINJA	Anti-personnel	PROM-1	33	M	Civilian	Killed
27.06.2004	BP	SLAVONSKI BROD	Anti-personnel	PROM-1	33	M	Civilian	Killed
27.06.2004	BP	SLAVONSKI BROD	Anti-personnel	PROM-1	34	F	Civilian	Heavily injured
25.08.2004	LS	OTOČAC	Anti-personnel	PROM-1	39	M	Deminer	Killed
28.08.2004	KA	Generalski Stol	Anti-personnel	PROM-1	72	M	Civilian	Killed
18.09.2004	VS	Markušica	Anti-personnel	PROM-1	50	M	Civilian	Killed
18.11.2004	VS	VINKOVCI	Anti-personnel	PROM-1	53	M	Civilian	Killed
21.11.2004	PS	LIPIK	Anti-personnel	PROM-1	11	M	Civilian	Killed
27.11.2004	SM	PETRINJA	Anti-personnel	PROM-1	33	M	Deminer	Killed
05.12.2004	VS	Markušica	Anti-personnel	PMA-2	47	M	Civilian	Killed

Mine victims in 2005.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
11	0	4	9	13	12	1	13	-

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
16.01.2005	ŠK	Ružić	Anti-personnel	PROM-1	25	M	Civilian	Heavily injured
16.01.2005	ŠK	Ružić	Anti-personnel	PROM-1	28	M	Civilian	Killed
21.03.2005	VS	Nuštar	Anti-tenk	Unknown	36	M	Civilian	Heavily injured
20.04.2005	VS	Vrbanja	Anti-personnel	PROM-1	81	M	Civilian	Killed
30.04.2005	SD	Hrvace	Anti-personnel	PROM-1	35	M	Civilian	Heavily injured
30.04.2005	SD	Hrvace	Anti-personnel	PROM-1	27	M	Civilian	Heavily injured
30.04.2005	SD	Hrvace	Anti-personnel	PROM-1	23	M	Civilian	Killed
07.06.2005	VS	Markušica	Anti-personnel	PROM-1	66	M	Civilian	Heavily injured
20.06.2005	VS	Nuštar	Anti-personnel	PMA-2	49	M	Civilian	Heavily injured
20.07.2005	SD	VIS	Anti-personnel	PMA-2	27	M	Civilian	Heavily injured
25.09.2005	LS	GOSPIĆ	UXO	Unknown	36	M	Deminer	Killed
03.11.2005	PS	Brestovac	Anti-tenk	Unknown	42	M	Civilian	Heavily injured
12.11.2005	ŠK	DRNIŠ	Anti-personnel	PROM-1	54	M	Civilian	Heavily injured

Mine victims in 2006.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
7	6	1	3	10	10	-	9	1

Details:

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
04.04.2006.	KA	Vojnić	Anti-personnel	PROM-1	43	M	Civilian	Lightly injured
19.05.2006.	VS	Markušica	Anti-personnel	PROM-1	60	M	Civilian	Killed
11.07.2006.	SM	Petrinja	Anti-personnel	PROM-1	34	F	Civilian	Heavily injured
11.07.2006.	SM	Petrinja	Anti-personnel	PROM-1	37	M	Civilian	Lightly injured
26.08.2006.	BP	Dragalić	Anti-tenk	TMM-1	41	M	Civilian	Lightly injured
26.08.2006.	BP	Dragalić	Anti-tenk	TMM-1	38	M	Civilian	Heavily injured
26.08.2006.	BP	Dragalić	Anti-tenk	TMM-1	48	M	Civilian	Lightly injured
12.12.2006.	VS	Bogdanovci	Anti-tenk	TMM-1	40	M	Civilian	Lightly injured
12.12.2006.	VS	Bogdanovci	Anti-tenk	TMM-1	40	M	Civilian	Lightly injured
12.12.2006.	VS	Bogdanovci	Anti-tenk	TMM-1	40	M	Civilian	Heavily injured

Mine victims in 2007.

<i>Number of incidents</i>	<i>Lightly injured</i>	<i>Killed</i>	<i>Heavily injured</i>	Total	Civilians	Deminers	Men	Women
8	1	3	4	8	5	3	8	0

Details:

<i>Date</i>	<i>County</i>	<i>Municipality</i>	<i>Type of ERW</i>	<i>Type of mine</i>	<i>Age</i>	<i>Sex</i>	<i>Injured person</i>	<i>Incident level</i>
04.03.2007	ZA	Benkovac	Anti-personnel	PROM-1	32	M	Civilian	Killed
09.03.2007	SD	Lastovo	Anti-personnel	MK1	37	M	Deminer	Killed
27.03.2007	ŠK	Promina	Anti-personnel	PMA-2	38	M	Deminer	Heavily injured
04.05.2007	ŠK	Vodice	Anti-personnel	PROM-1	N/a	M	Civilian	Killed
28.06.2007	VS	Markušica	Anti-personnel	PROM-1	25	M	Civilian	Heavily injured
30.07.2007	LS	Gospić	Anti-personnel	PROM-1	40	M	Deminer	Lightly injured
13.10.2007	VS	Vinkovci	Anti-personnel	PROM-1	53	M	Civilian	Heavily injured
13.10.2007	VS	Vinkovci	Anti-personnel	PROM-1	45	M	Civilian	Heavily injured

Table 10: Humanitarian implications – refugees and internally displaced persons

Refugees	Internally displaced persons	Total
20.000 refugees, potential displaced persons	2.000 persons temporarily situated in other parts of the Republic of Croatia	22.000

Remarks:

The Croatian Mine Action Centre included into annual demining plans all areas the Ministry of Sea, Tourism, Transport and Development asked to be demined in line with the interest shown for the return of refugees and displaced persons not covered by the program of reconstruction. The above-presented datum on the number of refugees is a total number of people, mostly Serbian nationality, who submitted their requests for the return, reconstruction and housing care. Most of refugees are from Vukovar that has been completely demined this year and safe for reconstruction.

Table 11: Social and economic implications

Implication	Estimate	Basis for this estimate	Supplementary information
Forest wealth	178,0 mil EUR	Analysis of the „Croatian Forest“ Ltd.	Shown value is value of wood wealth that can not be used because of mines. Forests can not be maintained and renewed what represents indirect loss. New forests give low quality wood.
Agricultural area seeded by:			
Corn	14,0 mil EUR/year	Statistic parameters on the yield of agricultural crops by Central Bureau of Statistics	
Wheat	10,0 mil EUR/year		
Beet	8,0 mil EUR/year		
Oil seed rape	2,0 mil EUR/year		
Soy	2,0 mil EUR/year		
Potato	2,0 mil EUR/year		
Olives	4,0 mil EUR/year		
Grape	2,0 mil EUR/year		
Total loss because of mined agricultural areas per year	cca 44,0 mil EUR/year		

Table 12: Environmental implications

Name:	Mined area	Implications	Supplementary information
National park Paklenica	8.000.000 m ²	In mine suspected area there is a part of the area of hiking roads and bogue forest, and mountain meadows and lawns	Every year, Park is visited by more then 100.000 alpinists, bikers and scientists who watch the birds and research the caves
Park of Nature Lonjsko polje	11.400.000 m ²	Protection of biological and landscape diversity of the Park is dimmed, and also the part of the flood protection system	This is one of the biggest moor protected area in the Danube river basin and one of the biggest habitat of the swamp birds. Area is well known as big stork habitat. Park is on the list of important ornitologic areas – IBA (Important Bird Area)
Park of Nature Papuk	9.000.000 m ²	Mine suspected area was very popular destination for alpinists and tourists before the war.	Park is unique upon its geological features, archeological sites and historical structures.
Park of Nature Kopački rit	37.000.000 m ²	South part of the Park of Nature toward the Drava and Danube river is mine suspected area, and monitoring of birds is dimmed, and that way prevention of bird flu is harder to maintain, and the risk of fire is much larger.	Park of Nature is on the list of internationally significant swamps, according to Ramsar convention. Park is on the list of important ornitologic areas – IBA (Important Bird Area)
Park of Nature Velebit	46.800.000 m ²	Mine susspected area covers the southeast part of the Park of Nature on the border with National park Paklenica. Sheep pasture is dimmed. Before the war shepherds guided sheeps to the mountains during the summer months. There is potential danger for the numerous alpinists who are using 500km of the forest paths.	The area is well known after botanical reservations with endemic plants. The most famous is Velebitska degenija, which is on the coin of 0,50 HRK. There are numerous caves there.

Form D: Any other information relevant to the request for the proposed extension

Table 13: Progress expected during the period covered by the proposed extension

Year	2009.	2010.	2011.	2012.	2013.	2014.	2015.	2016.	2017.	2018.	Total
Demining	55 km ²	56 km ²	52 km ²	51 km ²	50 km ²	42 km ²	28 km ²	16 km ²	9 km ²	7 km ²	366 km ²
General survey	18 km ²	23 km ²	28 km ²	27 km ²	25 km ²	25 km ²	20 km ²	20 km ²	15 km ²	0 km ²	201 km ²
Technical survey	0 km ²	21 km ²	39 km ²	44 km ²	50 km ²	50 km ²	51 km ²	51 km ²	39 km ²	32 km ²	377 km ²

Remarks:

CROMAC marked all mine suspected area in the Republic of Croatia with 14.521 big warning signs and numerous small supporting tables. In requested period CROMAC will keep full marking of the mine suspected area until the final solution of mine problem.