

CROATIA

ARTICLE 5 DEADLINE: 1 MARCH 2019
(SEVEN-YEAR EXTENSION REQUESTED TO 1 MARCH 2026)

PROGRAMME PERFORMANCE	2017	2016
Problem understood	7	7
Target date for completion of mine clearance	7	7
Targeted clearance	5	7
Efficient clearance	8	8
National funding of programme	7	7
Timely clearance	6	7
Land-release system in place	7	7
National mine action standards	6	6
Reporting on progress	7	7
Improving performance	5	6
PERFORMANCE SCORE: AVERAGE	6.5	6.9

PERFORMANCE COMMENTARY

Croatia's mine action programme performance in 2017 was again mixed, as it had been the previous year. Officially, annual clearance output of almost 30km² was 20% lower than the 38km² cleared in 2016 (reported to be due to a change in administrative reporting processes for recording clearance output, rather than a drop in actual clearance output), with almost 0.5km² of additional clearance by the Croatian Armed Forces of the 32km² of mined area on military facilities. Furthermore, 13 of the 73 mined areas cleared in 2017 did not contain mines, equating to roughly 10% of the total area cleared, and is proportionally a significant increase on 2016, when only 1% of the total area cleared was found not

to contain mines. This calls into question the efficiency of some of the demining operations, and indicates the need for better use of pre-clearance survey to confirm contamination before time- and cost-intensive full clearance is undertaken on mined areas recorded by the Croatian Mine Action Centre (CROMAC) as "confirmed". In more positive news, some 6.6km² was released by non-technical and technical survey in 2017, double that of the previous year. Furthermore, the CROMAC continued to make efforts to build its survey resources, employing members of the dissolved national demining organisation, MUNGOS, to bolster survey and quality control (QC) capacity.

RECOMMENDATIONS FOR ACTION

- CROMAC should ensure that it has sufficient non-technical and technical survey capacity in place to meet the survey targets outlined in the 2018 Anti-Personnel Mine Ban Convention (APMBC) extension request, and to confirm evidence of contamination before full clearance is undertaken or to discredit suspected areas that are not contaminated.
- Croatia should ensure that its Ministry of Defence (MoD) has concrete plans and sufficient demining capacity in place to address mined area on military land, in line with the 2018 Article 5 deadline extension request.
- Much of the remaining mined area in Croatia is in forested and mountainous terrain. CROMAC should therefore fulfil the pledge in its 2018 extension request to explore the potential to better use mine detection dogs (MDDs) to enhance the efficiency of technical survey and clearance operations.
- Croatia should revisit the 2015 Law on Mine Action to rectify the unintended challenges it poses to the implementation of mine action operations.
- Croatia should assess the effectiveness of revised procedures in place to investigate demining accidents since the adoption of the 2015 Law, including whether it would be preferable to re-establish and strengthen CROMAC's role in accident investigation, given its technical expertise.

CONTAMINATION

Croatia is affected by mines and, to a much lesser extent, explosive remnants of war (ERW), including cluster munition remnants (CMR), a legacy of four years of armed conflict associated with the break-up of the former Yugoslavia in the early 1990s (see Mine Action Review's *Clearing Cluster Munition Remnants* report on Croatia for further information).

At the end of 2017, Croatia had a total of 411km² of mined area (0.73% of the entire land mass of Croatia), excluding military areas.¹ Of this total, 269km² across 57 sites was confirmed hazardous area (CHA), while mines were suspected to cover a further 142km², across 47 suspected hazardous areas (SHAs) (see Table 1).² This represents a decrease compared to the 281km² across 64 CHAs, and 162km² across 52 SHAs, as at the end of the previous year.³ A total of 30km² was released by clearance and 6.6km² by survey in 2017, while 5.7km² of previously unknown mined area was identified.⁴

A further 32.7km² of confirmed mined area exists in areas under military control, said to contain 25,299 anti-personnel mines and 1,040 anti-vehicle mines. More than 90% of this mined area is across three military training sites, but a barracks and three storage sites are also believed to be contaminated. The Demining Battalion of the Engineering Regiment is responsible for clearance of all military facilities.⁵ The MoD submits its demining plan for military facilities to CROMAC annually.⁶

Table 1: Mined area by county (at end-2017)*7

County	CHAs	Area (km ²)	SHAs	Area (km ²)
Karlovac	7	17.25	5	32.5
Lika-Senj	9	105.90	8	32.30
Osijek-Baranja	12	36.18	9	19.48
Požega-Slavonia	2	21.17	2	2.82
Split-Dalmatia	3	16.79	2	3.35
Sisak-Moslavina	10	42.44	9	28.13
Šibenik-Knin	7	16.14	6	6.08
Zadar	7	13.64	6	17.29
Totals	57	269.51	47	141.95

* A further 31.4km² of mined area exists in areas under military control.⁸

Eight of Croatia's twenty-one counties are still mine-affected, containing an estimated 32,830 anti-personnel mines and 6,441 anti-vehicle mines.⁹ This represents an increase in the estimated number of anti-vehicle mines, compared to the figure of 6,115 from the previous year. It is due to CROMAC having revised its estimate following a more detailed analysis of minefield records in preparation for its second Article 5 extension request.¹⁰ Clearance in the county of Brod-Posavina was completed at the end of 2017.¹¹ Sisačko-moslavačka and Ličko-senjska counties are the most heavily contaminated with anti-personnel mines, containing an estimated 12,741 and 11,390 anti-personnel mines, respectively, and accounting for 73.5% of the total number of anti-personnel mines emplaced.¹²

In July 2017, media incorrectly reported that 34 landmine explosions had been triggered in southern Croatia, in an area thought to be mine-free, following the spread of a forest fire from neighbouring Montenegro.¹³ However, this information was wrong, and the reported explosions were in fact caused by a local resident firing a gas-fuelled sound cannon to deter wild boars.¹⁴

The impact of mines in Croatia is predominantly socio-economic and at local level, preventing safe use of land for livestock and forestry-related activities. At the end of 2017, 89% of mine contamination was on forested land; 10% on agricultural land; and 1% on other areas (e.g. water, marshland, and coastal areas).¹⁵ Of the total 411.5km² of combined SHA and CHA, 59.7% is defined as Nature 2000 protected area.¹⁶ Much of the remaining mined area is in mountainous areas and has not been accessed for twenty years, so the terrain and conditions will pose challenges to demining.¹⁷

Croatia calculates that approximately 485,537 inhabitants, in 59 towns and municipalities in the eight affected counties, are directly exposed to the threat of mines.¹⁸ However, there is comprehensive hazard marking of mined areas, and the last civilian victim of a mine incident in Croatia was reported in 2014, with the last mine incident involving a child a decade earlier, in 2004.¹⁹

PROGRAMME MANAGEMENT

CROMAC was established on 19 February 1998 as the umbrella organisation for mine action coordination.²⁰ CROMAC is responsible for the collection, processing, and recording of data on mine and ERW contamination, survey, and clearance; marking of contaminated areas; non-technical survey; QC of clearance; technical survey, and the planning of demining and technical survey operations.²¹ CROMAC is accountable to the government of Croatia through the Managing Board (formerly known as the CROMAC Council) whose members are representatives of the relevant ministries and other stakeholders, appointed by the government.²²

The mandate of the previous government-appointed members expired in August 2016,²³ and between August 2016 and the establishment of the CROMAC council by Government Decree in July 2017, the council did not meet monthly, as was foreseen. During this period, the lack of a government decree posed administrative challenges, such as delay in the CROMAC's annual

workplan being sent for government approval as well as restrictions regarding recruitment.²⁴ A new Director of CROMAC, Zdravko Modrušan, was appointed at the end of September 2017.²⁵

In April 2012, the government created the Office for Mine Action (OMA), reporting to the Prime Minister's office, to function as a focal point for mine action, strengthen coordination among stakeholders and funding agencies, and raise public awareness about mine and ERW hazards.²⁶ The OMA does not sit above CROMAC; rather, it is the government institution dealing with the political aspects of mine action whereas CROMAC deals with operations.²⁷ The OMA includes a Unit for European Union (EU) Funds, tasked with promoting access to a range of EU funds to support the mine action sector.²⁸ The establishment of the OMA has elevated the status of mine action within the country as it can politically pressure the government and international actors in ways that CROMAC, as a technical body, cannot.²⁹

Strategic Planning

CROMAC has a National Mine Action Strategy 2009–2019, which was approved by the Croatian Parliament in September 2009, and includes the goal of all mine clearance by 2019.³⁰ Croatia subsequently submitted a request to extend its APMB Article 5 deadline from 1 March 2019 to 1 March 2026.

Croatia's initial 2008 Article 5 deadline extension request set out annual demining targets and strategic goals, including elimination of the mine threat to housing and areas planned for the return of displaced people (by 2010); concerning infrastructure (by 2011); on agricultural land (by 2013); and in forest areas (by 2018).³¹ While clearance of the mine threat to housing and infrastructure was completed, Croatia missed its targets on agricultural land and forested area.

In its 2018 Article 5 deadline extension request, Croatia has prioritised the remaining mined areas according to those which affect safety; those which pose barriers to the socio-economic development; and those that impact ecology in other ways. While priorities at the operative level are elaborated in annual demining action plans, Croatia's goal is to clear all areas intended for agriculture by the end of 2018 and to demine all known minefields by the end of 2024.³² In addition, Croatia plans to complete clearance of all CMR by the end of 2018.

Based on the approved funding, CROMAC drafts annual workplans which are submitted to the responsible ministries, the OMA, and other state bodies for comment and approval.³³ The national annual mine action plan for 2018 was officially approved by the Croatian government in March 2018.³⁴

Legislation and Standards

A new Mine Action Law was adopted by the Croatian Parliament on 21 October 2015, incorporating developments from the latest International Mine Action Standards (IMAS), and specifically those relating to the use of technical survey to confirm the presence of contamination or discredit it in an SHA.³⁵ The 2015 law introduces a new procedure for "supplementary general survey" (i.e. non-technical survey) and enables "exclusion" (i.e. reduction) of SHAs through technical survey, which was not possible under the previous law.³⁶ Under the new law, CROMAC can use technical survey to release land, and to better define and confirm minefields for which it has no record.³⁷ The 2015 Law on Mine Action has eliminated the need for standing operating procedures (SOPs), as all aspects of mine action are now clearly defined in the new law.³⁸ National mine action standards are also encompassed within it.³⁹

The 2015 Law, the elaboration of which was initiated by the OMA with the text drafted by the Ministry of Interior, marks an improvement in certain respects on earlier operational procedure (for instance, by permitting land release through technical survey), but also poses challenges to the efficient and effective running of

Croatia's mine action programme. For instance, under the new law, CROMAC staff no longer have the authority to control personnel and technical equipment prior to and during demining operations, and instead only undertake QC of executed demining operations.⁴⁰ Furthermore, the 2015 Law has limited CROMAC's supervision of commercial operators, including with regard to decisions relating to the rates of demining, the level of pressure faced by companies, and quality assurance (QA).⁴¹

The new law reportedly works in a more prescriptive way, with significant sanction for failure to comply, but lacking preventive measures to combine safety and promote better quality of work.⁴² Another consequence of the new law is that CROMAC no longer has responsibility for investigating demining accidents. This responsibility now lies with the State Attorney, under the oversight of the Ministry of Interior, rather than with the body with the requisite technical expertise. CROMAC only receives accident report summaries from the Ministry.⁴³

Article 143 of the Law on Mine Action required that by-laws be adopted to cover a number of issues, including demining methodology. Accordingly, a working group under the Ministry of Interior developed two supplementary regulations. The first by-law, "Regulations on demining, quality control, non-technical and technical surveys and marking of suspected hazardous areas", entered into force in May 2016, and included, among other aspects, distinct technical survey procedures for mines and CMR, respectively. The second by-law, "Regulations on personal supervisory booklet and ID card of mine action employees and record forms", entered into force in June 2016.⁴⁴

In March 2017, the amendments to the "By-law on the Method of Conducting Demining Operations, Quality Control, General and Technical Survey and Marking of Suspected Hazardous Area", were published in the Official Gazette, after which they entered into force.⁴⁵ Amendments adopted through this by-law elaborate in more detail the provisions in the 2015 Law on Mine Action relating to the implementation of demining activities. Adoption of the amended by-law is said to require that demining activities be systematically monitored "in order to eliminate or correct possible deficiencies or impropriety that slow down or hamper the demining process".⁴⁶ Unfortunately, however, it is said that the by-law does not help to rectify the negative impacts of the 2015 demining law on efficient and effective implementation of clearance operations. Instead, CROMAC believes it further weakens the final QC criteria for demined areas.⁴⁷

Under the 2015 Law, the Ministry of Interior assesses authorised legal entities to conduct demining; this was formerly CROMAC's responsibility.⁴⁸ With regard to accreditation, the Ministry of Interior now provides three separate permits: approval for manual mine detection, approval for mechanical mine detection, and approval for operations by mine and UXO detection dogs. This replaces the former unified accreditation license.⁴⁹

Quality Management

With the adoption of the 2015 Law on Mine Action, CROMAC now undertakes only QC of executed demining operations,⁵⁰ and QA operations are performed by the Ministry of Interior.⁵¹ Supervision during and after survey and clearance has been replaced by ongoing QC of cleared land during demining operations, and final QC, when the company has reported completion of demining of an area. Required “ongoing QC” for clearance operators has increased to 5% of each worksite, no later than three working days from the last conducted QC, in order to increase safety and quality. In addition, CROMAC QC officers review a minimum of 5% of control samples at least every three days, and final quality control of 1% of the total demined surface is conducted by the QC committee. The committee is appointed by the director of CROMAC and consists of two authorised CROMAC employees and one representative of the Humanitarian Demining Inspectorate under the Ministry of Interior.⁵²

The QC requirements of the 2015 Law are said to pose a significant capacity challenge for both operators and CROMAC.⁵³ The considerable increase in the area required to be subject to QC, in comparison with the 1996 Law on Humanitarian Demining, necessitated reorganization of CROMAC’s work, which negatively impacted its Article 5 implementation plans.⁵⁴

Information Management

For the purposes of information management, CROMAC established a mine information system (MIS), which is compliant with IMAS and customised to meet CROMAC’s needs. The MIS uses databases and a geo-information system (GIS), to deliver a fully integrated information management system.⁵⁵ The CROMAC MIS portal reportedly allows internet users insight into SHA/CHA.⁵⁶

Operators

As a result of conditions for earlier World Bank funding, Croatia has an unusually commercialised mine action sector, with almost all civil clearance conducted by local companies competing for tenders. Much foreign donor funding is tendered by ITF Enhancing Human Security, while CROMAC manages tendering for the Croatian Government and EU money in accordance with the Law on Public Procurement. The trust fund, “Croatia without Mines”, raises money from private sources.⁵⁷

As at 1 January 2018, 40 commercial companies, with a total capacity of 676 deminers (121 deminers, 28 “QA deminers”, and 11 QA officers), 45 machines, and 99 MDDs, were accredited to conduct mine and CMR clearance.⁵⁸ This represents roughly the same capacity as the previous year, but with an increase in use of MDDs.⁵⁹ NGOs are barred from competing for commercial tenders as CROMAC views their subsidy by other funds as unfair.⁶⁰

The state-owned enterprise, MUNGOS, which was previously directly assigned a sufficient number of tasks by CROMAC to keep it solvent while it slowly phased down clearance operations,⁶¹ was finally dissolved and its assets auctioned during the first half of 2018.⁶² In December 2017, the Croatian government decided to transfer MUNGOS employees to CROMAC, to help enhance QC activities and increase survey capacity.⁶³

As barriers to entry into the mine clearance market are relatively low there is considerable fragmentation. Of the 21 companies demining in 2017, 10 cleared less than one square kilometre (see Table 2).⁶⁴ The United Nations Development Programme (UNDP) 2014 needs assessment observed that in the years preceding the assessment the number of demining companies in Croatia had grown, but capacity overall had decreased.⁶⁵ A representative of the Croatian Employers’ Association (CEA) – Humanitarian Demining Association – reported that the 2015 Mine Action Law had resulted in an increase in the number of demining organisations in Croatia.⁶⁶ This rise is in part due to deminers becoming dissatisfied and starting up new firms, and the 2015 Law requires a minimum of only five deminers per company.⁶⁷ The current number of demining companies is disproportionate to the number of deminers, and according to a representative from CROMAC, it would be more realistic to have half the number of companies, but to ensure each one is properly managed.⁶⁸

Lower demining costs are said to make it more difficult for firms to make a profit on clearance. Larger firms claimed they were hampered by earlier over-investment in mechanical assets and equipment based on assumptions that funding would match the levels outlined in the 2009–19 mine action strategy.⁶⁹ Some companies have sought to diversify with operations outside Croatia, but given the relatively higher wages of Croatian deminers, lack of international experience, and lack of brand recognition, they have found it difficult to compete for tenders.⁷⁰ An NGO representative claimed that the quality of demining suffers when the price of demining is low.⁷¹ A director of a commercial demining firm echoed this concern, saying that lower prices put greater pressure on deminers to clear more square metres a day.⁷² The Humanitarian Demining Association indicated that the 2015 Law on Mine Action has resulted in more pressure on deminers to work longer periods each year, as the new law does not set a minimum wage.⁷³ In 2018, CROMAC reported that the average price of demining operations had increased compared to the previous year, which it believed is due to market stabilisation activities in the mine action system.⁷⁴

In 2014, CROMAC reported it had started issuing larger value tenders, to allow companies to reduce the cost of their operations, saying that this had provided an incentive for companies to do better planning and to cooperate with each other.⁷⁵ A CROMAC representative claimed that although prices were lower, the larger tenders allowed continual work, resulted in fewer stoppages, and enabled companies to negotiate on better terms with hotels and services in their project areas.⁷⁶

However, bigger contracts, some of which covered areas as large as 5km², resulted in companies needing to form large consortia to compete for the new tenders. It was envisaged that four or five companies would form each consortium, but CROMAC has seen instances of 25 companies per consortium, and even of 30 companies bidding together.⁷⁷ In some instances this has resulted in disputes over the allocation of funds and areas assigned for clearance within the consortia, often to the disadvantage of smaller organisations.⁷⁸ Very large project tenders are also more complicated to draft and demand more time and resources to administer and monitor.⁷⁹

The new Acting Director of CROMAC has subsequently tended towards much smaller project sizes (0.5km²–1km², excluding the EU polygons already procured), which encompass single, specific types of land, e.g. forested areas or agricultural land.⁸⁰ These are also easier to administer, monitor, and analyse.⁸¹ The 2014 UNDP needs assessment recommended that CROMAC consider longer-term contracting to maximise use of operational assets in Croatia for both technical survey and mine clearance.⁸² However, CROMAC plans operations on a yearly basis, in accordance with the annual and three-year demining plans, which are set by the Government. CROMAC is unable to award multi-year contracts because it has to budget year-by-year, and in accordance with its own by-laws it is not possible to contract and reserve funds for the next year until the budget is set.⁸³ Tenders are awarded to the lowest priced bidder, but if bids are unusually low, CROMAC requests additional information on wages and other costs and tenders are rejected if the costs do not add up.⁸⁴

UNDP also noted that the current contracting of defined polygons is suitable for mine clearance but would not be conducive to effective technical survey, and called for a new procedure to be drafted once the law is changed.⁸⁵ The Humanitarian Demining Association reported that it would be preferable if, where possible, technical survey was already undertaken on project tasks prior to tendering them, so that commercial companies have as much information as possible to accurately plan for the tender.⁸⁶

With the adoption of the new law, which enables use of technical survey, CROMAC planned to target demining on confirmed mined areas and to conduct technical survey on the remaining SHA.⁸⁷ As noted previously, CROMAC took on employees from the dissolved national clearance operator MUNGOS at the end of 2017, to help increase survey and QC capacity. Use of MDDs, which are now easier to deploy under the 2015 Law, has also been increased and CROMAC plans to further explore how MDDs can be used to expedite release of land.⁸⁸

LAND RELEASE

In 2017, nearly 30.4km² of mined area was released by clearance (29.9km² by operators working under the direction of CROMAC and a further 0.48km² by the Croatian army).

A further 6.6km² was released by technical survey and non-technical survey.⁸⁹

Survey in 2017

CROMAC released 6.6km² through technical and non-technical survey in 2017.⁹⁰ This is double the 3.16km² released through survey in 2016.⁹¹ A further 5.7km² of previously unknown contamination was confirmed as mined in 2017.⁹²

Clearance in 2017

Commercial demining operators working under the direction of CROMAC cleared nearly 30km² across 73 mined areas in 2017, with the destruction of 1,271 anti-personnel mines, 18 anti-vehicle mines, and 519 items of UXO (see Table 2).⁹³ This is a 20% decrease on the 38km² cleared across 106 mined areas in 2016.⁹⁴ The main reason for this decrease is said to be a decree from the Ministry of Interior which changed the rules regarding what land can be formally reported as clearance output (i.e. “only the areas for which an official CROMAC confirmation of exclusion has been published”). According to CROMAC, the actual clearance output for 2017 was 38.5km², but 8.6km² of this was not formally reported, because the “necessary administrative processes” had not yet been completed.⁹⁵ Of the 73 mined areas cleared in 2017, some 13 areas totalling some 3.17km², were found not to contain mines.⁹⁶ This equates to roughly 10% of the total area cleared, and is proportionally a significant increase on 2016, when only 1% of the total area cleared was found not to contain mines.⁹⁷

In addition, the Croatian army cleared just over 0.48km² of military facilities in 2017. No anti-personnel mines or anti-vehicle mines were discovered during army clearance operations, but 279 items of UXO were found and destroyed.⁹⁸ This is a small decrease in clearance output on the 0.45km² cleared in 2016.⁹⁹

Also, as part of the continued “less arms, fewer tragedies” programme, the Croatian Police (under the Ministry of Interior), and in partnership with the UNDP, collected 122 anti-personnel mines and 22 anti-vehicle mines, in addition to explosives, hand grenades, and other weapons and explosive ordnance, which were subsequently transported to and destroyed at Croatian military facilities.¹⁰⁰

Table 2: Mine clearance in 2017¹⁰¹

Operator	County	Areas cleared	Area cleared [m ²]
Alfa	Šibenik-Knin	1	4,080
Alfa	Karlovac	1	3,583
Capsula Interna	Zadar	2	320,337
Capsula Interna	Šibenik-Knin	1	180,526
Cor	Posavina	1	287,099
Cor	Šibenik-Knin	1	198,988
Cor	Zadar	1	268,844
Cor	Brod-Posavina	1	168,693
Cor	Sisak-Moslavina	1	761,149
Credo	Sisak-Moslavina	1	7,610
Diz-Eko	Sisak-Moslavina	2	989,555
Diz-Eko	Šibenik-Knin	2	718,263
Diz-Eko	Požega-Slavonia	2	896,934
Dok-Ing	Sisak-Moslavina	3	831,501
Dok-Ing	Zadar	1	994,398
Dok-Ing	Lika-Senj	1	642,427
Dok-Ing	Požega-Slavonia	1	167,127
Fas	Split-Dalmatia	1	68,348
Fas	Lika-Senj	1	2,092,518
Harpija	Zadar	3	243,046
Harpija	Sisak-Moslavina	1	109,945
Istraživač	Zadar	2	1,471,319
Istraživač	Sisak-Moslavina	2	817,116
Istraživač	Osijek-Baranja	2	1,876,734
Istraživač	Požega-Slavonia	1	268,443
Istraživač Benz	Sisak-Moslavina	1	70,242
Mapper	Šibenik-Knin	2	211,396
Mina Plus	Zadar	1	715,125
Mka Deming	Sisak-Moslavina	1	38,020
Mungos	Brod-Posavina	1	1,174,047
Mungos	Požega-Slavonia	1	407,594
Piper	Osijek-Baranja	1	511,492
Piper	Zadar	1	354,830
Piper	Požega-Slavonia	2	761,607
Piper	Šibenik-Knin	1	214,037
Piper	Sisak-Moslavina	1	455,717
Piton	Požega-Slavonia	1	209,110
Piton	Split-Dalmatia	1	1,016,836
Piton	Šibenik-Knin	1	183,448
Rumital	Šibenik-Knin	2	362,024
Rumital	Lika-Senj	2	1,547,461
Rumital	Sisak-Moslavina	1	2,086,603
Titan	Osijek-Baranja	1	355,643
Titan	Brod-Posavina	1	516,211
Titan	Šibenik-Knin	1	604,288
Titan	Split-Dalmatia	1	755,389
Titan	Lika-Senj	1	29,358
Tnt-7	Brod-Posavina	1	62,693
Tornado	Zadar	1	86,438
Zeleni Kvadrat	Požega-Slavonia	2	355,855
Zeleni Kvadrat	Šibenik-Knin	2	352,852
Zeleni Kvadrat	Zadar	2	847,181
Zeleni Kvadrat	Brod-Posavina	1	67,923
Zeleni Kvadrat	Karlovac	1	1,010,570
Zeleni Kvadrat	Lika-Senj	1	132,494
Totals		73	29,885,067

AP = Anti-personnel AV = Anti-vehicle

In July 2016, Croatia signed a contract to demine its border with Hungary, as part of a cross-border cooperation project. The total area to be covered by the project was 1.46km², and 1.45m² was demined in 2016, with the destruction of 137 anti-personnel mines, 103 anti-vehicle mines, and 66 items of UXO. Of the total project, 3,400m² remained to be cleared as at the end of 2016, as it was under water.¹⁰² Demining of the remaining mined area was subsequently completed in the first half of 2017.¹⁰³

As at April 2018, a further 1.2km² of suspected mine contamination remains on Croatia's border with Hungary, at a distance of 1km from the border.¹⁰⁴

According to its 2017 Annual Plan of Mines Action, CROMAC had planned to release 58.3km² through survey and clearance in 2017. Actual 2017 output fell short of this goal, with a total of 36.5km² released in 2017 (29.9km² through clearance and 6.6km² through survey), in addition to the 0.49km² demined by the Croatian Armed Forces.¹⁰⁵

Deminer Safety

There were no mine-related accidents in 2017.¹⁰⁶ This is a significant decrease on the five mine-related accidents in 2016.¹⁰⁷

ARTICLE 5 COMPLIANCE

Under Article 5 of the APMB (and in accordance with the ten-year extension request granted by states parties in 2008), Croatia is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 March 2019. Croatia will not meet the deadline and has requested a seven-year extension.

In November 2016, Croatia acknowledged that mine clearance activities in 2016 had not achieved the levels forecasted, but said that the Croatian government and all mine action stakeholders in Croatia were still determined to solve the mine problem and systematise mine action activities so that the main goal and objective of completion by 2019 was still attainable.¹⁰⁸ CROMAC had reported that achieving Article 5 completion depended solely on financing the necessary resources, as the demining capacities and experience are more than suitable. In May 2017, however, it highlighted that meeting the 2019 Article 5 deadline "will be very challenging", based on the overall pace of progress.¹⁰⁹ In December 2017, Croatia announced it would be submitting a request for an extension of its Article 5 deadline.¹¹⁰

In March 2018, Croatia submitted a seven-year extension request to its Article 5 deadline, until 1 March 2026, on "the basis that this is a realistic but not unambitious amount of time given the extent of the remaining problem and the human, material and financial resources available or expected, and the demining and survey capacities currently available."¹¹¹ All relevant stakeholders in the Croatian mine action system are reported to have been involved in the analysis conducted as part of extension request process, and the request has also been "verified by the Croatian Government, which adopted the text of the 2nd Request thus giving it much needed political weight."¹¹²

During Croatia's first 2008 extension period (2009 to 2019), only half of its land release plan was achieved. Failure to meet the plan is attributed primarily to insufficient demining funds (especially for the period 2010–14, due to the global economic crisis), but also to: overly ambitious targets with regards to planned release of forested area; insufficient CROMAC capacity preventing the planned release of mined area through non-technical and technical survey; restriction of certain demining methods in national parks or Natura 2000 areas for environmental protection reasons; insufficient capacity, especially in QC following the 2015 Law on Mine Action; and the fact that 91.3km² of new mined area was identified in 2008–17.¹¹³

While Croatia has requested an extended deadline of 1 March 2026, it foresees that survey and clearance operations will be completed by the end of 2025, leaving only administrative/paperwork issues to be settled in the beginning of 2026.¹¹⁴

The remaining mined area to be addressed during the period of Croatia's second extension (1 March 2019 to 1 March 2026) covers 387.3 km². Implementing the extension request will require clearance of CHA (with minefield records), totalling 173.9 km² (including 32km² of mined area on MoD land); clearance of CHA (with no minefield records, but for which there is evidence of contamination), totalling 79.5 km²; and survey and release of SHA totalling 133.9 km² (see Table 3).¹¹⁵ Survey will take place between 2019 and 2025, but any resulting clearance required, expected to be completed by the end of 2025.¹¹⁶

Table 3: Planned demining output in km² (2019–26)¹¹⁷

Area		2019	2020	2021	2022	2023	2024	2025	1 March 2026	Totals
Demining of known mined area (with minefield records)	Authorised demining organisations	29.4	28.7	28.3	24.7	20.8	10	0	0	141.9
	Croatian Army (MoD area)	5	5	5	6	6	5	0	0	32
	Totals	34.4	33.7	33.3	30.7	26.8	15.0	0	0	173.9
Demining of mined area (no minefield records)		6	6	8.2	12.5	16.3	19.5	11	0	79.5
Survey		14	14	14	14	15.5	23.7	38.6	0	133.9
Sum totals		54.4	53.7	55.5	57.2	58.6	58.2	49.7	0	387.3

Considering the current capacity and the type of terrain and structure of remaining mined area, Croatia expects to be able to release roughly 56 km² per year over the next seven years.¹¹⁸ For comparison, in the seven-year period 2011–17, a total of 440km² was released: 238km² through clearance and 202km² through survey, which included significant amounts of cancellation between 2011 and 2015.¹¹⁹ Considering that most of the remaining mined area is in more challenging terrain, which will significantly reduce the use of demining machinery, the 253.4km² of clearance (and 133.9km² of survey) forecast over the next seven years is very ambitious, without increased capacity or improved efficiency.

Demining of military facilities/MoD area is conducted by Demining Battalion of the Engineering Regiment, according to plan made by the MoD.¹²⁰ The 5 to 6km² per year planned for in the 2018 extension request, is substantially more than 0.5km² per year cleared by the armed forces over the last two years.

Croatia reportedly has sufficient mine action capacity for release of remaining mined area on its territory by 2026 but asserts that completion of Article 5 by 2026 is contingent on securing the necessary budget.¹²¹

In 2017, Croatia contributed approximately €19 million (approx. US\$22 million) for demining, representing 40.75% of the total funds realised. The largest share of financing for demining (58.48%) was again from the EU, while funds through donations accounted for 0.76%.¹²² The Annual Mine Action Plan for 2018 anticipated the continued high share of financing from EU funds, with total planned funds for mine clearance in 2018 from all sources amounting to €53.2 million.¹²³

Funds from the EU have steadily increased over the last few years, surpassing funds from the state budget in recent years. CROMAC was in the final stage of securing funding from ESI funds (structural and cohesion funds, cross border cooperation fund, etc.), which gives it confidence in financing the implementation of the land release goals set in the 2018 extension request. Croatia expected to also secure funding from the public company “Croatian Forests” (state budget of forest management positions).¹²⁴

Since the APMBBC entered into force, more than €727 million has been invested in humanitarian demining activities, of which Croatia’s national budget had accounted for the majority (€417 million) for the Article 5 implementation.¹²⁵ Croatia estimates that the fulfilment of its Article 5 obligations will cost a total of a further €459 million.¹²⁶ Funding for the remainder of demining under the extension request is expected to come from the national budget (52.3%); EU/ESI funds (21.8%); EU/ cross border cooperation with BiH (15.3%); state budget of forest management positions (10.2%); and from donations (0.4%).¹²⁷

According to its 2018 Annual Plan of Mine Action, CROMAC planned to release a total of 56.5km² in 2018: 39.8km² through clearance and 16.7km² through technical survey and supplementary general survey (during which control samples are taken to determine the absence of mines and UXO).¹²⁸ CROMAC’s priorities for demining in 2018 included completion of CMR clearance, under Croatia’s Article 4 obligation under the Convention on Cluster Munitions; completion of mine clearance operations in Brodsko-Posavska county; and completion of clearance of all mined agricultural land. In addition, Croatia planned to continue clearance of economically prioritised forests in Karlovac, Lika-Senj, Požega-Slavonia, and Sisak-Moslavina counties, and to begin clearance of approximately 25km² of protected and Nature 2000 protected areas of Osijek-Baranja county.¹²⁹

Operators are restricted in their use of demining machines on mountainous, rocky, or forested terrain.¹³⁰ Croatia’s 2018 extension request stresses that as the remaining areas to be cleared are mainly forested (89.7%), there will be a significant reduction in the use of demining machinery, especially medium and heavy machine.¹³¹ Croatia foresees that use of demining machines will be limited to small, mobile machines that can be efficiently transported and used in such areas, and that the resulting increase in manual demining will reduce productivity and increase the cost of clearance and technical survey. Croatia plans to research and develop methods and techniques for the use of MDDs, especially for technical survey operations, as a potentially more effective tool to address mined areas in mountainous terrain.¹³²

Almost 180km² of mined area in Croatia has been cleared over the last five years (see Table 4). However, while annual clearance output exceeds the targets in Croatia's 2009–19 mine action strategy,¹³³ the amount of land released by survey each year has fallen well behind the yearly targets outlined in the strategy. In order to ensure Croatia meets its Article 5 obligation by 1 March 2026, CROMAC will need to increase its capacity and implementation of survey operations, including the use of non-technical and technical survey to more accurately determine the size and location of contamination, and to cancel and reduce areas in which no evidence of contamination is found.

Table 4: Mine clearance in 2012–17¹³⁴

Year	Area cleared (km ²)
2017	*30.4
2016	**38.8
2015	40.6
2014	37.7
2013	32.3
Total	179.8

*Includes 0.48km² cleared by the Ministry of Defence

**Includes 0.45km² cleared by the Ministry of Defence

1 Second APMBC Article 5 deadline Extension Request, 29 March 2018, p. 31 (hereafter, 2018 Article 5 deadline Extension Request).

2 APMBC Article 7 Report (for 2017), Form C; and email from Davor Laura, Head of Quality Control, CROMAC, 6 April 2018.

3 Email from Nataša Mateković, Assistant Director and Head of Planning and Analysis Department, CROMAC, 2 May 2017.

4 Email from Dejan Rendulić, Advisor, CROMAC, 11 September 2018.

5 APMBC Article 7 Report (for 2017), Form C. In Croatia's APMB Article 7 report, Form C, table 2 lists the number of anti-personnel mines in Croatia's military facilities as 25,292, but the sum of the table values totals 25,299. The total number of anti-vehicle mines is listed as 1,033 on the Article 7 report, but the sum of the table values totals 1,040.

6 2018 Article 5 deadline Extension Request, p. 25.

7 Email from Davor Laura, CROMAC, 6 April 2018.

8 In Croatia's APMB Article 7 Report (for 2017), Form C, this was reported to be 32.66km²; and in Croatia's 2018 Article 5 deadline Extension Request, as 32km².

9 Article 7 Report (for 2017), Form C; and 2018 Article 5 deadline Extension Request, pp. 26, 32 & 33.

10 Email from Dejan Rendulić, CROMAC, 11 September 2018.

11 Article 7 Report (for 2017), Form C; and email from Davor Laura, CROMAC, 6 April 2018.

12 2018 Article 5 deadline Extension Request, p. 33.

13 "Forest fire triggers landmine explosions in Croatia", CTV News, 23 July 2017, at: <http://www.ctvnews.ca/world/forest-fire-triggers-landmine-explosions-in-croatia-1.3515359>.

14 "Ne pucaju mine, nego top koji plaši veprove", Dubrovački Vjesnik, 24 July 2017, at: <http://dubrovacki.slobodnadalmacija.hr/zupanija/konavle/clanak/id/498334/ne-pucaju-mine-nego-top-koji-plasi-veprove>; and email from Nataša Mateković, CROMAC, 30 August 2018.

15 Email from Davor Laura, CROMAC, 6 April 2018; Article 7 Report (for 2017), Form C; and 2018 Article 5 deadline Extension Request, p. 35.

16 Email from Davor Laura, CROMAC, 6 April 2018; and Article 7 Report (for 2017), Form C.

17 Interview with Nataša Mateković, CROMAC, Sisak, 18 May 2017.

18 2018 Article 5 deadline Extension Request, p. 37.

19 Ibid., p. 7.

20 CROMAC, "National Mine Action Strategy of Croatia 2009–2019", Zagreb, June 2009, p. 2.

21 2018 Article 5 deadline Extension Request, p. 24.

22 Ibid., p. 25.

23 Emails from Miljenko Vahtarić, CROMAC, 24 August 2016; and Nataša Mateković, CROMAC, 20 June 2017.

24 Email from Davor Laura, CROMAC, 6 April 2018; interviews with Hrvoje Debač, Acting Director, Government Office for Mine Action (OMA), 17 May 2017, Zagreb; and Neven Karas, Assistant Director and Head of Sector for General and Financial Affairs, CROMAC, Sisak, 18 May 2017.

25 Interview with Hrvoje Debač, OMA and Davor Laura, CROMAC, in Geneva, February 2018; and email from Davor Laura, 6 April 2018.

26 Interviews with Dijana Pleština, Director, OMA, in Geneva, 23 May 2012 and 10 April 2014; and email from Miljenko Vahtarić, CROMAC, 4 July 2013.

27 Email from Miljenko Vahtarić, CROMAC, 3 June 2016.

28 Interview with Miljenko Vahtarić, CROMAC, in Geneva, 11 April 2013; and email, 4 July 2013.

29 Interview with Miljenko Vahtarić, CROMAC, Sisak, 14 April 2014.

30 Convention on Certain Conventional Weapons (CCW) Protocol V Article 10 Report (for 2015), Form B.

31 National Mine Action Strategy of the Republic of Croatia, 2008, at: <http://www.hcr.hr/pdf/Strategija%20eng.pdf>.

32 2018 Article 5 deadline Extension Request, pp. 8 and 11.

33 Ibid., p. 25; and email from Davor Laura, CROMAC, 6 April 2018.

34 Email from Davor Laura, CROMAC, 6 April 2018.

35 Article 7 Report (for 2017), Form A.

36 Ibid.; and emails from Miljenko Vahtarić, CROMAC, 13 and 18 May 2016.

37 Email from Miljenko Vahtarić, CROMAC, 9 June 2015.

38 Article 7 Report (for 2017), Form A; and email from Miljenko Vahtarić, CROMAC, 13 May 2016.

39 Ibid.

40 Email from Nataša Mateković, CROMAC, 30 August 2017.

41 Interview with Tomislav Ban, CROMAC, Sisak, 18 May 2017.

42 Ibid.

43 Ibid.; and interview with Ante Brkljačić, CROMAC, Geneva, 9 June 2017; and email from Davor Laura, CROMAC, 6 April 2018.

44 Emails from Miljenko Vahtarić, CROMAC, 18 May 2016 and Nataša Mateković, CROMAC, 20 June 2017; Statement of Croatia, Clearance Session, 15th Meeting of States Parties, Santiago, 29 November 2016; and Article 7 Report (for 2017), Form A.

45 Statement of Croatia, Clearance Session, 15th Meeting of States Parties, Santiago, 29 November 2016; and Article 7 Report (for 2017), Form A.

46 Ibid.

47 Email from Nataša Mateković, CROMAC, 30 August 2017.

48 Email from Miljenko Vahtarić, CROMAC, 24 August 2016.

49 Ibid.

50 Email from Nataša Mateković, CROMAC, 30 August 2017; and 2018 Article 5 deadline Extension Request, p. 28.

51 2018 Article 5 deadline Extension Request, p. 28.

52 Emails from Miljenko Vahtarić, CROMAC, 13 May 2016; Nataša Mateković, CROMAC, 2 May and 20 June 2017; and 2018 Article 5 deadline Extension Request, p. 28.

53 Interviews with Tomislav Ban, CROMAC, Sisak, 18 May 2017; and a representative of the CEA, Humanitarian Demining Association, Zagreb, 17 May 2017.

- 54 2018 Article 5 deadline Extension Request, p. 29.
- 55 CROMAC website, "CROMAC's Mine Information System", accessed 26 June 2018, at: <https://www.hcr.hr/pdf/MISWebENG.pdf>.
- 56 Article 7 Report (for 2017), Form C; and 2018 Article 5 deadline Extension Request, p. 14.
- 57 Ibid.
- 58 Article 7 Report (for 2017), Form C; and 2018 Article 5 deadline Extension Request, p. 43; and email from Davor Laura, CROMAC, 6 April 2018.
- 59 Email from Davor Laura, CROMAC, 6 April 2018.
- 60 Interview with Miljenko Vahtarić, CROMAC, Sisak, 14 April 2014.
- 61 Ibid; and interview with Amira Savranovic, then Director, MUNGOS, Sisak, 14 April 2014.
- 62 Email from Dejan Rendulić, CROMAC, 11 September 2018.
- 63 Email from Davor Laura, CROMAC, 6 April 2018.
- 64 Ibid.
- 65 UNDP, "Mine Action Recovery Needs Assessment for Flooded Areas in Eastern Croatia", 2014, p. 16.
- 66 Interview with a representative of the CEA, Humanitarian Demining Association, Zagreb, 17 May 2017.
- 67 Interviews with Hrvoje Debač, OMA, 17 May 2017, Zagreb; and Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 68 Interview with Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 69 Interview with Zeljko Romić, Piper Demining, Zagreb, 17 March 2015.
- 70 Ibid.
- 71 Email from Marija Breber, Social Worker, Mine Aid, 25 March 2015.
- 72 Interview with Zeljko Romić, Piper Demining, Zagreb, 17 March 2015.
- 73 Interview with a representative of the CEA, Humanitarian Demining Association, Zagreb, 17 May 2017.
- 74 Email from Davor Laura, CROMAC, 6 April 2018.
- 75 Interview with Miljenko Vahtarić, CROMAC, in Zagreb, 16 March 2015.
- 76 Ibid.
- 77 Interview with Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 78 Interviews with Hrvoje Debač, OMA, 17 May 2017, Zagreb; a representative of the CEA, Humanitarian Demining Association, Zagreb, 17 May 2017; and Tomislav Ban, CROMAC, Sisak, 18 May 2017.
- 79 Interview with Kristina Dorosulić, Head of Public Procurement, CROMAC, Sisak, 18 May 2017.
- 80 Interviews with Tomislav Ban, CROMAC, Sisak, 18 May 2017; and Kristina Dorosulić, CROMAC, Sisak, 18 May 2017.
- 81 Interview with Kristina Dorosulić, CROMAC, Sisak, 18 May 2017.
- 82 UNDP, "Mine Action Recovery Needs Assessment for Flooded Areas in Eastern Croatia", 2014, p. 4.
- 83 Interview with Hrvoje Debač, OMA, 17 May 2017, Zagreb.
- 84 Interview with Kristina Dorosulić, CROMAC, Sisak, 18 May 2017.
- 85 UNDP, "Mine Action Recovery Needs Assessment for Flooded Areas in Eastern Croatia", 2014, p. 4.
- 86 Interview with a representative of the CEA, Humanitarian Demining Association, Zagreb, 17 May 2017.
- 87 Email from Miljenko Vahtarić, CROMAC, 21 October 2016.
- 88 Email from Davor Laura, CROMAC, 6 April 2018.
- 89 Ibid; and APMB Article 7 Report (for 2017), Form C.
- 90 Ibid.
- 91 Statement of Croatia, Clearance Session, APMB 15th Meeting of States Parties, Santiago, 29 November 2016.
- 92 Emails from Davor Laura, CROMAC, 6 April 2018; and Dejan Rendulić, CROMAC, 11 September 2018.
- 93 Ibid; and Article 7 Report (for 2017), Form C.
- 94 Email from Nataša Mateković, CROMAC, 2 May 2017; and Article 7 Report (for 2016), Form C.
- 95 Email from Dejan Rendulić, CROMAC, 11 September 2018.
- 96 Email from Davor Laura, CROMAC, 6 April 2018.
- 97 Email from Nataša Mateković, CROMAC, 2 May 2017; and Article 7 Report (for 2016), Form C.
- 98 Email from Davor Laura, CROMAC, 6 April 2018; and Article 7 Report (for 2017), Form C.
- 99 Article 7 Report (for 2016), Form C; and CCW Protocol V Article 10 Report (for 2016), Form A.
- 100 Article 7 Report (for 2017), Form C.
- 101 Email from Davor Laura, CROMAC, 6 April 2018; and APMB Article 7 Report (for 2017), Form C. According to CROMAC, the area cleared relates to tasks on which final QC has been completed and certificates issued in 2017. The total number of AP mines, AV mines, and other UXO is the cumulative total relating to all items destroyed in 2017, and not only those from tasks with completion certificates issues.
- 102 Email from Nataša Mateković, CROMAC, 2 May 2017.
- 103 Email from Nataša Mateković, CROMAC, 30 August 2017.
- 104 Email from Davor Laura, CROMAC, 6 April 2018.
- 105 Statement of Croatia, Intersessional Meetings, Geneva, 7 June 2018.
- 106 Email from Davor Laura, CROMAC, 6 April 2018; and 2018 Article 5 deadline Extension Request, p. 7.
- 107 Email from Nataša Mateković, CROMAC, 2 May 2017; Article 7 Report (for 2016), Form C; CCW Protocol V Article 10 Report (for 2016), Form A; CCW Amended Protocol II Article 13 Report (for 2016), Form B; and Statement of Croatia, Intersessional Meetings, 8 June 2017.
- 108 Statement of Croatia, Clearance Session, 15th Meeting of States Parties, Santiago, 29 November 2016.
- 109 Email from Nataša Mateković, CROMAC, 2 May 2017.
- 110 Statement of Croatia, Clearance Session, 16th Meeting of States Parties, Vienna, 19 December 2017.
- 111 2018 Article 5 deadline Extension Request, p. 8.
- 112 2018 Article 5 deadline Extension Request, additional information submitted 21 June 2018, p. 1.
- 113 2018 Article 5 deadline Extension Request, pp. 16 and 36.
- 114 2018 Article 5 deadline Extension Request, additional information submitted 21 June 2018, p. 1.
- 115 2018 Article 5 deadline Extension Request, p. 39.
- 116 Ibid., pp. 41 and 42.
- 117 Ibid.
- 118 2018 Article 5 deadline Extension Request, pp. 36, 39, and 44.
- 119 See Mine Action Review and Landmine Monitor reports on clearance in Croatia covering 2011–16.
- 120 Ibid., p. 43.
- 121 Ibid., p. 39.
- 122 APMB Article 7 Report (for 2017), Form C; Statement of Croatia, APMB Standing Committee meetings, Geneva, 7 June 2018; and email from Davor Laura, CROMAC, 6 April 2018.
- 123 Statement of Croatia, APMB Standing Committee meetings, Geneva, 7 June 2018.
- 124 2018 Article 5 deadline Extension Request, pp. 36 and 39.
- 125 Ibid., p. 8.
- 126 Ibid., p. 44.
- 127 Ibid., p. 45.
- 128 Email from Davor Laura, CROMAC, 6 April 2018.
- 129 Ibid.
- 130 Ibid.
- 131 2018 Article 5 deadline Extension Request, p. 43.
- 132 Ibid., pp. 43, 44, and 45; and additional information submitted 21 June 2018, p. 1.
- 133 National Mine Action Strategy of the Republic of Croatia, 2008, p. 10.
- 134 See Mine Action Review and Landmine Monitor reports on clearance in Croatia covering 2013–16.