KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

7.3 km²

CLUSTER MUNITION CONTAMINATION: MEDIUM

SUBMUNITION CLEARANCE IN 2020

1.28 km²

SUBMUNITIONS DESTROYED IN 2020

2,098

(INCLUDING 339 SUBMUNITIONS DESTROYED DURING SPOT TASKS)

KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to make good progress in releasing cluster munition-contaminated area in 2020, clearing slightly more than the previous year, despite challenges posed by COVID-19. Lebanon was granted a five-year extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, to 1 May 2026, and plans to complete cluster munition remnants (CMR) clearance by the end of 2025, in line with its new National Mine Action Strategy for 2020–25. However, in order to achieve this LMAC will have to overcome funding challenges and also increase operational efficiencies.

In a positive development, LMAC commissioned an external study on operational efficiency in 2020, and plans to review and adopt the recommendations from the study, especially those related to the need for increased emphasis on evidence-based technical survey prior to clearance.

RECOMMENDATIONS FOR ACTION

■ LMAC should, in collaboration with clearance operators, continue to expand and strengthen the use of evidence-based survey, especially technical survey (manual, mechanical, and with the use of explosive detection dogs (EDDs)), as a routine part of the toolbox for all operators for the release of CMR tasks.

■ LMAC should determine how it plans to address CMR in especially difficult terrain, such as deep canyons and very steep cliffs, and publish details of the number and size of CMR tasks affected.

■ Lebanon should provide regular updates to its Article 4 planning, based on actual annual output achieved.

■ Lebanon should develop a resource mobilisation strategy, to help it secure the necessary funding required to meet the annual CMR clearance targets in its Article 4 deadline extension request.
## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

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<tbody>
<tr>
<td><strong>UNDERSTANDING OF CMR CONTAMINATION</strong> (20% of overall score)</td>
<td>8</td>
<td>7</td>
<td>LMAC completed non-technical re-survey of all CMR tasks in 2020, improving the accuracy of the national estimate of CMR contamination. The baseline was further improvised by the correction of duplicate records, identified as part of the LMAC’s upcoming migration to Information Management System for Mine Action (IMSMA) Core. The baseline, however, still includes confirmed hazardous areas (CHAs) with an estimated standard size of 10,000m² (for hazardous areas recorded without defined boundaries), whose true size may differ markedly. For the purposes of Article 4 planning LMAC has increased the standard sized area estimation by 250% to factor in fade-out.</td>
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<tr>
<td><strong>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</strong> (10% of overall score)</td>
<td>8</td>
<td>9</td>
<td>LMAC continued to demonstrate effective programme management in 2020, maintaining Mine Action Forum and technical working group (TWG) meetings, though both were disrupted by COVID-19 during the course of the year. Regrettably, due to continued political and financial unrest in Lebanon, as well as the impact of the COVID-19 pandemic, none of the 50 billion Lebanese Pounds (approximately US$33 million) for CMR clearance over five years (2019–23) was allocated in 2020 (or in 2019).</td>
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<tr>
<td><strong>GENDER AND DIVERSITY</strong> (10% of overall score)</td>
<td>7</td>
<td>7</td>
<td>LMAC has acted to mainstream gender in its mine action programme, including through data disaggregation, inclusive survey, and participation in courses at its regional demining school. Gender and diversity considerations are included in the National Mine Action Strategy 2020–25 and LMAC has appointed a new gender focal point who will help mainstream gender-sensitive policies and procedures, and monitor their implementation, in the mine action centre. The number of staff at LMAC is determined by the Lebanese Armed Forces (LAF) headquarters, so LMAC has limited control over the number of women, but it consistently requests that the percentage of women be increased.</td>
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<tr>
<td><strong>INFORMATION MANAGEMENT AND REPORTING</strong> (10% of overall score)</td>
<td>8</td>
<td>7</td>
<td>LMAC is in the process of migrating to IMSMA Core, and is in the testing phase, prior to migration. During preparation for the migration, new maps developed using IMSMA Core revealed duplications in the hazardous areas, including some areas contaminated with CMR. LMAC identified the causes of these duplications, their location, and corrected the baseline of remaining CMR contamination accordingly.</td>
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<tr>
<td><strong>PLANNING AND TASKING</strong> (10% of overall score)</td>
<td>8</td>
<td>8</td>
<td>LMAC has a new National Mine Action Strategy for 2020–25, which was approved in June 2020. The new strategy was elaborated with support from the European Union (EU)-funded United Nations Development Programme (UNDP) project, in a participatory approach with all stakeholders. An accompanying plan for the implementation and monitoring of the strategy will be updated annually. Lebanon was also granted a five-year extension to its Article 4 deadline to 1 May 2026. While Lebanon’s new deadline is 1 May 2026, LMAC aims to complete clearance by the end of 2025, in line with its new strategy. LMAC has also developed a new national prioritisation system in 2020, which will be applied in 2021.</td>
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<tr>
<td><strong>LAND RELEASE SYSTEM</strong> (20% of overall score)</td>
<td>7</td>
<td>8</td>
<td>LMAC revised its national mine action standards (NMAS) in 2017 and 2018, then made revisions in 2019, and completed a review of the NMAS at the start of 2020. At present, however, technical survey and non-technical survey activities are still not a routine part of the toolbox for all operators for the release of CMR tasks. LMAC commissioned an external study on operational efficiency in 2020, and plans to actively review and apply recommendations from the study related to the need for increased use of technical survey as an essential component of land release operations.</td>
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Table continued...
At the end of 2020, Lebanon had 749 confirmed hazardous areas (CHAs) containing CMR covering a total area of nearly 7.3km² (see Table 1). This is a decrease in CMR contamination compared to the end of 2019, when 814 CHAs were confirmed to contain CMR, over a total area of almost 9km². In 2020, 0.7km² of previously unrecorded CMR contamination was added to the database (608,748m² in Bekaa, mostly in the north-east; 60,000m² in Mount Lebanon; and 37,996m² in South Lebanon), all of which are included in Table 1. LMAC has corrected duplication of some cluster munition-contaminated areas, revealed during the ongoing process to upgrade the Information Management System for Mine Action (IMSMA) to the new version IMSMA Core.

In 2018, Lebanon reviewed its baseline of CMR contamination and changed the way it reflects clearance data. A significant problem had been a difference in the way land release figures were recorded between the Regional Mine Action Centre (RMAC) and LMAC. In many cases, actual clearance output of tasks was greater than the original task size recorded in the database, due to large fade-out requirements. Upon task completion, LMAC was reducing its initial baseline by the original task size in the database, whereas RMAC was adding the additional cleared area in excess of the task size to the initial database and then reducing the whole size of the clearance task from the database. LMAC has now corrected the national CMR baseline retrospectively to reflect its approach.

Also as part of its 2018 database review process, LMAC decided to change the standard size of CHAs with no defined boundaries (and in which there is no mine threat), to 10,000m² in the database, based on the fade-out distance for cluster munition clearance and LMAC’s experience to date. This is reflected in Lebanon’s baseline of cluster munition-contaminated area (see Table 1). But operators have found that the standardised 10,000m² (per task) area is in some instances an overestimate and in other instances an underestimate of the actual task size. LMAC, however,
believe that this is the best approach for this type of hazardous area and to be conservative in its CCM Article 4 planning it has increased the size of these areas by 250% (to 25,000m²) to factor in fade-out.11

The accuracy of the baseline is further complicated by the fact that clearance undertaken in the aftermath of the 2006 cluster munition strikes was not conducted in accordance with the International Mine Action Standards (IMAS) and was mostly limited to rapid surface clearance.12 This included emergency clearance undertaken by the Lebanese Armed Forces (LAF) in and around infrastructure, schools, and roads, and clearance contracted out to non-governmental organisations (NGOs), commercial operators, and government groups by the UN Mine Action Coordination Centre – south Lebanon (MACC-SL), which assumed the role of coordinating CMR clearance in 2007, in cooperation with the National Demining Office (now known as LMAC).13

In order to determine its baseline of CMR contamination more accurately and inform Article 4 planning, LMAC re-surveyed all cluster munition-contaminated areas. The nationwide non-technical re-survey was completed in November 2020,14 but additional non-technical survey will still be conducted, in line with best practice.

A study on operational efficiency, conducted by an external international consultant in 2020, highlighted the need for greater emphasis on technical survey as part of the land release process in Lebanon, in order to reduce land found not to be contaminated, including in the fade-out, and prevent unnecessary clearance.15

CMR contamination is largely the result of the conflict with Israel in July–August 2006. During the conflict, Israel fired an estimated four million submunitions on south Lebanon, 90% of which were dispersed in the last 72 hours of the conflict.16 An estimated one million submunitions failed to explode.17 Some Israeli bombing data have been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.18 In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,19 and there is a small amount of new CMR contamination on the north-east border with Syria, resulting from spill-over of the Syrian conflict onto Lebanese territory in 2014–17.20 Types of submunitions found in Lebanon include Israeli, Soviet, and US submunitions, types AO-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.21 Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.22

OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

Lebanon is also contaminated by other unexploded ordnance (UXO), booby-traps, and anti-personnel mines (see Mine Action Review’s Clearing the Mines report on Lebanon for more information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Lebanon’s mine action programme is under the control of the military. The Lebanon Mine Action Authority (LMAA), which has overall responsibility for Lebanon’s mine action programme, is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. In 2007, a national mine action policy outlined the structure, roles, and responsibilities within the programme, and LMAC was tasked to execute and coordinate the programme on behalf of the LMAA.23

LMAC, part of the LAF, is based in Beirut. Since 2009, the RMAC-N, based in Nabatiyeh, which is a part of LMAC, has overseen operations in south Lebanon and western Bekaa, under LMAC supervision.24 At the end of 2018, a new regional centre, RMAC-RB, was established in the north-east of Lebanon in the village of Ras Baalbek, to oversee the mine action operations in this region.25 To a large extent LMAC has a well-functioning capacity, but, as they are army officers, the senior management of LMAC and RMAC are typically routinely rotated (every two years or so), which can hamper development and continuity in the management of the three mine action centres.26 The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.27

A new standing operating procedure (SOP) for LMAC was developed in 2020 and approved on 9 November 2020. The SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help preserve institutional memory, assist new LMAC staff, and reduce the impact of staff rotations.28

UN Development Programme (UNDP) personnel, funded by the European Union (EU), are also seconded to LMAC, providing support for capacity building, including transparency reporting, strategic reviews, IMSMA database entry, community liaison, and quality assurance (QA). In 2020, there was one team of seven UNDP personnel supporting LMAC.29

EU funding for UNDP institutional support to LMAC, which had been due to finish at the end of 2019, but which would have resulted in a gap in capacity development,30 was extended. During this period, UNDP was providing expertise and support on operational efficiency, prioritisation, research into clearance in difficult terrains, and risk education for Syrian refugees.31 UNDP also mobilised funds in 2020 from the Norwegian Embassy, and developed a three-year project proposal for 2020–23 in order to: assist with the strengthening of national capacity to document and prioritise clearance operations in line with Mine Action Forum recommendations; to help LMAC to meet its national, regional, and international obligations and coordination functions and ensure follow-up of Mine Action Forum action points; and to support LMAC in effectively communicating its results and establishing partnerships.32 In April 2021, the Netherlands signed a three-year contract with UNDP for international funding to support LMAC in capacity building and institutional support.33

With regard to difficult terrain, the Geneva International Centre for Humanitarian Demining (GICHD) is partnering with LMAC on a study.34
A "Mine Action Forum" has been established in Lebanon in close partnership between LMAC and Norway. The forum was the result of a two Lebanon-focused workshops, the first of which took place in November 2016, convened by Norway and the Netherlands in their capacity as CCM Co-Coordinators on clearance, and facilitated by the GICHD. The second workshop, in January 2018, convened in partnership between Norway and LMAC, resulted in the establishment of the Mine Action Forum. The forum meets twice a year, with UNDP designated as the secretariat to follow up on action points and develop progress reports. It provides an informal platform for LMAC to continue open dialogue and information sharing between the national authorities, implementing partners, and donors, on priorities and needs for the survey and clearance of cluster munitions and landmines in Lebanon. It is an example of what a "Country Coalition" under the CCM could look like, but in the case of Lebanon it was agreed the forum should be broadened to include landmines, and not just CMR. The Mine Action Forum in Lebanon is said to have resulted in better coordination and greater transparency as well as on enhancements to land release methodology, enshrined in the revised national mine action standards (NMAS).

As of writing, the most recent Mine Action Forum was held on 22 January 2020, during which LMAC presented and discussed the new 2020–25 national mine action strategy, operational efficiencies, and a new explosive ordnance risk education (EORE) project. LMAC also presented its Article 4 deadline Extension Request plan at the January 2020 Mine Action Forum meeting. An open air Mine Action Forum meeting had been planned for November 2020, but could not take place because of COVID-19 restrictions. The meeting will take place in 2021, if the situation permits. There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken. International clearance operators reported that an enabling environment exists for mine action in Lebanon, with no obstacles regarding visas for international staff, approval of memoranda of understanding (MoUs), or the importation of equipment.

A technical working group (TWG) was established in March 2018, under the auspices of LMAC, based on recommendations of the Mine Action Forum and following the release of the revised NMAS. The TWG, provides a useful forum for LMAC/the RMACs to meet collectively with clearance operators to review and discuss field issues, including implementation of revisions to the NMAS, to identify issues, and suggest further NMAS revisions and potential ways to improve operational efficiencies. The TWG had been meeting quarterly, but due to the impact of COVID-19, TWG meetings were postponed during the first two quarters of 2020 and then resumed in September 2020.

As in the previous year, Lebanon reported committing US$9 million annually in 2020 towards mine action in Lebanon (for both mine- and CMR-related work); to support costs associated with the running of LMAC (facilities and staff); the LAF Engineering Regiment companies working in demining (four teams, two of which work on CMR; in addition to mechanical and mine detection dog (MDD) support); risk education; victim assistance, and training. However, LMAC noted that the devaluation of the Lebanese Pound and the economic crisis Lebanon is facing will affect this amount.

In addition, the Lebanese government had committed an additional 50 billion Lebanese Pounds (approximately US$33 million) to CMR clearance over five years (2019–23), to increase the number of CMR clearance teams and help meet Article 4 obligations under the CCM. Corresponding clearance contracts with DanChurchAid (DCA), LAMINDA, and Peace Generation Organization for Demining (POD) were finalised at the end of 2018, but signature by the Minister of Defense was delayed due to the announcement of a new government at the end of January 2019. NGOs took the decision to go ahead and begin CMR clearance operations in February 2019, using their own funds. However, they subsequently elected to stop operations after three months, pending formal signature of the clearance contracts by the Minister of Defence. Unfortunately, due to political and financial unrest in Lebanon, the clearance contracts were not signed and none of the pledged additional national funding was spent during 2019. LMAC was expecting that an average of US$3 million national funding for CMR clearance will be allocated to CMR clearance yearly, less than half of what had been previously pledged. Unfortunately, however, due to continued political and financial unrest, and the impact of the COVID-19 pandemic, no national funds were allocated for CMR in 2020. Furthermore, LMAC will also need to re-evaluate the value of the NGO CMR clearance contracts, due to the devaluation of the Lebanese Pound.

A Regional School for Humanitarian Demining in Lebanon (RSHDL) was established in partnership between Lebanon and France. The School became operational in 2017, enabling civilian and military personnel from Arabic and other countries to benefit from an array of courses and workshops on non-technical survey, EOD, operational efficiency, and gender and diversity.

GENDER AND DIVERSITY

The gender and diversity-related policy applied at LMAC is that of the LAF military rules. According to LMAC, all its personnel are familiar with these rules and the specific provisions related to gender equality and inclusion, safeguarding, and behavioural codes.

LMAC reported that it has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, and participation in courses at the RSHDL. In agreement with LMAC, the GICHD conducted a gender and diversity capacity assessment mission to Lebanon in July 2019. The aim was to reinforce a sustainable national capacity for gender and diversity mainstreaming in the LMAC and contribute to the achievement of gender equality and inclusion. In August 2019, LMAC reported that it had appointed a new gender focal point, who will help mainstream gender-sensitive policies and procedures and monitor their implementation in the mine action centre and across the national programme. LMAC’s gender focal point participated in the Remote regional Arab Regional Cooperation Programme (ARCP) Gender Equality and Inclusion (GEI) capacity development programme held online from November 2020 to March 2021.
Lebanon’s new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity. Of the five objectives in the new strategy, the fifth states that: “The specific needs and perspective of women, girls, men and boys from all groups of society are considered, in order to deliver an inclusive HMA [mine action] response”. LMAC also acknowledges in the strategy that mine action “is a male-dominated environment and we have therefore a particular responsibility to empower women and ensure that we have a gender sensitive approach to our work”. According to its strategic implementation plan, LMAC is working on a draft code of conduct regarding gender, diversity, and inclusion which it planned to share with all stakeholders in 2021. Furthermore, national mine action standards will be updated no later than the end of 2022, to reflect a gender sensitive approach and to comply with international standards.

Of LMAC’s 175 personnel, 19 (11%) are female, a slight increase on the 16 reported previously. With respect to operational roles, four women work for the operations section (double the number previously reported), one woman is a member of the non-technical survey team, and two women work in the Mine Risk Education section. With respect to managerial/supervisory level positions at LMAC, the head of the admin section is a woman. The number of staff at LMAC is determined by the LAF headquarters, so LMAC has limited control over the number of women, but it consistently requests that the percentage of women be increased. However, the proportion of women at LMAC is more than double the 5% average of the Lebanese armed forces and LMAC seeks to increase this ratio further.

DCA reported that 18% of its overall staff in Lebanon are female, with women accounting for 3% of managerial/supervisory positions and 9% of all operations positions, not only demining teams.

Prior to ceasing land release operations in Lebanon in August 2020, women had been employed in LAMINDA’s clearance teams and one female staff member had been in a managerial position, as clearance team leader.

Mines Advisory Group (MAG), Norwegian People’s Aid (NPA), and POD all reported having gender policies in place.

MAG reported that it consults women during survey and community liaison activities; that all its community liaison teams are mixed; and that its data is disaggregated by sex and age. Overall, women account for 18% of MAG’s Lebanon programme, including 16% of operational roles in MAG’s survey and clearance teams in Lebanon, and 13% of managerial level/supervisory positions. MAG considers a wide range of elements under diversity as part of its operations, taking into consideration the diverse community and religious background of the areas in which it works and trying to consider these aspects during recruitment, to ensure they are reflected in MAG’s personnel.

NPA was implementing its organisational gender policy for Lebanon, based on recommendations from the GICHD. It is encouraging more women to apply for field positions through job postings and social media. NPA also conducted training in gender equality, safeguarding, and its code of conduct in 2020. As at June 2021, following restructuring due to funding losses, NPA reported that 30% of its employees are women, including 23% of employees in operational roles, 50% of support staff, and 50% of senior management. NPA disaggregates data by sex and age.

Women, girls, boys, and men are said to be consulted during survey and community liaison activities. According to LMAC, Lebanon’s baseline of CMR contamination has been developed over many years. As per Lebanon’s NMAS, non-technical survey teams consult with women, girls, boys, and men, including, where relevant, minority groups, in order to make sure all available information is included.

**INFORMATION MANAGEMENT AND REPORTING**

LMAC is in the process of migrating from its current version of IMSMA (New Generation) to IMSMA Core, which it hopes will help facilitate the production of clearer reports that can be translated into dashboards for stakeholders, including donors, to monitor and follow. As at March 2021, the risk education data had been migrated and was due to be tested, along with the non-technical survey data in the coming months. The remaining data will be migrated once it has been confirmed that the system is operating as planned and meets LMAC’s needs.

During preparation for the migration, new maps developed using IMSMA Core revealed duplications in the hazardous areas, including some areas contaminated with CMR. LMAC identified the causes of these duplications, their location, and corrected the baseline of remaining CMR contamination accordingly.

Operators believe that IMSMA Core will enable better direct access to data, which will enhance understanding of broader CMR contamination and assist in identifying tasks where further non-technical and technical survey could be valuable. The GICHD also provides support to LMAC under its Information Management Capacity Development Framework and conducted IM training sessions and workshops in 2020.

Disclaimed areas in the database are those for which the owner of the land has not granted permission for implementing agencies to conduct land release operations. In such cases, the landowner has to sign a personal disclaimer taking full responsibility for any kind of explosive remnant of war (ERW) hazard including CMR on the land. LMAC is trying to end the disclaimers, the records of which were mainly taken before 2009. The majority of disclaimed areas are being cancelled as a result of re-survey currently in process, when the owners are found to be using the land. If clearance is required, survey and community liaison teams, along with local authorities, will encourage landowners to allow clearance in order to ensure the land is free from hazards and will provide assurance of measures that will be taken to prevent disruption to the use of the land. According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m².

Lebanon’s latest revision of NMAS, allows technical survey of CMR-contaminated areas. By May 2019, LMAC had updated data forms to allow for the correct reporting of land reduced through technical survey.
DCA has been using Tiramisu Information Management Tool (T-IMS) for the past three years. MAG is in the process of launching “survey123” software in Lebanon. It has completed the design stage and prepared training material, but training and implementation had been postponed to mid-2021, due to the impact of COVID-19. In the second half of 2020, NPA introduced the ARC-GIS program for data collection to its information management system, which has allowed more precise monitoring and evaluation of the programme’s activities, efficiency, outputs, and reporting.

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20. The plan called for clearance of all CMR by 2016 and for completion of mine clearance outside the Blue Line by 2020. Both goals were dependent on capacity, but progress fell well short of planning targets, which were not met.

LMAC has developed a new National Mine Action Strategy for 2020–25, with support from the EU funded UNDP project, in a participatory approach with national and international implementing agencies, mine action NGOs, UN agencies, and donors. One of the objectives of the new strategy is to complete clearance of all known cluster munition contaminated areas by the end of 2025. The new strategy was signed by the LMAA in June 2020. A mid-term and final external review are planned, as well as annual reporting on progress. LMAC has also elaborated a strategic implementation plan for 2020–25, based on the new strategy and in collaboration with implementing partners, to operationalise the new strategy with objectives, outputs, and indicators. Results from the monitoring of the strategic implementation plan shall be discussed at the operational level with implementing agencies at the TWG and a group of recommendations agreed and then presented at the biannual Mine Action Forum meetings. The implementation plan will be revised annually by LMAC, the Institutional Support Programme (UNDP at present), and in consultation with humanitarian clearance operators. LMAC also plans to develop annual work plans.

Lebanon’s request to extend its Article 4 deadline by five years to 1 May 2026, was considered by States Parties at the Part 1 of CCM Second Review Conference in November 2019. It was subsequently granted by a so-called “silence” procedure (meaning it is granted unless there are objections from any State Party), because Part 2 of the Review Conference, which had been scheduled to be held in a hybrid format in early 2021, was forced to be postponed due to COVID-19. Clearance operators were consulted by LMAC on the extension request, including in a workshop prior to the request being elaborated. While Lebanon’s new deadline is 1 May 2026, LMAC aims to complete clearance by the end of 2025, in line with its new strategy.

LMAC aims to release 1.6km² of cluster munition-contaminated area each year, subject to the availability of funding. The projected clearance rates in Lebanon’s extension request are based on an average of the last three years and while LMAC anticipates that application of the new, more efficient methodologies will increase this average, it also expects that any gain will be offset by the more difficult terrain of contaminated area that remains to be cleared.

Table 2 outlines the predicted annual clearance output and capacity up to the end of 2025. Planned output considers fade-out and the possible increase in the area to be cleared in the 10,000m² sites, using a factor of 2.5. LMAC plans to conduct technical survey, where appropriate, but has not provided predictions of the amount of area expected to be reduced through technical survey.

With regards to prioritisation of tasks, LMAC conducted a study, the results of which have informed a new national prioritisation system, based on three strategic categories: safety, economy, and treaty compliance. Each category contains subcategories which take operational considerations and impact into account. The re-prioritisation of clearance tasks was planned to start in 2021 based on the new system and corresponding criteria. LMAC will adopt a district-by-district prioritisation approach. Large districts may also be subdivided into sub-districts depending on size. Updated information from the completed non-technical re-survey of CMR tasks is being used to update IMSMA and for prioritisation of the remaining CMR tasks.

Table 2: Planned CMR clearance and capacity (2021–25)

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<tr>
<th>Year</th>
<th>2021</th>
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<tr>
<td>Cleared (km²)</td>
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<td>1.9</td>
<td>1.9</td>
<td>1.5</td>
<td>1.5</td>
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<tr>
<td>Teams</td>
<td>26</td>
<td>26</td>
<td>26</td>
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LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010. In 2017, LMAC revised and harmonised national standards with IMAS, adding new modules not present in the original standards. The revised NMAS, formally approved in March 2018 and made effective from 1 January 2019, have a solid focus on land release and evidence-based decision-making, in line with the IMAS, and based on recommendations and analysis of operational data. Notable enhancements in relation to battle area clearance (BAC) included reduction of the required clearance depth of CMR from 20cm to 15cm and changes to fade-out distances.

Further updates were made to the NMAS in late 2019 and a full review of the standards was completed at the beginning of 2020 and released to implementing partners in July 2020. These included the introduction of a new NMAS on Risk Assessment, and a new standard on improvised explosive device (IED) Disposal (IEDD), which were adopted in March 2020. With regard to technical survey, the NMAS no longer specifies a minimum percentage of area over which technical survey must be conducted, which permits LMAC to reduce technical survey when appropriate, especially on the Blue Line minefields and for CMR. The NMAS also allows for areas under full clearance to be reduced (or in part reduced), based on information gathered during clearance, as well as for the original task boundaries to be changed based on experience during clearance. Changes were also made to the NMAS on demolitions.

Of particular significance, the NMAS now allow technical survey to be used for CMR tasks. In the last couple of years, LMAC has increasingly relied on non-technical and technical survey to more accurately define the presence of an explosive threat (or confirm its absence). Historically, clearance tasks assigned to operators by LMAC were typically deemed to already reflect non-technical survey data, and LMAC did not formally permit operators to conduct additional survey on assigned tasks prior to clearance. In November 2020, LMAC completed re-survey all CMR tasks in order to have a clearer estimation of the remaining contamination for Article 4 planning. LMAC has also agreed with the NGO operators the option for each to have a non-technical survey team to re-survey each new task prior to starting clearance.

Operators now have an opportunity to discuss specific land release considerations with LMAC for assigned clearance tasks, which arise during the pre-clearance assessment stage of operations. Such discussions might result in the refining of the task size or approved land release specifications (e.g. use of technical survey, for all or part of the task, rather than full clearance).

As the use of EDDs for technical survey requires special operating conditions (temperature, wind speeds, levels of vegetation etc.), manual technical survey will also be applied on a case-by-case basis. Each decision over the percentage and type of technical survey has to be approved by the operations section head in LMAC.

At present, however, technical and non-technical survey activities are still not a routine part of the toolbox for all NGO operators for the release of cluster munition tasks. Instead non-technical survey is assigned by LMAC, and a decision on the need for technical survey is based on the recommendations resulting from the results of non-technical survey. NGOs can also request permission from LMAC to conduct non-technical survey and technical survey. International NGOs see collaboration between LMAC and clearance operators on application of evidence-based non-technical survey and technical survey, where needed, as being essential to targeted clearance.

Participants at the Mine Action Forum meeting on 22 January 2021 agreed on the need to strengthen the use of technical survey and analyse existing methods and tools to identify areas for potential improvement in operational efficiency. As at May 2021, further updates to the NMAS on technical survey, battle area clearance, and minefield clearance were discussed in the TWG in 2021, shared with operators for feedback, and subsequently adopted by LMAC. LMAC has requested that operators review their SOPs in conformity with the changes made.

An external international consultant was contracted by LMAC in 2020, with UNDP’s support and EU funding, to conduct a study on operational efficiency. The outcomes of the study recommended that there should be a comprehensive and in-depth harmonised understanding of, and training on, land release across stakeholders, with an emphasis on the importance of the use of evidence-based technical survey before moving into clearance. Training was subsequently conducted in April 2021. National land release standards should be revised accordingly. In addition, the study also recommended the use of technical survey for fade-out in many instances, as the current system stipulates clearance of areas that are most likely free of CMR. Other recommendations included allowing a more flexible marking system based on the NMAS; extending the time slot for demolitions; and improving and expanding the role of animal detection systems (ADS). The study also reportedly noted that the NMAS generally places heavy limitations on how mine action operators are able to operate and that this drastically affects efficiency. This was particularly evident in the north east operations where full clearance activities have to be undertaken although more appropriate methods of land release could be used.

Based on the conclusions and recommendations of the study, LMAC said it would update the CMR methodology and rely more on technical survey. A final review of the recommendations made by LMAC’s contracted consultant and proposed by mine action operators was scheduled for January 2021, but as at time of writing had been postponed due to COVID-19. LMAC planned to test the recommendations of the operational efficiency study in 2021 and apply them across the whole sector. As at June 2021, LMAC had updated its strategic implementation plan to reflect the increased focus on technical survey.

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MAG noted that the metal-free concept demands all metal to be removed, regardless of the size, which reduces productivity and increases the disciplinary actions. MAG resolved this issue through deploying new Vallon software that discriminates a large percentage of metal contamination and reduces the time taken to excavate scrap metal on BAC tasks. MAG also noted that excessive marking reduces productivity and increases the cost. It presented and demonstrated to LMAC a new marking system for the BAC tasks, which was positively received. Finally, MAG believes that fade-out should be divided between the part that requires mandatory full clearance and the part that can be released by technical survey. The possibility of employing technical survey to reduce the amount of fade-out area requiring full clearance, was discussed between operators and LMAC in early 2021. The NMAS have been amended accordingly and LMAC reported that this approach is now being applied.

**OPERATORS AND OPERATIONAL TOOLS**

In 2020, CMR clearance was conducted by international operators DCA, MAG, and NPA; and national operators POD and LAMINDA. The Engineering Regiment of the LAF also conducted CMR clearance in 2020.

The LAF Engineering Regiment has two BAC teams. A further three Engineering Regiment companies conduct rapid response call-outs. In addition, each deployed Combat brigade company has its own combat engineering company which can also conduct rapid-response call-outs. The LAF has seven MDD teams for technical survey and for use as a secondary asset supporting clearance, but none of these is used for CMR. Through the Engineering Regiment, LMAC provides mechanical assistance to clearance operators that lack this capacity. In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fade-out); in areas where manual clearance is difficult; and for technical survey and low threat hazardous area (LTHA). Often, however, the terrain is not suitable for machines.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Manual teams</th>
<th>Total clearance personnel*</th>
<th>Dogs and handlers</th>
<th>Machines**</th>
<th>Comments***</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA</td>
<td>3</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>Combined mine and BAC capacity.</td>
</tr>
<tr>
<td>LAMINDA</td>
<td>1</td>
<td>N/K</td>
<td>N/K</td>
<td>N/K</td>
<td>LAMINDA ceased land release operations in Lebanon in August 2020.</td>
</tr>
<tr>
<td>MAG</td>
<td>7</td>
<td>65</td>
<td>0</td>
<td>12</td>
<td>This represents six full teams and one smaller team. MAG reported MAG as having 12 manual CMR clearance teams, most likely splitting the 6 large teams into sub-teams.</td>
</tr>
<tr>
<td>NPA</td>
<td>8</td>
<td>44</td>
<td>0</td>
<td>0</td>
<td>LMAC reported NPA as having 5 manual CMR clearance teams.</td>
</tr>
<tr>
<td>POD</td>
<td>5</td>
<td>N/K</td>
<td>N/K</td>
<td>N/K</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>23</td>
<td>133</td>
<td>0</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

* Clearance personnel may also conduct technical survey. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on technical survey tasks.

DCA’s clearance capacity was a decrease on the previous year, due to a reduction in funding. DCA did not expect any significant changes to its clearance capacity in 2021.

National operator LAMINDA, unfortunately ceased survey and clearance operations in Lebanon in August 2020, due to the economic situation in Lebanon and the inability to fund overhead expenses.

MAG increased its 2020 BAC capacity by two teams (20 deminers), as a result of an increase to the donor base in north-east Lebanon. However, MAG’s EU grant ended on 31 January 2021, resulting in a reduction of one multi-task team in the north-east, and MAG’s FCDO grant ended on 31 March 2021, reducing capacity by 2.5 teams in the South. Likewise, due to large and abrupt funding cuts at the start of 2021 (UK Foreign, Commonwealth & Development Office (FCDO), EU, and United States (US)) and depending on the success of new fund applications, major changes were expected in the number of NPA personnel in Lebanon 2021. NPA will no longer operate its base in north-east Lebanon as a result of these funding cuts, and as at June 2021, NPA had lost 51 operations staff due to the funding losses.

With respect to non-technical survey capacity, in 2020, there were five non-technical survey teams deployed for both mines and CMR: MAG had two teams (totalling four personnel); Humanity and Inclusion (HI) had one person team; MAG had one team of two personnel; and NPA had one team of four personnel.

With respect to technical survey, NPA had one technical survey (EDD) team comprising two EDDs and two dog handlers, and two manual technical surveyor personnel. However, the EDD team was stood down at the end of May 2021 due to lack of funding. NPA hoped to redeploy the team, subject to securing funding. NPA’s technical survey team had been being tasked by the RMAC as follow-up to previous non-technical survey, to confirm CMR contamination prior to areas being tasked for clearance. However, not all areas undergo technical survey before being tasked by LMAC for clearance. In all other instances, NGO clearance personnel conduct technical survey as and when required.
NPA has moved to a multi-task approach, with all deminers, team leaders, and team supervisors trained to address all explosive ordnance types in Lebanon, which has enabled NPA to respond to changing priorities and operational constraints. This has been helpful in mitigating the impact of COVID-19 disruptions, such as reassigning deminers between mine and CMR tasks in the event the site supervisor tests positive for COVID-19.\(^\text{152}\)

As part of non-technical survey on the north-east border of Lebanon, contaminated during spill-over of the Syrian conflict in 2014–17, drones were used for the first time, and proved very helpful in helping inform survey efforts.\(^\text{153}\)

**LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE**

**LAND RELEASE OUTPUTS IN 2020**

A total of 1.6km\(^2\) of CMR-contaminated area was released in 2020, of which almost 1.28km\(^2\) was cleared, almost 0.04km\(^2\) was reduced through technical survey, and almost 0.29km\(^2\) was cancelled through non-technical survey.\(^\text{154}\)

In addition, over 0.7km\(^2\) of new CMR contamination was added to the database in 2020, predominantly in north-east Lebanon.\(^\text{155}\)

**SURVEY IN 2020**

<table>
<thead>
<tr>
<th>Province</th>
<th>Operator</th>
<th>Area cancelled (m(^2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bekaa</td>
<td>LMAC</td>
<td>67,012</td>
</tr>
<tr>
<td>South of Lebanon</td>
<td>LMAC, MAG, and NPA</td>
<td>219,431</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>286,443</strong></td>
</tr>
</tbody>
</table>

In 2020, almost 0.29km\(^2\) was cancelled through non-technical survey (see Table 4) and a further 0.04km\(^2\) was reduced through technical survey (see Table 5).\(^\text{157}\)

Non-technical survey output in 2020 marked a decrease compared in 2019, when almost 1.90km\(^2\) was cancelled through non-technical survey as part of efforts to complete re-survey of all CMR tasks.\(^\text{159}\) Technical survey output in 2020 was also a decrease on the 0.12km\(^2\) reduced through technical survey in 2019.\(^\text{159}\)

NPA cancelled significantly more area in 2020 compared to the one non-technical task the previous year. This was because an ‘official’ NPA non-technical survey team was trained in late 2019 and began receiving non-technical survey tasking from LMAC in 2020. The amount of cluster munition-contaminated area reduced and cleared by NPA in 2020 was similar to the previous year, despite the impact of COVID-19 lockdowns. This was due to NPA being deployed to several tasks suitable for the use of large-loop detectors, which was not the case in 2019.\(^\text{145}\) NPA continued to use EDDs for technical survey of CMR tasks in 2020 and the start of 2021, but this requires special conditions (e.g. wind speeds, temperature, vegetation levels), and while it helps to reduce some areas where no evidence of CMR is found, output is relatively low.\(^\text{151}\) As at end of May the EDDs had been stood down, due to lack of funding.\(^\text{162}\)

In addition, 0.7km\(^2\) of previously unrecorded CMR contamination was added to the database (608,748m\(^2\) in Bekaa, mostly in the north-east, 60,000m\(^2\) in Mount Lebanon, and 37,996m\(^2\) in South Lebanon).\(^\text{163}\)

<table>
<thead>
<tr>
<th>Province</th>
<th>Operator</th>
<th>Area reduced (m(^2))</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Lebanon</td>
<td>NPA (EDD team)</td>
<td>35,209</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>35,209</strong></td>
</tr>
</tbody>
</table>

**CLEARANCE IN 2020**

Lebanon reported clearing almost 1.28km\(^2\) of CMR-contaminated land in 2020, destroying in the process 2,098 submunitions (see Tables 6 and 7).\(^\text{165}\) This includes 339 submunitions destroyed during rapid response/EOD spot tasks.\(^\text{164}\)

Clearance during the year was a slight increase on the 1.26km\(^2\) of CMR-contaminated land cleared in 2019.\(^\text{149}\)

In 2020, LMAC said that on average NGOs lost 46 working days because of the impact of the COVID-19 pandemic, compared to the 2020 implementation plan.\(^\text{164}\) DCA said COVID-19 impacted its land release operations and resulted in 33 working days (across mine and CMR operations) being lost in 2020.\(^\text{169}\) According to MAG, the 42 working days it lost due to COVID-19 related lockdown periods and curfew, were the equivalent of around 150,000m\(^2\) of land release.\(^\text{170}\) NPA reported 40 operational days lost due to COVID-19 related lockdowns and said that operational capacity was often further reduced due to individual staff contracting COVID-19 and needing to isolate.\(^\text{171}\)

As in the previous year, roadblocks due to civil unrest also prevented teams from getting to their site on some days.\(^\text{172}\) DCA, MAG, and NPA reported that the political unrest did not, however, impact their CMR operations in 2020.\(^\text{273}\)
STATES PARTIES
LEBANON

Table 6: CMR clearance by region in 2020

<table>
<thead>
<tr>
<th>Province</th>
<th>Area cleared (m²)</th>
<th>Submunitions destroyed*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bekaa</td>
<td>761,439</td>
<td></td>
</tr>
<tr>
<td>Mount Lebanon</td>
<td>116,699</td>
<td></td>
</tr>
<tr>
<td>South of Lebanon</td>
<td>399,625</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,277,763</strong></td>
<td><strong>2,098</strong></td>
</tr>
</tbody>
</table>

* Figures include items destroyed during technical survey and EOD spot tasks.

Table 7: CMR clearance in 2020 by implementing agency

<table>
<thead>
<tr>
<th>Operator</th>
<th>Area cleared (m²)</th>
<th>Submunitions destroyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA</td>
<td>118,071</td>
<td>260</td>
</tr>
<tr>
<td>LAF</td>
<td>90,555</td>
<td>34</td>
</tr>
<tr>
<td>LAMINDA</td>
<td>18,305</td>
<td>11</td>
</tr>
<tr>
<td>MAG</td>
<td>793,666</td>
<td>127</td>
</tr>
<tr>
<td>NPA</td>
<td>140,640</td>
<td>845</td>
</tr>
<tr>
<td>POD</td>
<td>116,526</td>
<td>482</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,277,763</strong></td>
<td><strong>1,759</strong>*</td>
</tr>
</tbody>
</table>

* Figures include items destroyed during technical survey but not EOD spot tasks.

A further 339 submunitions were destroyed during spot tasks in 2020.175

DCA’s clearance output significantly decreased in 2020, compared to the previous year, due to a reduction in funding and also loss of 33 working days due to COVID-19. DCA reported that all its CMR-clearance tasks in 2020 contained submunitions.177

MAG’s clearance in 2020 was an increase on the previous year, due to increased capacity in north-east Lebanon.178 But clearance included four CMR tasks in Mount Lebanon, Jezzine, Nabatiyeh, and Rass Baalbek in 2020, totalling 417,829m², which proved to contain no cluster munition remnants.179

NPA reported releasing five cluster munition clearance tasks on confirmed hazardous areas in 2020 which did not contain CMR, totalling 44,732m². NPA did not conduct technical survey in any of the five tasks prior to starting clearance. The decision on whether technical survey is conducted in advance of clearance, is taken by LMAC/RMAC.180

Technical survey, prior to clearance, would help prevent the unnecessary clearance of uncontaminated areas. As at May 2020, technical survey of BAC tasks was not in the NMAS, but under discussion with LMAC.181

ARTICLE 4 DEADLINE AND COMPLIANCE

CCM ENTRY INTO FORCE FOR LEBANON: 1 MAY 2011

ORIGINAL ARTICLE 4 DEADLINE: 1 MAY 2021

FIRST EXTENDED DEADLINE (FIVE-YEAR EXTENSION GRANTED): 1 MAY 2026

UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

Under Article 4 of the CCM, Lebanon is required to destroy all CMR in areas under its jurisdiction or control as soon as possible, but not later than 1 May 2026, having been granted a five-year extension (the maximum that can be requested per extension request under the CCM). It is unclear whether Lebanon will meet the extended deadline, based on current CMR clearance capacity and national and international funding pressures. However, there is the potential for improvements in operational efficiency through increased use of technical survey, which if applied, will help increase annual land release output.

The decision on Lebanon’s extension request was due to be formally adopted during the Part 2 of the Review Conference, planned to take place in a hybrid format in February 2021. However, Part 2 of the Review Conference was postponed, due to COVID-19 restrictions preventing a hybrid meeting in Switzerland, and Lebanon’s request to extend its Article 4 deadline was instead granted by States Parties through a silence procedure in April 2021.182

Clearance of CMR-contaminated land had been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.183 However, meeting this target was contingent on securing the number of BAC teams needed, which did not happen, and progress against the strategy fell well behind schedule.184 Progress was also hindered by the historical lack of non-technical survey and technical survey, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land.

LMAC aims to complete clearance by the end of 2025, in line with objective 4 of Lebanon’s Mine Action Strategy 2020–25.185 This is, however, contingent on LMAC securing the same level of international funding it has received over the last three years and on the government of Lebanon contributing the envisaged US$3 million of annual national clearance funding for the first three years of the extension period. The extension request also assumes that there will be no additional contamination; that the political and security situation in Lebanon will remain stable; and that operations will not be affected by that or other factors.186

However, due to continued political and economic unrest, as well as the COVID-19 pandemic, Lebanon did not contribute any national funding to CMR clearance in 2020. Furthermore, the FCDO ceased its mine action funding to Lebanon at the end of 2020, which represents a US$2 million (29%) drop in total funding.187 These funding shortfalls significantly affect LMAC’s ability to meet the annual targets, and 2025 deadline, which assume the same clearance average as the last three years and provision of national funding for additional CMR clearance capacity.
In addition to the challenge of maintaining funding for CMR clearance and securing funding for additional capacity in order to meet the newly granted deadline of 1 May 2026, LMAC also lists other challenges in Article 4 implementation, including: discovery of new unreported contaminated areas, and the impact of working in difficult terrains and extreme weather conditions which is slowing down clearance in some regions. Furthermore, LMAC reported that donors mostly look to fund clearance of high-impact sites, whereas many of the remaining CMR tasks are viewed as moderate or low impact.

The economic and political crises have led to hyper-inflation, currency collapse, and problems with already strict and reducing budgets. This has resulted in supplies being more expensive; fuel less readily available; and protests and roadblocks hampering the security situation. The impact of the economic and political crises have led to hyper-inflation, currency collapse, and problems with already strict and reducing budgets. This has resulted in supplies being more expensive; fuel less readily available; and protests and roadblocks hampering the security situation. The impact of this is particularly challenging in respect to funding from some donors which no not fund the full cost of operations.

In order to meet its international commitment, Lebanon has recognised it must maintain international interest in CMR clearance; secure necessary funds as stated in the extension request plan (US$6.6 million per year) to achieve the final goal; and develop a study to tackle the difficult terrain release. With national capacity (LAF teams) only, LMAC has calculated that it would take until 2048 to reach Article 4 completion. LMAC will, with the support of UNDP, develop a fundraising strategy.

Given the challenges Lebanon already faces in implementation of Article 4, it is essential that LMAC continues to make progress to increase operational efficiencies and it is therefore positive that LMAC commissioned an external study of operational efficiencies. Technical survey and non-technical survey activities should become a routine part of the toolbox for all operators for the release of cluster munition tasks. Lebanon has cleared approximately 7km² of cluster munition-contaminated area in the last five years (see Table 8). In its 2020 Article 4 extension request, Lebanon used the same average clearance rates as in previous three years, despite the fact that new methodologies should increase this average. This is intended to compensate for the difficult terrain in many of the remaining area, which will slow down the rate of clearance.

A significant challenge in Lebanon’s remaining Article 4 implementation, is posed by “difficult terrain” such as deep and very steep canyons and cliffs where survey and clearance are almost impossible to conduct using current methods and assets and represent additional risk to searchers and medical evacuation. LMAC recognises that suspected or confirmed cluster munition-contaminated areas on difficult terrain need to be released in order to comply with its Article 4 obligations.

According to LMAC, there are two types of scenarios related to the challenge of difficult areas, which may require different approaches from an Article 4 compliance perspective: i) CHAs in which all known CMR contamination has already been cleared, but where part of the normal 50 metre fade-out falls within an area of difficult terrain; and ii) CHAs or suspected hazardous areas (SHAs) located within difficult terrain, given the footprint of known cluster munition strikes.

In relation to the first scenario, LMAC considers that in cases where its quality management procedures can determine, with confidence, that all evidence of CMR contamination has been identified and removed, then the deployment of additional clearance assets into inaccessible areas where no evidence of contamination exists may be unnecessary. Regarding the second scenario, where the footprint of the cluster munition strike covers part of a difficult terrain, this is registered in the database as CHA and requires clearance.

In partnership with the GICHD, a study was started in November 2020 to find a solution on how to address this terrain and satisfy the requirements of the CCM. However, due to the COVID-19 pandemic, the GICHD representative had still not been able to visit Lebanon as at March 2021, but held visits were planned for 2021. Field visits together with GICHD are required in order to better assess the sites, the conditions, and determine the best solution.

In 2020, LMAC said 46 working days were lost because of the impact of the COVID-19 pandemic. The COVID-19 pandemic impacted the whole of Lebanon’s mine action programme and all operations were suspended from 12 March 2020 for more than two months. After the relaxation of general mobilisation measures by the government of Lebanon, a TWG meeting was held and the phases for restarting operations and necessary safety measures relating to COVID-19 were developed and adopted. Operations resumed in early May 2020, under the new guidelines and safety measures, and as at July 2020 NGO clearance operators were fully operational. Furthermore, each new positive COVID-19 case resulted in colleagues from their clearance team needing to self-isolate, further impacting operational output.

### Table 8: Five-year summary of CMR clearance

<table>
<thead>
<tr>
<th>Year</th>
<th>Area cleared (km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>1.28</td>
</tr>
<tr>
<td>2019</td>
<td>1.26</td>
</tr>
<tr>
<td>2018</td>
<td>1.15</td>
</tr>
<tr>
<td>2017</td>
<td>1.41</td>
</tr>
<tr>
<td>2016</td>
<td>1.90</td>
</tr>
<tr>
<td>Total</td>
<td>7.00</td>
</tr>
</tbody>
</table>

* In addition, a further 99,641m² of re-clearance was conducted.
PLANNING FOR RESIDUAL RISK AFTER COMPLETION

According to LMAC, a tolerable level of residual risk will remain, as areas not previously identified as containing CMR may be found in the future. LMAC appreciates the importance of the need to start the process to build a sustainable national mine action capacity that can deal with the residual contamination found after fulfilment of Article 4.

LMAC plans to ensure a smooth transition to a fully sustainable and nationally owned, managed, and executed humanitarian mine action programme. With regard to CMR, between 2021 and 2025, Lebanon plans to: determine an end state and elaborate an exit strategy; establish a sustainable structure capable of addressing remaining contamination (including the residual challenge); develop a transition plan; obtain national funding for the sustainable structures identified; establish new structures (if required); and capacity build the new structures, with support from international actors. LMAC planned to share the draft exit strategy with partners in 2021, for collective discussion in a workshop. It emphasised the importance of the exit strategy being viewed a living document, which will need to be regularly discussed and updated, according to the situational context and evolution of the programme.202

1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 15 March 2021.
2 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
3 Email from Lt.-Col. Fadi Wazen, LMAC, 18 May 2020. Mines Advisory Group (MAG) reported adding 292,069m² of CMR contamination to the database, through survey in Rass Baalbak in north-east Lebanon (email from Sylvain Lefort, Country Director, MAG, 24 March 2021). Norwegian People’s Aid (NPA) surveyed nine locations where LAF personnel had previously destroyed items in Arsal in north-east Lebanon, creating a fade-out for each item, totalling 85,812m² (email from Hala Amhaz, Mine Action Programme Officer, NPA, 15 March 2021).
4 Article 7 Report (covering 2020), Form F.
7 Ibid., p. 9.
9 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.
10 Email from Valerie Warrington, Programme Manager, NPA, 28 May 2020.
11 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
14 Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.
17 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and Article 7 Report (covering 2019), Form F.
18 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakh, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.
21 Ibid., p. 23.
22 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.
25 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
Email from Matthew Benson, DCA, 24 May 2021.


Email from Sylvain Lefort, MAG, 24 March 2021.

Emails from Hala Amhaz, NPA, 15 March 2021 and Valerie Warmington, NPA, 2 June 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

Ibid. 

Email from Sylvain Lefort, MAG, 24 March 2021. LMAC reported MAG as having three non-technical survey teams. Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and Hala Amhaz, NPA, 15 March 2021.

Ibid. LMAC reported NPA had three technical survey personnel, whereas NPA reported it had four technical survey personnel in 2020.

Emails from Emile Olivier, NPA, 19 March 2019; and Valerie Warmington, NPA, 2 June 2021.

Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and Sylvain Lefort, MAG, 24 March 2021.

Email from Hala Amhaz, NPA, 15 March 2021.

Presentation by Lt.-Col. Fadi Wazen, LMAC, at the Regional School for Humanitarian Demining in Lebanon (RHDLS), Beirut, 8 April 2019.


Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

LMAC, "Annual Report 2020", pp. 11 and 15; Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. MAG reported that it cancelled 34,839m² in Nabatiyeh. Email from Sylvain Lefort, MAG, 24 March 2021. NPA reported that it cancelled 105,859m² in 2020, in Al-Baqaa, South Lebanon, and Nabatiyeh. Email from Hala Amhaz, NPA, 15 March 2021.

Ibid. 


Ibid.

Emails from Hala Amhaz, NPA, 15 March 2021 and Valerie Warmington, NPA, 2 June 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2020.

Email from Valerie Warmington, NPA, 2 June 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. Of this, MAG reported adding 292,069m² of CMR contamination to the database, through survey in Ras Baabek in north-east Lebanon. Email from Sylvain Lefort, MAG, 24 March 2021. NPA surveyed nine locations where LAF personnel had previously destroyed items in Arsal in north-east Lebanon, creating a fade-out for each item, totaling 85,812m². Email from Hala Amhaz, NPA, 15 March 2021.

LMAC, "Annual Report 2020", pp. 10 and 15; Article 7 Report (covering 2020), Form E; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021 and Hala Amhaz, NPA, 15 March 2021. In addition, DCA reported reducing 95,776m² in Aley District, Mount Lebanon (email from Matthew Benson, DCA, 24 May 2021) and MAG reported reducing 4,900m² in Nabatiyeh/Ksour (email from Sylvain Lefort, MAG, 24 March 2021). The differences between LMAC and operator data may be due to LMAC only reporting land release after full completion and hand over.

Article 7 Report (covering 2020), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.


Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March and 15 June 2021.

Email from Matthew Benson, DCA, 24 May 2021.

Email from Sylvain Lefort, MAG, 24 March 2021.

Email from Hala Amhaz, NPA, 15 March 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

Emails from Matthew Benson, DCA, 24 May 2021; Sylvain Lefort, MAG, 24 March 2021; and Hala Amhaz, NPA, 15 March 2021.

Article 7 Report (covering 2020), Form E; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

LMAC, "Annual Report 2020", pp. 8, 9, and 15; and email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and email from Matthew Benson, DCA, 4 June 2021. MAG reported clearing the same number of submunitions, but a slightly higher amount of CMR-contaminated area (803,089m²) in 2020 (email from Sylvain Lefort, MAG, 24 March 2021). NPA reported clearing 139,288m² of cluster munition contaminated areas, with the discovery of 838 submunitions. All ERW found and marked by NPA in Al-Baqaa are destroyed by the LMAC. Three submunitions marked by NPA were taken by RMAC for training purposes (email from Hala Amhaz, NPA, 15 March 2021).

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021. Of this, MAG reported clearing two submunitions during spot tasks in 2020 (email from Sylvain Lefort, MAG, 24 March 2021).

Email from Matthew Benson, DCA, 24 May 2021.

Email from Sylvain Lefort, MAG, 24 March 2021.

Ibid.

Email from Valerie Warmington, NPA, 2 May 2020.

Email from Sylvain Lefort, MAG, 27 May 2021.

Email from the CCM Secretariat to CCM States Parties, 23 April 2021.


Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 28 and 36.

Article 7 Report (covering 2020), Form I.

Ibid., Form F.

Expert workshop under the framework of supporting Lebanon in meeting its CCM Article 4 obligations, Beirut, 17 November 2016; and Article 7 Report (covering 2018), Form F.

Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.

Email from Matthew Benson, DCA, 24 May 2021.

Article 7 Report (covering 2020), Forms F and I.

2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.

Article 7 Report (covering 2020), Forms F and I.

Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 5.

2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40–42.

Ibid.

Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and GICHD, 14 May 2021.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.

Emails from Lt.-Col. Fadi Wazen, LMAC, 22 July 2022; Sylvain Lefort, MAG, 23 June 2020; and Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 22 June 2020.

Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021.