

ARTICLE 4 DEADLINE: 1 MAY 2021
DEADLINE EXTENSION REQUESTED TO 1 MAY 2026

KEY DATA

CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

9 KM²

SUBMUNITION CLEARANCE IN 2019

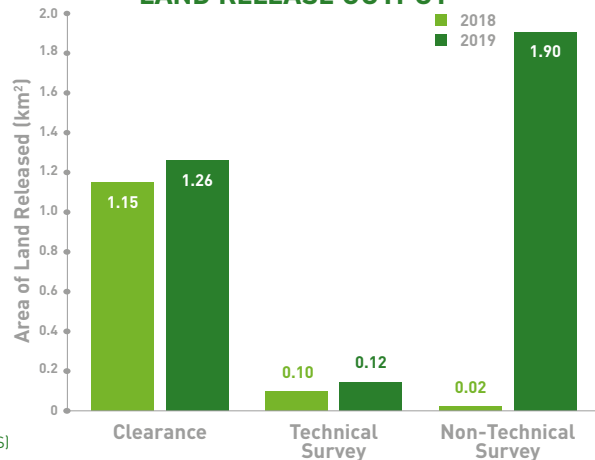
1.26 KM²

SUBMUNITIONS DESTROYED IN 2019

4,037

(INCLUDING 289 SUBMUNITIONS DESTROYED DURING SPOT TASKS)

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to make strong progress in releasing cluster munition-contaminated area in 2019. Lebanon has requested a five-year extension to its Convention on Cluster Munitions (CCM) Article 4 deadline, and in line with its new National Mine Action Strategy for 2020–25, is aiming to complete clearance of known cluster munition remnant (CMR) contamination by the end of 2025. As part of efforts to re-survey all cluster munition-contaminated areas by the end of 2020 to help inform Article 4 planning, LMAC cancelled 1.90km² in 2019.

RECOMMENDATIONS FOR ACTION

- LMAC should complete non-technical re-survey of all remaining cluster munition-contaminated areas, to help more accurately determine its baseline of contamination.
- Evidence-based non-technical and technical survey should routinely be used to confirm and identify the area of actual CMR contamination prior to clearance.
- The integration and consolidation of the LMAC and Regional Mine Action Centre (RMAC) databases and servers should be completed as soon as possible.
- LMAC should ensure consistent application of national mine action standards (NMAS) across the country with respect to metal detection requirements and the interpretation of metal-free.
- LMAC should determine how it plans to address CMR contamination in especially difficult terrain, such as deep canyons and very steep cliffs.

ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2019)	Score (2018)	Performance Commentary
UNDERSTANDING OF CMR CONTAMINATION (20% of overall score)	7	6	LMAC conducted a significant amount of non-technical survey in 2019, as part of efforts to complete re-survey of all CMR tasks by the end of 2020. This will further improve the accuracy of LMAC's estimate of CMR contamination, following its database review and readjustment of the CMR baseline in 2018. The baseline, however, still includes CHAs with an estimated standard size of 10,000m ² (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 fadeout.
NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT (10% of overall score)	9	9	LMAC continued to demonstrate effective programme management in 2019, maintaining biannual Mine Action Forum meetings as an effective mechanism in which to discuss challenges with, coordinate, and present progress in Article 4 implementation to all relevant stakeholders. It also held quarterly technical working groups (TWG) meetings. Regrettably, due to political and financial unrest in Lebanon, none of the 50 billion Lebanese Pounds (approximately US\$33 million) for CMR clearance over five years (2019–23), was allocated in 2019. However, the capacity of LMAC, which is nationally funded, was increased with the establishment of the RMAC in the north-east and to meet the increased demand for training courses.
GENDER AND DIVERSITY (10% of overall score)	7	7	LMAC has taken action 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.
INFORMATION MANAGEMENT AND REPORTING (10% of overall score)	7	7	During 2019, efforts continued to integrate RMAC's information management database with the LMAC server and to fully synchronise the two databases. LMAC is also in the process of migrating to Information Management System for Mine Action (IMSMA) Core and is checking and cleaning data as part of the process.
PLANNING AND TASKING (10% of overall score)	8	8	LMAC has a new National Mine Action Strategy for 2020–25. The new strategy, which was elaborated with support from the EU-funded UNDP project, in a participatory approach with all stakeholders, includes an objective to complete clearance of all known cluster munition-contaminated areas by the end of 2025.
LAND RELEASE SYSTEM (20% of overall score)	8	8	Revised NMAS adopted in 2018 became effective from the start of 2019. Further revisions to the standards were made in late 2019 to incorporate updates in IMAS related to improvised explosive device disposal (IEDD) and risk assessment. They include enhancements such as a reduction of the required clearance depth for CMR, improvements to the fadeout specifications, and, for the first time, use of technical survey for CMR tasks. Land release methodologies for CMR are now more efficient as a result of these changes. In addition, LMAC has increased its non-technical capacity and it now permits organisations to conduct non-technical survey of their tasks prior to initiating clearance.
LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE (20% of overall score)	7	6	In 2019, LMAC cancelled nearly 1.9km ² of cluster munition-contaminated area, as part of efforts to complete re-survey of CMR tasks by the end of 2020. This was significantly more cancellation than the previous year. Clearance output of more than 1.2km ² in 2019 was a modest increase on output in 2018, as remaining clearance tasks are increasingly occurring on more difficult terrain. Lebanon has submitted a request for a five-year extension to its Article 4 deadline to 1 May 2026, and plans to complete clearance by the end of 2025.
Average Score	7.5	7.1	Overall Programme Performance: GOOD

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Lebanon Mine Action Authority (LMAA)
- Lebanon Mine Action Center (LMAC)
- Regional Mine Action Centers (RMAC-N and RMAC-RB)

NATIONAL OPERATORS

- Lebanese Armed Forces (LAF)/Engineering Regiment (ER)
- Lebanese Association for Mine and Natural Disaster Action (LAMINDA)
- Peace Generation Organization for Demining (POD)

INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Mines Advisory Group (MAG)
- Norwegian People's Aid (NPA)

OTHER ACTORS

- Geneva International Centre for Humanitarian Demining (GICHD)
- United Nations Development Programme (UNDP)
- UN Interim Force in Lebanon (UNIFIL)
- United Nations Mine Action Service (UNMAS)

UNDERSTANDING OF CMR CONTAMINATION

At the end of 2019, Lebanon had 814 confirmed hazardous areas (CHAs) containing CMR covering a total area of almost 9km² (see Table 1).¹ This is a decrease in CMR contamination compared to the end of 2018, when 864 CHAs were confirmed to contain CMR, over a total area of more than 11.8km²,² and is mostly due to cancellation and clearance of CMR in 2019.

Table 1: Cluster munition-contaminated area by province (at end 2019)³

Province	CHAs	Area (m ²)
Beqaa	98	602,715
Janoub and Nabatiyeh (South)	657	8,016,896
Jabal Loubnan (Mount Lebanon)	57	322,370
Shimal (North)	2	20,000
Totals	814	8,961,981

In 2018, Lebanon reviewed its baseline of CMR contamination and changed the way it reflects clearance data. According to LMAC, a significant problem had been a difference in the way land release figures were recorded between the RMAC and LMAC. In many cases, actual clearance output of tasks is greater than the original task size recorded in the database, due to large fade-out requirements.⁴ 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.⁵

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, based on the fadeout distance for cluster munition clearance and LMAC's experience to date.⁶ 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.⁷ LMAC, however, believes that this is the best approach for this type of hazardous area and to be conservative in its Article 4 planning it has increased the size of these areas by 250% to factor in fadeout.⁸

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.⁹ 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).¹⁰

LMAC's recent efforts to adjust its database baseline to one that more accurately estimates total CMR contamination is a positive step, but the true size of these clearance tasks will vary and is hard to estimate without survey.¹¹ It is, therefore, also extremely positive that LMAC is re-surveying, through non-technical survey, all remaining CMR tasks, which it hoped to complete by the end of 2020.¹² In addition, technical survey will be required on tasks where the exact location of CMR contamination is not known and with a view to locating evidence points (i.e. submunitions), from where to start clearance.¹³

Previously, Mines Advisory Group (MAG) undertook a pre-clearance non-technical survey of 443 CMR clearance tasks between September 2013 and April 2014,¹⁴ which resulted in MAG recommending 96 tasks for cancellation, covering an estimated 2.8km².¹⁵ LMAC decided to cancel 51 of these, totalling an area of 1.7km².¹⁶ The remaining tasks now being cancelled, where appropriate, as part of the non-technical survey project in 2019 and 2020,¹⁷ and where required, are subject to technical survey to determine whether or not CMR contamination actually exists.¹⁸

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.¹⁹ An estimated one million submunitions failed to explode.²⁰ Some Israeli bombing data have been provided – most recently through UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.²¹ In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,²² 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 2014–17.²³ Types of submunitions found in Lebanon include A0-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.²⁴ Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.²⁵

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 2020* report on Lebanon for more information).

NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Established in 1998 by the Council of Ministers, the Lebanon Mine Action Authority (LMAA) is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. The LMAA has overall responsibility for Lebanon's mine action programme. 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.²⁶

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 Beqaa, under LMAC supervision.²⁷ 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.²⁸ 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 couple of years), which can hamper development and continuity in the management of the three mine action centres.²⁹ The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.³⁰ LMAC increased its capacity in 2019 with the establishment of RMAC-RB and to meet the increased demand for training courses.³¹

A new standing operating procedure (SOP), developed for LMAC in 2020, was reported to be in its final stage of approval as at March 2020. This SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help new LMAC staff and reduce the impact of staff rotations.³²

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, Information Management System for Mine Action (IMSMA) database entry, community liaison, and quality assurance (QA). In 2019, there was one team of six UNDP personnel supporting LMAC.³³

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,³⁴ was extended for the first six months of 2020. 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.³⁵ With regard to difficult terrain, the Geneva International Centre for Humanitarian Demining (GICHD) will also partner with LMAC on a study that was expected to start in the third quarter of 2020.³⁶

In addition, UNDP also mobilised funds for the first half of 2020 from the Norwegian Embassy, in order to: assist with the strengthening of national capacity to document and prioritise clearance operations in line with Mine Action Forum recommendations; 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.³⁷ LMAC will seek to extend UNDP's support beyond the second quarter of 2020.³⁸

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-ordinators 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.³⁹ 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.⁴⁰ 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.

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.⁴¹ LMAC also presented its Article 4 deadline Extension Request plan at the January 2020 Mine Action Forum meeting.⁴²

The Mine Action Forum in Lebanon has resulted in better coordination and greater transparency as well as on enhancements to land release methodology, enshrined in the revised NMAS. These measures have all served to strengthen donor confidence and mobilise additional resources.⁴³

There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken.⁴⁴ 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.⁴⁵

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, which meets quarterly, 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, identify issues, and suggest further NMAS revisions and potential ways to improve operational efficiencies.⁴⁶

As in the previous year, Lebanon reported contributing US\$9 million annually in 2019 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; and victim assistance.⁴⁷

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 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.⁴⁸ Unfortunately, due to political and financial unrest in Lebanon, the clearance contracts were not signed and none of pledged additional national funding was spent during 2019.⁴⁹ LMAC is expecting that an average

of US\$3 million national funding for CMR clearance will be allocated to CMR clearance yearly,⁵⁰ less than half of what had been previously pledged.

A Regional School for Humanitarian Demining in Lebanon (RSHDL) has been established in partnership between Lebanon and France, with technical mine action support provided by a French military officer, to support the development of the curriculum on explosive ordnance disposal (EOD, levels 1, 2, and 3) in compliance with IMAS.⁵¹ The Regional School became operational in 2017, enabling civilian and military personnel from Arab and other countries to benefit from an array of courses and workshops on demining.⁵² In 2019, it provided training to national, regional, and international participants, including courses on non-technical survey, EOD, operational efficiency, and gender and diversity.⁵³

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.⁵⁴

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.⁵⁵ 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.⁵⁶ 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.⁵⁷

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.⁵⁸ 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".⁵⁹ Gender and diversity considerations will be further detailed in LMAC's strategic implementation plan, which was being elaborated in the course of 2020, to support the new strategy.⁶⁰

Of LMAC's 157 personnel, 16 (10%) are female. The number of staff at LMAC is determined by the LAF headquarters but LMAC states that it consistently requests that the percentage of women be increased.⁶¹ With respect to operational roles, two women work for the operations section and one woman is a member of the non-technical survey team. With respect to managerial/supervisory level positions at LMAC, six women work in management and five in information technology (IT).⁶²

LAMINDA did not report the percentage of female deminers, but did report that women are employed in LAMINDA's clearance teams and that one female staff member is in a managerial position, as clearance team leader.⁶³

MAG, Norwegian People's Aid (NPA), and POD all reported having gender policies in place.⁶⁴

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 16% of operational roles in MAG's survey and clearance teams in Lebanon, and 28% of managerial level/supervisory positions.⁶⁵

NPA is in the process of developing an implementation plan for its organisational gender policy for Lebanon, based on recommendations from the GICHD. It reported making progress in encouraging more women to apply, resulting in a 5% increase in the proportion of women hired for operational roles. NPA planned to conduct training in gender equality, safeguarding, and code of conduct in 2020.⁶⁶ NPA reported that its survey and community liaison teams are gender balanced, and 20% of employees in operational roles in NPA's survey and clearance team in the south are women as are 32% in its Aarsal operations, which commenced in 2018. A total of 20% of NPA's managerial level/supervisory positions are held by women. NPA disaggregates data by sex and age.⁶⁷

Women and children are consulted during survey and community liaison activities.⁶⁸ 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.⁶⁹

INFORMATION MANAGEMENT AND REPORTING

During 2019, efforts continued to integrate RMAC's information management database with the LMAC server and to synchronise the two databases.⁷⁰ Harmonisation and consolidation of the LMAC and RMAC databases will enable IMSMA reports to be sent directly to LMAC for approval, improving the accuracy and efficiency of the process. The integration will also help better protect data while decreasing maintenance costs.⁷¹ As at March 2020, harmonisation of the two databases had been completed and servers installed to maintain the database, but LMAC was awaiting resolution of a technical issue to ensure the two servers are properly linked.⁷²

Furthermore, LMAC is 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.⁷³ As at March 2020, migration of data to IMSMA Core had begun, but the process takes time.⁷⁴ In the process of migration, LMAC has discovered some overlap between its records of Dangerous Areas and minefields. Non-technical survey teams are therefore checked these overlaps on the ground and the database clean-up was completed in July 2020.⁷⁵ LMAC personnel will receive GICHD training on IMSMA Core and LMAC planned to launch it by the end of 2020.⁷⁶

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.⁷⁷

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 land owner 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. There is a high probability that the sites will be cancelled during the 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.⁷⁸ According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m².⁷⁹

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.⁸⁰ However, NPA reported some initial confusion over terminology when reporting on the output of non-technical survey.⁸¹

According to LAMINDA, there are now daily reporting sheets for items and clearance.⁸² MAG started work on "survey123" in 2019, during which it reviewed data forms and data flow, in preparation for the launch of the project in the second half of 2020.⁸³

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁸⁴ 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.⁸⁵ One of the objectives of the new strategy is to complete clearance of all known cluster munition contaminated areas by the end of 2025.⁸⁶ 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.⁸⁷ LMAC is also elaborating 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. LMAC expected to complete the implementation plan in August 2020. LMAC also plans to develop annual plans.⁸⁸

Lebanon submitted a request to extend its Article 4 deadline, which will be considered by States Parties at the CCM Second Review Conference in November 2019. Clearance operators were consulted by LMAC on the extension request, including in a workshop prior to the request being elaborated.⁸⁹ Lebanon has requested a five-year extension to 1 May 2026, but aims to complete clearance by the end of 2025, in line with its new strategy.

LMAC planned to complete re-survey (non-technical) of all remaining CMR tasks by the end of 2020 and prior to the start of the new extension period (May 2021). It estimates that after cancellation of uncontaminated areas, approximately 8.7km² of CMR-contaminated area will require clearance (including technical survey, where appropriate). 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 adopted will increase this average, it also expects that any gain will be offset by the more difficult terrain of land which now remains to be cleared.⁹⁰

Table 2 outlines the predicted annual clearance output and capacity up to the end of 2025. Planned output takes into account fadeout and the possible increase in the area to be cleared in the 10,000m² sites, using a factor of 2.5.⁹¹ 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.

Table 2: Planned CMR clearance and capacity⁹²

Year	2021	2022	2023	2024	2025
Cleared m ²	1.9	1.9	1.9	1.5	1.5
Teams	26	26	26	21	21

Reprioritisation is needed, as most of the remaining tasks fall between priorities 2 and 3, and reprioritisation has not occurred for some time.⁹³ According to LMAC, increased urbanisation; clearance of the Blue Line; spill-over from Syria creating new contamination, including improvised explosive devices (IEDs); and the sudden increase in residents, have combined to result in a change to overall clearance priorities. LMAC plans to work with operators to develop an updated prioritisation approach, including focusing on the socio-economic impact of contamination.⁹⁴

LMAC will use updated information from the non-technical re-survey of CMR tasks to reprioritise tasks based on humanitarian and socio-economic impact.⁹⁵

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.⁹⁶ Adopting a consultative and constructive approach with its implementing partners, in 2017, LMAC initiated a project, supported by UNDP and other partners, funded by the EU, to revise and harmonise national standards with IMAS, as well as to add new modules not present in the original standards.⁹⁷ The revised NMAS, formally approved in March 2018, 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 changes to fadeout, and were made effective from 1 January 2019.

The minimum fade-out distance from any pertinent evidence point is agreed with LMAC, depending on the topography of the task. In the absence of an agreed fadeout, the default is a 50-metre radius from the last evidence point.⁹⁸ In addition, and of particular significance, the new NMAS now allow technical survey to be used for CMR tasks. In 2019, standards on the use of explosives detection dogs (EDDs) for technical survey were incorporated into IMAS, following a successful trial in 2018.⁹⁹ These changes to the NMAS should significantly improve the efficiency of CMR land release in Lebanon, potentially by as much as 30%, according to LMAC.¹⁰⁰

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.¹⁰¹ In the last couple of years, LMAC has increasingly begun to rely on non-technical survey and technical survey to more accurately define the presence or absence of an explosive threat.¹⁰² In 2019, extensive non-technical survey was conducted by LMAC, in addition to some non-technical survey by MAG, and LMAC aimed to have re-surveyed all CMR tasks by the end of 2020 in order to have a clearer estimation of the remaining contamination for Article 4 planning.¹⁰³

Results from non-technical survey will also help determine which tasks, on a case-by-case basis, are appropriate for technical survey (systematic or targeted).¹⁰⁴ 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.¹⁰⁵

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. As at March 2020, the NGOs had non-technical survey teams or were negotiating with donors to establish them,¹⁰⁶ and where necessary, clearance operators are now permitted to conduct non-technical survey prior to clearance operations.¹⁰⁷

Furthermore, 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).¹⁰⁸ 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.¹⁰⁹

Further updates made to Lebanon's NMAS in late 2019, which included the introduction of a new NMAS (07.14) on Risk Assessment and a new standard (09.31) on IED Disposal (IEDD), which were adopted in March 2020.¹¹⁰ 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.¹¹¹ 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 (09.31) on demolitions.¹¹² A continuous review of the national standards is executed based on field expertise and recommendations from implementing agencies and on updates of the IMAS.¹¹³

NPA noted that a more uniform approach is needed to the enforcement of NMAS across Lebanon, citing an example of LMAC QA teams issuing non-conformity reports when any metal is found subsequent to clearance, while the NMAS requires metal to be removed only if it is larger than the respective test-piece.¹¹⁴

NPA has found that there can also be a relatively large time lag between completion of clearance and final handover of land back to the community, an issue which, it believes, should be explored and addressed.¹¹⁵

OPERATORS AND OPERATIONAL TOOLS

In 2019, CMR clearance was conducted by international operators DCA, MAG, and NPA; and national operators POD and LAMINDA. Clearance capacity fluctuated throughout 2019, but totalled around 25 NGO clearance teams.¹¹⁶ In addition, the Engineering Regiment of the LAF also conducted CMR clearance in 2019.¹¹⁷

The LAF Engineering Regiment has two BAC teams and in addition, three of the Engineering Regiment and Combat Engineering companies cover rapid-response callouts across Lebanon.¹¹⁸ The LAF has seven MDD teams¹¹⁹ 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.¹²⁰ In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fadeout); in areas where manual clearance is difficult; and for technical survey and low threat hazardous area (LTHA).¹²¹ Often, however, the terrain is not suitable for machines.

Table 3: Operational CMR clearance capacities deployed in 2019¹²²

Operator	Manual teams	Total clearance personnel*	Dogs and handlers	Machines**	Comments***
DCA	3	N/K	0	0	
LAMINDA	3	24	0	0	
LAF/ER	2	16	0	1	
MAG	12	72	0	3	1 mechanical team
NPA	4	24	0	0	NPA does not deploy dogs for clearance, but does have 2 EDDs and 2 handlers deployed for technical survey
POD	4	44	0	0	
Totals	28	180	0	4	

* Clearance personnel may also conduct technical survey. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on technical survey tasks. N/K = not known.

With respect to non-technical survey capacity, in 2019, there were six non-technical survey teams:¹²³ LMAC had three teams,¹²⁴ MAG had two teams, with a total of four personnel;¹²⁵ and NPA had one team with three personnel.¹²⁶

With respect to technical survey, MAG has one team of five personnel¹²⁷ and NPA had one technical survey team of four personnel (including 2 EDD dog handlers and two manual searchers).¹²⁸ NPA's technical survey team is now fully integrated into NPA operations and is being tasked by the RMAC as follow-up to previous non-technical survey, to confirm CMR contamination prior to areas being tasked for clearance.¹²⁹ NPA reported that it was moving towards a multi-task approach to be able to respond to changing priorities and operational constraints.¹³⁰

NPA believes that EDDs could be beneficial in technical survey to help reduce areas containing low density ERW (including CMR) and IED contamination in north-east Lebanon, on the border with Syria.¹³¹ One of the advantages of using EDDs is that dogs detect explosives, not metal, which can help speed up the technical survey process by avoiding unnecessary excavation of the scrap-metal signals that are generated by manual detectors. In addition to NPA's technical survey with EDDs, MAG and NPA are both conducting manual technical survey.¹³²

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.¹³³

LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

LAND RELEASE OUTPUTS IN 2019

A total of nearly 3.3km² of CMR-contaminated area was released in 2019, of which nearly 1.3km² was cleared, over 0.1km² was reduced through technical survey, and nearly 1.9km² was cancelled through non-technical survey.¹³⁴

In addition, nearly 0.3km² of new CMR contamination was added to the database in 2019,¹³⁵ which was mainly discovered by shepherds in mountainous areas, resulting in rapid response tasks.¹³⁶

SURVEY IN 2019

In 2019, almost 1.90km² was cancelled through non-technical survey (see Table 4) and a further 0.12km² was reduced through technical survey (see Table 5). In addition, nearly 0.27km² was identified as being CMR-contaminated.¹³⁷

Non-technical survey output in 2019 marked a significant increase compared to 2018, when 20,314m² of newly suspected area in the Arsal region on the north-east border with Syria was cancelled through non-technical survey.¹³⁸ The increase in non-technical survey output in 2019 was the result of an increased emphasis on re-surveying CMR tasks, to help inform planning for Lebanon's 2020 Article 4 extension deadline request.¹³⁹

Of the total CMR contaminated area cancelled in 2019, 359,505m² was cancelled by MAG in the south of Lebanon and the remainder by LMAC non-technical survey teams.¹⁴⁰

Technical survey output in 2019 was broadly comparable to 2018, when 103,000m² was reduced through technical survey.¹⁴¹

NPA is using EDDs for technical survey of CMR tasks, but this requires special conditions (wind speeds, temperature, vegetation levels, etc.), and while it helps to reduce some areas where no evidence of CMR is found, output is relatively low.¹⁴² It reported days lost for technical survey due to harsh weather conditions in early 2019; the use of strong smelling pesticides on land preventing the EDD from operating effectively; and an injury to one of the dogs for an extended period in 2019. In 2019, NPA only deployed EDD for technical survey in south Lebanon, but it planned to expand their use to the north-east in 2020.¹⁴³

CLEARANCE IN 2019

Lebanon reported clearing more than 1.26km² of CMR-contaminated land in 2019, destroying in the process 4,037 submunitions (see Tables 6 and 7).¹⁴⁶ This includes 289 submunitions destroyed during rapid response/EOD spot tasks.¹⁴⁷ Clearance during the year was a modest increase over the 1.15km² of CMR-contaminated land cleared in 2018.¹⁴⁸ Clearance rates are influenced by the type of terrain and the depth of CMR, which in some locations is deeper than 15cm.¹⁴⁹ Additionally, there were 31 less working days in 2019, compared to 2018, because of the internal unrest.¹⁵⁰

According to LMAC, all cluster munition-contaminated areas cleared in 2019 were found to have CMR.¹⁵¹ MAG reported that it cleared one cluster munition-contaminated area task in the South and 11 in north-east Lebanon, in which no submunitions were found.¹⁵² LMAC clarified that all CMR tasks in the north-east are located where CMR had been destroyed by the LAF. In the south, CMR clearance tasks are also located where CMR have been found previously, including through LAF rapid response.¹⁵³

Table 6: CMR clearance by region in 2019¹⁵⁴

Province	Area cleared (m ²)	Submunitions destroyed*
Bekaa	517,264	
Mount Lebanon	50,535	
South of Lebanon	693,233	
Totals	1,261,032	4,037

* Figures include items destroyed during technical survey.

Table 7: CMR clearance in 2019 by implementing agency¹⁵⁵

Operator	Area cleared (m ²)	Submunitions destroyed*
DCA	98,721	1,515
LAF	11,160	159
LAMINDA	99,792	287
MAG	630,271	254
NPA	161,095	1,135
POD	259,993	687
Totals	1,261,032	4,037

* Figures include items destroyed during technical survey.

Table 4: Cancellation through non-technical survey in 2019¹⁴⁴

Province	Area cancelled (m ²)
Bekaa	880,154
Mount Lebanon	210,062
North	0
South of Lebanon	807,020
Total	1,897,236

Table 5: Reduction through technical survey in 2019¹⁴⁵

Operator	Area cleared (m ²)	Area reduced (m ²)
MAG	55,260	53,700
NPA	16,900	30,100
POD	7,710	35,290
Totals	79,870*	119,090

* Included in clearance table data.

Tables 6 and 7 include the destruction of 1 submunition by NPA and 129 by POD during spot tasks in 2019, and 159 submunitions destroyed by the LAF in rapid-response missions.¹⁵⁶

NPA reported a decrease in clearance, compared to 2019, due to the increased difficulty of tasks (thick vegetation, steep and rocky terrain, and high metal content), as well as 20 operational days lost (compared to 2018) due to poor weather and protests, including the blocking of roads to hospitals.¹⁵⁷

ARTICLE 4 DEADLINE AND COMPLIANCE



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 2021. Lebanon will not meet this deadline and submitted a request for a five-year extension for consideration at the Second CCM Review Conference in November 2020.

Originally, clearance of CMR-contaminated land had been expected to be completed by the end of 2016, in accordance with the 2011–20 national strategy.¹⁵⁸ 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.¹⁵⁹ 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 2020–25.¹⁶⁰ 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.¹⁶¹

Lebanon has cleared approximately 7.41km² of cluster munition-contaminated area in the last five years (see Table 8). In its 2020 Article 4 extension request, Lebanon is using 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.¹⁶²

Table 8: Five-year summary of CMR clearance

Year	Area cleared (km ²)
2019	1.26
2018	1.15
2017	1.41
2016	*1.90
2015	1.69
Total	7.41

* In addition, a further 99,641m² of re-clearance was conducted.

There is a concern that funding in some cases risks being diverted from BAC towards other objectives, such as mine clearance on the Blue Line, or clearance in the north-eastern border with Syria.¹⁶³ 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. LMAC is, however, encouraging donors to maintain funding to help it complete CMR clearance and its CCM Article 4 obligations.¹⁶⁴ With national capacity (LAF teams) only, LMAC calculated that it would take until 2048 to reach Article 4 completion.¹⁶⁵

A significant challenge in Lebanon's 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 MediEvac. 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.¹⁶⁶

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 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.¹⁶⁷ LMAC plans to undertake a study, in partnership with GICHD, to find a solution on how to address this terrain and satisfy the requirements of the CCM.¹⁶⁸

The COVID-19 pandemic impacted the whole of Lebanon's mine action programme and all operations were suspended from 12 March 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.¹⁶⁹

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 post Article 4 compliance. According to LMAC, the strategic implementation plan which will support the new National Mine Action Strategy 2020–25, will address an exit strategy and long-term risk management and capacity.¹⁷⁰

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- 134 Article 7 Report (covering 2019), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2019", p. 12.
- 135 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 136 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 137 Article 7 Report (covering 2019), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 138 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and David Willey, MAG, 7 March 2019; and Article 7 Report (covering 2018), Form F.
- 139 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 140 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Sylvain Lefort, MAG, 3 April 2020. MAG reported to have cancelled a total of 589,299m² in 2019 (566,074m² in South Lebanon and 23,225m² in Mount Lebanon).
- 141 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March and 2 September 2020; and LMAC, "Annual Report 2019", p. 12. LMAC clarified that land reduced through technical survey in 2019 was accidentally omitted in Lebanon's Article 7 Report (covering 2019), Form F.
- 142 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Email from David Willey, MAG, 7 March 2019; and Article 7 Report (covering 2018), Form F.
- 143 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 144 Email from Valerie Warmington, NPA, 28 May 2020.
- 145 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and Valerie Warmington, NPA, 28 August 2020. MAG reported reducing 26,849m² through technical survey in 2019: 7,000m² in Houla, South Lebanon; 14,349m² in Jezzine, South Lebanon; and Maidoun in West Bekaa. Email from Sylvain Lefort, MAG, 3 April 2020. LMAC reported that its statistics come from the daily, weekly, and monthly reporting of all implementing partners, with whom it also performs a weekly, monthly, quarterly, and yearly check before producing the annual report.
- 146 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", pp. 10 and 11.
- 147 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 148 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "2018 Annual Report Lebanon Mine Action Centre", pp. 10-11; and Article 7 Report (covering 2018), Form F.
- 149 Email from Lt.-Col. Fadi Wazen, LMAC, 31 May 2019.
- 150 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 151 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 152 Email from Sylvain Lefort, MAG, 3 April 2020.
- 153 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.
- 154 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", pp. 10 and 11.
- 155 Ibid. LAMINDA reported clearing 142,563m². Email from Ret. Brig. General Badwi El Sakkal, President, LAMINDA, 18 March 2020. MAG reported clearing 588,526m² in 2019 (81,258m² in South Lebanon; 337,438m² in West Bekaa; 14,479m² in Mount Lebanon; and 155,351m² in North (Rass Baalback). Email from Sylvain Lefort, MAG, 3 April 2020. NPA reported clearing 165,925m² in 2019 (113,510m² in Nabatiya; 50,240m² in El Jenoub; 2,175m² in Baalbek-Hermel) and destroying a total of 1,146 submunitions. The difference between LMAC's clearance data for NPA and NPA's own clearance data, is in part explained by a 2,655m² of re-clearance reported by NPA, but not reported as clearance by LMAC, to avoid double counting. The small difference in the number of submunitions reported, is due to 11 submunitions marked by NPA and destroyed by LAF, which were not included in LMAC data for NPA. Emails from Valerie Warmington, NPA, 28 May and 28 August 2020.
- 156 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020. NPA reported destroyed two submunitions in EOD spot tasks in 2019. Email from Valerie Warmington, NPA, 28 May 2020.
- 157 Email from Valerie Warmington, NPA, 28 May 2020.
- 158 LMAC, "Mid-term Review to Strategy 2011-2020, Milestone 2013", August 2014.
- 159 LMAC, "Lebanon Mine Action Strategy 2011-2020", September 2011.
- 160 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36; and LMAC, Lebanon Mine Action Strategy 2020-25, p. 4.
- 161 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 28 and 36.
- 162 Ibid., p. 5.
- 163 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.
- 164 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.
- 165 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.
- 166 Ibid; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40-42.
- 167 Ibid.
- 168 Ibid; and email from GICHD, 22 July 2020.
- 169 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.
- 170 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; LMAC, Lebanon Mine Action Strategy 2020-25, p. 4; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 29.