

KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) and its national and international partners continued to make progress in mine clearance in 2019, both in the far south near the Blue Line and in small, scattered mined areas in Mount Lebanon, as well as addressing more recent contamination along the border with Syria in the north. In a positive development, on 30 January 2020, the United Nations Interim Force In Lebanon (UNIFIL) and LMAC signed a memorandum of understanding (MoU) on demining, with UNIFIL planning to start survey and clearance for humanitarian purposes.

RECOMMENDATIONS FOR ACTION

- Lebanon should accede to the Anti-Personnel Mine Ban Convention (APMBC) as a matter of priority. Despite not yet being a State Party to the APMBC, Lebanon has obligations under international human rights law to clear landmines in areas under its jurisdiction or control as soon as possible.
- Wherever possible, evidence-based non-technical survey and technical survey should be used to more accurately define areas of actual mine contamination prior to initiating clearance.
- The integration and consolidation of the LMAC and Regional Mine Action Centre (RMAC) databases and servers should be completed as soon as possible.

UNDERSTANDING OF AP MINE CONTAMINATION

At the end of 2019, Lebanon had more than 18.65km² of confirmed mined area, including along the Blue Line, across 1,353 confirmed hazardous areas (CHAs) (see Table 1).¹ Three new CHAs of previously unrecorded anti-personnel mine contamination, totalling 8,714m², were added to the database in 2019.²

At the end of 2018, Lebanon reported more than 19.6km² of confirmed mined area across 1,399 CHAs.³

Table 1: Mined area by province (at end 2019)⁴

Province	CHAs	Area (m ²)*
Al Beqaa	51	969,733
Al Janoub and Al Nabatiyeh (south Lebanon)	985	7,927,166
Jabal Loubnan (Mount Lebanon)	272	9,501,128
Al Shimal (north Lebanon)	45	254,658
Totals	1,353	18,652,685

* Includes 474,904m² containing anti-personnel mines of an improvised nature at Jroud Aarsal.

In addition, "Dangerous Areas" totalling more than 13.3km² are suspected to contain scattered mines, booby-traps, or other explosive remnants of war (ERW) other than cluster munition remnants (CMR).⁵ The "Dangerous Areas" relate predominantly to rapid response or explosive ordnance disposal (EOD) spot tasks and are often the result of accidents having been reported to LMAC by the local community,⁶ for which further investigation/survey is required in order to confirm the existence, type, and extent of any contamination.⁷

Mines affect the north and south of the country, and the Mount Lebanon governorate in the middle, though most mined areas are in the south. The minefields in north Lebanon and Mount Lebanon are typically "militia" minefields (i.e. were laid without a pattern and for which minefield records and maps do not exist), and were laid by multiple actors during the civil war. The mined areas in the south are typically conventional minefields, laid according to a pattern and where the location of the mines is identified on minefield maps.⁸

Lebanon's mine problem is largely a legacy of 15 years of earlier civil conflict and Israeli invasions of south Lebanon (in 1978 and 1982) and subsequent occupations that ended in May 2000, and there is a small amount of new mine contamination in "Jroud Arsal" on the north-east border with Syria, resulting from spill-over of the Syrian conflict onto Lebanese territory in 2014–17.⁹ The Lebanese territory in question was fully regained by the Lebanese Armed Forces (LAF) in August 2017 and was assigned to LMAC for survey and clearance. Contamination also includes improvised explosive devices (IEDs), CMR, and other ERW.¹⁰

The LAF continue to play a major role in this northern region, as the number of rapid-response missions remains high. The increased number of returnees for economic purposes has led to more ERW being found.¹¹ Furthermore, in its annual report for 2019, LMAC noted that it has had to address the challenge posed by contamination from mines migrating from the north Syrian border, through floods and river beds, to new areas in Wadi Khaled and Wadi Nahle in the north.¹²

Lebanon is also contaminated with CMR and other ERW (see Mine Action Review's *Clearing Cluster Munition Remnants* report on Lebanon for further information).

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.¹³

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.¹⁴ 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.¹⁵ 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.¹⁶ The current director of LMAC started in March 2019, replacing his predecessor who had served as director for two years.¹⁷

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.¹⁸

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).¹⁹

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,²⁰ 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.²¹ With regard to difficult terrains, 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 2020.²² 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.²³ LMAC will seek to extend UNDP's support beyond the second quarter of 2020.²⁴

A "Mine Action Forum" has been established in Lebanon in close partnership between LMAC and Norway. 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.²⁵ Through the forum, the LMAA is "promoting a transparent and inclusive partnership with all HMA stakeholders".²⁶ The forum meets twice a year, with UNDP designated as the secretariat to follow up on action points and develop progress reports.²⁷ It is an example of what a "Country Coalition" under the Convention on Cluster Munitions (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 officers presented and discussed the new 2020–25 national mine action strategy, operational efficiencies, and a new explosive ordnance risk education (EORE) project.²⁸

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 National Mine Action Standards (NMAS). These measures have all served to strengthen donor confidence and mobilise additional resources.²⁹

There is good coordination and collaboration between LMAC/the RMAC and clearance operators, with the operators consulted before key decisions are taken.³⁰ International clearance operators reported that an enabling environment exists for mine action in Lebanon, with no obstacles regarding visas for international staff, approval of MoUs, or the importation of equipment.³¹

A technical working group (TWG) was established in March 2018, under the auspices of LMAC, 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, and potential ways to improve operational efficiencies.³²

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 submunitions; in addition to mechanical and mine detection dog (MDD) support); risk education; and victim assistance.³³

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 EOD disposal (EOD levels 1, 2, and 3) in compliance with the International Mine Action Standards (IMAS).³⁴ 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.³⁵ It now provides training to national, regional, and international participants, including courses on non-technical survey, explosive ordnance disposal (EOD), operational efficiency, and threat assessment and risk management.³⁶

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.³⁷

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.³⁸ In agreement with LMAC, the GICHD conducted a gender and diversity capacity assessment visit to Lebanon in July 2019. The aim of the assessment 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.³⁹ 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 across the mine action centre.⁴⁰

Lebanon's new National Mine Action Strategy 2020–25, signed by the LMAA in June 2020, includes considerations on gender and diversity.⁴¹ 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".⁴² 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.⁴³

Of LMAC's 157 personnel, 16 (10%) are female. The number of staff at LMAC is determined by the LAF headquarters, to whom LMAC always requests that the percentage of women is increased.⁴⁴ 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 IT.⁴⁵

Humanity and Inclusion (HI), Mines Advisory Group (MAG), and Norwegian People's Aid (NPA) all reported having gender policies in place in 2019.⁴⁶

HI disaggregates relevant mine action data by sex and age. HI also ensures that all population groups, including women and children, are consulted during its survey and community liaison activities. However, while 50% of HI managerial/supervisory positions are held by women, only 3% of its survey and clearance staff are female.⁴⁷

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.⁴⁸

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.⁴⁹

NPA is in the process of developing an implementation plan for its organisational gender policy for Lebanon, based on recommendations from the Geneva International Centre for Humanitarian Demining (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 2020.⁵⁰ 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 and 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.⁵¹

Both UNIFIL's Troop Contributing Countries (Cambodia and China) have female deminers and team leaders and in total there are seven women (5% of the total demining personnel).⁵²

Women and children are consulted during survey and community liaison activities.⁵³ According to LMAC, Lebanon's baseline of anti-personnel mine contamination has been established through inclusive consultation with women, girls, boys, and men, including, where relevant, minority groups.⁵⁴

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.⁵⁵ Harmonisation and consolidation of the LMAC and RMAC databases will enable IMSMA reports will 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.⁵⁶ 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.⁵⁷

Furthermore, LMAC is migrating from its current version of IMSMA (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.⁵⁸ As at March 2020, migration of data to IMSMA Core had begun, but the process requires regular IMSMA back-ups and corrections to data and therefore takes time.⁵⁹ In the process of migrating to IMSMA core, LMAC discovered some overlap between its records of Dangerous Areas and minefields. Non-technical survey teams therefore checked these overlaps on the ground and the database clean-up was completed in July 2020.⁶⁰ LMAC personnel will receive GICHD training on IMSMA Core and LMAC planned to launch it by the end of 2020.⁶¹

Some clearance tasks result in a clearance output in excess of the task size originally recorded in IMSMA, often due to fade-out. LMAC has reported that the system for database entry now more accurately reflects operational data.⁶² Now, any area cleared in excess of the original task size is no longer recorded as additional tasks in the database, but as "productivity".⁶³

Some of the information in the database may not be accurate. This is especially the case with respect to minefields from civil war, for which non-technical survey was conducted many years ago, with limited information available. It can be challenging to gain a clear picture of what contamination was cleared by the LAF and if the related clearance documents were transferred to LMAC and are included in the information management database.⁶⁴

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 2020.⁶⁵ According to LAMINDA, there are now daily reporting sheets for items and clearance.⁶⁶

In the Lebanon Mine Action Strategy 2020–25, LMAC states that it will initiate voluntary APMBC Article 7 reporting,⁶⁷ but had yet to do so as at May 2020.

PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.⁶⁸ 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. Interim reviews of the strategy conducted in 2014 and 2016, to assess progress against milestones, highlighted the huge gap between actual mine clearance output and planned output, when compared to the original strategic plan. The second review also reflected on the achievements, challenges, and lessons learned, offering recommendations that reflected available resources (financial and human), as well as a qualitative roadmap towards completion.⁶⁹

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 non-governmental organisations (NGOs), UN agencies, and donors.⁷⁰ 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.⁷¹ LMAC is also elaborating a strategic implementation plan for 2020–25, 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.⁷²

Clearance operators in Lebanon believe that reprioritisation is needed, as all of the current tasks fall between priorities 2 and 3, and reprioritisation has not occurred for some time.⁷³ According to LMAC, increased urbanisation; clearance of the Blue Line; spill-over from Syria creating new contamination, including IEDs; and the sudden increase in residents, have combined to result in a change to clearance priorities. LMAC plans to work with operators to develop an updated prioritisation approach, including focusing on the socio-economic impact of contamination.⁷⁴

HI's prioritisation of tasks is based on proximity to populated area, but mine clearance operations in north Lebanon and the Mount Lebanon area are also determined by seasonal factors: clearance of low altitude minefields during winter (October to April), and then clearance tasks above 2,000 metres begin in April and continue through the summer, depending on snow.⁷⁵ Most of the remaining demining tasks in the area in which HI has been operating since 2011 are in contaminated cedar forests at high altitude.⁷⁶

Prior to 2016, demining along the border with Israel had been said to depend on "political developments",⁷⁷ but the Lebanese government subsequently took the decision to initiate larger-scale, planned clearance on the Blue Line⁷⁸ and clearance by humanitarian demining operators began in November 2016⁷⁹ and remained ongoing as of writing.

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.⁸⁰ Adopting a consultative and constructive approach with its implementing partners, LMAC undertook a project with 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.⁸¹ 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 included reduction of the required clearance depth from 20cm to 15cm; revision of fadeout specifications for pattern minefields, and enhancements in how rapid response tasks are addressed and recorded.⁸²

Mined areas in pattern minefields/along the Blue Line have been reclassified into high-threat hazardous area (HTHA) and low-threat hazardous area (LTHA). The use of technical survey, instead of full clearance, is permitted for some parts of CHAs based on discussion and agreement between LMAC operations officers and clearance operators.⁸³ Previously, full clearance had been required for 15 metres from the mine rows, but in the revised NMAS this has been changed to a required fade-out of five metres from the mine rows, and technical survey from the edge of the five-metre fadeout up to the minefield fence, for minefields in which the lanes have not been disrupted.⁸⁴ If there is no fence, 10 metres of technical survey is required from the edge of the 5-metre fade-out. Fade-out for anti-vehicle mines has been reduced from 20 metres to 10.⁸⁵ Previously, operators have been required to fully clear the area between the mine rows and the minefield fence, plus an additional two metres outside the fence, with one asset.⁸⁶

MAG and NPA have noted that to further enhance efficiencies, fade-out requirements at the Blue Line could be further revised based on empirical evidence. Evidence from clearance operations on the Blue Line to date reveals that no mines have been found further than five metres from the outer mine row, in minefields in which the lanes have not been disturbed. In the operators' opinion, technical survey beyond the five-metre fadeout (up to the minefield fence or for ten metres in the absence of a fence) should only be required if there is sufficient evidence to suggest mines have migrated from the mine rows.⁸⁷

Further updates made to Lebanon's NMAS in 2019, included introduction of a new NMAS (07.14) on Risk Assessment and a new standard (09.31) on IED Disposal (IEDD).⁸⁸ 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 and for cluster munition remnants.⁸⁹ 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.⁹⁰

NPA believes changes could be considered to the procedure for missing mines in patterned minefields along the Blue Line. Many mines are missing due to water and soil-related movement or detonation by animals and the current

"missed-mine" protocol is resource-intensive. In 2019, NPA began to consider using Ground Penetrating Radar (GPR)-equipped detectors as a solution and was planning to arrange a potential trial of United Nations Mine Action Service (UNMAS)-owned dual sensor equipment in 2020 to conduct missed-mine checks.⁹¹

NPA also recommends that LMAC continues its review of how the metal-free requirements contained in NMAS are implemented in operations in the north-east of Lebanon, with a view to enhancing clearance efficiency while also maintaining safety.⁹²

LAMINDA and MAG also reported that following discussions between clearance operators and the national authorities, the NMAS for non-fragment blast minefields on the Blue Line have been amended and now permit the safety distance between deminers to be reduced from 25 to 15 metres.⁹³

Anti-vehicle minefields represent another challenge on the Blue Line because of their proximity to the fence. LMAC has been discussing the best way to render safe the anti-vehicle mines and move them away, in order to save time on anti-personnel mine clearance. In coordination with LMAC, multiple trials were conducted by MAG in late 2019, looking at various destruction techniques, including burning, which has proved to be effective and safe. Other options are under consideration, including render safe and moving the mines, UNIFIL involvement, and a combination of these and existing methods. As at March 2020, a final decision had not been made on this issue.⁹⁴

New Handheld Standoff Mine Detection System (HSTAMIDS) detectors were planned to be introduced for use on Blue Line operations in 2019, with the aim of increasing efficiency. This did not occur. As at March 2020, however, a training area at the RSHDL was close to completion. MAG planned to bring HSTAMIDS detectors to Lebanon in 2020, after which training and testing will be conducted.⁹⁵

In the last couple of years, national authorities in Lebanon have actively promoted the use of non-technical survey and technical survey, in order to define the presence or absence of an explosive threat.⁹⁶ In 2019, LMAC agreed with the NGO operators the option for each to have a non-technical survey team to re-survey for 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,⁹⁷ and where necessary, clearance operators are now permitted to conduct non-technical survey prior to clearance operations.⁹⁸

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).⁹⁹ 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 more accurately confirm and define areas of mine contamination prior to clearance.¹⁰⁰

OPERATORS AND OPERATIONAL TOOLS

In 2019, manual mine clearance was conducted by international operators DanChurchAid (DCA), HI, LAMINDA, MAG, and NPA, along with the Engineering Regiment of the LAF. In addition, as in previous years UNIFIL also conducted demining operations on the Blue Line in 2019, but not for humanitarian purposes.

The LAF Engineering Regiment has deployed four clearance teams (two BAC and two mine clearance) to work in the south of Lebanon and Mount Lebanon. In addition, Engineering Regiment and Combat Engineering companies in all Brigades conduct EOD spot tasks and respond to rapid-response callouts across Lebanon.¹⁰¹ The LAF has seven MDD teams¹⁰² for technical survey and for use as a secondary asset supporting clearance. The LAF also have mechanical assets. 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 LTHA.¹⁰³ Through the Engineering Regiment, LMAC provides MDDs and mechanical assistance to clearance operators that lack this capacity.¹⁰⁴ Often, however, the terrain is not suitable for MDDs or machines.

Table 2: Operational clearance capacities deployed in 2019¹⁰⁵

Operator	Manual teams	Total deminers*	Dogs and handlers	Machines**	Comments***
DCA	2	16	0	0	
HI	4	29	0	0	
LAMINDA	2	12	0	0	LAMINDA increased its mine clearance capacity by two persons in each team in 2020. ¹⁰⁶
LMAC	2	16	7	4	
MAG	6	48	0	7	
NPA	7	37	0	0	
Totals	23	158	7	11	

* Clearance personnel could also be deployed for technical survey. ** Excluding vegetation cutters and sifters. *** Clearance teams also work on technical survey tasks.

In addition, in 2019, clearance capacity was also provided by two UNIFIL Troop Contributing Countries, Cambodia and China. Operational capacities and capabilities of UNIFIL are determined by operational need. UNIFIL capacity in 2019 remained the same as the previous year and comprised five manual clearance teams, two EOD teams, and one mechanical team, totalling 123 persons in total. Capacity was expected to remain the same in 2020.¹⁰⁷ UNMAS provided refresher training, validation of the teams, and QA during UNIFIL demining operations in 2019.¹⁰⁸ UNMAS also carries out confirmatory training with UNIFIL demining units when they rotate into the country.¹⁰⁹

UNIFIL was established in 1978¹¹⁰ in order to confirm the withdrawal of Israeli forces from southern Lebanon (which occurred in 2000); restore international peace and security; and assist the Government of Lebanon to re-establish its authority in the area.¹¹¹ The primary task of UNIFIL mine clearance teams has been to clear access lanes through minefields in order to visibly demarcate the 118km-long Blue Line. Historically, UNIFIL has not conducted clearance on the Blue Line for humanitarian purposes but only to facilitate placement of markers by clearing three-metre-wide lanes into mined areas,¹¹² and also to clear mines close to UNIFIL posts or which pose a danger to UNIFIL patrols. However, in a positive development, on 30 January 2020, UNIFIL and LMAC signed an MoU on Humanitarian Demining, and as at April 2020, were working together to plan to begin survey and clearance for humanitarian purposes and for UNIFIL to help the LAF/LMAC clear areas contaminated by both mines and unexploded ordnance (UXO).¹¹³

With respect to non-technical survey capacity, LMAC had three non-technical survey teams in 2019;¹¹⁴ HI had one non-technical survey team with three personnel, which started field operations in October 2019;¹¹⁵ and MAG had two operational non-technical survey teams in 2019, with a total of four personnel.¹¹⁶ NPA had no non-technical survey capacity in 2019, although it was in the process of establishing this in 2020. NPA's dedicated technical survey capacity was exclusively tasked to CMR tasks, although, where necessary, clearance personnel also undertook technical survey of mined area. NPA reported that it was moving towards a multi-task approach to be able to respond to changing priorities and operational constraints.¹¹⁷

NPA believes that MDDs 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.¹¹⁸

LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2019

A total of more than 0.79km² of mined area (i.e. area suspected or confirmed to contain anti-personnel mines) was released in 2019, of which 0.48km² was cleared, 0.11km² was reduced through technical survey, and 0.2km² was cancelled through non-technical survey.

SURVEY IN 2019

In 2019, 204,343m² of mined area, was cancelled through non-technical survey and 109,191m² was reduced through technical survey (see Tables 3 and 4).¹¹⁹ This is an increase compared to the 28,633m² of mined area cancelled through non-technical survey in 2018 and 7,646m² reduced through technical survey,¹²⁰ and reflects LMAC's increased application of survey.

As non-technical survey operations in 2019 were focused on CMR, no mined area was cancelled by NGO operators in 2019. Non-technical survey of mined areas was planned to take place in the course of 2020.¹²¹

Neither DCA, HI, nor NPA reduced any mined area through technical survey the previous year, demonstrating a positive trend in the increased use of technical survey in Lebanon in 2019.

Three CHAs of previously unrecorded anti-personnel mine contamination, totalling 8,714m², were added to the database in 2019.¹²²

Table 3: Cancellation through non-technical survey in 2019¹²³

Province	Operator	Area cancelled (m ²)
Jabal Loubnan (Mount Lebanon)	LAF	204,343
Total		204,343

Table 4: Reduction through technical survey in 2019¹²⁴

Operator	Area cleared* (m ²)	Area reduced (m ²)
DCA	1,781	2,993
HI	19,096	10,168
MAG	75,417	69,825
NPA	4,195	26,205
Total	100,489	109,191

* Included in Table 5 clearance data.

CLEARANCE IN 2019

Lebanon reported clearing more than 0.48km² of mined area in 2019 (0.36km² by demining NGOs and 0.12km² by LAF), destroying in the process 21,708 anti-personnel mines (21,655 by demining NGOs, 53 by the LAF), 22 anti-vehicle mines, and 301 items of other UXO (see Table 5).¹²⁵ A further 3,393 anti-personnel mines were destroyed by UNIFIL in 2019.¹²⁶ Clearance in 2019 was a slight increase on the 0.39km² of mined area cleared in 2018.¹²⁷

Table 5: Mine clearance in 2019¹²⁸

Operator	Area cleared (m ²)	AP mines destroyed	AV mines destroyed	UXO destroyed
DCA	37,481	3,489	0	76
HI	92,264	262	0	25
MAG	190,920	14,416	22	144
NPA	25,784	2,660	0	4
LAMINDA	15,130	828	0	52
LAF*	121,398	**53	14	***4,134
Totals	482,977	21,708	36	4,435

AP = Anti-personnel; AV = Anti-vehicle; UXO = unexploded ordnance; N/R = not reported

* Includes items destroyed by the LAF combat engineers during rapid response call outs across Lebanon.

** Includes three victim-activated IEDs. *** UXO destroyed across all LAF operations, including BAC.

In addition, UNIFIL found and destroyed 3,393 anti-personnel mines during its 2019 operations along the UNIFIL patrol road, in the far south of Lebanon near the Blue Line.¹²⁹ LMAC does not have access to UNIFIL clearance data, but as part of the MoU signed in 2020, LMAC have asked for UNIFIL's historical clearance data and will update the national database accordingly.¹³⁰

According to LAMINDA, its mine clearance tasks are larger than the reported size in the database, due to the disturbance of the minefield areas and dislocation of mine rows onto nearby land, which reportedly occurred in 2016 when Israeli bulldozers entered the minefields during the conflict and after the initial survey by the LMAC.¹³¹

HI's clearance output decreased slightly in 2018, compared to the previous year, due to extremely bad weather conditions in 2019. The number of anti-personnel mines found and destroyed decreased significantly. A total of 10 mined areas cleared by HI in 2019 were found not to contain anti-personnel mines.¹³²

Due to the nature of the militia minefields in north Lebanon, there is sometimes a lack of clearly defined CHAs. Accordingly, in certain areas, additional non-technical survey and technical survey could help to more accurately define areas of actual contamination. Unfortunately, deployment of MDDs or demining machinery to help facilitate survey and clearance in north Lebanon is limited in scope, due to the climate and terrain of many of the tasks in the region.¹³³

The CHAs tasked by LMAC to clearance operators do not include obligatory fade-out distances, which can considerably increase the overall size of the task.¹³⁴

NPA cleared roughly the same amount in 2019 as the year before, with the slight increase in 2019 due to expansion of clearance operations in north-east Lebanon. NPA reported completing one clearance task in the north-east in 2019 in which no anti-personnel mines were found. It also reported a slight decrease in productivity overall due to the increased difficulty of the tasks (harder to access, steep slopes, heavy vegetation, and high metal content).¹³⁵

PROGRESS TOWARDS COMPLETION

According to Lebanon’s Statement as an observer at the Fourth Review Conference of the APMB in Oslo in November 2011, Lebanon’s national mine action policy affirms its aspiration to become a State Party to the APMB. The Minister of Defence, who also heads the LMAA, sent a letter to the Ministry of Foreign Affairs stating that the Ministry of Defence has no objections to Lebanon acceding to the Treaty. LMAC recognises the 2025 aspiration of a landmine-free world and works in the spirit of compliance with the APMB and with the IMAS.¹³⁶ LMAC also asserts that it will implement the Oslo Action Plan, adopted at the Fourth Review Conference of the APMB.¹³⁷

Clearance of mined areas was originally expected to be completed by the end of 2020, in accordance with the 2011–20 national strategy, but meeting the target was contingent on deployment of considerable resources: 125 manual clearance teams (45 for minefields excluding the Blue Line and 80 for the Blue Line), 2 mechanical teams, and 9 two-strong MDD teams.¹³⁸ Actual mine clearance capacity was far lower and progress against the strategy fell well behind schedule.

Lebanon’s new National Mine Action Strategy 2020–25 sets out annual targets for the next six years. LMAC expects Lebanon to be free from known mined areas in ten years, with the application of efficient land release methodology and subject to securing the necessary funding.¹³⁹ However, this looks to be very ambitious, considering the extent of the remaining mined area (18,65km²) and annual mine clearance rates of less than 1km² per year, with less than 3km² of mined area cleared in the last five years (see Table 6).

It will take many years for Lebanon to become mine-free. However, progress in land release is expected to be accelerated by adoption of better land release procedures since 2018, as enshrined in the revised NMAS. Crucially, LMAC’s demonstrated commitment to enhance the use of non-technical and technical survey should help to cancel or reduce areas more efficiently.¹⁴⁰

Rocky and forested terrain continued to pose a challenge to demining operations, in addition to lack of minefield records for much of the contamination (especially in the North).¹⁴¹

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.¹⁴²

Table 6: Five-year summary of AP mine clearance

Year	Area cleared (km ²)
2019	0.48
2018	0.39
2017	0.51
2016	0.55
2015	0.92
Total	2.85

PLANNING FOR RESIDUAL RISK AFTER COMPLETION

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.¹⁴³

- 1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 19 March 2020.
- 2 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 3 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 4 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020. There is a discrepancy with the 18,794,681m² baseline of mine contamination, as per LMAC's "Annual Report 2019", p. 13.
- 5 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 6 Interview with Brig.-Gen. Elie Nassif, Director, and Brig.-Gen. Fakh, Head of Operations, LMAC, Beirut, 18 April 2016.
- 7 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 18 April 2016.
- 8 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016.
- 9 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; David Willey, Programme Manager, MAG, 7 March 2019; and Emile Ollivier, Grants Coordinator, NPA, 19 March 2019.
- 10 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019, and presentation in Beirut, 8 April 2018; and LMAC, "Annual Report 2018", p. 14.
- 11 LMAC, "Annual Report 2019", p. 14.
- 12 Ibid., pp. 7 and 25.
- 13 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.
- 14 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
- 15 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
- 16 LMAC, Lebanon Mine Action Strategy 2020–25 (draft), 2 January 2020, p. 4.
- 17 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 26 March 2019.
- 18 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 19 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016; and LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018; and "Mine Action Forum: Action Points 1st Quarter Progress Report, March 2018".
- 20 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 36; interview with Brig.-Gen. Jihad Bechelany, LMAC Director, Lt.-Col. Fadi Wazen, LMAC, and Ariane Elmas, Mine Action Advisor, UNDP, Beirut, 16 April 2019; and email from Emile Ollivier, NPA, 19 March 2019.
- 21 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 22 Email from GICHD, 22 July 2020.
- 23 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 24 LMAC, "Annual Report 2019", p. 7.
- 25 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 23; and Statement of Lebanon on International Cooperation and Assistance, CCM Ninth Meeting of States Parties, Geneva, 4 September 2019.
- 26 LMAC, Lebanon Mine Action Strategy 2020–25 (draft), 2 January 2020, Foreword by the chair of the LMAA (Minister of Defence).
- 27 LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 23.
- 28 LMAC, "5th Mine Action Forum", 24 January 2020, LMAC website.
- 29 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019 and 19 March 2020; and LMAC, "Annual Report 2018", p. 23.
- 30 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; Mahmoud Rahhal, POD, 8 March 2019; and David Ligneau, Mine Action Programme Manager, HI, 21 April 2020.
- 31 Emails from Emile Ollivier, NPA, 19 March 2019; and David Willey, MAG, 7 March 2019.
- 32 LMAC, "2018 Annual Report Lebanon Mine Action Centre", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; and Emile Ollivier, NPA, 19 March 2019.
- 33 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2019", p. 7.
- 34 LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018.
- 35 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; CCM Article 7 Report (for 2018), Form A; and Statement of Lebanon on International Cooperation and Assistance, CCM Seventh Meeting of States Parties, Geneva, 4–6 September 2017.
- 36 LMAC, "Annual Report 2019", pp. 21–24.
- 37 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 38 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019;
- 39 Email from Rana Elias, Cooperation Programmes Coordinator, GICHD, 26 August 2020.
- 40 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.
- 41 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.
- 42 LMAC, Lebanon Mine Action Strategy 2020–25 (draft), 2 January 2020.
- 43 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 44 Ibid.
- 45 Ibid.
- 46 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and David Ligneau, HI, 23 August 2019.
- 47 Email from David Ligneau, HI, 21 April 2020.
- 48 Email from Ret. Brig. General Badwi El Sakkal, President, LAMINDA, 18 March 2020.
- 49 Emails from David Willey, MAG, 7 March 2019; and Sylvain Lefort, Country Director, MAG, 3 April 2020.
- 50 Email from Valerie Warmington, Programme Manager, NPA, 28 May 2020.
- 51 Email from Valerie Warmington, NPA, 28 May 2020.
- 52 Email from Lt.-Col. (CHN) Zengliang Zhou, Chief – J3 Combat Engineer Section, UNIFIL Force HQ, 20 April 2020.
- 53 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 54 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 55 LMAC, "Annual Report 2018", p. 15; and email from Rana Elias, Cooperation Programmes Coordinator, GICHD, 17 June 2019.
- 56 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and interview with Maj. Ali Makki, Information Management Section Head, LMAC, and Ariane Elmas, UNDP, Beirut, 16 April 2019.
- 57 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 58 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; email from LMAC Operations Department, 28 June 2018; "Mine Action Forum: Action Points 1st Quarter Progress Report, March 2018"; and LMAC, "2018 Annual Report Lebanon Mine Action Centre", p. 14.
- 59 Emails from Rana Elias, GICHD, 17 June 2019; and Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 60 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 4 September 2020.
- 61 Ibid.
- 62 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016.
- 63 LMAC, "Annual Report 2018", p. 14; and interview with Maj. Ali Makki, LMAC, Beirut, 16 April 2019.
- 64 Email from David Ligneau, HI, 21 April 2020.
- 65 Email from Sylvain Lefort, MAG, 3 April 2020.
- 66 Email from Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020.
- 67 LMAC, Lebanon Mine Action Strategy 2020–25, June 2020, p. 4.
- 68 LMAC, "Lebanon Mine Action Strategy 2011–2020", September 2011, p. 4.
- 69 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014; LMAC, "Lebanon Mine Action Strategy. Second Milestone Review 2014–2016", March 2018; LMAC, "2017 Annual Report Lebanon Mine Action Centre", undated; and email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018.
- 70 LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020; and LMAC, "Annual Report 2019", p. 7.
- 71 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, signed June 2020, p. 4.
- 72 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, "Annual Report 2019", pp. 7 and 30.
- 73 Email from Dave Wiley, MAG, 19 August 2019.
- 74 LMAC, "Annual Report 2019", p. 30.
- 75 Emails from Chris Chenavier, HI, 7 April 2016; and David Ligneau, HI, 9 April 2019.
- 76 Email from David Ligneau, HI, 29 August 2018.
- 77 Presentation by Maj. Bou Maroun, RMAC, Nabatiyeh, 4 May 2012; and response to Landmine Monitor questionnaire by Leon Louw, Programme Manager, UN Mine Action Support Team (UNMAST), 7 May 2014.
- 78 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016.

- 79 Email from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017.
- 80 Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.
- 81 Emails from Brig.-Gen. Elie Nassif, LMAC, 7 July 2015; Dave Wiley, MAG, 27 April 2018 and 7 March 2019; and Craig McDiarmid, Programme Manager, NPA, 17 April 2018 and 19 March 2019.
- 82 Emails from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; Craig McDiarmid, NPA, 17 April 2018; and Dave Wiley, MAG, 27 April 2018; and LMAC, "Annual Report 2018", p. 17.
- 83 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018.
- 84 Email from Dave Wiley, MAG, 19 August 2019.
- 85 Emails from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; Craig McDiarmid, NPA, 17 April 2018; and Ali Nasreddine, MAG, 24 July 2018.
- 86 Email from Ali Nasreddine, MAG, 24 July 2018.
- 87 Emails from Ali Nasreddine, MAG, 24 July 2018; and Craig McDiarmid, NPA, 17 April 2018 and 8 April 2019.
- 88 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 89 Ibid.
- 90 Ibid.
- 91 Email from Valerie Warmington, NPA, 28 May 2020.
- 92 Ibid.
- 93 Emails from Ret. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020; and Sylvain Lefort, MAG, 3 April 2020.
- 94 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April, 21 August 2019 and 19 March 2020; and Dave Wiley, MAG, 19 August 2019.
- 95 Ibid.
- 96 Emails from Dave Wiley, MAG, 27 April 2018; and Craig McDiarmid, NPA, 17 April 2018.
- 97 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.
- 98 Emails from Ret. Brig. General Badwi El Sakkal, LAMINDA, 18 March 2020; and Sylvain Lefort, MAG, 3 April 2020.
- 99 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fahih, LMAC, Beirut, 11 April 2016; and with Lt.-Col. Fadi Wazen, LMAC, Beirut, 16 April 2019.
- 100 Email from Valerie Warmington, NPA, 28 May 2020.
- 101 LMAC, "Annual Report 2019", p. 11.; and emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 22 July 2020.
- 102 LMAC, "Annual Report 2019", p. 13.
- 103 Emails from Brig.-Gen. Ziad Nasr, LMAC, 24 April 2017; Samuel Devaux, HI, 4 April 2017; Dave Wiley, MAG, 25 April 2017; and Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 104 LMAC, "Annual Report 2019", p. 11; and email from Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020.
- 105 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020; Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020; Sylvain Lefort, MAG, 3 April 2020; David Ligneau, HI, 21 April 2020; and Valerie Warmington, NPA, 28 May 2020. In the LMAC, "Annual Report 2019", p. 10, MAG was reported as having eight mine clearance teams and LAMINDA three, making a total of 24 teams across all operators. In addition, HI reported having 32 deminers in 2019, as opposed to the 29 deminers reported by LMAC. NPA reported deploying five manual mine clearance teams totalling twenty-four deminers (two teams in Arsal and three in southern Lebanon), as opposed to the seven teams reported by LMAC.
- 106 Email from Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020.
- 107 Email from Lt.-Col. (China) Zengliang Zhou, UNIFIL, 20 April 2020.
- 108 Email from Lt.-Col. Zengliang Zhou, UNIFIL, 20 April 2020.
- 109 Email from Alan Macdonald, UNMAS, 15 August 2019.
- 110 UN Security Council Resolutions 425 (1978) and 426 (1978).
- 111 UNIFIL, "UNIFIL Mandate", at: bit.ly/2YpCwud.
- 112 Presentation by Maj. Pierre Bou Maroun, RMAC, Nabatiyeh, 4 May 2012; and emails from Henri Francois Morand, UNMAS, 2 October 2015 and 18 September 2017.
- 113 Emails from Lt.-Col. Zengliang Zhou, UNIFIL, 20 April 2020; and Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 114 LMAC, "Annual Report 2019", p. 12.
- 115 Email from David Ligneau, HI, 21 April 2020.
- 116 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020. MAG reported deploying two non-technical survey teams in the south (mainly for BAC tasks) and one team in the north-east (for minefield, BAC, and IEDs). Email from Sylvain Lefort, MAG, 23 June 2020.
- 117 Email from Valerie Warmington, NPA, 28 May 2020.
- 118 Ibid.
- 119 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020. In Lebanon the term "Mined Area" is used to denote dangerous areas entered into the database when the first impact survey was executed, which were not accessible, and where the type of hazard was not identified. However, for the purposes of this report, mined area refers to areas suspected or confirmed to contain anti-personnel mines.
- 120 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019; and LMAC, "Annual Report 2018", pp. 11 and 12.
- 121 Email from Valerie Warmington, NPA, 28 May 2020.
- 122 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.
- 123 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2019", p. 12.
- 124 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; Sylvain Lefort, MAG, 3 April 2020; and Valerie Warmington, NPA, 28 May 2020. There was a discrepancy between data reported by LMAC and what was reported by MAG and NPA. MAG reported reducing 6,600m² of mined area in Marjeyoun in 2019 and NPA reported reducing 15,758m² in Nabatiyeh.
- 125 Ibid.; and LMAC, "Annual Report 2019", p. 7.
- 126 Email from Lt.-Col. Zengliang Zhou, UNIFIL, 20 April 2020.
- 127 Email from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019.
- 128 LMAC, "Annual Report 2019", pp. 10 and 11.; and emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 22 June 2020; Sylvain Lefort, MAG, 3 April 2020; David Ligneau, HI, 21 April 2020; and Valerie Warmington, NPA, 28 May 2020. There were some discrepancies between data reported by LMAC and what was reported by HI, MAG, and NPA. HI reported clearing 92,604m², slightly lower than the 92,264m² reported by LMAC for HI. MAG reported clearing 186,758m² of mined area and destroying 14,402 anti-personnel mines, 22 anti-vehicle mines, and 141 items of other UXO. NPA reported clearing 27,707m², 2,660 AP mines, and 4 items of other UXO.
- 129 Email from Lt.-Col. Zengliang Zhou, UNIFIL, 20 April 2020.
- 130 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020.
- 131 Email from Brig.-Gen. (ret.) Badwi El Sakkal, LAMINDA, 18 March 2020.
- 132 Email from David Ligneau, HI, 21 April 2020.
- 133 Interview with Chris Chenavier, HI, Toulou, 18 April 2016.
- 134 Ibid.
- 135 Email from Valerie Warmington, NPA, 28 May 2020.
- 136 Statement of Lebanon, Fourth Review Conference of the APMBC, Oslo, 27 November 2019; and LMAC, Lebanon Mine Action Strategy 2020-25, signed June 2020, p. 4.
- 137 LMAC, Lebanon Mine Action Strategy 2020-25, signed June 2020, p. 4.
- 138 LMAC, "Lebanon Mine Action Strategy 2011-2020", September 2011, pp. 16 and 17.
- 139 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.
- 140 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018; and emails from Craig McDiarmid, NPA, 17 April 2018; and Dave Wiley, MAG, 27 April 2018.
- 141 Email from Brig.-Gen. Ziad Nasr, LMAC, 27 April 2018.
- 142 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.
- 143 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.