

**ARTICLE 4 DEADLINE: 1 MAY 2026**  
NOT ON TRACK TO MEET DEADLINE

### KEY DATA

#### CLUSTER MUNITION CONTAMINATION: MEDIUM

NATIONAL ESTIMATE

**5.23** KM<sup>2</sup>

SUBMUNITION  
CLEARANCE IN 2022

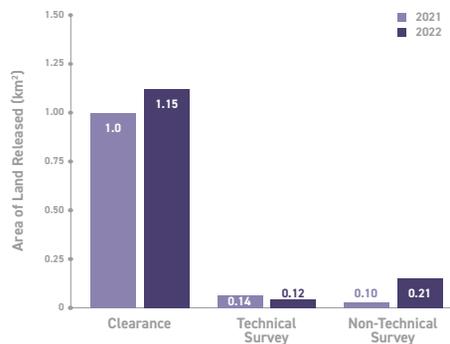
**1.15** KM<sup>2</sup>

SUBMUNITIONS  
DESTROYED IN 2022

**2,556**

(INCLUDING AT LEAST 139  
SUBMUNITIONS DESTROYED DURING  
CALL-OUTS AND 14 SUBMUNITIONS  
DESTROYED DURING MINE CLEARANCE)

### LAND RELEASE OUTPUT



## KEY DEVELOPMENTS

The Lebanon Mine Action Centre (LMAC) continued to strengthen Lebanon's mine action programme during 2022. Total release of cluster munition-contaminated area in 2022 was up on the previous year, and increased technical survey (TS) improved operational efficiency. Lebanon has seen a significant drop in capacity for the clearance of cluster munition remnants (CMR), the result of less international funding and no national funding for CMR clearance due to the economic crisis in Lebanon. Lebanon is not on track to meet its extended Convention on Cluster Munitions (CCM) Article 4 clearance deadline of 1 May 2026.

## RECOMMENDATIONS FOR ACTION

- Following the updates to the national mine action standards (NMAS), all implementing agencies in Lebanon should routinely conduct TS (manual, mechanical, or with mine detection dogs (MDDs)) in the release of CMR tasks.
- LMAC should determine how it plans to address CMR in especially difficult terrain, such as deep canyons and very steep cliffs, and should publicly report on the number and size of CMR tasks concerned and LMAC's plans to address these areas.
- Lebanon should regularly update its CCM Article 4 planning based on annual outputs achieved.
- Lebanon should develop a resource mobilisation strategy to enable it to meet its annual CMR clearance targets as set out in its Article 4 deadline extension request.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion  | Score (2022) | Score (2021) | Performance Commentary  |
|--|--------------|--------------|---|
| <b>UNDERSTANDING OF CMR CONTAMINATION</b><br>(20% of overall score)            | 8            | 8            | LMAC has a good baseline understanding of its CMR contamination. Re-survey of tasks, which is conducted on a three-year cycle, continues to result in a small number of previously unrecorded cluster munition-contaminated areas being added to the database. In addition, LMAC has corrected duplicate or inaccurate records identified as part of the migration to Information Management System for Mine Action (IMSMA) Core. The baseline, however, still includes confirmed hazardous areas (CHAs) without defined boundaries with an estimated standard size of 10,000m <sup>2</sup> although their true size may differ markedly.   |
| <b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b><br>(10% of overall score)   | 8            | 8            | LMAC continued to show strong national ownership and commitment in 2022, further strengthening programme management. In addition to maintaining Mine Action Forum and technical working group (TWG) meetings, LMAC also finalised a code of conduct for all implementing partners, and both organised and attended trainings and capacity-building initiatives. While the government of Lebanon contributes US\$9 million annually to support the running of LMAC and the Lebanese Armed Forces (LAF) engineering regiments, regrettably, due to continued political and financial unrest in Lebanon, none of the 50 billion Lebanese Pounds (approx. US\$33 million) for CMR clearance over five years (2019–23) had been allocated as of writing. |
| <b>GENDER AND DIVERSITY</b><br>(10% of overall score)                          | 8            | 7            | Gender and diversity considerations are included in the National Mine Action Strategy 2020–25. In August 2022, LMAC organised a three-day course on “Gender and Diversity Mainstreaming in Mine Action in Lebanon”. LMAC also finalised a code of conduct for the Lebanese mine action programme in 2022, which aims to promote gender and diversity inclusion in all aspects of the work undertaken by LMAC and its implementing partners. In addition, MAG assisted LMAC in establishing a Gender Diversity and Inclusion Steering Committee led by LMAC’s gender focal point with key stakeholders from all non-governmental clearance organisations.  |
| <b>INFORMATION MANAGEMENT AND REPORTING</b><br>(10% of overall score)          | 8            | 8            | LMAC completed the migration to IMSMA Core in 2021 and the new database is now being used for all activities, and will also help inform the automated prioritisation of clearance tasks. Lebanon produced a comprehensive and accurate CCM Article 7 report covering 2022 and LMAC also published an informative Annual Report for 2022.  |
| <b>PLANNING AND TASKING</b><br>(10% of overall score)                          | 8            | 8            | LMAC has a National Mine Action Strategy for 2020–25 and an accompanying plan for its implementation and monitoring of progress. In 2022, Lebanon fell short of the 1.9km <sup>2</sup> clearance target from its 2020 Article 4 extension request, due to decreased clearance capacity.   |
| <b>LAND RELEASE SYSTEM</b><br>(20% of overall score)                           | 8            | 8            | LMAC has steadily strengthened its NMAS over the last five years. Throughout 2022, LMAC encouraged the systematic and routine application of TS. In addition, enhancements have also been made to the required fade-out distance, the marking system for battle area clearance (BAC) tasks, and the frequency of demolitions. Unfortunately, capacity for CMR TS and clearance decreased further in 2022.   |
| <b>LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE</b><br>(20% of overall score) | 6            | 6            | CMR-contaminated area clearance increased in 2022 compared to 2021. The drop in international funding and absence of national funds for CMR clearance mean that Lebanon will not complete clearance by its 2026 deadline, despite the gains in operational efficiency from widespread TS.   |
| <b>Average Score</b>   | <b>7.6</b>   | <b>7.5</b>   | <b>Overall Programme Performance: GOOD</b>  |

# CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

## MANAGEMENT

- Lebanon Mine Action Authority (LMAA)
- Lebanon Mine Action Centre (LMAC)
- Regional Mine Action Centres (RMAC-N and RMAC-RB)

## NATIONAL OPERATORS

- Lebanese Armed Forces (LAF)/Engineering Regiment (ER)
- Peace Generation Organization for Demining (POD)

## INTERNATIONAL OPERATORS

- DanChurchAid (DCA)
- Humanity and Inclusion (HI)
- 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)
- UN Mine Action Service (UNMAS)

## UNDERSTANDING OF CMR CONTAMINATION

At the end of 2022, Lebanon had 5.23km<sup>2</sup> confirmed hazardous areas (CHAs) containing CMR (see Table 1).<sup>1</sup> This is less than the end of 2021, when 709 CHAs were confirmed to contain CMR over a total area of almost 6.3km<sup>2</sup>,<sup>2</sup> the result of survey and clearance in 2022.

In 2022, more than 0.41km<sup>2</sup> of previously unrecorded CMR contamination was added to the database (29 new CMR sites in the north-east region totalling 333,342m<sup>2</sup> and resulting from new contamination that was first discovered in the region in 2017; and 80,192m<sup>2</sup> across seven sites in other regions). In addition, a further 29,066m<sup>2</sup> of previously unrecorded CMR contamination was added, resulting from the correction to the perimeters of six existing CMR sites following non-technical survey (NTS).<sup>3</sup>

With support from the Geneva International Centre for Humanitarian Demining (GICHD), in 2021 the LMAC migrated its Information Management System for Mine Action (IMSMA) to the new version, IMSMA Core. The migration has continued to reveal that certain villages were registered in the wrong province, the correction of which resulted in a change to the distribution of the remaining contamination by province, but did not change the total amount of remaining CMR contamination.<sup>4</sup>

**Table 1: Cluster munition-contaminated area by province (at end 2022)<sup>5</sup>**

| Province                                | CHAs       | Area (m <sup>2</sup> ) |
|---|------------|------------------------|
| Beqaa (including the north-east region) | 61         | 242,059                |
| Janoub and Nabatiyeh (South of Lebanon) | 554        | 4,607,094              |
| Jabal Loubnan (Mount Lebanon)           | 57         | 384,904                |
| <b>Totals</b>                           | <b>662</b> | <b>5,234,057</b>       |

As part of a 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 10,000m<sup>2</sup> in the database, based on the fade-out distance for cluster munition clearance and LMAC's experience to date.<sup>6</sup> But operators have found that the standardised 10,000m<sup>2</sup> (per task) area is in some instances an overestimate and in other instances an underestimate of the actual task size.<sup>7</sup> LMAC, however, believes that this is the best approach CMR tasks and to be conservative in its CCM Article 4 planning it has increased the size of these areas by 250% (to 25,000m<sup>2</sup>) to factor in fade-out.<sup>8</sup>

1 Email from Lt.-Col. Fadi Wazen, Operations Section Head, LMAC, 15 May 2023; Article 7 report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 15.  
 2 CCM Article 7 Report (covering 2022), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.  
 3 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 14.  
 4 Article 7 Report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.  
 5 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 15.  
 6 Email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; LMAC, "Annual Report 2018", p. 13; Article 7 Report (covering 2018), Form F; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 10.  
 7 Email from Valerie Warmington, Programme Manager, Norwegian People's Aid (NPA), 28 May 2020.  
 8 Email from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020.

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.<sup>9</sup> 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).<sup>10</sup>

In order to determine its baseline of CMR contamination more accurately and inform Article 4 planning, LMAC has re-surveyed all remaining cluster munition-contaminated areas in its database. The nationwide non-technical re-survey was completed in November 2020,<sup>11</sup> and LMAC's NTS teams revisit the CMR sites every three years.<sup>12</sup>

A 2020 study on operational efficiency highlighted the need for greater emphasis on technical survey (TS) as part of the land release process in Lebanon.<sup>13</sup> These recommendations were subsequently incorporated in Lebanon's NMAS (see section below, "Land Release System" for details).<sup>14</sup> The second phase of the study, to verify to what extent recommendations from phase one were applied and identify and address remaining and/or additional aspects for possible improvements to operational efficiency improvement, was

completed in 2022, funded by the Netherlands and supported by the United Nations Development Programme (UNDP).<sup>15</sup> It found that most bottlenecks to increased operational efficiency have been fully or partially addressed by LMAC through a well-managed process, and that there is room for some additional improvement using MDDs, more consideration toward the environment, and transition to national ownership.<sup>16</sup>

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.<sup>17</sup> An estimated one million submunitions failed to explode.<sup>18</sup> Some Israeli bombing data have been provided – most recently through the UN Interim Force in Lebanon (UNIFIL) – but has proved to be very inaccurate.<sup>19</sup> In addition, some CMR still remain from earlier conflicts with Israel in 1978 and 1982,<sup>20</sup> 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.<sup>21</sup> Types of submunitions found in Lebanon include Israeli, Soviet, and United States (US)-made submunitions, types AO-2.5 RT, BLU-18, BLU-26, BLU-61, BLU-63, M42, M43, M46, M77, M85, MK118, and MZD-2.<sup>22</sup> Some areas contain unexploded submunitions resulting from both ground-launched and air-dropped cluster munitions, which can further complicate the picture.<sup>23</sup>

## OTHER EXPLOSIVE REMNANTS OF WAR AND LANDMINES

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

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Lebanon's mine action programme is under the control of the military. The Lebanon Mine Action Authority (LMAA), which has overall responsibility for Lebanon's mine action programme, is the responsibility of the Ministry of Defence and is chaired by the Minister of Defence. In 2007, a national mine action policy outlined the structure, roles, and responsibilities within the programme, and LMAC was tasked to execute and coordinate the programme on behalf of the LMAA.<sup>24</sup>

9 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 12.

10 Human Rights Watch, "Flooding South Lebanon. Israel's use of cluster munitions in Lebanon in July and August 2006", 16 February 2008.

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

12 Article 7 Report (covering 2022), Form F.

13 LMAC, "Annual Report 2020", p. 36.

14 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

15 LMAC, "Annual Report 2022", p. 10; and email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

16 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

17 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006.

18 Email from Brig.-Gen. Ziad Nasr, Director, LMAC, 27 April 2018; and Article 7 Report (covering 2022), Form F.

19 Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakh, Head of Operations, LMAC, Beirut, 11 April 2016; presentation by Brig.-Gen. Fakh, LMAC, Beirut, 16 November 2016; and Article 7 Report (covering 2019), Form F.

20 Landmine Action, "Foreseeable Harm: the use and impact of cluster munitions in Lebanon: 2006", 2006; interview with Brig.-Gen. Elie Nassif, Director, and Brig.-Gen. Fakh, LMAC, Beirut, 11 April 2016; and Article 7 Report (covering 2022) Form F.

21 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 2.

22 Ibid., p. 23.

23 Interview with Oussama Merhi, UNDP, in Geneva, 26 June 2015.

24 LMAC, "Mid-term Review to Strategy 2011–2020, Milestone 2013", August 2014, pp. 4–5.

LMAC, part of the LAF, is based in Beirut. Since 2009, the Regional Mine Action Centre-Nabatiyeh (RMAC-N), which is a part of LMAC, has overseen operations in south Lebanon and western Beqaa, under LMAC supervision.<sup>25</sup> At the end of 2018, a new regional centre, the RMAC-Ras Baalbek (RMAC-RB), was established in the north-east of Lebanon to oversee the mine action operations there.<sup>26</sup> To a large extent LMAC has a well-functioning capacity, but, as they are army officers, the senior management of LMAC and RMAC are typically routinely rotated every two years or so, which can hamper development and continuity in the management of the three mine action centres.<sup>27</sup> The current director of LMAC started in March 2019.<sup>28</sup>

A new standing operating procedure (SOP) for LMAC was approved in November 2020. The SOP specifies the roles of each section of LMAC and clarifies the responsibilities and cooperation between sections. It is hoped that it will help preserve institutional memory, assist new LMAC staff, and reduce the impact of staff rotations.<sup>29</sup>

UNDP personnel, funded by the Netherlands, are also seconded to LMAC, providing support for capacity building, including for studies, NTS and community liaison, and information management.<sup>30</sup> In 2022, there were four UNDP personnel supporting LMAC,<sup>31</sup> down from six in 2021.<sup>32</sup> UNDP also received six month's funding in 2020 from Norway,<sup>33</sup> and then in April 2021, the Netherlands agreed a three-year contract with UNDP for international support to LMAC, totalling US\$1.5 million.<sup>34</sup>

In 2022, the Netherlands also provided capacity development to LMAC through Mines Advisory Group (MAG), with office equipment and training on demining accident investigation. The United States (US) started a project in 2022 to support LMAC through International Trust Fund (ITF) Enhancing Human Security, aimed at sustaining LMAC during the financial crisis (e.g. car maintenance, solar power systems, demining equipment, training).<sup>35</sup>

The GICHD provides support to LMAC on information management and on gender and diversity. LMAC and Regional School for Humanitarian Demining in Lebanon (RSHDL) staff have benefitted and co-supported GICHD with

courses under the regional framework of the Arab Regional Cooperation Programme (ARCP). In 2022, LMAC hosted a regional ARCP IMSMA Core implementation workshop and the RSHDL hosted the first two weeks of the ARCP IMSMA Core Training course.<sup>36</sup> IM staff from LMAC have also supported the GICHD to deliver global IMSMA Core training. In addition, the GICHD is partnering with LMAC on a study of contamination in "difficult" terrain (see section below, "Article 4 Deadline and Compliance" for details).<sup>37</sup>

MAG has also supported the national authorities through the introduction of the new VMH4 detector in battle area clearance (BAC) tasks, which has increased productivity; procurement of mechanical assets; and use of digital global positioning system (GPS) for mapping of tasks. MAG also donated equipment and trained LMAC on its use for quality assurance (QA) activities. Furthermore, MAG is supporting LMAC through the delivery of identified training topics, including on gender and diversity.<sup>38</sup> In 2022, MAG, in collaboration with LMAC, hosted a four-day exposure visit to Lebanon from the Iraqi Directorate of Mine Action (DMA) and Iraqi Kurdistan Mine Action Authority (IKMAA). During the itinerary, participants observed fieldwork and visited the RSHDL.<sup>39</sup>

A "Mine Action Forum" was established in Lebanon in close partnership between LMAC and Norway. The forum aims to meet twice a year, with UNDP designated as the secretariat for the Forum.<sup>40</sup> In 2021, the Netherlands took over from Norway as Forum co-chair.<sup>41</sup> In 2022, the Forum met twice.<sup>42</sup> The most recent forum meeting, in September 2022, was co-chaired by LMAC and the Netherlands, and moderated by the director of the GICHD.<sup>43</sup> The Forum is said to have resulted in better coordination and greater transparency as well as enhancements to land release methodology, enshrined in the revised NMAS.<sup>44</sup>

There is good coordination and collaboration between LMAC/ the RMAC and clearance operators, with the operators consulted before key decisions are taken.<sup>45</sup> International clearance operators reported that an enabling environment exists for mine action in Lebanon, with LMAC facilitating the processing of visas for international staff and assisting with

25 LMAC, "Lebanon Mine Action Strategy 2011-2020", September 2011, p. 4.

26 Email from Lt.-Col. Fadi Wazen, LMAC, 21 August 2019.

27 LMAC, Lebanon Mine Action Strategy 2020-25, signed June 2020, p. 4.

28 Email from Brig.-Gen. Ziad Nasr, LMAC, 26 March 2019.

29 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Annual Report 2020", p. 28.

30 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

31 Ibid.

32 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

33 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020; and LMAC, "Annual Report 2020", p. 28.

34 Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; and LMAC, "Annual Report 2021", p. 38.

35 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

36 Email from GICHD, 6 April 2023.

37 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

38 Email from Sylvain Lefort, Country Director, MAG, 14 April 2023.

39 Ibid.

40 LMAC, "Annual Report 2018", p. 23.

41 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

42 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Tomislav Vondracek, Programme Manager, NPA, 5 May 2023.

43 Email from GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 26.

44 Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019 and 19 March 2020; LMAC, "Annual Report 2018", p. 23; and revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 38 and 39.

45 Emails from Sylvain Lefort, MAG, 24 March 2021; Hala Amhaz, NPA, 15 March 2021; Mahmoud Rahhal, POD, 8 March 2019; and David Ligneau, Mine Action Programme Manager, Humanity and Inclusion (HI), 21 April 2020.

the importation of equipment, including exemption of customs fees for equipment.<sup>46</sup> In 2022, however, Norwegian People's Aid (NPA) reported that a challenge was the length of time needed to obtain security clearances for new local staff. This process can take more than three months,<sup>47</sup> although usually it takes less than a month, during which the operator is allowed to start training the new staff.<sup>48</sup>

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 met twice in 2022,<sup>49</sup> provides a useful forum for LMAC/the RMACs to meet collectively with clearance operators to review and discuss field issues.<sup>50</sup>

As in the previous year, the Lebanese government contributed US\$9 million annually in 2022 towards mine action in Lebanon (for both mine- and CMR-related work), to support costs associated with the running of LMAC (facilities and staff); two LAF Engineering Regiment BAC teams and three Engineering Regiment's companies to cover rapid response across Lebanon; risk education; victim assistance; training; and advocacy.<sup>51</sup> However, the devaluation of the Lebanese Pound due to the economic crisis in the country affects the amount actually received.<sup>52</sup> The economic crisis affects the work of the Engineering Regiment humanitarian

demining teams. In particular, the increase in support and maintenance costs, and fuel shortages, were major obstacles.<sup>53</sup> Another consequence of the economic crisis in Lebanon is the enormous strain and the severe blow on the morale of the LMAC staff whose income was reduced in a few months to less than one tenth of previous income.<sup>54</sup>

The Lebanese government had pledged 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 the State's Article 4 obligations under the CCM. But due to political and financial turmoil in Lebanon this national funding has not been provided.<sup>55</sup> LMAC had expected that a reduced amount of around US\$3 million of national funding would still be allocated to CMR clearance yearly.<sup>56</sup> In fact, no national funds were allocated for CMR clearance in 2020, 2021, or 2022.<sup>57</sup>

The decrease in funding directly impacts the number of clearance teams and the annual clearance output. In its 2020 Article 4 extension request plan, funding for clearance was expected to be US\$6.9 million in the first three years of extension period. Actual funding dropped by US\$1.52 million in 2021, and by US\$1.9 million in 2022.<sup>58</sup> LMAC needs an additional US\$3 million a year to increase the number of TS and clearance teams, to the levels anticipated in its deadline extension request plan.<sup>59</sup>

## ENVIRONMENTAL POLICIES AND ACTION

LMAC said that it recognises its responsibility to ensure that demining operations are conducted responsibly and efficiently while also minimising the impact on the environment. Lebanon's NMAS on Safety and Occupational Health – Protection of the Environment (10.70) specifically aims to achieve this. LMAC and its implementing partners ensure that they operate in conformity with NMAS 10.70 including:

- Coordinating with local authorities and landowners before start of operations.
- Compiling a list of factors related to operations that may affect the environment for all types of assets, assessing the threat, and making informed decisions.
- After demining and EOD operations have been completed at a worksite, but before the formal release of the area, implementing agencies are required to remove and appropriately dispose of all rubbish and large fragments of ordnance, and fill in any holes in the ground to stabilise the surface to allow for natural regeneration, using water to consolidate the soil when appropriate.<sup>60</sup>

46 Emails from Hiba Ghandour, Programme Manager, MAG, 7 April 2022; and Southern Craib, Operations Manager, NPA, 28 March 2022.

47 Email from Southern Craib, NPA, 28 March 2022.

48 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

49 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Mouhamed Chour, Head of Operations, DCA, 3 May 2023; and Tomislav Vondracek, NPA, 5 May 2023.

50 LMAC, "Annual Report 2018", pp. 4, 7, and 17; and emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Emile Ollivier, NPA, 19 March 2019; Hiba Ghandour, MAG, 7 April 2022; Southern Craib, NPA, 28 March 2022; and Mouhamed Chour, DCA, 4 April 2022; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 8 and 54.

51 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form I.

52 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

53 LMAC, "Annual Report 2022", p. 24.

54 Ibid., p. 37.

55 Article 7 Report (covering 2019), Form I; and email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

56 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 38; and 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020.

57 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, 29 March 2022, and 15 May 2023; Article 7 Reports (covering 2020, 2021, and 2022), Form I; and LMAC, "Annual Report" 2022, p. 24.

58 LMAC, "Annual Report 2022", p. 24.

59 Article 7 report (covering 2022), Form I.

60 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 5 May 2023.

DanChurchAid (DCA) reported that it is compliant with the Environmental Health and Safety Guidelines and that it follows NMAS and IMAS procedures with regards to the environment. DCA's SOPs identify specific smoking areas at task sites to prevent uncontrolled fires and DCA monitors all vegetation-cutting procedures to prevent damage to flora that is protected under Lebanese law, especially when its teams are deployed in national reserves such as the Al Shuf Cedars, where DCA conducted clearance in 2021.<sup>61</sup>

MAG has an environmental management system in place, and has been implementing NTS and TS whenever possible in its land release approach for CMR tasks, to decrease manual clearance and its resultant impact on the environment.<sup>62</sup>

NPA Lebanon said it has an environmental plan in place which it is implementing, including recent installation of a solar system; a recycling programme (for paper, plastic, glass, and plastic); and upgrading of its fleet for fuel efficiency. It also strives to minimise the removal of vegetation to the extent that it is safe. NPA has also begun to track its environmental footprint through the use of an annual reporting tool.<sup>63</sup>

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## 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.<sup>64</sup>

LMAC remains committed to promoting the mainstreaming of gender and diversity among key stakeholders and mine action operators in Lebanon.<sup>65</sup> It has taken several actions to mainstream gender in its implementation plan, including through inclusive policies, data disaggregation in risk education and victim assistance, assigning a gender focal point, and organising and participating in courses at the RSHDL.<sup>66</sup>

MAG has supported LMAC in the implementation of the gender work plan and has assisted LMAC in establishment of a Gender Diversity and Inclusion Steering Committee led by LMAC's gender focal point and consisting of gender focal points and human resources (HR) managers from all clearance NGOs.<sup>67</sup> The GICHD conducted its most recent gender and diversity capacity assessment mission to the Lebanon programme in November 2021 and said LMAC had followed many of its recommendations on gender and diversity mainstreaming from that visit.<sup>68</sup>

In August 2022, LMAC organised a three-day course titled "Gender and Diversity Mainstreaming in Mine Action in Lebanon", in partnership with MAG, supported by UNDP, and funded by the Netherlands. The course was aimed at strengthening the integration of gender and diversity considerations among key stakeholders and mine action operators in Lebanon.<sup>69</sup> It brought together 22 participants from the NGOs MAG, NPA, DCA, Humanity & Inclusion (HI),

UNDP, UNMAS, and others, in addition to an officer from LMAC and the head of gender department at the Lebanese Army.<sup>70</sup>

Lebanon's new National Mine Action Strategy 2020–25, approved by the LMAA in June 2020, includes considerations on gender and diversity.<sup>71</sup> 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".<sup>72</sup>

As per its strategic implementation plan,<sup>73</sup> and through the TWG, LMAC finalised a code of conduct for the Lebanese Mine Action Programme, in 2022.<sup>74</sup> The code of conduct provides a framework for cooperation, coordination, and transparency between LMAC and implementing agencies. It aims to promote gender and diversity inclusion in all aspects of the organisations' work and ensure that the implementation of mine action activities is conducted in a professional, ethical, and accountable manner. It also aims to promote the safety and security of mine action personnel and to protect the rights and interests of affected communities, by setting guidelines for the protection of human rights and the promotion of gender equality and inclusivity, as well as provisions for the management of mine action-related risks and incidents.<sup>75</sup>

LMAC planned to conduct a full review of the NMAS in 2023 and to consider the gender perspective during the review.<sup>76</sup>

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61 Emails from Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.

62 Email from Sylvain Lefort, MAG, 14 April 2023.

63 Emails from Southern Craib, NPA, 28 March 2022; and Tomislav Vondracek, NPA, 5 May 2023.

64 Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

65 LMAC "Annual Report 2022", p. 33.

66 LMAC, "Annual Report 2018", p. 5; and email from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019.

67 Email from Sylvain Lefort, MAG, 14 April 2023.

68 Email from GICHD, 6 April 2023.

69 Emails Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; and GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 33.

70 Email from GICHD, 6 April 2023.

71 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March and 22 July 2020.

72 LMAC, Lebanon Mine Action Strategy 2020–25, p. 8.

73 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

74 Emails Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and GICHD, 6 April 2023; and LMAC, "Annual Report 2022", p. 34.

75 LMAC, "Annual Report 2022", p. 34.

76 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

Table 2: Gender composition of operators in 2022<sup>77</sup>

| Operator | Total staff | Women employed | Total staff in managerial or supervisory positions | Women in managerial or supervisory positions | Total staff in operational positions | Women in operational positions |
|----------|-------------|----------------|--|--|--------------------------------------|--------------------------------|
| DCA      | 70          | 14             | 15   | 8  | 54                                   | 6                              |
| LMAC     | 161         | 19             | 22   | 1  | 52                                   | 9                              |
| MAG      | 203         | 37             | 50   | 7  | 179                                  | 30                             |
| NPA      | 83          | 17             | 22   | 3  | 74                                   | 12                             |
| POD      | 99          | 1              | 21   | 1  | 83                                   | 0                              |

The number of staff at LMAC is determined by the LAF headquarters, so LMAC has limited control over the number of women, but it consistently requests that the percentage of women be increased.<sup>78</sup> However, the proportion of women at LMAC is more than double the 5% average of the Lebanese armed forces and LMAC seeks to improve this ratio further.<sup>79</sup> LMAC now has a female member of staff in an operational role, which is progress compared to last year when there were no women in operational positions.<sup>80</sup>

MAG, NPA, and Peace Generation Organization for Demining (POD) all reported having gender policies in place.<sup>81</sup>

MAG reported that it consults women during survey and community liaison activities; that all its community liaison teams are mixed; and that its data are disaggregated by sex, age, and nationality.<sup>82</sup> In 2022, MAG began systematic outreach to civil organisations to look for joint efforts to empower women and overcome stereotyping in the communities it works in, conducted detailed gender analysis to better disaggregate its data, and created a platform for reaching women in the community to attract more women to be involved in mine action.<sup>83</sup>

NPA was implementing its organisational gender policy for Lebanon, based on recommendations from the GICHD. It is encouraging more women to apply for field positions through job postings and social media. NPA disaggregates data by sex and age.<sup>84</sup>

## INFORMATION MANAGEMENT AND REPORTING

In 2021, LMAC completed migrating from its former version of IMSMA (New Generation) to IMSMA Core, with support from the GICHD. The new database is now being used for all activities.<sup>85</sup>

Several key improvements have been made in the new IM system, to ensure the quality of data. These include more accurate drawing of surveyed polygons using tools based on GPS and imagery base maps; reducing instances of double counting of polygons, for examples when different land release methods were used, as IMSMA core tracks the relationship between the parent and child activities using a unique ID; and the recording of the depth at which explosive ordnance was discovered, the condition of the explosive ordnance, and whether it is safe or unsafe to move.<sup>86</sup>

77 Emails from Mouhamed Chour, DCA, 3 May 2023; Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Tomislav Vondracek, NPA, 5 May 2023; and Mohammad Huseein Karak, POD, 3 July 2023.

78 Emails from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020 and 15 March 2021; and LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 19.

79 LMAC, "Annual Report 2020", p. 37.

80 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

81 Emails from Emile Ollivier, NPA, 19 March 2019; David Willey, MAG, 7 March 2019; and Mahmoud Rahhat, POD, 8 March 2019.

82 Email from Sylvain Lefort, MAG, 27 May 2021.

83 Ibid.

84 Email from Valerie Warmington, NPA, 28 May 2020.

85 LMAC, "Annual Report 2022", p. 31.

86 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

Disclaimed areas in the database are those for which the owner of the land has not granted permission for implementing agencies to conduct land release operations. In such cases, the landowner has to sign a personal disclaimer taking full responsibility for any kind of explosive remnants of war (ERW) hazard including CMR on the land. LMAC is trying to end the disclaimers, the records of which were mainly taken before 2009. The majority of disclaimed areas are being cancelled as a result of ongoing re-survey 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.<sup>87</sup> According to its 2020 Article 4 deadline extension request, there were 116 disclaimed areas on the database, totalling 338,932m<sup>2</sup>.<sup>88</sup>

DCA has been using Tiramisu Information Management Tool (T-IMS) for the past three years.<sup>89</sup> MAG started using "Survey123" software in Lebanon in August 2021 after training and field testing the new data collection system.<sup>90</sup> In 2022, MAG introduced version 2.0 of the Operational Management Information System, which will allow data to be automatically transferred from its database to LMAC's, removing the need for manual reporting of data and reducing manual errors. The new version will be implemented in 2023.<sup>91</sup> In the second half of 2020, NPA introduced the ARC-GIS programme for data collection to its information management system, which has allowed more precise monitoring and evaluation of the programme's activities, efficiency, outputs, and reporting.<sup>92</sup>

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## PLANNING AND TASKING

In September 2011, LMAC adopted a strategic mine action plan for 2011–20.<sup>93</sup> 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. Progress was also hindered by the historical lack of NTS and TS, which often resulted in inefficient land release and unnecessary clearance of uncontaminated land. LMAC has now rectified this, through the application of TS and its incorporation into the NMAS.

LMAC developed a new National Mine Action Strategy for 2020–25, with support from the UNDP project funded by the European Union (EU), in a participatory approach with national and international implementing agencies, mine action NGOs, UN agencies, and donors.<sup>94</sup> One objective of the new strategy is to complete clearance of all known cluster munition-contaminated areas by the end of 2025,<sup>95</sup> but LMAC is not on track to meet this target. The new strategy was approved by the LMAA in June 2020. A mid-term and final external review are planned, as well as annual reporting on progress.<sup>96</sup>

LMAC has also elaborated a strategic implementation plan for 2020–25, based on the new strategy and in collaboration with implementing partners, to operationalise the new

strategy with objectives, outputs, and indicators.<sup>97</sup> Results from the monitoring of the strategic implementation plan will be discussed at the operational level with implementing agencies at the TWG and a group of recommendations agreed and then presented at the biannual Mine Action Forum meetings.<sup>98</sup> The implementation plan will be revised annually by LMAC, the Institutional Support Programme (UNDP at present), and in consultation with humanitarian clearance operators.<sup>99</sup> LMAC had planned to conduct a full review of the strategy and implementation plan in 2022, in cooperation with all stakeholders.<sup>100</sup> The review did not take place in 2022, and is instead planned for 2023.<sup>101</sup> In addition, LMAC had an annual work plan for 2022 and has an annual work plan in place for 2023.<sup>102</sup>

Table 3 outlines the predicted annual clearance output and capacity up to the end of 2025, as per its 2021 deadline extension request. LMAC plans to conduct TS, where appropriate, but did not provide predictions in the extension request of the amount of area expected to be reduced through TS. The projected clearance rates in Lebanon's extension request were based on an average of the previous three years and while LMAC anticipates that application of the more efficient methodologies, such as technical survey will increase this average, it also expects that any gain will be offset by the more difficult terrain of contaminated area

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87 Emails from Lt.-Col. Fadi Wazen, LMAC, 2 September 2020 and 15 June 2021.

88 Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 36.

89 Email from Matthew Benson, Country Director, DCA, 4 June 2021.

90 Email from Hiba Ghandour, MAG, 7 April 2022.

91 Email from Sylvain Lefort, MAG, 14 April 2023.

92 Email from Hala Amhaz, NPA, 15 March 2021.

93 LMAC, Lebanon Mine Action Strategy 2011–2020, September 2011, p. 4.

94 LMAC, Lebanon Mine Action Strategy 2020–25; and LMAC, "Annual Report 2019", p. 7.

95 LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

96 Email from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020; and LMAC, Lebanon Mine Action Strategy 2020–25, p. 4.

97 Emails from Lt.-Col. Fadi Wazen, LMAC, 22 July 2020 and 15 March 2021; and LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 3.

98 LMAC, "Plan for the Implementation and Monitoring of the LMAP Strategy (2020–25)", p. 21.

99 LMAC, "Annual Report 2020", p. 33.

100 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

101 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

102 Ibid.; and LMAC Annual Report 2022, pp. 38–39.

that remains to be cleared.<sup>103</sup> Planned output also considers fade-out and the possible increase in the area to be cleared in the 10,000m<sup>2</sup> sites, using a factor of 2.5.<sup>104</sup> In 2022, LMAC cleared 1.15km<sup>2</sup> (and reduced a further 0.12km<sup>2</sup> through TS and cancelled 0.21km<sup>2</sup> through NTS), less than the 2022 clearance target in the extension request.<sup>105</sup>

As at the end of 2022, Lebanon was one year and eight months into its 5-year extension period and remaining CMR contamination stood at 5.23km<sup>2</sup> compared to the projected contamination of 5.53km<sup>2</sup>.<sup>106</sup> Based on current rates, Lebanon

expects to be able to release 3.81km<sup>2</sup> over the next three years, which would leave 1.42km<sup>2</sup> of remaining cluster munition-contaminated area by the end of 2025. Any further release through NTS is likely to be offset by the extra time needed to work on the difficult terrain sites. Due to the current limitations and not having the same clearance capacity used to elaborate the predicted annual output in its 2020 extension request work plan, Lebanon will not be able to meet its deadline of 1 May 2026. LMAC now expects to complete clearance in the summer of 2027.<sup>107</sup>

**Table 3: Planned CMR clearance and capacity (2021–25) as per 2020 Extension Request<sup>108</sup>**

| Year                            | 2021 | 2022 | 2023 | 2024 | 2025 |
|---------------------------------|------|------|------|------|------|
| <b>Cleared (km<sup>2</sup>)</b> | 1.9  | 1.9  | 1.9  | 1.5  | 1.6  |
| <b>Teams</b>                    | 26   | 26   | 26   | 21   | 21   |

With regard to task prioritisation, LMAC conducted a study, whose results have informed a new national prioritisation system, based on three strategic categories: safety, economy, and treaty compliance. Each category contains subcategories which take operational considerations and impact into account.<sup>109</sup> The prioritization of actions and allocation of resources is automated in IMSMA Core, during the data collection phase.<sup>110</sup> The new IMSMA Core only became fully functional in 2021, therefore additional information is still required to be able to specify the priorities. In 2022, NTS teams continued to update data for the new prioritization system. In 2023, LMAC aimed to complete 80% of the tasks in Mount Lebanon.<sup>111</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Lebanon developed its first NMAS in 2010.<sup>112</sup> In 2017, LMAC started revising and harmonising national standards with IMAS, adding new modules to the original standards.<sup>113</sup> It has since continued to review and further revise the NMAS to focus more on land release and evidence-based decision making, based on recommendations and analysis of operational data.

Most recently, LMAC has focused on strengthening the use of survey to more accurately define the presence of an explosive threat (or confirm its absence).<sup>114</sup> Prior to the

incorporation of TS into the revised NMAS released in May 2021, TS activities had not been a routine part of the toolbox for operators for the release of cluster munition tasks.<sup>115</sup> NGO clearance operators updated their SOPs accordingly and commenced application of TS on BAC tasks.<sup>116</sup> A full review of the LAF ER's SOPs was completed with the support of LMAC/UNDP, and TS is included for CMR operations.<sup>117</sup>

LMAC updated its strategic implementation plan to reflect the increased focus on TS,<sup>118</sup> and it was agreed at the TWG meeting in December 2021 that more TS will be conducted

<sup>103</sup> Revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 5 and 34.

<sup>104</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 19 March 2020.

<sup>105</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

<sup>106</sup> Article 7 report (covering 2022), Form F.

<sup>107</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

<sup>108</sup> Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 37.

<sup>109</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021; and LMAC, "Annual Report 2020", p. 35.

<sup>110</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 32.

<sup>111</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

<sup>112</sup> Email from Brig.-Gen. Elie Nassif, LMAC, 17 June 2015.

<sup>113</sup> 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; and Revised 2020 Article 4 deadline Extension Request, 25 February 2020, p. 15.

<sup>114</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 7 March 2019; Dave Wiley, MAG, 27 April 2018; and Craig McDiarmid, NPA, 17 April 2018; and Statement of Lebanon on Clearance, CCM Ninth Meeting of States Parties, Geneva, 2 September 2019.

<sup>115</sup> Interview with Brig.-Gen. Elie Nassif and Brig.-Gen. Fakhri, LMAC, Beirut, 11 April 2016 and with Lt.-Col. Fadi Wazen, LMAC, Beirut, 16 April 2019; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2020; and Hala Amhaz, NPA, 15 March 2021.

<sup>116</sup> Emails from Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022 and 3 May 2023.

<sup>117</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

<sup>118</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021.

by manual search teams.<sup>119</sup> LMAC promoted TS to be applied more systematically and routinely in 2022, for CMR tasks.<sup>120</sup> The continuous change in yearly funding makes it difficult to clearly calculate how much the operational efficiency has improved,<sup>121</sup> but LMAC found that where TS for CMR tasks was applied in 2022, an average of 51% of land was reduced.<sup>122</sup> No further updates were made to the NMAS in 2022,<sup>123</sup> but in line with its commitment to continuous improvement, LMAC planned a biannual review of the NMAS in 2023.<sup>124</sup>

In addition, following recommendations and discussions with implementing partners in early 2021, the fade-out distance requiring full clearance was formally reduced from a 50-metre radius to a 30-metre radius in high-density CMR tasks, and to a minimum 25-metre radius in low-density tasks.<sup>125</sup>

MAG had also previously noted that excessive marking reduced productivity and increased costs. It presented and demonstrated to LMAC a new marking system for BAC tasks, which was positively received and subsequently approved by LMAC.<sup>126</sup>

Furthermore, LMAC planned to update the NMAS with respect to demolitions, following a discussion with operators which revealed that reducing the frequency of destruction of items found in cluster munition sites to one demolition day per week, rather than daily as suggested in the existing NMAS, would save an average of 2 hours per day required for the preparation and execution of demolitions. As a consequence, an additional 4–8 hours of work per team per week will be saved.<sup>127</sup> As at July 2023, the updates for demolitions were already in place and applied by operators where possible.<sup>128</sup>

With respect to NTS, LMAC completed re-survey of all CMR tasks in November 2020, in order to have a clearer estimation of the remaining contamination for Article 4 planning.<sup>129</sup> LMAC will re-survey these tasks every three years and also has an NTS officer in its operations section, who is responsible for developing an annual plan and following up with all implementing agencies.<sup>130</sup> LMAC also agreed with the NGO operators the option for each to have a NTS team to re-survey each new task prior to starting clearance.<sup>131</sup>

## OPERATORS AND OPERATIONAL TOOLS

In 2022, CMR clearance was conducted by international operators DCA, MAG, and NPA; national operator POD; and the LAF Engineering Regiment.<sup>132</sup> Capacity for clearance of CMR in 2022 remained broadly constant with the previous year. However, the funding for 2023 has decreased enormously, with NPA working at half capacity.<sup>133</sup> Humanity and Inclusion (HI), which conducts mine clearance survey and clearance in Lebanon, also cancelled a small amount of CMR-contaminated area through NTS in 2022.<sup>134</sup>

The LAF Engineering Regiment has two BAC teams. A further three Engineering Regiment companies conduct rapid response call-outs. In addition, each deployed combat brigade has its own combat engineering company which can also conduct rapid-response call-outs. The LAF has seven MDD teams for TS 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.<sup>135</sup>

In Lebanon, machines are mostly used as secondary assets to support clearance teams (e.g. for ground preparation, rubble removal, or for fade-out); in areas where manual clearance is difficult; and for TS and low threat hazardous area (LTHA).<sup>136</sup> Often, however, the terrain is not suitable for machines. Unfortunately, the economic crisis in Lebanon has resulted in huge budget cuts in all government institutions and therefore the LAF teams are not able to conduct the same level of activities as before, including with respect to some of the mechanical assets. Clearance operators who are supported by mechanical assets from the LAF are providing fuel, maintenance, and spare parts for the machines.<sup>137</sup> In addition, new mechanical assets have been introduced by MAG, which will be used as primary assets.<sup>138</sup>

119 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

120 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

121 Ibid.

122 LMAC, "Annual Report 2022", p. 13.

123 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Mouhamed Chour, DCA, 3 May 2023; and Tomislav Vondracek, NPA, 5 May 2023.

124 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 38.

125 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 June 2021; Hiba Ghandour, MAG, 7 April 2022; and Mouhamed Chour, DCA, 4 April 2022.

126 Emails from Sylvain Lefort, MAG, 24 March and 27 May 2021; Hiba Ghandour, MAG, 7 April 2022; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

127 Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022; and LMAC, "Annual Report 2021", p. 33.

128 Email from Lt.-Col. Fadi Wazen, LMAC, 30 June 2023.

129 Article 7 Report (covering 2019), Form F; and LMAC, "Annual Report 2019", p. 12.

130 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

131 Emails from Lt.-Col. Fadi Wazen, LMAC, 5 April 2019 and 19 March 2020.

132 Email from Lt.-Col. Fadi Wazen, LMAC, 5 May 2023.

133 Ibid.

134 Email from Aurélien Thienpont, Country Manager, HI, 8 June 2023.

135 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 5 May 2023.

136 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

137 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

138 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

NPA worked with LMAC and the LAF to assess the capacities of the LAF MDDs for surveying and clearing CMR. However, as at May 2023, there had been no further progress on the development of a proposal to build the capacity of the LAF MDD teams in order to provide LMAC with IMAS/NMAS compliant MDD capacity for TS.<sup>139</sup> LMAC said use of MDDs in TS proved successful previously for addressing CMR, and LMAC plans to promote funding for MDDs and work with NPA to train new MDD teams in the Engineering Regiment.<sup>140</sup> Dogs are not currently accredited for CMR clearance in Lebanon.<sup>141</sup>

**Table 4: NGO operational CMR clearance capacities deployed in 2022<sup>142</sup>**

| Operator      | Manual teams | Total clearance personnel* | Machines** | Comments***   |
|---------------|--------------|----------------------------|------------|---|
| DCA           | 2            | 19                         | 0          | Combined mine and BAC capacity.   |
| MAG           | 6            | 66                         | 2          | Three teams in the south and three in the north-east. Clearance personnel also conduct TS. In the north-east, teams are also involved in TS and clearance of mines and improvised explosive devices (IEDs), in addition to CMR. LMAC reported MAG as having 7 manual CMR clearance teams, most likely splitting the large teams into sub teams. |
| NPA           | 4            | 29                         | 0          |   |
| POD           | 7            | 85                         | 0          |   |
| <b>Totals</b> | <b>19</b>    | <b>199</b>                 | <b>2</b>   |   |

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

DCA's clearance capacity remained broadly constant in 2022.<sup>143</sup>

MAG's survey and clearance capacity remain broadly constant in 2022. Its capacity in 2023 is contingent on funding, but MAG expected a decrease in number of NTS/TS and/or clearance personnel in 2023, as it anticipated the completion of its project in the north-east and the redundancy of staff deployed in that project.<sup>144</sup>

NPA's capacity in 2022 was broadly the same as the previous year. However, Japan announced they would not continue funding in Lebanon from the end of March 2023, which resulted in NPA putting all operational staff on part-time contracts (50%) from January 2023, to avoid lay-offs. NPA hoped that new donors can be found in 2023 to offset the impact of this.<sup>145</sup>

With respect to NTS capacity (for both CMR and mines) in 2022, there were seven NTS teams in total: two LMAC teams (totalling two personnel);<sup>146</sup> two DCA teams (totalling four personnel);<sup>147</sup> and three MAG teams (two in the south and one in the north-east, involved in NTS of both CMR and landmine contamination) (totalling five personnel).<sup>148</sup> In addition, there was one person deployed for NTS for Humanity and Inclusion (HI), mainly for mines, but which surveyed one CMR site in 2022.<sup>149</sup>

In August 2021, MAG introduced the Vallon VMH4 and VMX10 detectors in 2021, having previously conducted trials for these detectors. The deployment of the Vallon detectors on BAC tasks has resulted in increased productivity in CMR tasks.<sup>150</sup> MAG has also changed the clearance methodology through using a new marking system which uses ropes instead of pickets, thus saving time and money. Furthermore, it has increased its mechanical fleet by procuring two new machines (Rebel Crusher and GCS-200) which were deployed on minefield clearance sites in 2022, but will be used on BAC sites in 2023 if needed.<sup>151</sup>

139 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Southern Craib, NPA, 28 March 2022; Article 7 Report (covering 2021), Form F; and LMAC, "Annual Report 2021", p. 32.

140 Article 7 report (covering 2022), Form F.

141 Email from Southern Craib, NPA, 28 March 2022.

142 LMAC, "Annual Report 2022", p. 11; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; Tomislav Vondracek, NPA, 5 May 2023; Mouhamed Chour, DCA, 3 May and 16 June 2023; and Mohammad Husein Karak, POD, 3 July 2023.

143 Email from Mouhamed Chour, DCA, 3 May 2023.

144 Email from Sylvain Lefort, MAG, 14 April 2023.

145 Email from Tomislav Vondracek, NPA, 5 May 2023.

146 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

147 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Mouhamed Chour, DCA, 3 May 2023.

148 Email from Sylvain Lefort, MAG, 14 April 2023.

149 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 and 30 May 2023.

150 Emails from Hiba Ghandour, MAG, 7 April 2022; Sylvain Lefort, MAG, 14 April 2023; and Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; Article 7 Report (covering 2021), Form F; and LMAC, "Annual Report 2021", p. 32.

151 Email from Sylvain Lefort, MAG, 14 April 2023.

# LAND RELEASE OUTPUTS AND ARTICLE 4 COMPLIANCE

## LAND RELEASE OUTPUTS IN 2022

A total of almost 1.48km<sup>2</sup> of CMR-contaminated area was released in 2022, of which more than 1.15km<sup>2</sup> was cleared, almost 0.12km<sup>2</sup> was reduced through TS, and nearly 0.21km<sup>2</sup> was cancelled through NTS.<sup>152</sup> A total of 2,556 submunitions were destroyed in 2022, including at least 139 submunitions during rapid response call-outs and 14 submunitions destroyed during mine clearance operations.<sup>153</sup>

In addition, 0.44km<sup>2</sup> of previously unrecorded CMR contamination was added to the database in 2022, of which 0.03km<sup>2</sup> was due to a correction of the perimeters of existing CMR sites following NTS.<sup>154</sup>

## SURVEY IN 2022

In 2022, 209,593m<sup>2</sup> was cancelled through NTS (see Tables 5 and 6) and a further 115,836m<sup>2</sup> was reduced through TS (see Table 7).<sup>155</sup>

NTS output in 2022 marked a slight increase compared In 2021, when 96,602m<sup>2</sup> was cancelled through NTS.<sup>156</sup> TS output in 2022 was a slight decrease on the 140,392m<sup>2</sup> reduced through TS in 2021.<sup>157</sup>

**Table 5: Cancellation through NTS by province in 2022<sup>158</sup>**

| Province      | Area cancelled (m <sup>2</sup> ) |
|---------------|----------------------------------|
| Bekaa         | 175,502                          |
| Mount Lebanon | 16,248                           |
| South Lebanon | 17,843                           |
| <b>Total</b>  | <b>209,593</b>                   |

**Table 6: Cancellation through NTS by implementing agency in 2022<sup>159</sup>**

| Operator     | Area cancelled (m <sup>2</sup> ) |
|--------------|----------------------------------|
| DCA          | 10,000                           |
| HI           | 6,248                            |
| MAG          | 193,345                          |
| <b>Total</b> | <b>209,593</b>                   |

**Table 7: Reduction through TS in 2022<sup>160</sup>**

| Province     | Operator | Area reduced (m <sup>2</sup> ) |
|--------------|----------|--------------------------------|
| Bekaa        | MAG      | 115,836                        |
| <b>Total</b> |          | <b>115,836</b>                 |

In 2022, 413,534m<sup>2</sup> of previously unrecorded CMR contamination was added to the database (333,342m<sup>2</sup> in the north-east region and 80,192m<sup>2</sup> in other regions).<sup>161</sup>

## CLEARANCE IN 2022

Lebanon reported clearing more than 1.15km<sup>2</sup> of CMR-contaminated land in 2022 (see Tables 8 and 9), destroying in the process 2,542 submunitions.<sup>162</sup> This included 139 submunitions destroyed during rapid response/EOD spot tasks.<sup>163</sup> Clearance during the year was a slight increase on the 1km<sup>2</sup> of CMR-contaminated land cleared in 2021.<sup>164</sup>

152 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Article 7 report (covering 2022), Form F.

153 LMAC, "Annual Report 2022", p. 11.

154 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC, "Annual Report 2022", p. 14.

155 Article 7 report (covering 2022), Form F; and email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

156 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

157 Ibid.

158 Article 7 report (covering 2022), Form F; email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and LMAC, "Annual Report 2022", p. 14.

159 Article 7 report (covering 2022), Form F; emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Aurélien Thienpont, HI, 8 June 2023; LMAC, "Annual Report 2022", p. 14. DCA and MAG reported slightly different cancellation data to Mine Action Review, compared to LMAC data. DCA reported that it cancelled 56,797m<sup>2</sup> in 2022 (10,000m<sup>2</sup> in Alay and 46,797m<sup>2</sup> in Metn) (email from Mouhamed Chour, DCA, 3 May 2023). MAG reported that it cancelled a total of 622,232m<sup>2</sup> in 2022: 35,070m<sup>2</sup> in Ras Baalbek and 586,162m<sup>2</sup> in Rashyia (email from Sylvain Lefort, MAG, 14 April 2023). MAG believes the discrepancy was because some of the tasks it received were marked as dangerous areas (DAs) for NTS, but upon the completion of NTS, MAG recorded them as CM tasks, whereas LMAC continued to record them as DAs (email from Sylvain Lefort, MAG, 12 June 2023).

160 Article 7 report (covering 2022), Form F; LMAC, "Annual Report 2022", p. 13; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023. MAG's data was different to that of LMAC's. MAG reported reducing 58,963m<sup>2</sup> in Baalbak Hermal and 15,447m<sup>2</sup> in Nabatiyeh, in addition to the 115,836m<sup>2</sup> reduced in Bekaa (email from Sylvain Lefort, MAG, 14 April 2023). The differences between LMAC and operator data are due to LMAC only reporting land release after full completion and hand over, whereas upon completion, MAG reports the data back to when the task was open. Email from Sylvain Lefort, MAG, 12 June 2023.

161 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; CCM Article 7 Report (covering 2022), Form F; and LMAC Annual Report 2022, p. 14.

162 Article 7 report (covering 2022), Form F.

163 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

164 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

Table 8: CMR clearance by province in 2022<sup>165</sup>

| Province         | Area cleared (m <sup>2</sup> ) | Submunitions destroyed* |
|------------------|--------------------------------|-------------------------|
| Bekaa            | 686,058                        | N/R                     |
| Mount Lebanon    | 168,000                        | N/R                     |
| South of Lebanon | 299,518                        | N/R                     |
| <b>Totals</b>    | <b>1,153,576</b>               | <b>2,556</b>            |

\* Figures include items destroyed during TS and rapid response call-outs, and 14 submunitions destroyed during mine clearance.

Table 9: CMR clearance by implementing agency in 2022<sup>166</sup>

| Operator      | Area cleared (m <sup>2</sup> ) | Submunitions destroyed during clearance* | UXO destroyed during CMR clearance |
|---------------|--------------------------------|--|------------------------------------|
| DCA           | 167,790                        | 153                                      | 45                                 |
| LAF           | 4,750                          | **253                                    | N/R                                |
| MAG           | 694,315                        | 63                                       | 10                                 |
| NPA           | 87,189                         | 1,333                                    | 35                                 |
| POD           | 199,532                        | 601                                      | N/R                                |
| <b>Totals</b> | <b>1,153,576</b>               | <b>2,403</b>                             | <b>90</b>                          |

\* Figures include items destroyed during TS but not during rapid response call-outs.

\*\* Includes submunitions destroyed during TS, clearance, and rapid-response call-outs.

A further 139 submunitions were destroyed during rapid response call-outs in 2022: 10 by MAG and 129 by POD.<sup>167</sup> In addition, according to LMAC, DCA found a further 14 submunitions during mine clearance operations.<sup>168</sup>

According to LMAC, NTS results were as expected, as NTS teams are updating the database on a three-year cycle. The total amount of area released in 2022 exceeded that of previous year, despite the reduction in funding, indicating an improvement in efficiency.<sup>169</sup>

DCA's clearance output decreased slightly in 2022, compared to the previous year, because DCA capacity was deployed to clear more minefields. DCA also saw a decrease in the amount of CMR-contaminated area cancelled through NTS, as many of the tasks were in high altitudes and snow slowed down NTS. DCA reported that all its CMR-clearance tasks in 2022 contained submunitions.<sup>170</sup>

MAG significantly increased the area it reduced in 2022, compared to 2021, due to LMAC's decision to increase TS in BAC sites whenever possible. MAG also saw a slight increase in the amount of CMR-contaminated area cleared, due to several reasons including increased use of the new VMH4 detector on BAC sites which increased productivity by cancelling signals caused by scrap metals.<sup>171</sup> MAG reported that 26 CMR tasks totalling 341,909m<sup>2</sup>, proved to contain no cluster munition remnants.<sup>172</sup> These tasks had reportedly been created due to items found and destroyed by the LAF or else prior to the approval of the use of TS in BAC tasks.<sup>173</sup>

The amount of cluster munition-contaminated area cleared by NPA in 2022 was a decrease on the previous year, largely due to a change in terrain and the level of metal contamination. In addition, 379 more submunitions were discovered and destroyed in 2022, compared to the previous year, impacting

165 Article 7 Report (covering 2022), Form F.

166 Article 7 Report (covering 2021), Form F; LMAC, "Annual Report 2022", pp. 11 and 12; and emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; Tomislav Vondracek, NPA, 5 May 2023; and Sylvain Lefort, MAG, 12 June 2023. DCA clearance data reported to Mine Action Review differed from LMAC's data. DCA reported clearing 168,115m<sup>2</sup> of CMR-contaminated area with the destruction of 361 submunitions and 44 items of UXO (email from Mouhamed Chour, DCA, 3 May 2023).

167 Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and Sylvain Lefort, MAG, 12 June 2023; and LMAC, "Annual Report 2022", p. 11.

168 LMAC, "Annual Report 2022", p. 11. DCA's data was different to that in LMAC's report. DCA reported destroying 21 submunitions during mine clearance tasks in 2022 (email from Mouhamed Chour, DCA, 16 June 2023).

169 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

170 Email from Mouhamed Chour, DCA, 3 May 2023.

171 Email from Sylvain Lefort, MAG, 14 April 2023.

172 Email from Sylvain Lefort, MAG, 14 April 2023.

173 Emails from Hiba Ghandour, MAG, 3 June 2022; and Sylvain Lefort, MAG, 12 June 2023.

the square metre output. NPA reported clearing one task in 2022, totalling 10,000m<sup>2</sup>, which did not contain CMR,<sup>174</sup> although UNIFIL had destroyed a CM container in the task in the past.<sup>175</sup> NPA did not reduce any cluster-munition contaminated area through TS in 2022, which it said was due to the heavy contamination in the CMR tasks.<sup>176</sup>

According to LMAC, MAG, and NPA, COVID-19 had no significant impact on operations in 2022.<sup>177</sup> DCA said several cases of COVID-19 between the searchers and team members impacted its land release operations due to operations personnel being off work sick or in quarantine awaiting negative test results.<sup>178</sup>

## 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 2026, having been granted a five-year extension in 2021 (the maximum that can be requested per extension request under the CCM). Lebanon is not on track to meet this deadline.

In light of improvements to the CMR land release methodology in the last couple of years, funding now represents the most significant challenge to Lebanon's Article 4. Many international donors have stopped funding clearance operations in Lebanon, with total mine action funding falling from US\$19.65 million in 2019 to US\$11.2 million in 2022.<sup>179</sup> For the second year in a row, the funding earmarked for CMR clearance has continued to decline, having a direct impact on the number of clearance teams.

Furthermore, Lebanon is in the midst of a deep and unprecedented economic, financial, and social crisis and no funds have been received from the 50 billion Lebanese pounds allocated by the government of Lebanon in 2017 for cluster munition clearance.<sup>180</sup> Based on current funding and capacity, LMAC does not expect to be able to complete CMR clearance by its extended deadline of May 2026, and instead predicts it will complete clearance in the summer of 2027.<sup>181</sup>

Operators have said that the economic and political crises have led to hyper-inflation, currency collapse, and problems with already strict and reducing budgets. This has resulted in supplies being more expensive; fuel less readily available; and protests and roadblocks hampering the security

situation. The impact of this is particularly challenging in respect to funding from some donors which do not fund the full cost of operations.<sup>182</sup>

Lebanon has cleared approximately 5.8km<sup>2</sup> of cluster munition-contaminated area in the last five years (see Table 10). According to LMAC, results until the beginning of 2022 showed that Lebanon was on track to meet its Article 4 extension request plan targets, however, the drop in funds in 2021 onwards and the corresponding drop in the number of CMR survey and clearance teams is now reducing the amount of CMR-contaminated area released.<sup>183</sup> The current shortfall between the amount specified in Lebanon's 2020 Article 4 extension request and the amount actually secured for cluster munition survey and clearance is a total of US\$8.7 million for 2021 and 2022. No new donors were brought on board in 2022.<sup>184</sup>

In order to meet its international commitments, LMAC has said it must: maintain international interest in CMR clearance in Lebanon; secure as a minimum the necessary funds stated in the extension request plan (US\$6.6 million/year); and secure additional funds of US\$3 million/year for the next two years to compensate for the decreased funds and the inability of government of Lebanon at present to support CMR clearance operations due to economic crisis.<sup>185</sup>

LMAC and its implementing partners have continued to stress the importance of increasing donor funding and commitment to enable Lebanon to achieve completion in a timely manner and to meet its international obligation towards the CCM.<sup>186</sup>

174 Email from Tomislav Vondracek, NPA, 5 May 2023.

175 Email from Lt.-Col. Fadi Wazen, LMAC, 30 May 2023.

176 Emails from Tomislav Vondracek, NPA, 5 May and 15 June 2023.

177 Emails from Fadi Wazen, LMAC, 15 May 2023; Sylvain Lefort, MAG, 14 April 2023; and Tomislav Vondracek, NPA, 5 May 2023.

178 Email from Mouhamed Chour, DCA, 3 May 2023.

179 LMAC, "Annual Report 2022", p. 37.

180 Article 7 report (covering 2022), Form F.

181 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

182 Email from Matthew Benson, DCA, 24 May 2021.

183 Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022; and Article 7 Report (covering 2021), Form F.

184 Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.

185 Article 7 report (covering 2022), Form F.

186 Emails from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022 and 15 May 2023; and Sylvain Lefort, MAG, 14 April 2023; and Article 7 report (covering 2022), Form F.

LMAC has stressed that securing funding during 2023 for the remaining 2.5 years of the extension period is critical.<sup>187</sup> Operators have been trying to engage with new donors and will continue to advocate for mine action in Lebanon to support LMAC in their quest.<sup>188</sup>

**Table 10: Five-year summary of CMR clearance**

| Year         | Area cleared (km <sup>2</sup> ) |
|--------------|---------------------------------|
| 2022         | 1.15                            |
| 2021         | 1.00                            |
| 2020         | 1.28                            |
| 2019         | 1.26                            |
| 2018         | 1.15                            |
| <b>Total</b> | <b>5.84</b>                     |

In addition to the funding challenges, LMAC also lists other challenges in Article 4 implementation, including: discovery of new unreported contaminated areas, and the impact of working in “difficult terrains” which might slow down clearance at some sites.<sup>189</sup> So-called “difficult terrain” includes deep and very steep canyons and cliffs where survey and clearance are almost impossible to conduct using current methods and assets and represent additional risk to searchers and medical evacuation. LMAC, however, acknowledges that suspected or confirmed cluster munition-contaminated areas on difficult terrain still need to be released in order to comply with its Article 4 obligations.<sup>190</sup>

In partnership with the GICHD, a joint study was launched in November 2020 to find a solution on how to address this terrain and satisfy the requirements of the CCM. Following delays due to the COVID-19 pandemic, a GICHD advisor visited Lebanon for a week in 2021, during which 23 CMR sites (totalling 247,619m<sup>2</sup>) were visited in order to better assess the sites, the conditions, and determine the best solution.<sup>191</sup> A second GICHD visit was planned for May 2023 and the study was then expected to be finalised during the year,<sup>192</sup> and will provide recommendations to help complete the release of these sites.<sup>193</sup>

## PLANNING FOR MANAGEMENT OF RESIDUAL CONTAMINATION

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

LMAC plans to ensure a smooth transition to a fully sustainable and nationally owned, managed, and executed humanitarian mine action programme. With regard to CMR, between 2021 and 2025, Lebanon plans to: determine an end state and elaborate an exit strategy; establish a sustainable structure capable of addressing remaining contamination (including the residual challenge); develop a transition plan; obtain national funding for the sustainable structures identified; establish new structures (if required); and capacity build the new structures, with support from international actors. LMAC has emphasised the importance of the exit strategy being viewed as a living document, which will need to be regularly discussed and updated, according to the situational context and evolution of the programme.<sup>194</sup> LMAC presented a draft exit strategy to all stakeholders including donors at the last Mine Action Forum meeting in 2022.<sup>195</sup> LMAC will proceed with finalizing the exit strategy in 2023, once the mid-term review of the national strategy has been conducted.<sup>196</sup>

<sup>187</sup> Article 7 report (covering 2022), Form F.

<sup>188</sup> Email from Sylvain Lefort, MAG, 14 April 2023; and Tomislav Vondracek, NPA, 5 May 2023.

<sup>189</sup> Article 7 Report (covering 2022), Form F.

<sup>190</sup> 2020 Article 4 deadline Extension Request, answers to analysis group, 6 February 2020; revised 2020 Article 4 deadline Extension Request, 25 February 2020, pp. 40–42; and LMAC, “Annual Report 2021”, pp. 30 and 33.

<sup>191</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, and 29 March and 7 July 2022; and GICHD, 14 May 2021; and Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

<sup>192</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023; and GICHD, 6 April 2023; Article 7 report (covering 2022), Form F; and LMAC, “Annual Report 2022”, p. 24.

<sup>193</sup> Emails from Lt.-Col. Fadi Wazen, LMAC, 15 March 2021, and 29 March and 7 July 2022; and GICHD, 14 May 2021; and Article 7 Report (covering 2021), Form F; and presentation of Lebanon, CCM Intersessional meetings, Geneva, 16 May 2022.

<sup>194</sup> LMAC, “Annual Report 2020”, p. 31.

<sup>195</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 29 March 2022.

<sup>196</sup> Email from Lt.-Col. Fadi Wazen, LMAC, 15 May 2023.