

**ANTI-PERSONNEL MINE BAN CONVENTION ARTICLE 5 DEADLINE: 1 MARCH 2020**  
UNCLEAR WHETHER ON TRACK TO MEET DEADLINE

## KEY DATA

ANTI-PERSONNEL (AP)  
MINE CONTAMINATION:

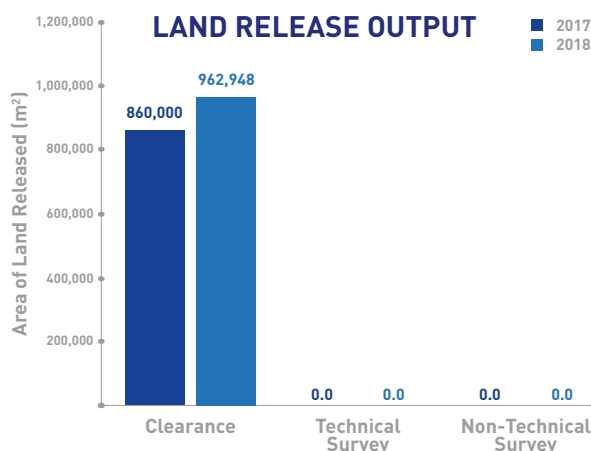
**MEDIUM,** **2.5KM<sup>2</sup>**  
(ESTIMATED)

AP MINE CLEARANCE IN 2018

**962,948M<sup>2</sup>**

AP MINES DESTROYED IN 2018

**3,908**



**CURRENT LIKELIHOOD OF MEETING 2025 CLEARANCE TARGET** (as per Maputo +15 Political Declaration aspiration): **HIGH**

## KEY DEVELOPMENTS

Chile increased clearance output from 2017 to 2018 but still fell short of its planned land release target for the year. Chile has reiterated its commitment to completing clearance of outstanding anti-personnel mine contamination by its Article 5 deadline of March 2020, which makes 2019 a crucial year. Chile has set itself a very ambitious target for the year and will need to significantly increase its clearance output in the face of challenging climatic conditions.

## RECOMMENDATIONS FOR ACTION

- Chile should clarify the amount of outstanding contamination in Seilao, Antofagasta, following technical survey of mined area there in 2017.
- Chile should accelerate clearance to ensure it meets its planned targets, increasing operational capacity to offset the challenging climatic conditions and delays to demining.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

| Criterion                                                                      | Score (2018) | Performance Commentary                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNDERSTANDING OF CONTAMINATION</b><br>(20% of overall score)                | 7            | Chile is contaminated with both anti-vehicle and anti-personnel mines with the majority of contamination in hard-to-access areas with technical survey planned in Antofagasta to more accurately define outstanding contamination.                                                                                                                                                           |
| <b>NATIONAL OWNERSHIP &amp; PROGRAMME MANAGEMENT</b><br>(10% of overall score) | 8            | There is strong national ownership in Chile with leadership of the programme from the National Demining Commission (Comisión Nacional de Desminado, CNAD) and demining operations being fully funded by the Chilean government.                                                                                                                                                              |
| <b>GENDER</b><br>(10% of overall score)                                        | 6            | Chile has taken steps to mainstream gender across the armed forces with women working at all levels of the mine action programme. Chile should take the next steps and formulate a mine action-specific gender and diversity policy.                                                                                                                                                         |
| <b>INFORMATION MANAGEMENT &amp; REPORTING</b><br>(10% of overall score)        | 6            | Chile uses the Information Management System for Mine Action (IMSMA) database, which it updated to Version 6 in 2017. Chile submits timely Article 7 transparency reports and provides regular updates on progress in Article 5 implementation at the annual meetings of states parties. However, there are inconsistent and inaccurate figures within reports and across reporting periods. |
| <b>PLANNING AND TASKING</b><br>(10% of overall score)                          | 6            | Chile has a National Plan for Humanitarian Demining 2016–2020 and submitted updated clearance plans in 2017 and then again in 2019. Chile failed to meet its land release target in 2018 and has set itself a very ambitious target for 2019.                                                                                                                                                |
| <b>LAND RELEASE SYSTEM</b><br>(20% of overall score)                           | 7            | Chile is guided by the International Mine Action Standards (IMAS). All survey and clearance is undertaken by the military and both machines and dogs are used during operations.                                                                                                                                                                                                             |
| <b>LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE</b><br>(20% of overall score) | 5            | It is unclear whether Chile is on track to meet its Article 5 deadline as the small increase in clearance output in 2018 will not be nearly enough to meet its target. Chile faces delays to demining operations from the challenging climate and it is hard to see how it will meet its deadline without a major increase in capacity.                                                      |
| <b>Average Score</b>                                                           | <b>6.4</b>   | <b>Overall Programme Performance: AVERAGE</b>                                                                                                                                                                                                                                                                                                                                                |

## DEMINING CAPACITY

### MANAGEMENT

- National Demining Commission (Comisión Nacional de Desminado, CNAD)

### NATIONAL OPERATORS

- Army Corps of Engineers, Navy Peace and Demining Division

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- None

## UNDERSTANDING OF AP MINE CONTAMINATION

At the end of 2018, Chile had almost 4.5km<sup>2</sup> of mined area (see Table 1) down from just over 5.1km<sup>2</sup> at the end of the previous year.<sup>1</sup>

**Table 1: Anti-personnel mined area by region (at end 2018)<sup>2</sup>**

| Region                           | CHAs      | Area (m <sup>2</sup> ) | SHAs     | Area (m <sup>2</sup> ) | Total SHAs and CHAs | Total area (m <sup>2</sup> ) |
|----------------------------------|-----------|------------------------|----------|------------------------|---------------------|------------------------------|
| Arica and Parinacota             | 5         | 797,357                | 1        | 145,297                | 6                   | 942,654                      |
| Antofagasta                      | 4         | 158,278                | 2        | 3,129,888              | 6                   | 3,288,166                    |
| Magallanes and Antártica Chilena | 6         | 157,632                | 0        | 0                      | 6                   | 157,632                      |
| Tarapacá                         | 3         | 49,199                 | 0        | 0                      | 3                   | 49,199                       |
| Valparaíso                       | 0         | 0                      | 1        | 14,000                 | 1                   | 14,000                       |
| <b>Totals</b>                    | <b>18</b> | <b>1,162,466</b>       | <b>4</b> | <b>3,289,185</b>       | <b>22</b>           | <b>4,451,651</b>             |

CHA = Confirmed Hazardous Area SHA = Suspected Hazardous Area

The mines were all laid during the Pinochet regime in the 1970s on Chile's borders with Argentina in the south, and with Bolivia and Peru in the north. The mined areas, which typically contain both anti-vehicle and anti-personnel mines, are generally difficult to access and mostly in unpopulated regions. The regions of Antofagasta, Arica and Parinacota, and Magallanes and Antártica Chilena are contaminated with both anti-vehicle and anti-personnel mines while the regions of Tarapacá and Valparaíso are contaminated only with anti-personnel mines.<sup>3</sup> Of the 22 mined areas identified in Table 1 ten contain only anti-personnel mines.<sup>4</sup> The vast majority of the mines were laid in the northern region, with some minefields located as high as 5,000m above sea level.<sup>5</sup>

In 2017, a technical survey was carried out in Seilao, Antofagasta, identifying contamination estimated to cover 2.28km<sup>2</sup>, an increase from the previous estimate of 1.97km<sup>2</sup>.<sup>6</sup> Chile had planned to conduct further survey in 2018 of newly identified mined area in San Pedro de Atacama to more accurately determine the extent of contamination.<sup>7</sup> In May 2019, Chile stated that it planned to reduce the confirmed area of 2.28km<sup>2</sup> through technical survey and that a geomorphological study of the whole area was needed.<sup>8</sup>

Chile is also contaminated with cluster munition remnants, currently estimated at 97km<sup>2</sup> although actual contamination is likely to be much lower, and to a limited extent other unexploded ordnance (UXO) (see Mine Action Review's *Clearing Cluster Munition Remnants 2019* report on Chile for further information).

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The national mine action programme is managed by the National Demining Commission (CNAD), which is chaired by the Minister of Defence. In May 2002, Supreme Decree No.79 created CNAD as an advisory body to the President of the Republic and interministerial coordinator to support the fulfilment of the Anti-Personnel Mine Ban Convention (APMBC).<sup>9</sup> Its main functions are to advise the President, mobilise resources, coordinate demining with state agencies, and develop plans for implementing the APMBC.

Demining operations are all funded by the Government of Chile. In 2018, some US\$4.25 million was allocated to the demining programme, a drop from the \$4.325 million allocated in 2017. The amount allocated corresponds to the planned budget.<sup>10</sup>

## GENDER

While there is no specific gender policy within CNAD, Chile's policy of integrating women into the armed forces has been in place since 2000. As at May 2019, 14.4% of total armed forces personnel were female. In 2016, restrictions on the type of military positions a woman could hold were lifted and legislation was adopted to modify the military grading system, allowing women to be promoted in the same way as men. Women have been working in demining in Chile since 2004 across all types of roles, including as deminers and

in managerial/supervisory roles. In 2007, the first woman was appointed as Manual Demining Section Commander in Arica. In May 2018, a woman was appointed as Demining Company Commander in Arica. Chile has made provisions to make it easier for women to work in the sector by, for example, adapting demining equipment to better suit female specifications, providing childcare and eliminating the gender wage gap.<sup>11</sup>

# INFORMATION MANAGEMENT AND REPORTING

Since 2003, Chile has been using the Information Management System for Mine Action (IMSMA). During 2017, Chile upgraded to Version 6 of IMSMA after starting the MARS (Mine Action Reporting System) application that replaced IMSMA Mobile. This application has equipped Chile with high-quality geographic information to support decision-making around clearance.<sup>12</sup>

Chile has submitted its Article 7 reports almost every year since its accession to the convention in 2002 and makes regular Article 5 statements at meetings of states parties, although there have been some problems with the accuracy of the information presented. In previous years, Chile submitted clearance plans that contained estimates that were more than the amount of area that had been indicated as remaining.<sup>13</sup>

## PLANNING AND TASKING

The National Plan for Humanitarian Demining 2016–2020 was formulated in accordance with the request of the Eleventh Meeting of the States Parties (11MSP) that Chile provide updates relative to the timelines presented in its 2011 extension request.<sup>14</sup> The main objective of the plan is to eliminate all existing anti-personnel mines on national territory by the March 2020 deadline.<sup>15</sup>

In its Article 7 report for 2017, Chile submitted an updated annual clearance plan for 2018–20 taking into account contamination newly found in San Pedro de Atacama during 2017 (see Table 2).<sup>16</sup> In its statement at the Seventeenth Meeting of States Parties, Chile indicated that by the end of 2018 it planned to clear 13 mined areas, followed by clearance of 14 mined areas in 2019, and clearance of the final mined area, which would be completed in 2020.<sup>17</sup> In fact, Chile fell short of its land release target, clearing six mined areas totalling 962,948m<sup>2</sup>.<sup>18</sup>

As at April 2019, Chile had cleared three mined areas totalling 26,603m<sup>2</sup> since January and planned to clear an additional 18 mined areas by the end of the year, leaving one mined area to clear in 2020 (see Table 3).<sup>19</sup>

Annually, CNAD issues a National Directive on the Execution of Demining Activities from the Government of Chile, which contains a set of provisions and tasks that supports the planning of demining activities.<sup>20</sup> Clearance is prioritised according to proximity to populated areas, impact on land that has been designated a national park or is a historical site of touristic interest, and impact on land that obstructs development.<sup>21</sup>

Table 2: Mine clearance plan 2018–20

| Year  | Planned clearance (m <sup>2</sup> ) |
|-------|-------------------------------------|
| 2018  | 1,388,304                           |
| 2019  | 3,664,338                           |
| 2020  | 50,600                              |
| Total | 5,103,242                           |

Table 3: Updated Mine clearance plan 2019–20

| Year  | Mined areas | Planned clearance (m <sup>2</sup> ) |
|-------|-------------|-------------------------------------|
| 2019  | 18          | 4,374,448                           |
| 2020  | 1           | 50,600                              |
| Total | 19          | 4,425,048                           |

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

Chile is guided by the international mine action standards (IMAS).<sup>22</sup> It first developed a joint demining manual for its armed forces in 2009.<sup>23</sup> As at June 2019, the Armed Forces Manual of Humanitarian Demining and Clearance of Explosive Remnants of War was awaiting final approval.<sup>24</sup>

### OPERATORS

Mine clearance in Chile is conducted by the Army Corps of Engineers and the Navy Peace and Demining Division. In 2017, Chile deployed seven manual demining teams with a total of 207 deminers.<sup>25</sup>

### OPERATIONAL TOOLS

Since 2008, mechanical assets have been used to support manual demining in Chile. During 2018, machines were deployed to conduct clearance in Arica and Parinacota and Antofagasta.<sup>26</sup> Chile also used explosive detection dogs for the first time in 2018 to carry out quality control of an area that had been cleared using machines.<sup>27</sup>

### DEMINER SAFETY

In 2018, a deminer working in the Arica and Parinacota region detonated an M-14 anti-personnel mine while conducting clearance, which resulted in serious injuries to his face and hand.<sup>28</sup>

## LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2018

In 2018, a total of 0.96km<sup>2</sup> was released through clearance in three regions and 3,908 anti-personnel mines and 1,117 anti-vehicle mines were found and destroyed (see Table 4). This was an increase from the 860,000m<sup>2</sup> cleared in 2017. No mined area was cancelled or reduced through survey in 2018.

**Table 4: Mine clearance in 2018<sup>29</sup>**

| Province                         | Areas cleared | Area cleared (m <sup>2</sup> ) | AP mines destroyed | AV mines destroyed |
|----------------------------------|---------------|--------------------------------|--------------------|--------------------|
| Arica and Parinacota             | 2             | 715,920                        | 2,310              | 883                |
| Antofagasta                      | 1             | 91,409                         | 1,157              | 234                |
| Magallanes and Antártica Chilena | 3             | 155,619                        | 441                | 0                  |
| <b>Totals</b>                    | <b>6</b>      | <b>962,948</b>                 | <b>3,908</b>       | <b>1,117</b>       |

AP = Anti-personnel AV = Anti-vehicle

### ARTICLE 5 DEADLINE AND COMPLIANCE



**Table 5: Five-year summary of AP mine clearance (2014–18)**

| Year         | Area cleared (m <sup>2</sup> ) |
|--------------|--------------------------------|
| 2018         | 962,948                        |
| 2017         | 860,000                        |
| 2016         | 3,520,000                      |
| 2015         | 1,890,000                      |
| 2014         | 2,140,000                      |
| <b>Total</b> | <b>9,372,948</b>               |

Chile reiterated its commitment to fulfil its Article 5 obligations by 2020 in its statements to the Seventeenth Meeting of States Parties and at the 2019 Intersessional Meetings.<sup>30</sup> But Chile did not meet its clearance targets for 2017, clearing 0.86km<sup>2</sup> of its forecast 3.24km<sup>2</sup>, or 2018, clearing 0.96km<sup>2</sup> of its forecast 1.39km<sup>2</sup>, and has set itself the rather ambitious goal of clearing 3.37km<sup>2</sup> in 2019. This is a marked increase from the average 1.9km<sup>2</sup> per year of clearance Chile has achieved since the 2014 Maputo Conference. In a slightly confusing turn of events, Chile has stated that it will reduce 2,279,112m<sup>2</sup> of the total through technical survey in Seilao, Antofagasta, despite identifying this same area as suspected of having mine contamination through technical survey in 2017.<sup>31</sup>

Chile is moving into the final phase of operations but, by its own admission, will face considerable challenges to implementation from the climate and topology. The mined areas in the Altiplano and the Austral Islands are difficult to access and are subject to heavy rains and snow which restricts the length of the demining season.<sup>32</sup> Chile has reported that over the past three years these highland areas have been hit with particularly intense winters.<sup>33</sup> In 2018, clearance in Arica and Parinacota and in Antofagasta was interrupted for a number of months due to heavy snowfall.<sup>34</sup> While Chile may have taken steps to mitigate this by making changes to the operational plans, redistributing clearance machines, and transferring specialist personnel to provide further support, it has still been unable to meet its annual clearance targets for the past two years.<sup>35</sup> With the majority of remaining contamination in Arica and Parinacota and in Antofagasta it is difficult to see how Chile will reach its targets for 2019 without a major increase in demining capacity.

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|    |                                                                                                                                                                                                                                      |    |                                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------|
| 1  | Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (for 2018), Form C.                                                                                                                                                      | 18 | Article 7 Report (for 2018), Form F.                                                                                     |
| 2  | Article 7 Report (for 2018), Form C.                                                                                                                                                                                                 | 19 | Statement of Chile, Committee on Article 5 implementation, Geneva, 22 May 2019.                                          |
| 3  | Article 7 Report (for 2018), Form C.                                                                                                                                                                                                 | 20 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018; and Article 7 Report (for 2018), Form A.                      |
| 4  | Article 7 Report (for 2018), Form F.                                                                                                                                                                                                 | 21 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                               |
| 5  | Article 7 Report (for 2009), Form I.                                                                                                                                                                                                 | 22 | Article 7 Report (for 2018), Form F.                                                                                     |
| 6  | Article 7 Report (for 2017), Form F.                                                                                                                                                                                                 | 23 | Manual No. MDO-90402. Article 7 Report (for 2015), Form F2.1.                                                            |
| 7  | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                                                                                                                                           | 24 | Email from Col. Juan José López Demuth, Executive Secretary, CNAD, 27 June 2019.                                         |
| 8  | Statement of Chile, Committee on Article 5 implementation, Geneva, 22 May 2019.                                                                                                                                                      | 25 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                               |
| 9  | Article 7 Report (for 2017), Form A3.                                                                                                                                                                                                | 26 | Article 7 Report (for 2018), Form F.                                                                                     |
| 10 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                                                                                                                                           | 27 | CNAD, "Desminado Canino", 27 December 2018, at: <a href="https://bit.ly/2VCpHwb">bit.ly/2VCpHwb</a> .                    |
| 11 | Statement from Chile during the Thematic Discussion on Integrating Gender into Mine Action, APMBC Intersessional Meetings, 23 May 2019; and emails from Col. Juan José López Demuth, Executive Secretary, CNAD, 22 and 27 June 2019. | 28 | Article 7 Report (for 2018), Form F.                                                                                     |
| 12 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                                                                                                                                           | 29 | Ibid.                                                                                                                    |
| 13 | Conclusions on the implementation of Article 5, 16 <sup>th</sup> Meeting of States Parties, 18–21 December 2017.                                                                                                                     | 30 | Statements of Chile, Committee on Article 5 Implementation, Geneva, 29 November 2018 and 22 May 2019.                    |
| 14 | Decisions on the request submitted by Chile for an extension of the deadline for completing the destruction of anti-personnel mines in accordance with Article 5 of the Convention, 11MSP, 2 December 2011.                          | 31 | Article 7 Report (for 2017), Form F; and Statement of Chile, Committee on Article 5 implementation, Geneva, 22 May 2019. |
| 15 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                                                                                                                                           | 32 | Email from Col. Andres Caceres Cuadra, CNAD, 12 July 2018.                                                               |
| 16 | Article 7 Report (for 2017), Form F2.4.                                                                                                                                                                                              | 33 | Statement of Chile, Committee on Article 5 implementation, Geneva, 22 May 2019.                                          |
| 17 | Statement of Chile, Committee on Article 5 Implementation, Geneva, 29 November 2018.                                                                                                                                                 | 34 | Article 7 Report (for 2018), Form F.                                                                                     |
|    |                                                                                                                                                                                                                                      | 35 | Statement of Chile, Committee on Article 5 implementation, Geneva, 22 May 2019.                                          |