

## RECOMMENDATIONS FOR ACTION

- Israel should accede to the Anti-Personnel Mine Ban Convention (APMBC) as a matter of priority.
- Despite not yet being a state party to the APMBC, Israel has obligations under international human rights law to clear anti-personnel mines in areas under its jurisdiction or control as soon as possible.
- The Israeli National Mine Action Authority (INMAA) should consider conducting external quality assurance and quality control (QA/QC) itself, rather than outsourcing it to commercial companies, which proves costly for international donors to fund.

## ANTI-PERSONNEL MINE CONTAMINATION

The exact extent of mine contamination in Israel is not known. Israel reported 41.58km<sup>2</sup> of confirmed mined area and a further 48.51km<sup>2</sup> of suspected mined area, as at the end of 2017,<sup>1</sup> but did not report the amount of mined area as at the end of 2018. The combined 90km<sup>2</sup> as at end 2017, represents only the area affected by mines that are not deemed essential to Israel's security. The size of other mined areas is not made public. The total figure includes 18.38km<sup>2</sup> of mined area in the Jordan Valley (11.84km<sup>2</sup> of anti-personnel mined area, 6.19km<sup>2</sup> of anti-vehicle mined area, and 0.35km<sup>2</sup> of mixed mined area) and the West Bank<sup>2</sup> (see the report on Palestine in this work for further information).

Israel's mine problem dates back to the Second World War. Subsequently, Israel laid significant numbers of mines along its borders, near military camps and training areas, and near civilian infrastructure. In August 2011, Israel's military reported planting new mines to reinforce minefields and other defences along its de facto border with Syria in the Golan Heights.<sup>3</sup>

In the Golan Heights the mines laid by Syrian forces remain largely unknown and areas have been fenced off by the Israel Defense Forces (IDF). However, according to an online media report, fencing is not always properly maintained with warning signs, and civilians occasionally cross into minefields looking for edible plants.<sup>4</sup>

Table 1: Mined area (at end 2017)<sup>5</sup>

Type of contamination	CHAs	Area (km <sup>2</sup> )	SHAs	Area (km <sup>2</sup> )
AP mines only	201	19.93	5	39.54
AV mines only	29	17.00	8	1.17
AP and AV mines	2	4.65	9	7.80
<b>Totals</b>	<b>232</b>	<b>41.58</b>	<b>22</b>	<b>48.51</b>

AP = Anti-personnel AV = Anti-vehicle CHA = Confirmed hazardous area SHA = Suspected hazardous area

## PROGRAMME MANAGEMENT

A March 2011 law on minefield clearance established the INMAA to undertake a "comprehensive programme of mine clearing projects inside Israel".<sup>6</sup> The law's aim was "to create a normative infrastructure for the clearance of minefields that are not essential to national security, and to declare them as free from landmines with the highest degree of safety to civilians, in accordance with the international obligations of the State of Israel, and within the shortest period of time possible."<sup>7</sup>

In February 2019, the Director of INMAA reported that new legislation had been passed, in the form of a regional law, giving the INMAA responsibility for former military bases and for addressing abandoned explosive ordnance (AXO), unexploded ordnance (UXO), and anti-vehicle mines. Prior to this, the INMAA had only had responsibility for addressing anti-personnel mines, and for mixed mined areas.<sup>8</sup>

The INMAA, which has 10 staff, was established in the Ministry of Defence, with ministry staff responsible for planning mine action.<sup>9</sup> As a result of the new law, staffing at the INMAA was expected to expand by at least 50%, but as at February 2019 it was unclear if the budget would be increased to enable this to occur.<sup>10</sup>

The INMAA manages a “minefield information bank” that is open for public queries concerning demining plans and programmes.<sup>11</sup>

In 2017, the annual mine action budget for Israel was NIS41.7 million (approx. US\$11.5 million), of which NIS27 million was from the INMAA's budget and the remaining NIS14.7 million from additional external funding by various infrastructure development companies and state authorities.<sup>12</sup> The size of the 2018 budget is not known.

A number of development projects funded by local electricity, water, and infrastructure companies and authorities also pay for mine clearance.<sup>13</sup>

## PLANNING AND TASKING

The INMAA has an approved annual mine clearance plan<sup>14</sup> and a multi-year clearance plan for 2017–20 that plans to focus on technical survey and clearance in northern Israel (the Golan Heights) in the spring/summer/autumn, and in southern Israel (the Jordan Valley and Arava Plain) in the winter,<sup>15</sup> executed by civilian local operators.<sup>16</sup>

In addition, the INMAA continues to oversee HALO Trust clearance projects in Area C of the West Bank, funded by the European Union (EU), the United Kingdom, and the United States (via ITF Enhancing Human Security).<sup>17</sup>

Furthermore, at the start of 2017, the INMAA began surveying the Jordan Valley minefields in the West Bank, using national budget and operating through Israeli companies. The INMAA sees significant potential for cancellation and reduction of mined area in the Jordan Valley, and is using

various technologies and scientific tools to assess mine drift possibilities. The INMAA has planned to invest around NIS 900,000 (approximately US\$250,000) in this project in 2017–19<sup>18</sup>. Progress in non-technical survey continued in 2018.<sup>19</sup>

The INMAA, “defines clearance policies, sets the national priorities and implements them in coordination with other relevant governmental ministries, the IDF, and local authorities.”<sup>20</sup> Clearance tasks are assigned according to a classification formula laid down by the INMAA, and prioritisation is set nationally every three years. The criteria used for the formula are largely based on the risk level and development potential of the affected areas.<sup>21</sup> The INMAA has been studying the social and economic impacts of land released over the last four years, as well as on the potential impact for future clearance sites.<sup>22</sup>

## LAND RELEASE SYSTEM

National mine action standards, which concern rules and regulations concerning clearance methods, quality management, legislation, and insurance, are contained on the INMAA website.<sup>23</sup>

### OPERATORS

Commercial companies are contracted to conduct clearance as well as QA and QC. In 2017, clearance was contracted to four national companies: 4M, the Israeli Mine Action Group (IMAG), Maavarim, and Safeland. In addition, Ecolog conducted geomorphological and hydrological surveys in 2017, together with the INMAA, to assist with cancellation of previously flooded SHAs that could potentially contain mines.<sup>24</sup>

In 2017, 106 demining personnel and 36 machines were deployed for clearance operations.<sup>25</sup> The clearance companies contracted in 2018, and their demining capacity, is not known.

The IDF also conduct mine clearance according to their own mine action plans “that are executed by their military methods and techniques”. They have an annual programme that includes demining, monitoring, and maintenance of mined area protection.<sup>26</sup> During wintertime, the IDF give

special attention to minefields that are close to farms, residential areas, or hiker routes, as mines may be carried into these areas by floods.<sup>27</sup>

In addition, the INMAA reported that it had secured the continuation of HALO Trust's clearance programme in Area C of the West Bank until the end of 2019.<sup>28</sup> The HALO Trust works under the auspices of both the INMAA and the Palestine Mine Action Centre (PMAC), primarily with funding from international donors<sup>29</sup> (see the report on Palestine in the current work for further information).

Every mine clearance project in Israel has an INMAA supervisor, a QA/QC contractor, and a clearance operator. Five QA/QC contractors were formally registered for 2018: 4CI Security, Dexagon, Ga-man, Israteam, and Zeev Levanon.<sup>30</sup>

### OPERATIONAL TOOLS

Israel uses several kinds of machines in its mine clearance operations for ground preparation, survey, and clearance. They are said to include, as and where appropriate, screening and crushing systems, bucket loaders, excavators, sifters, and flails/tillers.<sup>31</sup> Some of these operations are conducted by Israel directly, while others are performed by contractors.<sup>32</sup>

Throughout 2018, the INMAA continued to be supported by the Geneva International Centre for Humanitarian Demining (GICHD) in developing its animal detection system capacity.<sup>33</sup> A pilot project using mine detection dogs (MDDs) conducted in 2017<sup>34</sup> found that dogs would not be a valuable tool.<sup>35</sup> However, after investigating and conducting further research into animal detection and behaviour, the INMAA planned to conduct further trials.<sup>36</sup>

# LAND RELEASE OUTPUTS

## LAND RELEASE OUTPUTS IN 2018

Under CCW Amended Protocol II, Israel reported that the INMAA had overseen clearance of approximately 1.2km<sup>2</sup> in 2018, destroying 1,350 mines and explosive remnants of war (ERW). In addition, 0.7km<sup>2</sup> was cancelled through non-technical survey,<sup>37</sup> in areas south of the Dead Sea.<sup>38</sup> However, no details were provided on what proportion of 1.2km<sup>2</sup> cleared and 0.7km<sup>2</sup> cancelled was release of mined area (as opposed to battle area) or whether the area cleared also included clearance in Palestinian territory in the West Bank.

The INMAA typically plans for mine clearance at a targeted rate of 1.5km<sup>2</sup> per year (including in the West Bank), based on its current budget.<sup>39</sup>

IDF demining is implemented independently of the INMAA, using military methods and techniques.<sup>40</sup> The area cleared or otherwise released by the IDF is unknown.

In addition, The HALO Trust continued its clearance of minefields in Area C of the West Bank in 2018, working under the auspices of both the INMAA and PMAC, primarily with international funding (see the report on Palestine in this work for further information).

Based on the clearance rates of the past few years and the INMAA's forecasted clearance rate of 1.5km<sup>2</sup> per year, it will take many years to clear remaining contamination. The INMAA is seeking additional funding and assistance to speed up operations.<sup>41</sup>

1 Email from Michael Heiman, formerly Director of Technology and Knowledge Management, Israeli National Mine Action Authority (INMAA), 26 May 2018.

2 Ibid.

3 "Israel army plants new mines along Syria border", Associated Press, 13 August 2011.

4 "New Golan mine-clearing project to begin this summer", The Jerusalem Post, 16 March 2017, at: [bit.ly/2MyEKBc](https://bit.ly/2MyEKBc).

5 Ibid.

6 Minefield Clearance Law 5771-2011 of March 2011, unofficial translation at: [bit.ly/2GD00qJ](https://bit.ly/2GD00qJ); Convention on Certain Conventional Weapons (CCW) Amended Protocol II Article 13 Report (for 2010), Form A. Form A refers to details provided in Form D, but information in Form D has been deleted.

7 Minefield Clearance Law 2011 (MCL 5771-2011).

8 Interview with Marcel Aviv, Director, INMAA, in Geneva, 7 February 2019.

9 Email from Michael Heiman, formerly INMAA, 26 May 2018.

10 Interview with Marcel Aviv, INMAA, Geneva, 7 February 2019.

11 CCW Amended Protocol II Article 13 Report (for 2018), Form A.

12 Email from Michael Heiman, formerly INMAA, 26 May 2018.

13 Email from Michael Heiman, then INMAA, 19 September 2016.

14 CCW Amended Protocol II Article 13 Report (for 2018), Form B.

15 Email from Michael Heiman, formerly INMAA, 26 May 2018.

16 CCW Amended Protocol II Article 13 Report (for 2018), Form B.

17 Interviews with Tim Porter, Regional Director, HALO Trust, in Geneva, 15 February 2018 and 6 February 2019.

18 Emails from Michael Heiman, then INMAA, 23 July and 10 August 2017.

19 Interview with Marcel Aviv, INMAA, in Geneva, 7 February 2019.

20 CCW Amended Protocol II Article 13 Report (for 2017), Form B.

21 Email from Michael Heiman, then INMAA, 23 July 2017.

22 Email from Michael Heiman, then INMAA, 19 September 2016.

23 CCW Amended Protocol II Article 13 Report (for 2018), Form B.

24 Email from Michael Heiman, formerly INMAA, 26 May 2018.

25 Ibid.

26 Email from Eran Yuwan, Ministry of Foreign Affairs, 29 April 2014; and CCW Amended Protocol II Article 13 Report (for 2017), Form B.

27 CCW Amended Protocol II Article 13 Report (for 2017), Form B.

28 Email from Michael Heiman, then INMAA, 23 July 2017.

29 HALO Trust, "West Bank", accessed 17 July 2018.

30 CCW Amended Protocol II Article 13 Report (for 2018), Form G.

31 Ibid., Form C.

32 Email from Michael Heiman, then INMAA, 23 July 2017.

33 CCW Amended Protocol II Article 13 Report (for 2018), Form E.

34 Email from Michael Heiman, then INMAA, 23 July 2017.

35 Email from Michael Heiman, formerly INMAA, 26 May 2018.

36 Interview with Marcel Aviv, INMAA, Geneva, 7 February 2019.

37 CCW Amended Protocol II Article 13 Report (for 2018), Form B.

38 Interview with Marcel Aviv, INMAA, in Geneva, 7 February 2019.

39 Email from Michael Heiman, formerly INMAA, 26 May 2018.

40 Ibid.; and email from Eran Yuwan, Ministry of Foreign Affairs, 29 April 2014.

41 CCW Amended Protocol II Article 13 Report (for 2017), Form B.