

### KEY DATA

#### NO APMBC ARTICLE 5 DEADLINE:

State not party to the APMBC

#### AP MINE CONTAMINATION:

**128km<sup>2</sup>**

Massive  
(national estimate at October 2021)

#### LAND RELEASE OUTPUTS

Release of AP mined area	Release in 2024 (km <sup>2</sup> )	Release in 2023 (km <sup>2</sup> )
Clearance	Not reported	Not reported
Technical Survey	Not reported	Not reported
Non-Technical Survey	Not reported	Not reported

  

Destruction of AP mines during clearance, survey, and spot tasks	2024	2023
AP Mines destroyed	167	767

#### MAIN AP MINE SURVEY AND CLEARANCE OPERATOR IN 2024:

- Republic of Korea Army Engineers

### KEY DEVELOPMENTS

Following the enactment of the "Mine Response Activities Including Mine Clearance Bill" in February 2024, the Republic of Korea (South Korea) set up an "ad-hoc" national mine action centre in March. The Korean Campaign to Ban Landmines (KCBL) led the development of Korean national mine action standards (KMAS), completing an initial draft in February 2025. A Mine Response Activities Committee, which was to assume responsibilities similar to a National Mine Action Authority (NMAA), was planned to have been established in February 2025, although at June 2025, it had still not been set up. The Democratic People's Republic of Korea (North Korea) has continued sporadically to emplace anti-personnel (AP) mines in the Demilitarized Zone (DMZ) that separates North and South Korea, with the risk that heavy rains could result in mines floating into South Korean territory.

### RECOMMENDATIONS FOR ACTION

- The Republic of Korea (South Korea) should accede to the Anti-Personnel Mine Ban Convention (APMBC) as a matter of priority.
- South Korea should establish a national mine action authority as soon as possible to assume responsibility for planning and implementing mine clearance.
- South Korea should clear AP mines in areas under its jurisdiction or control as soon as possible, consonant with its obligations under international human rights law.

## AP MINE SURVEY AND CLEARANCE CAPACITY

### MANAGEMENT

- Ministry of National Defence

### NATIONAL OPERATORS

- Army engineers

### INTERNATIONAL OPERATORS

- None

### OTHER ACTORS

- United Nations Command (UNC)
- United Nations Development Programme (UNDP)
- Korean Campaign to Ban Landmines (KCBL)

## UNDERSTANDING OF AP MINE CONTAMINATION

The DMZ and the Civilian Control Zone (CCZ) immediately adjoining the southern boundary of the DMZ remain among the most heavily mined areas in the world due to extensive mine-laying during the Korean War and in the 1960s, in 1978, and in 1988. Restricted Protection Zones (including Military Protection Zones, established for national security purposes, often surrounding military installations), and rear areas (away from the DMZ) are also mined.

In September 2021, the Joint Chiefs of Staff reported to the National Assembly that South Korea had 1,308 confirmed hazardous areas (CHAs) affecting 128km<sup>2</sup> (see Table 1).<sup>1</sup> More recent contamination data were not available at the time of writing.

**Table 1: CHAs in South Korea (at September 2021)<sup>2</sup>**

	Controlled Protection Zones				Totals
	DMZ	CCZ	Restricted Protection Zones	Rear Area	
No. of sites	786	433	22	67	<b>1,308</b>
Area (m <sup>2</sup> )	10,030,000	114,780,000	2,470,000	880,000	<b>128,160,000</b>
No. of mines	380,000	389,000	50,000	*9,000	<b>828,000</b>

\*Following clearance between 1998 and 2007, the Ministry of National Defence reported in 2019 that 3,000 of the 53,000 AP mines it emplaced between 1960 and 1980 had not yet been found and destroyed.<sup>3</sup>

Contamination data reported in 2021 were largely unchanged from those disclosed in previous years. A report presented to a side event at the 2019 APMBBC intersessional meetings had similarly referred to 1,308 mined areas containing an estimated 828,000 mines.<sup>4</sup> Information from the Army's Joint Chiefs of Staff in 2018 indicated that 380,000 of the mines were emplaced in 786 sites within the DMZ.<sup>5</sup> These mined areas in the DMZ comprise 771 mapped minefields and 15 undocumented mined areas covering a total of 10.03km<sup>2</sup>. Other estimates have put the number of mines spread across the border, which is 248km-long and 4km-deep, at 2 million. Experts assert that both North Korea and South Korea have poorly managed their mine-laying and do not know exactly

how many they planted or where they are.<sup>6</sup> The Landmine Monitor claims that more than one million mines have been laid in the DMZ along the border with North Korea.<sup>7</sup>

CCZ contamination comprises 257 minefields and 176 undocumented mined areas covering a total of 114.79km<sup>2</sup>.<sup>8</sup> The Ministry of National Defence reported that it had emplaced some 53,000 M14 AP mines around 37 rear air defence bases between 1960 and 1980. In operations between 1998 and 2007, it cleared around 50,000 of the mines. Floods, landslides, and changes in topography are also believed to have caused mines to move, with some 3,000 mines believed to remain.<sup>9</sup>

1 Press release from the Office of the Rep. Seol-Hoon, 21 October 2021 (unofficial translation), provided via email from Eum Soohong, member, Korean Campaign to Ban Landmines (KCBL), 16 August 2024.

2 Ibid.; and Yoo Hyun-min, "828,000 landmines buried nationwide...59,000 even south of the Civilian Control Line", *Yonhap News Agency*, 9 October 2020.

3 Ministry of National Defence press release, 16 October 2019.

4 PowerPoint presentation by Maj.-Gen. (ret.) Han Cheol Ki, Side event, APMBBC Intersessional Meetings, Geneva, 24 May 2019.

5 South Korea Joint Chiefs of Staff (ROK JCS), cited in "Mine Action in the Korean Peninsula", unpublished paper by Eum Soohong, member, KCBL, September 2019.

6 "North Korean landmines could float into South Korea, South warns" *Associated Press*, 17 July 2024, at: <https://bit.ly/4dwBwYj>.

7 Landmine Monitor Report 2023, p. 51.

8 United Nations Command (UNC) South Korea PowerPoint presentation in Geneva International Centre for Humanitarian Demining (GICHD) side event, UN National Directors' Meeting, Geneva, 11 February 2020.

9 Ministry of National Defence press release, 16 October 2019.

In November 2022, South Korea reported to the Twentieth Meeting of States Parties to the APMBC that South Korea had not “installed any anti-personnel mines in several years”.<sup>10</sup> Three years earlier, South Korea told the International Campaign to Ban Landmines (ICBL) that it had not laid any minefields since 2000.<sup>11</sup> In June 2023, however, the Ministry of National Defence stated that South Korea “did not plant any new *non-self-destructive* anti-personnel landmines in new areas during the calendar year 2022”.<sup>12</sup> Similarly, in May 2024, the Ministry of National Defence stated that: “The Republic of Korea did not plant any new non-self-destructive anti-personnel landmines in new areas during the calendar year 2023.”<sup>13</sup> These statements lay the door open to the possibility that self-destructing AP mines might be used in the future.

The South Korean authorities and media sources reported that beginning in late 2023 and into the first half of 2024, North Korea had started to emplace mines in the DMZ, including in areas it had previously cleared.<sup>14</sup> This included reports that North Korean soldiers had laid AP mines on three roads in the DMZ, in mountains and fields,<sup>15</sup> and along inter-Korean railroads.<sup>16</sup> The mines are understood to be a mix of AP mines and anti-vehicle (AV) mines.<sup>17</sup> South Korea has ruled out mining roads in the South in response to the North’s actions.<sup>18</sup>

On 17 July 2024, South Korea’s Joint Chiefs of Staff highlighted the risk that AP mines emplaced by the North could float into South Korea during heavy rains, and that North Korea might intentionally float mines to South Korea.<sup>19</sup> There was particular concern about a small plastic mine, shaped like a leaf and containing 40 grams of explosive, which had already been found in South Korea according to its military. Another AP mine used by North Korea is a locally manufactured version of a Soviet box mine, with a wooden body. In the past, such box mines have been swept by water into South Korea and found on beaches and riverbanks.<sup>20</sup>

Although reports of North Korea emplacing AP mines in the DMZ tailed off after July 2024, one source claimed that North Korean troops had begun emplacing mines in the DMZ again towards the end of the year: “Since late 2024, Pyongyang has intensified its efforts to strengthen border defenses, including laying additional landmines and erecting anti-tank barriers”.<sup>21</sup> In 2025, media again reported that North Korea was laying mines in the DMZ.<sup>22</sup> In June, the South Korean Joint Chiefs of Staff issued a further warning about the risk of AP mines floating from the North into South Korea.<sup>23</sup>

## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

The southern half of the DMZ is controlled by South Korea, but under the Armistice Agreement, the area between the Demarcation Line and the Southern Line Limit is under the jurisdiction of the United Nations Command (UNC) and any mine clearance is conducted with its approval. Demining in the CCZ between the Southern Line Limit and the Civilian Control Line and the rest of South Korea is overseen by the Ministry of National Defence and is conducted exclusively by South Korean army engineers.

The Law on Mine Response Activities Including Mine Clearance was enacted in February 2024. Pursuant to the law, the Ministry of National Defence is to develop

a “basic” mine action plan every five years and establish a Mine Response Activity Committee to oversee mine action activities. The law permits qualified organisations to conduct survey and clearance.<sup>24</sup> The law was to take effect a year after promulgation—in February 2025—with preparation to operationalise the law due to take place during 2024.<sup>25</sup> As part of the preparations, in August 2024, the Ministry of National Defence contracted KCBL to develop South Korea’s national mine action standards, requesting that it complete a draft by the end of the year, although this actually occurred in February 2025 (see the section below, “Standards and Land Release Efficiency” for further details).<sup>26</sup>

10 Statement of North Korea, APMBC Twentieth Meeting of States Parties, Geneva, 21–25 November 2022.

11 Landmine Monitor, “South Korea”, accessed 6 August 2024, at: <https://bit.ly/4ckUAHT>.

12 Ibid.

13 Landmine Monitor, “South Korea”, Last updated 22 September 2024.

14 “North Korea redeploys landmine near Gyeongui Line”, *The Dong-A Ilbo*, 5 January 2024, at: <https://bit.ly/3WV4Y4>.

15 International Campaign to Ban Landmines (ICBL), “International Campaign to Ban Landmines concerned at reported landmine use by North Korea”, 20 May 2024 (updated 24 July 2024), at: <https://bit.ly/4fnqDtL>.

16 “Editorial: Resuming loudspeaker broadcasts demands preparedness for any N. Korean provocation”, *The Chosun Daily*, 10 June 2024, at: <https://bit.ly/3WMeq2V>; and “Concentration of road blocking and fortification in the north... Joint Chiefs of Staff discloses surveillance and reconnaissance data on North Korea” (unofficial translation), *K-Force*, 10 October 2024, at: <https://tinyurl.com/4e9uynp3>.

17 ICBL, “International Campaign to Ban Landmines concerned at reported landmine use by North Korea”.

18 “Map Shows Where North Korea Has Placed Land Mines in Demilitarized Zone”, *Newsweek*, 30 April 2024, at: <https://bit.ly/3LLpui2>.

19 “North Korean landmines could float into South Korea, South warns”, *Associated Press*, 17 July 2024.

20 ICBL, “International Campaign to Ban Landmines concerned at reported landmine use by North Korea”.

21 “Exclusive look at the DMZ drama shaking the Korean Peninsula”, *Bulgarianmilitary.com*, 9 April 2025, at: <https://bit.ly/4mCvdXV>.

22 “North Korea notifies UN Command of resumption of work on ‘severance with South Korea’ barrier-iron fence” (unofficial translation), *Dong-A Ilbo*, 27 March 2025, at: <https://tinyurl.com/3bf7dpr>; and “There is no answer to the repatriation of residents... North Korea notifies UNC to ‘resume frontline work’ after 8 months” (unofficial translation), *JoongAng Ilbo*, 30 June 2025, at: <https://tinyurl.com/yc86p3tm>.

23 “Military warns of North Korean land mines washing into South”, *Korea JoongAng Daily*, 23 June 2025, at: <https://bit.ly/4kbs6a>; and “Military urges caution against N. Korean land mines possibly being brought to South by heavy downpours”, *The Korea Times*, 22 June 2025, at: <https://bit.ly/3HnvLSm>.

24 Statement of the Republic of Korea on Universalization, APMBC Intersessional Meetings, 18–20 June 2024.

25 Emails from Eum Soohong, KCBL, 26 January and 14 August 2024.

26 Emails from Eum Soohong, KCBL, 14 August 2024 and 2 April 2025.

The United Nations Development Programme (UNDP) has made reference to an "ad-hoc national mine action center" that was set up in at the Military Installation Bureau of the Republic of Korea in March 2024.<sup>27</sup> In June 2025, South Korea indicated that the Mine Response Activities Committee which was due to be set up in February 2025,<sup>28</sup> was still to be established, stating that Ministry of National Defence will "establish a Mine Response Activity Committee to deliberate on matters related to mine action activities."<sup>29</sup> The South Korean army remains the only organisation conducting mine clearance in South Korea.<sup>30</sup>

UNDP has shared its approach to building the capacities of a national mine action authority with the Korean authorities. Additionally, UNDP has consulted with the Ministry of National Defence on legislating the Presidential (Enforcement) Decree and the Ministry of National Defence Regulation, which are attached to the mine action law of February 2024.<sup>31</sup>

### FUNDING FOR AP MINE SURVEY AND CLEARANCE

The level of funding for AP mine clearance in South Korean in recent years is not known. A Joint Chiefs of Staff memo to the National Assembly reported an increase in the budget for mine clearance from KRW180 million (approximately US\$161,000) in 2018 to KRW330 million back in 2019, and KRW8.2 billion (US\$7.3 million) in 2020.<sup>32</sup>

### GENDER AND DIVERSITY

The Law on Mine Response Activities Including Mine Clearance does not specifically mention gender and diversity. The Korean legal system, however, enshrines fundamental rights to groups falling under this heading, which should be reflected at the implementation level. The draft KMAS stipulates that gender and diversity should be addressed in the Korean context. With risk education, for example, the KMAS explicitly states that access must be guaranteed to people from abroad, disabled people, and people with little education, living in mine-contaminated areas.<sup>33</sup>

### ENVIRONMENTAL POLICIES AND ACTION

The draft KMAS were developed with reference to the latest IMAS on environmental management in mine action (IMAS 07.13, second edition), and the revised standards on environmental considerations were incorporated.<sup>34</sup> No further information on how environmental considerations are incorporated into current demining practice in South Korea were available.

27 Email from Goosoon Kwon, Chief Technical Advisor for Mine Action, UNDP, 5 April 2025.

28 Email from Eum Soohong, KCBL, 14 August 2024.

29 Statement of the Republic of Korea on Universalization, APMBC Intersessional Meetings, 16–20 June 2025.

30 Interview with Cho Jai Kook, Coordinator, KCBL, and Eum Soohong, KCBL, in Geneva, 13 February 2020; and emails from Eum Soohong, KCBL, 26 January 2024 and 23 August 2025.

31 Email from Goosoon Kwon, UNDP, 5 April 2025.

32 Memorandum from the Engineering Department of the Joint Chiefs of Staff to the National Assembly (unofficial translation by Eum Soohong, KCBL), October 2020.

33 Emails from Eum Soohong, KCBL, 23 August 2025.

34 Ibid.

## INFORMATION MANAGEMENT AND REPORTING

Little information is available about South Korea's information management and reporting system for mine clearance. South Korea has stated that the military collects and analyses all available data,<sup>35</sup> and at the APMBC Intersessional meetings in 2024 and 2025, South Korea indicated how many AP mines it had destroyed in the previous year.<sup>36</sup> However, information on its information management system is not available, and South Korea does not make public comprehensive, up-to-date contamination, survey and release data for AP mined area and for the number of AP mines it destroys.

## PLANNING AND TASKING

In June 2025, South Korea confirmed that it would “devise a basic mine action plan over five years”.<sup>37</sup> There is no available information about any progress in this regard.

In 2019, the Ministry of National Defence announced that it had embarked on a three-year programme to complete survey and clearance of rear areas by October 2021. The proposal called for demining capacity to be increased from 6 teams with 200 personnel to 31 teams with 1,200 personnel. It also called for investment in upgrading detectors to detect

plastic mines and in mechanical assets.<sup>38</sup> The extent to which the Army has progressed in implementing the plan remains unclear, but data provided by the Joint Chiefs of Staff on mine contamination in September 2021 appear to have remained constant since at least 2019 (see Table 1 above and explanatory text). In the past, South Korea has reported using a risk management approach to residual contamination.<sup>39</sup>

## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

As noted above, the Ministry of National Defence commissioned KCBL to develop national mine action standards. Work began in August 2024 in collaboration with national and international demining experts, seeking to align the standards as closely as possible with the International Mine Action Standards (IMAS) while ensuring compatibility with domestic law and the specific circumstances in South Korea. In February 2025, KCBL submitted the draft KMAS which comprising 22 chapters and 6 related technical documents.<sup>40</sup> As at February 2025, the draft documents were undergoing a review by the Ministry of Government Legislation to ensure consistency with existing legal frameworks.<sup>41</sup>

### OPERATORS AND OPERATIONAL TOOLS

It is not known how many South Korean military personnel engage in AP mine clearance. South Korea has highlighted how the army has developed demining expertise since 1990; that it launched a specialist unit in 2019; and that it can work simultaneously on up to 16 sites.<sup>42</sup> In 2021, the Army Engineering School initiated a demining training programme in which 249 officers participated;<sup>43</sup> and in 2022, 317 army officers attended the demining programme at the School.<sup>44</sup>

In addition to running expert demining courses at its Engineering School, South Korea has sent team leaders on training courses run by the Geneva International Centre for Humanitarian Demining (GICHD), Colombia's International Demining Centre (CIDES), and the Association of Southeast Nations (ASEAN) Regional Mine Action Center Centre (ARMAC) in Cambodia.<sup>45</sup>

South Korea has said that it uses the latest demining equipment, highlighting the various mechanical assets it deploys, which include the Armoured Excavator, Vibrator Skeleton Bucket, and the Spider Excavator, and its use of remote-control systems. It is developing technology at its Future Innovation Centre, has adopted artificial intelligence detection technology, and uses robots to confirm data. It also uses laser technology to destroy surface mines, and mine and explosive ordnance detection robots that detect, mark, and clear mines.<sup>46</sup>

35 Presentation by the South Korean Ministry of National Defence and UNDP at the 27th International Meeting of Mine Action Directors & UN Advisors (NDM27), 29 April 2024.

36 Ibid., and Statement of the Republic of Korea on Universalization, APMBC Intersessional Meetings, 16–20 June 2025.

37 Ibid.

38 Ministry of National Defence press release, 16 October 2019.

39 Presentation by South Korean Ministry of National Defence and UNDP, NDM27, 29 April 2024.

40 Email from Eum Soohong, KCBL, 2 April 2025.

41 Email from Eum Soohong, KCBL, 23 August 2025.

42 Presentation by South Korean Ministry of National Defence and UNDP, NDM27, 29 April 2024.

43 Statement of South Korea, APMBC Twentieth Meeting of States Parties (20MSP), 24 November 2022.

44 Statement of South Korea on Universalization, APMBC Twenty-First Meeting of States Parties (21MSP), 20–24 November 2023.

45 Presentation by South Korean Ministry of National Defence and UNDP, NDM27, 29 April 2024.

46 Ibid.

## LAND RELEASE OUTPUTS AND PROGRESS TOWARDS COMPLETION

South Korea maintains it is unable to accede to the APMBC: "In light of the unique security situation on the Korean Peninsula, the Republic of Korea is yet to accede to the APMBC while it aligns itself with the objectives and purposes of the Convention and remains concerned about the humanitarian impacts of the indiscriminate use of anti-personnel mines".<sup>47</sup>

Comprehensive data for AP mine clearance for South Korea are not available. South Korea reported to the APMBC Intersessional Meetings in June 2025 that it "has been on a steady path of anti-personnel mine clearance where possible".<sup>48</sup> It reported clearing 167 AP mines in 2024, a substantial decrease on the 767 AP mines it reported clearing in 2023, when it said it had adhered to "core IMAS principles".<sup>49</sup> It did not provide data about the area(s) cleared or the location for either year.

South Korea has also disclosed partial information on AP mine clearance for earlier years. At the Twenty-First Meeting of States Parties in November 2023, South Korea reported that in 2022, 822 AP mines were cleared from an area of approximately 377,000m<sup>2</sup>, but again, did not state where the clearance took place.<sup>50</sup> In November 2022, in its statement to the Twentieth Meeting of States Parties, South Korea reported it was "continuing with its mine clearing efforts, where possible, in a systemic and phased manner" and in line with IMAS, but did not provide information on the area cleared or number of mines found and destroyed.<sup>51</sup> According to online media, 120,000m<sup>2</sup> of minefields in rear air-defence sites south of the CCZ were cleared between April 2020 and July 2023 with 180 mines found and destroyed.<sup>52</sup> In October 2019, the Ministry of National Defence had declared its intent to clear all mines from the rear area although the task remained unfinished in 2023.<sup>53</sup>

South Korea has conducted some demining operations with a view to exhuming military casualties. From April to November 2022, South Korea resumed operations to exhume remains of Korean War casualties, with a total of 45 bodies found, and conducted demining in the Baekmagoji area of the DMZ. Operations had been suspended following threat of hostile actions from North Korea in the border area.<sup>54</sup> South Korea reported clearing 158 mines (not disaggregated by type) and 2,410 items of unexploded ordnance (UXO) in the course of operations to exhume remains of Korean War casualties around Arrowhead Hill in the DMZ in 2020. North Korea, however, did not conduct clearance in the DMZ as provided for in the September 2018 Panmunjom Declaration.<sup>55</sup>

In 2023, the Ministry of National Defence was planning to conduct exhumation operations in the Baekmagoji area from April to November and further demining around seven rear air-defence sites south of the CCZ.<sup>56</sup> The Agency for KIA Recovery & Identification under the Ministry of National Defence (MAKRI) is responsible for these operations. MAKRI is also collaborating with the US Department of Defense POW/MIA Accounting Agency to recover the remains of American soldiers from the DMZ.<sup>57</sup> No information on progress with these operations was available.

47 Statement of South Korea on Universalization, 21MSP, 20–24 November 2023.

48 Statement of South Korea on Universalization, Intersessional Meetings, 16–20 June 2025.

49 Ibid; and Statement of South Korea on Universalization, Intersessional Meetings, 18–20 June 2024.

50 Statement of South Korea on Universalization, 21MSP, 20–24 November 2023.

51 Statement of South Korea, 20MSP, 24 November 2022.

52 "Civilian, Government, and Military Collaborate for Public Verification... 'Beyond Normal' National Safety", Ministry of National Defence, 10 August 2023, at: <https://bit.ly/3Phqc9i>.

53 Email from Eum Soohong, KCBL, 26 August 2023.

54 Emails from Eum Soohong, KCBL, 3 and 11 April 2022 and 26 August 2023; and "We will not forget the noble sacrifices of our national heroes", Ministry of National Defence, 30 November 2022 at: <https://bit.ly/3szd2LQ>.

55 Jung Bitna, "Unearthed 143 remains of this year's Arrowhead Bill", Yonhap News Agency, 19 November 2020.

56 Email from Eum Soohong, KCBL, 4 September 2023.

57 Email from Eum Soohong, KCBL, 26 August 2023.