

**ARTICLE 5 DEADLINE: 1 MARCH 2028**  
 NOT ON TRACK TO MEET DEADLINE

### KEY DATA

**ANTI-PERSONNEL (AP) MINE CONTAMINATION: HEAVY (NO CREDIBLE ESTIMATE)**

AP MINE CLEARANCE IN 2023

**\*0.18km<sup>2</sup>**

AP MINES DESTROYED IN 2023

**561**

(INCLUDING 521 IN EMERGENCY CLEARANCE) (OFFICIAL DATA)

\* Does not include Project Masam emergency mine clearance

### LAND RELEASE OUTPUT

Category	2022 (km²)	2023 (km²)
Clearance	2.00 (Mine action review estimate)	*0.18 (Official data)
Technical Survey	0.00	0.29 (Official data)
Non-Technical Survey	0.00	0.00 (Official data)

\* Does not include results of Project Masam mine clearance operations

**CURRENT LIKELIHOOD OF MEETING 2025 CLEARANCE TARGET (as per the Oslo Action Plan commitment): NONE**

## KEY DEVELOPMENTS

Donors ended funding in 2023 for the United Nations Development Programme (UNDP)'s emergency programme causing the Yemen Executive Mine Action Centre in areas controlled by the internationally-recognised government (YEMAC-IRG) to stand down more than 60 teams, halt survey and clearance operations, and deploy teams only on emergency call-outs. The Yemen Mine Action Coordination Centre (YMACC) continued to task operators and maintain information management. Project Masam conducted emergency clearance on 10.9km<sup>2</sup> of mined area in IRG-controlled areas. Three international demining NGOs visited Sana'a in February 2023 and negotiated a memorandum of understanding (MoU) with the de facto authorities (DFA) that would provide a basis for them to operate in Houthi-controlled areas, but the MoUs have remained unsigned. Humanity & Inclusion (HI) concluded an MoU with YEMAC-DFA but conducted only limited non-technical survey (NTS) activities.

## FIVE-YEAR OVERVIEW

Civil war between the Saudi-backed IRG based in Aden and Iranian-supported Houthis in Sana'a massively increased the scale and complexity of explosive ordnance contamination, including conventional and improvised mines, and split YEMAC. Little information emerged on the activities of YEMAC-DFA in the north where no international demining organisations were operational. YEMAC-IRG submitted successive Article 5 deadline extension requests in 2019 and 2022 setting in motion a baseline survey to develop understanding of contamination and slowly started to develop partnerships with international demining NGOs, but international funding through UNDP ended in 2023 largely halting YEMAC-IRG activities.

## RECOMMENDATIONS FOR ACTION

- All parties to conflict should act to halt continuing use of mines and improvised explosive devices (IEDs).
- The United Nations, YEMAC-IRG, and YEMAC-DFA should engage constructively to develop a framework for mine action that can facilitate a resumption of international donor funding.

- YEMAC-DFA should provide comprehensive annual data detailing survey and clearance activities and estimates of the extent of mine contamination.
- YEMAC-DFA should sign MoUs negotiated with international operators and with full support of all DFA authorities expedite the deployment of international non-governmental organisations (INGOs).
- YEMAC-IRG's annual Article 7 reports should include cumulative results of the baseline survey and land release disaggregated by operator.

## ASSESSMENT OF NATIONAL PROGRAMME PERFORMANCE

Criterion	Score (2023)	Score (2022)	Performance Commentary
<b>UNDERSTANDING OF CONTAMINATION</b> (20% of overall score)	4	4	Yemen remains without a credible estimate of mine contamination. YEMAC-IRG continued to implement a baseline survey to assess mine and other explosive ordnance contamination but survey capacity was extremely limited and progress slow. YEMAC-DFA did not report on the progress of survey in 2023. It previously identified suspected hazardous areas (SHAs) amounting to nearly 1,200km <sup>2</sup> but the basis for this estimate and survey methods applied were unclear.
<b>NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT</b> (10% of overall score)	4	4	Conflict between the Sana'a-based DFA and the Aden-based IRG has split YEMAC and left YEMAC-DFA in Sana'a subject to Coalition sanctions. Mine action in Yemen, one of the world's poorest countries, is entirely dependent on international donor funding. The end of donor support through UNDP in mid 2023 forced YEMAC-IRG to halt almost all mine action activities, although its coordination centre, YMACC, continued to work closely with international operators in the south. The DFA did not implement a 2021 agreement to set up a similar body or follow up negotiations with international operators that would enable them to work in the north.
<b>GENDER AND DIVERSITY</b> (10% of overall score)	5	5	Yemen's 2022 Article 5 deadline extension request identified inclusion of women as a priority and YEMAC-IRG has taken steps to employ women in field operations as well as office role in the south. The number of women employed in mine action remained small but international operators deployed some women in NTS and risk education roles and the extension request states "there is no objection to including more women." The extent and role of women in mine action in DFA-controlled areas is not known.
<b>ENVIRONMENTAL POLICIES AND ACTION*</b> (10% of overall score)	4	Not Scored	Yemen has not brought into effect a national standard for environmental management and protection in areas controlled by either the IRG or DFA. Operators face challenging environmental factors such as rising temperatures and flooding, but say the issues are not taken up in working group meetings and they mostly operate according to their organisations' global standards.
<b>INFORMATION MANAGEMENT AND REPORTING</b> (10% of overall score)	5	5	YEMAC-IRG, with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD) kept its Information Management System for Mine Action (IMSMA) database working despite its financial crisis after losing donor funding through UNDP. YEMAC-DFA works with a much older New Generation database and the quality of information it holds is unknown.
<b>PLANNING AND TASKING</b> (10% of overall score)	5	5	Mine action operations continue to provide an emergency response focused on life-saving interventions and demining civilian infrastructure rather than systematic or planned clearance. YEMAC-IRG's 2022 Article 5 deadline extension request identified priority areas of activity, including particularly the Yemen baseline survey, but does not set out a detailed work plan. In the south, tasks are issued by YMACC but the criteria used for prioritising are unclear.
<b>LAND RELEASE SYSTEM**</b> (10% of overall score)	4	4	YEMAC-IRG is revising and updating national mine action standards (NMAS) and SOPs. It has reported revising 32 chapters of NMAS since 2021, including standards relating to land release, which it claimed were compliant with the International Mine Action Standards (IMAS) and the Oslo Action Plan. But the new standards had yet to receive government approval as of August 2024.

Criterion	Score (2023)	Score (2022)	Performance Commentary
<b>LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE</b> (20% of overall score)	4	6	YEMAC-IRG continued emergency response operations implemented mainly by the Saudi-backed Project Masam but land release through survey and clearance slumped after YEMAC-IRG lost donor funding at a point when international NGOs lacked capacity to scale up operations. YEMAC-DFA provided no information on survey or clearance in 2023.
<b>Average Score</b>	<b>4.3</b>	<b>4.7</b>	<b>Overall Programme Performance: POOR</b>

\* New criterion introduced in 2024 to assess performance.

\*\* The weighting of this criterion was previously 20% of overall performance score, but is now given a 10% weighting.

## DEMINING CAPACITY

### MANAGEMENT CAPACITY

- Yemen Executive Mine Action Centre – Internationally Recognised Government, Aden (YEMAC-IRG, also known as YEMAC South)
- Yemen Mine Action Coordination Centre – Internationally Recognised Government, Aden (YMACC-IRG)
- Yemen Executive Mine Action Centre – De Facto Authorities, Sana'a (YEMAC-DFA, also known as YEMAC North)

### NATIONAL OPERATORS

- YEMAC
- Yemen Army Engineers

### INTERNATIONAL OPERATORS

- Danish Refugee Council (DRC)
- The HALO Trust (HALO)
- Humanity & Inclusion (HI)
- Norwegian People's Aid (NPA)
- Project Masam/SafeLane Global/Dynasafe

### OTHER ACTORS

- United Nations Development Programme (UNDP)
- Geneva International Centre for Humanitarian Demining (GICHD)
- The Development Initiative (TDI)
- Prodigy Systems

## UNDERSTANDING OF AP MINE CONTAMINATION

Yemen has heavy contamination by conventional and improvised anti-personnel (AP) mines and a wide array of other explosive ordnance. The precise extent is not known after nearly a decade of civil war between the internationally recognised government in Aden (IRG) and Ansar Allah (Houthi) forces who are the de facto authorities (DFA) controlling the capital, Sana'a.

The governorates most affected by fighting and as a result by explosive ordnance are reported to include Al Hudaydah, Al Bayda, Al Dhale, Hajjah, Marib, Saada, Shabwa, and Taiz.<sup>1</sup> Contamination is especially high along Yemen's west coast where mines were placed with the aim of stalling the advance

of pro-government Yemeni and Saudi coalition forces towards the strategic port of Hodeida, as well as around Marib, a focus of intense fighting in 2020 and 2021.

YEMAC-IRG said the Yemen baseline survey (YBLS) launched in April 2021 had identified 38 confirmed hazardous areas (CHAs) and 55 suspected hazardous areas (SHAs) totalling 5.4km<sup>2</sup> in six governorates in 2023 (see Table 1).<sup>2</sup> Although not stated, this appears to be in addition to the almost 52km<sup>2</sup> of contamination YEMAC-IRG said had been identified at the end of 2022. YEMAC-IRG has not reported aggregated results but the 2023 outcome appears to raise total contamination identified by the YBLS to 56.5km<sup>2</sup>.

**Table 1: Results of Yemen-IRG 2023 baseline survey (detailing results for 2023 and not cumulative survey)<sup>3</sup>**

Province/region	CHAs	Area (m <sup>2</sup> )	SHAs	Area (m <sup>2</sup> )	Total area (m <sup>2</sup> )
Abyan	0	0	2	127,904	127,904
Aden	0	0	1	31,247	31,247
Al-Dhale	8	679,012	3	63,714	742,726
Hudaydah	7	515,973	25	1,711,089	2,227,062
Lahj	1	40,977	7	507,036	548,013
Taiz	22	1,208,591	17	527,612	1,736,203
<b>Totals</b>	<b>38</b>	<b>2,444,553</b>	<b>55</b>	<b>2,968,602</b>	<b>5,413,155</b>

1 See, e.g., UN Mine Action Service (UNMAS) website, accessed at <https://bit.ly/48x7aUe>.

2 Article 7 Report (covering 2023), Form D.

3 Ibid.

Before the 2015 outbreak of conflict, Yemen had AP mined area estimated to cover more than 200km<sup>2</sup>. A Landmine Impact Survey in 2000 had recorded mines in 18 of Yemen's governorates. These came from multiple conflicts, including in 1962–73 and 1970–83, mines laid along the border between the North and South before they unified in 1990, a succession of conflicts after 1994, and by al-Qaeda in the Arabian Peninsula (AQAP). The last decade of conflict has massively increased the extent and complexity of explosive ordnance contamination but shifting lines of confrontation, recontamination of some cleared areas and movement restrictions facing operators have obstructed systematic survey.

YEMAC-DFA has not reported in 2024 on mine contamination levels. It released a parallel Article 7 report for Houthi-controlled areas in 2023 which reported that NTS had identified 527 SHAs in seven governorates totalling 1,192km<sup>2</sup>. The report, which has not been listed on the Article 7 database, said NTS conducted in 10 districts of two governorates in the year ending 31 March 2023 had identified

previously unrecorded SHAs covering a total of 142km<sup>2</sup>.<sup>4</sup> YEMAC-DFA reportedly employs a landmine impact survey methodology<sup>5</sup> which in other countries (and earlier in Yemen) has produced hugely inflated estimates of contamination.

A United Nations panel reported in 2021 that the Houthis had made "widespread" use of mines in villages, schools, near water sources, on beaches, and on roads, posing a constant threat to civilians and provoking displacement.<sup>6</sup> The UN has also reported that improvised sea mines pose a persistent threat to Red Sea shipping and coastal areas.<sup>7</sup> Conflict Armament Research identified three types of conventional AP mine and improvised mine and transit containers for sea mines.<sup>8</sup> Project Masam reported encountering an extensive range of improvised explosive devices (IEDs) in 2023, including devices activated by crushed wire, passive infrared, pressure plate, radio command (which means they are not mines), and tripwires, as well as an air-dropped IED with impact fuze and vehicle-born IEDs.<sup>9</sup>

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## NATIONAL OWNERSHIP AND PROGRAMME MANAGEMENT

Management of mine action in Yemen is geographically divided along the lines of the conflict that erupted in March 2015 between the Saudi Arabia-backed IRG operationally based in Aden and the Houthi DFA in Sana'a and controlling much of the north and west of the country.

Yemen established a National Mine Action Committee (NMAC) in June 1998 by prime ministerial decree to formulate policy, allocate resources, and develop a national mine action strategy to be implemented by the Yemen Executive Mine Action Centre (YEMAC).<sup>10</sup> After the outbreak of the war, the IRG reported it no longer recognised the NMAC and said in 2019 that it had been disbanded and its functions taken over by YEMAC.<sup>11</sup> In 2023, YEMAC-DFA published a parallel Article 7 report in the name of the NMAC but it gave no details of its composition or role, if any.<sup>12</sup>

YEMAC was established in Sana'a in January 1999 as a national mine action agency and nominally still maintains a national role but in practice has split into two operations,

centred round Sana'a and Aden, respectively. YEMAC South informed Mine Action Review there was no coordination between the two because YEMAC North was under the control of Houthi militia.<sup>13</sup> Both YEMACs have combined the roles of regulator, coordinator, and operator, but the number of active personnel in either entity was uncertain.<sup>14</sup> Both organisations also depended heavily on donor funding provided through UNDP's long-running emergency mine action programme. UNDP's programme closed at the end of June 2023 paving the way for restructuring of the mine action sector.

At the start of 2023, YEMAC South (YEMAC-IRG) employed some 500 staff, including 30 demining teams, operating through three branches serving Hadramaut, Marib, and Taiz. It identified Aden, Abyan, Dhale, Hudaydah, Lahj, and Taiz as high-priority districts for mine action interventions.<sup>15</sup> Yemen's Anti-Personnel Mine Ban Convention (APMBC) Article 5 deadline extension request, submitted in March 2022, said that YEMAC was planning to open an office in Marib to support operations in Al Bayda and Al Jawf governorates,

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4 Email from Ahmed Yahya Alawi, Executive Officer/IMSMA Officer, YEMAC-DFA, 18 April 2023; Article 7 Report (covering 1 April 2022 to 31 March 2023), Form D.

5 Interview with Mukahhal Sulaiman, Information Management Adviser, GICHD, Geneva, 11 July 2023.

6 Letter from the Panel of Experts on Yemen to the President of the Security Council, UN doc. S/2021/79, 25 January 2021, pp. 3, 44.

7 UNDP, Emergency Mine Action Project – Phase II, Annual Report 2022, 15 February 2023, p. 6.

8 Conflict Armament Research, "Dispatch from the field: Mines and IEDs employed by Houthi forces on Yemen's West Coast", September 2018.

9 Email from Retief Horn, Project/Deputy Programme Manager, Project MASAM, 19 July 2024.

10 Article 7 Report, Form I, 31 March 2009; and 2022 Article 5 deadline Extension Request, p. 16.

11 APMBC Article 7 Report (covering 2018), Form A; 2022 Article 5 deadline Extension Request, p. 16.

12 YEMAC-DFA, Article 7 Report (covering 1 April 2022 to 31 March 2023).

13 Email from Ameen Saleh Alaqli, YEMAC-IRG, 26 December 2021.

14 Interview with Stephen Bryant, UNDP, in Geneva, 23 November 2022.

15 Email from Ameen Saleh Alaqli, YEMAC-IRG, 21 May 2023.

as well as the western Shabwah governorate. Operations included explosive ordnance disposal (EOD) spot tasks, NTS, and risk education.<sup>16</sup> Closure of UNDP's programme and associated donor support suspended YEMAC's operations. By 2024, YEMAC worked with about 50 staff, mobilising demining teams as required for emergency call-outs.<sup>17</sup>

YEMAC South opened YMACC in Aden in April 2020 to strengthen programme management in its area of operation. The centre, which is intended to facilitate cooperation with international organisations, has responsibility for accrediting organisations and issuing task orders. It has departments for planning, information management, and quality assurance (QA)/ quality control (QC).<sup>18</sup> The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people.<sup>19</sup> It had set up technical working groups (TWGs) focused on NTS and risk education.<sup>20</sup> Mine action stakeholders say the creation of YMACC has improved coordination with operators but decision-making boundaries between YEMAC and YMACC are opaque. After June 2023, YMACC continued to operate with a skeleton staff maintaining some core functions – notably information management.<sup>21</sup>

YEMAC North (YEMAC-DFA) functions as both the coordinator of mine action in northern governorates controlled by Houthi forces and as an operator involved in all aspects of mine action including survey and clearance, risk education, victim assistance, information management, and quality management, a situation seen as creating a problematic conflict of interest to the detriment of quality and safety.<sup>22</sup> To address that issue, YEMAC North and the DFA's Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA) agreed in principle in 2022 to set up a coordination centre similar to YMACC in the IRG-controlled areas<sup>23</sup> but as of August 2024 no action was taken to implement the proposal.

YEMAC-DFA's access to technical and financial support has been constrained by Houthi policies and diplomatic isolation.<sup>24</sup> UNDP purchased 300 detectors and 200 sets of personal protective equipment (PPE) in 2022 to support YEMAC North operations around Hodeida but the detectors were held in storage in Djibouti until the middle of 2023 pending receipt of the necessary clearance for their importation from the IRG.<sup>25</sup>

HI concluded an MoU with the DFA enabling it to start work in Houthi-controlled areas in 2024.<sup>26</sup> Three demining INGOs—Danish Refugee Council (DRC), The HALO Trust (HALO), and Norwegian People's Aid (NPA)—visited Sana'a in February 2023 and negotiated an MoU with YEMAC North that would provide a basis for operating in the DFA-controlled areas. Once signed, operators would register with the DFA's Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA).<sup>27</sup> International stakeholders had hoped for signature before the end of the year but the MoU's remained unsigned as of August 2024. Prospects for progress were overshadowed in 2024 by Houthi attacks on shipping in the Red Sea of States perceived as supportive of Israel's attack on Gaza<sup>28</sup> and the arrest in June 2024 of 13 UN personnel.<sup>29</sup>

UN support for mine action in Yemen is in a state of transition. UNDP provided technical and administrative support to YEMAC under an Emergency Mine Action Project launched at the end of 2014 to develop national capacity for mine action planning and programme management. From 2017, it provided payment for approximately 1,000 national personnel to conduct survey, clearance, and EOD spot tasks.<sup>30</sup> In 2022, the last full year of the project, its budget was US\$11.7 million.<sup>31</sup> The UN informed YEMAC-IRG in June 2023 that as a result of waning donor confidence the programme payments to national staff would cease at the end of the month.<sup>32</sup>

The UNDP project closed at the end of June and UN support for mine action came under the UN humanitarian response plan for Yemen led by the UN Resident Coordinator office in Sana'a, and supported by two UN mine action advisers based in Aden and Sana'a. The response plan for 2024 earmarked \$10.88 million for mine action, including clearance, risk education and victim assistance. The programme said "efforts to scale up surveys, clearance operations, risk education and victim assistance will be supported as key activities", but also underscored international pressure for a restructuring of mine action by calling for "a clear separation" between the regulatory, coordination, and quality assurance functions of national mine action authorities and clearance of mines and explosive remnants of war (ERW).<sup>33</sup>

16 2022 Article 5 deadline Extension Request, p. 28.

17 Interview with Ameen Saleh Alaqili, YEMAC-IRG, in Geneva, 1 May 2024.

18 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12; and email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

19 Emails from Ameen Saleh Alaqili, YEMAC-IRG, 5 May 2021; and Stephen Robinson, UNDP, 27 May 2020.

20 UNDP, "Annual Report on Mine Action in Yemen 2020", p. 14.

21 Interview with Ameen Saleh Alaqili, YEMAC-IRG, in Geneva, 1 May 2024.

22 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 21.

23 Ibid.

24 Email from Stephen Bryant, UNDP, 7 February 2022; UNDP, "Emergency Mine Action Project, Yemen Phase Five Terminal Evaluation Report", September 2021, p. 11.

25 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 12.

26 Email from Colin Wanley, Chief of Operations, HI Yemen, 21 June 2024.

27 Emails from Christina Hendryx, Programme Manager, Humanitarian, Disarmament and Peace Building (HDP), DRC, 15 May 2023; Faiz Mohammad Paktian, Country Director, NPA, 7 May 2023; and Matthew Smith, Head of Region, HALO, 11 July 2023.

28 See, e.g., Jon Gambrell, "Greek oil tanker drifting and ablaze in the Red Sea after repeated attacks, British military says", *Associated Press*, 21 August 2024.

29 "Yemen: UN chief demands release of aid workers held by Houthis", *UN News*, 11 June 2024.

30 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; and interviews with Stephen Robinson, UNDP, in Geneva, 20 July 2020; and Patrick Fruchet, Senior Mine Action Adviser to UN Resident Coordinator's Office for Yemen, in Geneva, 21 June 2023.

31 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 7.

32 Interviews with Patrick Fruchet, UN Adviser, in Geneva, 21 June 2023; and Aleksandar Mihajlov, Planning and Monitoring Specialist, UNDP, in Geneva, 22 June 2023.

33 UN Office for the Coordination of Humanitarian Affairs, "Humanitarian Response Plan, Yemen", January 2024, p. 49.

The UN Mission to Support the Hudaydah Agreement (UNMHA) created in 2019 to support implementation of a ceasefire in Hudaydah governorate includes a senior mine action adviser in Hudaydah supported by two staff, one in Sana'a and the other in Aden.<sup>34</sup>

## GENDER AND DIVERSITY

Yemen's APMBC Article 5 deadline extension request submitted by the IRG in 2022 identified inclusion of women in mine action as a priority for YEMAC-IRG and YMACC.<sup>35</sup> The Article 7 report it submitted in 2024 said the national mine action programme "supports the integration of gender and social diversity into the planning and implementation of mine action in Yemen."<sup>36</sup>

YEMAC-IRG had reported training female staff for EOD, NTS, and risk education starting in 2020.<sup>37</sup> The extension request noted that it employed women in NTS and risk education in order to ensure the different needs of women and girls as well as men and boys are taken into account and that other women worked in information management and victim assistance. It stated "there is no objection to including more women."<sup>38</sup> The suspension of donor funding for YEMAC in 2023 curtailed its employment of all operations personnel, including women.

Social and cultural conventions constrain efforts to promote inclusion in the sector. YEMAC-IRG said it is encouraging women's participation and equal employment opportunities and social diversity but noted it faced diversity considerations specific to each region.<sup>39</sup> UNDP previously noted that integrating women into the mine action programme remained "challenging", but also reported that women had participated in EOD Level 2 training and IED disposal courses. Women had also engaged in IED disposal

operations with the Directorate of Family Protection, while 10 women were trained in NTS.<sup>40</sup>

Women's traditional role as responsible for family care is seen as discouraging women from applying for jobs. Operators report cases where husbands have forbidden women applicants from attending interviews. Risk education is conducted separately for women, often by female staff, to encourage participation of women, who are considered valuable informants on account of their knowledge of local conditions acquired while carrying out family chores such as collecting wood and herding livestock.<sup>41</sup>

Employment of women among international operators remained at a low level (see Table 2). DRC's total of 37 staff included 7 women while 3 of 31 women were engaged in operations, largely unchanged from the previous year. A woman supervisor headed DRC's three-person NTS/risk education team.<sup>42</sup> A sharp fall in HALO's staff from 124 in 2022 to 70 in 2023 also saw a drop in the absolute number of female employees although the percentage of women in the staff and in operations slightly increased. HALO employed mixed gender NTS/ risk education teams and said it had few problems deploying them.<sup>43</sup> Project Masam, much the biggest operator, employed the fewest women in both absolute and percentage terms.<sup>44</sup> NPA staff numbers rose sharply as its programme expanded into operations but the many staff seconded from YEMAC were predominantly men.<sup>45</sup>

**Table 2: Gender composition of operators in 2023<sup>46</sup>**

Operator	Total staff	Women staff	Total managerial or supervisory staff	Total women in managerial or supervisory positions	Total operations staff	Women in operations positions
DRC	37	(19%) 7	9	(11%) 1	31	(10%) 3
HALO	70	(19%) 13	23	(17%) 4	37	(16%) 6
Project MASAM	538	(2%) 10	32	(0%) 0	301	(1%) 3
NPA	80	(13%) 10	8	(25%) 2	57	(14%) 8
<b>Totals</b>	<b>725</b>	<b>(6%) 44</b>	<b>72</b>	<b>(10%) 7</b>	<b>426</b>	<b>(5%) 20</b>

34 Email from Leon Louw, Mine Action Adviser, UNMHA, 25 June 2024.

35 2022 Article 5 deadline Extension Request, p. 23.

36 Article 7 Report (covering 2023), Form H.

37 Email from Ameen Saleh Al-Aqili, YEMAC, 5 May 2021; and *UNDP Annual Report 2020*, p. 15.

38 2022 Article 5 deadline Extension Request, p. 21.

39 Article 7 Report (covering 2023), Form H.

40 UNDP, "Annual Report on Mine Action in Yemen 2021", p. 15.

41 Email from Esteban Bernal, Programme Manager, Humanitarian, Disarmament and Peace Building, DRC, 23 March 2021.

42 Emails from Christina Hendryx, DRC, 15 May 2023 and 17 July 2024.

43 Emails from Matthew Smith, HALO, 11 July 2023; and Jack Lister, HALO, 6 June 2024.

44 Email from Retief Horn, Project MASAM, 19 July 2024.

45 Email from Tony Wyles, Country Director, NPA, 25 June 2024.

46 Emails from Christina Hendryx, DRC, 17 July 2024; Jack Lister, HALO, 6 June 2024; and Tony Wyles, NPA, 25 June 2024.

## ENVIRONMENTAL POLICIES AND ACTION

YEMAC-IRG reported that national mine action standards (NMAS) include a chapter on environment<sup>47</sup> but operators were not aware that one existed and said the emergency character of the response to mines and other explosive ordnance did not take account of environmental issues. Operators face a number of environmental challenges, including rising temperatures and flooding, but said environmental management and protection did not feature in planning and tasking discussions with YEMAC or YMACC and they followed international standards and their organisational standing operating positions (SOPs).

DRC seeks to ensure that waste produced during demolitions is picked up and disposed of properly.<sup>48</sup> NPA reports conducting environmental assessments before operations in line with in-house green policies that include eco-friendly clearance methods limiting disturbance of vegetation, reducing waste, and advocating environmentally sustainable practices.<sup>49</sup>

## INFORMATION MANAGEMENT AND REPORTING

Information management in the YEMAC-IRG area of operations in the south has improved since 2021 with the installation of the Information Management System for Mine Action (IMSMA) Core database and the introduction of approved reporting templates.<sup>50</sup> A main server was installed in YMACC at the end of 2021 with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD), and in 2022 was populated with data on clearance, victims, and accidents as well as receiving results of the baseline survey.<sup>51</sup>

In 2023, YEMAC said that information management system operations continue to be reviewed and strengthened.<sup>52</sup> It reported that all electronic reporting forms were designed with participation of operators in technical working groups and that a series of workshops and training sessions were organised for operators with support from UNDP and the GICHD.<sup>53</sup>

Implementing partners previously submitted operating results to YMACC by email but in 2022 moved over to reporting via IMSMA. They submit operating results to YMACC on a monthly basis and say it is proactive in following up on reports but they only have direct access to data relating to their own operations.<sup>54</sup> Operators are able to request maps and other data to support operations and report that data received on tasks have proved reliable.<sup>55</sup> Project Masam reported its operating results to YMACC but the data was held separately from other operators' results. Discussions were underway in 2023 on steps to integrate Project Masam's data with the rest of the mine action programme results.<sup>56</sup> International support for the database continued after the closure of UNDP's programme. The GICHD continued to deploy an information management officer contracted by DRC.<sup>57</sup>

YEMAC-DFA in the north works with an older IMSMA New Generation system.<sup>58</sup> Its information management capacity in 2023 was not known.

## PLANNING AND TASKING

Mine action in Yemen is conducted on an emergency basis in a context of continuing armed conflict, responding to immediate threats from all forms of explosive ordnance.<sup>59</sup> A work plan in Yemen IRG's 2022 Article 5 deadline extension request identified general areas of activity such as emergency response, survey, and risk education, but gave no details. It said it would update its plans every year or two.<sup>60</sup>

The IRG Article 5 deadline extension request submitted in 2022 identified the YBLS as key to understanding the extent,

location, and type of all explosive ordnance hazards, and thus a priority, along with building the capacity and resources of the mine action sector for survey and clearance. The request emphasised flexibility, stating that its plans were a "living document" that would be subject to continuous review to adapt to changing circumstances.<sup>61</sup>

YEMAC has not produced annual work plans in the south or north. YEMAC-IRG reports that clearance plans and task priorities are determined in technical working group meetings

47 Email from Ameen Saleh Al-Alaqili, YEMAC, 21 May 2023.

48 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, HALO, 11 July 2023.

49 Email from Tony Wyles, NPA, 25 June 2024.

50 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 9.

51 Interview with Mukahhal Sulaiman, GICHD, Geneva, 11 July 2023.

52 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

53 Ibid.; interview with Stephen Robinson, UNDP, in Geneva, 23 March 2021; and UNDP, "Annual Report 2021", p. 10.

54 Email from Jack Lister, HALO, 6 June 2024.

55 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, HALO, 11 July 2023.

56 Interview with Mukahhal Sulaiman, GICHD, Geneva, 11 July 2023.

57 Interview with Mukahhal Sulaiman, GICHD, Geneva, 27 June 2024; and email from Christina Hendryx, DRC, 17 July 2024.

58 Interview with Mukahhal Sulaiman, GICHD, Geneva, 27 June 2024.

59 2022 Article 5 deadline Extension Request, p. 26.

60 Ibid., p. 27.

61 Ibid., p. 29.



with implementing partners and in consultation with district level communities, taking account of the size of the affected population, the number of beneficiaries and potential land use. It said effective planning would remain difficult until the YBLS had produced more extensive data on contamination.<sup>62</sup>

Cumbersome and opaque bureaucracy, particularly relating to the issuance of visas and movement permits and equipment imports continue to slow the progress of mine

action although implementing partners reported the situation in the south improved in 2023. Since the closure of UNDP's emergency programme and the suspension of donor funding, YMACC continued to hold regular meetings in 2023-24 that were well attended by YEMAC and implementing partners discussing operational issues. Operators reported open and productive dialogue during meetings and positive outcomes.<sup>63</sup>

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## LAND RELEASE SYSTEM

### STANDARDS AND LAND RELEASE EFFICIENCY

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Yemen is in the process of revising and updating its NMAS. The existing standards were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007. In 2019, YEMAC acknowledged that the standards were obsolete and said SOPs based on the standards were not consistently applied by its clearance personnel.<sup>64</sup>

YEMAC-IRG reported in 2023 that it had revised 31 chapters of NMAS, which were undergoing a final review and were expected to be approved and adopted before the end of the year.<sup>65</sup> They included standards relating to land release and are said to be compliant with IMAS and the 2019 Oslo Action Plan.<sup>66</sup> Dual language standards have been drafted but have not yet been officially released.<sup>67</sup> Further action appears to have ceased with the termination of the UNDP Emergency Mine Action Project and suspension of international funding.

### OPERATORS AND OPERATIONAL TOOLS

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Until 2023, YEMAC was nominally the biggest operator, employing some 400 personnel under YEMAC-DFA in the north and 550 personnel under YEMAC-IRG in the south, but estimates of operational capacity in both areas were complicated by the reported presence of ghost deminers and by patchy reporting on the part of YEMAC team leaders.<sup>68</sup>

YEMAC-IRG had reported in 2022 that it deployed 30 manual clearance teams employing 256 personnel and three battle area clearance (BAC)/EOD teams with an additional 29 personnel and 6 mine detection dog (MDD) teams. It also had 15 to 18 NTS teams with 72 staff, 7 technical survey (TS) teams with 45 personnel, 5 risk education teams, and 3 quality management teams. YEMAC-IRG also seconded deminers to all the other implementing partners.<sup>69</sup> After UNDP informed YEMAC-IRG in June 2023 that it would no longer fund mine action, it said 66 teams stopped working.<sup>70</sup> Since then, it reported it has only deployed teams for emergency call-outs.<sup>71</sup>

YEMAC-DFA said that in 2022 in the north it had four clearance platoons, three MDD groups working with thirty-six dogs, two NTS teams, five TS teams, and a mechanical clearance team, as well as three risk education teams, a field monitoring team, and three quality management teams.<sup>72</sup>

NMAC-DFA did not specify the numbers of personnel involved in 2023 and it was unclear how much of its capacity was active or how it was funded. Its mechanical asset reportedly depended on UNDP funding for fuel and stopped operating after the closure of UNDP's programme.

The suspension of donor funding through UNDP was expected to pave the way for a wider restructuring of mine action in which national authorities concentrated on their role as regulators, coordinators, and quality management, leaving survey and clearance to be conducted by international demining organisations.<sup>73</sup> There was little sign in 2023 or 2024 of international funding supporting secondment of former YEMAC staff to international implementing partners, who mostly operated with limited capacity (see Table 3).

DRC capacity working in IRG-controlled areas from a base in the west coast town of Mokha remained unchanged from the previous year although in 2024 it planned to add a manual mine clearance team, an EOD team, and two NTS/risk education teams to work in areas under DFA control.<sup>74</sup> HALO reduced the number of manual teams from three to one in 2023 although it hoped to add between 10 and 20 personnel for NTS and clearance in 2024.<sup>75</sup>

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62 Article 7 Report (covering 2023), Form D.

63 Emails from Christina Hendryx, DRC, 15 May 2023 and 17 July 2024; Jack Lister, HALO, 6 June 2024; and Tony Wyles, NPA, 25 June 2024.

64 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 Article 5 deadline Extension Request, p. 16.

65 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

66 Email from Ameen Saleh Alaqili, YEMAC, 26 December 2021.

67 Email from Jack Lister, HALO, 6 June 2024.

68 Interview with mine action stakeholders in Geneva, 23 June 2022.

69 Email from Ameen Saleh Alaqili, YEMAC, 21 May 2023.

70 Article 7 Report (covering 2023), Form I.

71 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 1 May 2024.

72 Email from Ahmed Yahya Alawi, YEMAC-DFA; and Article 7 Report (covering 1 April 2022–31 March 2023), Form L.

73 Interview with Patrick Fruchet, UN Adviser, in Geneva, 21 June 2023.

74 Email from Christina Hendryx, DRC, 17 July 2024.

75 Email from Jack Lister, HALO, 6 June 2024.



Only NPA significantly increased in size in 2023, expanding from a small team of 12 people providing dogs to support YEMAC-IRG's MDD programme to a team of 80, including 54 personnel seconded from YEMAC, and including 20 deminers alongside two MDD teams and 4 conflict preparedness and protection teams with a total of 20 staff. In 2023, NPA worked in four governorates—Al-Dhale, Hudaydah, Marib, and Taiz—focused on survey and risk education.<sup>76</sup>

HI did not conduct any survey or clearance in 2023 but an MoU concluded with YMACC in January 2024 enabled HI to conduct some NTS in IRG-controlled areas of the west coast around Mokha and Hays and to train a team for EOD. HI also concluded an MoU with the DFA in Sanaa which allowed it to conduct some NTS in Hudaydah.<sup>77</sup>

Saudi-funded Project Masam and its implementing partner, SafeLane Global, remained much the biggest operator working in IRG-controlled areas. Capacity remained unchanged with 32 NTS/clearance teams seconded from YEMAC which it said investigated and produced threat assessment reports on SHAs and conducted emergency clearance. To deal with an evolving IED threat Project Masam added MiniMod water disruptors to its demining toolbox especially for use against rock mines. Saudi Arabia's King Salman Humanitarian Aid and Relief Centre has previously supported Project Masam with annual funding of around \$30 million.<sup>78</sup> The project said it would maintain the same capacity in 2024 and into 2025.<sup>79</sup>

**Table 3: Yemen-IRG operational clearance capacities deployed in 2023<sup>80</sup>**

Operator	Manual teams	Total deminers	MDDs	Machines	Comments
YEMAC-IRG*	30+3	256+29	12 dogs		30 mine clearance + 3 BAC/EOD teams; 15–18 TS teams with 72 personnel, and 7 NTS teams with 45 personnel
DRC	4	18			1 manual demining team with 6 personnel and 3 BAC/EOD teams with 12 personnel, supported by 3 NTS/EORE teams with 9 personnel
HALO	1	9		2 teams/ 12 personnel	Supported by 3 NTS teams with 12 personnel
NPA	4	20	10 handlers/ 12 dogs		Deminers and TS personnel
Project Masam	32	192	6 handlers/ 6 EDDs		Teams trained for NTS and clearance
<b>Totals</b>	<b>74</b>	<b>524</b>	<b>24 MDDs, 6 EDDs</b>	<b>2 teams</b>	

\* Until 30 June 2023.

## LAND RELEASE OUTPUTS AND ARTICLE 5 COMPLIANCE

### LAND RELEASE OUTPUTS IN 2023

Mine action in Yemen continued to focus on emergency clearance of explosive ordnance threats of all types rather than systematic area clearance and release of mined area, reflecting conditions resulting from years of war, constantly shifting frontlines, re-mining of cleared land, and extensive use of improvised devices by military as well as criminal groups.

<sup>76</sup> Email from Tony Wyles, NPA, 25 June 2024.

<sup>77</sup> Email from Colin Wanley, HI, 21 June 2024.

<sup>78</sup> "Saudi Arabia extends mine clearing contract in Yemen", *Arab News*, 21 July 2021.

<sup>79</sup> Email from Retief Horn, Project Masam, 19 July 2024.

<sup>80</sup> Emails from Ameen Saleh Alaqili, YEMAC, 21 May 2023; Christina Hendryx, DRC, 17 July 2024; Jack Lister, HALO, 6 June 2024; Tony Wyles, NPA, 25 June 2024; and Retief Horn, Project Masam, 19 July 2024.

YEMAC-IRG steps towards accelerate survey and clearance were halted by the suspension of funding provided through UNDP in the second half of 2023. It reported release of a total of 475,223m<sup>2</sup> in 2023: 290,812m<sup>2</sup> reduced through TS and 184,411m<sup>2</sup> cleared. Much greater areas were addressed by Project Masam as emergency clearance but not released.<sup>81</sup>

YEMAC-DFA did not release information on survey or clearance activities in 2023.

## SURVEY IN 2023

YEMAC-IRG identifies the YBLS as a priority but survey operations appear to have slowed dramatically in 2023, reflecting the limited capacity of international partners conducting it, operational challenges posed by insecurity, and delays faced importing equipment or receiving movement permits.

The YBLS recorded mine contamination totalling 5.4km<sup>2</sup> in 2023, including 2.5km<sup>2</sup> of CHAs and 2.97km<sup>2</sup> of SHAs in 2023 (see Table 1), compared with nearly 52km<sup>2</sup> the previous year. Two fiercely contested governorates, Hudaydah and Taiz, accounted for nearly three quarters of the contamination identified.<sup>82</sup>

According to Yemen's Article 7 transparency report covering 2023, YEMAC-IRG reduced 290,812m<sup>2</sup> TS.<sup>83</sup>

DRC confirmed 3.1km<sup>2</sup> of mined area in Hudaydah and Taiz governorates but did not report any areas released through survey.<sup>84</sup> NPA said it cancelled 357,054m<sup>2</sup> through NTS in the Dar Saad district of Aden governorate in 2023 and its MDD teams reduced 18,700m<sup>2</sup> in the same area.<sup>85</sup>

## CLEARANCE IN 2023

Emergency clearance by Project Masam accounted for the vast majority of AP mines and other items that YEMAC-IRG reported cleared in 2023 (see Table 4).<sup>86</sup> Project Masam reported clearing slightly less area (10.22km<sup>2</sup>) and fewer AP mines (465) than the amount attributed to it by YEMAC-IRG but in addition to items destroyed in clearance operations it reported results of spot EOD tasks that included 50 AP mines, 33 improvised mines, and 193 anti-vehicle (AV) mines.<sup>87</sup>

**Table 4: Emergency clearance in Yemen-IRG 2023, including output of Project Masam<sup>88</sup>**

	Area cleared (m <sup>2</sup> )	AP mines destroyed	IEDs destroyed	AV mines destroyed	UXO destroyed
Article 7 report	10,908,308	521	291	7,202	50,732
	(Project Masam 10,311,433)	(Project Masam 518)	(Project Masam 291)	(Project Masam 7,181)	(Project Masam 41,040)

Systematic clearance by YEMAC-IRG demining teams ground to a halt in 2023 with the mid-year cut-off of donor funding through UNDP, and international NGOs mostly lacked capacity to scale up clearance. YEMAC-IRG recorded clearance of 0.18km<sup>2</sup> in 2023, down from Mine Action Review's estimate of 2km<sup>2</sup> the previous year, and resulting in clearance of 40 AP mines (see Table 5).<sup>89</sup> Among international NGOs, DRC reported clearing 6,369m<sup>2</sup> but no AP mines.<sup>90</sup> HALO cleared 19,090m<sup>2</sup> in Taiz, where it conducted its first manual and mechanical clearance tasks, and in Lahj, where it cleared one AP mine.<sup>91</sup>

**Table 5: AP mine clearance in Yemen-IRG in 2023<sup>92</sup>**

Location	Area cleared (m <sup>2</sup> )	AP mines destroyed	UXO destroyed
Abyan	6,719	0	65
Aden	72,445	0	4
Al-Dhale	8,896	3	4
Hudaydah	36,268	0	2

81 Article 7 Report (covering 2023), Form D.

82 Ibid.; and email from Ameen Saleh Alaqili, YEMAC-IRG, 21 May 2023.

83 Article 7 Report (covering 2023), Form D.

84 Email from Christina Hendryx, DRC, 17 July 2024.

85 Email from Tony Wyles, NPA, 25 June 2024.

86 Article 7 Report (covering 2023), Form D.

87 Email from Retief Horn, Project Masam, 19 July 2024.

88 Article 7 Report (covering 2023), Form D.

89 Ibid.

90 Email from Christina Hendryx, DRC, 17 July 2024.

91 Email from Jack Lister, HALO, 6 June 2024.

92 Article 7 Report (covering 2023), Form D.

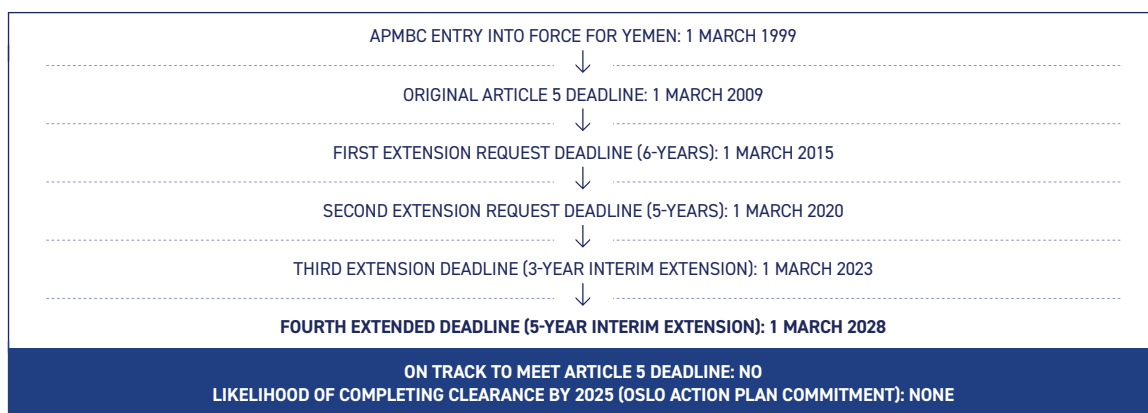
Table 5 Continued

Location	Area cleared (m <sup>2</sup> )	AP mines destroyed	UXO destroyed
Lahj	18,366	0	0
Shabwah	23,124	0	16
Taiz	18,593	37	162
<b>Totals</b>	<b>184,411</b>	<b>40</b>	<b>253</b>

## DEMINER SAFETY

Demining organisations did not report any operational casualties in 2023,<sup>93</sup> a significant improvement in a programme that has experienced heavy deminer casualties in the past five years. In 2022, YEMAC-IRG reported 10 casualties, including five deaths, among YEMAC and Project Masam teams caused by AP mines and IEDs in Hodeida and Shabwah.<sup>94</sup>

## ARTICLE 5 DEADLINE AND COMPLIANCE



Under Article 5 of the APMBC (and in accordance with the fourth extension, for five years, granted by States Parties in 2022), Yemen is required to destroy all AP mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 March 2028.

Yemen's third extension request in 2020 asked for three years as an interim measure designed to buy time for a baseline survey that would provide the basis for a follow-up request informed by up to date evidence of contamination. However, by 2022 the YBLS had barely started so Yemen requested a five-year extension starting in March 2023 to achieve the same objective of establishing a baseline estimate of contamination and to develop capacity to address the more complex environment resulting from extensive use of a wide range of explosive ordnance.<sup>95</sup> More than a year into its

fourth extension period, Yemen has made little headway in the face of political, financial, and security challenges.

The cut-off of donor funding through UNDP's emergency programme at the end of June 2023 was intended to pave the way for a different model of mine action in Yemen, with YEMAC IRG and DFA focused on the regulatory and coordinating functions of a national authority, leaving survey and clearance to implementing partners funded directly by donors. As of August 2024, there was no clarity on a future framework or mechanism for support to mine action in IRG or DFA or the progress of discussions, if any, with either authority.

In the meantime, YEMAC-IRG suspended operations in 2023 and donor funding has provided limited scope for international operators in IRG-controlled areas to expand capacity and

93 Emails from Christina Hendryx, DRC, 17 July 2024; Jack Lister, HALO, 6 June 2024; Tony Wyles, NPA, 25 June 2024; and Retief Horn, Project Masam, 19 July 2024.

94 Email from Ameen Saleh Alaqili, YEMAC-IRG, 21 May 2023.

95 2022 Article 5 deadline Extension Request, pp. 3-4.

absorb YEMAC deminers. In addition, while Houthi actions since the start of the Gaza war, including attacks on Red Sea shipping, did not directly impact international NGOs' operations,<sup>96</sup> they have set back initiatives aimed at enabling them to work in DFA-controlled areas.

Security conditions, however, remain challenging. Ceasefire negotiations mediated between the Saudi-backed coalition and Houthi authorities have eased conflict across frontlines. Intermittent fighting in Taiz, Marib, Al-Dhale, Hodeida, Shabwa, and Saada, while extremist activity is reportedly on the rise in Abyan and Shabwah governorates.<sup>97</sup> Numerous other tribal and armed groups exercise authority or control access at a local level.<sup>98</sup>

**Table 6: Five-year summary of AP mine clearance<sup>99</sup>**

Year	Area cleared (km <sup>2</sup> )
2023	0.2
2022	*2.0
2021	*1.5
2020	*1.0
2019	*1.0
<b>Total</b>	<b>5.7</b>

\* Mine Action Review estimates.

96 Emails from Christina Hendryx, DRC, 17 July 2024; and Jack Lister, HALO, 6 June 2024.

97 Statement of UN Special Envoy Hans Grunberg to the UN Security Council, New York, 16 August 2023 and briefing to the Security Council, UN doc. S/PV.9623, 13 May 2024.

98 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, HALO, 11 July 2023.

99 Data includes only clearance uploaded to the YEMAC-IRG IMSMA database and not emergency clearance.