

KEY DATA

CLUSTER MUNITION CONTAMINATION:

UNKNOWN BUT HEAVY

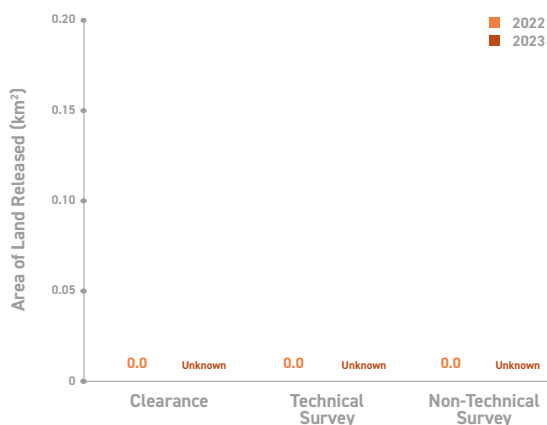
SUBMUNITION
CLEARANCE IN 2023

UNKNOWN

SUBMUNITIONS
DESTROYED IN 2023

UNKNOWN

LAND RELEASE OUTPUT



KEY DEVELOPMENTS

The United Nations Development Programme (UNDP) Emergency Mine Action Programme closed in June 2023, suspending donor funding for survey and clearance operations by Yemen Mine Action Centre (YEMAC) pending a review of the sector's institutional structures, management, and operations. International operators working in areas controlled by the internationally-recognised government (IRG) continued survey and clearance focused on landmines and improvised explosive devices. Three international demining organisations visited Sana'a to negotiate a memorandum of understanding (MoU) with YEMAC and the de facto authorities (DFA) in the north but no agreement had been reached by the end of the year.

RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- YEMAC-DFA (YEMAC North) and YEMAC-IRG (YEMAC South) should each report annually on capacity deployed for survey and clearance of explosive ordnance and operating results that provide details of clearance and explosive ordnance disposal (EOD) spot tasks disaggregated by device type.
- YEMAC-IRG should release its revised national mine action standards (NMAS).
- The DFA in Sana'a should expedite access for international demining organisations in order to facilitate capacity building for the mine action programme.
- The DFA and YEMAC should establish a coordination centre in the north similar to the Yemen Mine Action Coordination Centre (YMACC) to increase efficiency and avoid the conflict of interest in its current role as regulator and operator.
- YEMAC-DFA and YEMAC-IRG should draw up work plans for operations in the north and the south respectively.

CLUSTER MUNITION SURVEY AND CLEARANCE CAPACITY

MANAGEMENT

- Yemen Executive Mine Action Centre (YEMAC), which in practice is now split between YEMAC DFA (YEMAC North) based in Sana'a and YEMAC-IRG (YEMAC South) based in Aden.
- Yemen Mine Action Coordination Centre (YMACC)

NATIONAL OPERATORS

- YEMAC

INTERNATIONAL OPERATORS

- Danish Refugee Council (DRC)
- The HALO Trust (HALO)
- Norwegian People's Aid (NPA)
- Project MASAM/SafeLane Global

OTHER ACTORS

- United Nations Development Programme (UNDP)
- Geneva International Centre for Humanitarian Demining (GICHD)

UNDERSTANDING OF CMR CONTAMINATION

The extent of cluster munition contamination in Yemen is not known but is thought to be heavy. YEMAC has previously reported the presence of cluster munition remnants (CMR) in seven governorates with the heaviest contamination in the northernmost Saada and al-Jawf governorates bordering Saudi Arabia. The other affected governorates included Amran, Hajjah, Hodeida, Mawit, and Sanaa, including in Sana'a City.¹ Recent estimates of explosive ordnance (EO) contamination provided by mine action authorities in northern areas controlled by the Sana'a-based DFA (the Houthis) and the rest of the country, which is largely controlled by the Aden-based internationally-recognised government (IRG), reflect the constraints on systematic survey imposed by nearly a decade of conflict and refer to EO without specifying the type of hazard.

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.² But the escalation of conflict since late March 2015 significantly increased both the extent of CMR and their threat to the civilian population.

This was the result of airstrikes by the Saudi Arabia-led coalition on territory controlled by the Houthis (Ansar Allah).³ In December 2016, Human Rights Watch reported that 18 coalition attacks using cluster munitions since the previous year had killed at least 18 civilians and injured 74 more.⁴ NGOs recorded coalition use of cluster munitions until February 2017 and suspected continued use in 2018 but have not reported use since then.⁵

YEMAC North reports contamination from 15 types of cluster munition, of which 10 are produced in the United States (US), along with two British- and three Brazilian-made types.⁶ Human rights groups have documented the use of US BLU-63 submunitions (in Sana'a City); BLU-97 combined-effect submunitions (in Saada governorate); CBU-58 and CBU-105 sensor-fuzed munitions (in Amran and Sanaa governorates); Brazilian Astros II munitions (in Saada governorate and city), and British-made BL755 submunitions (in Hayran district of Hajjah governorate). They have also reported use of artillery-delivered ZP-39 Dual-Purpose Improved Conventional Munitions (DPICM) of indeterminate origin.⁷

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 Houthi movement (the DFA) controlling the capital Sana'a as well as much of the north and west of the country, and the IRG, operationally based in Aden and the south. A Sana'a-based inter-ministerial National Mine Action Committee (NMAC), which was created to set national mine action policy, strategy and priorities is no longer recognised by the IRG, which reported it had disbanded in 2019.⁸

YEMAC was established in Sana'a in January 1999 as a national mine action agency under the NMAC and functioning as both regulator and operator. It has nominally maintained a national role and in 2021, UNDP reported that, in total, YEMAC conducted clearance in 19 of Yemen's 21 governorates.⁹ In practice, YEMAC had 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.¹⁰

1 Interviews with Ahmed Alawi, YEMAC, 17 February 2016; and Stephen Bryant, Chief Technical Adviser, UNDP, in Geneva, 6 February 2017.

2 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: <http://bit.ly/32sdP0x>.

3 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.

4 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: <http://bit.ly/32ub4vE>.

5 Landmine and Cluster Munition Monitor, Yemen country profile, 2022, at: <https://bit.ly/4evj4R7>.

6 Email from Ahmed Yahya Alawi, Executive Officer, YEMAC North, 18 April 2023.

7 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016; Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015; Amnesty International, "Yemen: children among civilians killed and maimed in cluster bomb 'minefields'", 23 May 2016; and Legal Centre for Rights and Development, Sanaa, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.

8 APMBC Article 7 Report (covering 2018), Form A.

9 UNDP Annual Report on Mine Action in Yemen 2020, February 2021, p. 9.

10 Email from Ameen Saleh Alaqili, Director, YEMAC, 26 December 2021.

YEMAC South, headquartered in Aden, operated through three branches serving Hadramaut, Marib, and Taiz. It identified Aden, Abyan, Dhale, Hodeida, Lahej, and Taiz as high-priority districts for mine action interventions.¹¹ 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, as well as the western Shabwah governorate. Operations included explosive ordnance disposal (EOD) spot tasks, non-technical survey (NTS), and risk education.¹²

In April 2020, YEMAC South opened YMACC in Aden with a view to strengthening programme management in areas controlled by the IRG. 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).¹³ The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people.¹⁴ It had set up technical working groups focused on NTS and risk education.¹⁵ Termination of the UNDP emergency project resulted in reduced staffing and left YMACC without funding for essential utilities, including electricity or fuel for vehicles, leading to delays in its activities. Implementing partners said YMACC continues to convene regular meetings for project managers and although staff had not received salaries they continued to support operators on issues of accreditation, task orders, access, the import of equipment and security.¹⁶

YEMAC-DFA (YEMAC North) functions as both the coordinator of mine action in northern governorates controlled by Houthi forces and as 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.¹⁷ To address that issue, YEMAC North and the DFA's Supreme Council for the Management and Coordination of Humanitarian Affairs (SCMCHA) agreed in principle to set up a coordination centre similar to YMACC

in the IRG-controlled areas¹⁸ but as at June 2024 no further action had been taken to implement the proposal. Three demining INGOs—Danish Refugee Council (DRC), The HALO Trust, 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 when signed,¹⁹ but this did not take place in 2023.

The United Nations has provided technical and administrative support to YEMAC for two decades but in 2023 ended its current project and embarked on a review of its involvement in mine action in Yemen.²⁰ From 1999 to 2003 the UN supported mine action through a programme implemented by the UN Office for Project Services (UNOPS). From 2003, the programme came under full national management. At the end of 2014, UNDP launched an Emergency Mine Action Project to support development of national capacity for mine action planning and programme management and from 2017 paid for approximately 1,000 national personnel to conduct survey, clearance, and EOD.²¹ At the start of 2022, UNDP had six international staff; area coordinators based in Aden, Hodeida, Mokha, and Mukalla; two administrative staff in Sana'a; and three administrative staff in Aden.²² Two international staff had left the programme by the end of 2022. The remaining staff left with the closure of the programme in June 2023 and UN engagement with mine action came under the Resident Coordinator pending a review of mine action sector management structures and international support.²³ Two UN staff deployed to Yemen in January 2024 under an ECHO project, "Strategic Coordination of Ways Forward for Humanitarian Mine Action interventions in Yemen", in order to devise recommendations for the UN's future engagement with mine action in Yemen.²⁴

The UN Mission to Support the Hudaydah Agreement (UNMHA) set up under UN Security Council Resolution 2452 opened a joint operations centre in the city in October 2019. Its mine action section includes a senior mine action adviser in Hudaydah undertaking an advisory and advocacy role, supported by a mine action officer based in Aden and a staff member in Sana'a.²⁵

ENVIRONMENTAL POLICIES AND ACTION

Yemen does not have an NMAS on environmental management, and the emergency character of the response to mines and other explosive ordnance does not take account of environmental issues in planning and tasking. International operators report complying with relevant international standards. DRC said it sought to ensure that waste produced during demolitions is picked up and disposed of properly.²⁶

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

12 Yemen Article 5 deadline Extension Request, March 2022, pp. 26–27.

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

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

15 UNDP *Annual Report on Mine Action in Yemen 2020*, p. 14.

16 Emails from Jack Lister, Programme Manager, HALO, 6 June 2024; and Tony Wyles, Country Director, NPA, 25 June 2024.

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

18 Ibid.

19 Emails from Christina Hendryx, Programme Manager, Humanitarian, Disarmament and Peace Building (HDP), DRC, 15 May 2023; and Faiz Mohammad Paktian, Country Director, NPA, 7 May 2023.

20 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 24.

21 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.

22 UNDP, *Emergency Mine Action Project Annual Report*, February 2022, p. 8.

23 Interviews with Patrick Fruchet, UN Adviser, in Geneva, 21 June 2023; and with Aleksandar Mihajlov, UNDP, in Geneva, 22 June 2023.

24 Email from Charles Frisby, Senior Humanitarian Mine Action Adviser, UNOPS, 26 June 2024.

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

26 Emails from Christina Hendryx, DRC, 15 May 2023; and Matthew Smith, Head of Region, HALO, 11 July 2023.

GENDER AND DIVERSITY

YEMAC-IRG (YEMAC South) said in 2021 that the inclusion of women in mine action was a priority, and the Article 5 deadline extension request submitted by the IRG in March 2022 repeated that this was the position of both YEMAC and YMACC.²⁷ It started training female staff for EOD, NTS, and risk education in 2020.²⁸ The 2022 extension request noted that YEMAC had employed 15 women in NTS as well as another 15 women in risk education in order to ensure the different needs of women and girls as well as men and boys are taken into account. It said other women worked in information management and victim assistance. It stated that “there is no objection to including more women”,²⁹ but YMACC was reportedly resistant to employing women in multitask teams.³⁰ Any plans for employing women were put on hold with the suspension of donor funding in 2023.

YEMAC-DFA (YEMAC North) affirmed to UNDP that women made up half of their NTS staff³¹ but no details were available of overall staffing or the gender composition.

UNDP had noted that integrating women into the mine action programme remained “challenging”, but it reported that among 17 women who underwent training in 2021, 3 took an EOD Level 2 course, 3 others attended an improvised

explosive device disposal (IEDD) good practice course and engage in IED disposal operations with the Directorate of Family Protection, and 10 women were trained in NTS.³²

Social and cultural conventions present a significant impediment to efforts to promote inclusion in the sector. 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 carrying out family chores such as collecting wood and herding livestock.³³

Employment of women among international operators remained at a low level. HALO's 70 staff included 13 women at the end of 2023, including 6 of the 37 operations personnel and 4 of 23 staff in managerial or supervisory positions.³⁴ Women made up 7 of DRC's 36 employees in 2022, including 2 of 11 staff in managerial or supervisory jobs and 3 of the 27 staff in field operations, with one female in each of three NTS teams.³⁵

INFORMATION MANAGEMENT AND REPORTING

Information management in the YEMAC-IRG (YEMAC South) area of operations 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.³⁶ 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.³⁷

In 2023, YEMAC said that information management system operations continue to be reviewed and strengthened.³⁸ 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.³⁹

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.⁴⁰ Operators are able to request maps and other data to support operations and report that data received on tasks have proved reliable.⁴¹ 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.⁴²

YEMAC-DFA (YEMAC North) works with an older IMSMA New Generation (Version 5) system.⁴³ Its information management capacity in 2023 was not known.

27 Email from Ameen Saleh Al-Aqili, YEMAC, 26 December 2021; and Article 5 deadline Extension Request, March 2022, p. 21.

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

29 Article 5 deadline Extension Request, March 2022, p. 21.

30 Email from Marie-Josée Hamel, DRC, 30 March 2022.

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

32 UNDP, *Annual Report on Mine Action in Yemen 2021*, p. 15.

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

34 Email from Jack Lister, Programme Manager, HALO, 6 June 2024.

35 Emails from Marie-Josée Hamel, DRC, 30 March 2022; and Christina Hendryx, DRC, 15 May 2023.

36 UNDP, “Emergency Mine Action Project – Phase II, Annual Report for 2022”, 15 February 2023, p. 9.

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

38 Email from Ameen Saleh Al-Aqili, YEMAC, 21 May 2023.

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

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

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

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

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

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.⁴⁴ UNDP has seen that YEMAC needed to organise field operations to also address longer term impacts of contamination from explosive remnants of war (ERW).⁴⁵ YEMAC-DFA (YEMAC North) has not communicated any plans for tackling contamination by CMR or other EO. A work plan in Yemen IRG's 2022 APMBC Article 5 deadline extension request, submitted in March 2022, 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.⁴⁶

The 2022 extension request also identified the planned Yemen Baseline Survey (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.⁴⁷ Operators report YMACC has regular meetings that are well attended by YEMAC and implementing partners and frankly discuss operational issues.⁴⁸

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

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 standard operating procedures (SOPs) based on the standards were not consistently applied by its clearance personnel.⁴⁹

YEMAC-IRG (YEMAC South) 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 2023.⁵⁰ They included standards relating to land release and are said to be compliant with IMAS and the 2019 Oslo Action Plan.⁵¹ Dual language standards have been drafted but have not yet been officially released.⁵² 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

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.⁵³

YEMAC-IRG (YEMAC South) reported in 2022 that it deployed 30 manual clearance teams employing 256 personnel in 2022 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.⁵⁴ UNDP informed YEMAC-IRG in June 2023 that it would no longer fund mine action resulting

in the suspension of virtually all operations. Since then, YEMAC-IRG reported it has only deployed teams for emergency call-outs.⁵⁵

YEMAC-DFA (YEMAC North) said 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.⁵⁶ NMAC-DFA did not specify the numbers of personnel involved and it was unclear how much of its capacity was active in 2023 or how it was funded.

International operators present in Yemen in 2023 included DRC, HALO, Humanity & Inclusion (HI), NPA, and Project Masam. In 2023, only Project Masam, the biggest operator funded by Saudi Arabia with 32 demining teams employing some 450 deminers seconded from YEMAC, operated in

44 Article 5 deadline Extension Request, March 2022, p. 26.

45 UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, p. 23.

46 Article 5 deadline Extension Request, March 2022, p. 27.

47 Ibid., p. 29.

48 Email from Christina Hendryx, DRC, 15 May 2023.

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

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

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

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

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

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

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

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

areas identified as contaminated by cluster munitions. These included, Hudaydah, al-Jawf and Marib governorates. It reported clearing thousands of landmines and items of

unexploded ordnance but did not specify destruction of cluster munition remnants.⁵⁷

LAND RELEASE OUTPUTS IN 2023

Mine action in Yemen is conducted on an emergency basis focused on survey to identify the extent of contamination by all forms of explosive ordnance conducting urgent clearance to remove explosive hazards that pose an immediate threat to communities. YEMAC-IRG (YEMAC South) did not identify CMR as a major part of Yemen's explosive hazard threats⁵⁸ and they were not a target of specific survey or clearance.

Data provided by UNDP identified destruction of 271 submunitions in 2022, down from 1,771 destroyed the previous year.⁵⁹ YEMAC did not report clearance results for 2023.

YEMAC-DFA (YEMAC North) reported clearance of clearance of 1,506 submunitions in the 12 months to the end of March 2022 but only two in the 12 months to the end of March 2023.⁶⁰

⁵⁷ See Project Masam website, at: <https://www.projectmasam.com/eng/>.

⁵⁸ Email from Ameen Saleh Alaqili, YEMAC-IRG, 21 May 2023.

⁵⁹ UNDP Annual Report on Mine Action in Yemen 2021, p. 11; and UNDP, "Emergency Mine Action Project – Phase II, Annual Report for 2022", 15 February 2023, pp. 8, 12.

⁶⁰ Email from Ahmed Yahya Alawi, YEMAC North, 18 April 2023.