

RECOMMENDATIONS FOR ACTION

- Yemen should accede to the Convention on Cluster Munitions (CCM) as a matter of priority.
- Yemen should comply with its obligations under international human rights law to clear cluster munition remnants (CMR) on territory under its jurisdiction or control as soon as possible.
- Yemen should develop a mine action strategy providing a framework and clear targets for tackling explosive remnants of war (ERW).
- Yemen's government should support implementation of a baseline survey in accordance with its commitment to the Anti-Personnel Mine Ban Convention (APMBC).
- Yemen should amend bureaucratic procedures and arbitrary barriers that are obstructing imports of demining equipment and implementation of the mine action plans of the Yemen Executive Mine Action Centre (YEMAC).
- YEMAC and the Yemen Mine Action Coordination Centre (YMACC) should increase transparency by publishing regular, comprehensive reports on developments in its management, planning, and implementation of mine action.
- Yemen should clarify and consolidate the roles and authority of YEMAC and YMACC.

UNDERSTANDING OF CMR CONTAMINATION

YEMAC has reported the presence of CMR in six governorates but the extent is not known. Contamination is believed to be particularly heavy in Saada and al-Jawf governorates but submunitions are present as well in Amran, Hodeida, Mawit, and Sana'a governorates, including in Sana'a City.¹ YEMAC said US-made M118 cluster munitions had posed a particular threat in 2021, inflicting 10 casualties among its deminers in the first seven months of the year.²

Yemen had CMR contamination before 2015 and Human Rights Watch has said it recorded Saudi air strikes using cluster munitions dating back to 2009.³ The escalation of armed conflict since 26 March 2015 has significantly increased both its extent and the threat to the civilian population, mainly as

a result of airstrikes by the Saudi Arabia-led coalition.⁴ In December 2016, the organisation reported that 18 coalition attacks using cluster munitions since 2015 had killed at least 18 civilians and injured 74 more.⁵

Human rights groups have documented the use of United States (US) BLU-63 (Sana'a City), BLU-97 combined effect submunitions (Saada governorate), CBU-58 and CBU-105 sensor-fused munitions (Amran and Sana'a governorates), Brazilian Astros II munitions (Saada governorate and city), and British BL755 submunitions (Hajjah governorate). They have also reported use of ZP-39 artillery-delivered submunitions of indeterminate origin.⁶

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 (Ansar Allah) movement controlling the capital Sana'a and much of the north and west, and the internationally recognised government (IRG), operationally based in Aden and the south. The Sana'a-based inter-ministerial National Mine Action Committee (NMAC), which previously formulated national mine action policy, is no longer recognised by the IRG, which reported it had disbanded in 2019. In the south, YEMAC has fulfilled the double role of regulator responsible for policy and planning while also serving as the sole national operator.⁷

YEMAC was established in Sana'a in January 1999 as a national mine action agency and nominally maintains a national role today, with more than 1,000 staff working in 20 of Yemen's 21 governorates as at late 2019.⁸ In practice,

however, YEMAC has split into two, centred round Sana'a and Aden. The Sana'a office employed around 500 staff, working in northern governorates controlled by the Houthi forces.⁹ The United Nations reported YEMAC was not particularly active in the north in 2020 and most of the assets were concentrated in the south.¹⁰

From Aden, YEMAC operated with some 550 staff mainly active in Abyan, Aden, Amran, Hadramaut, Lahj, and Taiz governorates. YEMAC also has an office in Mokha and in 2019 opened offices in Taiz to support operations around Hodeida and in Marib for operations in al-Jawf governorate.¹¹ YEMAC said it had set up "skeleton" offices using its own resources pending receipt of financial support for them from the UN Development Programme (UNDP).¹² Overall, UNDP reported that YEMAC conducted clearance in 19 of Yemen's 21 governorates.¹³

In April 2020, YEMAC opened YMACC in Aden to strengthen programme management in areas controlled by the IRG. The centre is intended to facilitate cooperation with international organisations and has responsibility for accrediting and tasking them. It will also have departments for planning, information management, and quality assurance/quality control.¹⁴ The centre convened its first coordination meeting on 9 April 2020 and by early 2021 employed 44 people¹⁵ and had set up technical working groups focused on non-technical survey and explosive ordnance risk education.¹⁶

Mine action stakeholders say the creation of YMACC has improved coordination with operators but its legal status is unclear, it lacks clear powers to coordinate mine action, and decision-making boundaries between YEMAC and YMACC are opaque. Other institutions significantly involved in decision-making or administrative procedures significantly affecting mine action include particularly the Ministry of Planning and International Cooperation (MOPIC), the National

Security Agency, and the Ministry of Defence, while mine action stakeholders also point to interventions by the Saudi Ministry of Defence Evacuation & Humanitarian Operations Centre (EHOC).

UNDP provides technical and administrative support to YEMAC through a project carried out by three international and ten national staff working from a number of different offices. The UN supported mine action in Yemen from 1999 to 2003 through a programme implemented by the UN Office for Project Services (UNOPS). From 2003, the programme came under full national management. UNDP deployed an international adviser to YEMAC at the end of 2014 to support planning and programme management. At the end of 2020, its Sana'a office comprised two international staff, including a chief technical adviser, and three national staff; in Aden it had four international and two national staff. UNDP also had national field staff in Hodeida, Mokha, and Mukalla.¹⁷

GENDER AND DIVERSITY

Yemen's APMBC Article 5 deadline extension request submitted in 2019 made no reference to gender and in that year YEMAC rejected a suggestion that women might be included in training for demining teams. YEMAC has since stated it needs and plans to develop the employment of women in mine action and in 2020 started training female staff for explosive ordnance disposal, non-technical survey, and risk education.¹⁸ UNDP has encouraged YEMAC to mainstream gender principles and to deploy an all-women survey team in areas controlled by the internationally recognised government.¹⁹

YEMAC reported that it employed 34 women at the end of 2020, many of them in operational roles. They included the first female bomb disposal expert who was trained in 2020. At the end of the year, YEMAC had two female explosive ordnance disposal (EOD) operators deployed in the Hadramaut, 10 women assigned to non-technical survey, 5 female emergency risk education staff, 10 more women employed as risk education facilitators in Abyan, Aden, Al Dhale, and Lahej, as well as on the West Coast, and two women employed in administration in Taiz. YMACC reportedly employed six women, including one administration and finance staff member, a translator, a secretary, and three women in services.²⁰

Among international operators, Danish Refugee Council Humanitarian Disarmament and Peacebuilding Sector (DRC; previously Danish Demining Group, DDG) employed seven women in 2020 in risk education/non-technical survey, three of whom were based in Aden supporting activities in Lahj governorate, with three more in Mokha supporting work in Taiz, and one in Al Khokha supporting activities in Hodeida governorate.²¹ The HALO Trust employed six women among its thirty-four national staff, including two in operations with community outreach and risk education teams and four in support roles.²²

Recruitment of women for jobs in mine action in Yemen's conservative society faces significant cultural obstacles, in part due to their position as responsible for family care, which discourages 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.²³ DRC has found that men often took the lead in field activities overlooking the participation of women colleagues and even women in management positions face bullying and disrespect from male subordinates.²⁴

INFORMATION MANAGEMENT AND REPORTING

YEMAC, with support from UNDP and the Geneva International Centre for Humanitarian Demining (GICHD), upgraded its headquarters Information Management System for Mine Action (IMSMA) database, installing the Core version which UNDP reported was operational from September 2020.²⁵ The system was being installed in YMACC in early 2021.²⁶ YEMAC's northern office works with an older IMSMA system.²⁷

The extent of the data available was unclear. YEMAC had previously acknowledged that contamination data was out of date,²⁸ and the UN has observed that Yemen's conflict had "changed the extent and complexity of contamination dramatically".²⁹ YEMAC has been unable to conduct extensive survey as private demining companies in Yemen are not systematically reporting operating results to YEMAC.

YEMAC and UNDP had already started preparing data collection forms for risk education, non-technical survey, and EOD spot tasks and circulated initial versions among operators in late 2020 and early 2021. The forms were still under development as of writing.³⁰

PLANNING AND TASKING

Yemen does not have a current strategic plan or annual work plans for tackling mines, CMR, or other explosive remnants of war (ERW). Mine action in 2020 continued to be conducted on an emergency basis.³¹ In addition to emergency clearance, YEMAC identified its priorities for 2021 as conducting baseline survey in line with Yemen's APMB Article 5 deadline Extension Request, expanding risk education, improving coordination with humanitarian agencies in identifying operating priorities, and updating Standing Operating Procedures (SOPs) and National Mine Action Standards (NMAS).³²

YMACC priorities in 2021 included planning survey and clearance in conjunction with operator; directing implementation of the baseline survey, accrediting and tasking mine action organisations; building up operational capacity; mobilising donor support; and prompt investigation of demining accidents.³³

International operators received the first task orders from YMACC in July 2020, marking a significant step toward improved planning and coordination.³⁴ However, differences between YEMAC and YMACC on some tasks implemented in 2020 pointed to coordination challenges. In addition, Project Masam, the biggest international operator funded by Saudi Arabia, is tasked separately through an opaque process

YEMAC described as "joint management" that provided no task details or results accessible to the rest of the mine action sector.³⁵

Yemen's bureaucratic procedures are also proving a significant obstacle to progress. Operators are required to conclude a separate sub-agreement with MOPIC for every donor-funded project. Despite the priority YEMAC has given to survey, MOPIC resisted proposals for non-technical survey submitted in 2020 arguing that non-technical survey was unnecessary and the focus should be on clearance.

Operators were limited in the tasks they could undertake on 2020 because of capacity constraints resulting in part from cumbersome and opaque procedures for importing equipment, including detectors and personal protective equipment (PPE). After initial approval by MOPIC, applications to import equipment are forwarded to a range of government departments including, but not limited to, the ministries of Defence, Foreign Affairs, and Interior and the National Security Agency before returning to YEMAC for technical approval and then to MOPIC for final approval. Implementing partners say the process can take six months, sometimes more, and end without approval. Mine action sector sources say Saudi interference appears on occasion to have been a factor stalling approval for equipment imports.³⁶

LAND RELEASE SYSTEM

STANDARDS AND LAND RELEASE EFFICIENCY

YEMAC identified issuing new National Mine Action Standards (NMAS) as a priority in 2021.³⁷ Yemen's existing NMAS were based on the International Mine Action Standards (IMAS) when they were drawn up in 2007, predating most of Yemen's CMR contamination. In 2019, YEMAC acknowledged that the standards were obsolete and said standing operating procedures (SOPs) based on the standards were not consistently applied by its clearance personnel.³⁸

YEMAC was in contact with the GICHD in 2020 on developing national standards, focusing on standards for survey and clearance.³⁹ YMACC, as one of its first acts, started reviewing a draft of interim national standards.⁴⁰ By early 2021, YEMAC was reported to have completed drawing up new NMAS but by May it had not released them to implementing partners. YEMAC was reported to be translating them into English and preparing to send them to the Prime Minister's office for approval.

OPERATORS AND OPERATIONAL TOOLS

YEMAC is believed to have conducted most of the CMR clearance to date as the only operator working in Houthi-controlled areas of Yemen where CMR contamination is concentrated. At the start of 2020, YEMAC's northern operation reportedly employed around 500 personnel operating in Sana'a, the northernmost governorate of Saada, bordering Saudi Arabia, and northern districts of Almrnan governorate.⁴¹ However, the UN reported YEMAC North suffered from shortages of equipment, including detectors, aggravated by tight controls on all supplies to Houthi-controlled areas, and was not widely active in 2020. Most assets were concentrated in the south where, at the end of 2020, YEMAC reported a staff of 491, including 30 manual clearance teams with 272 personnel, 15 non-technical survey teams with 60 staff, 7 technical survey teams with 49 staff, and 2 EOD teams with 22 people.⁴² In 2020, YEMAC's southern operation took delivery from UNDP of 300 metal detectors and 36 pick-up trucks.⁴³

SafeLane/Dynasafe remained the only international organisation conducting clearance in 2020, receiving annual funding of around US\$30 million in 2020 from Saudi Arabia's government through the King Salman Relief and Rehabilitation Fund.⁴⁴ In 2019, it reported employing 19 internationals along with some 304 national staff, mainly seconded from YEMAC.⁴⁵ It expected the number of personnel to rise to around 400 in the course of 2019 and reported operating 32 multi-task teams working on the west coast and in Lahej, Marib, and Shabwah governorates.⁴⁶ SafeLane's operating results are not recorded in YEMAC's database and it did not respond to Mine Action Review's request for information.

The past year saw international humanitarian demining organisations develop a bigger footprint in Yemen. DRC, which concluded a new Memorandum of Understanding with YEMAC in 2020, expanded its Aden-based programme to employ 28 staff in 2020, including four internationals, two of whom were technical field managers in Mokha. Its

24 national staff included 20 risk education/non-technical survey personnel in Aden and Mokha together with three medics and an Aden-based information officer recruited with funding from the GICHD to support YMACC's development of IMSMA Core capacity. In 2021, DRC expected to deploy three multi-task teams comprising personnel seconded from YEMAC to conduct risk education, non-technical and technical survey, EOD spot tasks, and small area clearance tasks, subject to being able to import the necessary equipment.⁴⁷

The HALO Trust opened an office in Aden at the start of February 2020 and at the end of 2020 had 5 international and 34 national staff, including 16 personnel seconded from YEMAC making up 4 multi-task teams and a community outreach and risk education team consisting of 4 directly recruited staff. HALO Trust expected to add at least 20 more national staff in 2021, 16 of them in operational roles and

four in support jobs, with a view to expanding activities in non-technical survey and mechanical clearance. HALO Trust received approval in 2020 to import ballistic glass and specially hardened steel for armouring mechanical assets but had not received clearance to import detectors and PPE.⁴⁸

After long delays caused by security developments and the COVID-19 pandemic, Norwegian People's Aid (NPA) support for YEMAC's mine detection dog (MDD) programme started to move forward in 2020. By mid-2020, NPA had 12 long-leash dogs under training at its centre in Bosnia and Herzegovina pending transfer to Yemen once YEMAC handlers underwent training.⁴⁹ NPA had provided technical advice on setting up kennels and an MDD training area at YEMAC's training centre. NPA trainers arrived in Aden in November 2020 and were preparing to start training but in early 2021 were awaiting completion of registration procedures.⁵⁰

DEMINER SAFETY

Yemen's mine action programme has experienced heavy casualties among deminers in the past three years. In 2020, one deminer was killed and four injured, but no casualties were linked to cluster munitions.⁵¹

LAND RELEASE AND PROGRESS TOWARDS COMPLETION

LAND RELEASE OUTPUTS IN 2020

Yemen did not report release of any cluster munition-contaminated areas in 2020, reflecting current operational realities in which YEMAC conducts emergency clearance focused less on large-scale area clearance than addressing immediate threats to civilians by all forms of ERW.

YEMAC reported clearing a total of 3.13km² of mixed explosive ordnance contamination (not solely CMR) in 2020, a result largely unchanged from the previous year's 3.12km², but destroying only 403 submunitions in 2020 compared with 7,071 submunitions that the UN reported were destroyed in the previous year.⁵² Mine Action Review has not recorded any clearance of cluster munition-contaminated area for 2020.

Table 1: YEMAC operating results for 2020⁵³

Area cleared (m ²)	Submunitions destroyed	AP mines destroyed	IEDs destroyed	AV mines destroyed	Other UXO destroyed
3,132,896	403	923	512	5,317	54,108

Yemen's response to the COVID-19 pandemic did not stop YEMAC teams from continuing to conduct emergency response operations but halted conduct of risk education for a period of six months.⁵⁴ However, COVID-19 measures and associated travel restrictions held back implementing partners' plans to scale up survey and clearance operations in 2020. Closure of Aden airport from mid-March until July disrupted international staff deployments and prevented access for medevac flights causing HALO Trust to suspend operations two days after they had started.⁵⁵

- 1 Interviews with Ahmed Alawi, YEMAC, 17 February 2016; and Stephen Bryant, Chief Technical Adviser, United Nations Development Programme (UNDP), in Geneva, 6 February 2017.
- 2 Information provided by YEMAC to Gareth Collett, Chief Technical Adviser – Counter IED, UNDP, zoom interview, 20 July 2021.
- 3 Human Rights Watch, "Yemen: Cluster munitions harm civilians", 31 May 2015, at: <http://bit.ly/32sdP0x>.
- 4 UNDP, Grant Progress Report for 1 October–31 December 2015, 25 January 2016.
- 5 Human Rights Watch, "Brazil-made cluster munitions wound children", 23 December 2016, at: <http://bit.ly/32ub4vE>.
- 6 Ibid.; 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, Sana'a, "The bombing of civilians and residential neighbourhoods with international forbidden weapons (cluster munitions)", undated but 2018.
- 7 Anti-Personnel Mine Ban Convention (APMBC) Article 7 Report (covering 2018), Form A.
- 8 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, pp. 7, 14.
- 9 Interview with Ameen Saleh Alaqili, Director, YEMAC, in Geneva, 13 February 2020.
- 10 UNDP Annual Report 2020, February 2021, p. 15.
- 11 2019 APMBC Article 5 deadline Extension Request, pp. 5 and 22; and email from Stephen Robinson, UNDP, 21 July 2020.
- 12 APMBC Article 7 Report (covering 2019), Form D.
- 13 UNDP Annual Report 2020, February 2021, p. 9.
- 14 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 12.
- 15 Emails from Ameen Saleh Alaqili, YEMAC, 5 May 2021; and Stephen Robinson, Senior Technical Adviser, UNDP, 27 May 2020.
- 16 UNDP Annual Report 2020, p. 14.
- 17 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 9; and interview with Stephen Robinson, UNDP, in Geneva, 20 July 2020.
- 18 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021; UNDP Annual Report 2020, p. 15.
- 19 UNDP Annual Report 2020, p. 15; UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 21.
- 20 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021; UNDP Annual Report 2020, p. 8.
- 21 Email from Esteban Bernal, DRC, 23 March 2021.
- 22 Email from Matthew Smith, Programme Manager, HALO Trust, 17 May 2021.
- 23 Email from Esteban Bernal, DRC, 23 March 2021.
- 24 Emails from Esteban Bernal, Programme Manager, Humanitarian Disarmament & Peace Building, DRC, Yemen, 23 March 2021; and from Marie-Josée Hamet, Regional Programme Advisor – Middle East, DDG, 16 April 2020.
- 25 UNDP Annual Report 2020, p. 13; and email from Esteban Bernal, DRC, 23 March 2021.
- 26 Interview with Stephen Robinson, UNDP, Geneva, 23 March 2021.
- 27 Email from GICHD, 30 April 2020.
- 28 2018 Article 5 deadline Extension Request, March 2019, p. 19; APMBC Article 7 Report (covering 2019), Form D.
- 29 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 21.
- 30 Ibid., p. 12.
- 31 Ibid., 20 January 2020, p. 21.
- 32 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 33 Ibid.
- 34 Emails from DRC, 25 March 2021; and from Matthew Smith, Programme Manager, HALO Trust, 17 May 2021.
- 35 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 36 Emails from mine action stakeholders, March–May, 2021.
- 37 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 38 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 17; and 2019 APMBC Article 5 deadline Extension Request, p. 16.
- 39 Email from GICHD, 30 April 2021.
- 40 Email from Stephen Robinson, UNDP, 27 May 2020.
- 41 Interview with Ameen Saleh Alaqili, YEMAC, in Geneva, 13 February 2020; UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 28.
- 42 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 43 UNDP Annual Report 2020, p. 12.
- 44 "Saudi project clears 1,567 more mines in Yemen", Arab News/Saudi Press Agency, 11 January 2021.
- 45 Email from Chris Clark, SafeLane Global, 17 April 2019.
- 46 Information from SafeLane Global website, accessed at <http://bit.ly/2Xcc8mp>.
- 47 Email from Esteban Bernal, DRC, 23 March 2021.
- 48 Email from Matthew Smith, HALO Trust, 17 May 2021.
- 49 Email from Kenan Muftic, Head of Global Training Centre for MDDs/EDDs, NPA, 18 May 2020.
- 50 UNDP Annual Report 2020, p. 10.
- 51 Email from Ameen Saleh Alaqili, YEMAC, 5 May 2021.
- 52 UNDP, "Emergency Mine Action Project, Annual Progress Report 2019", 20 January 2020, p. 14; UNDP Mine Action Dashboard, February 2021.
- 53 UNDP Mine Action Dashboard, February 2021.
- 54 UNDP Annual Report 2020, p. 15.
- 55 Emails from Esteban Bernal, DRC, 23 March 2021; and from Matthew Smith, HALO Trust, 17 May 2021.