

IRAQ

ARTICLE 5 DEADLINE: 1 FEBRUARY 2028
(NOT ON TRACK TO MEET DEADLINE)

PROGRAMME PERFORMANCE	2017	2016
Problem understood	6	5
Target date for completion of mine clearance	4	4
Targeted clearance	5	5
Efficient clearance	4	4
National funding of programme	5	5
Timely clearance	5	5
Land-release system in place	5	5
National mine action standards	5	5
Reporting on progress	5	5
Improving performance	6	5
PERFORMANCE SCORE: AVERAGE	5.0	4.8

PERFORMANCE COMMENTARY

Iraq's mine action programme underwent major adjustments in 2017 to deal with the extraordinary scale and complexity of contamination found in areas recaptured from Islamic State which has largely eclipsed extensive "legacy" contamination from earlier conflicts in Federal Iraq. In the last quarter of 2017, Federal Iraq took back control of much of the "Grey Area", an area previously under the control of Islamic State, after liberation shared between Federal and Kurdish authorities. As a result, most of the liberated areas under Kurdish management now come under Federal control. The shift caused a hiatus in the operations of international demining organisations that were heavily

concentrated in the Kurdistan region, but also led to a significant and overdue expansion of international capacity in Federal Iraq. Commercial operators continued to focus on clearing infrastructure, public utilities, and buildings in support of stabilisation, while non-governmental organisations (NGOs) largely conducted clearance of belts of mines of an improvised nature in rural areas. Almost no clearance of "legacy" landmine contamination from previous conflicts occurred. The degree of progress was obscured by the lack of reliable data from the national mine action authorities.

RECOMMENDATIONS FOR ACTION

- The Directorate for Mine Action (DMA) and the Iraq Kurdistan Mine Action Agency (IKMAA) should acknowledge and report contamination by anti-personnel mines of an improvised nature as part of Iraq's Anti-Personnel Mine Ban Convention (APMBC) Article 7 obligations.
- Iraq should update its Article 5 deadline extension request to take account of contamination by landmines of an improvised nature that are outlawed by the APMBC, and set out a strategy for dealing with them.
- In supporting the mine action authorities in Iraq, the United Nations Mine Action Service (UNMAS) should seek to ensure that reporting disaggregates anti-personnel mines of an improvised nature from other types of improvised explosive devices (IEDs), so that Iraq can comply with the provisions of Article 5 and Article 7 of the APMBC.
- The DMA should review its information management to eliminate glaring errors and inconsistencies in the presentation of data, harmonise reporting of demining organisations, and facilitate timely access to accurate data.
- Iraq's Ministry of Defence and Ministry of Interior should submit comprehensive and timely data to the DMA on the results of mine action activities.
- Iraq should streamline visa procedures to eliminate lengthy delays for staff deployments at the expense of Iraq's mine action operations.

CONTAMINATION

Iraq is the world's most contaminated country by extent of mined area. Legacy mined areas include contamination resulting from the 1980–88 war with Iran, the 1991 Gulf War, and the 2003 invasion by the United States (US)-led coalition account for most known contamination, including barrier minefields along its borders with Iran and Saudi Arabia. In addition, occupation of large areas by Islamic State after 2014 added extensive contamination with mines of an improvised nature and other explosive devices. A high proportion of these explosive devices emplaced are anti-personnel mines prohibited under the APMBC.

Iraq's request for an extension to its APMBC Article 5 deadline, prepared by the DMA and the IKMAA and submitted in March 2017, estimated the remaining threat as 3,554 confirmed hazards covering 1,195km². Three southern governorates accounted for almost two-thirds of Iraq's total mine contamination. Iraq's Kurdistan Region of Iraq (KRI) accounted for one-fifth.¹

Data provided separately by the DMA and IKMAA to the Mine Action Review reported explosive contamination at the end of 2017 as covering more than 1,300km². This did not include areas contaminated by mines of an improvised nature in areas recaptured from Islamic State, which have not been subjected to large-scale systematic survey but are claimed by national authorities to cover hundreds of square kilometres.²

Federal Iraq

Data provided by the DMA and its information management service provider iMAP shows Federal Iraq's extraordinary level of mine contamination, but suffer from major inconsistencies. Iraq's latest APMBC Article 7 transparency report identifies 1,072km² of anti-personnel mine contamination as at end-2017.³ In data provided to the Mine Action Review, the DMA reported 1,133km² of mined area containing anti-personnel

mines, of which confirmed hazardous areas (CHAs) amounted to more than 1,117km².⁴ Updated details provided in September 2018 (see Table 1) claimed a total mined area in Federal Iraq outside the KRI of 1,008km²

with what were termed improvised explosive devices (IEDs) affecting a further 185km².⁵ Much of this “IED” contamination may in fact amount to anti-personnel mines.

Table 1: Mine and “IED” contamination in Federal Iraq (at end-2017)⁶

Device	CHAs	Area (m ²)	SHAs	Area (m ²)	Total area (m ²)
AP mines	163	339,769,206	28	19,337,541	359,106,747
AV mines	5	87,593	1	13,319	100,912
Mixed AP/AV	1	647,194,904	160	1,979,762	649,174,666
IEDs	106	0	1	184,646,643	184,646,643
Totals	275	987,051,703	190	205,977,265	1,193,028,968

Iraqi authorities face an additional challenge managing huge quantities of explosives recovered from mined areas and collected in storage areas. Open source reports have identified 23 explosions at ammunition and explosive storage areas since 2016 resulting in 58 reported deaths and 162 injuries, including 13 explosions in the first eight months of 2018. Twenty people were reportedly killed and 120 injured in June 2018 by detonation of explosives stored by a militia under a mosque in Baghdad’s Sadr city.⁷

Kurdistan Region of Iraq

Anti-personnel mines in the KRI are a fraction of the contamination in central and southern Iraq but the mines left from previous decades would still rank the KRI on its own among the world’s top five most contaminated regions.

IKMAA estimated that legacy mined areas at the end of 2017 covered nearly 226km², more than half of which is in Sulimaniya (Sleman) governorate, with anti-personnel mines covering almost 211km². Both figures represented a slight drop from the previous year but did not include areas on the border with Turkey which have never been surveyed because of insecurity.⁸ Continuing fighting and airstrikes in the area reportedly continue to add mine and explosive remnants of war (ERW) contamination.

The estimate also did not include extensive areas contaminated by Islamic State-produced mines, which have not been subjected to comprehensive survey. However, most of the Grey Area previously shared between the KRI and Federal Iraq returned to the latter’s control after October 2017 and in the process the KRI was left with only a few small areas affected by such mines of an improvised nature.⁹

Table 4: KRI mine contamination by device (at end-2017)¹¹

Type of contamination	CHAs	Area (km ²)	SHAs	Area (km ²)	Total area (km ²)
Anti-personnel mines	2,846	165.20	294	45.59	210.79
Anti-vehicle mines	10	0.25	2	0.003	0.25
Mixed	97	5.43	17	9.35	14.78
Other (not mines)	5	0.12	0	0	0.12
Total	2,958	171	313	54.94	225.94

Table 2: Mine contamination in Federal Iraq by governorate end-2017¹⁰

Province	Mined areas	Total reported area (m ²)
Babylon	4	192,292,943
Basrah	56	811,120,174
Diyala	4	1,991,255
Missan	208	48,537,781
Muthanna	1	10,479,896
Qadissiya	1	1,000,000
Salah al-Din	13	3,583,399
Thi-Qar	3	3,720,987
Wassit	33	44,782,202
Totals	323	1,117,508,637

Table 3: Federal Iraq “IED” contamination by governorate (at end-2017)

Governorate	SHAs	Area (km ²)
Anbar	33	112.39
Babylon	1	2.24
Baghdad	4	63.35
Diyala	6	0.001
Kirkuk	5	0.75
Ninewa	111	5.91
Totals	160	184.64

Table 5: Anti-personnel mine contamination in the KRI by province (at end-2017)

Governorate	CHAs	Area (km ²)	SHAs	Area (km ²)	Total area (km ²)
Duhok	405	20.21	0	0	20.21
Erbil	335	48.58	0	0	48.58
Garmyan	156	7.73	113	11.75	19.48
Slemani	1,950	88.68	181	33.84	122.52
Totals	2,846	165.20	294	45.59	210.79

Mines of an improvised nature

International operators have encountered a wide variety of improvised devices left by Islamic State but report that the vast majority are victim-activated and meet the APMBC treaty definition of an anti-personnel mine. These mines are mostly activated by a pressure plate or “crush necklace” wires sufficiently sensitive to be detonated by the weight of a child and connected to ammonium nitrate-based explosives and fuel. The size of the charge ranges from 3kg to 100kg, which is capable of destroying a vehicle.¹² Mines Advisory Group (MAG) and Janus Global Operations working in northern and central Iraq, respectively, in 2017 both reported such devices made up well over 90% of the items they cleared.¹³

Islamic State used mines of an improvised nature in conventional lanes in open country and around the perimeter of villages and access to key buildings. As an example of the scale of the contamination, MAG identified three mine “panels” in the vicinity of Bashiqa (Ninewa

governorate) in 2017 stretching over distances of 12km, 18km, and 24km, respectively, with multiple rows of devices spaced at intervals of between one and several metres in straight lines or zigzag patterns. It has also encountered devices loaded with chemical agents.¹⁴

Islamic State also mined the approaches to buildings and public infrastructure, and extensively booby-trapped private houses and property, posing a lethal threat to civilians returning to their homes. Operators have encountered devices activated remotely, by command wire, or victim initiated by the breaking of an infrared beam. Devices had been concealed in household appliances, furniture, and even syringes. Devices that are not victim activated do not meet the definition of an anti-personnel mine. Where sensitive anti-handling devices are fitted, however, this would typically be considered an anti-personnel mine.¹⁵ In Mosul in 2018, operators have continued to find dead bodies wearing suicide vests.¹⁶

PROGRAMME MANAGEMENT

Mine action in Iraq is managed along regional lines. The DMA, set up by the Ministry of Environment in Baghdad in 2008, coordinates and manages the sector in Federal Iraq in central and southern Iraq. IKMAA, created in 2004, manages mine action in the four northern governorates that fall within the KRI.

The operating areas of the two authorities changed in 2017. From September 2015, DMA and IKMAA shared operations in a so-called Grey Area, an area of about 69,000km² that was controlled or contested by Islamic State forces after 2014. The line separating DMA and IKMAA areas of responsibility in the Grey Area was determined by which forces had liberated areas from Islamic State and taken control of the territory. Much of Kirkuk governorate was occupied by the *pehmerga*.¹⁷ After a referendum in the KRI in September 2017 voted for independence, Iraqi forces took over control of historically contested areas, including Kirkuk governorate, ending the Grey Area.

UNMAS established a presence in Iraq in mid-2015 to assess the extent of the threat of explosive weapons in areas retaken from Islamic State and to help the DMA develop an emergency response. UNMAS has provided “explosive hazard management” to support stabilisation and recovery, including the return of people displaced by conflict. Under that mandate, UNMAS contracted implementing partners to undertake assessment, survey, “high-risk” search, and battle area clearance in liberated areas on tasks supporting UN Development Programme (UNDP) stabilisation initiatives and in support of the Government of Iraq. It also provided training for selected security service and mine action personnel.

By late July 2018, UNMAS had a total of 70 staff, of whom 46 were internationals, working from offices in Baghdad and Erbil. In 2017, it received \$70.5 million from international donors and by July 2018 had received a further \$26 million and pledges of \$22 million up to the end of 2018. Implementing partners in 2017 included Optima Group and Danish Demining Group (DDG), who operated in Anbar, Kirkuk, Ninewa, and Salah al-Din, governorates.¹⁸

Federal Iraq

The DMA implements policy set by a National Higher Council for Mine Action (NHCMA) created by, and reporting to, the prime minister, in which the ministries of defence, interior, and oil are major actors. The NHCMA is supported by a Technical Committee, functioning as its secretariat.¹⁹ The Ministry of Oil contracts and manages commercial operators conducting clearance supporting the oil sector.

The DMA has three regional mine action centres (RMACs):²⁰

- North: covering the governorates of Anbar, Diyala, Kirkuk, and Salah ad-Din
- Middle Euphrates (MEU): Babylon, Baghdad, Karbala, Najaf, Qadisiyah, and Wassit
- South: Basrah, Missan, Muthanna, and Thi-Qar.

RMAC-North, based in DMA headquarters in Baghdad covers areas liberated from Islamic State, accounting for Iraq's contamination by landmines of an improvised nature. In 2018, Norwegian People's Aid (NPA) seconded a technical adviser to support RMAC-North.

RMAC-South, based in Basra, which accounts for 71% of confirmed anti-personnel mine contamination (see Table 2) as well as 95% of Iraq's cluster munition remnants (CMR) contamination, was active tasking and coordinating operations by humanitarian clearance agencies but since 2016 has focused on cluster munition remnants not mines.²¹

KRI

IKMAA functions as a regulator and operator. It reports directly to the office of the Prime Minister in the Kurdish Regional Government and coordinates four directorates in Dohuk, Erbil, Garmian, and Sulimaniya (Sleman). Despite financial constraints which have halved salaries for all staff, it also operates 27 12-strong manual demining teams, 7 mechanical teams, 5 survey teams, 3 explosive ordnance disposal (EOD) teams, and 35 quality assurance (QA) teams responsible for accreditation and monitoring the work of all operators.²²

IKMAA's priorities for areas affected by legacy minefields include clearing agricultural land and infrastructure, tackling CHAs close to populated areas and areas reporting most mine incidents and casualties.²³

Operators identified areas affected by mines of an improvised nature for clearance in consultation with district-level authorities and submitted requests for task orders to IKMAA. Areas to which communities were returning were the main priority. IKMAA teams conducted QA.

Strategic Planning

Iraq's Article 5 deadline extension request, submitted in April 2017, is Iraq's formal strategic plan, though it has been overtaken and rendered largely obsolete by the conflict with Islamic State. Federal Iraq's mine action priority is tackling the massive contamination by mines of an improvised nature as well as ERW in liberated areas to facilitate the return of internally displaced persons, rehabilitation of public services, and restoration of the economy. The scale of the challenge has largely marginalised efforts to address legacy minefields in Federal Iraq.²⁴

IKMAA continued to identify extension request targets and clearance of legacy minefields as a priority. IKMAA's priorities for areas affected by legacy minefields include clearing agricultural land, infrastructure, tackling CHAs close to populated areas as well as areas reporting most mine incidents and casualties. Operators have already completed clearance of high-risk areas and are now focused on medium-risk tasks, including mined areas close to villages and impacting key infrastructure. IKMAA started work on a five-year strategy in the last quarter of 2017 after the referendum and the loss of control over much of the Grey Area.²⁵

The extension request prepared with the support of UNMAS set out separate two-year and ten-year workplans for the DMA and for IKMAA which detail projected expenditure but provide no information on operations or priorities. It said the two-year work plans were based on existing capacity and described the ten-year plans as "aspirational" and dependant on attracting international donor funding.²⁶

The DMA envisaged expenditure of \$30 million in 2018–19 and \$238 million over the 10-year period to the end of 2027. IKMAA proposed expenditure of almost \$25 million in 2018–19 and \$247 million over the same 10-year period. The projected expenditure targeted clearance of legacy minefields only and not the cost of operations tackling mines of an improvised nature, CMR, or other ERW.²⁷

The request identifies a range of factors that have slowed the progress of mine action:²⁸

- Insecurity due to the conflict with Islamic State
- Extensive additional contamination as a result of conflict
- Lack of funding
- Lack of information because the Ministry of Defence lost all minefield maps after the change of regime in 2003
- Lack of technical expertise and capacity.

Legislation and Standards

It is planned to revise Iraq's national mine action legislation. Its national mine action standards are largely consistent with the International Mine Action Standards (IMAS) and include small adjustments to reflect national conditions. The DMA introduced a national standard on IEDs in 2016 and is working with UNMAS to update the standard on IEDS based on the experience gained in tackling dense contamination in areas liberated from Islamic State since 2016.²⁹

In the meantime, accreditation for IED disposal has been based on military standards with operators adapting mine clearance and battle area clearance (BAC) operating procedures to suit security conditions and the local environment in their areas of activity. Operators employed national staff to conduct technical survey and mark items for clearance and restricted mines of an improvised nature and IED disposal to team leaders, supervisors, and international staff. In areas close to active hostilities, operators applied their own minimum security criteria. These included an absence of Islamic State activity for a specified period of time, minimum distances from, and no line of sight to, an Islamic State frontline position.³⁰ As noted by Mine Action Review last year, clearance of mines by deminers offering an operational benefit to one party to an armed conflict to the detriment of another may amount to direct participation in hostilities, making the deminers a lawful target of attack under international humanitarian law.³¹

Quality Management

The DMA and IKMAA both undertake QA/quality control (QC). The DMA has five teams based in Baghdad undertaking QA or QC as required in different locations and further QA/QC capacity in RMAC-N and RMAC-S. The extent of their operations is unclear. The DMA also contracts other organisations to conduct QC. DGD undertakes QC on clearance operations by commercial companies under contract to the Ministry of Oil.³²

UNMAS Iraq requires implementing partners to have internal quality management systems providing for QA/QC. It says that it conducts joint QA with the DMA, and that staff from its Explosive Hazard Management project conduct in-progress and post-clearance inspection of each individual task as required.³³

IKMAA reported it had 37 active teams conducting QC in the KRI and Kurdish-controlled areas of the Grey Area in 2017.³⁴

Information Management

The DMA and IKMAA operate Information Management System for Mine Action (IMSMA) NG databases which are operated by iMMAP, a commercial service provider working under contract to the United States Department of State's Office of Weapons Removal and Abatement (WRA). The DMA central database is located at its Baghdad headquarters. RMAC South maintains a database in Basra, receiving reports from demining organisations in its area of operations, and which is synchronised with Baghdad at irregular intervals that are determined by the volume of data to be uploaded. UNMAS implementing partners report directly to UNMAS, which in turn forwards the data to the DMA.

Operators are required to submit results in hard copy delivered by hand to the DMA every month, which then uploads results into the database. The procedure meets Iraqi legal requirements, which do not recognise electronic copies, but causes delays of several months in uploading survey and clearance data. This has caused problems with task orders.³⁵ The DMA is trialling electronic data entry for risk education results and plans to expand it to other mine action activities.³⁶

Operators

From 2016, the capacity of operators has sharply expanded in Iraq and from the last quarter of 2017 the distribution of that capacity started to shift from the KRI to Federal Iraq. At the end of 2016, five international demining organizations deployed a total of 133 staff in Federal Iraq and more than 630 in the KRI. Only two international demining NGOs operated in Federal Iraq with total of 132 staff. By the end of 2017, those five organisations employed close to 800 staff in Federal Iraq and around 400 in the KRI.³⁷

Operators are required to be accredited with the DMA in Federal Iraq and with IKMAA in the KRI. Visa-free entry and a more stable regulatory environment in the KRI made it easier for operators to establish a presence in the KRI. After a Kurdish referendum on independence in September 2017, Iraqi forces took back control of much of the Grey Area. This moved much of the area liberated from Islamic State and which was heavily contaminated with mines of an improvised nature under the authority of the DMA, increasing pressure on operators to seek DMA accreditation.

In Federal Iraq, operators need to register with the NGO Directorate before seeking DMA accreditation, an opaque process that has sometimes taken years and posed a major obstacle to scaling up capacity for an emergency response to tackling post-Islamic State contamination. Revision of these procedures in 2017 allowed provisional accreditation of five organisations resulting in 2018 opening the way for a rapid expansion of capacity as increased donor funding became available for Iraqi mine action.

Table 6: International mine action NGOs active at end-2017³⁸

Operator	Personnel in Federal Iraq (DMA)		Personnel in KRI (IKMAA)	
	Teams	Personnel	Teams	Personnel
DDG	20	101	6	50
FSD	0	0	4	35
HI	0	0	1	7
MAG	60	600	42	280
NPA	10	68	6	32
Totals	90	769	59	404

Federal Iraq

National organisations undertaking mine clearance include army engineers tasked by the Ministry of Defence. Civil Defence, under the Ministry of Interior, operates around 600 EOD technicians and has a presence in every governorate. It clears ERW, including conventional mines and cluster munitions, but does not tackle mines of an improvised nature or IEDs, which are dealt with by another unit of the Ministry of Interior.³⁹

National commercial companies accredited in 2017 included Al-Fahad Co. for Demining, Al-Safsafa, Akad International Co. for Mines, and Al-Danube. Two international commercial companies, Janus Global Operations and Optima, lacked accreditation and provided management for mine action teams provided by Al-Fahad.

Until late 2017, only two international NGOs — DDG and NPA — were active in Federal Iraq but neither conducted clearance of mines, whether commercially produced or of an improvised nature. DDG more than doubled its capacity in Federal Iraq in 2017 to around 100 staff. It started with an office in Basra where it had two BAC teams conducting CMR clearance and QC on behalf of the RMAC South. In the course of the year, it added offices in Mosul and Kirkuk as well as a shared office in Anbar and was contracted by UNMAS to carry out assessments/survey in Mosul governorate.⁴⁰ In 2017, DDG declined to undertake clearance of mines of an improvised nature or IEDs, though it received IED accreditation from the DMA in May 2018.⁴¹

MAG, the longest established international operator after more than 25 years in Iraq, was already much the biggest at the start of 2017. It expanded rapidly during the year, adding 27 teams, and is due to grow further in 2019. Until 2018, MAG operated exclusively in the KRI but after more than three years of trying it received registration in Federal Iraq in January 2018 and accreditation from the DMA in March. By September 2018, MAG had a total of 65 teams and around 650 personnel working in districts that, until September 2017, had come under IKMAA jurisdiction. MAG has funding to add a further 15 teams by May 2019 and planned to increase its operations in Nineveh governorate.⁴²

NPA is on a similar growth trajectory. At the start of 2017, NPA had two teams with 49 staff based in Erbil in the KRI and 92 staff in Basra. At the end of the year it restructured its presence in Iraq, moving its country

management team to Baghdad in December and was preparing to expand operations into new areas. NPA Basra started 2017 with three survey and five EOD/BAC teams focused on survey and clearance of CMR, but added three teams more in the course of 2017. NPA opened offices in Mosul in April 2018 and in Anbar governorate in July 2018. By the end of 2018, NPA expected to have a total of 330 personnel working in Federal Iraq.⁴³

The HALO Trust received provisional accreditation in May 2018 and started operating in Anbar province in July 2018 with a survey team and a mechanical clearance team in Fallujah clearing large defensive mine belts and smaller clusters around houses. It planned to deploy two mechanical clearance teams in Salah ad-Din and two risk education/non-technical survey teams belonging to Baghdad Organisation, a local NGO, for a project funded through UNMAS.⁴⁴

KRI

IKMAA's operating capacity remained unchanged from the previous year: 37 demining teams (444 personnel), 7 mechanical teams, 3 EOD teams, 5 survey teams, 37 QA teams, and 10 risk education teams. IKMAA teams are focused on clearing legacy minefields, prioritising agricultural land, but it operated under severe financial constraints that led it in 2016 to cut salaries in half.⁴⁵

MAG remained much the biggest international operator with 24 teams operational in the KRI at the end of 2017, including ten survey and clearance teams, two multi-task teams, a mechanical and mechanical support team, and ten community liaison teams. MAG continued to clear legacy mined areas and CMR contamination but the main focus was on removing belts of mines of an improvised nature in areas liberated from Islamic State in Ninewa governorate.⁴⁶

Three other international NGOs also concentrated on Islamic State's legacy in liberated areas. NPA had two survey teams and four search teams working in Hamdaniya district of Ninewa governorate.⁴⁷ The Swiss Foundation for Mine Action (FSD), which started operations in Iraq in 2016, had four teams and a total of 35 staff who conducted clearance in Erbil, Kirkuk, and Mosul governorates.⁴⁸ Humanity and Inclusion (formerly Handicap International) had three teams, also focused mainly on clearing mines of an improvised nature in Kirkuk province.⁴⁹

LAND RELEASE

Iraq's top priority in 2017 was clearance of massive contamination by mines of an improvised nature as well as IEDs from areas liberated from Islamic State in order to facilitate the return of hundreds of thousands of people displaced by conflict, the restoration of public services, and economic recovery. In Federal Iraq, operators focused on tackling dense and complex contamination in key population centres such as Fallujah, Mosul, and Ramadi, facing multiple varieties of mines and IEDs and a wide array of unexploded ordnance (UXO). UNMAS reported in 2018 that, in Mosul alone, 24 square kilometres had been searched and cleared of devices ranging from suicide vests, to mortars, grenades, rockets, and air-dropped ordnance.⁵⁰

The extent of land released in Iraq in 2017 could not be determined with any degree of accuracy from the data for Federal Iraq provided by the DMA and iMMAP. The information provided to Mine Action Review suggested that some 97km² of land affected by conventional and mines of an improvised nature was released by clearance in Federal Iraq and the KRI in 2017. This is simply not credible. The amount of land released by non-technical survey and technical survey in Federal Iraq was also unclear.

In 2017 across Iraq, Mine Action Review has estimated that total mine clearance amounted to 23.3km²: an estimated 13.8km² (based on 25% of the 55.3km² reported by the DMA) of clearance of anti-personnel mines of an improvised nature laid by Islamic State forces in Federal Iraq, and clearance of 2.6km² of legacy anti-personnel mine contamination and 6.9km² of anti-personnel mines of an improvised nature laid by Islamic State forces in the KRI. Vast areas of reported clearance without the destruction of significant numbers of landmines or without disaggregation of device are not considered as mine clearance and are not included in Mine Action Review's national or global totals. This may significantly underestimate the number of mines actually destroyed.

Survey in 2017

Federal Iraq

The DMA reported that survey in 2017 identified a total of 26.7km² of CHA, of which 24.6km² was confirmed by the commercial company, Arabian Gulf.⁵¹

The DMA also reported that non-technical survey was conducted over an area of 1,102km² in 2017, of which 95% was attributed to two Ministry of Interior agencies, Civil Defence and the EOD Directorate, but it did not report any area cancellation as a result. The DMA did not clarify the basis for this finding, which defies logic.⁵²

As Iraqi security forces established control of areas occupied by Islamic State forces, commercial operators tasked by UNMAS deployed assessment teams followed up by high-risk search and survey teams, focusing on key population centres.

KRI

IKMAA was unable to fulfil plans to complete "preliminary technical survey" of mined areas in 2017 due to lack of funds and unspecified logistical problems. Survey teams continued working in Sulimaniya and Garmyan governorates and reported some new finds of mined area, but also released 18.4km² through cancellation and area reduction.⁵³

International operators conducted "high-risk" survey of contamination from mines of an improvised nature in liberated areas combining non-technical survey, hazardous area reports from Kurdish *peshmerga* security forces, local authorities, and community liaison teams, and limited technical survey to define mine lines and polygons or hazard perimeters.⁵⁴

Clearance in 2017

Clearance of legacy mined areas left from earlier conflicts continued in the KRI at about the same level as in 2016, but the limited clearance capacity and resources available in Federal Iraq in 2017 was focused on liberated areas. Some clearance of conventional mines may have been conducted by commercial companies operating under contract to the Ministry of Oil but no capacity was otherwise available for clearance of Iraq's massive barrier minefields bordering Iran and Saudi Arabia.⁵⁵

Federal Iraq

National clearance efforts were led by the Ministry of Defence and the Ministry of Interior's EOD Directorate but results of their operations were not clear. The DMA records mines of an improvised nature as IEDs and reported clearance of 55.3km² of area affected by IEDs (see Table 7) but did not identify the organisations responsible or specify device types.⁵⁶

Table 7: "IED" clearance in Federal Iraq in 2017⁵⁷

Province	Area cleared (m ²)	"IEDs" destroyed
Anbar	1,476,321	2,212
Diyala	0	166
Kirkuk	13,572,350	2,258
Ninewa	27,555,612	8,341
Salah al-Din	12,656,910	235
Totals	55,261,193	13,212

In 2017, international organisations conducting clearance in liberated areas were limited to two commercial companies and their national partners. Optima, working in partnership with local operator al-Danube and under contract to UNMAS, conducted clearance in the city of Falluja where it has operated since 2016, and in 2017 it started working in Mosul. Janus Global Operations, funded by the WRA and working in partnership with al-Fahad Co. for Demining, focused clearance on the city of Ramadi.

Operating initially in insecure areas close to military front lines, operators focused on emergency assessments and spot tasks to enable humanitarian access before undertaking clearance tasks supporting UNDP stabilisation initiatives. UNMAS reported that implementing partners cleared an area of 2,976,413m² and assessed or cleared 622 priority critical infrastructure sites. In the process, it said they cleared 45,124 explosive hazards (IEDs and ERW) but did not disaggregate the device types.⁵⁸

The DMA reported clearance of almost 30km² of legacy mined area in 2017, of which more than three-quarters was land contaminated by anti-vehicle mines but the location and organisations conducting the clearance were not reported, and as such this is not included in Mine Action Review's estimation of the national total.⁵⁹

Table 8: Reported mine clearance in 2017⁶⁰

AP mined area (m ²)	AV mined area (m ²)	Mixed AP/AV mined area (m ²)	Total (m ²)
15,097	23,147,092	6,783,610	29,945,799

KRI

IKMAA reported mine clearance of 2.6km², down slightly from the previous year, but international operators reported less clearance than IKMAA attributed to them, suggesting a lower total.⁶¹

According to Iraq's Article 7 report for 2017, of the 2,597,680m² addressed, 2,051,667m² was cleared (226,167m² cleared with MDD; 113,425m² cleared by full excavation; 1,606,205m² cleared "electronically"; and 105,870m² cleared mechanically), and the 546,013m² was reduced.⁶²

Geographically, of the 2.6km² total, 516,378m² was reported to have been cleared in the governorate of Erbil; 1,468,550m² in the governorate of Sulaymaniyah, and 612,752m² in the governorate of Dohuk.⁶³

IKMAA teams cleared almost exactly the same amount of land as in 2016, again concentrating on legacy mined areas rather than liberated areas affected by mines of an improvised nature. This decision perhaps reflected the higher costs associated with clearing mines of an improvised nature and the lack of training, procedures, and equipment for dealing with it.

Table 9: Clearance of legacy mined areas in the KRI in 2017⁶⁴

Operator	Mined areas released	Area cleared (m ²)	AP mines destroyed	AV mines destroyed	UXO destroyed
IKMAA	19	1,328,138	2,658	12	730
MAG	19	1,215,885	389	3	689
FSD	0	4,409	1	0	0
DDG	1	49,248	148	0	15
Totals	39	2,597,680	3,196	15	1,434

MAG continued to work on legacy mines, reporting that it cleared 844,394m² and 390 anti-personnel mines working on legacy tasks. MAG deployed ten mine action teams, two multi-task teams and seven community liaison teams as well as mechanical assets and mine detection dogs. MAG also deployed multi-task teams and mechanical assets to address long belts of mines of an improvised nature in liberated areas but after Federal Iraqi troops took back control of most of the Grey Area in September 2017, most of these areas came under the authority of the DMA. MAG had to suspend operations there until it received DMA accreditation in April 2018 but in the meantime, was able to reassign some multi-task teams to tackle legacy mine clearance.⁶⁵

Despite the loss of operations in liberated areas in the last quarter of the year, MAG cleared nearly 6km² of land affected by mines of an improvised nature (see Table 10), a little more than in 2016, and also cleared 5,649 devices, the vast majority of them pressure-plate anti-personnel mines.⁶⁶ FSD, the other humanitarian organisation engaged in clearing mines of an improvised nature in the KRI in 2017, increased the area it cleared by two-thirds and doubled the number of devices it tackled.⁶⁷

Table 10: Clearance of mines of an improvised nature in the KRI in 2017⁶⁸

Operator	Governorates	Area cleared (m ²)	Mines destroyed
FSD	Erbil, Kirkuk, Mosul	904,906	3,686
MAG	Ninewa	5,960,804	5,649
Totals		6,865,710	9,335

Deminer Safety

A MAG deminer died after detonating a mine of an improvised nature in Hamdaniya district in April 2017. An internal investigation determined that the deminer's detector search head had accidentally initiated the device's pressure plate. IKMAA also convened an inquiry

into the incident and took disciplinary action against the supervisor for the area and the team leader.⁶⁹ A Civil Defence EOD technician was killed in Ramadi by an anti-handling device that detonated as he attempted to clear an item of UXO.⁷⁰

ARTICLE 5 COMPLIANCE

Under Article 5 of the APMBBC (and in accordance with the ten-year extension granted by states parties in 2017), Iraq is required to destroy all anti-personnel mines in mined areas under its jurisdiction or control as soon as possible, but not later than 1 February 2028.

The scale of Iraq's landmine contamination presents a challenge that will not be met within the 10-year extension to its Article 5 deadline. Iraq's extension request provides little guidance as to how the deadline could be met, underscoring obstacles posed by insecurity, new contamination added by continuing conflict, lack of capacity and expertise and, critically, lack of funding. Iraq will submit an update to its extension request two years into its extension period, but key issues are shrouded in uncertainty.

Iraq needs, as a priority, to clarify the scope of its Article 5 obligations. Areas liberated from Islamic State forces since 2016 include potentially hundreds of square kilometres contaminated by mines of an improvised nature laid by Islamic State. Iraq does not categorise or report any of these devices as mines, but as IEDs. Unless

that position changes, the DMA says it will not include information relating to them in the update to its extension request⁷¹ suggesting it will not recognise mines of an improvised nature as falling under the APMBBC. This will be a serious violation of the treaty as each state party is obligated to clear "all" anti-personnel mines in mined areas under its jurisdiction or control.

The Sixteenth Meeting of States Parties invited Iraq to report annually on funding available from external sources and the government for its treaty implementation efforts but there is little clarity on funding for the sector. The extension request envisaged expenditure from government sources of \$30 million in 2018–19 and \$238 million over the 10-year period to the end of 2027 but the DMA was unable to give details of government funding available to mine action in 2017 or 2018. Most funding is provided by international donors through UNMAS which received \$70 million in 2017, though concerns have been expressed by operators about transparency and efficiency in the application of the funds.

- 1 Article 5 deadline Extension Request, March 2017, pp. 78 and 85. The three governorates, all under the supervision of RMAC South, are Basrah, Missan, and Muthanna.
- 2 Emails from Ahmed Al Jasim, Manager, Information Department, DMA, 6 April 2017; and Khatab Omer Ahmed, Planning Manager, IKMAA, 8 April 2017.
- 3 Article 7 Report (for 2017), Form C.
- 4 Email from Ahmad Al Jasim, DMA, 10 April 2018.
- 5 Email from Ahmad Al Jasim, DMA, 13 September 2018.
- 6 Ibid.
- 7 Media reports monitored by the International NGO Safety Organisation.
- 8 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 9 Email from Portia Stratton, Country Director, MAG, 9 September 2018.
- 10 Email from Ahmad Al Jasim, DMA, 10 April 2018. The table as presented has been amended to remove contamination in Kirkuk governorate which was reported as consisting of two CHAs totalling 1m².
- 11 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 12 Interviews with Mick Beeby, Technical Operations Manager, MAG, 24 July 2017; and Craig McInally, Northern Iraq Operations Manager, Norwegian People's Aid (NPA), 22 July 2017.
- 13 Interview with Nina Seecharan, Country Director; Mick Beeby; and Kathy Keary, Grants and Liaison Officer, MAG, Erbil, 23 July 2017; "An Initial Study into Mine Action and Improvised Explosive Devices", Geneva International Centre for Humanitarian Demining (GICHD), February 2017, p. 21. Janus and the GICHD study refers to the munitions as IEDs.
- 14 Interview with Nina Seecharan, Mick Beeby, and Kathy Keary, MAG, Erbil, 23 July 2017.
- 15 See Art. 2[3], APMBBC.
- 16 Interview with Kelvin Windsor, Country Manager–Iraq, Optima, Baghdad, 6 September 2018.
- 17 Email from Isam Ghareeb, iMAP, 1 August 2016; and interview with Obaid Ahmad, General Director of Technical Affairs, IKMAA, Erbil, 22 July 2017.
- 18 Email from Pehr Lodhammer, Senior Programme Adviser, UNMAS, 15 August 2018.
- 19 Interview with Baker Saheb Ahmed, Assistant Director General, DMA, Baghdad, 5 September 2018; DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015.
- 20 Article 5 deadline Extension Request, March 2017, p. 24.
- 21 Interview with Mats Hektor, Project Manager South Iraq, NPA, Erbil, 22 July 2017.
- 22 Email from Khatab Omer Ahmad, IKMAA, 8 April 2017; and interview, Erbil, 27 July 2017.
- 23 Email from Khatab Omer Ahmad, IKMAA, 20 May 2016.
- 24 Interview with Baker Saheb Ahmed, DMA, Baghdad, 5 September 2018.
- 25 Emails from Khatab Omer Ahmad, IKMAA, 8 May 2018; and from Steven Warner, MAG, 10 April 2018.
- 26 Article 5 deadline Extension Request (Revised), August 2017, p. 13.
- 27 Ibid., pp. 96–98.
- 28 Ibid., pp. 10–12 and 88.
- 29 Interview with Baker Saheb Ahmed, DMA, Baghdad, 5 September 2018; and information in email from Abigail Hartley, Chief of Policy, Advocacy and Public Information, UNMAS, 5 October 2018.
- 30 Interviews with international operators, Erbil, 22–27 July 2017.
- 31 Mine Action Review, *Clearing the Mines 2017*, 2017, p. 6.
- 32 Interview with DMA, Baghdad, 6 September 2018.
- 33 Email from Per Lodhammer, UNMAS, 15 August 2018.
- 34 Email from Khatab Omer Ahmad, IKMAA, 8 May 2018.
- 35 Interviews with operators, Baghdad, 4–12 September 2018.
- 36 Interview with Ahmed Al Jasim, DMA, Baghdad, 9 September 2018.
- 37 Emails from Lene Rasmussen, Regional Manager MENA, DDG, 3 June 2018; Peter Smethers, Programme Manager/Country Director, FSD, 3 May 2018; Fanny Del, Operations Coordinator, HI, 18 May 2018; Steven Warner, Desk Officer, MAG, 10 April 2018; Gus Guthrie, Country Director, NPA, 2 April 2018.
- 38 Compiled by Mine Action Review from data provided by the international humanitarian operators cited.
- 39 Email from Ahmed Al Jasim, DMA, 6 April 2017.
- 40 Email from Lene Rasmussen, DDG, 3 June 2018.
- 41 Ibid.
- 42 Telephone interview with Portia Stratton, Country Director, MAG, 7 September 2018; and email, 26 September 2018; and email from Steven Warner, MAG Desk Officer, 10 April 2018.
- 43 Interview with Gus Guthrie, NPA, Baghdad, 7 September 2018.
- 44 Interview with Dorinda ten Brinke, Deputy Programme Manager, HALO Trust, Baghdad, 5 September 2018 and 2 October 2018.
- 45 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 46 Email from Steven Warner, MAG, 10 April 2018.
- 47 Email from Gus Guthrie, NPA, 2 April 2018.
- 48 Email from Peter Smethers, FSD, 3 May 2018.
- 49 Email from Fanny Del, HI, 18 May 2018.
- 50 UNMAS Iraq website, at: unmas.shorthandstories.com/unmas-in-iraq/index.html.
- 51 Email from Ahmed Al Jasim, DMA, 10 April 2018. Iraq's Article 7 Report for 2017 reported confirmation of 26.9km² (at p. 18).
- 52 Email from Ahmed Al Jasim, DMA, 10 April 2018.
- 53 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 54 Interviews with international operators, Erbil, 22–27 July 2017.
- 55 Email from Ahmed Al Jasim, DMA, 10 April 2018; and interview, Baghdad, 10 September 2018; and email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 56 Data received from DMA showed that the Ministry of Defence cleared 28.7km² and the Ministry of Interior's EOD Directorate cleared 26km² but did not destroy any items in doing so. Email from Ahmed Al Jasim, DMA, 10 April 2018.
- 57 Email from Ahmed Al Jasim, DMA, 10 April 2018. The DMA later reported clearance of 93.4km² of IED contamination and 32,227 devices in 2017. Email from Ahmed Al Jasim, DMA, 13 September 2018.
- 58 Email from Pehr Lodhammer, UNMAS, 15 August 2018.
- 59 Article 7 Report (for 2017), p. 68.
- 60 Ibid.
- 61 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 62 Article 7 Report (for 2017), p. 69.
- 63 Ibid.
- 64 Email from Khatab Omer Ahmed, IKMAA, 8 May 2018.
- 65 Email from Steven Warner, MAG, 10 April 2018.
- 66 Ibid.
- 67 Email from Peter Smethers, FSD, 3 May 2018.
- 68 Emails from Steven Warner, MAG, 10 April 2018; and Peter Smethers, FSD, 3 May 2018.
- 69 Email from Steven Warner, MAG, 10 April 2018.
- 70 Interview with Police Col. Sihad Ahmed Abd, Head of EOD, Civil Defence, Baghdad, 6 September 2018.
- 71 Interviews with Ahmad Al Jasim, DMA; and Shawkat Tayeh Massod, Head of Operations, DMA, Baghdad, 8 September 2018.