

IRAQ

ARTICLE 5 DEADLINE: 1 FEBRUARY 2018
(TEN-YEAR EXTENSION REQUESTED)

MINE ACTION PROGRAMME PERFORMANCE

For 2016

For 2015

Problem understood	5	4
Target date for completion of mine clearance	4	3
Targeted clearance	5	5
Efficient clearance	4	4
National funding of programme	5	5
Timely clearance	5	3
Land release system in place	5	5
National mine action standards	5	5
Reporting on progress	5	4
Improving performance	5	3
PERFORMANCE SCORE: POOR	4.8	4.1

PERFORMANCE COMMENTARY

Islamic State fighters left huge areas contaminated with mines and other munitions, adding to Iraq's obligations under the Anti-Personnel Mine Ban Convention (APMBC) but the extent of which has yet to be assessed. Little clearance of legacy minefields occurred in central and southern Iraq as the priority shifted to clearing improvised explosive devices (IEDs) and locally produced mines, the overwhelming majority of which were anti-personnel mines. The mine action response has been hampered by insecurity, lack of capacity, and funding constraints. Crippling bureaucracy in Baghdad along with corruption have compounded the problems, holding up expansion of demining capacity and assets although changes of management in the country's NGO Directorate at least held out the hope of more streamlined registration of mine action organisations.

RECOMMENDATIONS FOR ACTION

- Iraq should commit formally in its Article 5 extension request to clearing all locally produced anti-personnel mines and, wherever available, provide data on, or at least estimates of, the extent of contamination.
- Iraq should strengthen the mandate, management, personnel, and resources of its Department of Mine Action (DMA).
- The DMA should develop multi-year work plans for all mine action outside the oil sector detailing priorities and responsibilities for survey and clearance.
- Federal authorities should undertake a high-level resource mobilisation campaign.
- Iraq should ensure that clear procedures are established to facilitate smooth and fast registration and accreditation of commercial and humanitarian mine action organisations as well as the importation of equipment.
- The DMA should strengthen its information management processes in line with international standards.
- The Government of Iraq should centralise within the DMA reporting on all demining operations to enable a comprehensive national overview of mine action progress.
- In reporting in connection with the APMBC, Iraq should not report anti-personnel mines as IEDs.
- Iraq should authorise selected international operators to conduct demolitions of cleared mines and other munitions, wherever it is appropriate to do so.

CONTAMINATION

Iraq is probably the world's most mine-contaminated country. 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. Occupation of large areas by Islamic State after 2014 added extensive contamination with improvised munitions. These are mostly locally produced mines (victim-activated pressure-plate devices that are prohibited under the APMBC).

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

Data provided separately by the DMA and IKMAA to the Mine Action Review (see Tables 1–4), reported total explosive contamination at the end of 2016 as covering almost 1,359km². This did not include areas contaminated by locally produced mines in areas recaptured from Islamic State, which have not been subjected to systematic or large-scale survey.²

Federal (central and southern) Iraq

Areas affected by anti-personnel mines or a mixture of anti-personnel and anti-vehicle mines total 1,271 km², a level almost unchanged from the previous year. Basrah, Missan, and Muthanna governorates have large barrier minefields along the borders with Iran and Saudi Arabia. Reportedly, Basrah also has three confirmed hazardous areas (CHAs) covering 26.6km² in its oilfields.³

Despite the presence of such large mined areas, the DMA claims that most mined areas are scattered and random, increasing the challenge of locating them. It cites this as a factor that impeded Iraq's ability to comply with its original Article 5 deadline. It also said many mined areas had not been identified.⁴

Table 1: Mine contamination in Central and Southern Iraq by device (as at end-2016)⁵

Contamination	CHAs	Area (km ²)	SHAs	Area (km ²)	Total area (km ²)
AP mines	117	55.90	14	13.63	69.53
AV mines	7	0.17	0	0	0.17
Locally produced mines	2	0.13	2	6.53	6.67
Mixed AP/AV mines	162	1,198.45	18	3.04	1,201.49
Totals	288	1,254.65	34	23.20	1,277.86

AP = Anti-personnel AV = Anti-vehicle CHAs = Confirmed hazardous areas SHAs = Suspected hazardous areas

Table 2: Mine contamination in Central and Southern Iraq by governorate (as at end-2016)⁶

Governorate	CHAs	Area (km ²)	SHAs	Area (km ²)
Basrah	8	29.16	0	0
Diyala	0	0	14	13.63
Missan	98	6.62	0	0
Muthanna	1	10.48	0	0
Wassit	10	9.64	0	0
Totals	117	55.90	14	13.63

The DMA said emergency non-technical survey in 2016 had identified 13.93km² of IED contamination in areas recaptured from Islamic State, of which Anbar governorate (including Fallujah and Ramadi) accounted for 10.52km², Babylon for 2.39km², and Salah ad-Din for 1.02km².⁷

Kurdistan Region of Iraq (KRI)

Anti-personnel mine contamination levels in Kurdish governorates, although a fraction of central and south Iraq's, would rank the KRI on its own among the world's top five most contaminated regions and it continues to sustain mine casualties. IKMAA reported 7 people killed and 20 injured by mines and explosive remnants of war (ERW) in 2016.⁸ Estimates of KRI contamination at the end of 2016 were marginally higher than a year earlier as a result of continuing survey and cleaning up data. More than half the KRI's mined area is located in Slemani governorate.⁹ IKMAA says a number of areas on the borders with Turkey and Iran totalling about 25km² have not yet been accessible for survey due to security.¹⁰

Table 3: Contamination in the KRI by device (as at end-2016)¹¹

Contamination	CHAs	Area (km ²)	SHAs	Area (km ²)	Total area (km ²)
AP mines	2,600	153.66	464	70.65	224.31
AV mines	11	0.27	3	0.02	0.29
Mixed	100	5.68	24	10.39	16.07
Totals	2,711	159.61	491	81.06	240.67

Table 4: Anti-personnel mine contamination in the KRI by governorate (as at end-2016)¹²

Province	CHAs	Area (km ²)	SHAs	Area (km ²)	Total area (km ²)
Dohuk	411	20.86	0	0	20.86
Erbil	341	49.54	0	0	49.54
Garmiyan	117	5.73	154	18.76	24.49
Slemani	1,731	77.53	310	51.90	129.43
Totals	2,600	153.66	464	70.66	224.32

Locally produced mines

In Iraq's fast changing security environment operators have not had sufficient time or resources to conduct widespread systematic survey in areas recaptured from Islamic State but report that the scale of contamination is unprecedented in humanitarian mine action. Even after the recapture in July 2017 of Iraq's second city, Mosul, large expanses of territory and some major towns remained to be liberated and would likely add large additional hazardous areas requiring clearance.

Operators have encountered a wide variety of locally produced devices left by Islamic State but report that the vast majority are victim activated and meet the APMBC treaty of an anti-personnel mine. These mostly consist of devices activated by a pressure plate or "crush necklace" wires sufficiently sensitive to be detonated by the weight of a child and connected to an explosive charge of ammonium nitrate and aluminium powder or paste. The size of the charge ranges from 3kg to 100kg, which is capable of destroying a vehicle.¹³ Mines Advisory Group (MAG), working in the KRI and the adjacent Grey Zone reported that 98% of items it cleared were locally produced mines

and the other 2% were abandoned radio-controlled or command-wire devices or booby-traps. It has also encountered devices loaded with chemical agents.¹⁴ Janus Global Operations, working in central Iraq, reported 95% of the devices it encountered were locally produced pressure-plate mines and that very few contained military explosives.¹⁵

Islamic State used mines 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 stretching over distances of 12km, 18km, and 24km, with multiple rows of devices spaced at intervals of between one and several metres in straight lines or zigzag patterns.¹⁶ Islamic State also mined 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 and international aid agencies reported heavy civilian casualties from explosive devices but lacked detailed information. They believe that many fatalities may have gone unrecorded.¹⁷

PROGRAMME MANAGEMENT

Mine action in Iraq is managed along regional lines. The DMA, set up by the Ministry of Health and Environment in Baghdad in 2008, coordinates and manages the sector in central and southern Iraq. IKMAA, created in 2004, manages mine action in four northern governorates under the Kurdish Regional Government.

The DMA and IKMAA agreed in September 2015 to share operations in a so-called Grey Zone, an area of about 69,000km² controlled or contested by Islamic State forces after 2014 and overlapping their respective operating areas. The line separating DMA and IKMAA areas of responsibility in the Grey Zone is determined by which forces have liberated areas from Islamic State and taken control of the territory. A Joint Operations Centre in Erbil managed by iMMAP coordinates operations in the zone.¹⁸

The United Nations Mine Action Service (UNMAS) established a presence in Iraq in mid-2015 to assess the extent of the threat of explosive weapons, including IEDs and locally produced mines, in areas retaken from Islamic State, and to help the DMA develop and coordinate an emergency response, facilitating the return of displaced people. Under this programme, UNMAS is training selected security services and mine action personnel in how to organise an explosive ordnance disposal (EOD) response, along with survey and clearance in retaken areas, and assisting governmental authorities to develop standards and procedures for IED clearance.

By mid-2016, UNMAS had offices in Erbil with 12 national staff, and in Baghdad with 4 national staff, and expected to add additional capacity by the end of the year. UNMAS requested more than US\$100 million to fund the programme in 2016, and as at September had secured only one quarter of that amount.¹⁹

Federal Iraq

The DMA implements policy set by a Higher Council for Mine Action created by, and reporting to, the prime minister, in which the ministries of defence, interior, and oil are major actors. The HCMA is supported by a Technical Committee, functioning as its secretariat.²⁰ The Ministry of Oil contracts and manages commercial operators conducting clearance supporting the oil sector.

The DMA has previously reported that it oversees four regional mine action centres (RMACs)²¹ but its Article 5 extension request referred to three:²²

- 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-South, which accounts for 71% of confirmed anti-personnel mine contamination (see Table 2) as well as 95% of Iraq's cluster munition remnants contamination, was active tasking and coordinating operations by humanitarian demining agencies but in 2016 focused on cluster munition remnants not mines.²³ The extent to which other RMACs were active in 2016 was unclear.

KRI

IKMAA functions as a regulator and operator. It reports directly to the office of the Prime Minister in the KRI 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 EOD teams, and 35 quality assurance (QA) teams responsible for accreditation and monitoring the work of all operators.²⁴

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.²⁵ Operators identified areas affected by locally produced mines for clearance in consultation with district-level authorities, IKMAA and, for the Grey Zone, a joint operations room run by iMMAP liaising with the DMA. Areas to which communities were returning were the main priority. IKMAA issued task orders for specific sites. IKMAA teams conducted QA.

Strategic Planning

Iraq's Article 5 deadline extension request sets out separate two-year and 10-year work plans for the DMA and for IKMAA which detail projected expenditure but provide no information on operations or priorities. It says the two-year workplans are based on existing capacity but describes the 10-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 targets clearance of legacy minefields only and not the cost of operations tackling locally produced mines, cluster munition remnants, or other ERW.²⁷

The extension request addresses only legacy minefields, not the post-2014 locally produced mines left by Islamic State which is the most immediate priority and which is using most of the funding provided by international donors. The request identifies a range of other 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.

Operators

In central and southern Iraq, operators need to be accredited by the DMA but first have to register with the NGO Directorate, an opaque process that can take years and has obstructed efforts to rapidly scale up capacity for an emergency response to the contamination left by Islamic State. Operators working in the KRI require accreditation with IKMAA. Most mine clearance capacity is located in the KRI, but without DMA accreditation operators based there are not permitted to operate beyond the Grey Zone in Federal (Central and Southern) Iraq.²⁹

Table 5: International mine action NGOs active (as at end-2016)³⁰

Operator	Personnel in Centre/South (DMA)	Personnel in the North (IKMAA) & Grey Zone
DDG	40	42
FSD	0	36
HI	0	36
MAG	0	588
NPA	78	19
Totals	118	721

Standards

With respect to the clearance of IEDs and locally produced mines, operators adapted 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 locally produced mines and IED disposal to team leaders 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 and minimum distances from, and no line of sight to, an Islamic State frontline position.³¹

Central and Southern Iraq

National organisations undertaking mine clearance included the army engineers tasked by the Ministry of Defence Directorate, and Civil Defence, which has a team in every governorate tasked by the Ministry of Interior and the DMA.³²

Two international humanitarian demining NGOs, Danish Demining Group (DDG) and Norwegian People's Aid (NPA), were active in central and southern Iraq in 2016 but up to mid-2017 neither had conducted any mine survey or clearance. DDG closed its operation in Basrah in December 2014 but resumed operations at the end of 2015 and in 2016 worked with two BAC and two QA/quality control (QC) teams as well as four community liaison teams. NPA has operated out of Basrah since 2014, and in 2016 had three survey and five EOD/BAC teams focused on clearance of cluster munition remnants.³³

Two commercial companies, Janus Global Operations and Optima, started working on locally produced mines and IED clearance in 2016. As they had not received accreditation to conduct clearance they partnered and provided operational management to an accredited local organisation, al-Fahad Company for Demining, working in insecure areas with their own security details. Janus worked with financing from the United States Department of State's Office of Weapons Removal and Abatement (WRA) in Ramadi in 2016 and increased the number of teams in 2017 when it also worked in Mosul.³⁴ Optima worked with three BAC teams under a one-year, \$12 million UNOPS contract managed by UNMAS.³⁵ UNMAS has not provided any data to Mine Action Review on the details of clearance achieved under this contract. BACTEC was contracted by South Oil Company to undertake clearance in southern Iraq starting in October 2015 and continuing until October 2016.³⁶ Other demining companies active in the oil sector included Arabian Gulf and Al-Khibra Alfanya Company. The DMA also reported activities conducted by Iraq Mine Clearance Organization (IMCO), which had shut down operations in 2014 after the United States withdrew funding, but resumed limited activities with DMA funding in 2016.³⁷

KRI

IKMAA operated with 27 12-person mine action teams, 37 QA teams, 7 mechanical demining teams, five survey teams, and three EOD teams as well as 10 risk education teams. IKMAA's clearance teams focused on legacy minefields, tackling improvised devices or locally produced mines only in response to emergency requests from authorities and when international operators were not available. As a result of financial pressures, IKMAA terminated contracts with KRI commercial companies in 2014.³⁸

MAG, active in Iraq for nearly 25 years, is the biggest international demining actor in the country. It almost doubled its capacity in 2016 to finish the year with a total of 470 staff. MAG worked with 185 staff in the KRI, including nine mine action teams employing 108 deminers, as well as two mine detection dog (MDD) teams. In central and southern Iraq, MAG had 20 multi-task teams with 160 personnel, and five mechanical demining teams, as well as managing 25 community liaison teams, 12 of which were affiliated to national partner organisations. In 2016 it opened a Training, Monitoring and Evaluation Unit, training staff in high-risk search for areas affected by locally produced mines and in community liaison. MAG expected to add 12 more multi-task teams in the second half of 2017.³⁹

NPA has worked in southern Iraq since 2014 and received accreditation to work in the KRI at the end of 2016 and accreditation to conduct clearance of locally produced mines from 1 January 2017. It operated two EOD teams with eight personnel each, focused on clearing locally produced mines. As additional funding became available in 2017, NPA planned to open an operating base with training facilities closer to the location of field operations.⁴⁰ DDG received accreditation to conduct risk education in November 2015 and for ERW clearance in early 2016. By the end of the year, alongside 28 risk education staff, it employed 14 deminers clearing ERW, excluding locally produced devices.⁴¹

Two more recent additions included the Swiss Foundation for Mine Action (FSD), which established a presence in the KRI in October 2015, received accreditation in December, and was operational from March 2016.⁴² Handicap International became active in 2016 receiving accreditation for clearance of all ERW except locally produced devices in November and for disposal of locally produced devices in April 2017.⁴³

LAND RELEASE

Available data does not allow reporting on all the mined area that was released by survey and clearance in Iraq in 2016. IKMAA and international operators sustained clearance in the KRI at about the same level in 2016 as the year before. Mine survey and clearance in central and southern Iraq increased significantly, a reflection of major mine clearance by BACTEC and, in relation to locally produced mines, by MAG.

Survey in 2016

Central and Southern Iraq

The DMA reported a mixture of non-technical and technical survey covering nearly 14km² in areas liberated from Islamic State, three-quarters of it in Anbar governorate, including the towns of Ramadi and Fallujah which were occupied by Islamic State from 2014 until they were liberated in 2016. It also included survey of lesser areas of Babylon and Salah al-Din. The DMA reported this led to cancellation of 0.6km² through non-technical survey and reduction of 2.13km² by technical survey.⁴⁴

Overall, the DMA said Civil Defence teams conducted non-technical survey over 84.7km² but only confirmed 0.4km² as hazardous area.⁴⁵ It also reported that IMCO did not conduct non-technical survey but still cancelled more than 10km².⁴⁶

KRI

IKMAA reported that its teams cancelled 16.9km² through non-technical survey in 2016.⁴⁷ Other operators did not conduct survey of legacy minefields which have already been subjected to what IKMAA refers to as "preliminary technical survey".

Operators conducted assessments of sites for people displaced by conflict and started "high-risk survey" of locally produced mines in areas recaptured from Islamic State in both the KRI and the Grey Zone.⁴⁸ The approach to survey by MAG combined non-technical survey, drawing on hazardous area reports from Kurdish Peshmerga security forces, local authorities, and community liaison teams, and limited technical survey to define mine lines and polygons.⁴⁹ FSD similarly reports assessing tasks using information available from the Peshmerga, local authorities, and any other available local source, and conducting technical survey to define and mark hazard perimeters.⁵⁰

Clearance in 2016

In 2016 across Iraq, Mine Action Review has calculated that total mine clearance amounted to 16.4km²: 7.86km² of legacy contamination in central and southern Iraq; 2.7km² of legacy contamination in the KRI; and 5.8km² of locally produced mines laid by Islamic State forces. Vast areas of reported clearance without the destruction of significant numbers of landmines are not considered as mine clearance and are not included in Mine Action Review's national or global totals.

Central and Southern Iraq

Reported mine clearance in central and southern Iraq in 2016 totalled 18.86km² according to official data, down from 23.18km² reported by the DMA as cleared in 2015.⁵¹ The 2016 data, however, attributed clearance of 4.2km² to NPA and DDG, which did not conduct any mine clearance in 2016.⁵²

The only substantial clearance of minefields in central and southern Iraq appears to have been conducted by BACTEC working under contract to South Oil and clearing mined areas north-east of Basrah along the border with Iran required for oilfield development.⁵³ The DMA reported clearing 7.37km² and destroying close to 7,000 mines.⁵⁴ It also reported that Civil Defence teams "released" 6.35km² but cleared only a total of 10 mines.⁵⁵ Mine Action Review does not record this as mine clearance. Only the reported clearance for BACTEC and Al-Khebra Al-Faniya are included in the national and global totals, amounting to 7,864,443m².

Table 6: Reported clearance of (legacy) mined areas in central and southern Iraq in 2016⁵⁶

Operators	Areas released	Area cleared (m ²)	AP mines destroyed	AV mines destroyed
Al-Farhad	15	247,381	0	0
BACTEC	43	7,370,245	6,305	652
Civil Defence	101	6,348,154	3	7
Defence Ministry	1	15,364	0	0
Al-Khebra Al-Faniya	6	494,198	1,281	81
EOD Directorate	2	185,467	0	0
Totals	168	14,660,809	7,589	740

In central and southern Iraq, military and federal police conducted clearance of locally produced mines and IEDs in the course of operations liberating areas from Islamic State. Systematic, large-scale clearance was undertaken only by two international commercial operators: Janus, funded by the US Department of State; and Optima, working for UNMAS under contracts issued by UNOPS. The operators had not received DMA accreditation to conduct clearance in 2016 and so operated in partnership with local company Al-Farhad.

KRI

Despite competing demands arising from the humanitarian fall-out from Iraq's campaigns to drive out Islamic State and severe financial constraints, IKMAA was able to report clearance of 2.7km² of legacy mined areas in 2016, more than the level IKMAA reported in the previous year.⁵⁷

IKMAA concentrated all its clearance teams on tackling legacy mined areas giving priority to removing blockages on agriculture and infrastructure and removing hazards close to populated areas.⁵⁸ MAG also continued to support clearance of legacy minefields working with a slightly reduced number of teams in Dohuk, Slemani and Kirkuk governorates but, according to its own data, clearing as much land as in 2015.⁵⁹ After receiving IKMAA accreditation in October 2016, DDG deployed a clearance team later that month onto a 'legacy' minefield in Choman. The task was suspended in late December due to heavy snow and DDG moved the team to an alternative task located in Shaqlawa.⁶⁰

Table 7: Clearance of (legacy) mined areas in the KRI in 2016⁶¹

Operators	Areas released	Area cleared (m ²)	AP mines destroyed	AV mines destroyed	UXO destroyed
BFIJV	0	1,280	0	0	0
DDG	0	1,237	0	0	0
IKMAA	34	1,341,027	2,686	27	992
Janus	0	5,377	13	0	7
MAG	39	1,353,518	310	0	2,197
Shanica	0	1,680	66	0	0
Totals	73	2,704,119	3,075	27	3,196

UXO = Unexploded ordnance

The focus of international operators⁶² in the KRI in 2016 and 2017, however, was the clearance of locally produced mines from liberated areas. Peshmerga units conducted military breaching as they advanced against Islamic State positions and provided field intelligence on hazardous areas to international operators but did not conduct systematic clearance.⁶³

MAG had started clearing locally produced mines in 2015 on an emergency basis and in 2016 shifted to standard operations with a toolbox of manual and mechanical assets, expanding the number of teams, opening a sub-base in the Sinjar area and working in three new areas in Ninawa governorate and one in Diyala governorate. Teams later moved to Hamdaniya district east of Mosul and in November to Bashiqa district north-east of Mosul, where they continued operating in 2017.

In 2016, MAG cleared a total of 5.26km² of land contaminated by locally produced mines, destroying 5,268, mostly in Ninawa governorate's Tal Afar and Sinjar areas.⁶⁴ Productivity increased significantly with the deployment of mechanical assets for both technical survey and clearance and MAG planned to accredit MDD teams in the second half of 2017 for use on tasks such as route clearance.⁶⁵

FSD, the other humanitarian organisation principally involved in clearing locally produced mines in 2016, worked mainly in Kirkuk governorate before moving a team late in the year to Erbil governorate. FSD expected to expand the number of teams from six to eight in 2017.⁶⁶ NPA started working with two teams in the Hamdaniyah area of Nineveh province in 2017 and later added two more clearance and two non-technical survey teams. Janus started working with one team in the KRI in January 2017 focusing on key infrastructure. This included a pipeline supplying water to east Mosul city.⁶⁷

Table 8: Clearance of locally produced mines in the KRI in 2016⁶⁸

Operator	Area cleared (m ²)	Mines destroyed
FSD	545,941	1,181
MAG	5,261,517	5,268
Totals	5,807,458	6,449

Deminer Safety

Iraqi security forces and Kurdish Peshmerga forces are believed to have sustained casualties in the course of clearing locally produced mines and IEDs but details are not known. Other operators, commercial and humanitarian, have also suffered fatalities in tackling such devices, prompting calls for more systematic exchange of information detailing accidents to try to mitigate risks. An international staff member of FSD was killed trying to defuse a single-switch, pressure-plate device in Daquq district. Investigations did not determine exactly how the device was initiated.⁶⁹ A Janus international operator was killed in August 2016 by a device that had been assessed and photographed, the cause of initiation also unknown.⁷⁰ A MAG national staff member was killed in April 2017 after the search head of his detector hit a pressure plate linked to a 23kg charge.⁷¹

ARTICLE 5 COMPLIANCE

Under Article 5 of the APMBC, 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 2018.

The scale of Iraq's contamination had ensured it would need to extend its Article 5 deadline, and in March 2017 the DMA and IKMAA jointly submitted a request for a 10-year extension, but covering legacy mined areas only. The request was prepared at a point when Iraq's military offensive to drive out Islamic State dominated the national agenda, including mine action, adding huge areas of contamination and slowing the progress of mine clearance.

The extension request provided some clarity on the scope of Iraq's legacy mine problem but no estimate of the extent of contamination of locally produced mines and little guidance on Iraq's plans for tackling both threats in the coming decade. Iraq identified numerous challenges (see Strategic Planning section above) and emphasised the future pace of mine clearance would depend on the extent of international donor support.⁷²

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- 1 Article 5 Extension Request, March 2017, pp. 78 and 85. The three governorates, all under the supervision of RMAC South, are Basrah, Missan, and Muthanna.
 - 2 Email from Ahmed Al Jasim, Manager, Information Department, DMA, 6 April 2017; and email from Khatab Omer Ahmed, Planning Manager, IKMAA, 8 April 2017.
 - 3 Article 5 deadline Extension Request, March 2017, p. 93.
 - 4 *Ibid.*, p. 67.
 - 5 Data received from Ahmed Al Jasim, DMA, 6 April 2017. Data presented in the Article 5 deadline Extension Request puts total contamination at 1,195.57km².
 - 6 Email from Ahmed Al Jasim, DMA, 6 April 2017, including only areas contaminated exclusively with anti-personnel mines.
 - 7 Email from Ahmed Al Jasim, DMA, 6 April 2017.
 - 8 Email from Khatab Omer Ahmed, IKMAA, 17 August 2017.
 - 9 Emails from Khatab Omer Ahmed, IKMAA, 8 April and 6 September 2017.
 - 10 Article 5 Extension Request, March 2017, p. 23; and interview with Khatab Omer Ahmed, IKMAA, Erbil, 27 July 2017.
 - 11 Email from Khatab Omer Ahmed, IKMAA, 8 April 2017.
 - 12 *Ibid.*
 - 13 Interviews with Mick Beeby, Technical Operations Manager, MAG, 24 July 2017, Craig McInally, Northern Iraq Operations Manager, NPA, 22 July 2017.
 - 14 Email from Steven Warner, Middle East Programme Support Coordinator, MAG, 28 April 2017; and interview with Nina Seecharan, Country Director; Mick Beeby; and Kathy Keary, Grants and Liaison Officer, MAG, Erbil, 23 July 2017.
 - 15 "An Initial Study into Mine Action and Improvised Explosive Devices", Geneva International Centre for Humanitarian Demining (GICHD), February 2017, p. 21.
 - 16 Interview with Nina Seecharan, Mick Beeby, and Kathy Keary, MAG, Erbil, 23 July 2017.
 - 17 Interviews with international humanitarian operators, Erbil, 22–27 July 2017.
 - 18 Email from Isam Ghareeb, iMMAP, 1 August 2016; interview with Obaid Ahmad, General Director of Technical Affairs, IKMAA, Erbil, 22 July 2017.
 - 19 Email from Lauren Cobham, Programme Officer, UNMAS Iraq, 7 September 2016; and interview with Robert Thompson, Chief of Operations, UNMAS Iraq, Erbil, 23 July 2017.
 - 20 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015; and GICHD, "Capacity Development Support to National Mine Action Authorities in Iraq, Phase 1: Initial Assessment Mission", February 2012.
 - 21 DMA presentation to 2015 Mine Action Country Planning Workshop for Iraq, Istanbul, 13 May 2015.
 - 22 Article 5 deadline Extension Request, March 2017, p. 24.
 - 23 Interview with Mats Hektor, Project Manager South Iraq, NPA, Erbil, 22 July 2017.
 - 24 Email from Khatab Omer Ahmad, IKMAA, 8 April 2017; and interview, Erbil, 27 July 2017.
 - 25 Email from Khatab Omer Ahmad, IKMAA, 20 May 2016.
 - 26 Article 5 deadline Extension Request (Revised), August 2017, p. 13.
 - 27 *Ibid.*, pp. 96–98.
 - 28 *Ibid.*, pp. 10–12 and 88.
 - 29 Interviews with international operators, Erbil, 22–27 July 2017.
 - 30 Compiled by Mine Action Review from data provided by the international humanitarian operators cited.
 - 31 Interviews with international operators, Erbil, 22–27 July 2017.
 - 32 Email from Ahmed Al Jasim, DMA, 6 April 2017.
 - 33 Email from Southern Craib, Country Director, DDG, 27 March 2017; and interview, Erbil, 24 July 2017.
 - 34 Interview with Andrew Perks, Operations Manager, Janus Global Operations, Erbil, 25 July 2017.
 - 35 Interview with Robert Thompson, UNMAS Iraq, Erbil 23 July 2017.
 - 36 Telephone interview with Tim Dickinson, BACTEC, 9 August 2017.
 - 37 Emails from Ahmed Al Jasim, DMA, 6 April and 6 September 2017.

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- 38 Interview with Ahmad Obaid, IKMAA, Erbil, 22 July 2017; and email from Khatab Omer Ahmad, IKMAA, 8 April 2017.
- 39 Email from, Steven Warner, Middle East Programme Support Coordinator, MAG, 28 April 2017; and interview with Nina Seecharan, Kathy Keary, and Mick Beeby, MAG, Erbil, 23 July 2017.
- 40 Emails from Mats Hektor, NPA, 1 April 2017, and Craig McNally, NPA, 27 March 2017.
- 41 Email from Southern Craib, DDG, 27 March 2017; and interview, 24 July 2017.
- 42 Email from Alex van Roy, Programme Manager, FSD, 22 May 2017; and interview, Erbil, 24 July 2017.
- 43 Interview with Rebecca Letven, Humanitarian Operations Coordinator, Handicap International, Erbil, 25 July 2017 and email 18 August 2017.
- 44 Email from Ahmed Al Jasim, DMA, 6 April 2017.
- 45 Ibid.
- 46 Email from Khatab Omer Ahmad, IKMAA, 8 April 2017.
- 47 Ibid.
- 48 MAG reported conducting assessment and survey of 16 sites in 2016. Email from Steven Warner, MAG, 28 April 2017.
- 49 Interviews with international operators, Erbil, 22–27 July 2017.
- 50 Interview with Alex van Roy, FSD, Erbil, 24 July 2017.
- 51 Email from Ahmed Al Jasim, DMA, 6 April 2017.
- 52 Emails from Mats Hektor, NPA, 17 and 24 April 2017; and from Southern Craib, DDG, 27 March 2017.
- 53 Telephone interview with Tim Dickinson, Commercial Director, BACTEC, 9 August 2017. BACTEC reported it cleared 7.1km² in operations conducted between October 2015 and October 2016.
- 54 Email from Ahmed Al Jasim, DMA, 6 April 2017.
- 55 Ibid.
- 56 Ibid. DMA data showed that NPA cleared 2,757,376m² and DDG 1,442,516m² in 2016 without destroying any mines. Both operators said they did not conduct any mine clearance in central and southern Iraq in 2016.
- 57 Email from Khatab Omer Ahmad, IKMAA, 8 April 2017. Official mine clearance data in 2015 appeared to underreport clearance by MAG, which said it cleared 1.62km² that year, three times the amount reported by IKMAA.
- 58 Interview with Ahmad Obaid, IKMAA, Erbil, 22 July 2017; and email from Khatab Omer Ahmad, IKMAA, 8 April 2017.
- 59 Email from Steven Warner, MAG, 28 April 2017. MAG reported clearing 1.63km² in 2016 and 1.62km² in 2015. It additionally conducted BAC on 16 sites prepared for people displaced by conflict releasing 1.8km² and destroying 1,017 UXO items.
- 60 Email from Southern Craib, DDG, 27 March 2017; and interview, Erbil, 24 July 2017.
- 61 Email from Khatab Omer Ahmad, IKMAA, 8 April 2017.
- 62 Excluding DDG, which as a matter of policy did not accept tasks involving clearance of improvised devices.
- 63 Interviews with international operators, Erbil, 22–27 July 2017.
- 64 Email from Steven Warner, MAG, 28 April 2017.
- 65 Interview with Mick Beeby, MAG, 25 July 2017.
- 66 Email from Alex van Roy, FSD, 22 May 2017; and interview, Erbil, 24 July 2017.
- 67 Interview with Andrew Perks, Operations Manager, Janus Global Operations, Erbil, 25 July 2017.
- 68 Emails from Alex van Roy, FSD, 22 May 2017; and Steven Warner, MAG, 28 April 2017.
- 69 Email from Alex van Roy, FSD, 11 August 2016; and interview in Geneva, 10 February 2017.
- 70 Interview with Jordan Wilhelm, Director, CWD Programs, Janus Global Operations, in Geneva, 9 February 2017.
- 71 Interview with Nina Seecharan, Mick Beeby, and Kathy Keary, MAG, Erbil, 23 July 2017.
- 72 Article 5 deadline Extension Request (Revised), August 2017, pp. 12 and 99–100.