Government of the Republic of Iraq

The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction

Request:

For an extension of the deadline for completing the destruction of anti-personnel mines in mined areas in accordance with Article 5

Version 3.2

August 2017

CONTACT INFORMATION

State Party: Republic of Iraq

Points of Contact

Ministry of Health and Environment/ Directorate for Mine Action (DMA)

Mr. Khaled Rashad Jabar Al-Khaqani, Director General of Directorate for Mine Action (DMA)

Email: dma_moen@yahoo.com

Mobile: 009647816874525

National Focal Point

Mr. Ahmed Abdulrazzaq Flayyih Al-Jasim, Director of Planning & Information Department at Directorate for Mine Action (DMA)

Email: ahmedaljasem@gmail.com

Mobile: 009647700044480

Iraq Kurdistan Mine Action Authority (IKMAA)

Mr. Khatab Omer Ahmed, Director of Planning and Follow up at Iraqi Kurdistan Mine Action Agency

Email: khatab.omer@maa.gov.krd

Telephone: 009647504557482

Iraqi Ministry of Foreign Affairs. Department of Organizations and International Cooperation, Disarmament Section

Maytham Salam Alrikabi

Email: maytham.alrikabi@mofa.gov.iq

Mobile: 009647733404080

Technical Committee that Prepared the Extension Request

No	Name	Title
1.	**Mr. Khaled Rashad Jabar Al-Khaqani,**	Director General of Directorate for Mine Action (DMA)
2.	**Mr. Ahmed Abdulrazzaq Flayyih Al-Jasim**	Director of Planning and Information Department at Directorate for Mine Action (DMA) / Iraq National focal point for the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction.
3.	**Mr. Nibras Fakhir Matrood Altamimi**	Director of Regional Mine Action Center – South (RMAC-S) National point for the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction.
4.	**Mrs. Hala Haitham Abduljabar Alshamari**	Head of International Cooperation Section - Directorate for Mine Action (DMA).
5.	**Mr. Khatab Omer Ahmed**	Director of Planning and Follow up Department at Iraqi Kurdistan Mine Action Agency (IKMAA)

Signature of the Supported Parties

International Committee of the Red Cross

Iraq Ministry of Defense

Iraq Ministry of Foreign Affairs

United Nations Development Program

United Nations Mine Action Service

United Nations International Children's Fund

iMMAP

Danish Demining Group

Norwegian People's Aid

Mines Advisory Group

Handicap International

Swiss Foundation for Mine Action

Contents

Index of Tables:

Index of Maps:

Index of Figures:

Index of Attachments:

Introduction

The Government of the Republic of Iraq is submitting a request for extension as per the articles of The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, in terms of its commitment to the implementation of Article 5 of this convention and other relevant conventions, and informing the presidency and members of the convention of the efforts made in the past and the substantial challenges facing the Iraq National Mine Action Program over the past 10 years.

This report has been prepared on the commitment of the Republic of Iraq with regards to The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction and the aspirations of Iraq to be free from land mines. To achieve this aspiration, the Republic of Iraq submits a request to extend the compliance date by ten years in order to end the suffering of Iraqi society at the hand of the widespread explosive hazard contamination that is affecting the landscape and people of Iraq.

It is imperative to continue the national and international clearance efforts in Iraq, as our country has large areas of rural, agricultural and residential areas heavily contaminated with explosive hazards, which kills the people of Iraq and deny them access to their infrastructure, water and roads and thus their livelihood.

The Iraqi national demining program has been severely hampered by the conflict with ISIS, which has seen the continued high volume utilization of IEDs including "Improvised" Anti personal landmine and an increase in contaminated areas stemming from the proliferation of ERW and AXO.

The Government of Republic of Iraq humbly requests all the members of this convention to approve the extension request and asks the international community to extend the necessary support and assistance at the earliest possible time to the Iraqi Mine Action Program as a part of their humanitarian responsibility toward the people of Iraq.

The Republic of Iraq has a high level of mine, ERW and other explosive hazard contamination as result of internal and external armed conflicts which has resulted in placing Iraq on the top level of countries contaminated by explosive hazards.

The Iraqi Government is at fierce war against the enemies of humanity in which causing harm to values of humanity and killing people without discrimination, but also displaced millions of people, destruction of land, ways of living and infrastructure, spreading fear and terror around the globe, it’s the shared responsibility of International Community to stand with Iraq in the fight against terrorism and overcome the burdens left on the people Iraq.

This document is the result of collective efforts between Iraqi Directorate for Mine Action (DMA), Iraqi Kurdistan Mine Action Agency (IKMAA), United Nations Mine Action Service (UNMAS) and iMMAP Organizations.

The Government of the Republic of Iraq extends its appreciation to the presidency and members of this convention for their financial and technical support and necessary assistance provided to Iraq in the past.

The Iraqi Government appreciates the support of partners from humanitarian organization and companies who have helped Iraq to become a more secure place to live and work in, and we request your continued support in this regard.

Dr. Adila Hamood Husein
Minister of Health and Environment
/ / 2017

Executive Summary

This report includes the information required for the extension request, which includes survey, current status, goals achieved and challenges for the Republic of Iraq to meet its commitment to the articles of this convention. It also explains the impacts and remaining risks and action plan, along with the requested budget for mine clearance in the framework of the next ten years.

There are many different factors that hindered the implementation of this convention and the requirement to clear all the antipersonnel mines in the allocated years, these being as follows:

Financial Resources:

The size of areas contaminated with land mines and ERW is not matching the level of mine action activities that needed to be executed, taking into consideration the costly nature of mine action programs.

Human Resources:

The capacity of the people working in the Mine Action program fields, including all of the represented partners, i.e. the Iraqi Ministry of Defense, Ministry of Health and Environment, Directorate for Mine Action (DMA), Iraqi Kurdistan Mine Action Agency (IKMAA), Non-governmental organizations (NGOs) and commercial companies is not at the level required to deal with the large areas of contamination.

Current Security situation and fight against ISIS terrorist groups:

This challenge led to the increase of the contamination areas and suspected hazard areas around the whole country since the beginning of the conflicts with these armed groups, even though the demining organizations are working continuously to release land. The lack of security and continued armed conflicts in many of the areas contaminated with mines and ERW has slowed down the work in some of these areas and in other areas has completely stopped work.

Newly discovered minefields:

The Non-Technical and Technical Surveys have led to the discovery of new minefields, which in turn has led to the increase of the contaminated areas and amendments in the demining plan in these fields.

Climate and Topographic Conditions:

Iraq has a unique climate, the mountainous areas in Kurdistan with their low temperatures lead to high amounts of rain and snow, differing from the climate of the middle and south of Iraq with its hot desert area. This leads to obstruction of the demining work in some areas for a period of time annually due to the change in climate and the terrain variation.

Technical works related to the Mines:

Iraq is suffering from lack of new technology, such as modern detection devices and heavy machines, used for demining. The deminers depend on old manual demining methods which affects the productivity of the demining teams.

Nuisance Minefields:

The majority of the minefields are considered semi-random and thus need a lot of effort and time to identify mines in the minefields. Many minefields remain a risk due to lack of information in the national database of hazard areas.

Lack of Information, files and maps for the minefields:

As a result of the events after the Iraqi liberation in 2003, the Iraqi Ministry of Defense has lost all the maps related to the minefields inside Iraqi territory; this became a big obstacle in the face of demining activities, especially after the loss of the warning signs and fences.

Lack of International Support to Iraq:

Taking into consideration the financial situation the country is facing, especially the drop in oil prices and inability of government to provide the necessary financial resources, Iraq is in great need of international support to fulfil its commitments with regard to this convention and the international community through the support of International donors. The donor countries have provided support but it is not at the level required to deal with the contaminated areas present in Iraq.

Lack of International Organization presence in Iraq:

The low levels of presence of the international organizations and demining teams clearly has a detrimental effect on the progress of the national demining program.

Economic Impact:

Mines and ERW have an economic impact on all aspects of the country, e.g. agriculture, oil export, infrastructure and tourism, and it has an effect on the individual as well, since the suspected and confirmed presence of explosive hazards pose a threat and challenge to people living in the areas surrounding the hazards. It also poses an obstacle in the livelihoods by restricting the growth and maintenance of orchards, factories, sheep, fishing and marsh land. The presence of minefields has a large negative impact on the national economy, and aids in the rise of poverty because many of these minefields are an obstacle for investment projects such as oil investment projects and agriculture projects.

Climate Impact:

It is well known that the Iraqi climate has changed in the past ten years because of Internal and external military conflicts and military operations that has led to the contamination of Iraq's air and water.

Internally Displaced Persons (IDPs):

The internal displacement of the Iraqi people was one of the problems facing the demining activities, as the IDPs may often move to new locations and the presence of IDP camps near minefields requires financial resources for projects in areas where it is not available.

Lack of Expertise:

Iraq needs international and national expertise to support the mine action program through consulting, training courses for mine action staff, risk awareness, assisting victims, and very importantly to support the planning of the strategic program.

The following work plans were devised based on the current levels of explosive hazard contamination and the mine clearance capabilities and capacity available. The two-year work plan is based on the known available capacity while the ten-year plans are aspirational work plans.

Table 1: IKMAA Two Years Work Plan tabulates the work plan for mine clearance in 2018 and 2019 by IKMAA and its supporting organizations, based on current capacity (The period of manual clearance in one year (200 working days) and mechanical clearance is (140 working days)).

Table 1: IKMAA Two Years Work Plan

Year	Clearance team type	Governorate	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018	Manual	Slemani	75	9	160	2,400,000	21,600,000	Price for each Sqm involve all other relative activities
		Erbil						
		Dohuk						
	Mechanical	Slemani	13	6	250	455,000	2,730,000	
		Erbil						
		Duhok						
	MDD	Slemani	2	5	250	50,000	250,000	
		Duhok						
	TS	Slemani		1	1,000	200,000	200,000	
		Erbil						
		Duhok						
	Total					**3,105,000**	**24,780,000**	
2019	Manual	Slemani	75	9	160	2,400,000	21,600,000	
		Erbil						
		Duhok						
	Mechanical	Slemani	13	6	250	455,000	2,730,000	
		Erbil						
		Duhok						
	MDD	Slemani	2	5	250	50,000	250,000	
		Duhok						
	TS	Slemani		1	1,000	200,000	200,000	
		Erbil						
		Duhok						
	Total					**3,105,000**	**24,780,000**	

Table 2: DMA Two Years Work Plan tabulates the action plan for mine clearance in 2018 and 2019 by DMA and its supporting organizations, based on current capacity, (The period of manual clearance and technical survey of mixed areas for one year was determined by (200 working days) and mechanical clearance (180 working days).

Table 2: DMA Two Years Work Plan

Year	Type of clearance team	RMACs	Governorate	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018	Manual	RMAC-S	Basrah	60	4	200	2,400,000	9,600,000	*The price involve20 % each sqm for 30-60 cm depth*
			Missan						
	Mechanical	RMAC-S	Basrah	19	2	1,500	5,130,000	8,977,500	*The price involve30 % each sqm for relative activity*
	TS	RMAC-S	Basrah	15	1	8,000	24,000,000	12,000,000	*This areas covered ≈240 Km²*
			Missan						
		RMAC-M EU	Wasit						
	Total						**31,530,000**	**30,577,500**	
2019	Manual	RMAC-S	Basrah	60	4	200	2,400,000	9,600,000	*The price involve20 % each sqm for 30-60 cm depth*
		RMAC-M EU	Wassit						
	Mechanical	RMAC-S	Basrah	19	2	1,500	5,130,000	8,977,500	*The price involve30 % each sqm for relative activity*
	TS	RMAC-S	Basrah	15	1	8,000	24,000,000	12,000,000	*This areas covered ≈240 Km²*
			Missan						
		RMAC-M EU	Wassit						
	Total						**31,530,000**	**30,577,500**	

The Ottawa work plan covers only the first two years in detail based on the known available capacity and the cost for mine action operations as illustrated in the tables 1 and 2 for IKMAA and DMA respectively.

LIST OF ACRONYMS

Table 3: List of Acronyms

No.	Abbreviations	Name in English
1	APMBC	Anti-Personnel Mine Ban Convention
2	BAC	Battle Area Clearance
3	CA	Contaminated Area
4	CCM	Convention on Cluster Munitions
5	CCW	Carrying Concealed Weapon
6	CHA	Confirmed Hazard Area
7	CL	Clearance
8	CM	Cluster Munitions
9	CRPD	Convention on Rights of Persons with Disabilities
10	DMA	Directorate for Mine Action
11	DMAC	Duhok Mine Action Center
12	DS	Disposal/Destruction Site
13	EMAC	Erbil Mine Action Center
14	EN	European Normalization
15	EOD	Explosive Ordnance Disposal
16	ERW	Explosive Remnants of War
17	GM	Gender Mainstreaming
18	GoI	Government of Iraq
19	HCMA	Higher Committee for Mine Action Program
20	HD	Humanitarian Demining
21	IEDs	Improvised Explosive Device
22	IKMAA	Iraqi Kurdistan Mine Action Agency
23	IM	Information Management
24	IMSMA	The Information Management System for Mine Action
25	ITAG	International Ammunition Technical Guidelines
26	KRG	Kurdistan Regional Government
27	LIS	Impact Survey
28	MDD	Mine Detection Dogs
29	MECH. Demining	Mechanical Demining
30	MoD	Ministry of Defense
31	MoEnv	Ministry of Environment
32	MoI	Ministry of Interior
33	MoOil	Ministry of Oil
34	MOU	Memorandum of Understanding
35	MRE	Mine Risk Education
36	MS	Management system

37	NTS	Non-Technical survey
38	QA	Quality Assurance
39	QC	Quality Control
40	QM	Quality Management
41	RMAC-M EU	Regional Mine Action Center – Middle of Euphrates
42	RMAC-N	Regional Mine Action Center – Northern
43	RMAC-S	Regional Mine Action Center – Southern
44	SHA	Suspected Hazard Area
45	SMAC	Slemani Mine Action Center
46	SMF	Suspected mined field
47	TS	Technical survey
48	UNDP	United Nation Development Program
49	UXO	Unexploded Ordnance

A brief History (The real challenges of implementation of Article 5):

Iraq is recognized as a country that is very severely affected by landmines and explosive hazards such as improvised explosive devices (IEDs) and explosive remnants of war (ERW), as the result of armed conflicts stretching from 1972 to the current year. These conflicts include inter alia the Iranian war from 1980 to 1988, the First Gulf War in 1991, the Second Gulf War in 2003. The origin of the contamination can be summarized as follows:

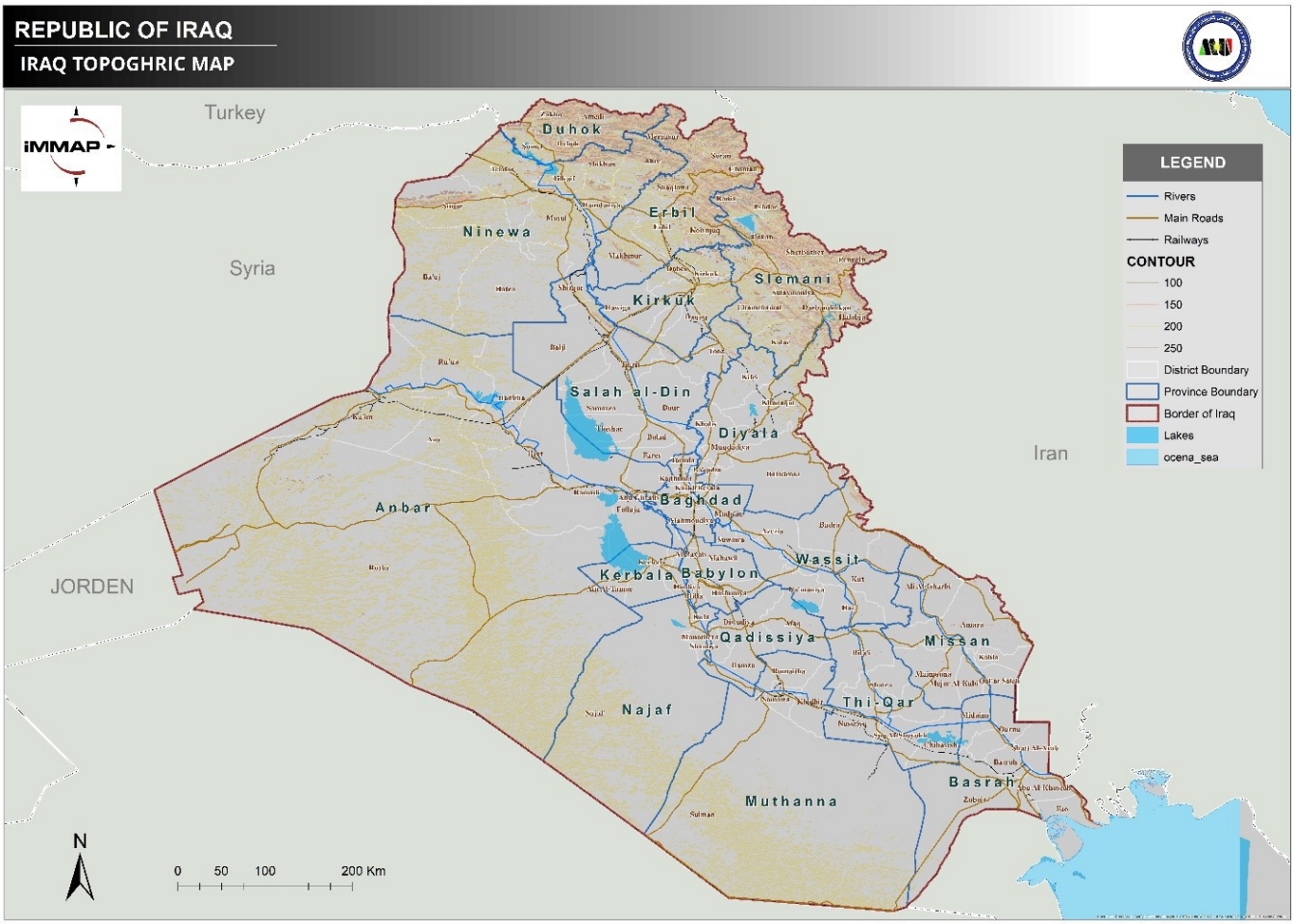
- Mainly due to the aggressive policy of the former Iraqi Government, landmines were used against the Kurdish People in the north since 1961 and the conflict between the former regime and Peshmerga forces in 1972, which saw the widespread use of landmines along the border areas in the Northern governorates, mountains and near the military bases of the former regime, these areas are still afflicted by the presence of landmines and ERW.
- During the eight yearlong Iraq-Iran War, the former Iraqi Army, using conventional military doctrine, established minefields along the Iraq-Iran border for a distance of about 1200 km (affected government from Erbil, Slemani, Diyala, Wassit, Missan and Basrah), in conjunction with the minefields established by the Iranian forces inside Iraqi territory.
- In 1991, after the withdrawal from Kuwait territories, the former Iraqi Military mined sweeping areas inside Iraq and along the border with Kuwait and Saudi Arabia to hamper the progress of the International Coalition's armed forces. The former Iraqi Army planted huge areas with minefields inside Iraq and along the border with Kuwait and Saudi Arabia. The contamination extends into the oil fields of North and South Rumailah, for example approximately 17 km of mines were planted inside the oil field of South Rumailah.
- The Iraqi Ministry of Defense, as a result of the events that followed the war of liberation of Iraq in 2003, lost all the maps for the minefields planted inside the Iraqi territory.
- During this period a demarcation line, which later became known as the Green Line. The demarcation line started from the east of Mosul and ended in Mandali city, passing through the cities of Khanaqin, QaraTapa, Kifri, Tuz Khurmatw, Chamchamal, Altun Kubri, Makhmur and Gwer. The Green Line was mined extensively and the area contaminated with ERW.
- In the process of overthrowing the former regime in 2003, numerous military operations were conducted throughout the whole of Iraq, which left many areas contaminated by different types of ERW, especially cluster munitions, which caused a great loss of civilian lives.
- From 2003 onwards Iraq suffered from semi-daily terrorist attacks using IEDs and vehicle-based IEDs (VBIED) targeted at civilians and military forces, in addition to large amounts of explosive materials left abandoned and unsecured.

- From 2014 onwards, the invasion of ISIS terrorist groups in many areas of Iraq and their occupation of some governorates, along with the crimes carried out by this terrorist group, saw the spread of explosive hazard contamination in a wide swath across Iraq. This contamination became a serious challenge for demining programs due to the large size of the contaminated areas and the especially vicious ways utilized by the groups to mine the areas, with the types of contamination including booby-trapped houses belonging to internally displaced people (IDP), IEDs placed in overlapping fashion for long distances, etc. In addition to non-conventional (chemical) weapons usage detected in the large areas of contamination by the Technical teams, large tracts of suspected areas cannot be inspected to confirmation contamination, due to access restrictions arising from the current security situation.
- Because of this huge contamination and Iraqi's obligation toward International Community, Iraq joined the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction, with the entry coming into force on 01 February 2008 and seeing Iraq become the 155th member of the convention. As stipulated by the convention, Iraq was required to destroy all its stockpiles of antipersonnel mines in 4 years from the day that the convention came into force. Iraq has confirmed the destruction of all its antipersonnel mine stockpiles in its first transparency report on 31 July 2008.
- In addition to Iraq's commitment to clean all the areas contaminated by mines in 10 years, Iraq should also provide medical assistance, physical rehabilitation, reintegration of victims back into society and provide mine risk education to reduce the impact of mines and remnants of war.

NATURE AND EXTENT OF THE ORIGINAL ARTICLE 5 CHALLENGE: QUANTITATIVE ASPECTS

General information about Iraq:

Map 1: Topographic map of Iraq per Governorates and Districts.



The CIA World Factbook[1] describes the terrain of Iraq as "mostly broad plains; reedy marshes along Iranian border in south with large flooded areas; mountains along borders with Iran and Turkey". It further describes the climate of Iraq as "mostly desert; mild to cool winters with dry, hot, cloudless summers; northern mountainous regions along Iranian and Turkish borders experience cold winters with occasionally heavy snows that melt in early spring, sometimes causing extensive flooding in central and southern Iraq". It will become obvious during the course of this document that terrain and climate plays a significant role in both the location

[1] https://www.cia.gov/library/publications/the-world-factbook/geos/iz.html

and clearance of explosive hazards for example, the extreme temperatures in the South of Iraq reaches 50 Degrees Celsius which results in no clearance activities during such extreme weather.

Historical Surveys efforts

The Iraqi Mine Action Program conducted surveys across Iraq according to the following stages and areas so as to identify and quantify the Article 5 challenge.

General Survey (1992 - 2003)

After the implementation of UN Security Council Resolution No. 688 in April 1991, which was used to establish no-fly zones to the Kurdistan Region, Non-Governmental Organizations (NGOs) started the survey process in the Kurdistan region in 1992. The process included general surveys and the placement of warning signs near the minefields, and was followed by emergency surveys in 1998 by UNOPS. As a result of this survey 442 km^2 contamination was recorded as SHA as illustrated in Table 4.

Table 4: General Survey in the Kurdistan Region for the period 1992 - 2003.

Governorates	Total Area in m^2
Erbil	111,000,000
Duhok	36,000,000
Slemani	217,000,000
Areas outside of the Three governorates	78,000,000
Total	442,000,000

Land Mine Impact Survey (First Stage 2004 - 2006)

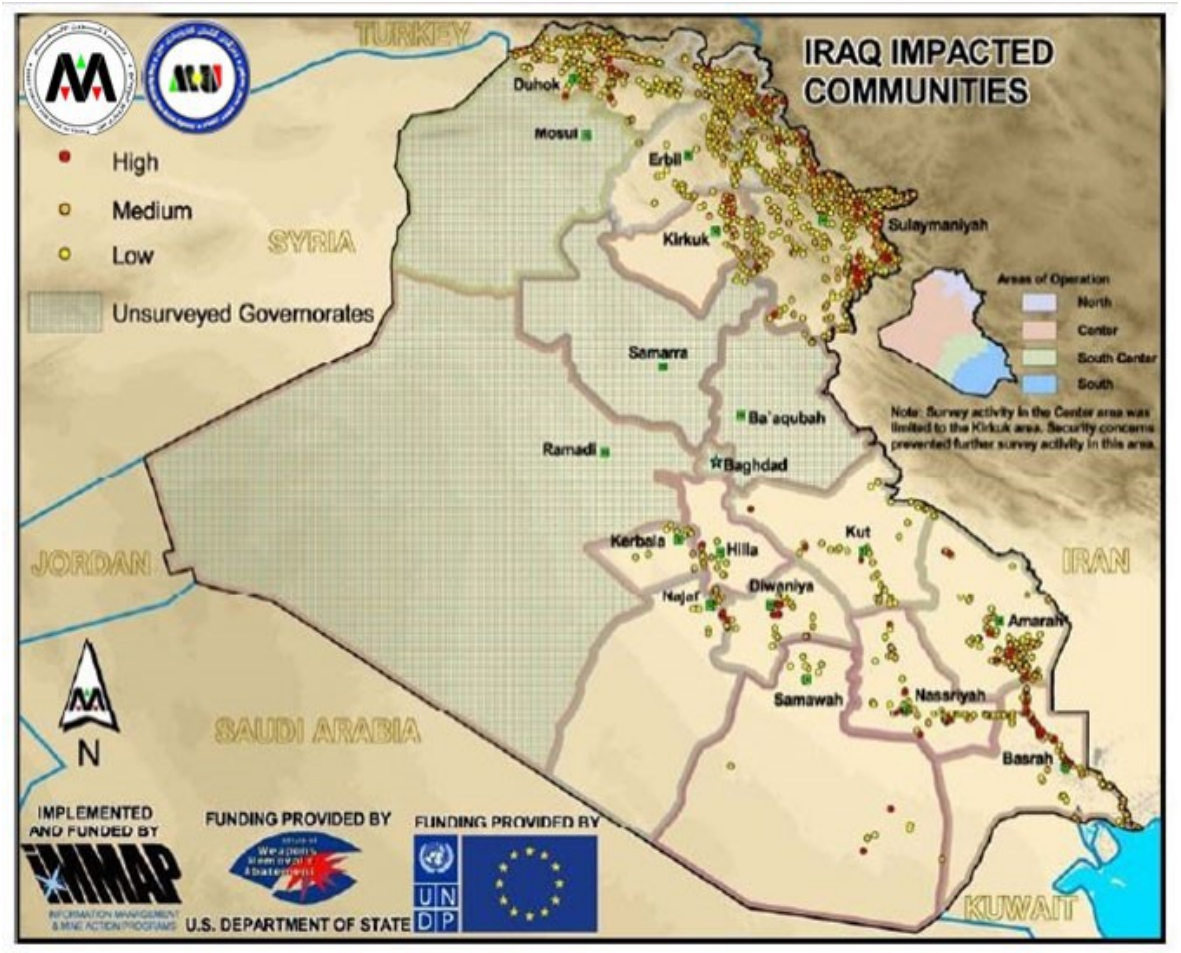
To address the limitations of the information provided by previous surveys and to speed up the process of addressing landmine problems under the Anti-Personnel Mine Ban Convention, a Landmine Impact Survey (LIS) with its vision of facilitating the improved prioritization of human, material, and financial resources supporting humanitarian mine action at the national, regional, and global levels was extended to Iraq.

In the first stage of the Landmine Impact Survey (LIS) program for Iraq, LIS I, the Vietnam Veterans of America Foundation's (VVAF's) Information Management and Mine Action Programs (iMMAP) program conducted surveys for the governorates of Duhok, Erbil, Slemani, Kirkuk, Babil, Karbala, the holy city of Najaf, Alqadisia, Wasit, Basrah, Thi-Qar, Muthana and Misan, in which the surveys identified the contamination of 1730 square kilometers, as shown in Table 5: LIS I Affected Communities, Hazard count and Contaminated Area by Region. This formed the baseline for hazard contamination data in Iraq.

Table 5: LIS I Affected Communities, Hazard count and Contaminated Area by Region

Region	Affected communities	Affected Population	Hazards	Contaminated area (m²)
Kurdistan region	1,126	748,651	3,024	776,000,000
Kirkuk	43	17,397	125	12,000,000
South of Middle	118	147,326	125	88,000,000
South	335	702,753	399	854,000,000
Total	**1,622**	**1,616,127**	**3,673**	**1,730,000,000**

Map 2: Landmine Impact Survey Operations (First Stage) 2004 – 2006.



Landmine Impact Survey (Second Stage 2007 - 2009)

The second stage of the LIS program, LIS II, was conducted with the support of iMMAP between 2007 and 2009 in the five governorates of Baghdad, Anbar, Diyala, Salahaddin and Mosul, and extended the baseline with 127,856,830 square meters, as shown below in Table 6: Results from LIS II 2007 – 2009.

Table 6: Results from LIS II 2007 – 2009.

Region	Affected communities	Hazards	Contaminated area (m²)
RMAC-MEU	1	1	1
RMAC-N	45	61	127,856,829
Total	**46**	**62**	**127,856,830**

As a result of the surveys' highlighted above the initial base line for overall contamination was considered as in the table 7.

Table 7: Initial Base line for over all contamination

Region	Governorates	Affected communities	Affected Population	Hazards	Contaminated area (m²)
IKMAA	Erbil	2,565	748,651	3,024	1,218,000,000
	Slemani				
	Duhok				
RMAC-N	Kirkuk	88	17,397	186	149,856,829
	Anbar				
	Diyala				
	Ninawa				
	Salahadin				
RMAC-MEU	Najaf	119	147,327	126	88,000,001
	Baghdad				
	Karbala				
	Wassit				
	Babylon				
	Deiwanyia				
RMACS	Basrah	335	702,753	399	854,000,000
	Missan				
	Muthanah				
	Thi-qar				
Total		**3,107**	**1,616,128**	**3,735**	**2,309,856,830**

Note:

1- There was some overlap between surveys in IKMAA region.
2- LIS surveys covered only the affected populated communities.
3- The collected information for the surveys was general to show overall situation at that time.
4- In some areas, there were some short comes due to the security situation.

NATURE AND EXTENT OF THE ORIGINAL ARTICLE 5 CHALLENGE: QUALITATIVE ASPECTS

The nature of landmine and ERW contamination:

Landmines and ERW currently affect 961 communities with a total population of 1,661,952 people, of which 42% reside within the IKMAA region and 58% within the DMA area of responsibility (RMAC-N 15%, RMAC-M EU 17% and RMAC-S 26%) as seen in Table 8: Affected Communities and Population by Region. The population figures were derived using the 2015 LandScan satellite information which is derived based on the density of light at night in the residential areas – this analysis does pose some limitations as majority of the households outside of the city centers are without electricity. In addition, the analysis did not consider the movement of IDPs and Refugees after the year of 2015.

Table 8: Affected Communities and Population by Region

Region	Communities	Affected Population[2]	% Affected Population	Buffer Distance (km)
IKMAA	808	694,976	42%	2
RMAC-N	75	255,846	15%	5
RMAC-M EU	30	275,047	17%	3
RMAC-S	48	436,083	26%	7
Total	**961**	1,661,952	100%	

[2] Population was derived based on the LandScan 2015 dataset by buffering hazards with a 2-km buffer around hazards in IKMAA, 3km buffer around hazards for RMAC-N, 3km buffer around hazards for RMAC-M- EU and 5km buffer around hazards for RMAC-S. Please note that this LandScan data does not account for any IDP or refugee movements post-2015.

Nature and extent of the impact resulting in death and injury:

Because of the high level of contamination, high numbers of landmine/ERW victims are being reported as people go into hazardous areas for various reasons such as the herding of their livestock.

After the fall of previous regime, mine victims faced great difficulty in terms of obtaining medical rehabilitation, due to insufficient service delivery by the government, stemming from collapse of most state and related institutions that was compounded by vandalism and looting. In the period leading up to Iraq's signing of the Ottawa Treaty, these factors saw an increase in the number of victims along with the simultaneous growth in hazard areas.

From the period after signing Ottawa Treaty in 2008 until now, the delivery of service to mine victims has been improved through the opening of rehabilitation centers and holding workshops to teach the manufacturing of artificial limbs, which also created job opportunities for victims. Since the Kurdistan Region Government's reduction of support via the Ministry of Health, local artificial limb centers have been battling to provide the required services to mine victims. It is deemed that the artificial limb centers can provide remarkable assistance to mine victims across the whole of Iraq if they received the required financial resources.

The centers for producing artificial limbs across Iraq could provide the necessary assistance to victims if adequate financial resources are provided. These centers are now in poor condition, especially after the decreasing of budget allocation and inadequate support from International Agencies, so it is necessary to support these centers to provide the necessary assistance to victims. The below table shows the victims of mines:

Table 9: Victims overall classified as gender and age per provinces

Region	Province	Gender	Killed or Injured	Children < 12	Youth 12-19	Adult >19
IKMAA	**Duhok**	Female	Killed	0	2	62
		Female	Injured	4	2	7
		Male	Killed	10	6	884
		Male	Injured	2	21	197
	Erbil	Female	Killed	1	0	218
		Female	Injured	1	4	67
		Male	Killed	5	1	2646
		Male	Injured	6	12	769
	Slemani	Female	Killed	1	1	612
		Female	Injured	0	0	167
		Male	Killed	13	3	6187
		Male	Injured	2	2	1124

RMAC-M EU	**Wassit**	Female	Killed	3	15	37
		Female	Injured	0	11	96
		Male	Killed	4	16	484
		Male	Injured	3	26	3272
RMAC-N	**Anbar**	Female	Injured	0	1	0
		Male	Injured	0	1	8
	Salah al-Din	Female	Killed	1	0	1
		Female	Injured	0	1	2
		Male	Killed	0	1	41
		Male	Injured	0	2	22
RMAC-S	**Basrah**	Female	Injured	1	10	199
		Female	Killed	1	6	34
		Male	Killed	0	1	8
		Male	Injured	7	31	4591
		Male	Killed	3	4	239
	Missan	Female	Killed	0	8	95
		Female	Injured	7	41	546
		Male	Killed	2	21	676
		Male	Injured	17	96	4325
	Muthanna	Female	Killed	0	2	132
		Female	Injured	3	6	128
		Male	Killed	1	8	557
		Male	Injured	2	18	2513
	Thi-Qar	Female	Killed	4	16	112
		Female	Injured	0	10	121
		Male	Killed	3	24	523
		Male	Injured	2	22	3818
Total				**109**	**452**	**35520**
Grand Total						***36081***

It should be noted:

- The data of victims in the Middle and Northern region depends on the available data in the database (IMSMA) and the result of statistical surveys conducted by DMA in five governorates only, (Missan, Dhiqar, Wassit, Muthana and Basrah (not completed)); no surveys have been conducted in other governorates due to limited financial resources.
- Data related to the processing by IKMAA is still incomplete.
- A lot of victims of VB IED and suicide attacks are not included in the above table.

Map 3: Landmine/ERW victims per Governorate.

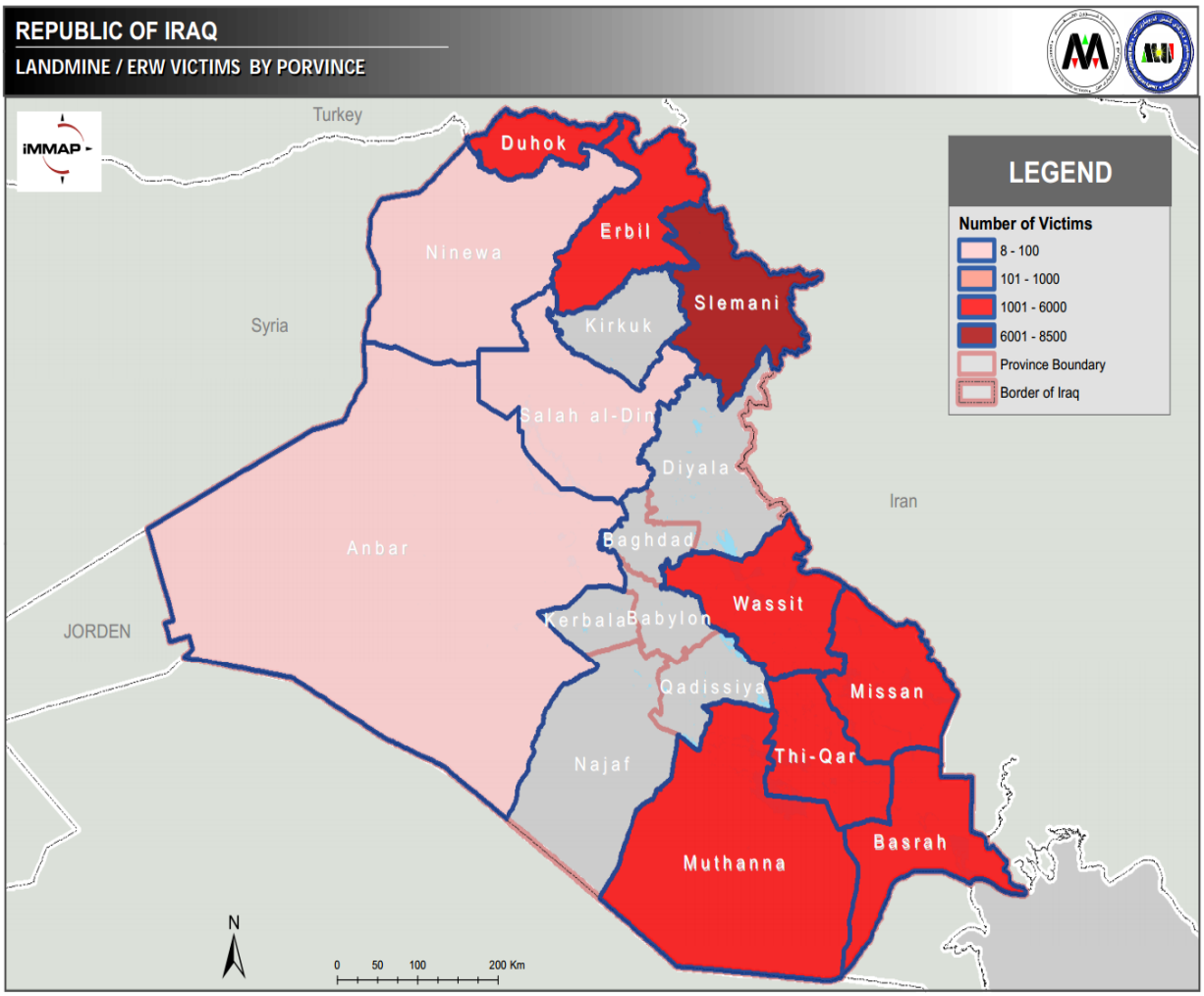


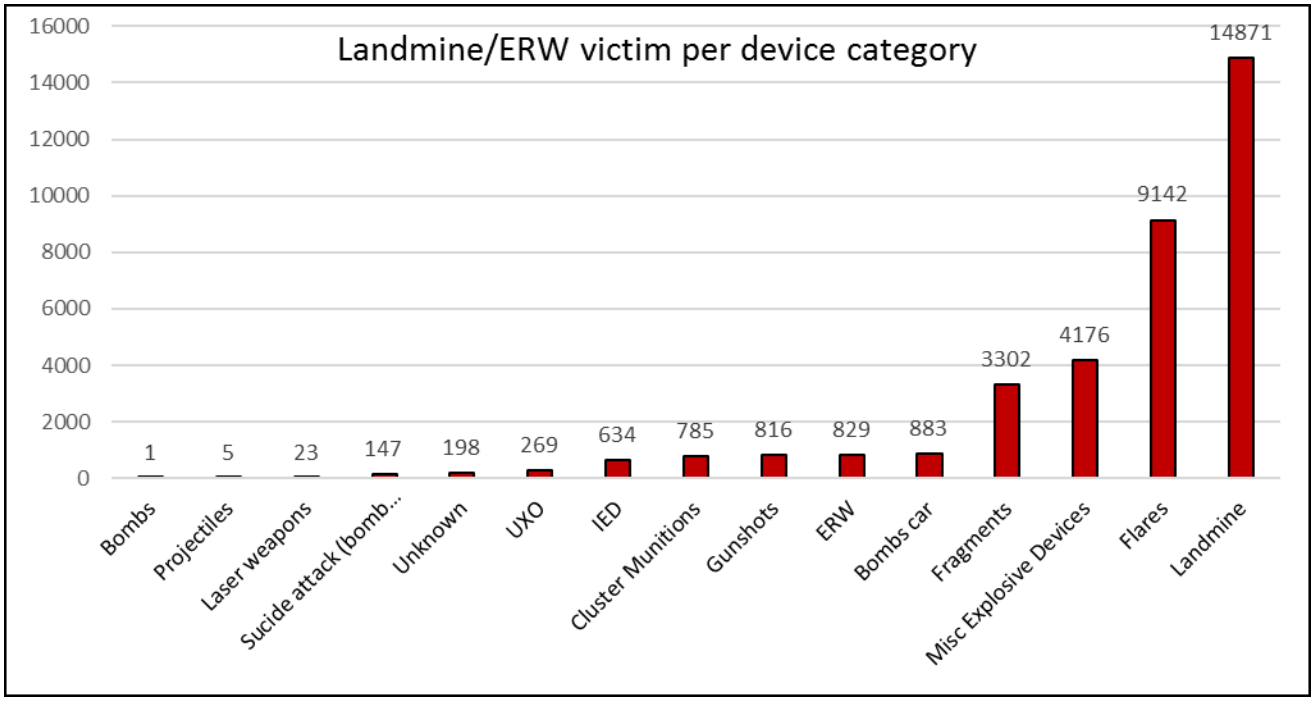
Table 10: Victims Recorded in IMSMA since 2004 by Region

Region	Victims	% of Victims
IKMAA	111	3%
RMAC-N	76	2%
RMAC-M EU	558	17%
RMAC-S	2,634	78%
Total	**3,379**	**100%**

Table No. 10 refers to the statistics of mine victims since 2004; the total number is 3,379 victims, with the majority of the registered victims in the Southern Regional Center (RMAC-S) with its 2,634 victims,

followed by the Middle Euphrates Region (RMAC-M EU) with 588 registered victims, IKMAA with 111 registered victims and lastly the Northern Region with 76 victims.

Figure 1: Landmine/ERW victims per device category.



Social and economic impact of accidents

The social and economic impact of mine accidents is high. 38% of the landmine, UXO and ERW victims lost their life while 62% survived their accidents. From the survivors 31% were jobless after the accident while 26% were retired which accounts for 57% of the survivors that has no income. It should also be noted that the occupation of 22% of the survivors are unknown. The analysis show that 74% of the survivors are male adults between ages 19 – 60, who are generally the breadwinners in Iraq, while 5% of the survivors were females in the same age group.

Psychological infirmity due to the prevalent fear of falling victim to landmines is a damaging consequence of landmines in Iraq. Fearing landmines in an area where mines are laid indiscriminately and are not marked is

inevitable for villagers who need to work in the field, travel on roads and tend animals. People living in landmine-impacted areas experienced persistent psychological stress because of potential mine incidents[3].

Impact of contamination

Table 11: Mine area by Impact, Area per Region summarizes the mine area by region according to its impact level, and as can be seen again in Figure 3: mine area Impact Area by Region, the 201 High Impact mine areas in the RMAC-S total 688,861,027 sqm, while the 495 High Impact mine areas in the IKMAA region total 30,531,638 sqm.

Table 11: mined area by Impact, Area per Region

Region	Impact	Mined areas	Area (m²)
IKMAA	High	495	30,531,638
	Medium	2,498	182,653,507
	Low	129	9,981,631
	Total	**3,122**	**223,166,777**
RMAC-N	High	0	0
	Medium	106	124,500,566
	Low	21	28,271,100
	Total	**127**	**152,771,666**
RMAC-MEU	High	3	3,882,667
	Medium	43	37,348,826
	Low	15	5,344,313
	Total	**61**	**46,575,806**
RMAC-S	High	201	688,861,027
	Medium	40	55,755,596
	Low	3	28,434,861
	Total	**244**	**773,051,483**
Total		**3,554**	**1,195,565,732**

[3] Afghanistan Extension Request, Section 3.3 Social and Economic impact of accidents.

The agricultural areas blocked by mined areas, as shown in ckage of the agricultural area.

Table 12: Agriculture Blocked by mined area, Area by Impact per Region, are present in all but the RMAC-N region, starting with RMAC-M EU where 35% of the area is blocked by 8% of the mined areas, increasing to 76% of the mined areas in RMAC-S blocking 76% of the agricultural area and lastly in the IKMAA region where 93% of the mined areas present in the area is responsible for 93% blockage of the agricultural area.

Table 12: Agriculture Blocked by mined area, Area[4] by Impact per Region

Region	Impact	Current Contamination		Agriculture Blocked		% Agriculture Blocked	
		Mined area	Area (m²)	Mined area	Area (m²)	% of Mined area	% of Area
IKMAA	High	495	30,531,638	486	30,348,098	98%	99%
	Medium	2,498	182,653,507	2,411	176,904,485	97%	97%
	Low	129	9,981,631	0	0	0%	0%
	Total	**3,122**	**223,166,777**	**2,897**	**207,252,583**	**93%**	**93%**
RMAC-N	High	0	0	0	0	0%	0%
	Medium	106	124,500,566	0	0	0%	0%
	Low	21	28,271,100	0	0	0%	0%
	Total	**127**	**152,771,666**	**0**	**0**	**0%**	**0%**
RMAC-M EU	High	3	3,882,667	1	365,830	33%	9%
	Medium	43	37,348,826	4	16,062,456	9%	43%
	Low	15	5,344,313	0	0	0%	0%
	Total	**61**	**46,575,806**	**5**	**16,428,286**	**8%**	**35%**
RMAC-S	High	201	688,861,027	170	570,438,717	85%	83%
	Medium	40	55,755,596	15	14,280,427	38%	26%
	Low	3	28,434,861	0	0	0%	0%
	Total	**244**	**773,051,483**	**185**	**584,719,143**	**76%**	**76%**
Grand Total		**3,554**	**1,195,565,732**	**3,087**	**808,400,012**	**87%**	**68%**

[4] It should be noted that one hazard might have multiple blockages, hence the number of hazards and contaminated area will be represented multiple times in each of the blockage tables. The percentage of hazards and contaminated area is however calculated in ratio to the overall number of hazards and contaminated area.

The water blockages by region displayed in Table 13: Water Blocked by mined areas, Area by Impact per Region are calculated at 3% blockage by 6% of the mined areas in the IKMAA region, while the RMAC-M EU region suffers a 1% blockage from 2% of its mined areas. RMAC-S experiences the highest blockage at 87% that arises from 13% of its mined areas. RMAC-N does not have any blockage data due to a lack of new surveys for the region mainly due to security reasons.

Table 13: Water Blocked by mined areas, Area[5] by Impact per Region

Region	Impact	Current Contamination		Water Blocked		% Water Blocked	
		mined areas	Area (m²)	mined areas	Area (m²)	% of mined areas	% of Area
IKMAA	High	495	30,531,638	161	7,346,970	33%	24%
	Medium	2,498	182,653,507	13	232,461	1%	0%
	Low	129	9,981,631	0	0	0%	0%
	Total	**3,122**	**223,166,777**	**174**	**7,579,431**	**6%**	**3%**
RMAC-N	High	0	0	0	0	0%	0%
	Medium	106	124,500,566	0	0	0%	0%
	Low	21	28,271,100	0	0	0%	0%
	Total	**127**	**152,771,666**	**0**	**0**	**0%**	**0%**
RMAC-M EU	High	3	3,882,667	1	365,830	33%	9%
	Medium	43	37,348,826	0	0	0%	0%
	Low	15	5,344,313	0	0	0%	0%
	Total	**61**	**46,575,806**	**1**	**365,830**	**2%**	**1%**
RMAC-S	High	201	688,861,027	32	671,704,782	16%	98%
	Medium	40	55,755,596	0	0	0%	0%
	Low	3	28,434,861	0	0	0%	0%
	Total	**244**	**773,051,483**	**32**	**671,704,782**	**13%**	**87%**
Grand Total		**3,554**	**1,195,565,732**	**207**	**679,650,043**	**6%**	**57%**

[5] It should be noted that one hazard might have multiple blockages, hence the number of hazards and contaminated area will be represented multiple times in each of the blockage tables. The percentage of hazards and contaminated area is however calculated in ratio to the overall number of hazards and contaminated area.

The regional infrastructure blockages shown in Table 14: Infrastructure Blocked by mined areas, Area by Impact per Region indicates that 8% of the total mined areas is responsible for a 56% blockage of infrastructure areas. On a regional level, RMAC-S leads with 80% of its mined areas blocking 86% of the area, followed by the RMAC-M EU region with a 13% blockage from 10% of its mined areas and lastly IKMAA with a 1% blockage from 3% of its mined areas. RMAC-N again does not have any blockage data available mainly due to the lack of survey as a consequence from the current security situation.

Table 14: Infrastructure Blocked by mined areas, Area[6] by Impact per Region

Region	Impact	Current Contamination		Infrastructure Blocked		% Infrastructure Blocked	
		mined areas	Area (m²)	mined areas	Area (m²)	% of mined areas	% of Area (m²)
IKMAA	High	495	30,531,638	91	3,156,838	18%	10%
	Medium	2,498	182,653,507	2	18,268	0%	0%
	Low	129	9,981,631	0	0	0%	0%
	Total	**3,122**	**223,166,777**	**93**	**3,175,106**	**3%**	**1%**
RMAC-N	High	0	0	0	0	0%	0%
	Medium	106	124,500,566	0	0	0%	0%
	Low	21	28,271,100	0	0	0%	0%
	Total	**127**	**152,771,666**	**0**	**0**	**0%**	**0%**
RMAC-M EU	High	3	3,882,667	3	3,882,667	100%	100%
	Medium	43	37,348,826	3	2,071,624	7%	6%
	Low	15	5,344,313	0	0	0%	0%
	Total	**61**	**46,575,806**	**6**	**5,954,291**	**10%**	**13%**
RMAC-S	High	201	688,861,027	196	663,476,792	98%	96%
	Medium	40	55,755,596	0	0	0%	0%
	Low	3	28,434,861	0	0	0%	0%
	Total	**244**	**773,051,483**	**196**	**663,476,792**	**80%**	**86%**
Grand Total		**3,554**	**1,195,565,732**	**295**	**672,606,189**	**8%**	**56%**

[6] It should be noted that one hazard might have multiple blockages, hence the number of hazards and contaminated area will be represented multiple times in each of the blockage tables. The percentage of hazards and contaminated area is however calculated in ratio to the overall number of hazards and contaminated area.

The non-agriculture blockages listed in Table 15: Non-Agriculture Blocked by mined areas, Area by Impact per Region indicates that IKMAA and RMAC-S share the lead with a 4% area blockage, created by 7% of the mined areas in RMAC-S region and 4% of the mined areas in the IKMAA region. Since RMAC-N does not have non-agricultural blockage data available, the second last position is taken by RMAC-M EU with a 3% blockage created by 3% of its mined areas mainly due to the lack of survey as a consequence from the current security situation.

Table 15: Non-Agriculture Blocked by mined areas, Area[7] by Impact per Region

Region	Impact	Current Contamination		Non-Agriculture Blocked		% Non-Agriculture Blocked	
		mined areas	Area (m²)	mined areas	Area (m²)	% of mined areas	% of Area (m²)
IKMAA	High	495	30,531,638	59	3,340,985	12%	11%
	Medium	2,498	182,653,507	63	5,526,033	3%	3%
	Low	129	9,981,631	0	0	0%	0%
	Total	**3,122**	**223,166,777**	**122**	**8,867,019**	**4%**	**4%**
RMAC-N	High	0	0	0	0	0%	0%
	Medium	106	124,500,566	0	0	0%	0%
	Low	21	28,271,100	0	0	0%	0%
	Total	**127**	**152,771,666**	**0**	**0**	**0%**	**0%**
RMAC-M EU	High	3	3,882,667	2	1,240,925	67%	32%
	Medium	43	37,348,826	0	0	0%	0%
	Low	15	5,344,313	0	0	0%	0%
	Total	**61**	**46,575,806**	**2**	**1,240,925**	**3%**	**3%**
RMAC-S	High	201	688,861,027	18	29,700,543	9%	4%
	Medium	40	55,755,596	0	0	0%	0%
	Low	3	28,434,861	0	0	0%	0%
	Total	**244**	**773,051,483**	**18**	**29,700,543**	**7%**	**4%**
Grand Total		**3,554**	**1,195,565,732**	**142**	**39,808,486**	**4%**	**3%**

[7] It should be noted that one hazard might have multiple blockages, hence the number of hazards and contaminated area will be represented multiple times in each of the blockage tables. The percentage of hazards and contaminated area is however calculated in ratio to the overall number of hazards and contaminated area.

The roads area blocked by mined areas on a regional level is tabulated in Table 16: Roads blocked by mined areas, Area by Impact per region, from where it can be seen that the highest blockage occurs in the RMAC-S region at 40%, caused by 14% of the region's mined areas. RMAC-M EU follows with a 25% blockage from 10% of its mined areas, with the IKMAA region experiencing a 2% blockage from 4% of its hazards. RMAC-N does not have any blockage data available, mainly due to the lack of survey as a consequence from the current security situation.

Table 16: Roads blocked by mined areas, Area[8] by Impact per region

Region	Impact	Current Contamination		Roads Blocked		% Roads Blocked	
		mined areas	Area (m²)	mined areas	Area (m²)	% of mined areas	% of Area (m²)
IKMAA	High	495	30,531,638	117	3,768,576	24%	12%
	Medium	2,498	182,653,507	6	127,235	0%	0%
	Low	129	9,981,631	0	0	0%	0%
	Total	**3,122**	**223,166,777**	**123**	**3,895,812**	**4%**	**2%**
RMAC-N	High	0	0	0	0	0%	0%
	Medium	106	124,500,566	0	0	0%	0%
	Low	21	28,271,100	0	0	0%	0%
	Total	**127**	**152,771,666**	**0**	**0**	**0%**	**0%**
RMAC-M EU	High	3	3,882,667	3	3,882,667	100%	100%
	Medium	43	37,348,826	3	7,910,624	7%	21%
	Low	15	5,344,313	0	0	0%	0%
	Total	**61**	**46,575,806**	**6**	**11,793,291**	**10%**	**25%**
RMAC-S	High	201	688,861,027	32	312,477,657	16%	45%
	Medium	40	55,755,596	2	286,373	5%	1%
	Low	3	28,434,861	0	0	0%	0%
	Total	**244**	**773,051,483**	**34**	**312,764,030**	**14%**	**40%**
Grand Total		**3,554**	**1,195,565,732**	**163**	**328,453,132**	**5%**	**27%**

[8] It should be noted that one hazard might have multiple blockages, hence the number of hazards and contaminated area will be represented multiple times in each of the blockage tables. The percentage of hazards and contaminated area is however calculated in ratio to the overall number of hazards and contaminated area.

The comparison displayed in Figure 2: mined areas Blockage Type by Region shows that mined areas have a noticeable agriculture blockage across all of the regions, with the exception of RMAC-N, where blockage data is not available currently, mainly due to the lack of survey as a consequence from the current security situation. The graph also illustrates that the majority of the blockage in the IKMAA region lies in the agricultural area, in comparison with the RMAC-S region where the mined areas blocks agricultural, water, infrastructure, roads and to a lesser extent non-agricultural area. RMAC-M EU sees blockage in the agriculture and roads areas primarily, with non-agricultural blockage playing a very small role in the region.

Figure 2: mined areas Blockage Type by Region

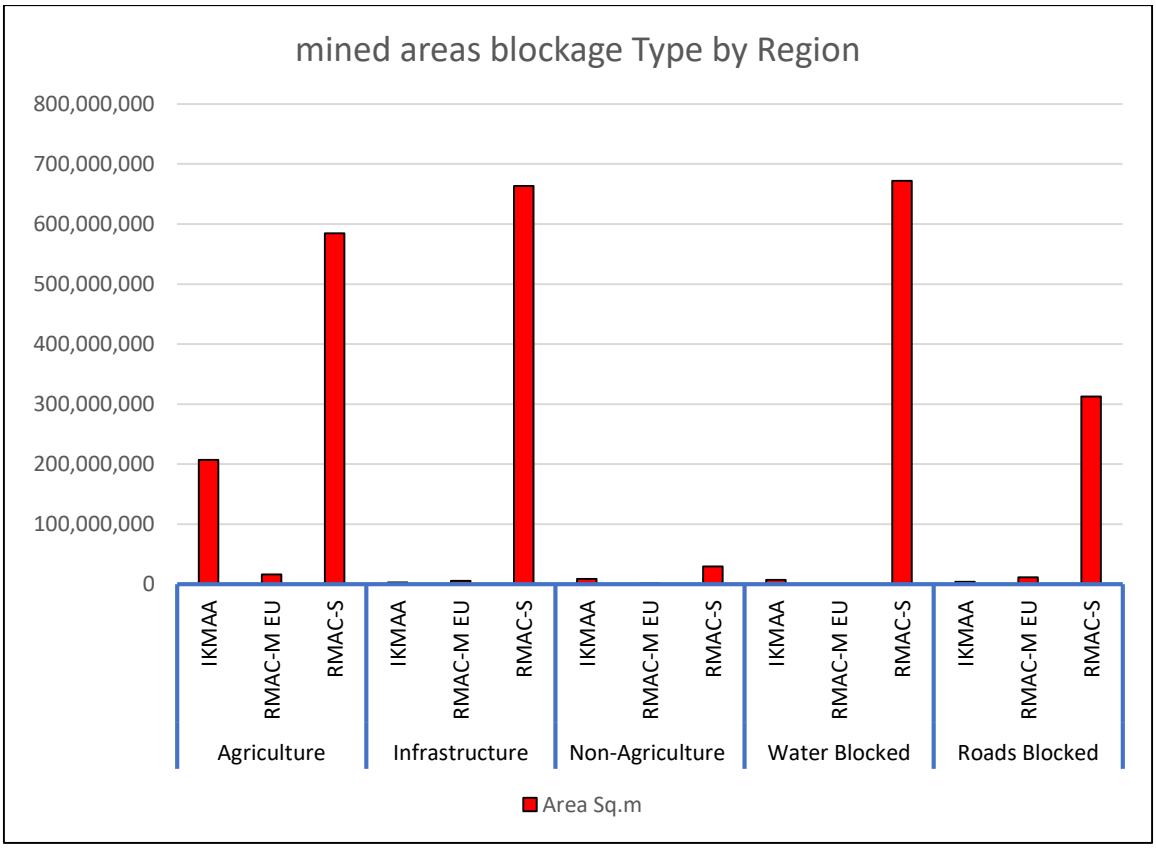


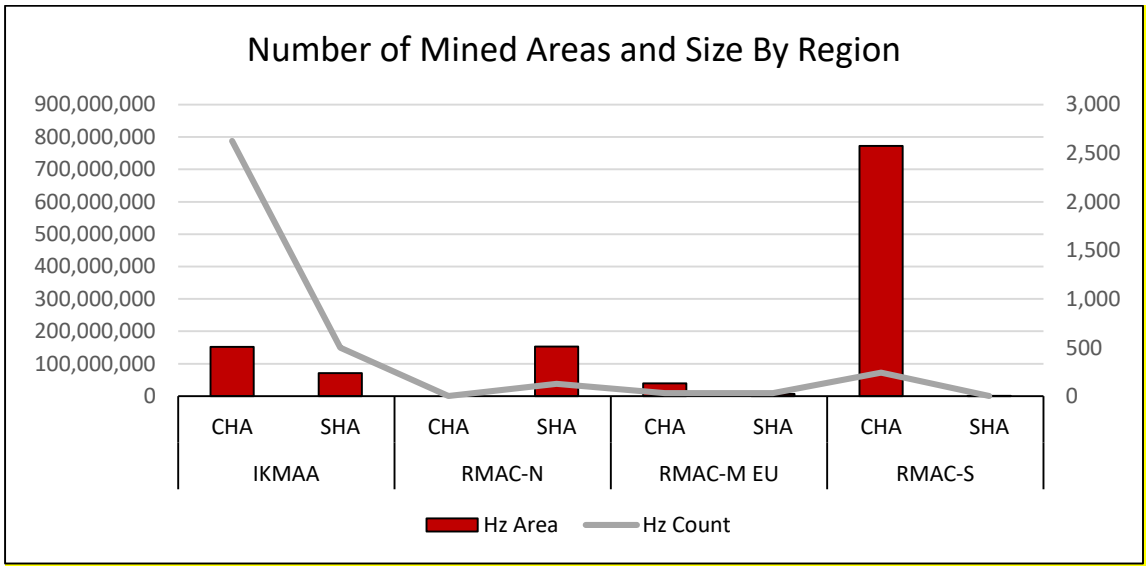
Table 17: Contamination by Region, Hazard Type, Hazard Count and Hazardous Area shows that there are currently still 3,554 mined areas measuring 1,195,565,732 square meters, with 65% of the contaminated area within RMAC-S, with an associated 244 mined areas. Within the IKMAA region 3,122 mined areas account for 19% of the total contaminated area. RMAC-N contains 127 mined areas and accounts for 13% of the total mined area, while RMAC-M EU covers 4% of the mined area with 61 mined areas. In RMAC-S, 241 mined areas account for 65% of the total area. From experience, it is estimated that as much as 60% of these specific areas in the south of Iraq may be reduced substantially by technical surveys.

Table 17: Contamination by Region, Hazard Type, Hazard Count and Hazardous Area

Region	Hazard Type	Hazards	% of Hazards	Area (m²)	% of Area
IKMAA	CHA	2,624	74%	151,921,092	13%
	SHA	498	14%	71,245,685	6%
RMAC-N	CHA	1	0%	0	0%
	SHA	126	4%	152,771,666	13%
RMAC-M EU	CHA	31	1%	39,646,306	3%
	SHA	30	1%	6,929,500	1%
RMAC-S	CHA	241	7%	771,989,024	65%
	SHA	3	0%	1,062,459	0%
Total		**3,554**	**100%**	**1,195,565,732**	**100%**

Note : for more details see Table 30: Contamination by Region per province

Figure 3: Hazard Count and Area by Region



It should be noted:

- The numbers of CHA and SHA were derived from the IMSMA database which included all reports up to the end of 2016. The numbers will change after the completion of all the remaining technical reports and this data will be used in the preparation action plan later.

- The amount of recorded contamination will continuously be revised with new information from ongoing surveys, for example there is an ongoing technical survey in the Governorate of Basrah on the Confirmed Hazard Area, which is close to 460,119,234 m^2 in size; the minefields will be accurately defined and the outcome of the survey will be added to future plans.

NATIONAL DEMINING STRUCTURES:

Laws and Regulations:

The Iraqi National Assembly and Kurdistan Region Parliament passed a number of laws and regulations in order to support the national mine action program in its aims to clear the country of mines, explosive remnants of war and cluster munitions in a humanitarian manner, so as to put an end to their effect on the society, economy and environment of Iraq and help citizens live in peace again and develop the economy, society and health of the country, far from the obstacles posed by the pollution of mines and explosive remnants of war.

Iraq approved a number of national standards, driven by international standards, to include regulations and guidelines related to Mine Action which are in line with the national, geographical, societal and economic composition of Iraq. Below is a non-exhaustive list of the standards, laws and international conventions:

1. National and International standards and approved operational measurement proceedings.
2. Law of Iraqi Kurdistan Mine Actions Agency in Kurdistan Region/ Iraq Law No. 10 of 2007.
3. Law of Arms, Law No. 13 of 1992 amended.
4. Law No. 44 of 2013, Ministry of Interior/ Civil Defense.
5. Law of Social Protection (No. 11,12,13, and 14 of 2014).
6. Law of Care of disabled and people with special needs, Law No. 38 of 2013.
7. International Conventions approved by Iraq relevant to the support of Mine Action Program.
8. Establishment of the High Committee of Mine Action, as per the executive order No. 15. The Committee head by H.E. Prime Minister of Iraq and the ministers of Defense, Interior, Oil, Environment, National Security Adviser, Head of Iraqi Kurdistan Mine Action Agency and the Head of the Directorate of Mine Action.
9. Draft Law of Directorate for Mine Action (DMA) / This law in the process to be approved.
10. Law No. (22) of 2011, Law of rights and privileges of disabled and people with special needs in the Kurdistan Region of Iraq.
11. Law No. 34 of 2004, Law of Ministry of Labor and Social Affairs of Kurdistan Region.
12. Law No. 4 of 2012, Law of Retirement and Social Insurance of Workers in Kurdistan Region which is the amendment of the law No. 30 of 1971.
13. Law No. 12 of 2007, Law of Ministry of Labor and Social Affairs of Kurdistan Region.
14. Draft of Law of Rights and Privileges of Employees of Mine Actions in Kurdistan Region of Iraq.

History of the Iraqi Mine Action Program

The Iraqi Mine Action Program is conducted by the Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) and the details as following:

Directorate for Mine Action (DMA)

In July 2003, a national mine action authority was established under the name of the National Mine Action Agency (NMAA) by the Iraqi Ministry of Planning and Cooperative Development. In 2007 the NMAA, in coordination with the United Nations Development Program (UNDP), held a workshop in Amman, Jordan, that was attended by high-ranking officials. The aim of the workshop was to decide on the mandate of a ministry responsible for the mine action program, since the nature of mine action programs were not related to the mandate of the Ministry of Planning and Development Cooperation. The responsibility for Mine Action was subsequently transferred to the Ministry of Environment and the National Board of Mine Action changed its name to the Directorate for Mine Action (DMA) in April 2008. The DMA was set up with three regional centers, with responsibilities allocated as follows:

1. Regional Mine Action Center - Northern Region (RMAC-N): the governorates of Anbar, Diyala, Salahaddin, Kirkuk and Ninewa.
2. Regional Mine Action Center - Middle Euphrates Region (RMAC-M EU): the governorates of Baghdad, Wasit, Babil, Diwannia, and the holy cities of Karbal and Najaf.
3. Regional Mine Action Center - Southern Region (RMAC-S): the governorates of Basrah, Missan, Dhiqar and Muthana.

The responsibilities of the Regional Centers included mine action policy formulation, planning, coordination and management of budgets related to demining, managing relations with international donors, identify national criteria for demining and maintaining national data. The mandate of the Mine Action Department focused on the following tasks:

- Define policies, strategies, annual planning for the department and follow up according to executive capabilities.
- Adopt national criteria to be implemented in Mine Action, in accordance with international criteria.
- Granting permission to Iraqi companies, national and foreign organizations specialized in mine action, in accordance with formal requirements.
- Managing the annual budget, endorsements and approval of final expenditures.
- Reviewing proposals related to the development of technical and administrative works.

- Following up on commitments related to international conventions pertaining to mines and international cooperation.
- Accept grants and subsidies inside Iraq.
- Design and approve special and general planning pertaining to the dealing with mines.
- Approve the reimbursement of employees who has been affected during the performance of their duties or work-related activities, as required by law.
- Follow up on the implementation of periodical planning.
- Doing Quality management in Mine Action related work.
- Issue Executive orders and supervise all the mine action activities such as survey operations, demining as per assigned priorities and data available in the IMSMA database.
- Helping the victims of mines and ERW through medical treatment, assistance and reintegrating them into society.
- Risk awareness education about mines and ERW through awareness campaigns in impacted areas as per the type of contamination recorded in the IMSMA database.

Iraqi Kurdistan Mine Action Agency (IKMAA)

When the UN humanitarian mine action program ended, the Kurdistan Regional Government (KRG) took over the responsibility of Mine Action management and established an agency called the General Agency of Mine Action of Kurdistan Region in 2005. This agency supervised all the activities of the General Directorate of Mine Action in Erbil, which covered Erbil, Dohuk and the General Directorate of Mine Action of Slemani. The Kurdistan Parliament in 2007 approved Law No. 10 related to the general structure of mine action in Kurdistan under the name of Iraqi Kurdistan Mine Action Agency or IKMAA. The agency consisted of an agency headquarter and general directorates in the governorates of the Kurdistan Region and is responsible for the following tasks:

1. Working to address all areas of the Kurdistan Region of mines and explosive hazards.
2. Work to promote mine risk awareness and educate people of the Kurdistan Region through different media outlets and school programs.
3. Provide the necessary assistance to mine victims.
4. Cooperation and contribution in the prohibition of using antipersonnel mines and participate in international conferences and workshops related to mine action.
5. Coordination and cooperation with organizations and centers that have the same mandate, inside and outside of the Kurdistan Region, which helps the agency to achieve its goals.

Current Structure of the Iraqi Mine Action Program

The Iraqi Mine Action program consists of the Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA). The following four figures, Figure 4: National Mine Action Structure, Map 4: Mine Action Regions, Figure 5: DMA Structure Chart and

Figure 6: IKMAA Organization Chart display the structure of and areas of responsibility of the National Mine Action Program.

Figure 4: National Mine Action Structure

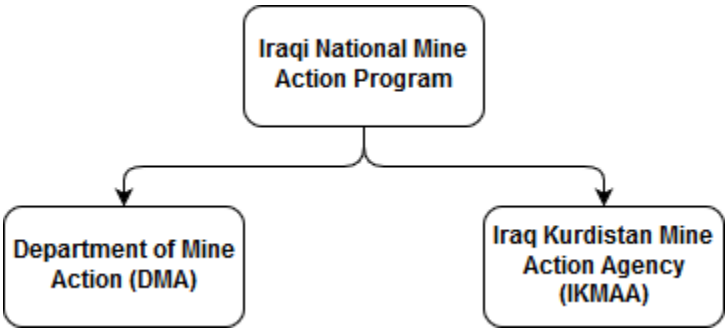


Figure 5: DMA Structure Chart

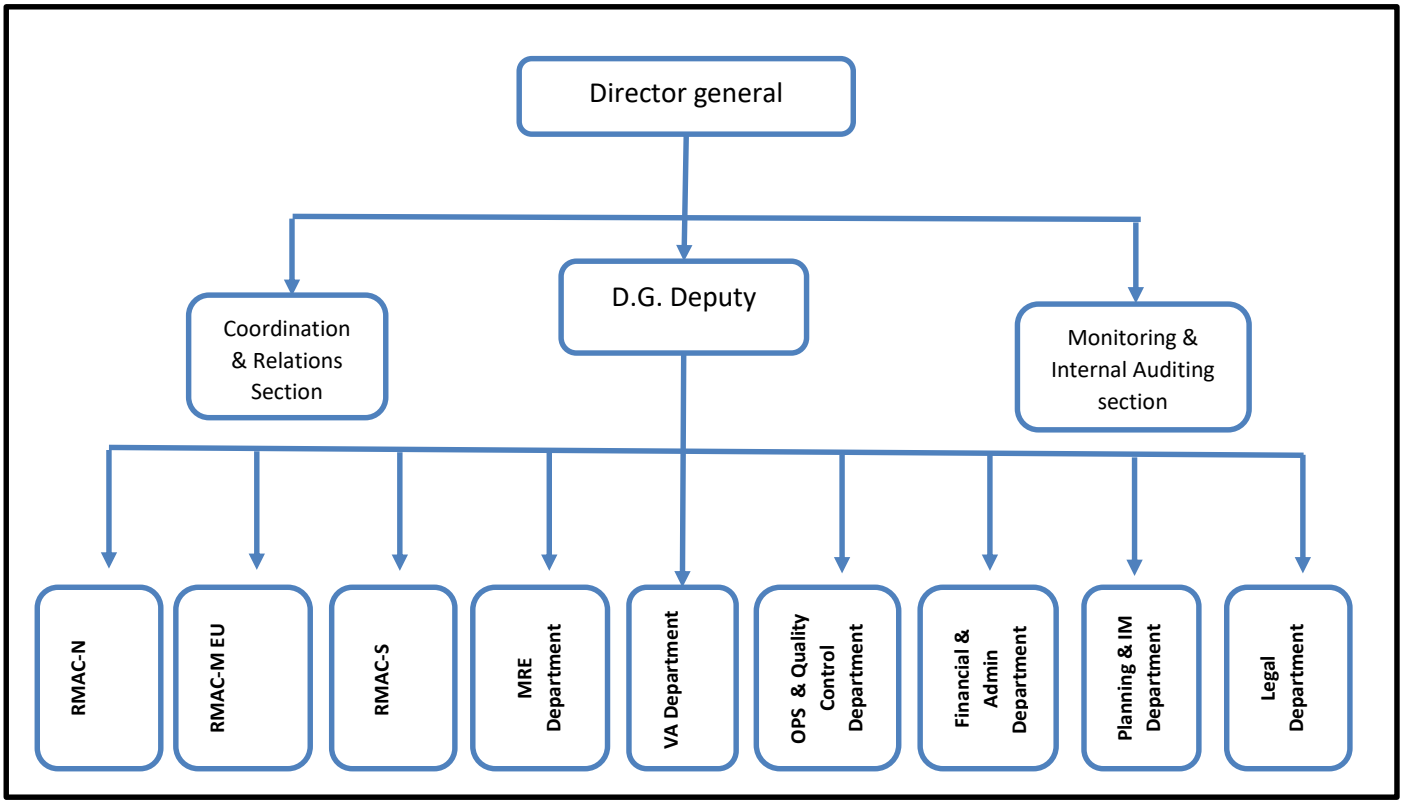
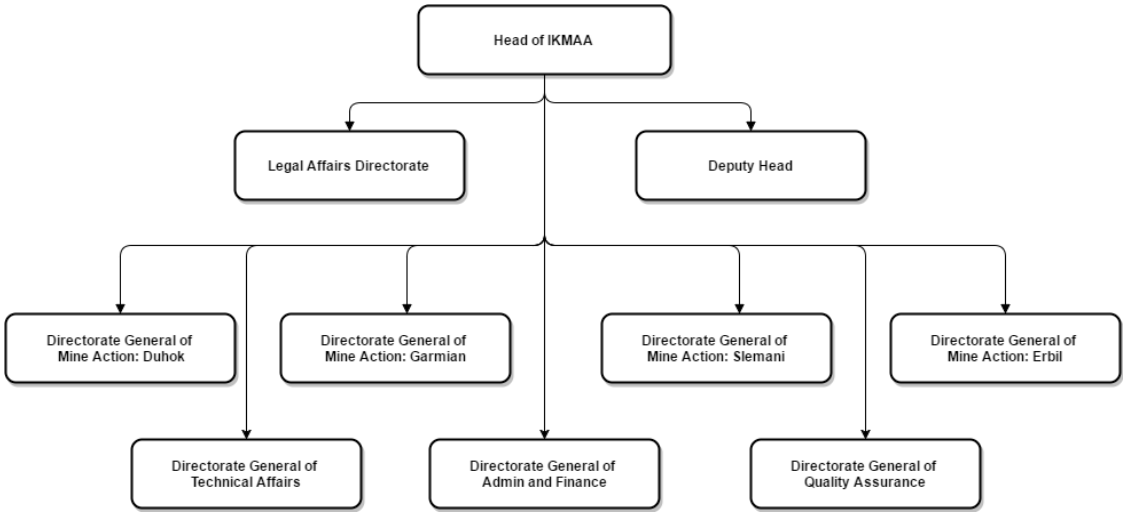
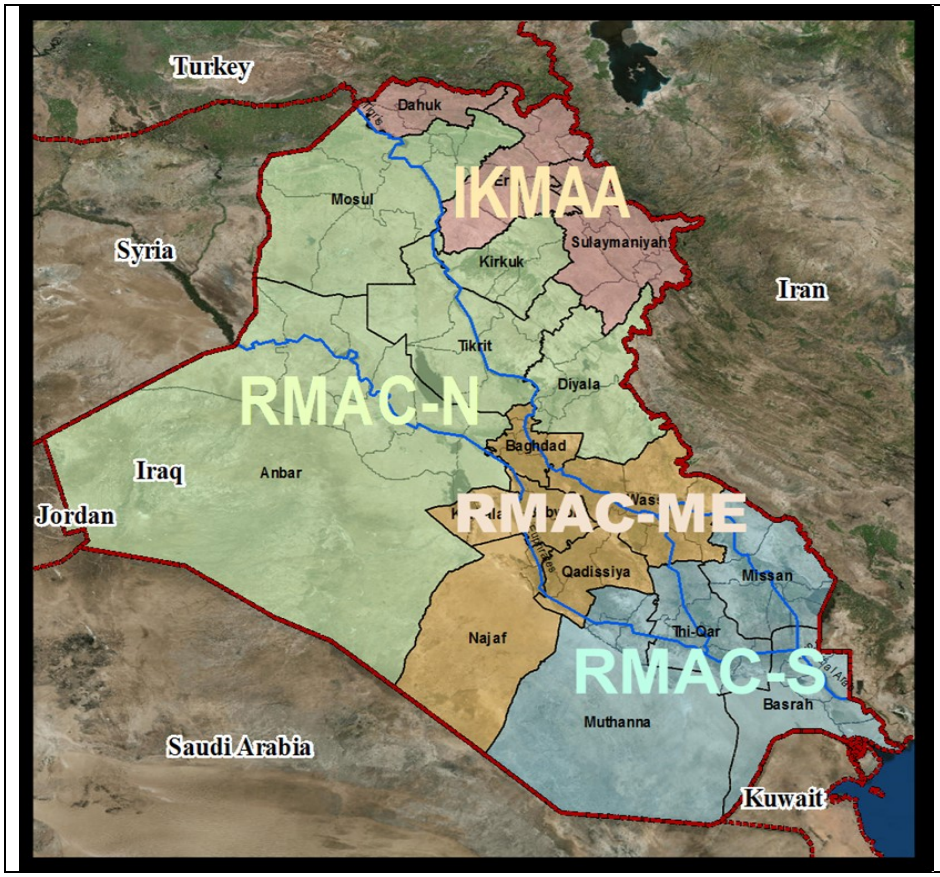


Figure 6: IKMAA Organization Chart



Map 4: Mine Action Regions



- RMAC-N
  - Anbar
  - Salahaddin
  - Kirkuk
  - Diyala
  - Mosul
- RMAC-M EU
  - Baghdad
  - Babil
  - Karbala
  - Najaf
  - Al Qadisia
  - Wasit
- RMAC-S
  - Basrah
  - Missan
  - Thiqar
  - Muthana
- IKMAA
  - Erbil
  - Slemani
    Duhok

CAPACITIES AND CAPABILITIES:

This section illuminates the capabilities of the government executive bodies, consisting of the Ministry of Defense, Directorate of Military Engineering, DMA Quality Control Section, technical and supervisory teams of IKMAA, and the available equipment of the National Mine Action Program, in addition to the teams and equipment of approved organizations, which are listed further on in this document.

DMA, through specialized committees, grant operational license and approve operational procedures for companies and organizations working in the mine action industry. The Directorate of Quality Assurance at IKMAA also grants technical operational licenses and approves domestic procedures for licensed companies and organizations operating in the mine action industry. In addition, the Quality Assurance sections of both DMA and IKMAA follows up and supervises all the mine action activities and programs in accordance with international and national standards, ensuring both the implementation of quality assurance procedures related to mine action work and the safety of mine action workers.

Table No. 18: List of Non-Governmental Organizations accredited by DMA and IKMAA to work in in the Iraqi National Mine Action Program. The license granted to the organization is based on the type of mine action activity that will be conducted by the organization.

Table 18: Non-Governmental Organizations accredited by the Iraqi Mine Action Program .

No.	Name of Organization	Field of Work	Notice
1.	Missan Organization	Mine risk education	Accredited by DMA
2.	Danish Refugee Council	Technical Survey, manual clearance, battle area surface clearance, battle area clearance, mine risk education.	Accredited by DMA Accredited by IKMAA
3.	Norwegian People's Aid (NPA)	Technical Survey, Manual clearance, battle area surface and ground clearance inside Iraq.	Accredited by DMA Accredited by IKMAA
4.	Bustan Organization	Mine risk education	Accredited by DMA
5.	Baghdad Organization	Technical Survey, Manual clearance, quality assurance and quality control, battle area surface and ground clearance and mine risk education.	Accredited by DMA
6.	Iraqi Mine Clearance Organization (IMCO)	Manual and mechanical demining, using dogs for mine detecting, battle area surface and ground clearance, mine risk education, quality assurance and quality control inside Iraq.	Accredited by DMA
7.	Mines Advisory Group (MAG)	Manual clearance, mechanically and by using dogs, treatment of improvised explosive devices and mine risk education.	Accredited by IKMAA

8.	Swiss Foundation for Mine Action (FSD)	Non-technical survey and treatment of improvised explosive devices	Accredited by IKMAA
9.	Handicap International (HI)	Treatment of unexploded bombs and victim assistance.	Accredited by IKMAA
10.	MIR	Manual and technical clearance.	Accredited by IKMAA
11.	Organization Rouh Alkura (SOS)	Mine risk education	Accredited by IKMAA
12.	International Committee of the Red Cross (ICRC)	Mine risk education and victim assistance	Accredited by DMA
13.	IMMAP	Non-technical survey and information management	Accredited by DMA Accredited by IKMAA
14.	Al Ghad Organization	Mine risk education	Accredited by IKMAA
15.	Working for Peace Organization	Mine risk education	Accredited by IKMAA

Companies Accredited by DMA

In addition to the licensed NGOs operating in the Iraqi mine action program, the commercial companies listed below have been accredited by DMA to provide mine action related services.

Table 19: Licensed Companies by the Directorate for Mine Action (DMA)

No.	Name of Company	Field of Work
1.	Green Earth Company	Technical survey, manual mine clearance, road surface clearance, battle area surface and ground clearance, mechanical survey.
2.	EODT Company	Survey and clearance, with conditional mechanical survey for 6 months.
3.	Aranco Mikhem Company	Technical survey, manual Clearance, battle area surface and ground clearance inside Iraq.
4.	Land of Peace Company	Technical survey, manual clearance, battle area surface and ground clearance inside Iraq, mine risk education, technical clearance.
5.	Technical Experience Company	Technical survey, conditional mechanical clearance for 6 months, manual clearance, road clearance, battle area surface and ground clearance inside Iraq.

6.	Danub Company	Conditional mechanical clearance for 6 month, technical survey, manual clearance, road clearance, battle area ground and surface clearance inside Iraq.
7.	Al Fahd Company	Manual clearance, road clearance, battle area ground and surface clearance inside Iraq, mechanical clearance.
8.	Al Kanary Company	Technical and non-technical survey, manual mine clearance, battle area surface and ground clearance.
9.	Al Waha Company	Technical survey, manual mine clearance, road clearance, battle area surface and ground clearance, mine risk education inside Iraq, mechanical clearance.
10.	Baktek Company	Technical survey, mine clearance under water, mechanical clearance, battle area mine clearance, manual mine clearance.
11.	G4S Company	Manual clearance, battle area surface and ground clearance, road clearance, technical survey, mechanical mine clearance, using dogs for mine detective, mine risk education inside Iraq.
12.	Arab Gulf Company	Mechanical clearance, road clearance, manual clearance, battle field clearance surface, mine risk education, mine clearance underwater.
13.	Doking Company	Mechanical clearance and mine clearance underwater.
14.	Al Seeraj Muzea Company	Survey and mechanical clearance.
15.	ABC Company	Conditional mechanical clearance for 6 months, manual clearance, manual clearance, battle area clearance surface and underground, technical survey, mine clearance underwater.
16.	Alsafsafa Company	Quality assurance and quality control.
17.	Taez Company	Technical survey, manual clearance, battle area clearance surface and underground. General survey, mechanical clearance.
18.	Shimwkh Al Furat Company	Technical survey, manual clearance, battle area clearance surface and underground, mechanical clearance.
19.	Eagle Eye Company	Technical survey, manual clearance, battle area clearance surface and underground.
20.	Noor Diyar Company	Survey and demining
21.	Yuibk Solutions Company	Quality assurance, quality control and mine risk education
22.	Zakhraf Al Aredh Company	Quality assurance, quality control and mine risk education
23.	Arez Al Khair Company	Quality assurance and quality control
24.	Al Basrah Company	Quality assurance and quality control
25.	Al Arabia Company for Consultancy	Quality assurance and quality control

Iraqi Mine Action Program Technical Teams Information

The technical teams in the Iraq national mine action program is broken by role in

Table 20: Iraqi Mine Action Program Technical Teams Breakdown for different mine action activities, such as Non-technical survey, Preliminary Survey, Technical Survey, Manual clearance, Technical clearance, treatment of unexploded ammunition, clearance of battle fields, mine clearance using detective dogs in addition to the Mine Risk Awareness and Quality Assurance and Quality control.

Table 20: Iraqi Mine Action Program Technical Teams Breakdown

	IKMAA and Licensed Organizations			DMA, Licensed Organizations and Companies		
Role	**Teams**	**Team Size**	**Total Staff**	**Teams**	**Team Size**	**Total Staff**
NTS and preliminary survey	4	3	12	45	4	180
Manual clearance and TS	8	75	600	75	8	600
Mechanical mine clearance	6	13	78	19	4	76
Unexploded mechanical clearance EOD	6	7	42	15	3	45
BAC	12	1	12	86	10	860
MDD	4	2	8	2	4	8
QC	3	10	30	41	6	246
MRE	3	40	120	12	3	36
QA	2	20	40	10	2	20
TOTAL	**48**	**171**	**942**	**305**	**44**	**2071**

METHODS USED TO IDENTIFY AREAS CONTAINING AP MINES:

Non-Technical Survey:

Non-Technical Surveys (NTS) will be conducted in projects, based on the information available in the mine action database and information provided by relevant government institutions, local residents and citizens, which will be verified and then used to select the hazard risk level based on the following seven goals:

a) The importance of effective planning in the assessment of mine action operations through the release of land and confirmation of type and size of contaminated areas to match it with the available capacities to address it in the future through technical survey and clearance.
b) Designate appropriate time for Technical Surveys and clearance, depending on the information provided obtained from NTS.
c) The importance of government support in the mine action program in terms of the size and type of contaminated areas that blocks the national economy and infrastructure.
d) The safety of employees and those in charge of executing demining operations, especially in the hazard areas containing landmines and cluster munitions.
e) Ensure that operations are conducted in accordance with SOP, national and International standards.
f) National capacity building, especially concentrating on mistakes when they happen so as to put immediate solutions in place at all levels, ensuring these mistakes will not be repeated in the future. This is especially important in the phases of planning and information analysis.
g) Ensuring accurate information that is highly reliable and covers the largest part of the NTS operations is obtained.

Technical Survey of Mine and ERW Contaminated Areas:

Technical surveying has been an integral part of the demining process since the beginning of demining operations in Iraq in order to provide better and more accurate identification of mine and ERW contaminated areas. This type of survey aims to provide specific information to assist with the overall planning for demining operations. It assists in identifying non-hazardous and hazardous areas and provides clearly marked and established clearance sites to support subsequent clearance efforts and provide warning signs for the people who are at risk of mines and ERW. This work ensures that clearance resources are used efficiently, effectively and safely on priority tasks. In some instances, organizations conduct technical surveys to prepare hazards for follow-up clearance by their own demining teams and to better inform internal planning for future deployment.

Once a minefield is identified, the demining teams use a questionnaire to record the required information. The exact location and geographical features are reflected on a scaled map. In addition, the demining teams photograph the identified minefields. The reports are then subjected to both internal and external quality assurance. Only then is the recorded information entered into IMSMA at the appropriate regional center.

Methods and Standards Used to Release Areas Known or Suspected to Contain AP Mines:

Release of land through Non-Technical Survey and Demining:

Land clearance depends on Non-Technical Surveys and the current demining operations in different parts of Iraq, which is being conducted by executive bodies, consisting of governmental organizations, NGOs and commercial companies, since Iraq joined the convention. Table No. 23 shows the land released through NTS and TS operations and the number of explosive hazards cleared across the whole of Iraq.

Methods and Standards of Controlling and Assuring Quality:

Steps in Quality Control Procedures:

1. Preparation and Planning includes:
    a. Relevant documents including contract and approved agreement.
    b. Collecting the registration certificate of the Organization and Operational Procedures.
    c. Reports on the previous visits to the monitoring committee.
    d. The outcome of the inspection after the clearance and report about the incidents and investigations.
    e. All other information which help the monitoring committee to develop the planning and visitation program to the operations site.
2. Monitoring includes:
    a. Visits to the logistics and administration offices, the warehouse for explosive materials, medical offices and maintenance office.
    b. Visits to the smaller teams at their operational site and operational teams' supporting centers.
    c. Follow-up on mine clearance activities, which includes quality assurance, monitoring internal quality, destruction of mines and ERW materials.
    d. Monitoring the participation of local society in demining operations.
    e. Monitoring on the ground tests and assessments tools, if its required.
3. Safety at the operations site:
    a. This includes providing a safe environment, designing and preparing the site of demining by placing warning signs, controlling the movement of demining employees, visitors, local people at a safe distance, providing active medical coverage and procedures to evacuate victims.
4. Medical Support:

    a. This requires the capacity building of medical support, proper planning, comprehensive training for employees and providing medical service that can treat victims effectively following accidents.

5. Storage, transportation and treatment of explosive devices:
    a. This includes providing a safe environment for the storage, transportation and treatment of explosives and explosive hazards.
6. Investigation of incidents:
    a. The monitoring team should check the suitability of demining organizations' procedures on reporting accidents and establishing investigations after incidents.
7. Tools:
    a. The effectiveness and suitability of tools must be checked; this includes testing tools such as mine detection devices and checking the tools' maintenance file and repairs made to the tools.
8. Preparing reports:
    a. The head of the monitoring team, where possible, must interrogate heads of organizations or sub-committee teams who are monitoring them, before they depart from the operational site.
9. Corrective procedures:
    a. Any problem identified by the monitoring team should be resolved by the demining organization.
10. The role of the monitoring team:
    a. Monitor the activities of demining organizations and related sub-committees.
    b. Monitor and provide documents of operational sites and inspection works.
    c. Ensure the sub-committees are abiding by the operational work safety conditions which have been set by the national demining authority.

Quality Control: Internal and External:

Quality Control (QC) will be conducted after technical survey and demining tasks; it is an operation to check and test a sample of the cleared land to establish a level of trust in the cleared area. This could be done by taking samples from the cleared land and sometimes will be done as per the requests from the beneficiaries of the land cleared. The nature of the land, type of project and then the level of the Quality Control will determine its classification as either Extreme, Normal or Low. Quality Control will provide the necessary trust which confirms that the organization responsible for the mine clearance has executed the mine clearance according to National Mine Action Standards and the land is indeed safe to be used for its designated purpose.

Procedure of Quality Control after the Survey Operations and Demining

1. Select samples randomly so that they cover most parts of the cleared land, to establish a level of trust based on a satisfactory ratio of samples to cleared area.
2. The testing procedures will be done only in the areas cleared of hazards during the technical survey or mine clearance operation. In addition to the number of explosive hazards and mines that has been removed or cleared, notes taken by the Quality Assurance teams during their visits to the operational side must be included in the report.
3. The Quality Control (QC) operations will be done through taking samples from the cleared areas and Battle area clearance, where you can use the Box methods, for instance 10 x 10 m^2 or 36 x 36 m^2 or 50 x 50 m^2, according to the size of the area and the contamination center.
4. QC samples of the areas contaminated by mines will be taken by opening corridors into the cleared area, utilizing the most effective ways of sample taking and using different forms of sample taking.
5. The Procedures and tools used by the person doing the QC sample taking in the cleared area should be approved by the national mine action authority, with the parties doing mine clearance and QC presented in the technical planning. The sample taking location should remain secret until the completion of the QC operations, in order to convey the impression to the parties doing survey operations and mine clearance that the whole land will be checked and tested during the sample taking steps. The same tools could be used in TS or mine clearance tasks by the executive parties of the operation, in addition to using different tools according to the nature of contamination and type of project as registered during the technical survey operation or mine clearance.

The Parties Responsible for QC

1. Directorate for Mine Action (DMA)/ Directorate of Operations and Quality Control.
2. National and international NGOs accredited by the Directorate for Mine Action (DMA).
3. Commercial Companies accredited by the Directorate for Mine Action (DMA).

Accept and Repeat of Mine Clearance

The Quality Control (QC) sample taking will be done through TS or mine clearance in the form of the Box method. If a piece of metal exceeding the metal content found in explosive hazard of the type that was cleared from the land is found in the testing sample, it is counted as a failure. If a smaller piece is found, the process is repeated in surrounding areas to confirm that the area is clear of contamination.

Evaluation

In the process of risk evaluation and its impact on the humanitarian situation according to the level of hazard contamination, the Mine Action Program reached a conclusion that the explosive hazard contamination level stemming from mines, ERW and other explosive hazards which hinders the stability and security of the country exceeds the available national and international capability. The Iraqi Mine Action Program is working with the National Operational Center, United Nations Mine Action Service (UNMAS) to focus on emergency response and select the geographical location of the contamination area according to the priorities of the program.

An example of an implemented project shows the economic Impact on the infrastructure in Slemani Governorate

An example of the impact of mines and ERW on the infrastructure is Project No. 10, the water pipe extension for drinking water from Dukan district to Slemani City Center, in 2005. The Municipality of Slemani Governorate, due to the scarcity of drinking water resources, decided to extend the water pipeline about 60km to water pumping stations, in multiple stages, to Srachenar and then Slemani. The cost of the project was $175 million, but due to the existence of minefields, the project has been suspended and Directorate General of Mine Action of Slemani been asked to solve this issue. The Directorate General of Mine Action of Slemani made a case study identify the obstacles and collected technical information on the problem, then on an investment budget from the Kurdistan Regional Government announced a tendering project for demining and ERW clearance of an area of 30,000 m2 through local mine clearance companies under a budget of 116 Iraqi Million

Dinar. On 26 August 2006, the mine clearance project started and in three months the company cleared the area from mines and ERW. The water pipeline project resumed in 2009 after making sure the pipe line route is clear of mines and ERW, benefitting more than one million citizens in the end.

Efforts Undertaken to Ensure Exclusion of Civilians from Mined Areas:

Mine Risk Education:

The Iraqi Mine Action Program, in coordination with relevant national and international partners launched a wide range of Mine Risk Education (MRE) actions after its inception in 2008. The MRE activities cover the whole of Iraq and consists of activities such as training sessions and workshops held directly with community members and the distribution of educational material within communities on an ongoing basis by the MRE teams.

Workshops and training sessions regarding the risk of mines are focused on affected communities and people, such as villagers, shepherds and children, while a wider audience is targeted through programs on local television and radio stations, for example with the Community Guidance Project on the risk of mines, held in January and February 2009 with the participation 60 journalists, 50 Social Researchers, university students and school pupils, and which also saw the printing of around 8000 books on mine risk and explosive hazards such as ERW.

In 2010 DMA conducted a non-technical survey project that included an MRE campaign accompanying the survey work done in the affected areas of the governorates of Wasit, Thi-Qar and Diyala, resulting in a total of 1558 people from both sexes and all age groups receiving mine risk education. The MRE teams also conducted marking activities by erecting warning signs close to the minefields in the Governorates of Kut, Basrah, Missan and Al Muthana, but it was not sufficient due to the large size of the minefields.

The Kurdistan Regional Government (KRF), through IKMAA, has delivered mine risk education to a total of 566,140 beneficiaries since the inception of its MRE program, as shown in

Table 21: MRE Delivered by Age Group, Gender and Region, with DMA providing MRE to 216,553 beneficiaries. Please note that the statistics include data only up to the end of 2016.

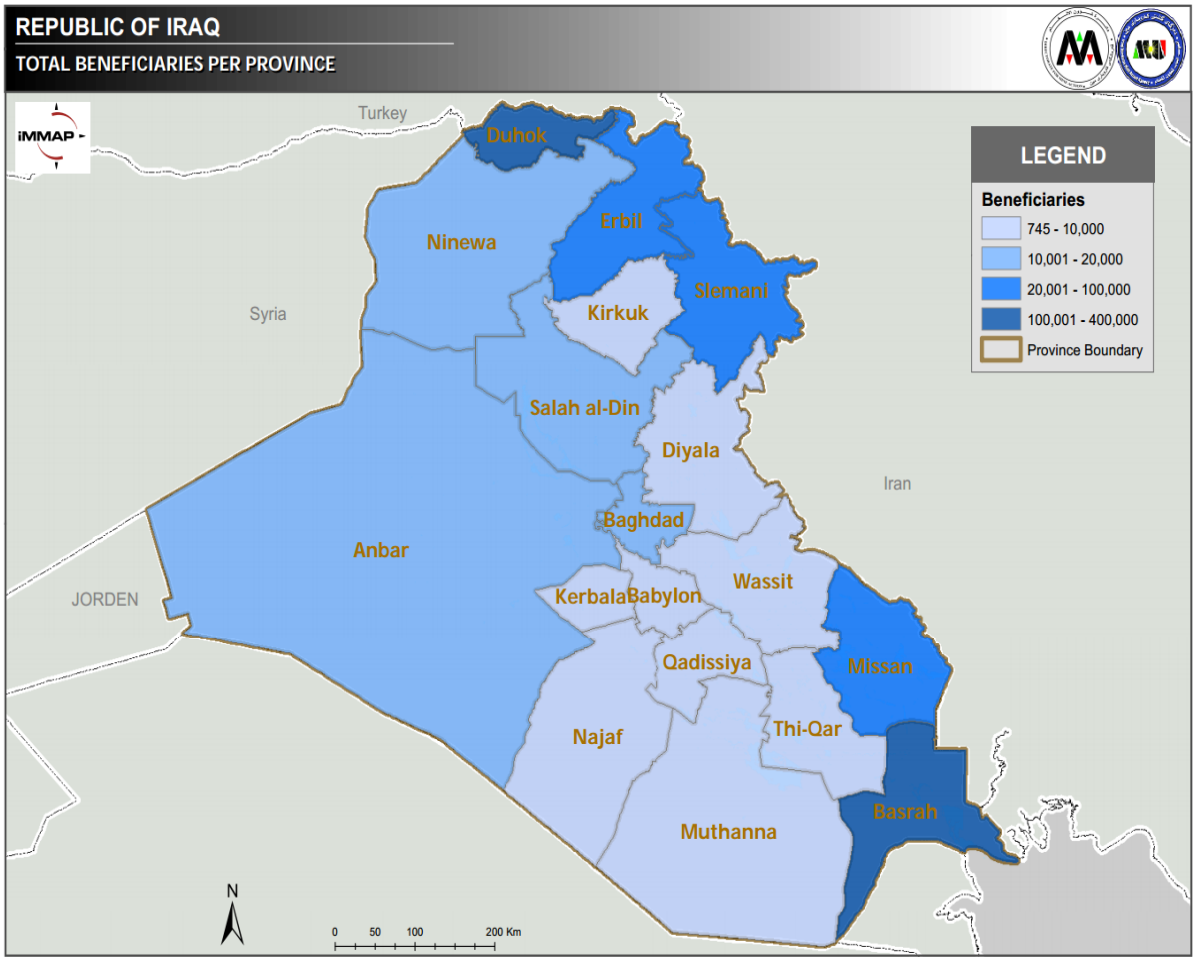
Directorate of Mine Risk Education at IKMAA is one of the highly effective directorate active in the fields of awareness, training and community outreach and publish general information as per the international standards with the aim to reduce accidents and victims related to mines, despite the activities of the Mine Risk Education teams at IKMAA 418 landmine victims has been registered between 2008 and 2016, most of the accidents were

due the negligence of awareness messages by the people and lack of warning signs in all minefields which is usually put around the area.

Table 21: MRE Delivered by Age Group, Gender and Region

Region	Children		Youth		Adult		Mixed		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
IKMAA	70,444	61,301	93,008	81,001	121,715	107,700	16,846	14,125	566,140
RMAC-MEU	12,877	7,697	8,128	4,798	6,189	3,564	0	0	43,253
RMAC-N	8,390	4,816	6,472	3,831	4,334	1,851	0	0	29,694
RMAC-S	56,760	41,773	13,805	7,764	17,163	6,341	0	0	143,606
Total	**148,471**	**115,587**	**121,413**	**97,394**	**149,401**	**119,456**	**16,846**	**14,125**	**782,693**

Map 5: Number of Beneficiaries from MRE per Governorate.



NATURE AND EXTENT OF PROGRESS MADE: QUANTITATIVE

Procedures for NTS and PTS and Information About Additional Hazards Reported.

Preliminary Technical Survey (Kurdistan Region from 2009 onwards)

After the completion of the LIS, the Iraqi Kurdistan Mine Action (IKMAA) conducted numerous higher accuracy surveys under the label of Preliminary Technical Survey (PTS) to verify dangerous areas and reduce suspected contaminated areas, as shown below in Table 22: Results from the PTS in the Governorates of Erbil and Duhok (2009 - 2011) and Table 23: Results from the PTS In The Slemani Governorate (2013 till the end of 2016). The remaining areas are those areas that are still contaminated.

Table 22: Results from the PTS in the Governorates of Erbil and Duhok (2009 - 2011)

Governorate	Original SHA Area (m²) (No of SHAs)	No of SHA addressed	Canceled/reduced Area (m²)	Identified CHA Area (m²)	Areas not surveyed	Percentage released	Note
Erbil	354,500,000	1549	274,500,000	71,000,000	5,000,000	77.4%	The remained area will be entered as anew CHA
Duhok	124,500,000	1431	99,500,000	26,000,000	4,000,000	79.9%	
Total	**479,000,000**		**374,000,000**	**97,000,000**	**9,000,000**		

Since the conclusion

Table 23: Results from the PTS In The Slemani Governorate (2013 till the end of 2016)

Year	Original SHA Area (m²)	Canceled/reduced Area (m²)	Identified CHA Area (km²)	Percentage released	Note
2013	28,200,000	10,700,000	17,500,000	62%	The remained area will be entered as anew hazardous area
2014	47,200,000	21,100,000	26,100,000	55%	
2015	54,000,000	20,000,000	34,000,000	68%	
2016	16,900,000	7,800,000	9,100,000	54%	
Total	**146,300,000**	**59,600,000**	**86,700,000**	**59%**	

It should be noted:

- There is an estimated area of 25 km² on the Iranian border where it is impossible to conduct PTS or any other demining activities, due to security and political reasons. These areas are excluded from any action plans until these areas become accessible again to mine action teams.
- The remaining area for which we could conduct PTS in the Slemani Governorate and Garmian Administration is estimated at 25 km² and with current capabilities, the PTS may be completed by mid-2017 barring any unforeseen issues.
- The statistics provided above for 2016 are based on the actual reports on the ground and not on the IMSMA database, which lacks all of the available reports.

PTS survey Difficulty

1- Due to the security situation, the PTS did not cover all KRG's areas, for example, the areas that are across the border north and north east and with the border of Turkey, and some areas with Irani's border to the east, the estimation areas left are over 10,000,000 sqm.

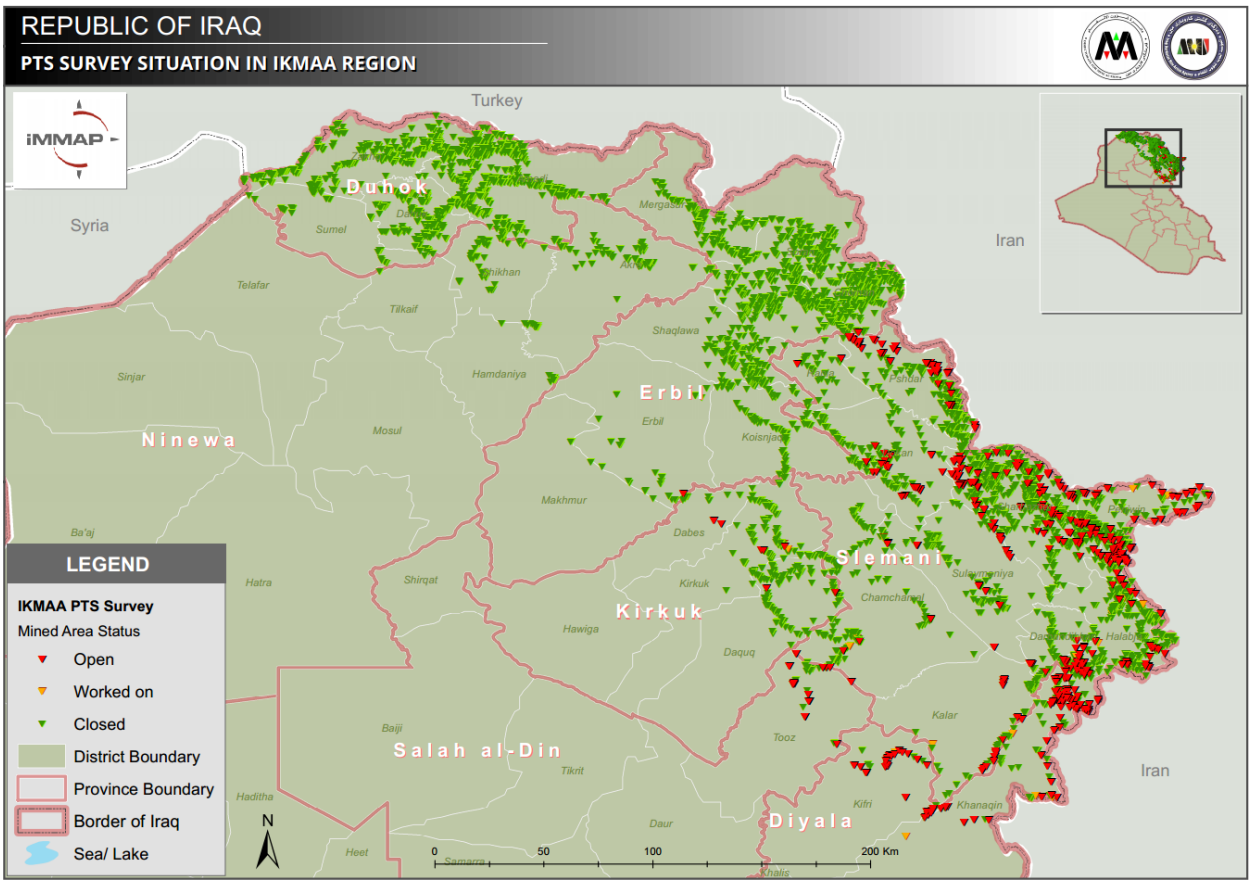
2- logistic issues that affected the accuracy and time schedule for performing the PTS for some area that is far and difficult to reach.

3- economic situation for the government that affects the overall budget for the PTS process.

4- Topography and terrain of the addressed areas that makes the whole process much slower and cost higher.

5- The extreme weather of some address areas were too hard to reach for a certain time of year.

Map 6: Preliminary Survey Operations in the Kurdistan Region



Non-Technical Survey and emergency surveys (2010 onwards)

Since LIS I and LIS II, 178 new hazards covering 771,078,940 square meters have been recorded in IMSMA, shown here in Table 24: New Hazards Recorded as Results from Ongoing NTS and Newly Found Hazards. Some of the hazards were newly discovered while other were recorded as a result of NTS in the DMA area of responsibility. This added a substantial amount of area to the baseline after the ratification of the treaty which makes that 36% progress against the original baseline significant.

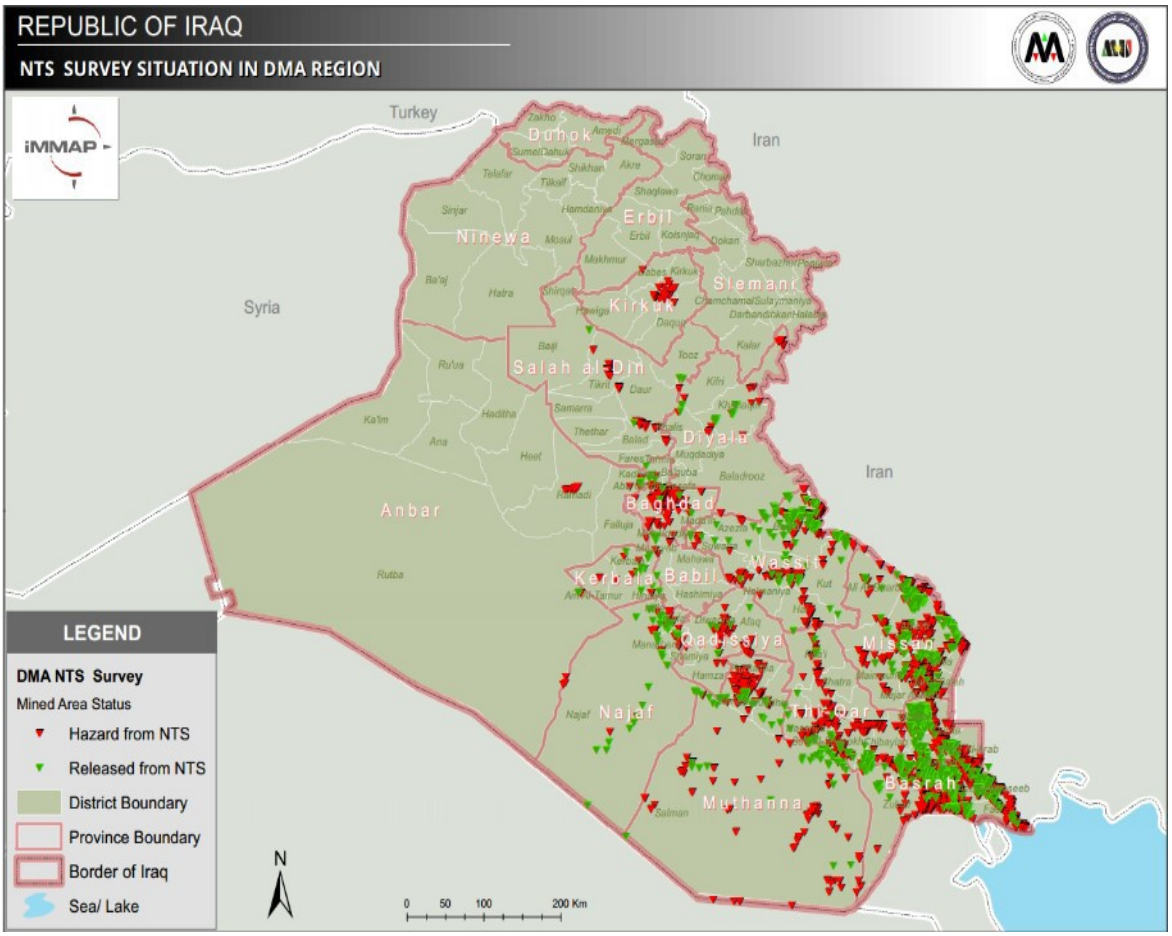
Table 24: New Hazards Recorded as Results from Ongoing NTS and Newly Found Hazards

Region	Status	Hazards	Area (m²)
RMAC-N	Open	46	47,462,987
	Closed	7	490,021
RMAC-M EU	Closed	1	14,869
RMAC-S	Open	67	131,095,758
	Worked On	2	460,119,234
	Closed	55	131,896,071
	Total	**178**	**771,078,940**

Due to insufficient accuracy in the LIS data and its primary focus on affected communities in preference to the comprehensive identification of the contaminated areas, along with additional secondary data concerns, the Directorate for Mine Action (DMA) launched the Non-Technical Survey (NTS) project in 2010. The NTS project focuses on updating the database of hazard areas for the six governorates of Basrah, Thiqar, Missan, Diwaniah, the Holy City of Najaf, Wassit and Baghdad, in addition to other surveys for parts of other cities, with the contribution of various other institutions in some of these survey, such as the Ministry of Defense, Directorate of Military Engineering, Ministry of the Interior, Directorate of Civil Defense, NGOs and licensed commercial companies.

In June 2014, the ISIS (Daesh) terrorist group's invasion and occupation of Iraqi areas resulted in the contamination of a huge area by mines and IED, including booby trapped houses and the mining of infrastructure, agricultural and residential areas. ISIS was also found to have used internally banned non-conventional weapons such as chemical weapons, which led to the contamination of areas such as the Kirkuk Governorate / Taza District with a population of 35 000 people excluding the Internally Displaced Person (IDP) from Basheer, Talafar and Amerli, where they faced bombardments by ISIS using locally made bombs.

Map 7: Results from the Non-Technical Survey of Directorate for Mine Action (DMA).



Despite the difficulty at the current time, the Iraqi forces and Popular Mobilization Forces, supported by the International Coalition forces, took an initiative in 2015 to liberate areas and governorates from ISIS control. The Iraqi forces is currently in the process of liberating the last city (Mosul) occupied by the ISIS (Daesh) terrorist groups. This caused a wave of displacement of inhabitants of governorates in the west and north of Iraq, in addition to increasing the volume of ERW and contaminating large areas, which in turn are prohibiting IDPs from returning to their homes. The results of these surveys are shown below:

Table 25: Results of NTS and Emergency Surveys Conducted from 2010 Onwards

Regions	Governorate	Contaminated area* (m²) as a result of NTS	Area (m²) eliminated and cancelled by NTS
RMAC-N	Anbar	38,365,807	16,899,900
	Diyala	572,825,995	127,587,542
	Kirkuk	3,276	
	Salah al-Din	109,030,904	1,606,584
RMAC-M EU	Babylon	318,909,798	3,006,633
	Baghdad	9,563,316	2,009,499
	Kerbala	2,237,778	74,845,629
	Najaf	6,940,600	150,710,553
	Qadissiya	58,484,162	3,113,991
	Wasit	92,452,835	1,136,459,235
RMAC-S	Basrah	1,306,388,683	486,697,727
	Missan	85,527,897	323,375,811
	Muthanna	174,128,176	2,560,612,612
	Thi-Qar	100,566,908	1,389,870,489
Total		**2,875,422,859**	**6,276,796,205**

* Contaminated area consisting of AP mines, ERW, Cluster munition etc.

Table 26: Minefields from NTS Survey

Region	Province	No of Hazards	Area size (Sqm)
RMAC-M EU	**Wassit**	31	39,646,306
RMAC-S	**Basrah**	38	688,685,273
	Missan	35	41,835,755
	Muthanna	2	37,845,692
Total		**106**	**808,013,025**

Table 27: Total hazard reduction through TS and mine clearance

Regions	Governorates	Area cleared (m²)	Area canceled/ reduced by TS/PTS (m²)	Total Area addressed (m²)	No of Mined areas addressed	Clearance				
						AP	AT	Cluster munitions	ERW	Total
IKMAA	Duhok	5,251,649	148,546,442	153,798,091	1619	4,700	49	562	22,725	28,036
	Slemani	44,451,235	244,038,594	288,489,829	3729	77,416	615	774	46,662	125,627
	Erbil	7,578,622	438,948,295	446,526,917	1774	17,124	74	317	16,605	33,826
RMAC-N	Anbar	441,294	1,468,400	1,909,693		0	0	0	2,103	2,103
	Diyala	2,097,448	0	2,097,448		2232	13	11	1,520	3,776
	Kirkuk	0	9,237,809	9,237,809		153	0	9	3,471	3,633
	Ninewa	0	0	0		0	0	0	1	1
	Salah al-Din	84,527,387	0	84,527,387		2	0	18	1,369	1,389
RMAC-ME	Babylon	6,212,064	0	6,212,064		0	0	262	2,214	2,476
	Baghdad	1,426,089	0	1,426,089		0	0	2	6,736	6,738
	Kerbala	1,306,712	0	1,306,712		6	0	5	5,323	5,334
	Najaf	636,151	0	636,151		0	0	42	0	42
	Qadissiya	21,838,400	0	21,838,400		0	0	1,306	26,432	27,738
	Wasit	7,305,705	7,677,502	14,983,207		565	116	7,035	15,586	23,302
RMAC-S	Basrah	294,861,040	45,453,943	340,314,983		13,345	1357	6,653	175,494	196,849
	Missan	42,280,135	16,303,669	58,583,804		8,474	477	1,381	54,376	64,708
	Muthanna	12,782,999	0	12,782,999		48	0	12,602	10,980	23,630
	Thi-Qar	18,361,243	3,274,039	21,635,282		7	21	6,512	88,913	95,453
Grand Total		**551,358,173**	**914,948,693**	**1,466,306,865**		**124,072**	**2,722**	**37,491**	**480,510**	**644,795**

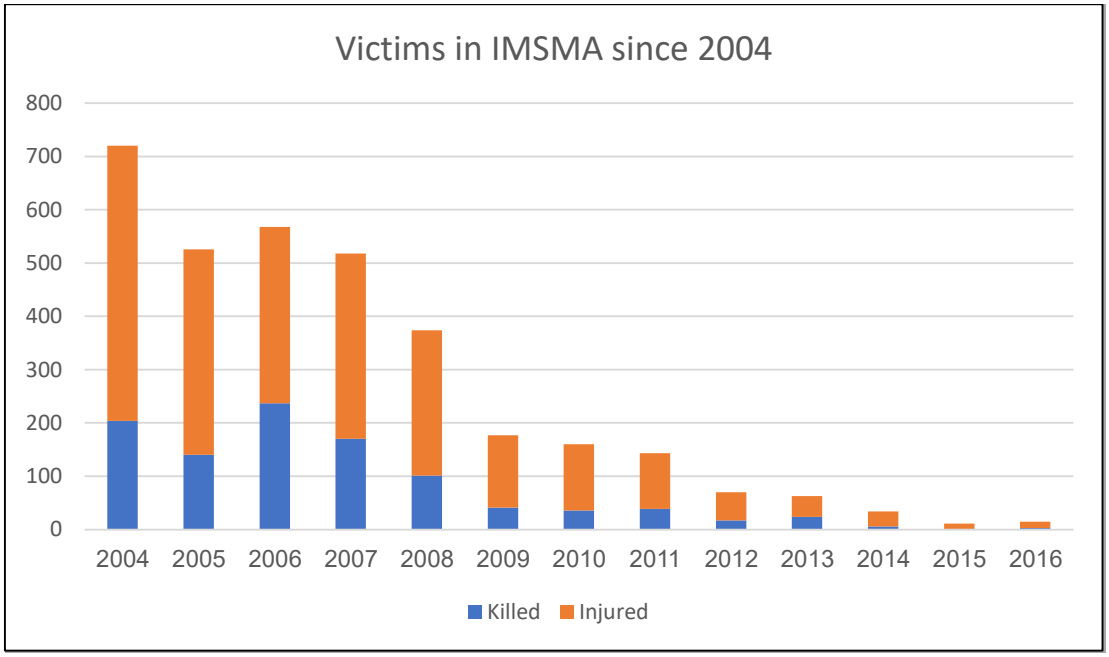
NATURE AND EXTENT OF PROGRESS MADE: QUALITATIVE

Reduction in Landmine and ERW Related Casualties:

There has been a significant drop in the number of ERW, Landmine and UXO victims after 2003, as shown in Figure 7: Victims Killed or Injured Annually Since 2004. This however would not be due to mine action in the form of clearance and mine risk education but rather a lack of reporting of new victims that is caused by ERW, Landmine and UXO due to the ongoing conflict, especially in the Gray Area.

Despite the ongoing demining operations and mine risk education, there is still a continuous process of registration of new landmine and ERW victims due to the lack of fencing around minefields and the random propagation of ERW, in addition to the continuous conflicts with terrorist groups in the areas liberated from ISIS.

Figure 7: Victims Killed or Injured Annually Since 2004



RESOURCES MADE AVAILABLE TO SUPPORT PROGRESS MADE TO DATE

Article 6 of the Ottawa Convention recognizes the right of each State Party to seek and receive assistance from other States Parties in fulfilling its obligations. This chapter provides information on the resources which have been made available to the program to date. The chapter first explains financial information sources and some of the challenges found in analyzing this data. The section concludes with a breakdown of how funds have been spent in recent years across the three thematic sectors: clearance, MRE/VA and coordination.

Information Sources

The Mine Ban Treaty's Article 6 recognizes the right of a State Party to procure assistance from other State Parties in order to fulfill its obligations to the treaty. The assistance provided may take the form of financial assistance, the supply of personnel, expertise and equipment, or the sharing of knowledge between the parties. The financial assistance provided by other State Parties may be allocated to global organizations, who portion the funding across various national mine action programs, or to the State Party requesting the assistance. Since it is difficult to track the funding allocation using regional or national administrative structures, it is necessary to rely on authoritative bodies focusing on the tracking of the donation and allocation of financial assistance to mine action programs.

The Landmine and Cluster Munition Monitor[9] provides various research products in the execution of its ongoing research for the International Campaign to Ban Landmines (ICBL) and the Cluster Munition Coalition (CMC). The annual Landmine Monitor report is one of these reports, providing inter alia summary statistics on the funding donations by and allocations to state parties.

Funds Provided

Table 28: International Support Funding Received lists the annual funding received by the government of Iraq for its mine action program for the period ranging from 2000 to 2015, as sourced from the annual reports on the Landmine Monitor website. illustrates the post-2003 decline in donor funding. Authoritative data for the pre-2000 era is not available and the annual report for 2016 is expected to be released only in the final quarter of 2017.

The Landmine and Cluster Munition Monitor[10] provides various research products in the execution of its ongoing research for the International Campaign to Ban Landmines (ICBL) and the Cluster Munition Coalition

[9]Landmine and Cluster Munition Monitor website - http://www.the-monitor.org/
[10]Landmine and Cluster Munition Monitor website - http://www.the-monitor.org/

(CMC). The annual Landmine Monitor report is one of these reports, providing inter alia summary statistics on the funding donations by and allocations to state parties.

Table 28: International Support Funding Received

Year	Annual Funding (US$ million)
2000	23.0
2001	30.4
2002	30.6
2003	55.0
2004	58.7
2005	27.8
2006	35.3
2007	37.3
2008	35.9
2009	34.7
2010	37.2
2011	34.4
2012	34/0
2013	33.2
2014	36.3
2015	36.6

The financial assistance data does not include all forms of assistance provided by State Parties, but as the primary source of assistance to the requesting State Party's mine action program, it is deemed to serve as a reliable measurement for the assistance received by the mine action program.

It is worth noting that the 2016 report indicates that the international contributions for 2015 accounted for only 72% of overall mine action support, with the remaining 28% of funding being supplied by the states' own contributions to their mine action program[11]. The Landmine Monitor 2016 country profile for Iraq[12] however indicates that no internal contribution was made to the mine action program in 2015, as was the case with previous years, despite an annual budget for DMA and IKMAA and from other financial resources by other ministries for mine action, such as the Ministry of Oil, and others to support demining in Iraq.

[11] Landmine Monitor 2016 Report
[12] http://www.the-monitor.org/en-gb/reports/2016/iraq/support-for-mine-action.aspx

Funding by Donor and Thematic Sector

Table 29: International Support Received in 2015 by Sector provides a breakdown of the international financial assistance received in 2015, broken down by activity sector, on the aforementioned 2016 country profile for Iraq. As can be seen, more than 70% of the resources was made available for clearances.

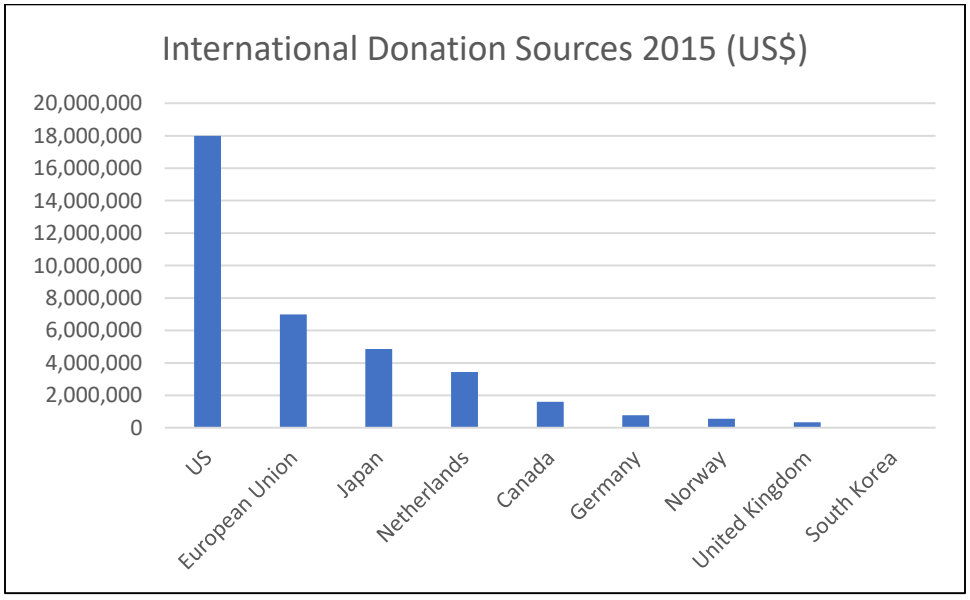
Table 29: International Support Received in 2015 by Sector

Donor	Sector	Amount (US$)
United States of America	Clearance and	18,000,000
European Union	Clearance	6,979,235
Japan	Various	4,868,041
Netherlands	Various	3,439,760
Canada	Various	1,603,827
Germany	Victim assistance	776,720
Norway	Clearance	557,752
United Kingdom	Clearance	345,418
South Korea	Various	19,900
Total		**36,590,653**

action activities during 2015.

Figure 8: International Support Sources for 2015 illustrates that the US donated just under 50% of the resources which was allocated to mine clearance and mine risk educations during 2015. The European Union provided 19% of the resources focusing on clearance operations while Japan provided just over 13% of the resources earmarked for various mine action activities during 2015.

Figure 8: International Support Sources for 2015



Annual Budget

The funds annually allocated by the government of Iraq to DMA and IKMAA are listed in Table 30: Annual funding by the State Party.

Table 30: Annual funding by the State Party

Year	DMA	IKMAA	Annual Total (US$)
2008	9,141,595	7,352,831	16,494,426
2009	15,912,761	12,520,975	28,433,736
2010	10,708,524	13,697,307	24,405,831
2011	6,295,641	19,870,856	26,166,497
2012	9,962,340	22,388,523	32,350,863
2013	12,878,407	31,773,424	44,651,831
2014	12,878,407	26,921,058	39,799,465
2015	16,927,321	20,743,581	37,670,902
Total	**94,704,996**	**155,268,555**	**249,973,551**

CIRCUMSTANCES THAT HAVE IMPEDED COMPLIANCE WITHIN THE 10 YEAR PERIOD:

The Iraqi Mine Action Program has been facing, and still faces, a variety of obstacles in its way to clearing the whole country of explosive hazards in line with Article 5 of the Ottawa Treaty. The factors that have impeded compliance with the treaty and the requirement for complete removal of all known AP mines within ten years of ratification include the following:

Insufficient funding:

The magnitude of landmines and ERW contamination in comparison to the available mine action resources and capacities can be considered as one of the main reasons for this failure. While the international aid community has contributed to clearance of contaminated area, the reality has always been that there is a mismatch between the amount of funding received and the scale and complexity of the problem. The high cost of clearing contaminated areas from mines and other explosive hazards, as will be seen from the environmental and other factors described below, far exceeds the financial resources available to the national mine action program.

As an indication, the revised 2017 budget for UNHCR in Iraq currently stands at US$ 557,093,761[13]. ISIS operations in the Middle East have also led to a shift in donor focus, further compounding the issue along with the competition for state party funding with major infrastructure projects.

[13] http://reporting.unhcr.org/node/2547#_ga=1.194478381.1028857532.1487163171

Human Resources

The capabilities and capacity of staff working in the national mine action program, including the partner organizations such as the Ministry of Defense, Ministry of Health and Environment's DMA, IKMAA and the NGOs and companies by them, do not fulfill the requirements of the level of hazard contamination in Iraq.

Security Situation and conflicts with ISIS

The standing conflict with ISIS, has led to both an increase in the level of explosive hazard contamination in Iraq and a decrease in the security situation in large parts of Iraq. This simultaneously leads to increases in the number of hazard areas in the country and the prevention of mine action organizations from conducting survey and clearance operations in the affected areas, bringing the clearance process to a standstill in large parts of the country. The total number of Internally Displaced Person (IDPs) is estimated by UNHCR at 4.3 million as of October 2016, with about 60% in middle and south of Iraq and 40% located in the Kurdistan Region. The presence of such high numbers of IDPs near suspected and confirmed hazardous areas negatively affects the security situation even further. The protracted battles with ISIS has also placed an increased burden on the Ministry of Defense, resulting in a shift of focus away from mine action to offensive and defensive military operations.

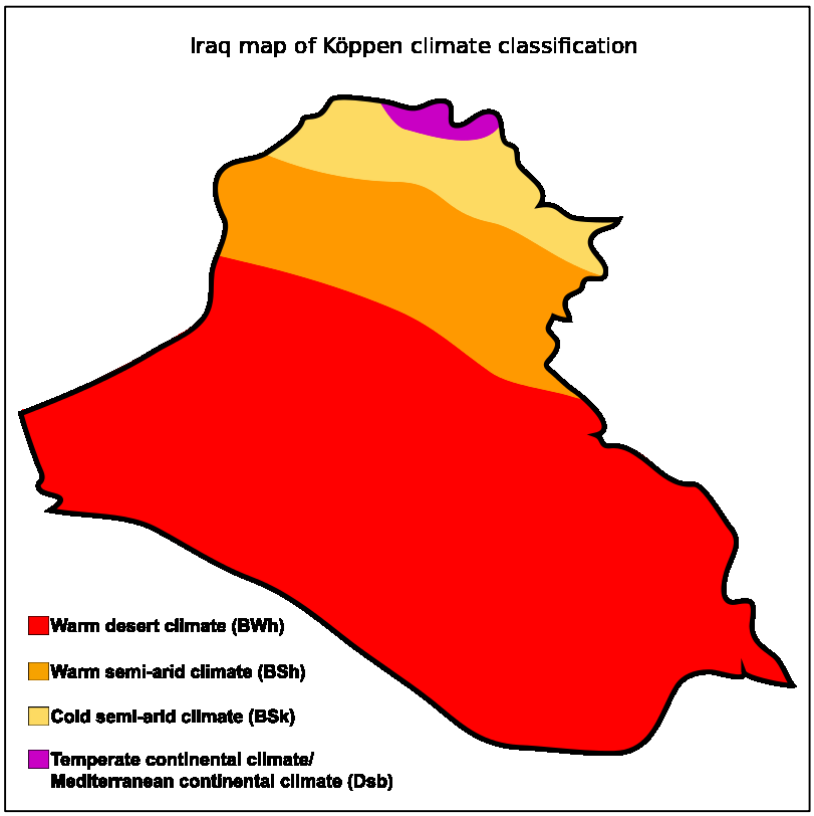
New minefield reporting

The non-technical surveys conducted by DMA has led to an increase in contamination figures with the identification of additional hazard areas.

Climate and Topography

Iraq is known for the range of its climate conditions, stretching from the mountainous areas in Kurdistan Region where the low temperatures and terrain leads to high rain and snowfall levels, to the central and southern parts of Iraq, which have much higher average daily temperatures,. Because of the topographic variation in Iraq, ranging from the coastal areas in the southeast, across the desert to the snowcapped mountains in the northern parts, mine clearance activities vary widely in their levels and speed of progress. Iraq also recently suffered from flood and landslides, in both 2012 and 2014, in the central and southern governorates, leading to a displacement of the mine fields and a resultant requirement to resurvey the affected areas urgently to verify the changes to the hazardous areas resulting from the migration of the mines due to the flooding. The inclement weather, dust storms, sand storms and high ambient temperatures have also been found to severely impede the rate of hazard area clearance, especially in the mid and South of Iraq.

Map 8 : Iraq Map Koppen Climate Classification[14]



Outdated mine clearance technology

Iraq suffers from a lack of modern techniques (modern detectors and sophisticated heavy machinery) used in the detection and removal of mines, and the adoption of personnel in the mine program on the old methods in the survey and clearance of mines, and is a continuous circumstance and affects the lack of productivity difference and slow in the work of disinfection.

Random minefields

Most of the minefields are semi-random, which requires more effort to find the mines in the hazard areas and thus increases the time required for clearance; many of the minefields remain unknown due to lack of information and because the lands are not urgently needed, it is not being informed on and is thus not present in the national mine action database.

[14] https://en.wikipedia.org/wiki/Iraq#/media/File:Iraq_map_of_K%C3%B6ppen_climate_classification.svg

Lack of Information on minefields

The Iraqi Ministry of Defense, as a result of the events that followed the war of liberation of Iraq in 2003, lost all the maps for the minefields planted inside the Iraqi territory. This was the biggest obstacle to the execution of the clearance work or marking of these fields after the loss of the fencing materials and the warning signs on them. Some areas require big efforts to identify mined areas due to the lack of such information.

Lack of International Support to Iraq

Taking into consideration the economic situation of Iraq, especially after the global drop in oil prices and the inability of the government to provide sufficient financial resources, it becomes obvious that Iraq is in great need of the international community's continued and expanded support to complete its commitments to the Ottawa Treaty.

Lack of International Organizations Working in Iraq

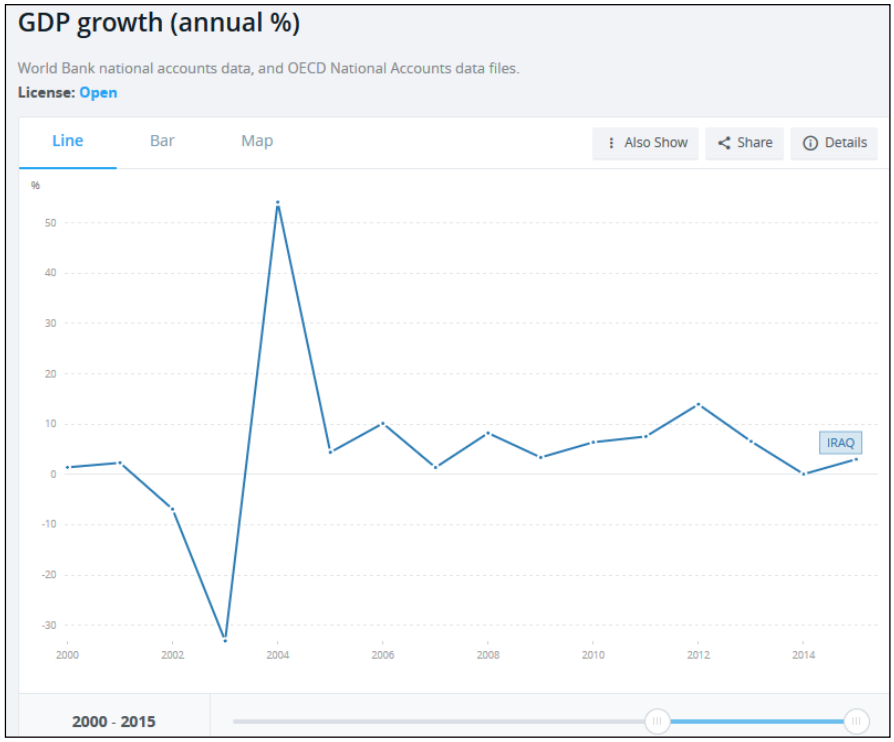
The lack of information on the amount of direct support for mine clearance that is provided by international organizations in Iraq makes it difficult for the central government to prioritize mine action projects specifically and humanitarian aid projects in general. It is obvious though from the list of licensed NGOs and commercial mine action companies contained in this document that the level of participation by international organizations in Iraq needs to be increased in order to expedite hazard clearance.

The Setback of the Financial Situation of the Country

The pervasive presence of explosive hazards in Iraq has affected the economy in all spheres, with a noticeable negative impact on industries such as agriculture, oil, infrastructure development and tourism and an equally large impact on the daily lives of people by hindering access to their sources of livelihood and employment such as orchards, factories, oil fields, grazing, fishing and marshes. The World Bank's overview of Iraq[15] summarizes the country's financial situation efficiently in stating that "The Iraqi economy is facing severe and pressing challenges. The decline in oil prices in 2015 and 2016 and the ISIS insurgency have contributed to a sharp deterioration of economic activity and have rapidly increased the fiscal and current account deficits." and "The population remains extremely vulnerable to the ongoing security problems and reduction in oil prices. The standard of living has deteriorated and a noticeable share of the population has fallen into poverty or is extremely vulnerable to falling into poverty. Poverty, as estimated by the Iraqi government reached 22.5 percent in 2014 nationwide; and in the ISIS-affected governorates, the direct impact of economic, social and security disruptions are estimated to have doubled poverty rates to 41.2 percent."

[15] http://www.worldbank.org/en/country/iraq/overview

Figure 9: Iraq's Annual GDP Growth Percentage post-1999[16]



[16] http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&locations=IQ&start=2000

Case Study of Basrah:

The Governorate of Basrah has been selected as a pilot study on the economic impact of mines and ERW since the governorate has the highest proliferation of explosive hazards amongst the governorates. Basrah is one of the most important governorates in Iraq and consists of seven districts and sub districts and is neighbor to the three other governorates of Missan, Muthana and Thi-Qar. Basrah occupies a surface area of 19,070 square kilometer or about 4% of the total Iraqi territory, and with a 2007 census population of 2,7 million, it is the third highest populated Iraqi city. Basrah also possesses very large oil reserves.

Basrah is one of the highest contaminated areas in comparison to the other governorates in the south of Iraq, mainly due to the wars experienced by Iraq during the former regime, where as an example the eight year war with Iran from 1980 to 1988 resulted in the laying of large numbers of mines and the depositing of ERW on the border line and villages on both sides of the Iraq/Iran border. The contaminated area encompasses approximately 1,300 km² and led to the internal displacement of large population groups, resulting in big losses to the country in terms of its society and economy. To shed light on the size of the problem, a few of the affected districts and sub districts are reviewed below.

Arab Gulf District – Attaba Sub district

- The war caused all of this sub-district's inhabitants to leave. Approximately 25,000 citizens were transferred in 1981 to the central district of Basrah or neighboring governorates.
- The war caused economic loss, destruction of the Palm forests consisting of 4,000,000 Palm, or about 30% of all the Palm forests in the governorate of Basrah, along with the slaughter of more than 70,000 sheep.
- The Sinbad oilfield, with an area of about 181 square kilometers, had drilling operations stopped by the war and the area was subsequently heavily contaminated with mines and ERW.
- Hundreds of people with disabilities reside in villages neighboring this district, especially the village of Al Betran which still sees accidents recorded annually due to the detonation of the mines and ERW. This typifies the large threat posed by the hazards to nearby communities.
- This governorate is still not rehabilitated back to its former state as the most important agricultural land close to the Arab Gulf River, staying unusable due to the hazard contamination of an area of about 15,000,000 square meters. meters.

Abi Al Khaseeb District – Al Seeba Sub-district

- The population of the Al Seeba sub-district prior to 1981 stood at 35,000; nearly all of them have been displaced from their homes.

- From the mid-1990's to date, only about 10% of the displaced people have returned to their homes.
- The number of date trees prior to 1981 was estimated at 1,000,000 palm; currently there are only about 200,000 palm. Livestock numbers dropped from 9,000 animals to 2,000 as another result of the war.
- At the 294 square kilometer Al Seeba natural gas field, the drilling and discovery operations were all stopped at the start of war and is still prohibited by ERW contamination of the area.

Al Faw District

- The district population before the start of the war in 1980 stood at 87,000 citizens; as with the other districts, nearly all of the inhabitants were displaced to nearby Iraqi cities.
- Only 20% of the district's previous population has returned after the end of war.
- The total number of livestock before the war in 1980 was about 14,000 and now is standing at only 2,250 animals.
- The total number of palm prior to the war was standing at 1,448,000 palm but currently stands at 50,155 palm.
- The total available agricultural land before 1980 was 28,000 Acres and the post-war figure is 867 Acres.
- The presence of land mines and ERW is also preventing the construction of oil export pipelines and an oil harbor in the district.

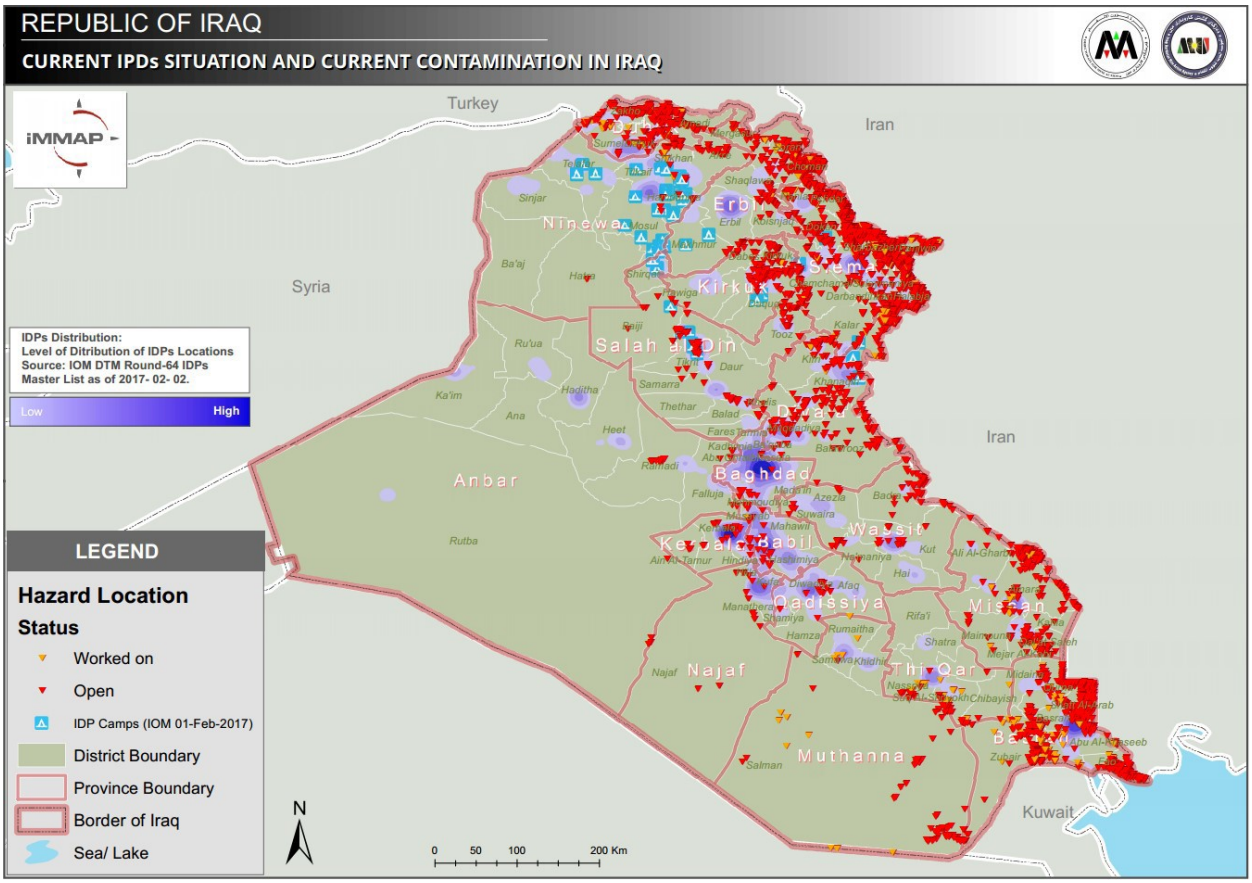
Environmental Impact

It's well known that the climate of Iraq has changed over the few last decades, its air and water has been polluted by reason planting of minefields and the depositing of ERW and UXO. Furthermore, it has a negative impact on the psychology of the people and impacts negatively on agriculture production and animal husbandry because of the toxic materials inside these explosive hazard, which poses complex challenges for demining operations.

Internally Displaced Persons (IDPs)

The internal displacement of the Iraqi people is a major obstacle for the completion of the Iraqi mine action program by placing a financial burden on the government for the erection and maintenance of IDP camps. The location of IDP camps near hazardous areas in some instances also places the population in the camps at risk.

Map 9: The current distribution of IDPs and contamination of mines and ERW.



Lack of Expertise

The mine action program in Iraq is in need of expertise for the planning and managing of mine clearance activities, training of staff, Mine Risk Education and Victim Assistance. The Iraqi Mine Action Program requires both international and local expertise to provide sustainable support to the mine clearance program. The primary expertise requirements for the next phase of the program are listed below in. Table 52: Mine Action Expertise Requirements

HUMANITARIAN, ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPLICATIONS OF THE REMAINING CHALLENGE

By and large, the socio-economic implications of the remaining contamination are the same as those identified for the original challenge and explained in the "NATURE AND EXTENT OF THE CURRENT LANDMINE AND ERW CONTAMINATION" section of this extension request.

The Overview of Landmines and Explosive Remnants of War in Iraq report[17] underlines the socio-economic impact of explosive hazards by stating that "With large areas of agricultural land, numerous oil and gas fields, and hundreds of infrastructure and public facilities sown with mines, riddled with cluster bomblets or unexploded mortar and bomb shells, these would first need to be cleared before sustainable economic development and diversification could take place on a large nation-wide scale."

Subsistence farmers and the agricultural industry as a primary sector of the economy are directly affected by the denial of access to land and water and secondarily by limitations on access to roads and infrastructure. The same limitations also hold for other member of the economic primary sectors such as fishing and mining. Secondary sectors of the economy in turn are affected by the lack of resources produced by the primary sectors and are forced to source raw material and manufactured products from other areas. This ripple effect ultimately leads to an increase in the cost of living, stemming from the high prices of foodstuffs and manufactured products that drives the increased demand for higher remuneration. The increasing cost of living also impacts on the unemployed by reducing the purchasing power of their limited income.

The internal displacement of the Iraqi people due to the armed conflict and mining of residential buildings and areas also places a further burden on the government, requiring care and accommodation of the IDPs. The shift in the population arising from the internal displacement also leads to a downwards shift in the overall productivity of the population as families are forced to flee from their homesteads with very little or no means of continued financial self-reliance.

The social impact of hazardous areas and explosive hazards not only manifests in psychological infirmity, but also serves to distort the traditional composition of the family unit, where the loss of one or more parents may result in the formation of a child-led household, or in the case of displacement a reliance on donors to provide a means of survival and possibly a form of employment. The disruption to the people of Iraq also extends to the education of children and the delivery of sustainable medical care, which affects the economy of the country for years to come.

[17] Overview of Landmines and Explosive Remnants of War in Iraq, published in 2009 by UNICEF/UNDP.

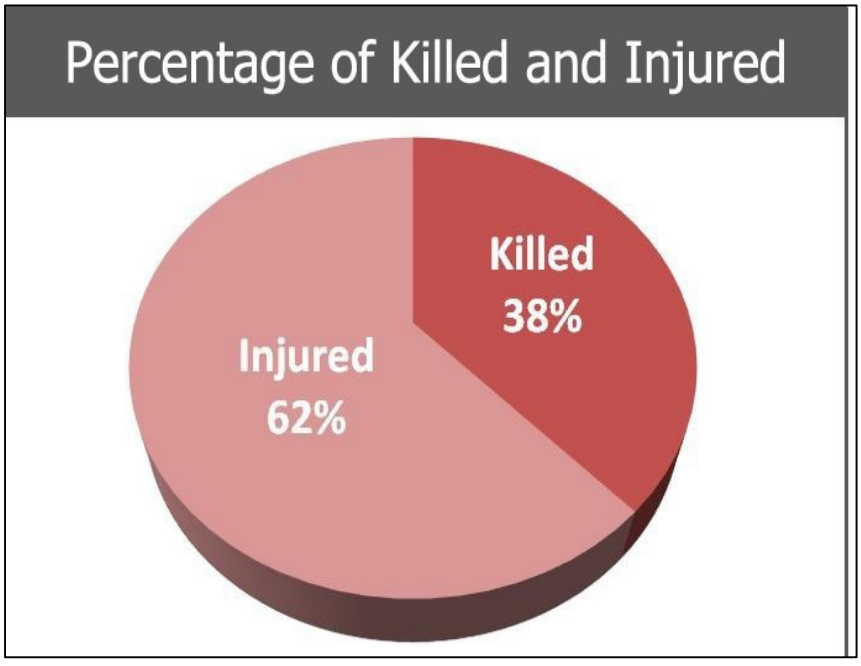
The OCHA web page for Iraq[18] in February 2017 shows that Iraq has 3.1 million IDPs and a total of 10 million people in need of humanitarian assistance.

The presence of explosive hazards in Iraq not only has a severe impact on the economy today and for years to come, but also severely changes the social composition of its people. The clearance of hazard areas will see a return to normalcy and the opportunity for the people of Iraq to start recovering from the impact of these hazards.

Humanitarian Impact

Landmines and ERW have killed and injured the people of Iraq since the 1970's; the total number of victims reached 36,081 including injured and death from civilians. Figure No. 10 shows the percentage of people killed and injured by landmines and ERW as registered in IMSMA. It should be noted that that the real number of victims is higher than captured in IMSMA; this relates to the improvements that is required for reporting deaths and injuries from landmines and ERW.

Figure 10: Percentage of victims killed and injured by landmines and ERW.



[18] http://www.unocha.org/iraq

Economic Impact

The summary tabled below in Table 31: Blockages by number of hazards, contaminated area and region shows the blockages resulting from the remaining challenge, the area they cover and the population they impact. It is important to note that one hazard may have more than one blockage, so the totals shown in the table below are greater than the total number of hazards.

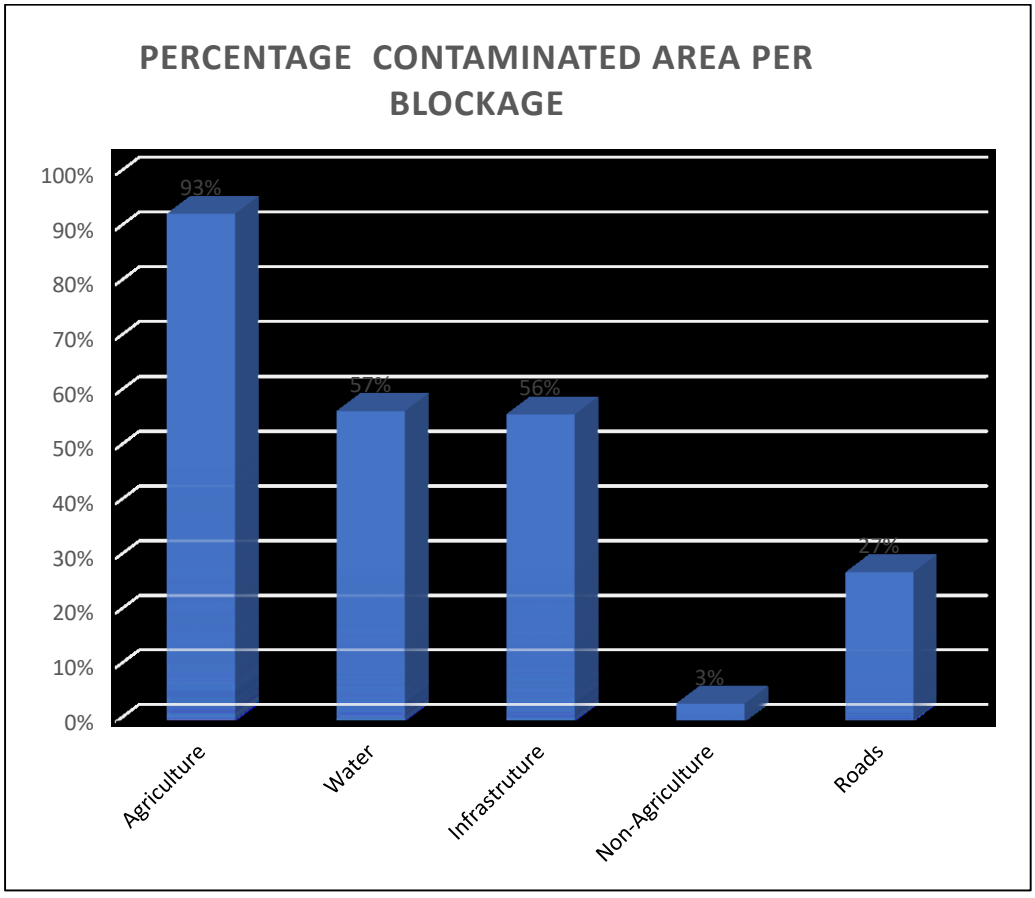
Table 31: Blockages by number of hazards, contaminated area and region

Blockage	RMAC	Hazards	% of Hazards	Area	% of Area
Agriculture	IKMAA	2897	94%	207,252,583	26%
	RMAC-M EU	5	0%	16,428,286	2%
	RMAC-S	185	6%	584,719,143	72%
	Total	**3087**	**100%**	**808,400,012**	**100%**
Infrastructure	IKMAA	93	32%	3,175,106	0%
	RMAC-M EU	6	2%	5,954,291	1%
	RMAC-S	196	66%	663,476,792	99%
	Total	**295**	**100%**	**672,606,189**	**100%**
Non-Agriculture	IKMAA	122	86%	8,867,019	22%
	RMAC-M EU	2	1%	1,240,925	3%
	RMAC-S	18	13%	29,700,543	75%
	Total	**142**	**100%**	**39,808,486**	**100%**
Water	IKMAA	174	84%	7,579,431	1%
	RMAC-M EU	1	0%	365,830	0%
	RMAC-S	32	15%	671,704,782	99%
	Total	**207**	**100%**	**679,650,043**	**100%**
Roads	IKMAA	123	75%	3,895,812	1%
	RMAC-M EU	6	4%	11,793,291	4%
	RMAC-S	34	21%	312,764,030	95%
	Total	**163**	**100%**	**328,453,132**	**100%**

As shown above, most of the remaining landmines and ERW contamination obstruct 808,400,012 square meters of agricultural areas (which includes grazing land), with 1.6 million of the directly affected people facing difficulties accessing agricultural land. This can be considered a major blockage in a country where the majority of the labor force is involved in agriculture-related activities, including inter alia subsistence farming. The remaining contamination affects roads, infrastructure, non-agriculture, and water sources.

Figure 11: Breakdown of Affected Area by Blockage demonstrates that agricultural land, infrastructure and water make up most of the contaminated area. Limited access to essential infrastructure means hardship for many people. Lack of access to shelter, water and sanitation is likely to lead to health and hygiene problems. Landmines and other ERW can further exacerbate the lack of employment, displacement, and psychological problems. In addition, contamination has wider implications on refugee resettlement, with landmines and other ERW posing considerable obstacles to repatriation and rehabilitation.

Figure 11: Breakdown of Affected Area by Blockage



NATURE AND EXTENT OF THE REMAINING ARTICLE 5 CHALLENGE: QUANTITATIVE ASPECTS:

Remaining Known Contamination:

Currently there are still 3,554 hazards located within 1,195,565,732 square meters of hazardous area as shown in Table 32: that are recorded in the IMSMA database at the end of 2016, and is expected to change after completion of the outstanding reports.

771,989,024 m2 is within CHAs in the RMAC-S and consists of 241 hazard areas; the IKMAA hazard areas total 151,921,092 m2 and consists of 2624 CHAs; the areas under the responsibility of RMAC-M EU total 39,646,306 m2 across 31 CHAs and no CHA is registered in the RMAC-N center due to the current security situation and fight against the Daesh terrorist groups.

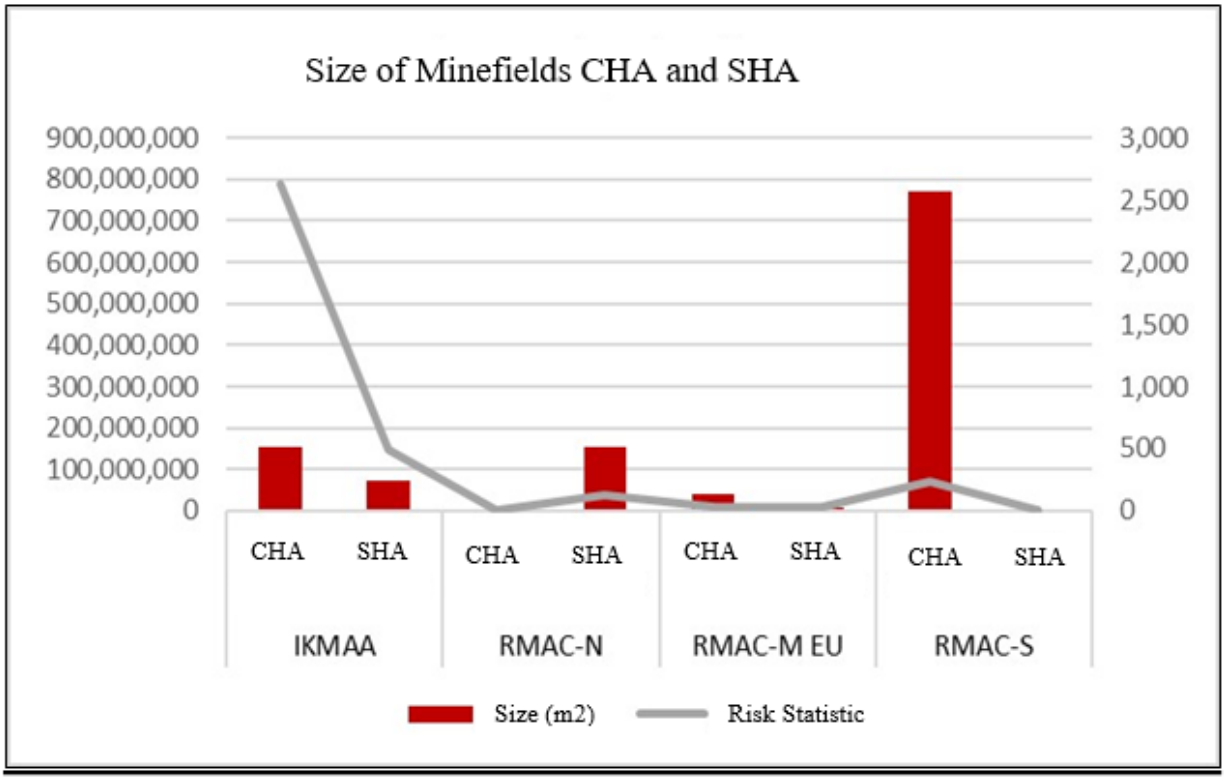
In addition, there is about 460,119,234 m2 in the process of TS in the RMAC-S and the initial results shows that about 26,583,410 m2 is considered as confirmed minefields and the rest is contaminated with ERW. The reclassification of the risk type will be entered into the national database to update it, and provide a base for future clearance, as the progress of NTS is shown in Table No. 32.

Table 32: Contamination by Region per province

Contamination by Region per province				
Region	**Govenorate**	**Hazard Type**	**Areasize (Sqm)**	**No of Hazards**
IKMAA	**Duhok**	CHA	19,108,042	400
	Erbil	CHA	48,091,213	337
	Slemani	CHA	84,721,837	1,887
		SHA	71,245,685	498
	Total		223,166,777	3,122
RMAC-M EU	**Babylon**	SHA	1,301,600	10
	Kerbala	SHA	5,627,900	20
	Wassit	CHA	39,646,306	31
	Total		46,575,806	61
RMAC-N	**Diyala**	CHA		1
		SHA	29,438,137	84
	Ninewa	SHA	137,500	7
	Salah al-Din	SHA	123,196,029	35
	Total		152,771,666	127
RMAC-S	**Basrah**	CHA	689,303,917	41
		SHA	962,731	1
	Missan	CHA	44,839,415	198
		SHA		1
	Muthanna	CHA	37,845,692	2
	Thi-Qar	SHA	99,728	1
	Total		773,051,483	244
Grand Total			1,195,565,732	3,554

Figure No. 12 shows the size of CHA, SHA and risk statistic according to the area of responsibility of DMA and IKMAA.

Figure 12: Size of CHA and SHA per region.



In order to define the remaining contamination more accurately, it is known from past experience that through non-technical survey and technical survey area reduction takes place. Assumptions have been developed for the area reduction and is outlined below based on the type of mine action area type. In addition, based on previous surveys in the RMAC-S it is estimated that as much as 60% of confirmed hazardous areas bigger than 30 km² will be reduced through technical survey, as shown in Table 33: Assumption for Area Reduction noting that the process of hazard reduction that we mention above of minefields does not mean the land release, but change type of hazard from the minefield to the ERW or confrontation areas.

Table 33: Assumption for Area Reduction

Region	Hazard Type	% Reduction Anticipated	Comment
IKMAA	Minefield	10	Minefields smaller than 20 km²
	SHA	20	
RMAC-N	Minefield	10	Minefields smaller than 30 km²
	Minefield	60	Very big minefields > 30 km²
	SHA	20	
RMAC-M-EU	Minefield	10	Minefields smaller than 30 km²
	Minefield	60	Very big minefields > 30 km²
	SHA	20	
RMAC-S	Minefield	10	Minefields smaller than 30 km²
	Minefield	60	Very big minefields > 30 km²
	SHA	20	

By applying this area reduction assumptions, the contaminated area has reduced from 1,195,565,732 square meter to 774,034,520 square meter, as indicated in Table 34: Remaining Contaminated Area after Applying Area Reduction Assumptions, which will be prioritized and considered for the work plan.

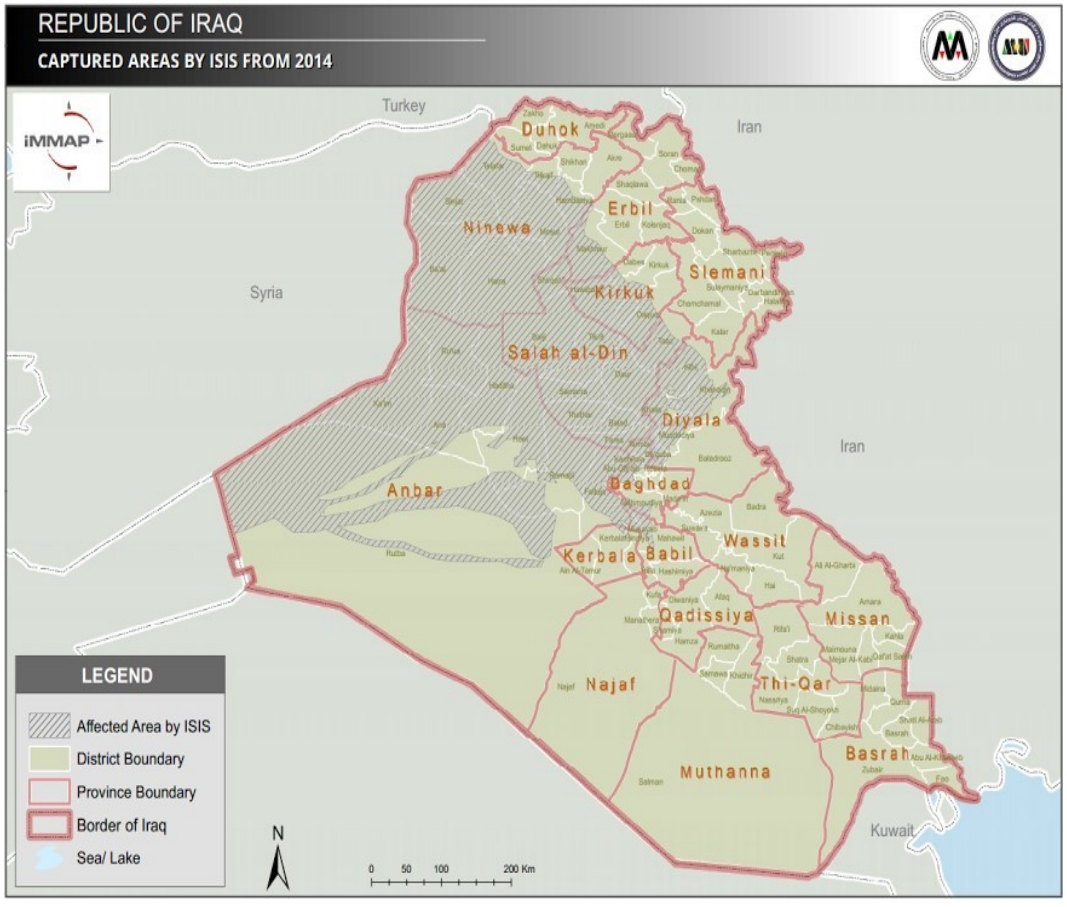
Table 34: Remaining Contaminated Area after Applying Area Reduction Assumptions

Region	Hazard Type	Hazards	Area	Area Reduction	
				Hazards Area > 30 km²	**Hazards Area < 30 km²**
IKMAA	CHA	2,624	151,921,092		136,728,982
IKMAA	SHA	498	71,245,685		56,996,548
RMAC-N	SHA	1	35,000,000	14,000,000	
RMAC-N	SHA	126	117,771,666		105,994,499
RMAC-M EU	CHA	31	39,646,306		35,681,675
RMAC-M EU	SHA	30	6,929,500		6,236,550
RMAC-S	CHA	7	554,487,645	221,795,058	
RMAC-S	CHA	234	217,501,379		195,751,241
RMAC-S	SHA	3	1,062,459		849,967
Total		**3,554**	**1,195,565,732**	**235,795,058**	**538,239,462**
Total remaining contamination after reduction				**774,034,520**	

Confirmation of unknown hazardous areas and newly discovered minefield

Through the analysis of the data to quantify the progress made since the treaty ratification as noted in Table 24: New Hazards Recorded as Results from Ongoing NTS and Newly Found Hazards. It was noted that the contaminated area increased in RMAC-N which can mainly attributed due to ongoing conflict in Salahaddin and Dyala. In addition, the current ISIS Daesh conflict that is ongoing in the liberated areas is a fluid situation and will undoubtedly contribute further to the contaminated area. A detailed annexure to the extension request is dedicated to the liberated area from ISIS, which outlines the challenges due to the ongoing conflict. This requires Technical and Non-technical survey in the future to locate the type and size of contamination and to develop a plan to remove this contamination.

Map 10: Areas under the control of ISIS terrorist group.



NATURE AND EXTENT OF THE REMAINING ARTICLE 5 CHALLENGE: QUALITATIVE ASPECTS

This section aims to qualitatively outline the extent of the remaining Article 5 challenge; the chapter will describe the nature of the landmine and ERW contamination identified in the previous chapter.

Impact at Community, District Level

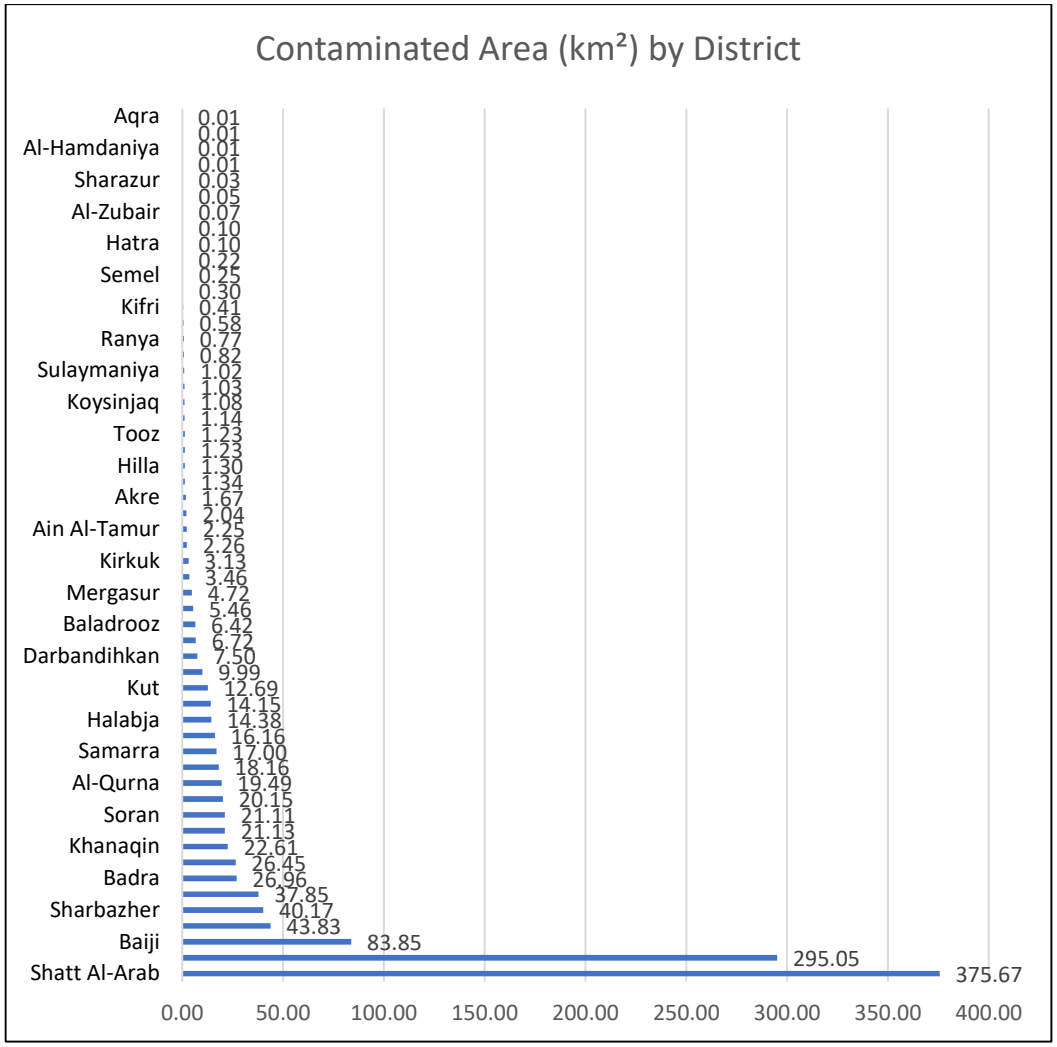
As shown in Table 35: Impact of hazards by device type on communities and population below, AP minefields directly impact on 347 communities in the IKMAA region while 4 and 14 in the RMAC-m EU and RMAC-S respectively. Mixed hazards that has a combination AP, AT and UXO accounts for majority of the affected communities in all the regions. In total 1,102 communities are directly impacted. [19]

Table 35: Impact of hazards by device type on communities and population

Region	Device	Hazards	Area	Communities
IKMAA	AP	845	64,054,762	347
IKMAA	AP_AT	62	3,521,358	38
IKMAA	AT	4	73,681	3
IKMAA	Mixed	2,211	155,516,976	543
RMAC-M EU	AP	8	1,038,850	4
RMAC-M EU	AP_AT	16	25,689,721	3
RMAC-M EU	Mixed	37	19,847,235	27
RMAC-N	AT	1		1
RMAC-N	Mixed	126	152,771,666	75
RMAC-S	AP	35	29,637,844	14
RMAC-S	AP_AT	15	23,232,152	8
RMAC-S	AT	2	8,435	2
RMAC-S	Mixed	192	720,173,053	37
Total		**3,554**	**1,195,565,732**	**1,102**

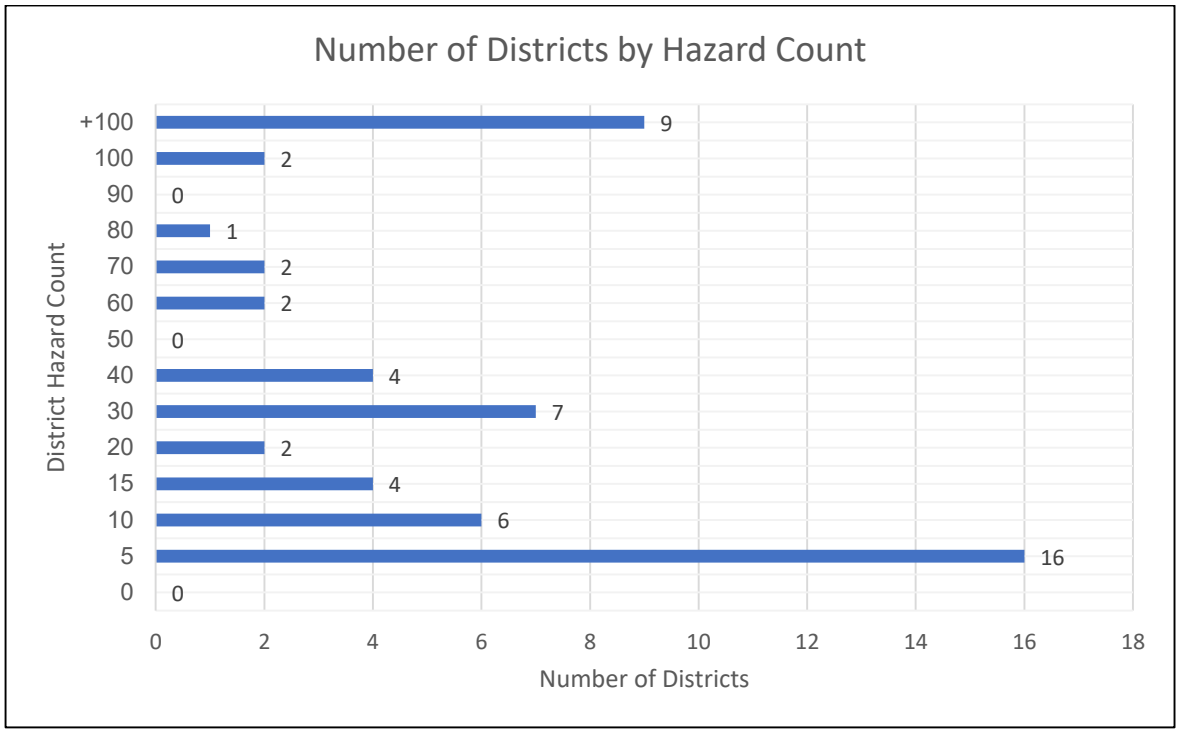
[19] Some communities are directly impacted by more than one type of contamination; thus the 1,102 communities are more than 961 affected communities.

Figure 13: Contaminated Area (km²) by District



To better understand the level of contamination, the area of contamination should also be considered. The graph above in Figure 13: Contaminated Area (km²) by District shows the area of contamination by district. It indicates that 671 km² in the Districts of Shatt Al-Arab and Fao in the Basrah Governorate accounts for 56% of the total contaminated area in Iraq. The remaining districts account for 44% (526 km²) of the contaminated area.

Figure 14: Number of Districts by Hazard Count



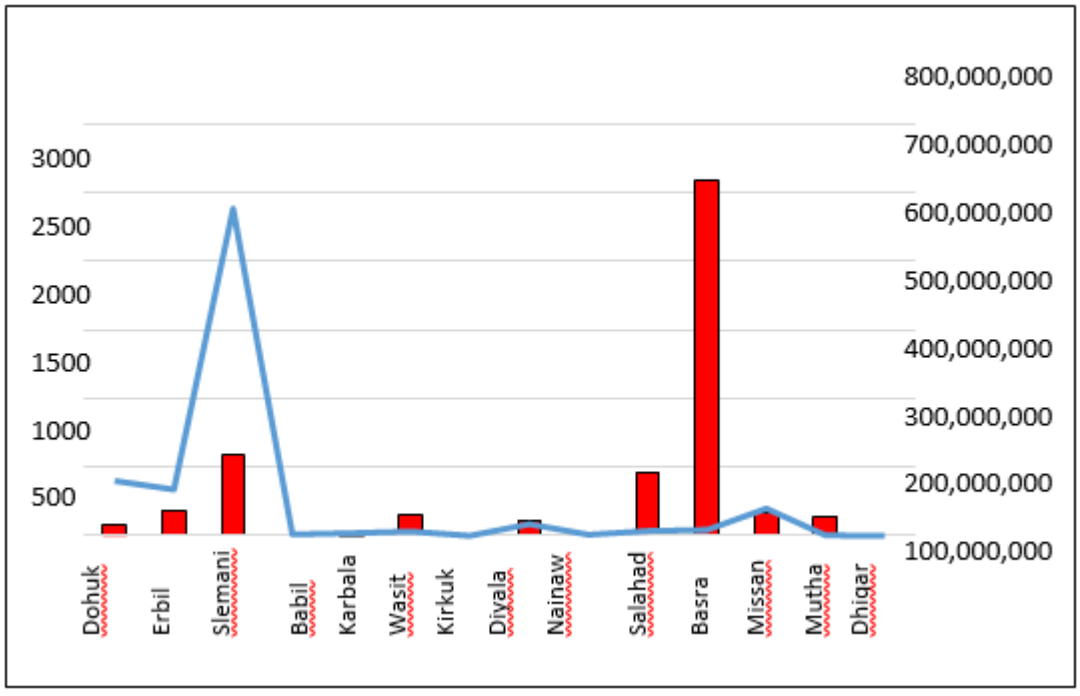
As shown in Figure 14: Number of Districts by Hazard Count, there are 16 districts with 1 -to 5 hazards, and 6 districts with between 6 and 10 hazards.

Table 36: Number of Hazards and Area by Region and Governorate shows the number of hazardous areas and contaminated area by region and governorate. As can be seen, Basra governorate has the largest contaminated area of 690,266,648 m2 and the largest number of hazards is located in Slemani Governorate about 2,385 hazard areas.

Table 36: Number of Hazards and Area by Region and Governorate

Region	Governorate	Hazards	% of Hazards	Area (m²)	% of Area
IKMAA	Duhok	400	11%	19,108,042	2%
IKMAA	Erbil	337	9%	48,091,213	4%
IKMAA	Slemani	2385	67%	155,967,522	13%
RMAC-MEU	Babylon	10	0%	1,301,600	0%
RMAC-MEU	Kerbala	20	1%	5,627,900	0%
RMAC-MEU	Wasit	31	1%	39,646,306	3%
RMAC-N	Diyala	85	2%	29,438,137	2%
RMAC-N	Ninewa	7	0%	137,500	0%
RMAC-N	Salah al-Din	35	1%	123,196,029	10%
RMAC-S	Basrah	42	1%	690,266,648	58%
RMAC-S	Missan	199	6%	44,839,415	4%
RMAC-S	Muthanna	2	0%	37,845,692	3%
RMAC-S	Thi-Qar	1	0%	99,728	0%
Total		**3,554**	**100%**	**195,565,730**	**100%**

Figure 15: Number and size of contaminated area per Governorate.



Security Analysis

As can observed in Table 37: Secure and Insecure Hazards and Contaminated Area by Region below, the information will be updated on continuous basis as the security situation improves.

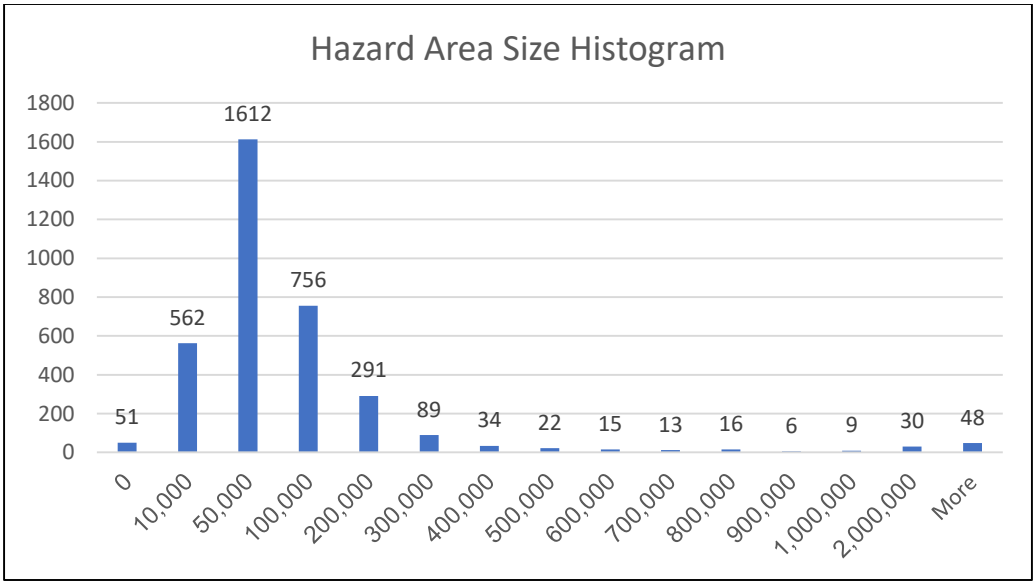
Table 37: Secure and Insecure Hazards and Contaminated Area by Region

Region	Governorate	Status	Hazards	Hazard Area (sqm)	% of Total Hazard Area	Secure Hazard Area	Insecure Hazard Area
IKMAA	Duhok	Secure	365	17,522,317.70	1.47%	1.47%	-
	Duhok	Insecure	35	1,585,724.20	0.13%	-	0.13%
	Erbil	Secure	330	47,602,752.60	3.98%	3.98%	-
	Erbil	Insecure	7	488,460.20	0.04%	-	0.04%
	Slemani	Secure	2,175	132,023,587.90	11.04%	11.04%	-
	Slemani	Insecure	210	23,943,934.30	2.00%	-	2.00%
RMAC-M EU	Babylon	Secure	10	1,301,600.00	0.11%	0.11%	-
	Kerbala	Secure	20	5,627,900.00	0.47%	0.47%	-
	Wassit	Secure	31	39,646,305.70	3.32%	3.32%	-
RMAC-N	Diyala	Secure	82	29,429,636.60	2.46%	2.46%	-
	Diyala	Insecure	3	8,500.00	0.00%	-	0.00%
	Ninewa	Secure	2	112,500.00	0.01%	0.01%	-
	Ninewa	Insecure	5	25,000.00	0.00%	-	0.00%
	Salah al-Din	Secure	27	117,691,029.00	9.84%	9.84%	-
	Salah al-Din	Insecure	8	5,505,000.00	0.46%	-	0.46%
RMAC-S	Basrah	Secure	42	690,266,647.70	57.74%	57.74%	-
	Missan	Secure	199	44,839,415.10	3.75%	3.75%	-
	Muthanna	Secure	2	37,845,692.10	3.17%	3.17%	-
	Thi-Qar	Secure	1	99,728.00	0.01%	0.01%	-
TOTAL			**3,554**	**1,195,565,732.00**	**100.00%**	**97.36%**	**2.64%**

Analysis of Hazard Areas

As shown in Figure 16: Histogram for Hazard Area Size (m²) below, a total of 1,612 contaminated areas, each covering less than 50,000 m and thus defined as small hazards, are among the remaining contaminated sites. There are 48 hazards that are bigger than 2,000,000 square meters, and 51 hazards where area information was unavailable is mainly falling inside insecure areas and will require follow-up surveys.

Figure 16: Histogram for Hazard Area Size (m²)



Slope

The slope of the land on which hazards are located provides a guide for planning. The slope values for the hazards are derived using the 3D terrain model and ArcGIS spatial analysis tools.

The table below shows how the remaining hazards are broken down depending on slope. The slope of the land on which hazards are located provides a guide for planning. The slope values for the hazards are derived using the 3D terrain model and ArcGIS spatial analysis tools. Table 38: Slope of Hazards and Contaminated Area by Region below shows how the remaining hazard is broken down depending on slope.

Table 38: Slope of Hazards and Contaminated Area by Region

Region	Slope	Hazards	% of Hazards	Area	% of Area
IKMAA	0-5%	186	5.23%	10,749,993	0.90%
	5-10%	384	10.80%	24,751,594	2.07%
	10-15%	471	13.25%	23,124,063	1.93%
	15-20%	422	11.87%	25,617,689	2.14%
	20-25%	416	11.71%	39,281,543	3.29%
	25-30%	367	10.33%	31,356,453	2.62%
	+30%	876	24.65%	68,285,442	5.71%
RMAC-M EU	0-5%	28	0.79%	16,941,575	1.42%
	5-10%	20	0.56%	13,401,476	1.12%
	10-15%	13	0.37%	16,232,755	1.36%
RMAC-N	0-5%	35	0.98%	30,317,254	2.54%
	5-10%	38	1.07%	62,775,087	5.25%
	10-15%	21	0.59%	52,333,550	4.38%
	15-20%	10	0.28%	2,489,150	0.21%
	20-25%	7	0.20%	3,897,250	0.33%
	25-30%	5	0.14%	324,675	0.03%
	+30%	11	0.31%	634,700	0.05%
RMAC-S	0-5%	103	2.90%	576,613,050	48.23%
	5-10%	89	2.50%	157,539,262	13.18%
	10-15%	44	1.24%	28,296,192	2.37%
	15-20%	7	0.20%	10,593,066	0.89%
	20-25%	1	0.03%	9,913	0.00%
Total		**3,554**	**100.00%**	**1,195,565,732**	**100.00%**

576,613,050 square meters of the remaining contaminated area in RMAC-S region is relatively flat with a slope of 0-5%. In the IKMAA region 68,285,442 sqm of the contaminated area with a slope 30%.

AMOUNT OF TIME REQUESTED AND RATIONALE FOR THIS AMOUNT OF TIME

Iraq is requesting a 10-year extension request until Feb. 1st 2028, based on:

- The extent of the remaining contamination;
- Careful and considered development of the work plan; and
- An estimation of anticipated funding for the duration of the extension request

There are three factors which could impact on this time frame.

- The work plan includes a survey and re-survey element; if significantly more contamination is discovered this will impact on the likelihood of complete clearance within 10 years. However, as has been highlighted in previous chapters Iraq expects a significant proportion of currently recorded contamination to be reduced, which would have the opposite effect on the time frame.
- The ten-year time frame has been based on funds anticipated to be received per annum of the extension request. Should funds materialize more than the foreseen yearly amounts, the clearance could be accomplished within a shorter timeframe.
- The security situation in Iraq is very unstable; deterioration in the security situation will definitely impact on the plan.

DETAILED WORK PLAN FOR THE PERIOD OF THE REQUESTED EXTENSION

Work Plan Preparation Methodology

A committee consisting of representatives from IKMAA and DMA was established to work together to develop a detailed operational work plan for the Ottawa Extension Request, with support for IKMAA and DMA provided by UNMAS and iMMAP. The rationale behind taking an inclusive and participatory approach was to ensure the maximum use of expertise and collective ownership of the plan. The general action plan will be reviewed after two years and will be updated based on available capacities and capabilities and the support available from government and international organizations.

Prioritization for Clearance

Due to the varied nature of contamination in Iraq it is not possible to consider the AP problem in isolation from the AT and UXO contamination. There are some AT MFs which impact on communities to a greater extent than some AP MFs; such AT MFs should be cleared first. The challenge for Iraq is to ensure reduction of the impact resulting from all types of contamination in the most time efficient manner possible.

Table 39: Regional Impact Indicators for Determining Impact of Hazards

Impact Indicator	Regional Weights			
	IKMAA	RMAC-N	RMAC-M EU	RMAC-S
Landmine	2	1	1	2
UXO	1	2	1	1
IED	0	2	1	0
Cluster	0	0	2	2
Victims in past 2 years	2	2	2	2
Victims not in past 2 years	1	1	1	1
Population	1	1	1	1
Agriculture Blockages	3	2	2	2
Water Blockages	2	2	2	1
Non-Agriculture Blockages	1	1	2	1
Infrastructure Blockages	2	3	3	5
Roads Blocked	2	2	1	1

Every AP MF, AT MF and Mixed minefield (termed “hazard”) is classified in terms of its impact (high, medium and low) on the community and the result recorded in IMSMA. To enable impact classification, IKMAA and DMA uses a set of impact indicators per region with an assigned numeric weighting as reflected

in the table below. The decision was made by IKMAA and DMA to use regional impact indicators to allow for regional specific classification of hazards. Table 39: Regional Impact Indicators for Determining Impact of Hazards, shown below, provides a summary of the regional impact indicators.

Table 40: Hazard Count and Area (m²) by Ottawa Ranking

Impact classification factor	Ottawa Ranking	Hazards	Area (sqm)
High Impact	1	460	115,068,555
Hazards with victims	2	157	17,687,857
Small Hazards	3	334	1,610,973
Within 1 km of community	4	1,122	105,520,855
Land cover: Rainfed Croplands	5	72	5,067,649
Medium impact	6	655	59,925,568
Population over 200	7	0	0
Low impact	8	29	7,134,933
Land cover: Sparse (<15%) vegetation	9	149	27,466,624
Land cover: Bare Areas	10	103	180,380,938
Insecure	11	258	31,334,953
Oilfields	12	215	644,366,825
	Total	**3,554**	**1,195,565,732**

The impact of hazard areas has been classified to inform priority setting for the Ottawa Treaty Work Plan; Tables No. 40 and 41 shows this classification and the level of impact with the number and the size of hazard areas.

Table 41: Number of Hazards and Contamination Area by Region and Ottawa Ranking

Region	Impact classification factor	Ottawa Ranking	Hazards	% Hazards	Area	% Area
IKMAA	High impact	1	443	14%	26,549,843	12%
	Hazard area with victims	2	157	5%	17,687,857	8%
	Small Hazards	3	304	10%	1,530,670	1%
	Within 1 km of community	4	1,078	35%	72,680,110	33%
	Rainfed Croplands	5	71	2%	5,005,149	2%
	Medium impact	6	635	20%	55,921,418	25%
	Low Impact	8	28	1%	5,634,933	3%
	Sparse (<15%) vegetation	9	123	4%	9,917,789	4%
	Land cover: Bare Areas	10	38	1%	2,416,555	1%
	Insecure and Grey Area	11	245	8%	25,822,453	12%
	Total for IKMAA		**3,122**	**100%**	**223,166,777**	**100%**
	Small Hazards	3	26	20%	71,679	0%

RMAC-N	Within 5 km of community	4	31	24%	11,681,325	8%
	Medium Impact	6	10	8%	2,214,150	1%
	Low Impact	8	1	1%	1,500,000	1%
	Sparse (<15%) vegetation	9	19	15%	11,756,250	8%
	Land cover: Bare Areas	10	27	21%	120,035,762	79%
	Insecure and Grey Area	11	13	10%	5,512,500	4%
	Total for RMAC-N		**127**	**100%**	**152,771,666**	**%100**
RMAC-M EU	High Impact	1	3	5%	3,882,667	8%
	Small Hazards	3	4	7%	8,624	0%
	Within 3 km of community	4	10	16%	19,019,297	41%
	Rainfed Croplands	5	1	2%	62,500	0%
	Medium Impact	6	8	13%	1,790,000	4%
	Sparse (<15%) vegetation	9	7	11%	5,792,586	12%
	Land cover: Bare Areas	10	28	46%	16,020,132	34%
	Total for RMAC-M EU		**61**	**%100**	**46,575,806**	**%100**
RMAC-S	High Impact	1	14	6%	84,636,045	11%
	Within 7 km of community	4	3	1%	2,140,124	0%
	Medium Impact	6	2	1%	0	0%
	Land cover: Bare Areas	10	10	4%	41,908,489	5%
	Oil fields	12	215	88%	644,366,825	83%
	Total for RMAC-S		**244**	**100%**	**773,051,483**	**%100**

Productivity Rates and Clearance Costs

The next step was to calculate how long it would take to complete clearance of all hazards to anticipate how many hazards will be completed in each year of the extension request. For this purpose, analysis of the productivity rates was required.

Table 42: Regional Productivity Rates and Cost/m²

Region	Asset Type	Productivity (m²/day)	Cost (USD/m²)	Comment
DMA	Manual	200	4	QA/QC included as part of the cost
	Mechanical	1,500	1.75	QA/QC included as part of the cost RMAC-S uses heavy armor truck
	NTS		0.04	QA/QC included as part of the cost
	TS mixed	8000	0.5	QA/QC included as part of the cost
IKMAA	Manual	160	9	Includes admin, QA/QC etc. for all rates
	Mechanical	250	6	Excavating
	PTS		0.2	
	TS	160	1	10% released land - MAG
	MDD	600	3	

Annual Output and Number of Teams

It is assumed that there are 200 working days per annum for manual clearance and mixed technical survey, taking in consideration the public holidays, religious and national events, but for mechanical demining operations the assumption of 180 working days for areas under the responsibility of Directorate for Mine Action (DMA) DMA and 140 working days for the areas under the responsibility of Iraqi Kurdistan Mine Action Agency taking into consideration the maintenance of mechanical tools and the Table 43: Annual Output per Asset Type and Region shows the annual production and according to the working days.

Table 43: Annual Output per Asset Type and Region

Region	Asset Type	Productivity (m²/day)	Work Days p.a.	Output per annul
DMA	Manual	200	200	40,000
	Mechanical	1,500	180	270,000
	TS mixed	8,000	200	160,000
	Minefields TS	250	200	50,000
IKMAA	Manual	160	200	32,000
	Mechanical	250	140	35,000
	TS	160	200	32,000
	MDD	600	200	120,000

Table 44: Percentage of Contaminated Area to be cleared through Manual and Mechanical Clearance by Region illustrates the type of clearance activity in relation to the overall contaminated area. In the DMA region 68% of the contaminated area will be cleared manually while only 32% will be cleared through mechanical clearance operations, 82% of the contaminated area in IKMAA will be cleared manually, while only 18% will be cleared through mechanical clearance operations.

Table 44: Percentage of Contaminated Area to be cleared through Manual and Mechanical Clearance by Region

Region	% of Contaminated Area to be Cleared Manually	% of Contaminated Area to be Cleared Mechanically
IKMAA	82%	18%
DMA	68%	32%

Table 45: Calculations Considering the Split of Contaminated Area between Manual and Mechanical Clearance

Region	Hazard Type	Hazards	Area	Size after TS	Manual Clearance	Mechanical Clearance
IKMAA	CHA	2,624	151,921,092	136,728,982	112,117,765	24,611,217
IKMAA	SHA	498	71,245,685	56,996,548	46,737,169	10,259,379
RMAC-N	SHA	1	35,000,000	14,000,000	9,520,000	4,480,000
RMAC-N	SHA	126	117,771,666	105,994,499	72,076,259	33,918,240
RMAC-MEU	CHA	31	39,646,306	35,681,675	24,263,539	11,418,136
RMAC-MEU	SHA	30	6,929,500	6,236,550	4,240,854	1,995,696
RMAC-S	CHA	7	554,487,645	221,795,058	150,820,639	70,974,419
RMAC-S	CHA	234	217,501,379	195,751,241	133,110,844	62,640,397
RMAC-S *	3CHA from TS		460,119,234	26,583,410		26,583,410
RMAC-S	SHA	3	1,062,459	849,967	577,978	271,990
Total		**3,554**	**1,195,565,732**	**800,617,930**	**553,465,048**	**247,152,884**

*It should be noted:

- Three CHA (minefields) have been added after the TS operation in Basra Governorate in the Regional Center of South with the size of 26,583,410 sqm. The three hazard areas are within the oil fields and upon the recommendation by the supervisory committee the area will be cleared by mechanical demining operations. Their information has been added in the database during prepare extension request and the size of these areas falls outside of the previous analysis.

- Based on the analysis of the above table and numbers of annual production derived from this section, the number of required teams was calculated. The four upcoming tables note the number of manual and technical survey teams, and number of hazard areas ready to be cleared in the contaminated area.

Table 46: Manual Clearance Teams Required per Region to implementation during the extension

Region	Manual Clearance	Annual Output per Team	Number of Teams Required	Current Manual team available
IKMAA	158,854,935	32,000	4,964	75
RMAC-N	81,596,259	32,000	2,550	75
RMAC-M EU	28,504,393	32,000	891	
RMAC-S	284,509,461	32,000	8,891	
Total	**553,465,048**		**17,296**	

Table 47: Mechanical Clearance Teams Required per Region to implementation during the extension

Region	Mechanical Clearance	Annual Output per Team	Number of Teams Required	Current Mechanical team available
IKMAA	32,604,007	35,000	931	13
RMAC-N	35,902,354	270,000	133	19
RMAC-M EU	12,541,933	270,000	467	
RMAC-S	125,184,163	270,000	562	
Total	**206,232,457**		**1,573**	

Table 48: Technical Survey Teams Required per Region

Region	Technical Survey	Annual Output per Team	Number of Teams Required
IKMAA	5,230,589	32,000	163
RMAC-N	5,759,736	50,000	115
RMAC-M EU	2,012,075	50,000	40
RMAC-S	20,083,021	50,000	401
Total	**33,085,421**		**719**

Table 49: Summary of Teams required by type of Asset and Region

Region	Manual Clearance Teams	Mechanical Teams	Technical Survey Teams
IKMAA	4,964	931	163
RMAC-N	2,550	133	115
RMAC-M EU	891	46	40
RMAC-S	8,891	562	401
Total	**17,296**	**1,573**	**719**

Non-Technical Survey

The DMA, through its centers in the North and Middle Euphrates, will continue NTS operations in the governorates under its responsibility until the security situation stabilizes and the economic situation of the country improves. DMA will prepare a plan for these operations in the future in addition to the already prepared plans for the NTS of the areas liberated from ISIS groups. In addition, it should be noted that currently emergency surveys are ongoing to expedite the return of IDPs after making sure their houses are free of explosive hazards. There will also be update on information for RMAC South about the marshlands, and especially sand walls, on the Alhaweza marsh which is highly impacted and thus needs underwater NTS for places close to the water bodies and close to the walls. This is considered as an important priority because the marshlands are now registered as a World Heritage site.

Preparation of the Annual Plan

. In the preparation of the work plan the following process was carried out:

1. The respective Plans Section ensure that the dataset is up to date and share it with various stakeholders.
2. The Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) review national strategic goals and priority policies.
3. The Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) issue hazard list based on the Ottawa work plan sorted by priority for the upcoming year.
4. Implementers to select hazards for clearance from the Ottawa work plan and conduct field assessments to cross check the priority of their proposed hazards and make sure that the impact classification derived from the database is indeed the priority on the ground. In addition, to develop high level implementation plan, asses the security situation and build a community communication base and support the regional centers.

5. Implementers develop their own annual work plan based on the various implementation plans and submit to Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) who will endorse the proposals if/when they are satisfied with the outputs, outcome and budget.
6. The implementing partners will get a support letter from The Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) in support of requesting financial resources as per the government budget, in addition to the international support by donor countries, organization and specialized companies to execute this action plan.
7. The Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency (IKMAA) monitors the implementation of the annual work plan and report progress against the Ottawa Work Plan.

Work Plan

The following work plans were devised based on the current levels of explosive hazard contamination and the mine clearance capabilities and capacity available.

Two Year Work Plans for IKMAA

Table 50: IKMAA Two Year Work Plan below shows the mine clearance plan for 2018 and 2019 based on currently available capacities and capabilities at IKMAA. The cost analysis was based on the number of teams and estimated area to be cleaned; the timeline for one year for manual clearance counted 200 working days and mechanical clearance 140 working days.

Table 50: IKMAA Two Year Work Plan

Year	Clearance team type	Governorate	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018	Manual	Slemani	75	9	160	2,400,000	21,600,000	Price for each Sqm involve all other relative activities
		Erbil						
		Dohuk						
	Mechanical	Slemani	13	6	250	455,000	2,730,000	
		Erbil						
		Duhok						
	MDD	Slemani	2	5	250	50,000	250,000	
		Duhok						
	TS	Slemani		1	1,000	200,000	200,000	
		Erbil						
		Duhok						
	Total					**3,105,000**	**24,780,000**	
2019	Manual	Slemani	75	9	160	2,400,000	21,600,000	
		Erbil						
		Duhok						
	Mechanical	Slemani	13	6	250	455,000	2,730,000	
		Erbil						
		Duhok						
	MDD	Slemani	2	5	250	50,000	250,000	
		Duhok						
	TS	Slemani		1	1,000	200,000	200,000	
		Erbil						
		Duhok						
	Total					**3,105,000**	**24,780,000**	

Two Year Work Plans for DMA

Table 51: DMA Two Year Work Plan below shows the mine clearance plan for 2018 and 2019 based on currently available capacities and capabilities at DMA. The cost analysis was based on the number of teams and estimated area to be cleaned; the timeline for one year for manual clearance counted 200 working days and mechanical clearance 180 working days.

Table 51: DMA Two Year Work Plan

Year	Type of clearance team	RMACs	Governorate	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018	Manual	RMAC-S	Basrah	60	4	200	2,400,000	9,600,000	*The price involve20 % each sqm for 30-60 cm depth*
			Missan						
	Mechanical	RMAC-S	Basrah	19	2	1,500	5,130,000	8,977,500	*The price involve30 % each sqm for relative activity*
	TS	RMAC-S	Basrah	15	1	8,000	24,000,000	12,000,000	*This area covered ≈240 Km²*
			Missan						
		RMAC-M EU	Wasit						
	Total						**31,530,000**	**30,577,500**	
2019	Manual	RMAC-S	Basrah	60	4	200	2,400,000	9,600,000	*The price involve20 % each sqm for 30-60 cm depth*
		RMAC-M EU	Wassit						
	Mechanical	RMAC-S	Basrah	19	2	1,500	5,130,000	8,977,500	*The price involve30 % each sqm for relative activity*
	TS	RMAC-S	Basrah	15	1	8,000	24,000,000	12,000,000	*This area covered ≈240 Km²*
			Missan						
		RMAC-M EU	Wassit						
	Total						**31,530,000**	**30,577,500**	

Additional Requirement

Table 52: Mine Action Expertise Requirements

Name of Benefit party	Experienced Employees
Directorate for Mine Action (DMA)	Expertise in the Management of International Cooperation (International Donation)
Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency	Expertise in the field of preparing case study, researches, provide proposals related to the mine projects.
Directorate for Mine Action (DMA) and Iraqi Kurdistan Mine Action Agency	Expert in the field preparation of strategic planning
Directorate for Mine Action (DMA)	Expert in the fields contracting (Mine contracts)
Iraqi Kurdistan Mine Action Agency	Expert in the field of filing resources

Ten Year Plan for IKMAA

The below Table 53: IKMAA Ten Year Work Plan shows the plan for 10 years mine clearance from Feb. 1st 2018 to Feb. 1st 2028, based on the currently available capacities and capabilities of IKMAA, assuming nothing changes in terms of capacities, capabilities and financial support.

Table 53: IKMAA Ten Year Work Plan

Year	Type of clearance team	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018 – Dec 2027	Manual	75	9	160	24,000,000	216,000,000	Price for each Sqm involve all other relative activates
	Mechanical	13	6	250	4,550,000	27,300,000	
	MDD	2	5	250	500,000	2,500,000	
	TS		1	1,000	2,000,000	2,000,000	
Total					**31,050,000**	**247,800,000**	

Ten Year Plan for DMA

The below Table 54: DMA Ten Year Work Plan shows the plan for DMA for 10 years which will be updated after the first two years of the extension to adjust future planning to changes in capacity and capabilities.

Table 54: DMA Ten Year Work Plan

Year	Type of clearance team	Teams	Clearance cost (US$/m²)	Daily expected clearance per team (m²)	Annual expected clearance (m²)	Total cost (US$)	Note
2018 to the end of 2020	Manual	60	4	200	7,200,000	28,800,000	*The price involve20% each sqm for 30-60 cm depth* for three years only.
	Mechanical	19	2	1,500	15,390,000	26,932,500	*The price involve30% each sqm for relative activities for three years only.*
	TS	15	1	8,000	72,000,000	36,000,000	*This area covered current minefield for three years only which will define more accurate minefield*
2021 to the end of 2027	Manual	75	4	200	21,000,000	84,000,000	*The price involve20% each sqm for 30-60 cm depth* for seven years only
	Mechanical	19	2	1,500	35,910,000	62,842,500	The price involve30% each sqm for relative activities for seven years only
	Total				**151,500,000**	**238,575,000**	

Notice should be taken into consideration during the implementation of the above plan:

1. The action plan doesn't include the battle areas and areas contaminated with explosive bombs and cluster ammunition.
2. The action plan doesn't include the restricted areas due to security and political situation.
3. The action plan prepared depends on continuous of the implementing partners (Organization and Companies) with the current available capacities and capabilities assuming the required financial resources are available to execute the plan.
4. In case of additional international funding the productivity will be increased based on the amount of funding. The production figures specified in the ten year plan, based on the current capacities and capabilities of the National Mine Action Program, will not reach more than 15% of the total contaminated area in Iraq.
5. The assumption for the costs could be updated and depends on new information and data obtained during the execution of the plan.
6. The cost for the plan includes Quality Assurance and Quality Control.

7. The action plan is partially funded by the government budgets but it's not adequate for the fulfilment of the extension requested mainly due to the extent of the contamination.
8. It is anticipated that there will be an increase in the contamination area with landmines in some governorates because of updating the data base of suspected hazard areas which requires the increase of capacities and capabilities and the change in action plan after the first 2 years.
9. The cost of manual and mechanical demining in the case of Iraqi Kurdistan Mine Action Agency (IKMAA) has been counted based on the previous in the hazard area because the price shows the difficulty of working in the mountain area, type of soil and environmental conditions of the area which will increase the cost of daily work and according to the methodological analysis of this report.
10. The action plan has been set in taking into consideration that all executive teams (governmental, organizations and companies) use their utmost capacity in the designated area according the action plan.

CONCLUSION

The government of Republic of Iraq hereby submits its request to extend the final deadline of Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction. The government of Iraq reiterates its strong commitment to the compliance and implementation of Article No. 5 of this convention and other related conventions. The government of Iraq hereby submits to the presidency and member states of this convention all the efforts that has been done in the past and the great challenges that faced the Iraq Mine Action program in the past.

The Government of Republic of Iraq requests all member states of this convention to approve the request for the deadline extension and at the same time seeks assistance from the international community to provide the necessary assistance and support as a part of its shared humanitarian commitment.

The Republic of Iraq has inherited from contamination by mines and ERW one of the most contaminated country in the world, and is fighting a fierce war against the enemy of humanity which harms the values of humanity and is killing people, destroying the earth, infrastructure and planting fear and terror around the whole world. It's the responsibility of the international community to stand together in the fight against terrorism and overcome the big burden they left in Iraq.

The Republic of Iraq extends its appreciation to the Presidency and member states of this convention for their support and assistance provided in the past and also appreciates the countries that provided financial and technical support.

The government of Iraq also thanks all partners from humanitarian and other organizations and seeks their continued and expanded support in the future.