REPUBLIC OF IRAQ

MINISTRY OF HEALTH \ ENVIRONMENT

DIRECTORATE FOR MINE ACTION

First update of the Extension Request Plan until (2028) in accordance with Article 5 of

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

Baghdad - 2019

State party: Republic of Iraq

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Introduction

The Government of the Republic of Iraq presents the updated plan for requesting an agreed extension within the obligations to be implemented in accordance with Article 5 of this Convention, which presents to the Presidency of the Convention, Member States and Article five committee, all efforts undertaken and progress made during the previous period, in addition to the challenges faced by the Iraqi mine action program over the past two years.

The updated plan has been prepared based on the data generated by the previous stage and based on the decisions to approve the extension request .

Technical surveys were carried out which led to the reduction of the contamination areas including approximately (26,789,549) square meters of minefields in addition to clearance and clearance works (8,636,231) square meters. (6,644) mines, as well as the destruction of approximately 51,245 explosive ordinance, in addition to the destruction of 254,945 ERW

Despite all the efforts exerted by the Iraqi government in implementing the provisions of the extension request plan, We faced many challenges, including the lacks of international support in the central and southern areas of Iraq, since most of the international support provided was directed to surveys and removals of other types of pollution, namely cluster and improvised explosive devices IED .

We would like to point out the discovery of new minefields through the non-technical survey (NTS), which has not been previously mentioned, with an area of 2,562,923 square meters also new minefields were discovered. Through the work of the technical survey (TS) and an area of (27,618,504) square meters.

The national efforts have been and are still doing their utmost to clear many areas of human nature, agricultural lands and contaminated residential sites.

The Government of the Republic of Iraq humbly calls upon all Member States and the international community to provide the required assistance and support to the mine clearance program of affected areas by mine anti personals as part of the humanitarian responsibility towards the Iraqi people to help Iraq meet its obligations under the terms of the Convention and the Extension Plan.

Iraq Mine Action programs structure

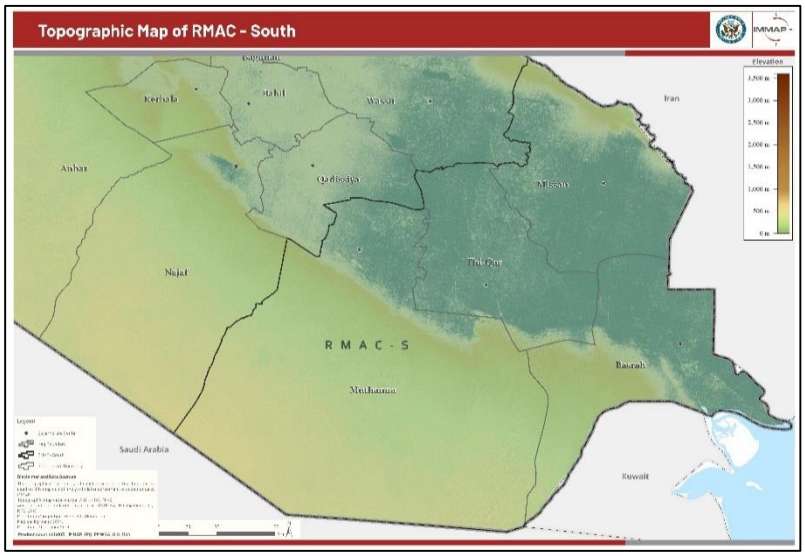
The Iraqi Mine Action Program includes:

Directorate for Mine Action (DMA)

It represents the federal government and covers all governorates except the the Kurdistan region provinces , the provinces distribute according regional mine action centers as follows:

Regional Mine Action Center –Southrien (RMAC-S)

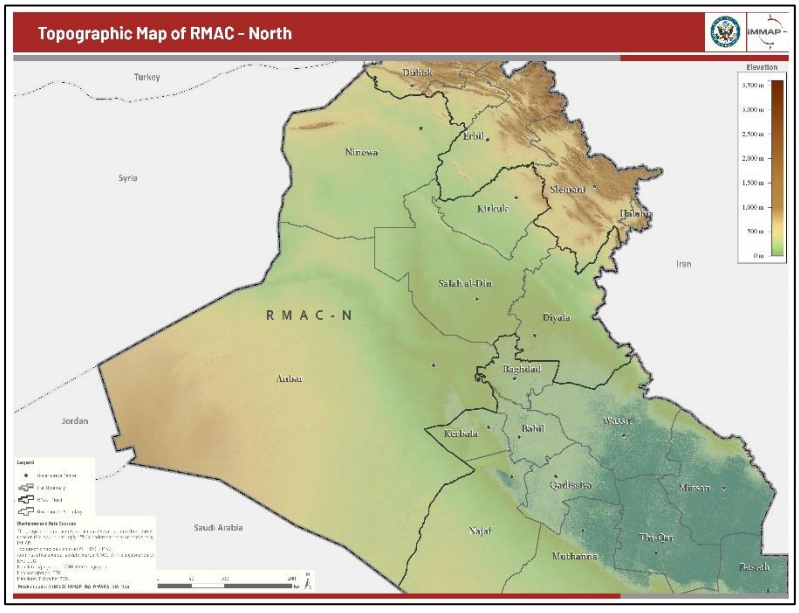
Covered governorates (Basrah, Missan , Thi Qar and Muthanna)



Map 1- RMAC -S Provinces

Regional Mine Action Center –Northrien (RMAC-N)

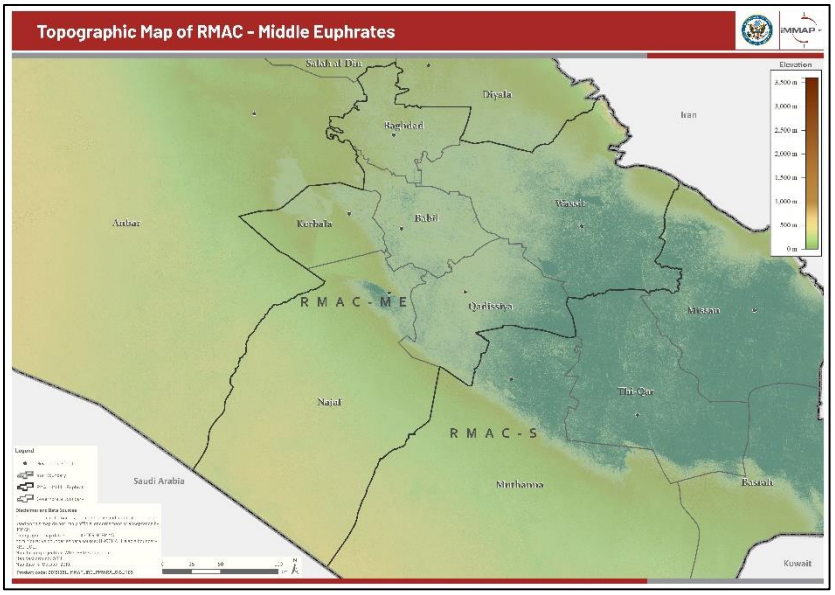
Covered governorates (Ninawa , Diyala , Kirkuk , Anbar and Salah al-Din)



Map 2- RMAC-N Provinces

Regional Mine Action Center –Middel of Eufrits (RMAC-M EU)

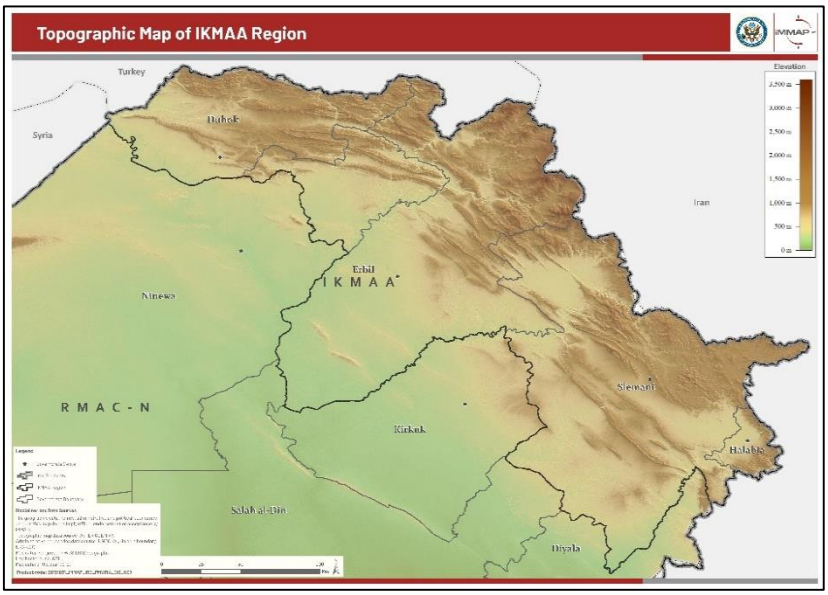
Covered governorates (Baghdad, Babylon, Kerbala , Wassit , Najaf and Qadissiya)



Map 3- RMAC-M-EU Provinces

B- Kurdistan of Iraq Mine Action Agency (IKMAA)

Covered governorates (Erbil , Duhok , Slemani and Halabja)



Map 4 - IKMAA Provinces

The main geographic features of Iraq, which include topography , its differences depending on the location of the region, in addition to other details of the nature of the land and population density, plant and climate, which had a high impact on the surveys and removals through the sharp change in temperature, different terrain and the difficulty of the land.

Main geographic features

Most geographers divide the geographic characteristics of Iraq by four main regions: the western and southwestern regions of the desert, the highlands between the upper Dijlis , the Euphrates and the mountain highlands in the north and northeast and the sedimentary plain on the Tigris and Euphrates rivers. Official Iraqi statistics indicate that the total area of Iraq is 438,446 km ^{2} ,

Area

Total area: 437072 square kilometers Land area: 432 162 square kilometers Water: 4910 square kilometers

Land borders

The total length of the land border is 3631 km, the length of the border with Iran is 1458 km, with Jordan 181 km, with Kuwait 242 km, with Saudi Arabia 814 km, with Syria 605 km, with Turkey 331 km, and the total length of the sea coasts is 58 km.

- Iran 1458 km (906 mi),
- Saudi Arabia 814 km (506 mi),
- Syria 605 km (376 mi),
- Turkey 331 km (206 mi),
- Kuwait 242 km (150 mi),
- Jordan 181 km (112 mi),

Total: 3631 km (2256 miles)

- Coast: 58 km (36 mi)
- Landforms :-

Lowest point: Arabian Gulf 0 m

Highest point: Halkard peak 3600 m above sea level

Surface sections

The surface of Iraq is divided into four main sections: the western plateau , the mountainous region , the sedimentary plain and the undulating region .

Western plateau

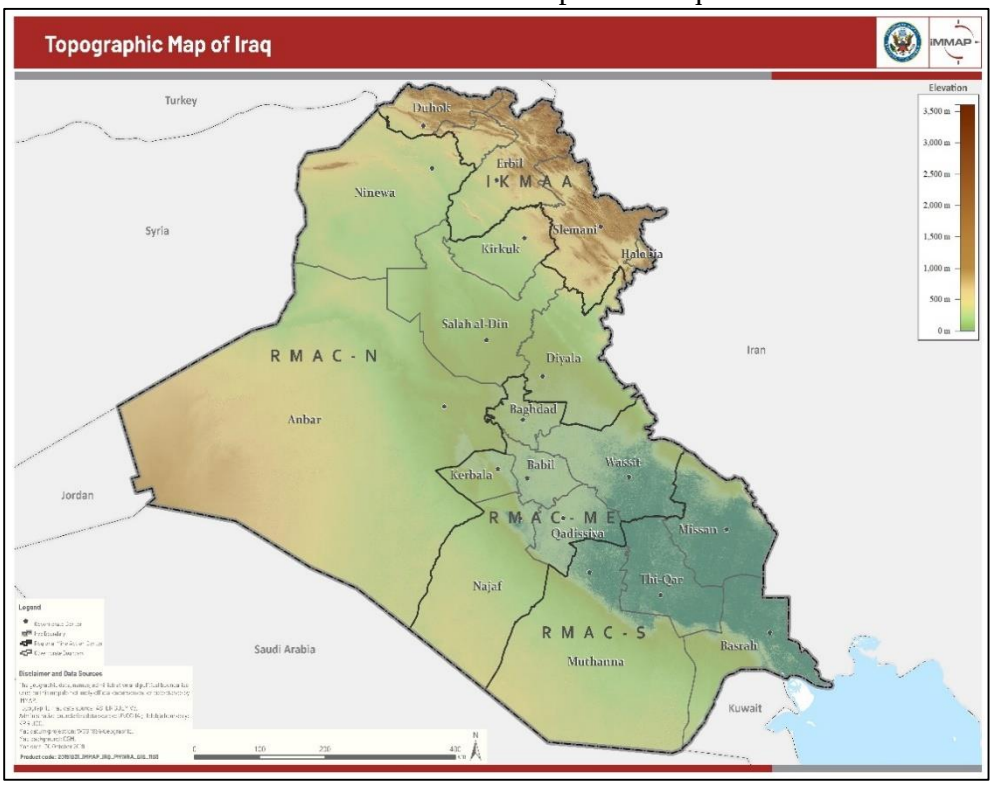
The western plateau extends along the area west of the Euphrates River , and extends to the desert of Syria , Jordan and Saudi Arabia , a dry area in most of the year and inhabited by the Bedouin and many valleys, some of which up to 400 km. The rains in winter sometimes constitute floods that threaten the Bedouin inhabitants, and occupies the region about 55% of the area of Iraq, which is equivalent to 239,000 square kilometers and a height ranging from 100-1000 meters, including the Badia Island.

Mountain region

This area occupies a quarter of the area of Iraq approximately (920 thousand) square kilometers and starts from the south of Kirkuk, represented by Mount Hamrin , and extends east to Iran and west to Syria and north to Turkey , and the mountainous area in the northern and northeastern part of Iraq.

Sedimentary plain

The area starts from the north of Baghdad to the Arabian Gulf and passes through the rivers of the Tigris and Euphrates where these two rivers are linked to a group of canals, and this area includes a group of marshes, some of which are considered permanent and others seasonal, including Hor Al-Hammar and Hor Al-Hawiza . The area was named the sedimentary plain for the deposition of large quantities of salts of the Tigris and Euphrates rivers and the deposits of sand and mud therein. There is a lake in the south-west of Baghdad in the name of Salt Lake, a reference to the density of salt deposits, which reaches a thickness of 20 centimeters. The sedimentary plain occupies a quarter of the area of Iraq, equivalent to 132,000 square kilometers and extends in the form of a rectangle 650 km long and 250 km wide, extending between the city of Balad on the Tigris River The city of Ramadi in the Black Hill area on the Euphrates River to the north, the Iranian border on the east and the desert plateau on the west, including the marshes .



Map 5 - Iraq Topographic

Wavy area

It is a transitional area between the low plains in the south, and the high mountains in the far north and north-east of Iraq, and occupies 50% of the area of the mountainous area (67000) square kilometers of which 42000 square kilometers outside the mountainous area and the height ranges from 200-1000 m and 25000 square kilometers Within the mountainous region and its height ranges from 200-450 m. This area starts between the Tigris River north of the city of Samarra and the Euphrates River north of the city of Hit and extends to Syria and Turkey , also known as Badia island.

Climate

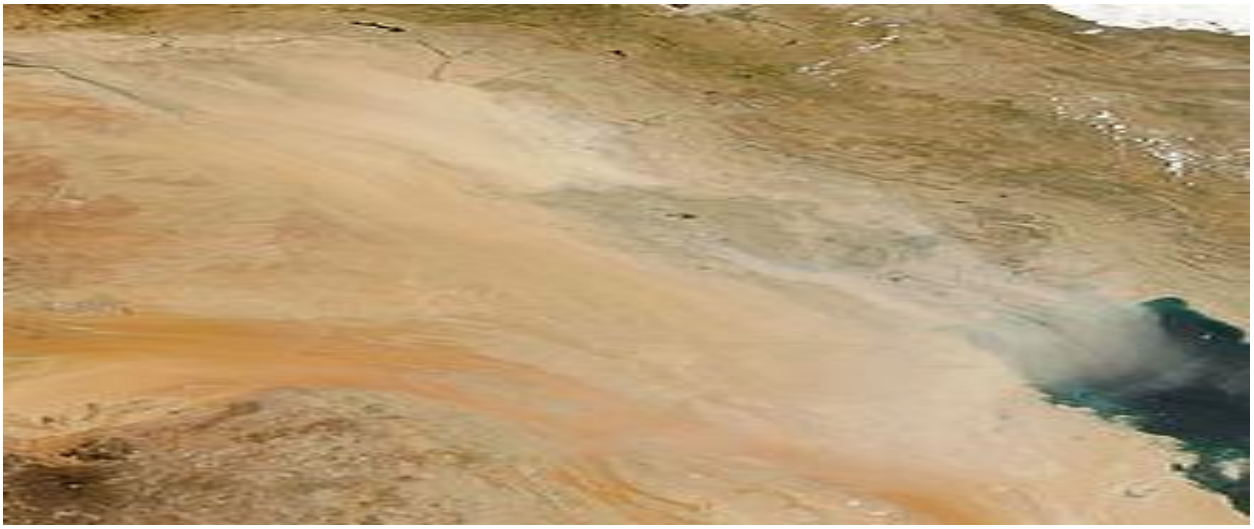
Iraq's climate is divided into three main areas

Mediterranean climate

It includes the mountainous area in the northeast. It is characterized by cold winters, where snow falls over the tops of mountains and the amount of rain ranges between 400-1000 mm annually. Its summers are mild, with temperatures not exceeding 35 degrees Celsius in most parts.

The steppe climate is

It is a transitional climate between the Mediterranean and the desert climate.



Map 6- Dust Storms in Iraq - July 30, 2009

The desert climate is

It includes the sedimentary plateau and the western plateau, which is approximately 70% of the surface of Iraq, and annual rainfall ranges between 50-200 mm, and is characterized by a large thermal range between night and day and summer and winter, where temperatures in the summer between 45-50 degrees Celsius, and in Winter is cold and temperatures remain above freezing and do not fall below it.

Environmental problems

Fig. 1- One Of the Rivers in northern Iraq

Marshlands

The marshlands of Iraq constitute the largest wetland systems in the Middle East with their environmental, social and cultural characteristics important. The marshes have been damaged since the 1970s due to dams . Therefore, the inhabitants of these areas of the Marsh Arabs had to move to other areas to live, and the destruction of natural life threatens wildlife there. . The United Nations Environment Program (UNEP) and the World Bank have launched a project to assess the needs for Iraq's reconstruction and to consider the marshlands as one of Iraq's environmental disasters.

In 2001, UNEP alerted the international community about the destruction of the marshes when it published satellite images showing the loss of 90% of the marsh area. Experts pointed out that the marshes could disappear completely from Iraq within 3-5 years unless urgent action is taken

After the occupation of Iraq, destroyed the dams and here the first re-flooding, but not in all areas of the marshes. Satellite imagery analyzed by UNEP officials shows that re-flooding is continuing with seasonal variations in the level of flooding.

The region suffers from poor water quality for several reasons including pollution of sewage, high salinity, pesticide pollution and pollution of industrial wastes coming from the upper rivers. These problems are caused by the limited amount of water entering the marshes, in addition to poor water quality and wastewater treatment.

drinking water

A United Nations international organization conducted a general environmental assessment and USAID conducted a public health survey where it was found that drinking water was one of the most immediate needs of citizens. Most residents have no choice but to drink untreated and unrefined water directly from the marshes. The United Nations Environment Program (UNEP) held discussions with representatives of the population and officials in the concerned governorates that providing safe drinking water was the first priority for the population.

Global Warming

Iraq, like other countries in the Arab region, which, like other developing countries, has little historical responsibility for the problem of climate change (only about 5% of GHG emissions for the Arab region and about 0.21% for Iraq only). The proportion is increasing in the context of industrial and economic development and the absence of the use of clean technologies, cleaner production methods and renewable energy sources), but it will not be immune to the effects of this problem, but is likely to be one of the most vulnerable areas to the potential impacts of climate change and its various interactions, which It has several negative repercussions on economic and social development and impedes sustainable development. Perhaps the greatest impact of climate change in the Arab region is its threat to food security as a result of declining water resources, shrinking agricultural production, degradation of vegetation and loss of biodiversity. Climate change also poses a threat to vital economic investments in different regions. Especially in coastal areas, as well as social and health consequences, the spread of diseases and the aggravation of epidemics.

The problem of desertification

One of the most important things that put great pressure on the Iraqi environment, where the extent of desertification and dry areas and threatened to desertification. Desertification reached about 70% of irrigated agricultural land, about 72% of rainfed agricultural land and 90% of pasture due to water scarcity due to climate change and Challenges in the water sector, which is clearly a threat to food security in the country in conjunction with the continuous increase in the population. , where decreased productivity dunam one of the land in Iraq to low levels compared to the neighboring States due to Challenges land management and degradation where reports indicated in 1993 that the agricultural sector contributes with 18% of GNP and represents 24% of the labor force and an average of arable land was Massa Yeh to 0.3 hectares per capita. Today, there is a significant deterioration in the land, especially irrigated ones.

water shortage

The sedimentary plain represents the Iraqi food basket, but 80% of its area suffers from different degrees of salinization and waterlogging due to many factors including climate change . The fact that the two main rivers in Iraq are from neighboring countries is considered a major threat to ensure continuous access to water resources. Where the report of the Arab Forum for Environment and Development in 2008 , which showed the challenges of the Arab environment and the challenges of the future that the availability of fresh water in Iraq has decreased significantly since 1955 , during which the amount of available fresh water annually and per capita is (18,441 m^3 / Person / year) while this value has reached Li (2.400 cubic meters / person / year) in 2010 was expected to reach (1,700 m3 / person / year) in 2025 . From the above, there is a clear scarcity of water resources in Iraq, and the expected future effects of climate change indicate the possibility of a decrease and fluctuation in the future and a clear increase in the amounts of precipitation and increase in temperature, which will accelerate the vulnerability in the freshwater resources sector, where the amount The quality of available freshwater sources is within the limits of risk. Most of Iraq lies within the desert and there are lands within its area that receive less than 150 mm of rain per year. As a result, Iraq is one of the countries that rely heavily on neighboring countries such as Turkey, Syria and Iran to provide fresh water sources flowing into Iraq such as the Tigris, Euphrates and Karun rivers . The continued decrease in the amount of rainfall and the increase in consumption rates in neighboring countries that are considered the source of the available water sources in Iraq will exacerbate the situation of fresh water scarcity in Iraq in the future, for example, some mathematical models for future forecasts of drinking water situation in Iraq. In the future, the drainage of the Euphrates will be reduced by 29 to 73%. These factors, along with many other impacts, will create clear challenges in Iraq's water sector over the coming decades.

Natural plant

It is divided into:

Forests and mountain grasses :

These forests are located in the high mountains and within the Mediterranean region and are the most germinated areas of Iraq because of the abundance of rain and temperate heat, and plants cover about 70% of the area of the region and the remaining 30% include weeds and shrubs. The most important plants of this region are oak, almonds, walnuts, pine nuts and green bean.

Plains :

includes semi-mountainous (undulating) lands and a section of the eastern end of the sedimentary plain. Most of its plants consist of weeds and some bulbous and spiny plants.

Riverside area :

includes the banks of rivers in various parts of Iraq and its natural plant consists of trees and shrubs and grass, the most important of the West, willow, ethyl, licorice, rational and thorns.

On the banks of the rivers grow trees such as citrus and palm trees.

Marshlands and marshlands :

Located in the south of the sedimentary plain and be in the form of a triangle are located cities of architecture and Nasiriyah and Qurnah on his heads and located in this region the most important marshes of Iraq Hawar Hawar a donkey, and its natural plant is reeds and papyrus.

Desert area :

This area includes the desert plateau and the sedimentary plain except its northern and eastern edges. As a result of the great variation of heat between summer, winter, night and day as well as few rains make the plants of this region few and adapted itself to these harsh conditions and the most important plants are optimization and Alqisom, Sidr, thorns and other desert plants.

Key Achievement

1- Conducting technical survey works (TS), especially in Block nine, the total land released by the technical survey (TS) = 26,789,549 square meters in addition to determining the actual area of the mine field as well as changing the classification of the pollution of the rest of the land from the minefield to the remnants of war and this helps to reduce the areas classified as minefields, In addition to help clearance operations that are faster and less expensive.

2- Total land cleared during 2017-2019 are (8,636,231) square meters.

3- Total land canceled during 2017-2019 as a result of non-technical survey works are = 29,727,337 square meters

4- Based on the results of the non-technical survey conducted after obtaining the extension of the four governorates (Baghdad, Babylon, Karbala, Mosul), we declare that the governorates (Baghdad, Babylon, Karbala) are free of mines.

5- The decision of the General Secretariat of the Prime Minister to direct all ministries and government agencies that need to clear mines in their work sites, especially the Ministry of Oil to be surveys and complete clearance of minefields within their work sites and not conduct partial clearance operations by covering work site only . this matter will supporting clearance operation by Allocate funds from these ministries to completely remove minefields within their work sites.

6- General Organization for Mines in the Kurdistan region of Iraq was achieve the desired goal of the plan for the past two years in terms of areas cleaned and release according to the plan, despite the lack of support by international bodies.

7- Japans government has provided direct support to the Iraq Mine Action Program in two respects. first by respond to the purchase of materials, equipment, machinery and equipment to support the de facto clearance teams in the National Mine Action Program, second by conduct training courses for mine action personnel in Iraq through the JAICA. This has added valuable expertise and information, which in turn helps to better manage mine action in Iraq in general.

Goals for the next two year.

1. A comprehensive and ambitious plan covering the remainder of the extension period (2020-2028), including the plan for the next two years (2020-2021), has been developed based on the data and experience available to us.

2. The plan aims to accomplish the preliminary technical survey (PTS) of all minefields over the years for the purpose of determining the real boundaries and areas of minefields and reducing areas through this survey.

3 - Completing of survey work and clearance of minefields in Dhi Qar province and declare the province free of mines.

Baseline as given in extension request

Below is a table of information of Baseline (2016-12-31) as given in extension request .

Region	*Governorate*	*Number of areas known to contain anti-personnel mines*	*Number of areas suspected to contain anti-personnel mines*	*Total number of areas known or suspected to contain anti-personnel mines*	*Amount of area known to contain anti-personnel mines (square metres)*	*Amount of area suspected to contain anti-personnel mines (square metres)*	*Total amount of area known or suspected to contain anti-personnel mines (square metres)*
IKMAA	**Duhok**	405		405	18,704,594		18,704,594
	Erbil	355		355	46,440,416		46,440,416
	Slemani	1,997	145	2142	94,521,803	26,232,623	120,754,426
	Halabja	247	8	255	11,376,185	1,788,806	13,164,991
Total		3,004	153	3,157	171,042,998	28,021,429	199,064,427
RMAC-MEU	**Babylon**		10	10		1,301,600	1,301,600
	Karbala		20	20		5,627,900	5,627,900
	Wassit	31		31	39,646,306		39,646,306
Total		31	30	61	39,646,306	6,929,500	
RMAC-N	**Diyala**	1	84	85		29,438,137	29,438,137
	Ninewa		7	7		137,500	137,500
	Salah al-Din		35	35		123,196,029	123,196,029
Total		1	126	127	-	152,771,666	
RMAC-S	**Basrah**	41	1	42	962,731	689,303,917	690,266,648
	Missan	198	1	199		44,839,415	44,839,415
	Muthanna	2		2	37,845,692		37,845,692
	Thi-Qar		1	1		99,728	99,728
Total		241	3		38,808,423	734,243,060	
Grand Total		**2,897**	**657**	**3554**	**230,375,821**	**965,189,911**	**1,195,565,732**

Table 1- Baseline as given in Extension Request

Progress

Below is a progress table for the period 2017-01-01 till 2019-08-31

Province	District	Cancelled area (square metres)	Reduced area (square metres)	Cleared area (square metres)	Total area released (square metres)	Number of anti-personnel mines destroyed	IED	Number of other explosive items destroyed	Total
Duhok				1,149,648	1,149,648	1,540	311	12,571	14,422
Erbil				974,975	974,975	3,042	2	2,537	5,581
Halabja				222,625	222,625	94		81	175
Slemani				3,479,066	3,479,066	4,500	1	5,837	10,338
Anbar							13,688	16,871	30,559
Babylon	Al-Musayab	89,500			89,500			5	5
	Hilla	1,552,896			1,552,896				
Baghdad	Al Rasafah	35,277			35,277			254	254
Kerbala	Ain Al-Tamur	2,250,000			2,250,000				
	Al-Hindiya	2,042,500			2,042,500				
	Kerbala	1,305,000			1,305,000				
Ninewa	Al-Hamdaniya	509,050			509,050	11	34,134	116,936	151,081
	Hatra	683,255			683,255				
	Makhmur	10,327			10,327				
	Mosul	4,042,694		69,185	4,111,879				
	Sinjar	3,694			3,694				
	Telafar	1,333,590			1,333,590				
	Tilkaif	15,869,554			15,869,554				
Basrah	Fao			67,204	67,204	1,158		33,545	34,703
	Shatt Al-Arab		26,069,125	779,657	26,848,782				
Karkuk							2,472	9,328	11,800
Kerbala								175	175
Diyala	Baladrooz			72,092	72,092	794	227		1,021
Muthanna								6,521	6,521
Najaf								39	39
Qadissiya								1,466	1,466
Salah al-Din							410	1,561	1,971
Thi-Qar								6,605	6,605
Missan	Al-Kahla		302,417	42,532	344,949	4,509		39,651	44,160
	Amara		383,459	1,720,256	2,103,715				
Wassit	Badra		34,548	58,991	93,539	172		962	1,134
Grand Total		**29,727,337**	**26,789,549**	**8,636,231**	**59,326,803**	**6,644**	**51245**	**254,945**	**322,010**

Table 2- progress for period (1-1-2017 to 31-8-2019)

Current contamination of Minefields compared with the baseline

Below is a table for Current Contamination 2019-08-31

Region	*Governorate*	*Baseline Contamination 12/31/2016*	*New Hazard Found 2017-01-01 to 2019-08-31*	*Total Area Released 2017-01-01 to 2019-08-31*	*Current Contamination based on Progress 2017-01-01 to 2019-08-31*	*Data Verification 2017-01-01 to 2019-08-31*	*Current Contamination National Database 2019-08-31*
IKMAA	**Duhok**	19,108,042		1,149,648	17,958,394	2,885,275[1]	**20,843,669**
	Erbil	48,091,213		974,975	47,116,238	3,200,713[2]	**50,316,951**
	Slemani	155,967,522		3,701,691	152,265,831	(41,721,715) [3]	**110,544,116**
	Halabja						
Total		223,166,777					
RMAC-M EU	**Babylon**	1,301,600	340,796	1,642,396			
	Kerbala	5,627,900		5,597,500	30,400	(30,400) [4]	-
	Wassit	39,646,306	58,267	93,539	39,611,034	(27,856) [5]	**39,583,178**
	Baghdad		35,277	35,277	-	-	-
Total		46,575,806				-	-
RMAC-N	**Diyala**	29,438,137	72,092	72,092	29,438,137	(13,814,276) [6]	**15,623,862**
	Ninewa	137,500	22,383,849	22,521,349	-	515,178[7]	**515,178**
	Salah al-Din	123,196,029			123,196,029	(123,196,029) [8]	-
Total		152,771,666				-	-
RMAC-S	**Basrah**	690,266,648	26,643,218	26,915,986	689,993,880	197,107,843[9]	**887,101,723**
	Missan	44,839,415	3,340,990	2,448,664	45,731,741	749,147[10]	**46,480,888**
	Muthanna	37,845,692			37,845,692	-	**37,845,692**
	Thi-Qar	99,728			99,728	-	**99,728**
Total		773,051,483					
Grand Total		1,195,565,732	52,874,489	65,153,117	1,183,287,104		1,208,954,984

Table 3 - Current contamination of Minefields compared with the baseline

(1) This area size (2,885,275 m^2) was not included in the 2017 extension request at is was been Worked On, only open Hazards were included.

(2) This area size (3,200,713 m^2) was not included in the 2017 extension request at is was been Worked On, only open Hazards were included.

(3) This area size (41,721,715 m^2) is ERW and was reported in the 2017 extension request.

(4) This area size (30,400 m^2) was incorrect information from Land Impact Survey and now is verified.

(5) This area size (27,856 m^2) re-surveyed and updated information.

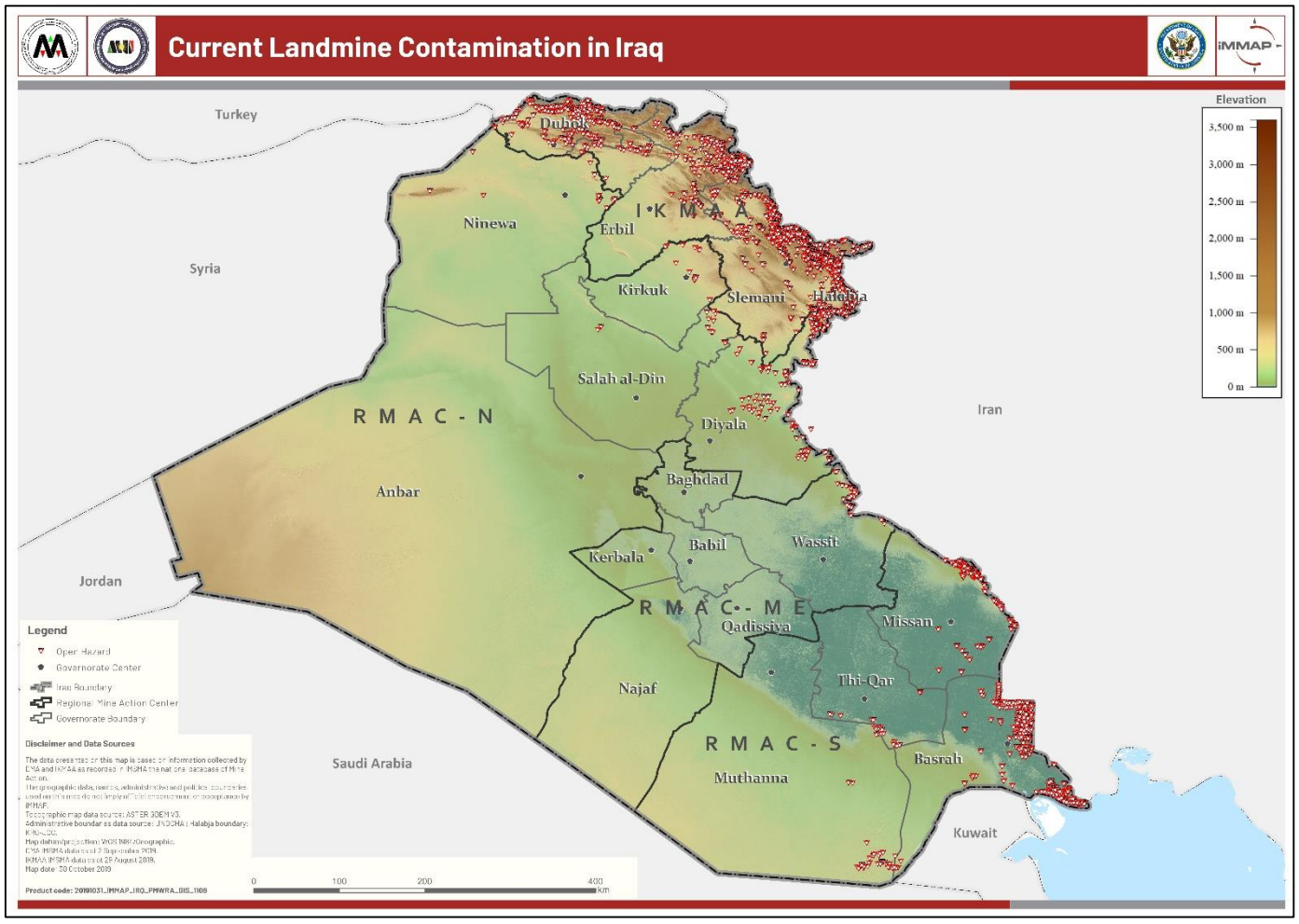
(6) This area size (13,814,276 m^2) re-surveyed and updated information and reclassified to another type of Hazard.

(7) This area size (515,178 m^2) re-surveyed and updated information and reclassified to another type of Hazard.

(8) This area size (123,196,029 m^2) re-surveyed and updated information and reclassified to another type of Hazard.

(9) According to the page 76 of the extension request we mentioned (460,117,234 m^2) and was not included in the baseline. We changed the status of area size (197,107,843 m^2) from Worked on to Open and the type of Hazard to Minefield and this area size (210,802,775 m^2) type of Hazard changed to ERW, and this area size (26,137,491 m^2) confirmed as a Minefield, and the remained area size (26,069,125 m^2) Reduced by Technical Survey

(10) This area size (749,147 m^2) was Worked On and then the hazard status changed to Open.



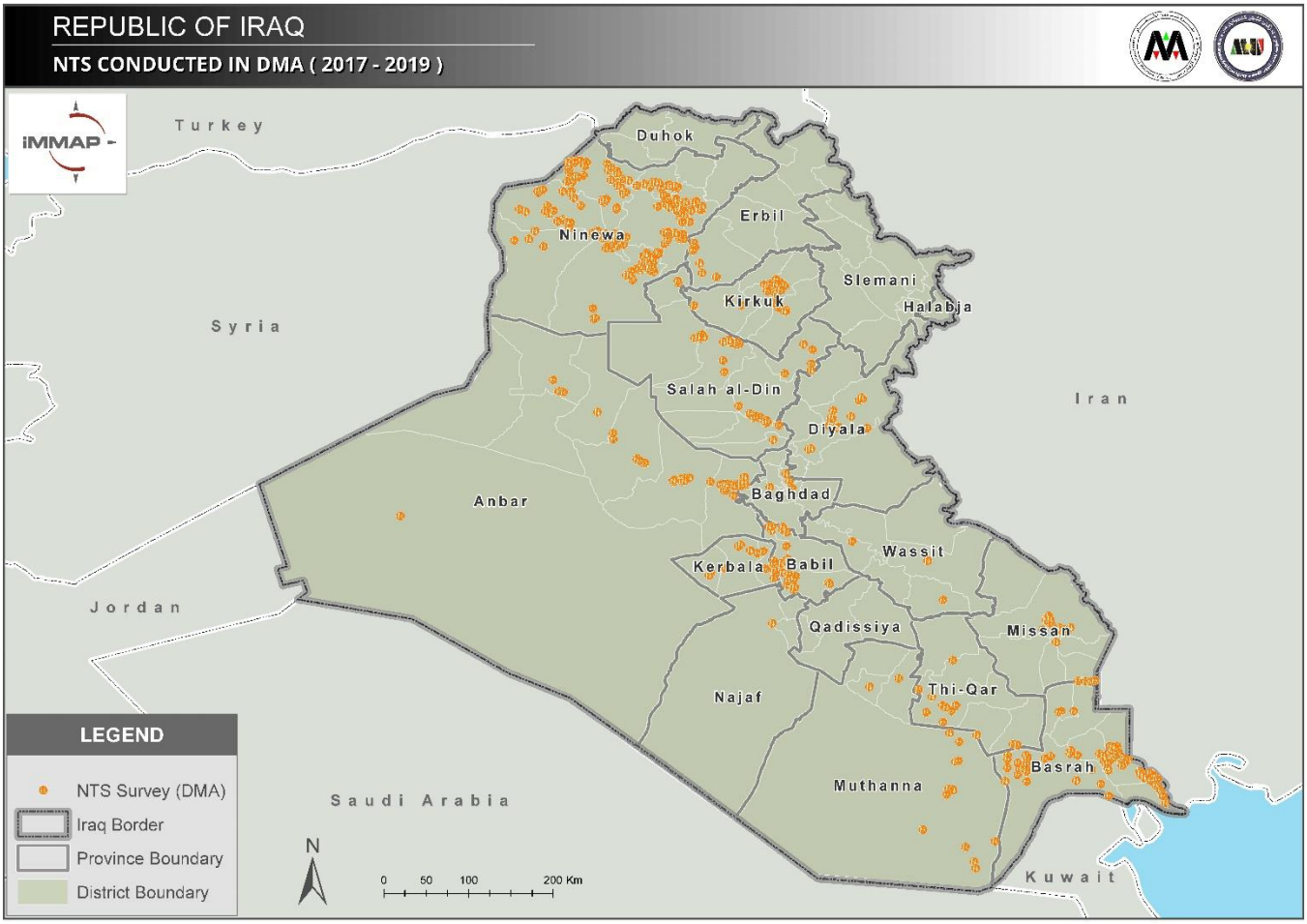
Map 7- Current Landmine Contamination in Iraq

Chapter I: Directorate for Mine Action (DMA)

Implemented Activities According to the work plan that submitted in the extension request as of the baseline.

Implementation of Non-Technical Surveys

As of the baseline (starting the date of submission of the extension request 1/1/2017), the non-technical survey (NTS) of the governorates (Baghdad, Babylon, Karbala, Ninawa) was completed as in the following tables based on what is recorded in the database showing the operations Cancellation, Release and Confirmation of dangerous areas in addition to the discovery of new dangerous areas that were not registered in the database,



Map 8 - NTS Conducted in DMA (2017-2019)

Hazard Areas canceled by the non-technical survey of the four governorates where the survey was completed after the baseline:

By implement the non-technical survey (NTS), canceled 366 hazardous areas were recorded in the IMSMA database. The total area canceled for the four governorates was (29,727,336) square meters. Table (4) shows the details of the canceled areas according to the country structure.

province	district	Count of hazard	Area size (m²)
Babylon	Al-Musayab	1	89,500
	Hilla	15	1,552,896
Baghdad	Al Rasafah	1	35,277
Kerbala	Ain Al-Tamur	2	2,250,000
	Al-Hindiya	7	2,042,500
	Kerbala	7	1,305,000
Ninewa	Al-Hamdaniya	64	509,050
	Hatra	11	683,255
	Makhmur	5	10,327
	Mosul	84	4,042,694
	Sinjar	9	3,694
	Telafar	47	1,333,590
	Tilkaif	113	15,869,554
Grand Total		**366**	**29,727,336**

Table 4 - Hazard Areas canceled by the non-technical survey of the four governorates

Hazardous areas confirmed and discovered by Non-technical survey (NTS) that completed after extension request for the four governorates (Babylon, Baghdad, Karbala, Mosul).

The Non-technical surveys(NTS) confirm hazardous areas by converting them from suspected hazardous areas (SHA) to confirmed hazardous areas (CHA).

Non-technical survey work (NTS) in the four governorates resulted in the confirmation of hazardous areas registered in the database, where the total area of hazardous areas classified as cluster munitions amounted to (4,773,178) square meters and the total area of hazardous areas classified as confrontation areas (82,022,316) square meters, The hazardous areas classified as ERW (7,137,549) square meters and the hazardous areas classified as IED (347,425,481) square meters, So, the total hazardous areas confirmed by non-technical survey (NTS) is (441,751,635) square meters, Table (5) below shows the details of the hazardous areas By governorate and districts.

province	district	Cluster Munitions	Battlefield	ERW	IED	Minefield	Grand Total
Babylon	Al-Mahawil	290,701		10,301			301,002
	Al-Musayab			26,571			26,571
	Hilla			180,000			180,000
Baghdad	Abu Ghraib		1,209,354		59,770,117		60,979,470
	Al Mahmodia				3,577,320		3,577,320
	Al Rasafah			38,788			38,788
Kerbala	Ain Al-Tamur			2,629,927			2,629,927
	Al-Hindiya			856			856
	Kerbala	293,263		1,019,958			1,313,220
Ninewa	Al-Ba'aj				845,131		845,131
	Al-Hamdaniya	20,762	16,000,217	2,683,873	27,985,782		46,690,634
	Hatra				8,867,412		8,867,412
	Makhmur		320,213	151,961	13,064,139		13,536,313
	Mosul	32,125	58,395,420	298,084	79,816,516	2,325	138,544,470
	Sinjar		217,006	7,839	57,516,348	390,786	58,131,978
	Telafar	4,136,328	479,886	40,371	66,836,081		71,492,667
	Tilkaif		5,400,221	49,022	29,146,637		34,595,880
Grand Total		**4,773,178**	**82,022,316**	**7,137,549**	**347,425,481**	**393,110**	**441,751,635**

Table 5 - CHA Discovered By NTS (2017-2019)

Based on the results of the non-technical survey conducted in the four governorates (Baghdad, Babylon, Karbala, Mosul), we declare that the governorates (Babylon, Baghdad, Karbala) are free of minefields , that mean Free of confirmed mined area and defined.

Confirmed and discovered hazardous areas for governorates where update Non-Technical survey

In addition to the non-technical survey work in the four governorates, there was a non-technical survey work in other governorates based on information or updating of the survey. The total of hazardous areas as classified as confrontations areas (299,127,999) m², the total of hazardous areas classified as ERW (112,899,334) m² and the total of hazardous areas classified as IED (351,210,614) m² and Total of Hazardous Areas Classified as minefields discovered or confirmed (2,562,923) m² and thus the total hazardous areas confirmed through Non-technical survey NTS (843,449,584) m², (Table 6) below shows the details of confirmed hazardous areas according to the provinces and districts.

province	district	Cluster Munitions m²	Battlefield m²	ERW m²	IED m²	Minefield m²	Grand Total m²
Anbar	Al-Rutba	15,726					15,726
	Ana				19,041,933		19,041,933
	Falluja		8,196	203,932	61,485,047		61,697,175
	Haditha		68,272,811		20,355,121		88,627,932
	Heet		976,665		25,548,952		26,525,617
	Ramadi			1,752	13,691,750		13,693,502
Basrah	Abu Al-Khaseeb	324,263	2,001,814	700,954			3,027,030
	Al-Qurna	38,786					38,786
	Al-Zubair	5,135,394	4,436	5,132,578			10,272,407
	Basrah	18,371		101,042			119,413
	Fao	38,686		1,440,436		309,993	1,789,115
	Shatt Al-Arab		1,571,617	576,087		195,734	2,343,438
Diyala	Baladrooz					72,092	72,092
	Khanaqin		206,661,511	2,829	46,887,857		253,552,197
	Kifri	20,076					20,076
Karkuk	Daquq		1,407,045	54,627	41,994,350		43,456,022
	Hawija		548,896		13,361,943		13,910,839
	Karkuk	3,513,410	688,051	4,955,650	36,261,925		45,419,036
Missan	Al-Kahla	351,559				79,985	431,544
	Al-Maimouna	500,418					500,418
	Al-Mejar Al-Kabeer	101,868		61,496		320,388	483,752
	Amara	616,461		45,390,303		1,584,732	47,591,496
	Qal'at Saleh	338,369	5,956	495,928			840,252
Muthanna	Al-Salman	54,021,031		8,501,668			62,522,699
Salah al-Din	Al-Daur			79,994			79,994
	Baiji		5,007	22,645,891	6,731,605		29,382,503
	Balad			10,933	42,005,007		42,015,939
	Samarra				12,258,340		12,258,340
	Tikrit	1,398,216	16,975,995	240,393	11,586,785		30,201,389
Thi-Qar	Al-Chibayish			79,383			79,383
	Nassriya			1,446,452			1,446,452
	Suq Al-Shoyokh	11,216,081		20,777,007			31,993,088
Grand Total		**77,648,714**	**299,127,999**	**112,899,334**	**351,210,614**	**2,562,923**	**843,449,584**

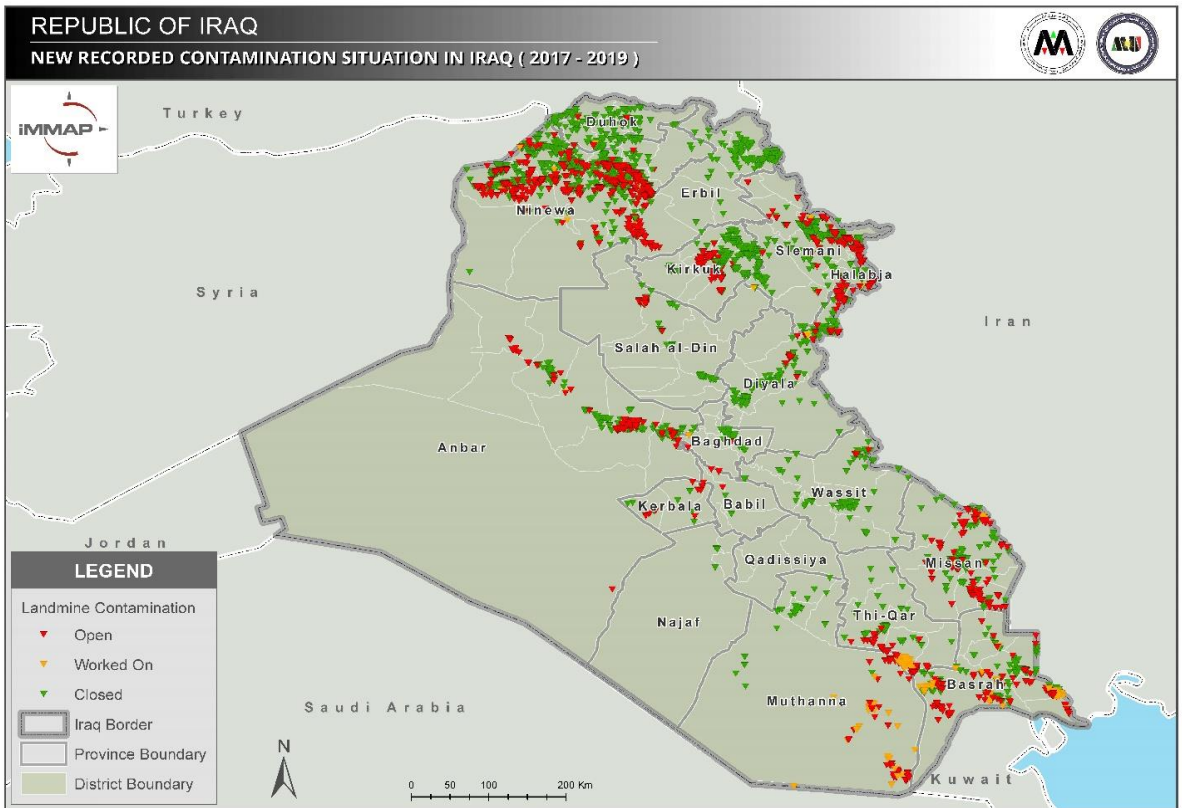
Table 6 - Confirmed & discovered hazard area by NTS for other provinces where finished NTS before baseline

Confirmed minefields that discovered by Non-technical survey after baseline

During the non-technical survey (NTS), new minefields not previously recorded in the database were discovered, in addition to confirming the minefields recorded in data base and based on international and national standards that allow updating of data through non-technical survey, Table (7) below shows all the details:

province	district	Confirmed from NTS	New from NTS	New hazard	Grand Total
Basrah	Fao	309,993			309,993
	Shatt Al-Arab		75,141	120,593	195,734
Diyala	Baladrooz			72,092	72,092
Missan	Al-Kahla		79,985		79,985
	Al-Mejar Al-Kabeer		320,388		320,388
	Amara	568,766	1,015,966		1,584,732
Grand Total		**878,759**	**1,491,480**	**192,685**	**2,562,923**

Table 7 -Minefield area size discovered and confirmed by NTS after Baseline



Map 9 - New Recorded Contamination Situation in Iraq (2017-2019)

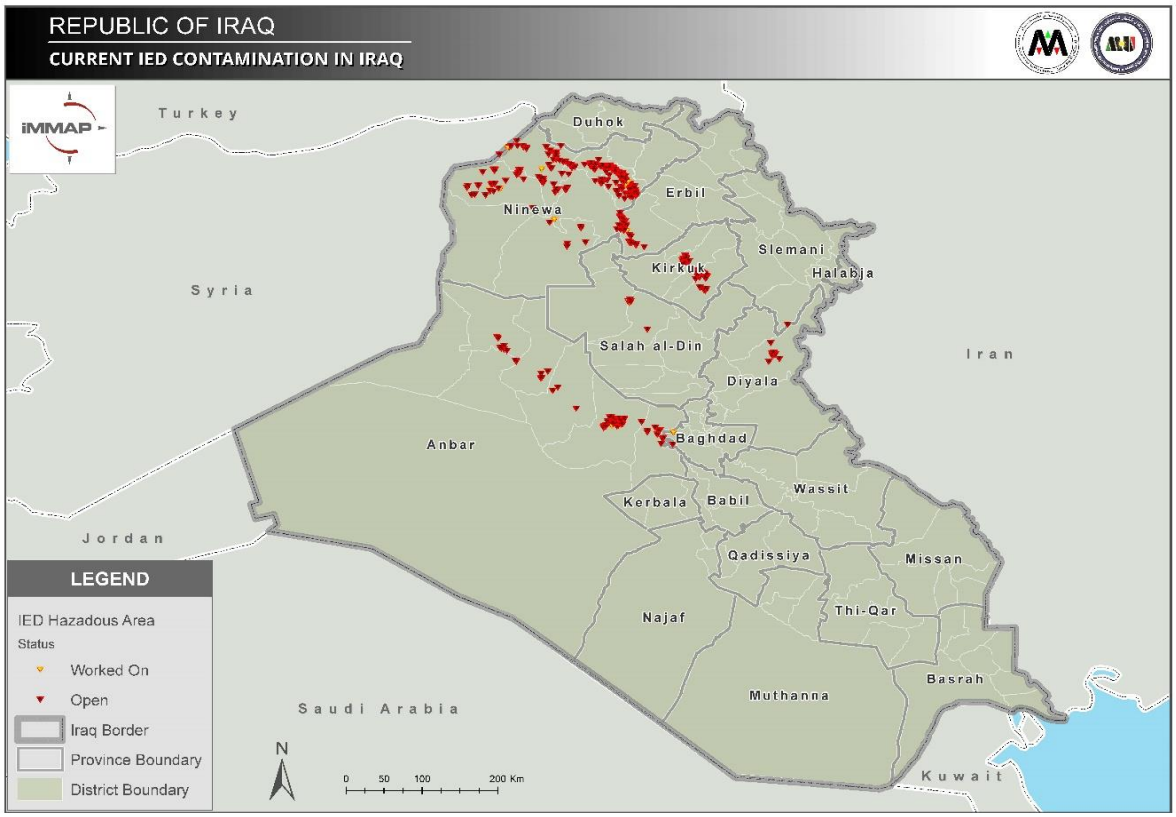
Hazardous areas contaminated with IEDs discovered and confirmed by non-technical survey of all governorates.

After the ISIS terrorist gangs controlled large areas of the western provinces of Iraq, a new and very dangerous contamination was the IED.

This has led to an increase in the size of total contamination in Iraq and an increase of responsibility placed on the national mine program in Iraq by setting a priority to remove this contamination, especially as it directly threatens the lives of citizens and peoples because being implanted in cities and even residential houses, table (8) shows areas Dangerous contaminated with IED detected and confirmed by non-technical survey (NTS) where it refers to (629,556,022) square meters is still dangerous and need to removed.

Province	District	Active	Expired	Transitional	Grand Total
Anbar	Ana	19,041,933			19,041,933
	Falluja	14,403,235	42,324,469	5,608,806	62,336,510
	Haditha	20,355,121			20,355,121
	Heet	958,941	24,590,611	49,802	25,599,354
	Ramadi	7,580,127	7,016,043	275,202	14,871,372
Babylon	Al-Musayab	316,432,025			316,432,025
Baghdad	Abu Ghraib	59,770,117			59,770,117
	Al Mahmodia	3,577,320			3,577,320
Diyala	Al-Muqdadiya		12,165		12,165
	Khanaqin	46,880,967	9,406		46,890,373
Karkuk	Daquq	33,898,218	6,705,318	7,996,200	48,599,736
	Hawija	3,507	13,359,236		13,362,743
	Karkuk	36,255,030	15,020		36,270,050
Ninewa	Al-Ba'aj	100	845,231		845,331
	Al-Hamdaniya	5,469,760	18,842,046	3,790,079	28,101,885
	Aqra	100			100
	Hatra	341,900	683,255	7,844,308	8,869,462
	Makhmur	10,351,556	588,132	2,296,733	13,236,421
	Mosul	6,607,821	78,338,949		84,946,770
	Sinjar	20,549,608	40,299,371	10,051,878	70,900,857
	Telafar	14,809,797	42,142,515	12,689,186	69,641,498
	Tilkaif	8,424,264	20,864,398		29,288,662
Salah al-Din	Baiji	991,001	5,741,054		6,732,055
	Balad		42,008,607		42,008,607
	Samarra		12,258,340		12,258,340
	Tikrit	2,853,576	8,668,249	65,210	11,587,035
Grand Total		**629,556,022**	**365,312,414**	**50,667,404**	**1,045,535,840**

Table 8 - IED Contamination Area Size by Status



Map 10 - Current IED Contamination in Iraq

Progress for Technical survey of minefields.

Reduce of minefield areas (mined Areas) through hazard reduction by technical survey of minefields that recorded in data base:

The Directorate for Mine Action conducted technical surveys (TS) for confirmed minefields recorded in the database, parts of these areas were launched through a hazard reduction by technical survey (TS) during the period after the baseline.

Table (9) below shows the size of the areas released by Technical survey (TS) of mined areas (minefields).

province	district	Reduced form TS
Basrah	Shatt Al-Arab	26,069,125*
Missan	Al-Kahla	302,417
	Amara	383,459
Wassit	Badra	34,548
Grand Total		**26,789,550**

Table 9 - Minefield area size reduced by TS

(*) The results of the block ninth in the province of Basra, which was mentioned in the request for extension on page (76) ,It was outside the calculations of contamination areas as it was the status (in progress).

About Block 9 (belong to M o Oil)

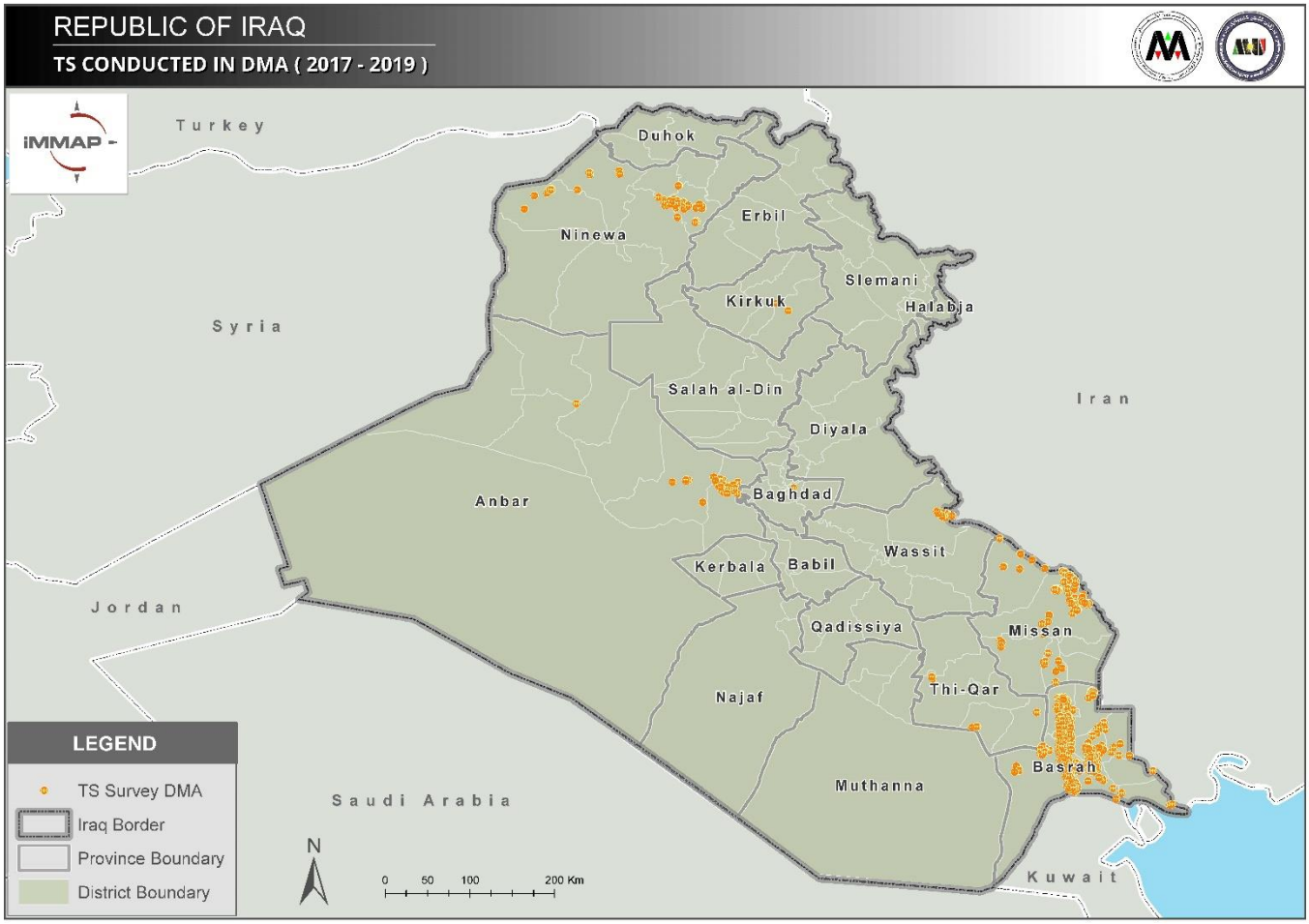
According to the page 76 of the extension request we mentioned (460,117,234 m2) and was not included in the baseline of extension request because in that time the status for this area is (worked on) ,we tasked this area for commercial companies to conduct a technical survey for this area but according to Mo Oil new request in 2017 the task have been changed as here in below :

1- The target area after M o Oil request to conduct TS is (263,009,391)m2 instead of (460,117,234m2) .
2- The remain area (197,107,843 m2) we changed the type status from Worked on to Open because the M o Oil didn't need this area at the moment . In future we need to conduct TS to re-classification this area .

3- We see in this project how is important to conduct TS to reduced area and change the type of contamination and confirmed a real minefields . TS results of target area(263,009,391) as follow :

a. (26,137,491 m2) confirmed as a Minefield

b. (26,069,125 m2) reduced from hazard .
c. (210,802,775 m2) changed from Mixed mine field to ERW areas (another type of contamination).



Map 11 - TS Conducted in DMA (2017-2019)

Areas of minefields discovered by technical survey after baseline date

The following table (10) shows the areas of the new minefields that were discovered through the technical survey. The total area of the minefields discovered through the technical survey is 27,618,504 square meters.

province	district	Grand Total
Basrah	Shatt Al-Arab	26,137,491
Missan	Al-Kahla	31,863
	Amara	1,324,022
Ninewa	Mosul	66,861
Wassit	Badra	58,267
Grand Total		**27,618,504**

Table 10 - New CHA minefield discovered by TS after baseline

Progress of Minefield Clearance

Clearance of minefields during the period after baseline:

The directorate for mine of Mine Action, in cooperation with partners to remove the minefields and reduce the risk resulting from the clearance activity despite the lack of supporting provided to my country, the total area of clearance operations (2,809,917) square meters , table (11) below shows the details of clearance areas for minefields By governorate .

province	district	Total
Basrah	Fao	67,204
	Shatt Al-Arab	779,657
Diyala	Baladrooz	72,092
Missan	Al-Kahla	42,532
	Amara	1,720,256
Ninewa	Mosul	69,185
Wassit	Badra	58,991
Grand Total		**2,809,917**

Table 11 - Minefields Area Size Cleared after baseline

Mines and munitions that destroyed after the baseline for all types of contamination

Province	Org Name	AP	AT	IED	UXO	Type of Activity
Anbar	Al-Danube			23	7,727	Clearance
Anbar	Al-fahad Co for Demining		5	1,567	6,618	Clearance
Anbar	Civil Defence Iraq			13	1,218	Clearance
Anbar	Ditectorate of Combating Explosives			2,135	231	Clearance
Anbar	HALO Trust		1	216	34	Clearance
Anbar	Ministry of Defense		1	9,625	1,033	Clearance
Anbar	Norwegian People Aid		1	107	1	Clearance
Anbar	Wtorplast demining Comp.			2	1	Clearance
Babylon	Civil Defence Iraq				5	Clearance
Baghdad	Civil Defence Iraq				254	Clearance
Diyala	Civil Defence Iraq				997	Clearance
Diyala	Ditectorate of Combating Explosives			223	9	Clearance
Diyala	Handicap International				15	Clearance
Diyala	IKMAA			4	-	Clearance
Diyala	Ministry of Defense	794			763	Clearance
Karkuk	Civil Defence Iraq		11	1,258	6,735	Clearance
Karkuk	Ditectorate of Combating Explosives			1,000	447	Clearance
Karkuk	Handicap International			82	2,128	Clearance
Karkuk	Swiss Federation for Mine Action (Federation Suisse de Deminage)			132	7	Clearance
Kerbala	Civil Defence Iraq		1		174	Clearance
Najaf	Civil Defence Iraq				39	Clearance
Ninewa	Al-Danube		2	799	8,841	Clearance
Ninewa	Al-fahad Co for Demining		542	3,245	16,094	Clearance
Ninewa	Civil Defence Iraq		2	5	3,513	Clearance
Ninewa	Danish Demining Group (DDG)			1	384	Clearance
Ninewa	Ditectorate of Combating Explosives			161	237	Clearance
Ninewa	Janus		234	2,081	1,210	Clearance
Ninewa	Mine Advisory Group	11	11	6,583	5,966	Clearance
Ninewa	Ministry of Defense		136	16,039	79,438	Clearance
Ninewa	Norwegian People Aid			610	97	Clearance
Ninewa	Swiss Federation for Mine Action (Federation Suisse de Deminage)			4,610	229	Clearance
Qadissiya	Civil Defence Iraq		2		1,464	Clearance
Salah al-Din	Civil Defence Iraq		1	1	192	Clearance
Salah al-Din	Danish Demining Group (DDG)		3	2	190	Clearance
Salah al-Din	Ditectorate of Combating Explosives		8	407	1,167	Clearance
Wassit	Alsiraj Almudhia for Remove Mines	170			1	Clearance
Wassit	Civil Defence Iraq	2	80		881	Clearance
Basrah	AKAD	4			13	Clearance
Basrah	AL-WAHA				55	Clearance

Basrah	AL-WAHA				368	TS
Basrah	Aiman Zamin Spadana Co				6	TS
Basrah	Alsiraj Almudhia for Remove Mines		1		39	TS
Basrah	Arabian Gulf Company		6		1,236	TS
Basrah	Beijing Xingtailong Security Techique and Service				162	Clearance
Basrah	Civil Defence Iraq	1	31		4,332	Clearance
Basrah	Civil Defence Iraq				80	TS
Basrah	Danish Demining Group (DDG)	404	139		18,049	Clearance
Basrah	Eagle Eye	5			21	Clearance
Basrah	Ministry of Defense	708	454		972	
Basrah	Nabaa_Al -Hurya Company				6	TS
Basrah	Norwegian People Aid	36	4		3,190	Clearance
Basrah	Norwegian People Aid				489	TS
Basrah	Peace Land Company				124	TS
Basrah	TAAZ				190	Clearance
Basrah	TAAZ		23		3,555	TS
Missan	AL-WAHA	4			24	TS
Missan	Al-Khebra Company for Demining	4,343	16		3,438	Clearance
Missan	Civil Defence Iraq	101	507		29,170	Clearance
Missan	Ministry of Defense	61	6		5,135	Clearance
Missan	Norwegian People Aid		3		1,352	Clearance
Muthanna	Civil Defence Iraq		1		5,643	Clearance
Muthanna	Norwegian People Aid				877	Clearance
Thi-Qar	Civil Defence Iraq		1		6,604	Clearance
Total		**6,644**	**2,233**	**50,931**	**233,470**	

Table 12 - No. Of Ordnance that destroyed after baseline for all type contamination

Challenges:

The Iraqi Mine Action Program has Spared no effort to clear the minefields and remove their impact on the population houses and investment projects, in spite of size of the problem and the great challenges faced by the program as a result of clearance operations. The mined areas were Reduced by Technical survey 26,789,550 square meters and 2,809,917 square meters were released through clearance operations.

1- Lack of international support for mine clearance.

2- Directed the international efforts for the liberated areas (Ninewa, Salah al-Din, Anbar), which was a major reason of delay in the implementation of the plan in the areas of central and southern of Iraq.

3 - The busyness of the national efforts, represented by the Ministry of Defense with liberation operations and controlling of the land in addition to the clearance of the provinces mentioned in point (2).

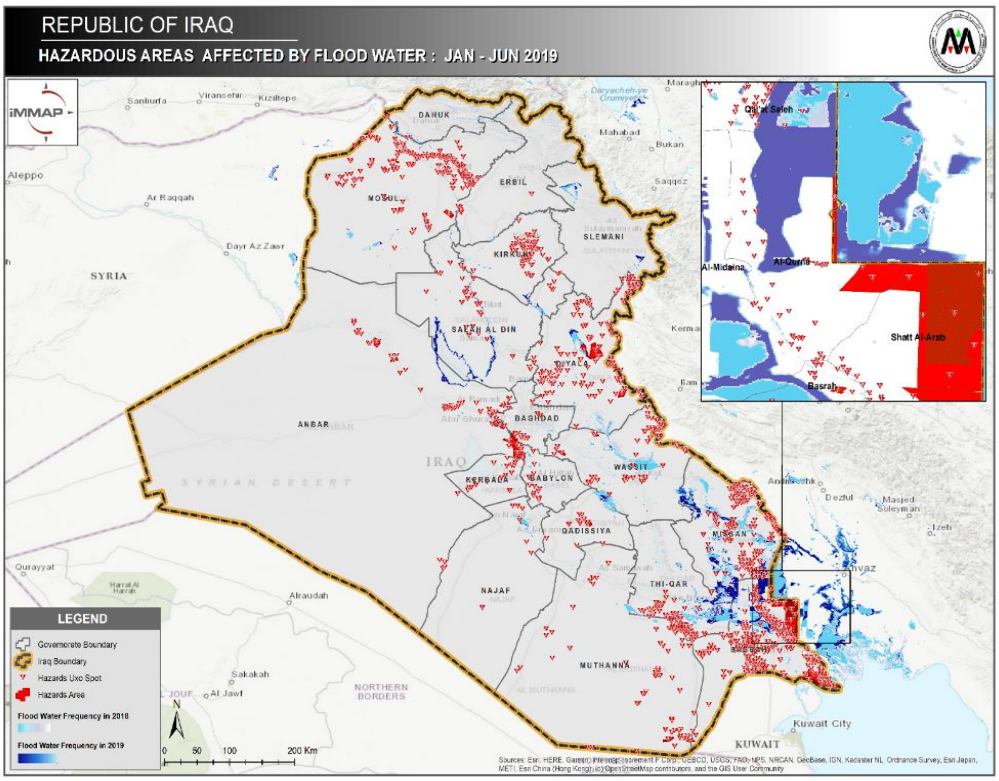
4 - lack of teams for technical survey and manual and mechanical demining of international organizations located in central and southern Iraq.

5 - Iraq was exposed to a wave of heavy rains and heavy floods in the central and southern areas of Iraq swept locations of contaminated with minefields and remnants of war estimated at more than 105 km² As shown in table (13) and shown in map (12), which led to drifts in minefields, the directorate of mine action take quick action as follows:

- We made desk assessment through coordinating with iMMAP for contaminated area that effected by floods through satellite images from starting the floods till finish this crisis, the contaminated area that covered by floods about 108 km2 according to this information as shown in floods map .
- We tasked civil defense directorate in Basra , Missan and Wasit and NGOs like DDG and IMMAC to conduct RE campaigns for effected communities by floods as well as fixed the warning marks near these areas .
- DMA coordinated with MOD and Mo I to send an emergency survey teams to conduct preliminary assessment for some contaminated areas which covered by floods in Basra ,Missan and Wasit .
- According to preliminary assessment DMA will task a governmental efforts and NPA to re-survey the areas that covered by floods through summer 2020 when the area be dry to update the data base .

Province	Hazard Type	Total Area (m2)
Babylon	Battle Area	1,536,451
Babylon Total		1,536,451
Basrah	Cluster Munitions	40,520
	Battle Area	942,000
	ERW	10,233,655
	MineField	42,240,608
Basrah Total		53,456,783
Diyala	IED	44,585,292
Diyala Total		44,585,292
Missan	Cluster Munitions	467,163
	Battle Area	1,125,285
	ERW	917,815
	MineField	1,061,493
Missan Total		3,571,755
Najaf	Cluster Munitions	1,245,038
Najaf Total		1,245,038
Thi-Qar	Cluster Munitions	102,594
	Battle Area	26,716
Thi-Qar Total		129,310
Wassit	ERW	693,183
Wassit Total		693,183
Grand Total		**105,217,812**

Table 13 - hazardous areas that have been affected by floods



Map 12 - Areas that have been affected by floods

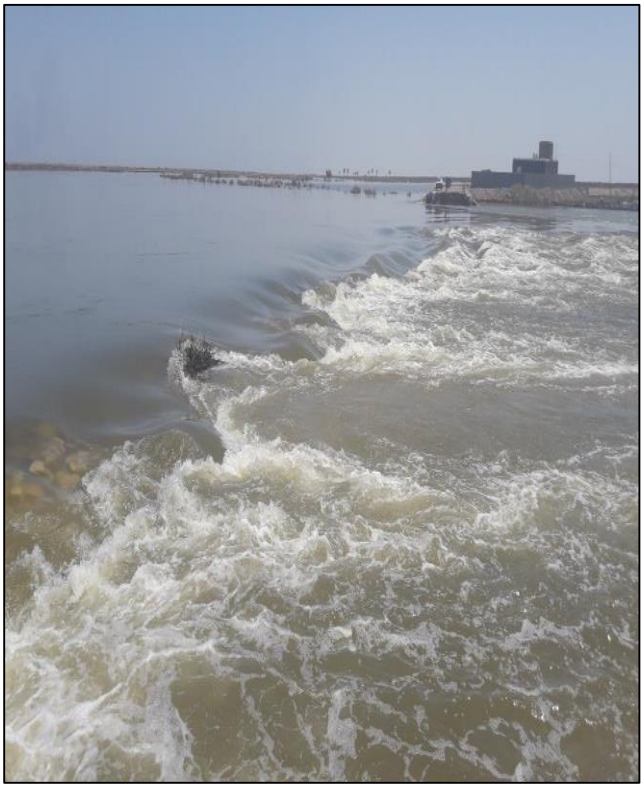


Fig. 2 - Some photo areas that have been affected by floods with Re-NTS & MRE activity

work plan

Based on the data and results of technical and non-technical surveys conducted in the previous phase, in addition to clearance work and its results, where an integrated plan for the remaining eight years of the for extension request of the Anti-Personal Mine Ban Convention (APLC) .

The tables below show the total Contamination in Iraq based on the information recorded in the database (IMSMA) with a focus on the Mined areas (landmines) in addition to the land contaminated with (IED) as in table (14) below.

Current Contamination in Iraq (DMA)

province	Cluster Munitions	Confrontation Area	ERW	IED	Mine Field	Grand Total
Anbar	15,726	105,328,776	6,006	68,273,167		173,623,674
Babylon	290,701	218,400	36,872	316,432,025		316,977,997
Baghdad		14,601,581	3,511	63,347,436		77,952,528
Basrah	28,099,560	49,169,026	306,248,412		887,101,723	1,270,618,721
Diyala	20,076	206,661,255	86,748,302	46,880,967	15,623,862	355,934,460
Karkuk	3,418,306	1,454,939	5,559,771	78,152,954		88,585,971
Kerbala	2,107,444		4,074,337			6,181,780
Missan	895,565	4,036,757	21,118,384		46,480,888	72,531,594
Muthanna	107,178,590		11,174,661		37,845,692	156,198,944
Najaf	5,321,629		122,143			5,443,771
Ninewa	4,157,090	57,999,640	2,885,468	103,227,090	515,178	168,784,465
Qadissiya	3,966,337		57,660,714			61,627,051
Salah al-Din		4,079,812	77,915,165	3,909,787		85,904,763
Thi-Qar	45,185,966	548,348	57,717,714		99,728	103,551,755
Wassit	299,143		75,258,087		39,583,178	115,140,408
Grand Total	**200,956,130**	**444,098,534**	**706,529,544**	**680,223,426**	**1,027,250,248**	**3,059,057,882**

Table 14 - Current Contamination in DMA by type

Areas size and numbers of minefields (Mined Area) by district:

Table (15) shows the number and area size of the minefields by governorate and district and based on the results of the surveys conducted.

province	district	Count of hazard_	_area size (m²)
Basrah	Al-Qurna	6	19,488,291
	Al-Zubair	5	5,752,976
	Fao	14	295,355,576
	Shatt Al-Arab	31	566,504,881
Diyala	Baladrooz	10	2,423,862
	Khanaqin	8	13,200,000
Missan	Al-Kahla	148	26,536,007
	Al-Mejar Al-Kabeer	1	320,388
	Amara	54	19,409,164
	Qal'at Saleh	2	215,330
Muthanna	Al-Salman	2	37,845,692
Ninewa	Al-Shikhan	3	124,392
	Sinjar	2	390,786
Thi-Qar	Al-Chibayish	1	99,728
Wassit	Badra	28	26,895,080
	Kut	2	12,688,099
Grand Total		**317**	**1,027,250,248**

Table 15 - Current minefields area size

Current status of areas size and No. of areas contaminated with IEDs, by district:

In June 10, 2014, Iraq was subjected to an external invasion, where the "ISIS" imposed their control on several provinces (Nineveh, Anbar, Salah al-Din, Diyala,) and parts of the provinces of Kirkuk, Babylon and Baghdad, and mobilized all national efforts and forces for End ISIS in Nineveh and other governorates. This period witnessed of a new contamination, which is the improvised explosive device (IED) , where the ISIS planted large areas with improvised explosive devices (IED) in addition to placing IEDs in residential houses, The magnitude of the challenge was compounded by the lack of an international standard for IEDs at the time .

The national effort teams (Ministry of Defense, Ministry of Interior) as well as national and international organizations and companies, with support of the international community, have made great efforts to make reduction of this contamination and help displaced families who are trying to return to their areas of residence by clearing their areas and houses for IEDs. Table (16) Status of the current situation of IED contamination and the number of dangerous areas.

province	district	Hazard Areas	Area size
Anbar	Ana	11	19,041,933
	Falluja	13	20,012,041
	Haditha	5	20,355,121
	Heet	4	1,008,743
	Ramadi	118	7,855,329
Babylon	Al-Musayab	5	316,432,025
Baghdad	Abu Ghraib	3	59,770,117
	Al Mahmodia	1	3,577,320
Diyala	Khanaqin	7	46,880,967
Karkuk	Daquq	144	41,894,418
	Hawija	1	3,507
	Karkuk	29	36,255,030
Ninewa	Al-Ba'aj	1	100
	Al-Hamdaniya	180	9,259,839
	Aqra	1	100
	Hatra	8	8,186,208
	Makhmur	50	12,648,289
	Mosul	86	6,607,821
	Sinjar	162	30,601,486
	Telafar	60	27,498,983
	Tilkaif	28	8,424,264
Salah al-Din	Baiji	22	991,001
	Tikrit	4	2,918,785
Grand Total		**943**	**680,223,426**

Table 16 - Current IED Contamination

Note.

During the inter-sessional meetings (22-25 / 5/2019), a meeting was held with the Article 5 Committee chaired by the representative of the Netherlands and members of the Committee. The need to include IED contamination was included in the convention's data based on the document presented by the International Committee of the Red Cross (ICRC). The IED contamination was considered one types of ؚAnti-personal mine contamination based on the type of damage caused by this threat for Victims.

also, we contacted with Mr. Juan Carlos, head of the Convention Support Unit for clarification regarding the inclusion of IED contamination in the proposed plan, where he confirmed that IEDs which are indiscriminate and victim activated need to be reported. IEDs that are command detonated or detonated by a timer are not. IEDs which are victim activated (pressure plate, trip wire, infrared ett..) are anti-personnel mines of an improvised nature.

The Proposed Plan

This plan is based on the ratios adopted in the national standards and previous experience in Hazard reduction operations in addition to the actual field data of the minefields taking into account the following points

1- The amount of funding is 60% for the government , The government will provide 60% of the amount needed to conduct the initial technical survey and clearance work for minefields, as part of Iraq's commitment to the international community to implement the provisions of the agreement.
2- for international support 40%. Iraq asking the international community for support and assistance to cover up to 40% of the cost of clearance surveys of minefields by urging donor countries to provide grants to international organizations to help clear the fields.
3- The plan is based on the completion of the preliminary technical survey (PTS) for all minefields during the period 2020-2021.
4- .This plan is considered based on estimations ratios.
5- The plan does not contain the removal clauses of the areas contaminated with IEDs because of the presence of international and national support and large efforts in the survey and clearance of the areas contaminated with IEDs, especially in the liberated areas and table (11) shows the size of the contamination and the amount of release of the IED areas. According to the international support provided by the donor countries, the removal of IEDs is considered a priority for the government to return the displaced people to their homes, noting that the areas contaminated with IEDs were not included in the extension request. It is hoped that the adoption of IED will be resolved at the Fourth Review Conference in Oslo at the end of this year.
6- These prices are considered depending on the current economic situation of Iraq.
7- Clearance activity contain a cost of the works associated with the activity.

Table (17) below between the areas of minefields and the percentage of risk reduction based on national standards as well as the amount of removals (mechanical and manual) depending on the type of fields and the nature of mined land as well as expected from the land that will be changed classification of minefields (mined area) to ERW or Confrontation Area (as per the estimated percentages shown in the table below).

province	Current Mine Field	PTS Reduced %	Estimated Area Reduced by PTS	Remained Area after PTS	Estimated MF %	CHA/MF	CHA Detail		CHA Area size		Remained ERW/CHA
							Mechanical %	Manual %	Mechanical Area size	Manual Area size	
Basrah	887,101,722.77	0.30	266,130,516.83	620,971,205.94	0.35	217,339,922.08	0.60	0.40	130,403,953.25	86,935,968.83	403,631,283.86
Diyala	15,623,861.50	0.20	3,124,772.30	12,499,089.20	0.70	8,749,362.44	0.25	0.75	2,187,340.61	6,562,021.83	3,749,726.76
Missan	46,480,888.34	0.25	11,620,222.08	34,860,666.25	0.70	24,402,466.38	0.30	0.70	7,320,739.91	17,081,726.46	10,458,199.88
Muthanna	37,845,692.00	0.25	9,461,423.00	28,384,269.00	0.70	19,868,988.30	0.70	0.30	13,908,291.81	5,960,696.49	8,515,280.70
Ninewa	515,177.50	0.30	154,553.25	360,624.25	0.70	252,436.98	0.30	0.70	75,731.09	176,705.88	108,187.28
Thi-Qar	99,728.00	0.60	59,836.80	39,891.20	0.35	13,961.92	0.00	1.00	0.00	13,961.92	25,929.28
Wassit	39,583,178.00	0.25	9,895,794.50	29,687,383.50	0.70	20,781,168.45	0.30	0.70	6,234,350.54	14,546,817.92	8,906,215.05
Total	**1,027,250,248.10**		**300,447,118.76**	**726,803,129.34**		**291,408,306.54**			**160,130,407.21**	**131,277,899.33**	**435,394,822.80**

Table 17 - Minefields Area Size with estimated percentage released by PTS and clearance

Note: The difference in proportions depends on the nature of the topography of the area and the type of soil that significantly affects the clearance processes.

Based on the table (17) which contains the area size, the cost of each activity is based on the prices per meter as shown in table (18) below which shows

province	Current Mine Field m²	Price $ per m² PTS with all related Activities	Estimated Cost of PTS ($)	Remained Area after PTS m²	Price per m² DE		Cost of MF CL ($)		Total Cost of MF CL ($)	Remained ERW/CHA m²	Cost for Remained ERW per m² (Manual)	Total cost for remained ERW clearance by m² ($)
					Mechanical	Manual	Mechanical	Manual				
Basrah	887,101,722.77	0.40	106,452,206.73	620,971,205.94	1.50	3.00	195,605,929.87	260,807,906.49	456,413,836.36	403,631,283.86	0.50	201,815,641.93
Diyala	15,623,861.50	0.80	2,499,817.84	12,499,089.20	1.75	4.00	3,827,846.07	26,248,087.32	30,075,933.39	3,749,726.76	0.80	2,999,781.41
Missan	46,480,888.34	0.70	8,134,155.46	34,860,666.25	1.75	4.00	12,811,294.85	68,326,905.85	81,138,200.70	10,458,199.88	0.80	8,366,559.90
Muthanna	37,845,692.00	0.80	7,569,138.40	28,384,269.00	1.75	4.00	24,339,510.67	23,842,785.96	48,182,296.63	8,515,280.70	0.80	6,812,224.56
Ninewa	515,177.50	0.80	123,642.60	360,624.25	2.00	4.00	151,462.19	706,823.53	858,285.72	108,187.28	0.80	86,549.82
Thi-Qar	99,728.00	0.80	47,869.44	39,891.20	0.00	3.00	0.00	41,885.76	41,885.76	25,929.28	0.80	20,743.42
Wassit	39,583,178.00	0.60	5,937,476.70	29,687,383.50	1.75	4.00	10,910,113.44	58,187,271.66	69,097,385.10	8,906,215.05	0.80	7,124,972.04
Total Cost	**1,027,250,248.10**		**130,764,307.17**	**726,803,129.34**			**247,646,157.07**	**438,161,666.58**	**685,807,823.65**	**435,394,822.80**		**227,226,473.08**

Table 18 - minefields and ERW area size with cost of PTS and clearance

Total Cost (PTS + Clearance (MF+ERW*))= 1,043,798,603.91 US $

*ERW=Mixed mines and ERW contamination area.

Table (19) below the estimated costs in US dollars for surveys and total clearance by type of activity

Hazard province	Mine Field	Area Reduced by PTS	Estimated Cost of PTS	CHA/MF Area size (m²)	Total Cost of MF CL	Total Estimated Cost
Basrah	887,101,722.77	266,130,516.83	$ 106,452,206.73	217,339,922.08	$ 456,413,836.36	$ 562,866,043.10
Diyala	15,623,861.50	3,124,772.30	$ 2,499,817.84	8,749,362.44	$ 30,075,933.39	$ 32,575,751.23
Missan	46,480,888.34	11,620,222.08	$ 8,134,155.46	24,402,466.38	$ 81,138,200.70	$ 89,272,356.16
Muthanna	37,845,692.00	9,461,423.00	$ 7,569,138.40	19,868,988.30	$ 48,182,296.63	$ 55,751,435.03
Ninewa	515,177.50	154,553.25	$ 123,642.60	252,436.98	$ 858,285.72	$ 981,928.32
Thi-Qar	99,728.00	59,836.80	$ 47,869.44	13,961.92	$ 41,885.76	$ 89,755.20
Wassit	39,583,178.00	9,895,794.50	$ 5,937,476.70	20,781,168.45	$ 69,097,385.10	$ 75,034,861.80
Total	**1,027,250,248.10**	**300,447,118.76**	**$ 130,764,307.17**	**291,408,306.54**	**$ 685,807,823.65**	**$ 816,572,130.82**

Table 19 - Area size with cost of PTS and clearance for minefields only

Cost of proposed action plan 2020-2027 (DMA)

Below detailed information for the eight-year plan, where the table includes areas planned to be completed by years with the costs to be provided by the government as well as international support based on 60% support from the Iraqi government and 40% expected international support from donor countries.

Cost	Total	2020	2021	2022	2023	2024	2025	2026	2027	Total Double check
Area Size (sqm)	591,855,425.30	164,793,974.71	167,708,057.77	34,968,996.78	43,711,245.98	43,711,245.98	49,539,412.11	49,539,412.11	37,883,079.85	591,855,425.30
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%	100%
Government funding										
Iraqi government fund for PTS	$ 78,458,584.30	$ 39,229,292.15	$ 39,229,292.15							$ 78,458,584.30
Iraqi government fund for clearance	$ 411,484,694.19	$ 20,574,234.71	$ 24,689,081.65	$ 49,378,163.30	$ 61,722,704.13	$ 61,722,704.13	$ 69,952,398.01	$ 69,952,398.01	$ 53,493,010.24	$ 411,484,694.19
Total Cost (PTS and Clearance) for Government funding	**$ 489,943,278.49**	**$ 85,956,388.30**	**$ 90,071,235.24**	**$ 49,378,163.30**	**$ 61,722,704.13**	**$ 61,722,704.13**	**$ 69,952,398.01**	**$ 69,952,398.01**	**$ 53,493,010.24**	**$ 489,943,278.49**
Required International funding										
International fund for PTS	$ 52,305,722.87	$ 26,152,861.43	$ 26,152,861.43							
International fund for clearance	$ 274,323,129.46	$ 13,716,156.47	$ 16,459,387.77	$ 32,918,775.54	$ 41,148,469.42	$ 41,148,469.42	$ 46,634,932.01	$ 46,634,932.01	$ 35,662,006.83	$ 274,323,129.46
Total Cost international fund (PTS and Clearance)	**$ 326,628,852.33**	**$ 16,331,442.62**	**$ 19,597,731.14**	**$ 39,195,462.28**	**$ 48,994,327.85**	**$ 48,994,327.85**	**$ 55,526,904.90**	**$ 55,526,904.90**	**$ 42,461,750.80**	**$ 326,628,852.33**
Total government and international fund	**$816,572,130.82**	**$102,287,830.92**	**$109,668,966.38**	**$88,573,625.58**	**$110,717,031.98**	**$110,717,031.98**	**$125,479,302.91**	**$125,479,302.91**	**$95,954,761.04**	**$816,572,130.82**

Table 20 - Detailed information for the eight-year plan (2020-2027)

Expected achievement for PTS 2020-2027 (DMA)

	Total	2020	2021	2022	2023	2024	2025	2026	2027	Total Double check
Area Size	300,447,118.76	150,223,559.38	150,223,559.38	-	-	-	-	-	-	300,447,118.76
Expected achievement per year (%)		50%	50%	0%	0%	0%	0%	0%	0%	100%
Current capacity										
No of Teams PTS	90	45	45	-	-	-	-	-	-	90
Expected achievement in sqm (Iraqi government fund)	*180,268,271.26*	*90,134,135.63*	*90,134,135.63*							
Required capacity										
No of Teams PTS (International funding)	60	30	30	-	-	-	-	-	-	60
Expected achievement in sqm (International fund)	*120,178,847.51*	*60,089,423.75*	*60,089,423.75*							

Table 21- Expected achievement for PTS 2020-2027 (DMA)

Expected achievement for Mech. CL 2020-2027 (DMA)

	Total	2020	2021	2022	2023	2024	2025	2026	2027	Total Double check
Area Size	160,130,407.21	8,006,520.36	9,607,824.43	19,215,648.86	24,019,561.08	24,019,561.08	27,222,169.23	27,222,169.23	20,816,952.94	160,130,407.21
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%	100%
Current capacity										
Iraqi government fund for Mech CL (Sqm)	96,078,244.32	4,803,912.22	5,764,694.66	11,529,389.32	14,411,736.65	14,411,736.65	16,333,301.54	16,333,301.54	12,490,171.76	96,078,244.32
No of Teams for Government funding	107	5	6	13	16	16	18	18	14	107
Required capacity										
International Fund for Mech CL (Sqm)	64,052,162.88	3,202,608.14	3,843,129.77	7,686,259.55	9,607,824.43	9,607,824.43	10,888,867.69	10,888,867.69	8,326,781.17	64,052,162.88
No of Teams for International funding	71	4	4	9	11	11	12	12	9	71

Table 22 - Expected achievement for Mech. CL 2020-2027 (DMA)

Expected achievement for Manual CL 2020-2027 (DMA)

	Total	2020	2021	2022	2023	2024	2025	2026	2027	Total Double check
Area Size	131,277,899.33	6,563,894.97	7,876,673.96	15,753,347.92	19,691,684.90	19,691,684.90	22,317,242.89	22,317,242.89	17,066,126.91	131,277,899.33
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%	100%
Current capacity										
Iraqi government fund for Manual CL (Sqm)	78,766,739.60	3,938,336.98	4,726,004.38	9,452,008.75	11,815,010.94	11,815,010.94	13,390,345.73	13,390,345.73	10,239,676.15	78,766,739.60
No of Teams for Government funding	1,969	98	118	236	295	295	335	335	256	1,969
Required capacity										
International Fund for Manual CL (Sqm)	52,511,159.73	2,625,557.99	3,150,669.58	6,301,339.17	7,876,673.96	7,876,673.96	8,926,897.15	8,926,897.15	6,826,450.77	52,511,159.73
No of Teams for International funding	1,313	66	79	158	197	197	223	223	171	1,313

Table 23 - Expected achievement for Manual CL 2020-2027 (DMA)

Expected achievement for ERW clearance 2020-2027 (DMA)

	Total	2020	2021	2022	2023	2024	2025	2026	2027	Total Double check
Area Size	435,394,822.80	21,769,741.14	26,123,689.37	52,247,378.74	65,309,223.42	65,309,223.42	74,017,119.88	74,017,119.88	56,601,326.96	435,394,822.80
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%	100%
Current capacity										
Iraqi government fund for ERW clearance (Sqm)	261,236,893.68	13,061,844.68	15,674,213.62	31,348,427.24	39,185,534.05	39,185,534.05	44,410,271.93	44,410,271.93	33,960,796.18	261,236,893.68
No of Teams for Government funding	131	7	8	16	20	20	22	22	17	131
Required capacity										
International Fund for ERW clearance (Sqm)	174,157,929.12	8,707,896.46	10,449,475.75	20,898,951.49	26,123,689.37	26,123,689.37	29,606,847.95	29,606,847.95	22,640,530.79	174,157,929.12
No of Teams for International funding	87	4	5	10	13	13	15	15	11	87
Total Team per Year	3,828	259	296	441	552	552	625	625	478	3,828

Table 24 - Expected achievement for ERW clearance 2020-2027 (DMA)

Table (25) below represents the details of the number of teams must be available in order to implement the plan and the possibilities currently available in addition to lack of the number of teams by years and type of activity, where it is noted that the green color indicates to available number of teams is enough to implements, also The red color indicates a significant shortage, So We need more teams to complete the plan.

Year			2020	2020 Shortage	2021	2021 Shortage	2022	2022 Shortage	2023	2023 Shortage	2024	2024 Shortage	2025	2025 Shortage	2026	2026 Shortage	2027	2027 Shortage	Total	Total Shortage	Average
Estimated Teams		PTS	45	0	45	0	-	0	-	0	-	0	-	0	-	0	-	0	**90**	0	
		Manual DE	98	-63	118	-83	236	-156	295	-215	295	-215	335	-255	335	-255	256	-176	**726**	-1419	-177.4
		Mech. DE	5	1	6	0	13	-7	16	-10	16	-10	18	-12	18	-12	14	-8	**56**	-59	-7.3442
Actual Teams	MoD	PTS	5		5		0		0		0		0		0		0		**10**		
		Manual DE	10		10		15		15		15		15		15		15		**110**		
		Mech. DE	0		0		0		0		0		0		0		0		**-**		
	Co.C	PTS	40		40		0		0		0		0		0		0		**80**		
		Manual DE	25		25		65		65		65		65		65		65		**440**		
		Mech. DE	6		6		6		6		6		6		6		6		**48**		
				-63		-84		-163		-225		-225		-267		-267		-184		-1478	

Table 25 - number of teams required

	2020 Shortage	2021 Shortage	2022 Shortage	2023 Shortage	2024 Shortage	2025 Shortage	2026 Shortage	2027 Shortage
TS	0	0	0	0	0	0	0	0
Manual DE	-63	-83	-156	-215	-215	-255	-255	-176
Mech. DE	1	0	-7	-10	-10	-12	-12	-8

Table 26 – Shortage of teams number

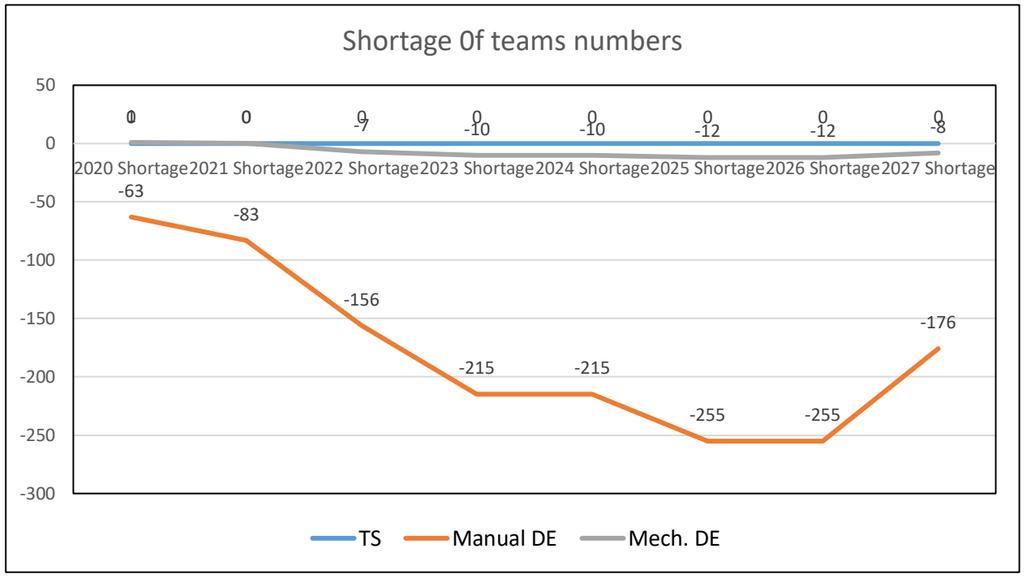


Fig. 3 - Shortage of teams number

Chapter II - Action Plan for the Kurdistan Mine Action Agency (IKMAA)

Implemented Activities According to the work plan that submitted in the extension request as of the baseline.

Implementation of Non-Technical Surveys

The non-technical survey is ongoing in the governorates of Slemani and Halabja governorate, where the non-technical survey (NTS) of the governorates (Slemani, Halabja) has been completed. The following tables show the cancellation or confirming the dangerous areas through NTS . The suspected hazard areas have been converted into confirmed areas

province	No. of SHA	SHA area (m2)	No of CHA	Area of CHA (m2)	Area Released (m2)	Area Release %
Halabja	29	1,855,800	29	1,855,800		0
Slemani	344	18,144,520	272	15,859,311	2,285,209	13
Total	**373**	**20,000,320**	**301**	**17,715,111**	2,285,209	11

Table 27 - non-technical survey result

It is important to note that a new province has been added as (Halabja governorate) to the region by a central decision by the federal government of Iraq ,we had been working to change the reality according to official documents and law by the fidral government , the region has changed the administrative structure in the IMSMA system of information management , the province will be included in the new reports as in the case of other provinces in the region.

Incomplete Non-technical survey due to unstable difficulties and situations

Province	Hazard Classification	Hazard No.	size (m2) Area
Halabja	Mined Area	9	1,988,806
Slemani	Mined Area	155	32,696,336
Duhok	Mined Area	na	4,000,000
Erbil	Mined Area	na	5,000,000

Table 28 – hazard area Incomplete by Non-technical survey due to unstable difficulties and situations

It is important to note that these reports of the non-technical survey were not entered in the IKMAA database (IMSMA) of the governorates of Slemani and Halabja, which was delayed due to logistical reasons , will entered into the system later.

Changes in figures and statistics will be monitored as they are introduced through subsequent reports

It is expected that some contaminated areas will remain unchanged as areas suspected of contamination with mines and ERW due to the inability to conduct a non-technical survey by security problems in some areas adjacent to the international borders of the governorates of Halabja, Slemani, Erbil and Duhok, to be included in the reports submitted later.

Current Contamination (IKMAA)

Province	type	status	No of Haz	Area (m2)
Duhok	CHA	Open	405	18,704,594
		Closed	222	6,645,828
		Worked On	37	2,139,075
		CHA Total	**664**	**27,489,496**
	ERW	Open	17	796,364
		Closed	3,104	3,971,466
		Worked On	2	80,023
		ERW Total	**3,123**	**4,847,853**
	SHA	Closed	1,431	153,798,091
	SHA Total		**1,431**	**153,798,091**
		Duhok Total	**5,218**	**186,135,440**
Erbil	CHA	Open	355	46,440,416
		Closed	143	7,020,797
		Worked On	24	3,876,535
	CHA Total		**522**	**57,337,747**
	ERW	Open	11	1,025,863
		Closed	625	1,941,024
	ERW Total		**636**	**2,966,887**
	IED	Open	10	1,245,168
		Closed	126	3,271,681
		IED Total	**136**	**4,516,849**
	SHA	Closed	1,549	446,526,917
		SHA Total	**1,549**	**446,526,917**
		Erbil Total	**2,788**	**507,627,547**
Halabja	CHA	Open	247	11,376,185
		Closed	79	1,610,033
		Worked On	10	515,405
		CHA Total	**336**	**13,501,622**
	ERW	Open	19	98,388
		Closed	41	816,743
		ERW Total	**60**	**915,131**
	SHA	Open	8	1,788,806
		Closed	272	25,776,533
		Worked On	1	200,000
		SHA Total	**281**	**27,765,339**
		Halabja Total	**677**	**42,182,093**
Slemani	CHA	Open	1,997	94,521,803
		Closed	1,333	47,675,007
		Worked On	117	4,130,723
		CHA Total	**3,447**	**146,327,533**
	ERW	Open	233	40,317,779

		Closed	1,587	125,823,682
		Worked On	7	1,240,045
		ERW Total	**1,827**	**167,381,505**
	IED	Open	6	8,105
	IED Total		**6**	**8,105**
	SHA	Open	145	26,232,623
		Closed	2,364	234,561,942
		Worked On	10	6,463,713
		SHA Total	**2,519**	**267,258,278**
		Slemani Total	**7,800**	**580,975,421**
Grand Total			**16,538**	**1,320,633,249**

Table 29 - Current Contamination (IKMAA)

Progress of Minefield Clearance

Clearance of minefields completed from 1-1 - 2017 until the end of May 2019

Province	**Area (m2)**
Duhok	1,149,648
Erbil	974,975
Halabja	222,625
Slemani	3,479,066
Grand Total	**5,826,314**

Table 30 - Clearance of minefields completed from 1-1 - 2017 until the end of May 2019

Progress of IEDs Clearance

The clearance of IEDs completed in Erbil province from the beginning of 2017 till the end of May 2019 are as follows:

Status	**No. of Hazards**	**Total Reported Area-size (sqm)**	**note**
Active	9	1,218,500	New discovered
Expired	46	2,502,354	clearance

Table 31 - clearance of IEDs

There are contaminated areas in the province of Erbil with IEDs as shown in some of the previous table did not complete the follow-up efforts and surveys necessary for those areas also deo to lack of logistical possibilities and difficulties in financial resources, (IKMAA) was unable to complete QA and QC in areas contaminated with IEDs by The organizations working in the mentioned areas, should be urged to provide the necessary assistance by the international community and donor countries for the purpose of conducting non-technical survey of the remaining contaminated areas and to complete the survey of IED contamination in the Contaminated areas by non-technical survey later according to a future plan for the contaminated areas and to complete the cleaning operations.

Challenges and obstacles that have led to uncompleted to implement the Mine Action Plan:

IKMAA has implemented the previous two years plan, which included the launch of nearly 6 million square meters in the region has been implemented this figure nearly self-financing and funding by the Government of the Kurdistan Region of Iraq and according to the plan previously set out , below are observations on the completion of the plan in Previous two years:

1. Although there is modest international support for mine action through international organizations (MAG, FSD and Handicap International) for the implementation of the plan for the previous two years, it is noted that the reality of modest support did not change during the implementation period of the previous plan and there was no change in international funding.

2. The previous plan did not include any mention of decontamination and disinfection of IEDs during the previous period and set in this report, so the figures shown in this report (2,502,354 square meters) in the province of Erbil alone, and there are other contaminated areas in the province of Erbil and also in the province of Slemani It has not yet been identified or surveyed as there is no financial resources to conduct the necessary surveys, while it is considered an urgent necessity to reduce the incidence of victims in those areas and to resettle the displaced to their homes in those areas.

3. The efforts of teams and international organizations working in the mine clearance from contaminated areas and the reduction of their efforts in contaminated areas and focus in other places such as the central and western areas of Iraq, which reduced the working teams to clear mines and contamination in the region and negatively affected the work Removal of contaminated areas and thus expect to reduce the release of cleaned areas in the future

4. - Iraq including the Kurdistan region of Iraq to a wave of heavy rains and torrential traversal sites contaminated with minefields and remnants of war and a large area has been driftage away in some areas of mines and remnants of war to other areas were not contaminated with mines , which led to the expansion of contaminated land in the region and the situation is being assessed Confirming contaminated areas and taking appropriate measures for these areas have also delayed the commencement of clearance operations for contaminated lands, which will consequently reduce the areas of cleared land later this year.

5. .Despite the existence of a significant number of international organizations active in the field of clearance of mines and remnants of war, it must be stressed that they are insufficient to complete the efforts to finish the work in time for the year 2027, therefore we asking for greater efforts by Supporting local organizations on the ground and supporting them morally and financially through international support to enable them to join the existing efforts and help end the work on the ground.

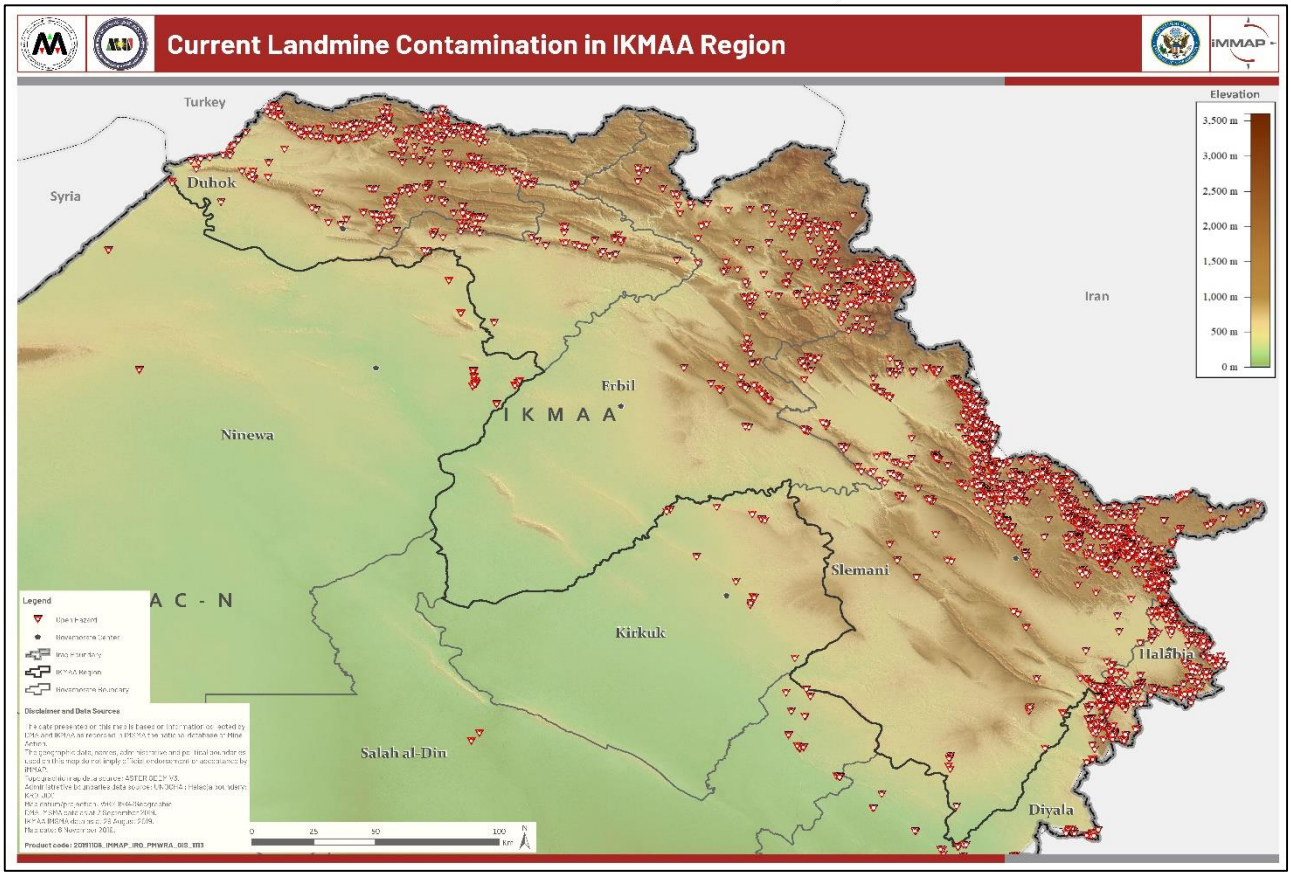
Current contamination in Kurdistan Iraq region

current contamination in the Kurdistan governorates with all type of contamination:

	MF	ERW	MA	IED
Duhok	20,843,669	876,387	0	0
Erbil	50,316,951	1,025,863	0	1,245,168
Halabja	11,891,590	98,388	1,988,806	0
Slemani	98,652,526	41,557,824	32,696,336	8,105
	181,704,736	**43,558,462**	**34,685,142**	**1,253,273**

Table 32 - current contamination in the Kurdistan governorates with all type of contamination

Total current contamination = 261,201,613 Sqm



Map 13 - current landmine contamination in the Kurdistan governorates

The proposed plan

Production capacity of teams

	No of days	Area size per day m2	Total area size per Team per year
No of working days TS	**200**	**160**	**32000**
No of working days Manual	**200**	**160**	**32000**
No of working days Mechanical	**140**	**250**	**35000**

Table 33 - Production capacity of teams

Costs of clearance of contaminated areas according to governorates including technical survey details and reduction rates for manual and mechanical clearance of minefields

Hazard province	Mine Field	Area Reduced by TS	Estimated Cost of TS	Remained MF Area after TS	Mechanical % of the MF	Manual % of the MF	Mechanical Area size of MF	Manual Area size of MF	Mechanical cost of MF	Manual cost of MF	Total Cost of MF CL
Duhok	20,843,669	2,084,367	2,084,367	18,759,302	1%	99%	187,593	18,571,709	1,125,558	148,573,673	149,699,231
Erbil	50,316,951	5,031,695	5,031,695	45,285,256	20%	80%	9,057,051	36,228,205	54,342,307	289,825,638	344,167,945
Halabja	11,891,590	1,189,159	1,189,159	10,702,431	40%	60%	4,280,972	6,421,459	25,685,834	51,371,669	77,057,503
Slemani	98,652,526	9,865,253	9,865,253	88,787,273	40%	60%	35,514,909	53,272,364	213,089,456	426,178,912	639,268,368
	181,704,736	**18,170,474**	**18,170,474**	**163,534,262**			**49,040,526**	**114,493,736**	**294,243,156**	**915,949,892**	**1,228,363,521**

Table 34 - Estimated Costs of TS and clearance with area reduction

Areas in square meters, and prices in US dollars, assuming a technical survey (TS) account of 10% to reduce contaminated areas and calculate the cost of clearance per square meter of manual removal ($ 8) and mechanical removal ($ 6).

Estimated price $ per sqm	Clearance Methods
1	TS
8	Manual clearance
6	Mechanical clearance

Table 35 -Estimated price $ per sqm according to activity

Landmines and ERW according to the table provided where we analyzed the situation by type of pollution and the reality of the situation on the contaminated land and the difficulty of work in those areas in terms of topographic nature and weather factors affecting throughout the year where these areas are hot and dry in summer and cold snowy or rainy winter , has been calculated average days Working Hours Throughout the year from the experience of working in those areas, it is worth noting here that we have provided in the original application for a 10-year extension of the Convention a detailed analysis of the reality of contamination and included all the factors affecting the areas can be consulted if Guetdt need.

Fig. 4 - Difficulties of land and climate

Fig. 5 - Difficulties of land and climate

Table of estimated reduction rates used in the plan for manual and mechanical removal of governorates:

province	Reduction of CHA Detail	
	Reduction % for Mechanical asset	Reduction % for Manual asset
Duhok	1%	99%
Erbil	20%	80%
Halabja	40%	60%
Slemani	40%	60%

Table 36 - Table of estimated reduction rates used in the plan

Total contamination with reduction and cost of surveys and clearance operations in dollars and by governorates.

Hazard province	Minefield	Area Reduced by TS	Estimated Cost of TS	CHA/MF	Total Cost of MF CL	Total Estimated Cost	Estimated Cost $ overall for 1 sqm	Estimated Cost Iraqi Dinar overall for 1 sqm
Duhok	20,843,669	2,084,367	2,084,367	18,759,302	149,699,231	151,783,598	**7.28**	8,738
Erbil	50,316,951	5,031,695	5,031,695	45,285,256	344,167,945	349,199,640	**6.94**	8,328
Halabja	11,891,590	1,189,159	1,189,159	10,702,431	77,057,503	78,246,662	**6.58**	7,896
Slemani	98,652,526	9,865,253	9,865,253	88,787,273	639,268,368	649,133,621	**6.58**	7,896
Total	**181,704,736**	**18,170,474**	**18,170,474**	**163,534,262**	**1,228,363,521**	**1,264,704,468**	**6.96**	8,352

Table 37 - contamination with reduction and cost of surveys and clearance operations

The US dollar was calculated at 1,200 Iraqi dinars

Total costs of the action plan (2020-2027) of the Iraq Kurdistan Mine Action Agency

Tables of the proposed executive plan of (IKMAA) for the next eight years (2020-2027) to clean up all the contaminated areas in the Kurdistan region, showing the cost of clearing the contaminated land annually, with 60% of the total cost on the budget of the government of region and 40% by the organizations by International grants, explaining the methods used for manual and mechanical disinfection and the number of disinfection teams needed to complete the plan, with an increase in the cost of disinfection by 5% in 2020, 6% in 2021, 15% in 2022, 15% in 2023, 15% in 2024 and 17%. % In 2025, 17% in 2026 and 13% in 2027

	Total	2020	2021	2022	2023	2024	2025	2026	2027
Area Size	181,704,736	9,085,237	10,902,284	21,804,568	27,255,710	27,255,710	30,889,805	30,889,805	23,621,616
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%
Government funding									
Total Cost (TS and Clearance) for IKMAA funding	**$707,593,797**	**$35,379,690**	**$42,455,628**	**$84,911,256**	**$106,139,070**	**$106,139,070**	**$120,290,945**	**$120,290,945**	**$91,987,194**
Required International funding									
Total Cost international fund (TS and Clearance)	**$471,729,198**	**$23,586,460**	**$28,303,752**	**$56,607,504**	**$70,759,380**	**$70,759,380**	**$80,193,964**	**$80,193,964**	**$61,324,796**
Total government and international fund	**$1,179,322,995**	**$58,966,150**	**$70,759,380**	**$141,518,759**	**$176,898,449**	**$176,898,449**	**$200,484,909**	**$200,484,909**	**$153,311,989**

Table 38 - the proposed executive plan of (IKMAA) for the next eight years (2020-2027)

Expected achievement for Mech. Clearance

	Total	2020	2021	2022	2023	2024	2025	2026	2027
Area Size	49,040,526	2,452,026	2,942,432	5,884,863	7,356,079	7,356,079	8,336,889	8,336,889	6,375,268
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%
Current capacity									
IKMAA government fund for Mech CL (Sqm)	29,424,316	1,471,216	1,765,459	3,530,918	4,413,647	4,413,647	5,002,134	5,002,134	3,825,161
No of Teams for Government funding	841	42	50	101	126	126	143	143	109
Required capacity									
International Fund for Mech CL (Sqm)	19,616,210	980,811	1,176,973	2,353,945	2,942,432	2,942,432	3,334,756	3,334,756	2,550,107
No of Teams for International funding	560	28	34	67	84	84	95	95	73

Table 39 - Expected achievement for Mech. Clearance

Expected achievement for Manual Clearance

	Total	2020	2021	2022	2023	2024	2025	2026	2027
Area Size	114,493,736	5,724,687	6,869,624	13,739,248	17,174,060	17,174,060	19,463,935	19,463,935	14,884,186
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%
Current capacity									
IKMAA government fund for Manual CL (Sqm)	68,696,242	3,434,812	,121,775	8,243,549	10,304,436	10,304,436	11,678,361	11,678,361	8,930,511
No of Teams for Government funding	2,147	107	129	258	322	322	365	365	279
Required capacity									
International Fund for Manual CL (Sqm)	45,797,495	2,289,875	2,747,850	5,495,699	6,869,624	6,869,624	7,785,574	7,785,574	5,953,674
No of Teams for International funding	1,431	72	86	172	215	215	243	243	186

Table 40 - Expected achievement for Manual Clearance

Expected achievement for ERW Clearance

	Total	2020	2021	2022	2023	2024	2025	2026	2027
Area Size	43,558,462	2,177,923	2,613,508	5,227,015	6,533,769	6,533,769	7,404,939	7,404,939	5,662,600
Expected achievement per year (%)		5%	6%	12%	15%	15%	17%	17%	13%
Current capacity									
IKMAA government fund for ERW CL (Sqm)	26,135,077	1,306,754	1,568,105	3,136,209	3,920,262	3,920,262	4,442,963	4,442,963	3,397,560
No of Teams for Government funding	13	1	1	2	2	2	2	2	2
Required capacity									
International Fund for ERW CL (Sqm)	17,423,385	871,169	1,045,403	2,090,806	2,613,508	2,613,508	2,961,975	2,961,975	2,265,040
No of Teams for International funding	9	0	1	1	1	1	1	1	1

Table 41 - Expected achievement for ERW Clearance

Table and chart showing a shortage in the number of teams required for manual and mechanical removal annually to implement the proposed plan

Year			2020	2020 Shortage	2021	2021 Shortage	2022	2022 Shortage	2023	2023 Shortage	2024	2024 Shortage	2025	2025 Shortage	2026	2026 Shortage	2027	2027 Shortage	Total	Total Shortage	Average
		Manual DE	107	-71	129	-93	258	-222	322	-286	322	-286	365	-329	365	-329	279	-243	**531**	-1859	232.3446948
		Mech. DE	42	-39	50	-47	101	-98	126	-123	126	-123	143	-140	143	-140	109	-106	**130**	-817	102.0868413
Actual Teams	**IKMAA**	**Manual DE**	36		36		36		36		36		36		36		36		**288**		
		Mech. DE	3		3		3		3		3		3		3		3		**24**		
				-110		-140		-319		-409		-409		-469		-469		-349		-2675	

Table 42 - number of teams required

	2020 Shortage	2021 Shortage	2022 Shortage	2023 Shortage	2024 Shortage	2025 Shortage	2026 Shortage	2027 Shortage
Manual DE	-71	-93	-222	-286	-286	-329	-329	-243
Mech. DE	-39	-47	-98	-123	-123	-140	-140	-106

Table 43 - shortage of teams

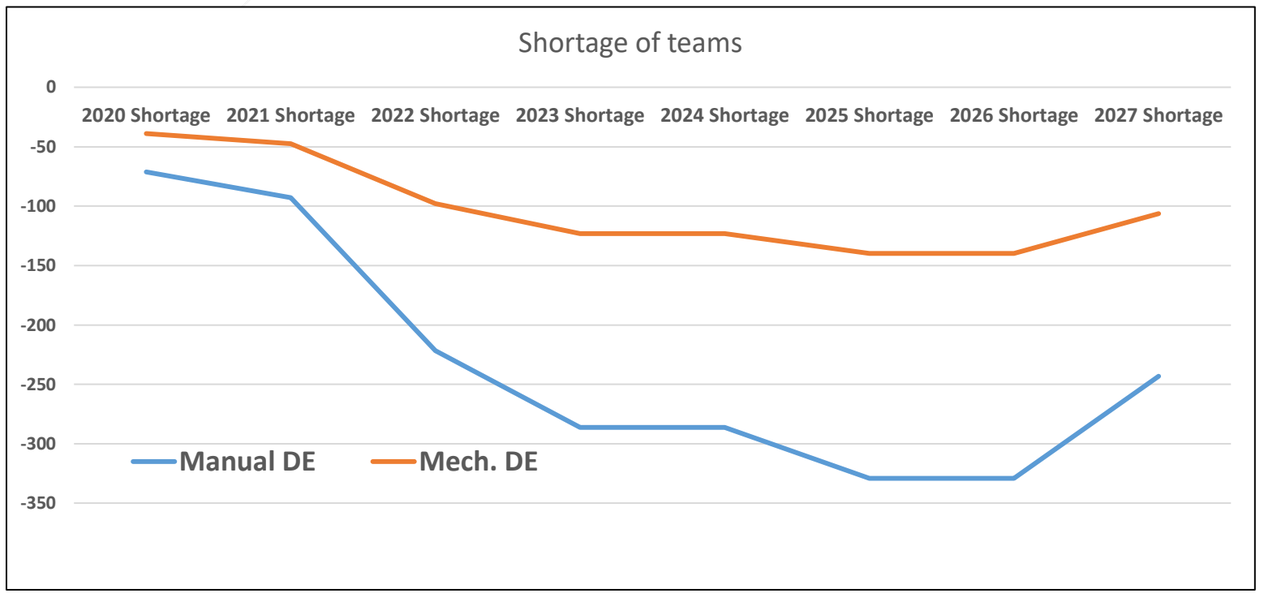


Fig. 6 - Shortage of teams according to Activity

Notes and Requirements:

As a commitment of the Government of Iraq to implement its obligations to the international community, the survey and clearance plan has been developed based on ratios adopted in national standards and previous experience in risk reduction operations, in addition to realistic field data of minefields with taking into account the following points in the implementation of the plan:

1. This plan shall be considered based on estimates and analysis of the pollution situation present in the original report submitted for the extension of the Convention for a period of ten years and submitted in the past.

2. Due to the large volume of pollution in the above plan, where the amount of funding was considered 60% to the government and 40% through international support (support provided by donor countries).

3. We added cost of the accompanying works (administrative, logistics, Community Liaison, quality assurance, etc.) has been added.

4. The plan contains mine fields contamination only

5. The plan does not include battlefield areas and cluster munition contamination.

6. The plan does not include blocked areas for reasons related to the security or political situation.

7. The plan was based on the continuation of the executive partners (companies and organizations) with the same capabilities and current possibilities available.

8. In case increase of international support, the productivity of the clearance teams will increase in proportion to the amount of funding provided, especially as the remaining period of the extension request with of the current capabilities of National Mine Action Program is no enough to complete clearance of all minefields in Iraq.

9. The prices set out in the above plan may change according to the information and data that will change during the implementation of the action plan.

10. The contamination areas in minefields are expected to increase due to the discovery of new areas not previously surveyed.

11. The action plan was developed on the assumption that all operational working teams (government, organizations and companies) are working at their full potential for specific areas size in the plan.

12. To ensure that Iraq complies with the request for an extension of the Ottawa Convention and fulfills its provisions for the completion of clearance operations in Iraq, we request the international community, by the Member States of the Ottawa Convention and donor countries, to support AP mine clearance in Iraq through direct and indirect support to the Iraqi National Mine Action Program. To expedite the release of contaminated areas.

Conclusion

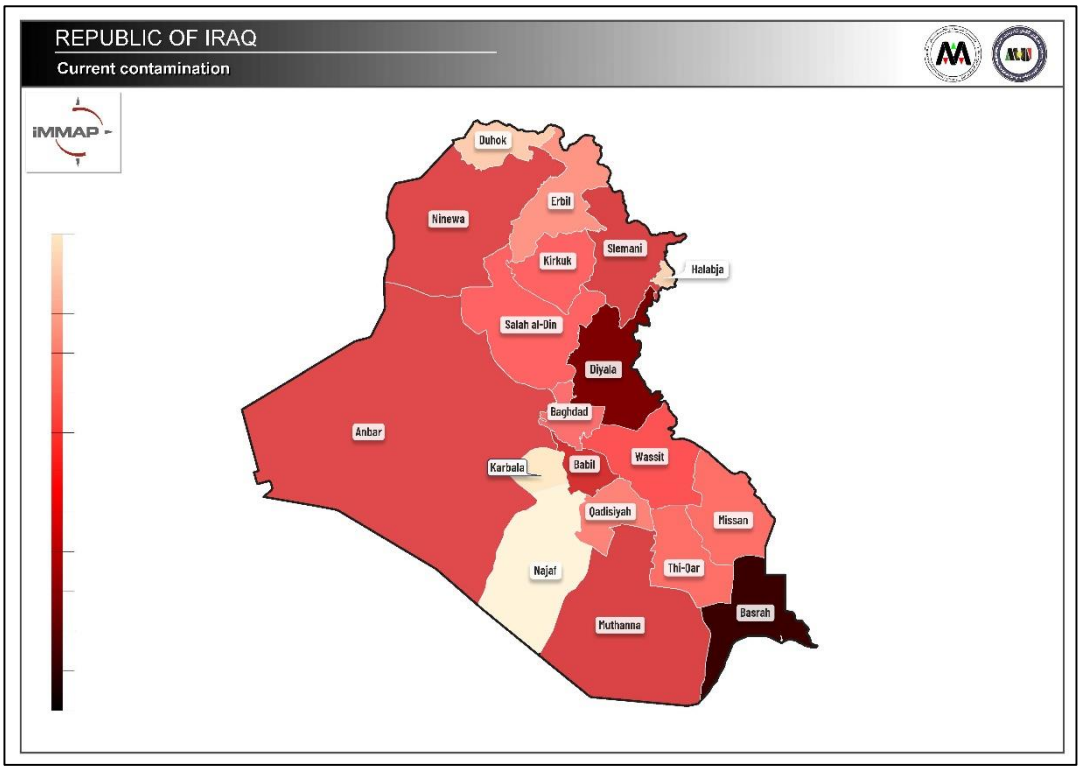
In conclusion, We would like to thank (ISU) and Article 5 Committee for their support, especially in the preparation of this plan. We hope that the next eight years action plan will receive the necessary support By encouraging States Parties and donor countries to assist Iraq to ensure the implementation of international obligations.

Thanks and Appreciation

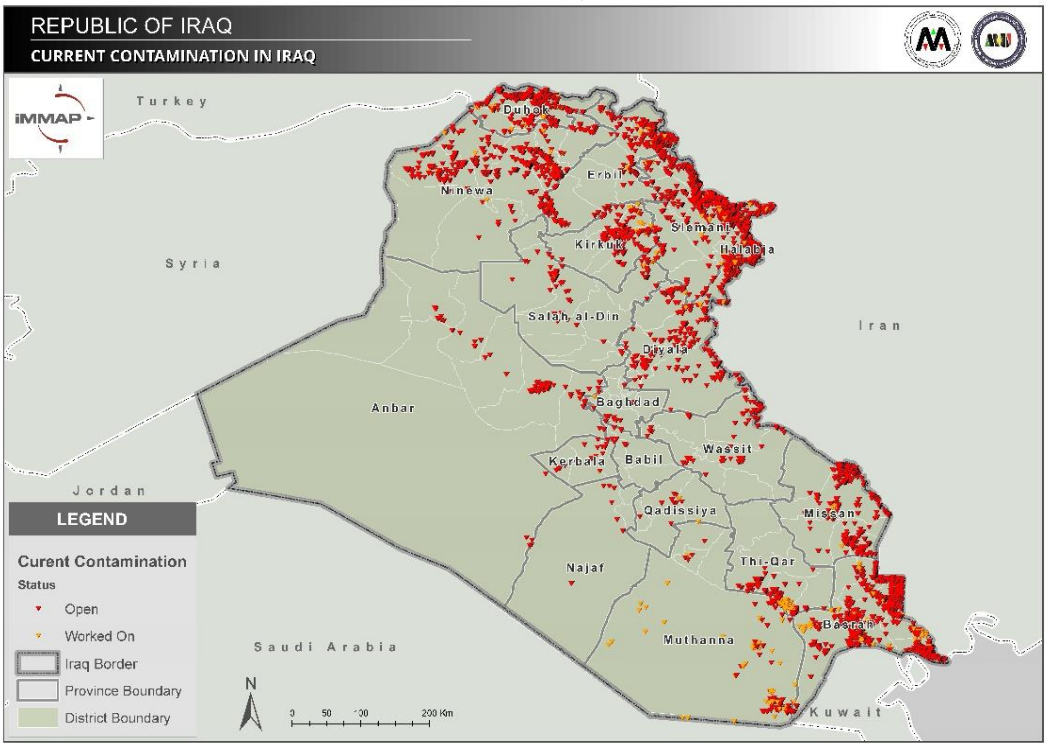
Annexes

MAPs

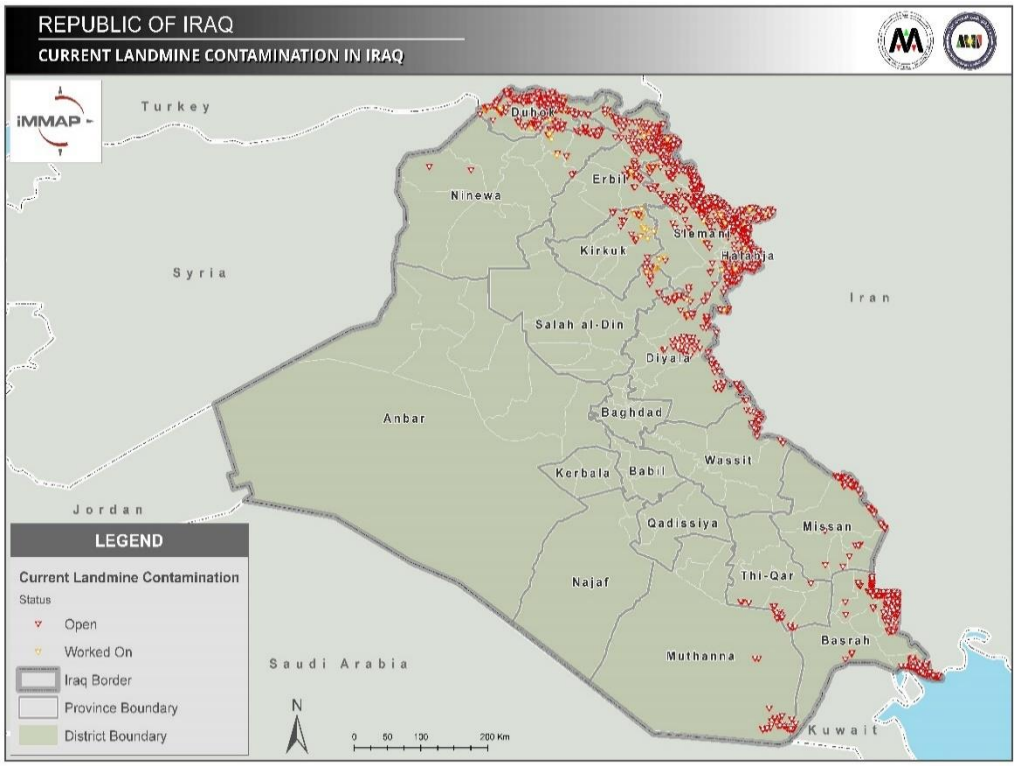
Current Contamination map



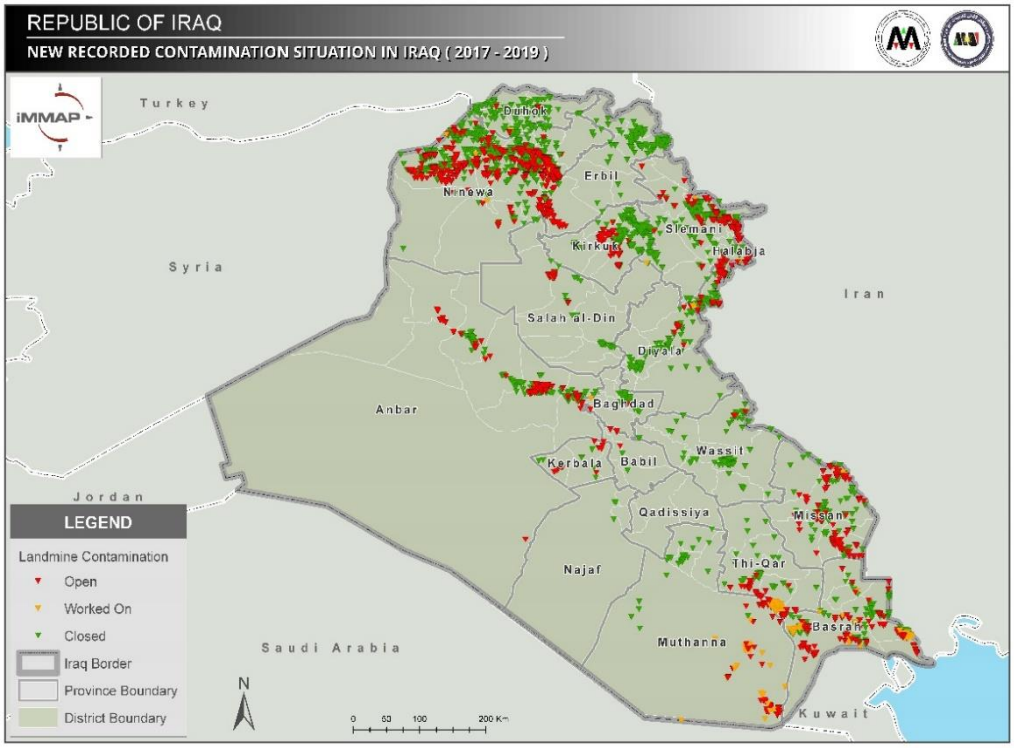
Current Contamination in Iraq map



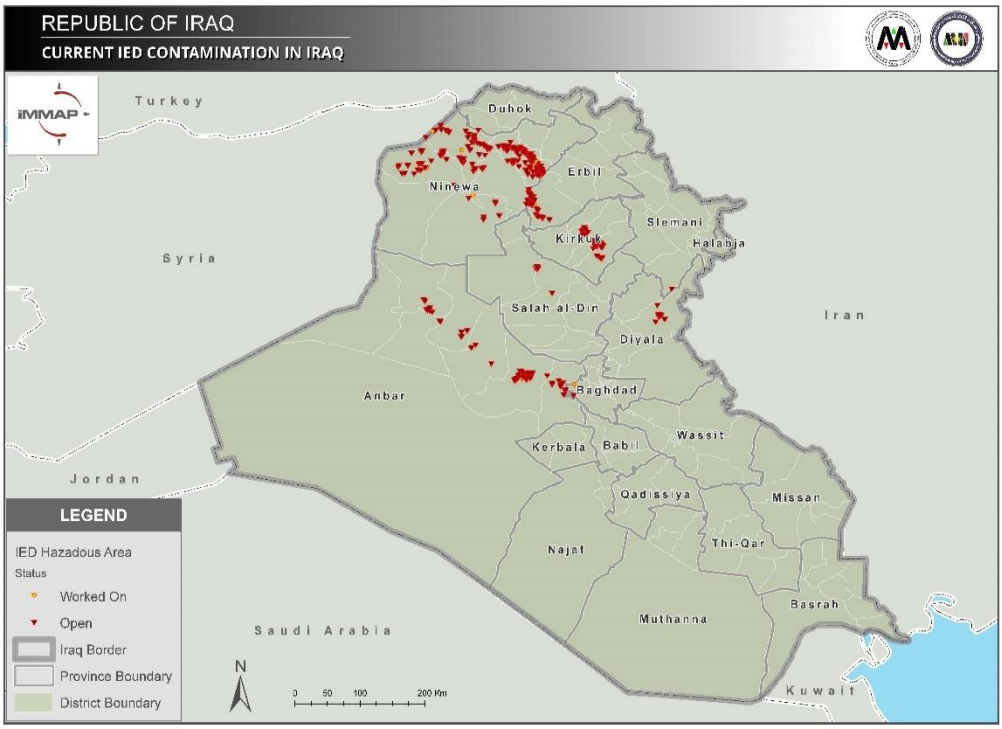
Map of current contamination of minefields in Iraq



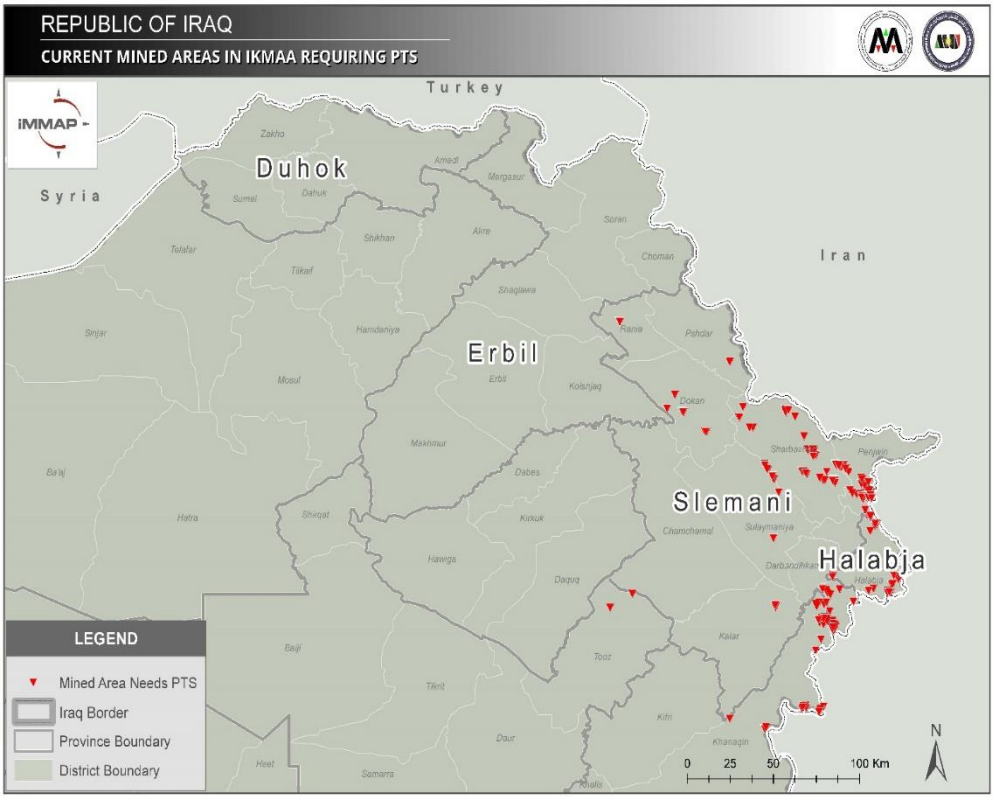
New Contamination map recorded in the database for the period 2017-2019



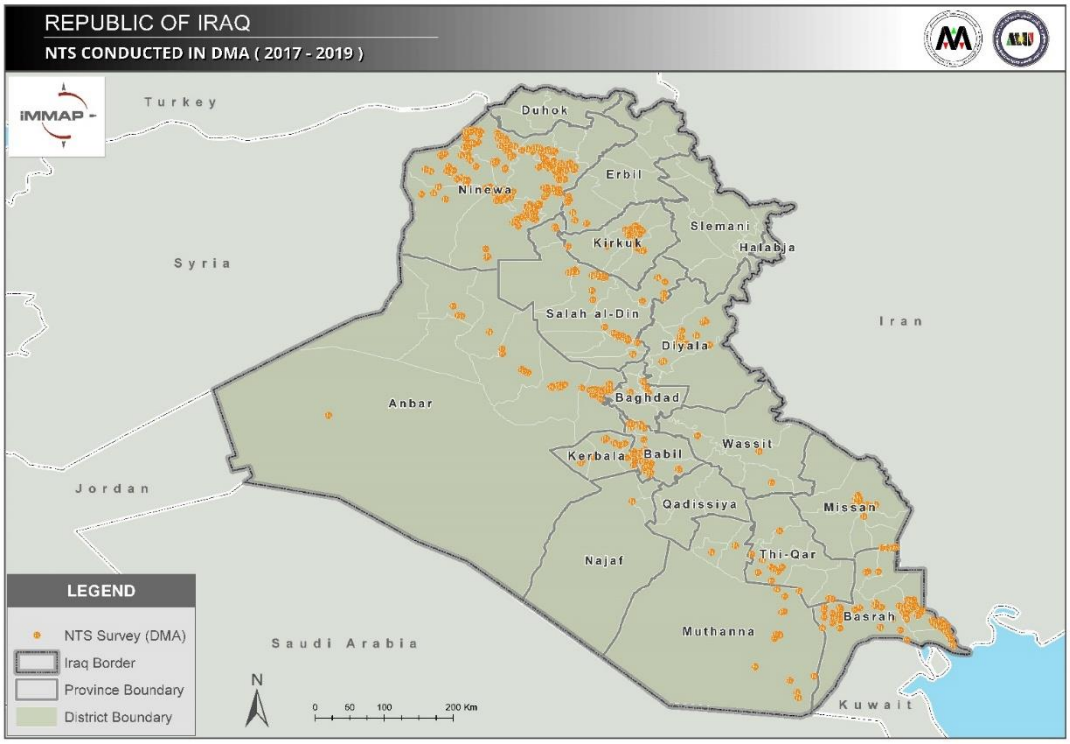
Current IED contamination Map



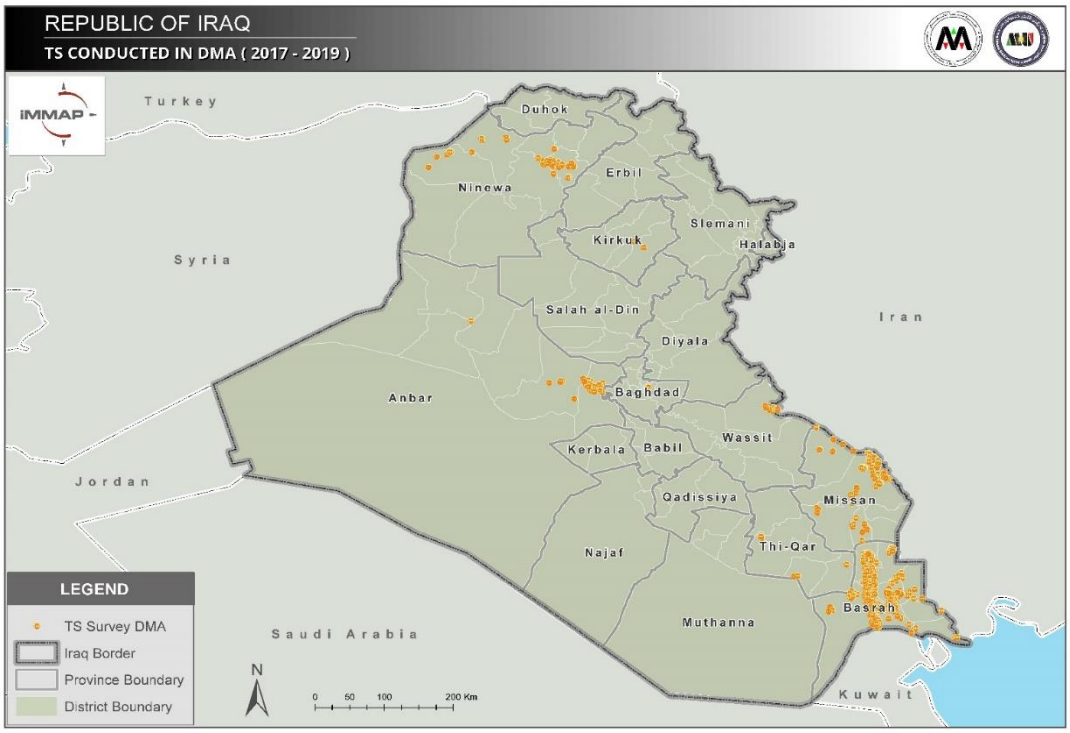
Map of mined areas that need work (PTS) in IKMAA region



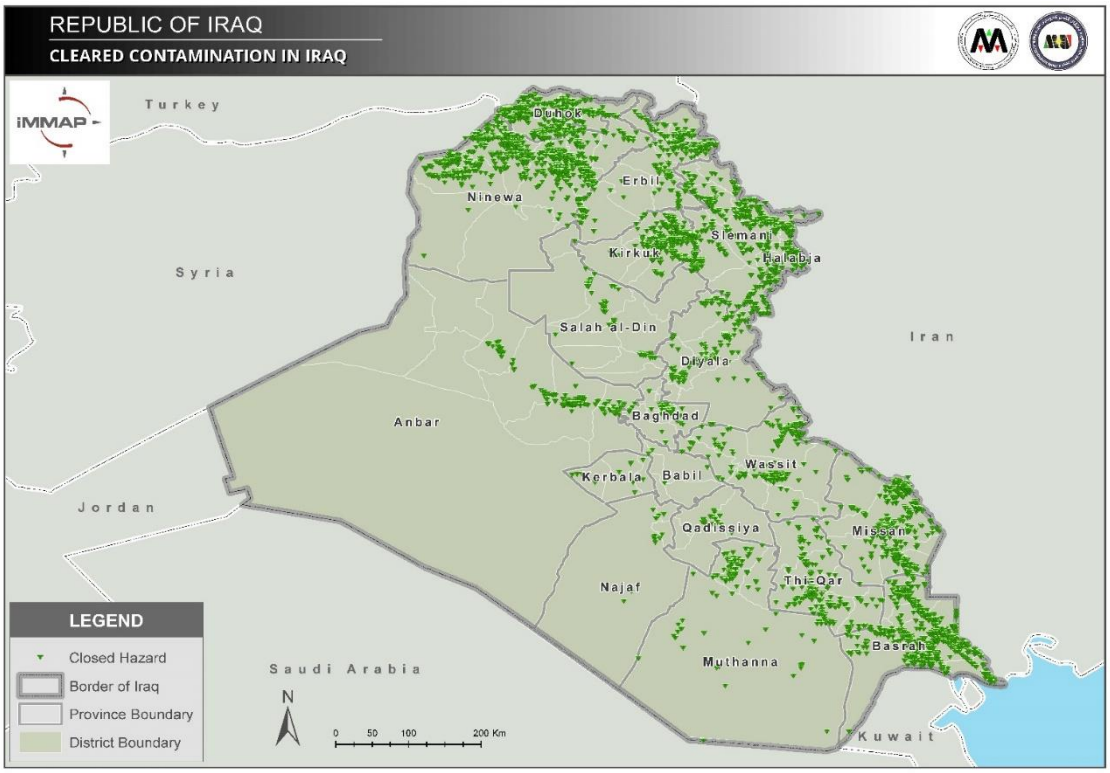
Non-technical survey map completed for the period (2017-2019)



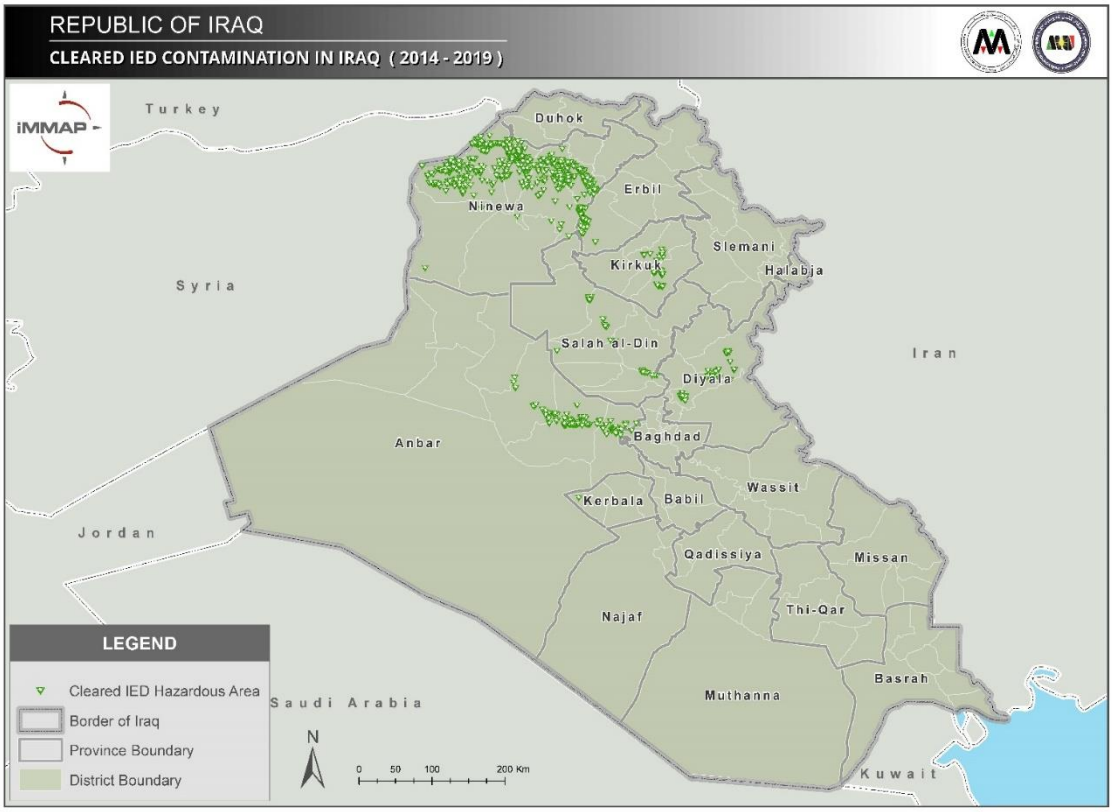
Map of the technical survey completed for the period (2017-2019)



Map of clearance operations in Iraq



Map of IED clearance operations in Iraq



Map of the clearance operations completed for the period (2017-2019)