



GICHD



**UNITED NATIONS
DEVELOPMENT PROGRAMME**



THE SUSTAINABLE DEVELOPMENT OUTCOMES OF MINE ACTION IN IRAQ

Cover: Children playing in a recreational field in a residential area now free from EO in Kharbani village, Makhmour District. Source: Fondation suisse de déminage (FSD)

The Sustainable Development Outcomes of Mine Action in Iraq,
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THE SUSTAINABLE DEVELOPMENT OUTCOMES OF MINE ACTION IN IRAQ

CONTRIBUTORS

GENEVA INTERNATIONAL CENTRE FOR HUMANITARIAN DEMINING (GICHD)

The Geneva International Centre for Humanitarian Demining works towards reducing risk to communities caused by explosive ordnance, with a focus on landmines, cluster munitions and ammunition stockpiles. The Centre helps develop and professionalise the sector for the benefit of its partners: national and local authorities, donors, the United Nations, other international and regional organisations, non-governmental organisations, commercial companies, and academia. It does so by combining four lines of service: field support focused on advice and training, multilateral work focused on norms and standards, research and development focused on cutting-edge solutions, and facilitating dialogue and cooperation.

DIRECTORATE FOR MINE ACTION (DMA)

The Directorate for Mine Action is placed under the Ministry of Environment. Established in 2008, it oversees the planning, coordination, and monitoring of mine action activities across its 15 Governorates in Federal Iraq. As the national authority in Federal Iraq, it is responsible for all aspects of mine and explosive remnants of war clearance, explosive ordnance risk education (EORE), survivor and victim assistance, data management, and training programmes in Federal Iraq. The Directorate is responsible for setting and mainstreaming national standards, the accreditation and approval of standard operating procedures for demining organisations, and annual reporting to international treaty bodies. The DMA is comprised of three regional mine action centres (RMACs) covering the north (RMAC-N), Middle Euphrates (RMAC-MEU), and south (RMAC-S) regions.

IRAQI KURDISTAN MINE ACTION AGENCY (IKMAA)

IKMAA is the national authority in the Kurdistan Region of Iraq (KRI) and reports directly to the Council of Ministers in KRI. Established in 2004, it is governed by Law No. 10, which was passed by the Kurdistan National Assembly. The Assembly issued a regulatory mandate to plan, direct, implement and monitor mine action operations, overseeing activities in four Governorates with a regional directorate in each: Erbil Mine Action Centre (EMAC), Sulaymaniyah Mine Action Centre (SMAC), Duhok Mine Action Centre (DMAC) and Garman Mine Action Centre (GMAC). In addition to this, IKMAA has its own operational capacities implementing survey, clearance and EORE operations.

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

The United Nations Development Programme is the leading United Nations organisation fighting to end poverty and inequality, and climate change. UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in nearly 170 countries and territories, the UNDP offers a global perspective and local insight to help empower lives and build resilient nations.

UNITED NATIONS MINE ACTION SERVICE (UNMAS)

The UNMAS Iraq programme was established in 2015 at the request of the Government of Iraq and the United Nations Assistance Mission for Iraq (UNAMI) to assist with the extensive and complex explosive ordnance contamination, including improvised explosive devices, following the conflict with the Islamic State of Iraq and the Levant (ISIL) as well as explosive remnants of war remaining from previous conflicts. Through clearance operations, with a strong focus on capacity development of national mine action operators, gender mainstreaming, as well as the provision of technical support to the Government of Iraq national mine action authorities, UNMAS Iraq contributes to stabilisation, restoration of basic services and the safe and dignified return of internally displaced persons.

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LIST OF ACRONYMS AND ABBREVIATIONS

APM	Anti-personnel mine	GCS	Global Clearance Solutions
APMBC	Anti-Personnel Mine Ban Convention	HI	Humanity and Inclusion
ARCO	Arab Regional Cooperation Programme	HLP	Housing, land and property
AVM	Anti-vehicle mine	ICRC	International Committee of the Red Cross
CCM	Convention on Cluster Munitions	IDP	Internally displaced person
CCW	Convention on Certain Conventional Weapons	IED	Improvised explosive device
CHA	Confirmed hazardous area	IHSCO	Health and Social Care Organization in Iraq
CL	Community liaison	IKMAA	Iraqi Kurdistan Mine Action Agency
CMR	Cluster munition remnants	IMAS	International Mine Action Standards
CRPD	Convention on the Rights of Persons with Disabilities	IMSMA	Information Management System for Mine Action
DMA	Directorate for Mine Action	IOM	International Organization for Migration
DRC	Danish Refugee Council	ISF	Iraqi Security Forces
EHM	Explosive hazard management	KRG	Kurdistan Regional Government
EO	Explosive ordnance	KRI	Kurdistan Region of Iraq
EOD	Explosive ordnance disposal	MAG	Mines Advisory Group
EORE	Explosive ordnance risk education	MHPSS	Mental health and psychosocial support
ERW	Explosive remnants of war	MOEP	Mile Organization for Environmental Protection
FSD	Fondation suisse de déminage		

MoE	Ministry of Environment	UNMAS	United Nations Mine Action Service
MOLSA	Ministry of Labour and Social Affairs	UXO	Unexploded ordnance
MoP	Ministry of Planning		
NIC	National Investment Commission		
NPA	Norwegian People's Aid		
NRC	Norwegian Refugee Council		
NTS	Non-technical survey		
PSEA	Protection against sexual exploitation and abuse		
PWD	Person with disabilities		
RMAC	Regional Mine Action Centre		
SDG	Sustainable Development Goal		
SHA	Suspected hazardous area		
SHO	Shareteah Humanitarian Organization		
ToT	Training of trainers		
UNAMI	United Nations Assistance Mission for Iraq		
UNDP	United Nations Development Programme		
UNICEF	United Nations Children's Fund		

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KEY FINDINGS

This study comprehensively maps the sustainable development outcomes of mine action activities in Iraq. It analyses the impact of land release, victim assistance, explosive ordnance risk education (EORE), and existing efforts related to gender mainstreaming and partnerships and cooperation, in the medium and long term.

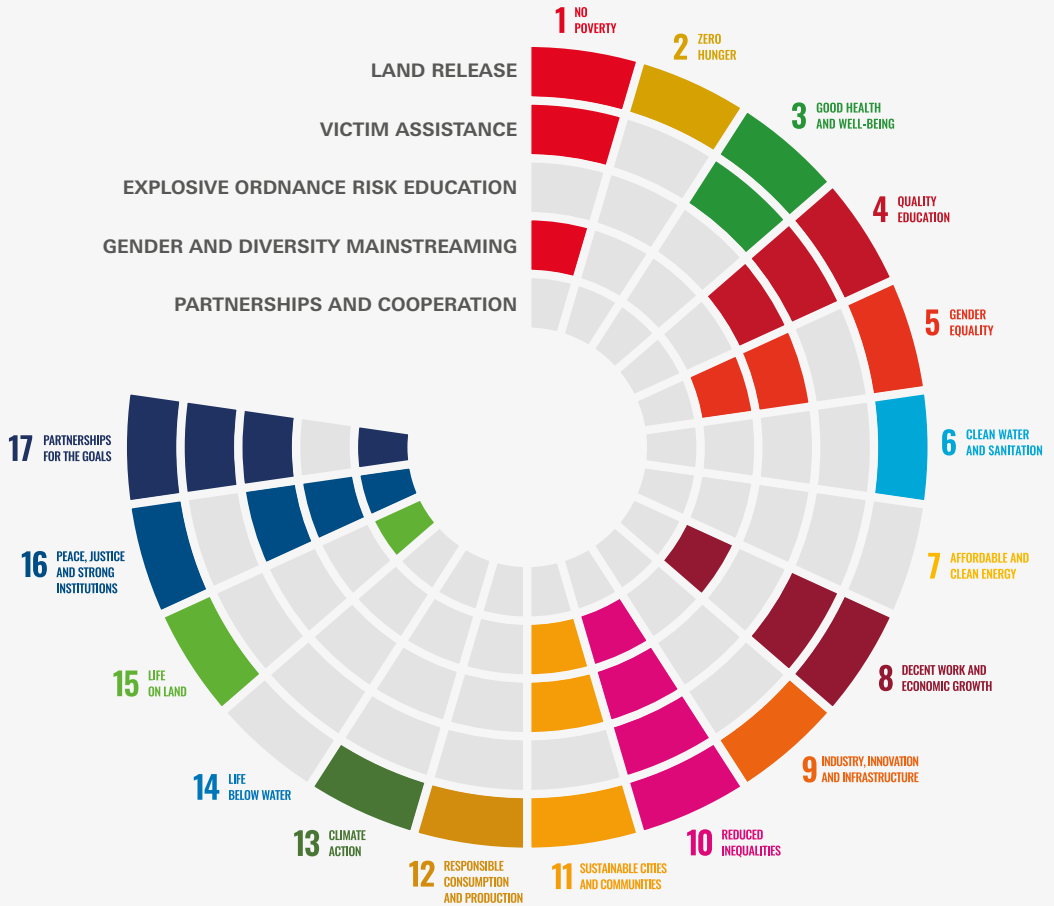
The study presents evidence of the multidimensional and transformative role of mine action in Iraq by identifying its direct contribution to **15 Sustainable Development Goals (SDGs)** and to at least **55 of their targets**. Hence, the mine action sector has clearly contributed to the five dimensions of the 2030 Agenda for Sustainable Development: partnership, peace, people, planet and prosperity.

FIGURE 1 CONTRIBUTION OF MINE ACTION TO THE SDGs IN IRAQ



FIGURE 2

CONTRIBUTION OF MINE ACTION TO THE SDGs BY ACTIVITY IN IRAQ



LAND RELEASE



Iraq is one of the most explosive ordnance- (EO)-contaminated countries today following decades of armed conflict. While the extent is unknown, cluster munition remnants remain in the south of the country from previous conflicts, with recent contamination including improvised explosive devices concentrated in the north and centre.

Besides the immediate contribution to SDG 16 and its target 16.1 on the reduction of all forms of violence, this study identifies the direct contribution of land release to 15 SDGs and 42 of their associated targets.

RECONSTRUCTION PROJECTS AND ACCESS TO ESSENTIAL SERVICES

By enabling access for reconstruction projects, land release is a direct contributor to **SDG 9** Industry, Innovation and Infrastructure, and its **target 9.1** on developing infrastructure, to support economic development and human well-being. There are also linkages to **SDG 11** Sustainable Cities and Communities, and its **target 11.1** on ensuring access to safe and affordable housing, and **target 11.3** on enhancing sustainable urbanisation.

ACCESS TO EDUCATION

The clearance of schools has provided safe and regular access to education, linking to **SDG 4** Quality Education, and its **target 4.1** on ensuring that all girls and boys complete free and equitable primary and secondary education, and **target 4.3** on ensuring equal access for all women and men to quality tertiary education, including university.

The clearance of primary schools and universities opens doors for future job opportunities and skills development. As such, it links to **SDG 8** Decent Work and Economic Growth, particularly **target 8.6** on reducing the proportion of youth not in employment, education or training. Promoting access to education has further links to **SDG 10** Reduced Inequalities on protecting vulnerable groups, especially children and youth across gender and ethnic backgrounds, linking to its **target 10.2** on empowering the social, political, and economic inclusion of all, and contributing to **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls.

ACCESS TO HEALTH

Land release has been a prerequisite to reconstruction and rehabilitation of needed medical facilities, increasing local capacities for treatment and future staff development, on both the regional/district and local levels. These outcomes strongly link to **SDG 3** Good Health and Well-Being, and in particular its **target 3.4** on reduction of premature mortality from non-

communicable diseases through prevention and treatment, **target 3.8** on universal health coverage and quality healthcare services, and **target 3.c** on increasing the financing, recruitment, and training of the health workforce.

FACILITATING SAFE MOBILITY AND RETURN

By facilitating the transition and recovery of internally displaced persons (IDPs), and enabling access to services and livelihoods, mine action has contributed to **SDG 8** Decent Work and Economic Growth. It further links to **SDG 10** Reduced Inequalities, by way of **target 10.7** facilitating orderly, safe, regular and responsible migration and mobility of people. Land release contributes to broader peace and security agendas, directly contributing to **SDG 16** Peace, Justice and Strong Institutions.

Land release has enabled partnerships and coordination mechanisms between humanitarian and developmental actors in support of the sustainable return and reintegration of IDPs, indicative of mine action's contributions to **SDG 17** Partnerships for the Goals, its **target 17.16** on enhancing the global partnership for sustainable development, and **target 17.17** on enhancing public, public-private and civil society partnerships.

SUSTAINABLE INFRASTRUCTURE AND ECONOMIC GROWTH

By facilitating safe access for the repair and construction of roads, bridges, and major infrastructure, land release has contributed to **SDG 9** Industry, Innovation and Infrastructure, and its target **9.1** on developing infrastructure, to support economic development and human well-being. In this regard, land release has further contributed to **SDG 8** Decent Work and Economic Growth, particularly **target 8.2** on economic productivity through diversification and technological upgrading, and **target 8.5** on productive employment. By enabling the development and rehabilitation of critical infrastructure, land release also links to **SDG 11** Sustainable Cities and Communities and its **target 11.1** on ensuring access to adequate and

safe housing, **target 11.2** on providing access to safe and sustainable transport systems for all and improving road safety, and **target 11.3** on enhancing sustainable urbanisation.

ACCESS TO DRINKING WATER AND IRRIGATION

By enabling the restoration and repair of irrigation systems through clearance and survey of water pipelines, access to safe drinking water has been facilitated and local agricultural activities supported, contributing to **SDG 1** No Poverty, especially **targets 1.1** and **1.4** that address extreme poverty and access to resources, including water. By helping to address the water scarcity crisis, clearance also positively impacts **target 1.5** on building the resilience of the poor and reducing their exposure and vulnerability to climate-related extreme events.

By promoting all aspects of agricultural activity and improving soil fertility, safe access to water also has linkages to **SDG 2** Zero Hunger on ending hunger, achieving food security and improving nutrition and sustainable agriculture. It has especially contributed to **target 2.1** on ending hunger and ensuring access to safe, nutritious and sufficient food, **target 2.3** on agricultural productivity and incomes of small-scale food producers, family farmers and herders, as well as securing access to land. In line with this contribution, land release has positively impacted **target 2.4** on sustainable food production systems that increase productivity.

The removal of EO contamination is also linked to **SDG 12** Responsible Consumption and Production and its **target 12.2** on sustainable management of natural resources, as well as **SDG 6** Clean Water and Sanitation on ensuring availability and sustainable management of water, and its **target 6.1** on achieving universal access to safe and affordable drinking water for all, **target 6.3** on improving water quality by removing pollution and minimising release of hazardous chemicals, and **target 6.4** on increased water-use efficiency and reducing the number of people suffering from water scarcity.

AGRICULTURE AND FOOD SECURITY

Land release has been essential for safely accessing land to ensure agricultural yields and securing livelihoods, directly contributing to **SDG 2** Zero Hunger. It has particularly contributed to **target 2.1** on ending hunger and ensuring access to safe, nutritious, and sufficient food, **target 2.3** on agricultural productivity and incomes of small-scale food producers, family farmers and herders, as well as access to land. It has also positively impacted **target 2.4** on sustainable food production systems that increase productivity. It has also promoted **SDG 3** Good Health and Well-being, contributing to its **target 3.9** on reducing the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution.

Through enabling major local productive activities, land release has contributed to **SDG 1** No Poverty and its **targets 1.1** and **1.4** that address extreme poverty and access to resources, including land. The development of new agricultural projects and support of small-scale farmers, has also promoted **SDG 8** Decent Work and Economic Growth, particularly **target 8.5** on achieving full and productive employment and decent work for all women and men.

By promoting the capacity to earn a livelihood, with both men and women feeling safe to work and freely access markets, land release has supported **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls, and **target 5.a** on undertaking reforms to give women equal rights to economic and other resources. It has further contributed to **SDG 10** Reduced Inequalities and particularly to its **target 10.2** aimed at empowering and promoting inclusion for all, and **target 10.3** on ensuring equal opportunity and reducing outcome inequalities.

ENVIRONMENTAL PRESERVATION

By enabling environmental conservation activities, land release has contributed to **SDG 13** Climate Action and its **target 13.1** on strengthening resilience and adaptive capacity to climate-related hazards and natural disasters. It also links to **SDG 15** Life on Land and its **target**

15.1 on ensuring conservation, restoration and sustainable use of terrestrial ecosystems, **target 15.2** towards promoting the implementation of sustainable management of all types of forests and **target 15.5** on taking action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.

In the context of environmental preservation, land release has additionally created job opportunities and ensured safe mobility for migrant populations traversing through less populated areas, linking to **SDG 8** Decent work and Economic Growth and its **target 8.8** on ensuring safe and secure working environments for all.

CULTURAL HERITAGE CONSERVATION AND SUSTAINABLE TOURISM

By enabling the preservation of cultural heritage sites, mine clearance and land release have directly contributed towards **SDG 8** Decent Work and Economic Growth as well as **SDG 11** Sustainable Cities and Communities, particularly **target 11.4** on strengthening the efforts to preserve the world's cultural heritage. Regarding tourism, land release also has linkages to **SDG 9** Industry, Innovation and Infrastructure, and its **target 9.1** on developing sustainable infrastructure to support economic development.

In this regard, land release has made important community rehabilitation and cultural projects possible, such as 'preventing violent extremism through education' training, linking to **SDG 4** Quality Education, in particular **target 4.7** on education for promotion of a culture of peace and non-violence and of culture's contribution to sustainable development. By also creating employment opportunities linked to the restoration and reconstruction of cultural heritage, land release links to **SDG 8** Decent Work and Economic Growth, and its **target 8.1** on per capita economic growth, **target 8.3** on development-oriented productive activities, **target 8.5** on decent work, and **target 8.9** on promoting sustainable tourism that creates jobs and promotes local culture and products.

The preservation of historical buildings, for safe practice of religious and spiritual activities and public visitation, has further linkages to **target 4.7** on promoting appreciation of cultural diversity and of culture's contribution to sustainable development, and **SDG 16** Peace, Justice and Strong Institutions on promoting peaceful and inclusive societies.

VICTIM ASSISTANCE



The study identifies the direct contribution of victim assistance to 6 SDGs and 10 of their associated targets.

Ongoing work towards support of victim assistance is contributing to the achievement of **SDG 10** Reduced Inequalities and its **target 10.2** on the social, economic and political inclusion of all, and **target 10.4** on the adoption of policies to achieve greater equality. In particular, the social protection systems for EO victims, including persons with disabilities and their families, enable contributions to **SDG 1** No Poverty and its **target 1.3** on the implementation of social protection systems and measures.

Different organisations are providing victim assistance in Iraq through comprehensive healthcare and support, directly contributing to **SDG 3** Good Health and Well-Being, in particular its **target 3.8** on universal health coverage and quality healthcare services. These services also contribute to **target 3.4** on the reduction of premature mortality through prevention and treatment.

Partnerships and coordination between different sectors towards capacity development efforts has also contributed to **target 3.c** on increasing the financing, training and recruitment of the health workforce. This further supports **SDG 17** Partnerships for the Goals and its **target 17.9** on enhanced international support for capacity building.

Efforts to improve socio-economic integration through victim assistance contribute to the achievement of **SDG 8** Decent work and Economic Growth and its **target 8.5** on full and productive employment and decent work. While greater efforts are needed in this area, these projects also demonstrate a starting contribution to **SDG 4** Quality Education and its **target 4.3** on equal access to technical, vocational, and tertiary education as well as **target 10.3** on ensuring equal opportunity and reduction of inequalities.

EORE



The study identifies the direct contribution of EORE to 6 SDGs and 9 of their associated targets.

By encouraging safe behaviour by beneficiaries, EORE contributes to safer patterns in daily life and reduces risk among communities, directly contributing to **SDG 16** Peace, Justice and Strong Institutions, in particular **target 16.1** on the reduction of all forms of violence.

In Iraq, the focus on incorporating EORE into age- and gender-sensitive activities has allowed for contributions to **SDG 4** Quality Education and its **target 4.a** on the building of safe and inclusive learning environments.

Inclusive EORE activities expand the reach of messaging to include women, girls, boys, and men via innovative technologies and mixed community liaison teams, supporting **SDG 5** Gender Equality, its **target 5.5** on ensuring women's full and effective participation and equal opportunities for leadership in public life, and **target 5.b.** on enhancing the use of enabling technology, particularly information and communication-related technology, to promote the empowerment of women.

By delivering EORE tailored to the specific needs of children, mine action organisations aim to reduce casualties in the wider community, with a focus on those most at risk. The construction of safe recreational spaces is an example of this and has allowed for contributions to **SDG 11** Sustainable Cities and Communities and its **target 11.7** on providing universal access to safe and accessible public spaces.

Innovative methods of EORE dissemination also address varying levels of access and the needs of different communities, including for IDPs and Bedouin populations moving across larger regions. This has contributed to **SDG 4** Quality Education, its **target 4.a** on providing safe, non-violent, inclusive and effective learning environments for all. It also supports **SDG 10** Reduced Inequalities, namely its **target 10.3** on equal opportunity and the reduction of inequalities, and **target 10.7** on ensuring safe migration and mobility.

EORE interventions have involved coordination and partnerships between organisations across different sectors, contributing to **SDG 17** Partnerships for the Goals and its **target 17.9** to enhance international support for capacity building. Similarly, these partnerships have allowed for contributions to **target 16.a** and the strengthening of national institutions to prevent violence, including through international cooperation.

GENDER AND DIVERSITY MAINSTREAMING



The study identifies the direct contribution of gender mainstreaming to 6 SDGs and 10 of their associated targets.

Gender and diversity mainstreaming in mine action in Iraq, through national legislation and international inclusion policies by operators, has helped to improve the integration of gender-specific needs in programming as well as improve women's representation in mine action, contributing to **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls, and **target 5.c** on adopting and strengthening policies and legislation. Overall, these efforts contribute to **SDG 10** Reduced Inequalities and its **target 10.2** on empowering and promoting the social, economic, and political inclusion of all.

By providing employment opportunities for women in operations teams, mine action is challenging traditional limitations towards women's employment and contributing to **SDG 5** Gender Equality and its **target 5.5** on women's full and effective participation and equal opportunities for leadership and decision-making at all levels. It has also contributed to **SDG 8** Decent work and Economic Growth, and its **target 8.5** on full and productive employment and decent work for all.

Ensuring an integrated approach to protection programming, including through the integration of PSEA (protection from sexual exploitation and abuse) Focal Points, has leveraged the role of mine action in coordination with other protection activities, contributing directly to **SDG 5** Gender

Equality, and its **target 5.2** on the elimination of violence against women and girls and **SDG 16** Peace, Justice and Strong Institutions, and its **target 16.2** on ending abuse, exploitation and all forms of violence.

Collaboration between mine action and housing, land and property (HLP) stakeholders has ensured that those impacted by EO can access their HLP rights, and thus contributes to **SDG 1** No Poverty and its **target 1.4** on equal rights to economic resources and access to basic services, including ownership and control over land and other forms of property, as well as **SDG 11** Sustainable Cities and Communities and its **target 11.1** on access to adequate, safe and affordable housing. As HLP issues disproportionately affected women, these efforts further support **SDG target 5.a** on women's equal rights to economic resources.

PARTNERSHIPS AND COOPERATION



The study identifies the direct contribution of partnerships and cooperation to 3 SDGs and 6 of their associated targets.

Partnerships and coordination within and beyond the mine action sector have enabled key activities and developments, and helped to strengthen local capacity at different levels. These efforts have shown contributions to **SDG 17** Partnerships for the Goals and its **target 17.6** on enhancing all types of cooperation and knowledge sharing on mutually agreed terms, **target 17.17** on encouraging and promoting effective public, public-private, and civil society partnerships, and **target 17.9** on supporting capacity building to implement all the SDGs (including all types of collaboration) through national plans.

These coordination efforts improve the coherence of national strategies for mine action and ensure contributions towards **SDG 16** Peace, Justice and Strong Institutions and its **target 16.a** on strengthened national institutions, including through international cooperation.

By improving information management and the capacity for knowledge sharing, partnership efforts have also further contributed to **SDG target 17.18** on capacity-building support to improve access to and quality of data. This has included strengthening the ability to connect environmental data with mine action data, also contributing to **SDG 15** Life on Land, and its target **15.3** on restoration of degraded land and soil.

PURPOSE AND METHODOLOGY

The purpose of this study is to map and analyse the sustainable development outcomes of mine action in Iraq, using the Sustainable Development Goals (SDGs) as an analytical framework.

While the impact of mine action in terms of the square metres released and the number of explosive ordnance (EO) removed can be tangible and easy to quantify, its longer-term contribution to broader sustainable development is more difficult to plan and measure.

Thus, this study primarily attempts to identify the extent to which mine action activities have had a positive impact on the lives and livelihoods of individuals and communities affected by EO contamination, considering diverse humanitarian, social, economic and environmental implications, using the SDGs and their targets as the frame of reference.

Beyond Square Meters: measuring the impact of humanitarian mine action on local sustainable development through the SDGs.

Funded by the German Federal Foreign Office, Beyond Square Meters is a project jointly implemented by the United Nations Development Programme and the Geneva International Centre for Humanitarian Demining (GICHD). The project aims to demonstrate how mine action contributes to sustainable development and peace beyond the number of square metres and mines cleared.

It intends to strengthen the nexus between humanitarian mine action, development and peace efforts by improving coordination, planning, reporting and information sharing.

The 2030 Agenda for Sustainable Development

Building upon the achievements and lessons learnt from the Millennium Development Goals,¹ in 2015 the United Nations Member States adopted the 2030 Agenda for Sustainable Development as a new plan of action.² The 2030 Agenda is universal, transformative and rights based, under the premise that ‘no one will be left behind’.³ It contains 17 integrated Sustainable Development Goals and 169 associated targets, which are based on the three core elements of sustainable development – economic growth, social inclusion, and environmental protection – and calls for peace and partnership.

There are five critical dimensions at the core of the 2030 Agenda, known as ‘the 5 Ps’: people, prosperity, planet, partnership, and peace.⁴

The SDGs serve to measure the longer-term consequences of mine action interventions, since they allow for integrating and assessing most of the external dimensions that influence the results of mine action, including political, economic, social and cultural factors, and the performance of other related humanitarian, development and peace projects.⁵

Although the findings of this study are not meant to serve as an evaluation of the mine action activities conducted in Iraq, they are an effective reference to highlight the value of connecting sustainable development, peace building, and humanitarian activities as mutually reinforcing efforts, conceptualised by the triple nexus approach, across the full cycle of a mine action programme: from planning to monitoring and evaluation.

The Iraq case study allows for the analysis of the results of mine action in the medium and long term, through an assessment of the contribution of land release, victim assistance, and explosive ordnance risk education. This research also takes into consideration the importance that gender and diversity mainstreaming efforts and the establishment of partnerships – within and beyond the mine action sector – have had regarding the overarching principle of ‘leaving no one behind’.

This research builds upon the following previous studies conducted by the GICHD, in close collaboration with key partners:

- *Leaving no one behind: Mine action and the Sustainable Development Goals (2017).*
- *The Socio-Economic Impact of Anti-Vehicle Mines in Angola (2019).*
- *The Sustainable Development Outcomes of Mine Action in Jordan (2021).*
- *The Sustainable Development Outcomes of Mine Action in Cambodia (2021).*
- *Contribuciones de la acción integral contra minas al desarrollo sostenible en Colombia (2022).*
- *The Sustainable Development Outcomes of Mine Action in Bosnia and Herzegovina (2022).*
- *The Sustainable Development Outcomes of Mine Action in Somalia (2023).*

The **Sustainable Development Outcomes of Mine Action in Jordan**⁶ constituted a first-of-its-kind study that comprehensively mapped the sustainable development outcomes of mine action activities and approaches in Jordan.⁷ The findings and lessons learnt from this pilot publication have served as the methodological source of inspiration for a series of new studies, including this one.

However, it is important to highlight that the specifics of the methodology here have been defined based on the particularities of the situation in Iraq, considering relevant feedback obtained through a consultative process with key mine action stakeholders to ensure its relevance for the Iraqi context.⁸

The study combined desk research, remote interviews, focus groups and field visits. The selection of cases was conducted in close coordination with key stakeholders, including the Directorate for Mine Action (DMA) in Federal Iraq and its regional centres, the Iraqi Kurdistan Mine Action Agency (IKMAA) and mine action operators, through structured and semi-structured interviews.⁹

Through a consultative process, the areas were selected according to: i) the timing of survey, clearance and release of land, ii) existing socio-economic factors that influence the potential results of mine action interventions, iii) which operator or national institution was in charge of the intervention, aiming to provide different organisational approaches and views, and iv) diversity in the results reported, looking at the three dimensions of sustainability: social, environmental, and economic.¹⁰

Due to time constraints and logistical considerations, the research team had to prioritise certain areas to conduct field visits and observation, within the north and central parts of Federal Iraq and in the Kurdistan Region of Iraq (KRI).¹¹ However, the impossibility of visiting sites due to logistical constraints did not preclude the inclusion of identified results in non-visited areas, as in the case of the Shatt Al-Arab District in Basra Governorate. Findings from the unvisited sites revealed clear contributions of mine action to sustainable development outcomes. These included evidence of agricultural production as well as rehabilitation and reconstruction of critical infrastructure that enabled access to drinking water and irrigation, among others benefits. Relevant cases were highlighted by the national mine action authorities in Federal Iraq and the KRI during initial meetings and in stakeholder interviews, further supplemented with desk research.

In January 2023, the research team visited selected sites in Ninewa Governorate (Sefdinan village, AlHamdaniya District, Mosul City and District, Tel Kaif in North Mosul), Anbar Governorate (Garma, Albu Tayeh and Nuaimiya, Mesalama in Fallujah), and Baghdad Governorate (Bismayah

New City). Findings obtained through on-site semi-structured interviews with key stakeholders during the field visits were cross-referenced with desk research and documentary analysis to assess and expand on primary information directly gathered in situ.

Primary data was cross-referenced with available statistics and various official reports and publications. The analysis of cleared minefields, maps and reports, was further complemented by satellite imagery analysis to illustrate the changes in development after the release of land.

Iraq's 2022–2028 National Mine Action Strategy¹² incorporates the 2030 Agenda by presenting it as one of the strategically important intersectoral issues alongside gender and diversity mainstreaming. The Strategy also acknowledges the importance of switching from mere outputs to broader sustainable development outcomes, and mine action's facilitating role in this.¹³ This study supports Iraq's interest to better understand the role of mine action in enabling sustainable development and the fulfilment of the SDGs¹⁴ by providing concrete evidence on the observed developmental outcomes in EO-affected areas. This, in turn, could potentially contribute to awareness raising and resource mobilisation,¹⁵ which remain key priorities for the country.

MINE ACTION AND THE SDGs

In Iraq, the institutional coordination and planning of efforts towards meeting the SDGs is overseen by the National Committee for Sustainable Development. This Committee is chaired by the Ministry of Planning (MoP) and includes 27 members including ministry representatives, director generals and experts from a variety of sectors.¹⁶ The MoP has published Iraq's Vision for Sustainable Development 2030, which serves as a road map for efforts towards fulfilment of the SDGs and their dimensions related to people, prosperity, planet, peace, and partnerships under the 2030 Agenda. Given its country context, Iraq outlines its own vision and national goals as the following: "empowered Iraqis in a safe country, a unified society with diversified economy, sustainable environment, justice, and good governance."¹⁷

The MoP acknowledges the impact of land release across many aspects of development, including poverty, employment, food security, education, and health among other factors. In line with this, the MoP notes the importance of having relevant indicators related to mine action for planning and adopting the national development plan to the local contexts, helping to prioritise the needs of each governorate and to address the indirect impacts of contamination.¹⁸ The MoP plans to convene a team that will also look more deeply into how mine action impacts sustainable development, and to incorporate mine action activities into Iraq's next voluntary national review for the SDGs.¹⁹

In line with Iraq's Vision for Sustainable Development 2030 and the country's Poverty Reduction Strategy 2018–2022, Iraq's National Mine Action Strategy for 2022–2028 facilitates broader development and humanitarian efforts. In addition to implementing international convention obligations, the Mine Action Strategy affirms Iraq's commitment to fulfilment of the SDGs.²⁰

The DMA and IKMAA have an ongoing collaboration with the MoP in order to advocate for the inclusion of mine action into broader national plans and strategies, including Iraq's National Development Plan and the Poverty Reduction Strategy.²¹ The Iraqi National Mine Action Strategy acknowledges that this synergy furthers Action #6 of the Oslo Action Plan on enhanced partnerships and integrated responses between mine action and other sectors, and Action #8 on providing quality information about progress and challenges with implementation of the Convention, in line with the triple nexus approach.²²

INTRODUCTION

CONTEXT

Iraq is one of the countries most contaminated by explosive ordnance (EO) today.²³ Decades of intense conflicts, both internal and international, have left widespread contamination throughout the country, resulting in grave humanitarian crises with challenging socio-economic and financial conditions. The multidimensional role of mine action is therefore a critical pillar for the country's long-term sustainable development and progress.

Iraq has a complex history of EO contamination across several decades of conflict. The majority of known contamination is found in legacy-mined areas deriving from successive conflicts, namely the 1980–1988 war with Iran, the 1991 Gulf War, and the 2003 war against coalition forces.²⁴ Of note are the extensive barrier minefields evident along Iraq's borders with Iran and the Kingdom of Saudi Arabia, and the cluster munition remnants (CMR) and explosive remnants of war (ERW) in the south of Iraq left behind from these conflicts.²⁵

The recent conflict between the militant group Daesh (Islamic State of Iraq and the Levant) and the Iraq Security Forces²⁶ further complicated the landscape of explosive contamination across the country with a large proportion of EO made up of improvised anti-personnel mines (APMs), sometimes referred to as 'new contamination' by operators.²⁷ Unprecedented types of improvised explosive devices (IEDs), including APMs of an improvised nature, were placed in large areas by Daesh from 2014 to 2017. They left an area of 524 km² of improvised mine contamination in central and northern Governorates, including long belts of improvised devices initiated by pressure plates, and dense contamination of critical infrastructure such as hospitals and utilities, as well as private residences.²⁸

As of 2021, approximately 8.5 million people in Iraq were vulnerable to the risk of EO,²⁹ equalling 21 percent of the country's total population of 43.5 million people.³⁰ In 2022, approximately 18 percent of households from all population groups reported a perceived impact from EO, noting the effects on physical safety, freedom of movement, and psychological well-being.³¹

Following decades of conflict, in addition to the presence of EO, there are numerous barriers to meeting humanitarian and development needs during this period of recovery. Despite significant reconstruction efforts of public infrastructure, housing, marketplaces, and roads, restoration work is ongoing. As of 2022, a total of 2.45 million people were estimated to be 'in need' of humanitarian assistance.³² Many communities impacted by the conflict remain in particularly vulnerable situations, including internally displaced persons (IDPs) as well as returnees facing difficulties with accessing basic services, in addition to dealing with high levels of social, political and security tensions.³³ Of the estimated 6.1 million people displaced during the conflict years, 4.9 million have been able to return to their homes. The remaining 1.2 million are living mostly outside of official IDP camps,³⁴ with protracted displacement expected to continue into the near future.³⁵

There are also ongoing peace and security concerns in Iraq which additionally hinder the progress of humanitarian activities, with fragmented security forces, especially in the north, and tensions along social, ethnic, and sectarian lines contributing to general insecurity.³⁶ Whilst the war with Daesh officially concluded in 2017, isolated attacks have continued, with evidence of a resurgence in 2021 when over 600 Daesh-related security incidents occurred, particularly in the central and northern parts of the country.³⁷ A lack of economic opportunities, particularly for youth, with an unemployment rate of 30 percent in 2021,³⁸ has also had a pervasive impact on the population, negatively affecting community well-being, economic stability, and equality.³⁹

The Human Development Report places Iraq in the category of a 'medium development country', ranking it 123 out of a total of 189 countries.⁴⁰ An analysis of distribution of expenditure among income categories in the country shows a trend towards inequity. The Gini coefficient⁴¹ increased from 0.338 in 2007, to 0.366 in 2012, and 0.380 in 2014 with further deterioration estimated. With the exception of the Kurdistan Region of Iraq (KRI), this value increased in all regions of the country, with the highest increase seen in the Daesh-liberated areas of Federal Iraq.⁴²

Poverty, climate change, and conflict are interconnected. Environmental issues have impacted the country's industries, most notably agriculture,⁴³ in addition to causing displacement due to water scarcity. Whilst climate change and environmental degradation have yet to cause widespread humanitarian concerns, this subject is likely to be increasingly relevant. Iraq is estimated to be one of the most vulnerable countries in the world to climate change,⁴⁴ with desertification affecting up to 40 percent of the country and a lack of updated and sustainable infrastructure threatening long-term water access.

Many people are close to the national poverty line, especially those living in rural areas and displaced populations.⁴⁵ There has been continued growth of the poverty and unemployment rates since 2012. This can be attributed to the war against Daesh and massive forced displacement, ongoing environmental and climate crises, the interruption of education, difficulties in return and reintegration, oil price fluctuations, and additional barriers to secure livelihoods due to the COVID-19 pandemic.⁴⁶ The groups identified as being most vulnerable were IDPs, refugees, and single-parent households, and in particular the women and girls in these groups. This is exacerbated by forms of discrimination based on nationality, ethno-sectarian group, age, disability, and political views or perceived affiliations.⁴⁷

Since the conflict with Daesh and its control over specific areas, the Government of Federal Iraq and the Kurdistan Regional Government (KRG) have put forward provisions to support affected populations by means of social protection and a public distribution system (PDS) of food baskets to families throughout Iraq.⁴⁸ Provisions have not been sufficient however for both displaced and non-displaced households⁴⁹ as unemployment rates have risen, and salaries significantly reduced or unpaid. The social and economic strain is felt most by farming households in poor rural areas.⁵⁰

Poverty rates are highest in the south of Iraq, exacerbated by agricultural drawbacks linked to climate change as well as the existing economic and security conditions in the region. Data also shows an increase in the poverty rates of liberated Governorates in the north (Nineva, Kirkuk, Diyala, Anbar and Salah Al-Din) due to fighting with Daesh.⁵¹ As will be further examined in this report, the prevalence of contamination in liberated areas and in poorer areas (particularly in the south) reveals an opening

through which linkages can be drawn between investment in mine action and its multidimensional contributions to Iraq's five pillars of sustainable development ("man building, good governance, a diversified economy, safe society, and sustainable environment") as outlined in its 2030 Vision for Sustainable Development.⁵²

MINE ACTION IN IRAQ

Mine action began in Iraq in the mid-1990s, with the establishment of the mine action programme under the United Nations Office of Project Services in the KRI. In 2003, the Mine Action Commission was established, housed within the Ministry of Planning and Developmental Cooperation. The National Higher Committee for Mine Action is headed by the prime minister of Federal Iraq and includes representatives from the Ministries of Defence, Interior, Oil, and Environment, the National Security Advisor and the head of the Iraqi Kurdistan Mine Action Agency (IKMAA).⁵³

The 2005 Constitution established Iraq as a federal state of 19 Governorates, 15 governed by the Federal Government of Iraq⁵⁴ and four governed by the KRG in the KRI.⁵⁵ There are two main mine action authorities in Iraq – the Directorate for Mine Action (DMA) in Federal Iraq, established in 2008 and which operates under the auspices of the Ministry of Environment, and the Iraqi Kurdistan Mine Action Agency in KRI, established in 2004 and reporting to the Council of Ministers in KRI. IKMAA has a regulatory and operational role within the KRI, with regional offices in each of the four Governorates, implementing survey, clearance, and explosive ordnance risk education (EORE) operations. Both national authorities are overseen by the Inter-ministerial Mine Action Commission in its capacity as Iraq's regulatory entity for mine action.⁵⁶

The DMA is responsible for the planning, supervision, coordination, and data management of all mine action activities in its 15 Governorates and is the national authority in Federal Iraq. Its responsibilities include the national strategy, setting national standards and ensuring they are followed, and providing accreditation and approval of standing operating procedures of demining organisations. With its headquarters in Baghdad, it is comprised

of three regional mine action centres (RMACs), in the north (RMAC-N), south (RMAC-S), and Middle Euphrates (RMAC-M EU).⁵⁷ The Ministry of Defence (MoD) and Ministry of Interior also have a critical role in mine action in Federal Iraq in managing contamination, with the MoD carrying out disposal of all EO in the region. The Ministry of Oil also funds survey and clearance operations near oil and gas installations, mostly located in the south of Iraq.⁵⁸

Whilst the two authorities (DMA⁵⁹ and IKMAA) cover their respective territories separately, data and information are shared, and strengthened collaboration has been evident through the GICHD-facilitated strategic planning process which started in 2021 and resulted in Iraq's first unified national strategy.⁶⁰

In Iraq, the national authorities (Ministry of Defence, Ministry of Interior – Directorate of Civil Defence and EOD (explosive ordnance disposal) Directorate – and IKMAA), have conducted operations along with other accredited organisations since the 1990s. Commercial companies include Global Clearance Solutions, Tetra Tech, G4S, and Optima Group. Among national NGOs conducting mine action are the Health and Social Care Organization in Iraq, Shareteah Humanitarian Organization, Baghdad Organization for Removing Mines, and Al-Ghad League for Woman & Child Care. The main international operators include Mines Advisory Group (MAG),⁶¹ United Nations Mine Action Service (UNMAS),⁶² Fondation suisse de déminage (FSD),⁶³ Norwegian People's Aid (NPA),⁶⁴ The HALO Trust,⁶⁵ Danish Refugee Council (DRC),⁶⁶ Humanity and Inclusion (HI),⁶⁷ and DanChurchAid (DCA).^{68 69 70}



Map of Iraq and mine action regions, Source: DMA

MINE ACTION CENTRES AND GOVERNORATES

MINE ACTION CENTRE	GOVERNORATE
RMAC-N	Anbar, Diyala, Kirkuk, Ninewa, Salah Al-Din
RMAC-M EU	Al-Qadisiya, Babylon, Baghdad, Karbala, Najaf, Wassit
RMAC-S	Basra, Missan, Muthanna, Thi-Qar
IKMAA	Mine action centres in Duhok (DMAC), Erbil (EMAC), Garmyan (GMAC) and Sulaymaniyah (SMAC)

The United Nations Assistance Mission for Iraq (UNAMI) was established in August 2003 by UN Security Council Resolution 1500, at the request of the Government of Iraq.⁷¹ Its initial mandate was to support humanitarian and reconstruction efforts in Iraq as well as advance efforts towards restoring and establishing national and local governing institutions, following the fall of Saddam Hussein's regime.⁷² Due to ongoing humanitarian and development needs, the mission has been extended on a yearly basis and works to support the government on a range of social and political issues including support for inclusive political dialogue, reconciliation

efforts, promoting human rights, assisting democratic electoral processes, and judicial and legal reforms. The latest extension of UNAMI through Resolution 2631 adopted in 2022, recognises the existing threat of EO and its impact on civilians, especially children.

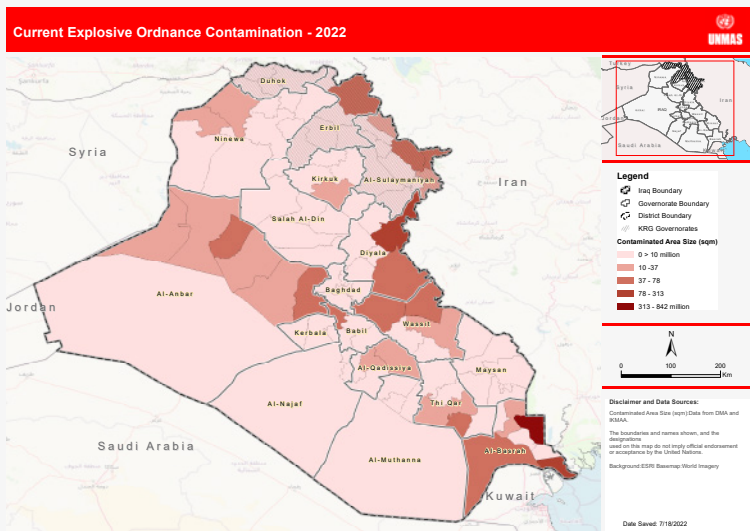
Iraq became a State Party to the Anti-Personnel Mine Ban Convention (APMBC) in 2008. It is also a Party to the Convention on Certain Conventional Weapons (CCW) and its Protocol I, Amended Protocol II (on mines, booby-traps and other devices), III, IV, and V (on explosive remnants of war) and accepting the Amendment to Article 1. Iraq is additionally a State Party to the Convention on Cluster Munitions (CCM) and the Convention on the Rights of Persons with Disabilities.

The war against Daesh between 2014 and 2017 impeded clearance activities and resulted in new contamination, preventing Iraq from meeting its APMBC Article 5 deadline of destroying all anti-personnel mines in mined areas by 2018 (10 years after entry into force).⁷³ In 2017, Iraq requested and was granted, by the States Parties to the Convention, a 10-year extension of its Article 5 deadline, until 1 February 2028. Iraq is also expected to present an extension request under Article 4 of the CCM during the 11th Meeting of the States Parties of the Convention (September 2023). Reported challenges to meeting the deadline are varied, including limited capacity and funding, new contamination from the recent conflict, climate change and topography, and security concerns.⁷⁴

NATURE OF CONTAMINATION

Iraq is the world's most contaminated country by total extent of mined area.⁷⁵ In 2022, the DMA and IKMAA estimated the total EO contamination to be just under 3,000 km². Conventional and improvised APMs, anti-vehicle mines (AVMs) and other IEDs represented 57 percent of the total contamination in the country.⁷⁶ Iraq is also heavily contaminated by CMRs and ERW.⁷⁷ The majority of CMR-contaminated areas are in the centre and south of Iraq, in the Governorates of Basra, Muthanna, and Thi-Qar.⁷⁸

In a major milestone for the mine action programme, Thi-Qar Governorate in southern Iraq was declared free from APMs in 2019.⁷⁹



Map of Contamination in Iraq, 2022. Source: UNMAS

Internal conflicts between the Kurdish Movement and previous Iraqi governments in the 1960s left behind APM, AVM and ERW contamination in the Kurdish areas. The 1980–1988 war with Iran resulted in widespread CMR contamination, especially in the southern Governorates, and heavy contamination with anti-personnel and anti-vehicle minefields along the borders with Kuwait and Iran.⁸⁰ The 1991 Gulf War resulted in significant CMR contamination in the centre and south of Iraq. Large areas were planted with minefields inside Iraq, along the border with Kuwait and Saudi Arabia. The 2003 Iraq War also led to further extensive ERW and CMR contamination throughout Federal Iraq.⁸¹

The more recent conflict between Daesh and Iraq's Security Forces in 2014–2017 resulted in new contamination in Iraq, with the widespread use of IEDs.⁸² These were planted by Daesh in urban settings, in belt formations around populated centres, villages, and critical infrastructure.⁸³ The DMA estimates more than 95 percent of IEDs to be improvised anti-personnel mines.⁸⁴ The city of Mosul, which was designated as the capital of Daesh from 2014 until its liberation in 2017, experienced particularly severe damage.⁸⁵

Reported accidents are the result of this widespread and unprecedented level of IED contamination, further emphasising the urgency of the daily activities of mine action stakeholders and of the national mine action authorities in Iraq.⁸⁶

Operators in Iraq have referred to this new contamination in urban settings as ‘3D contamination’ to highlight the challenge of devices buried in rubble. This has presented additional complications for clearance in comparison with rural settings, where mines are buried in the ground. This means that the use of mechanical equipment is necessary to sift through rubble and debris, as well as the consideration of other factors.⁸⁷ In addition to IEDs, unexploded ordnance dropped by coalition airstrikes against Daesh are also buried deep in the earth. As these contain a higher amount of explosive than landmines, they pose a greater risk of fatalities.⁸⁸

The use of IEDs was reportedly on an industrial scale, with widespread contamination throughout towns, villages, and urban areas in critical infrastructure like schools, hospitals, homes, and government buildings.⁸⁹ This has first and foremost prevented the safe return of IDPs. UNMAS reported that over 100,000 houses in Mosul were destroyed or damaged “potentially with explosive assets in them”.⁹⁰

The documented increase in the use of IEDs by armed groups over the last decade has posed significant threats to sustainable recovery, peace, and development in post-conflict settings and across the various dimensions of human security. In Iraq, IEDs (including improvised APMs and AVMs) cause more civilian casualties now than manufactured landmines.⁹¹ The state of insecurity perpetuated by their presence impedes the right to life, physical security, education, and the health of civilians. It is a deterrent to socio-economic growth, preventing the safe mobility of IDPs and refugees, humanitarian response and civil society activity, in addition to impeding commerce and the flow of goods.⁹²

- **1980–1988:** Armed conflict with Iran.
- **1990–1991:** The Gulf War, period of armed conflict between Iraq and coalition forces.
- **1992:** Mine action commences in Iraq in the Kurdistan Region (KRI).⁹³
- **Mid-1990s:** Iraq's mine action programme is established with the oversight of the United Nations Office of Project Services in the KRI.⁹⁴
- **2003:** Beginning of the Iraq War.
- **2004:** The Iraqi Kurdistan Mine Action Agency (IKMAA) is established, coordinating the regional directorates of four Governorates in KRI.
- **2005:** The 2005 Constitution of Iraq establishes Iraq as a federal state, recognising the Kurdistan Region of Iraq (KRI) as an autonomous federal region.⁹⁵
- **2008:** Iraq becomes a State Party to the APMBC.⁹⁶ The Directorate of Mine Action (DMA) is established within the Ministry of Environment, managing the three regional mine action centres: RMAC-N, RMAC-M EU, RMAC-S.⁹⁷
- **2011:** End of the 2003 Iraq War.
- **2012:** Iraq's accession to the Convention on the Rights of Persons with Disabilities.⁹⁸

- **2013:** Ratification of the CCM with a clearance deadline of 2023.⁹⁹ Iraq will submit an extension request to its Article 4 obligations on clearance and EORE.¹⁰⁰
- **2014:** Iraq becomes a State Party to the CCW, joining Protocol I, Amended Protocol II, Protocols III, IV, V, and accepting Amendment to Article 1.¹⁰¹
- **2015:** UNMAS emergency response programme is launched to assist the Government of Iraq in managing the emergency response to the conflict against Daesh.¹⁰²
- **2016:** National Standard on IEDs is introduced.¹⁰³
- **2017:** Liberation from Daesh. Adoption of the first Iraq National Mine Action Strategy 2017–2021.

Iraq submits a request to extend its anti-personnel landmine clearance deadline to 2028.¹⁰⁴
- **2019:** The Iraqi government declares Thi-Qar Governorate in southern Iraq free from APMs, marking a significant milestone in the mine action programme.¹⁰⁵
- **2021:** Inclusive development of Iraq's first unified National Mine Action Strategy 2022-2028, covering FI and the KRI.

THE CONTRIBUTION OF MINE ACTION TO THE SDGs IN IRAQ



Norwegian People's Aid demining team conducting clearance activities on agricultural land in Al-Zubair, Basra, November 2022. Source: NPA

1. LAND RELEASE

FIGURE 4

CONTRIBUTION OF LAND RELEASE TO THE SDG TARGETS IN IRAQ





-
- 8.1** Sustained economic growth
 - 8.2** Increased economic productivity through diversification
 - 8.3** Support for productive activities and decent job creation
 - 8.5** Full and productive employment and decent work
 - 8.6** Reducing the proportion of youth not in employment, education or training
 - 8.8** Ensuring safe and secure working environments for all workers
 - 8.9** Promotion of sustainable tourism



-
- 9.1** Equitable access to infrastructure



-
- 11.1** Access to adequate, safe and affordable housing
 - 11.2** Access to safe and sustainable transport systems
 - 11.3** Inclusive and sustainable urbanization
 - 11.4** Safeguarding the world's cultural and natural heritage



-
- 12.2** Sustainable management and efficient use of natural resources



-
- 13.1** Strengthening resilience and adaptive capacity to climate-related hazards and natural disasters



-
- 15.1** Restoration and conservation of terrestrial and inland freshwater ecosystems
 - 15.2** Promote implementation of the sustainable management of all types of forests
 - 15.5** Reduce the degradation of natural habitats, halt the loss of biodiversity, and prevent the extinction of threatened species



-
- 16.1** Reduction of all forms of violence



-
- 17.16** Enhanced global partnership for sustainable development
 - 17.17** Effective public, public-private and civil society partnerships

The wording of the SDG targets listed above has been simplified; the full list of targets and their official names can be found on the United Nations website: <https://www.un.org/sustainabledevelopment/>

Land release refers to the process of applying ‘all reasonable effort’^{106 107} to identify, define, and remove all presence and suspicion of explosive ordnance (EO)¹⁰⁸ through non-technical survey (NTS), technical survey (TS) and/or clearance.¹⁰⁹

Land release in Iraq has played a critical role in preventing casualties and removing physical blockages on/in the land, for it to be safely accessed for productive use and for sustaining livelihoods. Its enabling role has interlinking and cross-cutting outcomes, contributing to social development, sustained and inclusive economic growth, and environmental protection, as outlined by the UN 2030 Agenda.¹¹⁰

Iraq has witnessed severe destruction after decades of armed conflict. Conventional EO contamination,^{111 112} mainly concentrated in the southern Governorates, and recent contamination of areas liberated from Daesh in central and northern Governorates, have prevented safe access to land. Although the full extent is unknown, this heavy contamination¹¹³ has exacerbated security risks, public health concerns, poverty, and loss of livelihoods. These issues are coupled with the increasing threat of climate change and environmental challenges like water scarcity in the region.

By preventing EO-related deaths and injuries, land release has contributed directly to **SDG 16** Peace, Justice and Strong Institutions and its **target 16.1** on reducing all forms of violence and related death rates. In addition to addressing the urgent physical threat of EO contamination, land release in Iraq has made land accessible for the construction and repair of infrastructure including residential homes, schools, and hospitals, as well as facilities like power lines and safe drinking water. It has also enabled agricultural and other economic activities. Land release has provided safe mobility and allowed for freedom of movement, which is intrinsic to rebuilding of social networks and communities, enabling safe return of civilians to their homes, and ensuring safe access to education as well as contributing to an overall sense of security and psychological well-being. Land release has also been shown to enable climate resilience mechanisms, enabling irrigation projects as well as the safeguarding of natural habitats.

The following findings will map the long-term impacts of land release efforts and address the ways in which these are linked to the sustainable rehabilitation, development, and healing of conflict-affected communities. They encompass examples from the areas chosen for field visits, in addition to other selected sites which were not visited by the research team, due to logistical constraints. In particular, the following will illustrate how land release has been an enabling factor in reconstruction efforts, access to education, access to health, facilitating transition and recovery efforts for returnees, infrastructure developments, accessibility of drinking water and irrigation, agricultural production and food security, preservation of the environment, and conservation of cultural heritage, and tourism.

RECONSTRUCTION PROJECTS AND ACCESS TO ESSENTIAL SERVICES

HOUSING RECONSTRUCTION

According to an assessment report by the Iraqi government and the World Bank following liberation from Daesh, approximately 138,051 residential buildings were impacted, with half of these structures destroyed beyond repair. Mosul was shown to have the highest recorded number of damaged housing compared to Districts in the other severely affected Governorates that were part of this assessment.¹¹⁴

The release of land in residential areas has allowed safe access for reconstruction projects. Accordingly, certification of clearance is a requirement for these essential projects to materialise. Multisectoral cooperation across and beyond the mine action sector before, during and after the release of land for the repair and reconstruction of infrastructure has been critical for ensuring access to comprehensive services. This collaborative effort is an undeniable prerequisite for housing reconstruction to take place and has been the driving factor behind the sustainable return of internally displaced persons (IDPs) and the social cohesion necessary for the rehabilitation of communities.

RESIDENTIAL NEIGHBOURHOODS IN FALLUJAH

Due to their location, the residential neighbourhoods of Garma, Albu Tayeh¹¹⁵ and Nuaimiya, Mesalama¹¹⁶ in Fallujah had a higher concentration of contamination, including the presence of many unexploded ordnance (UXO) and improvised explosive device (IED) lines placed to prevent the advancement of the Iraqi Security Forces (ISF). Since the ISF were stationed in this area, it is possible that this was the reason that some of the most intense battles took place here, as the border between Baghdad and Fallujah was Daesh's mainline defence. Fallujah was in fact the first area to fall to Daesh as well as the first to be liberated.

Multiple accidents had occurred in this residential area before clearance, with children included among the fatalities.¹¹⁷ Post clearance, the area has new mosques, schools, houses, drinking water projects and two football fields, and electricity pylons that were destroyed have been repaired.¹¹⁸

After clearance by The HALO Trust in 2021–2022, former residents staying in IDP camps had the confidence to return and rebuild their homes, also encouraging relatives and friends to do the same. Over 25 homes have been reconstructed in Garma, Albu Tayeh alone. More people are expected to return given the re-establishment of access to essential water, electricity, and infrastructure services.¹¹⁹



Ongoing reconstruction of housing in the cleared residential neighbourhood of Garma, Albu Tayeh, January 2023.

Power lines were previously broken and non-operational, and the release of land allowed engineers from the Ministry of Electricity access, in order to repair them. Asphalt and gypsum factories in this area also became operational after clearance. As they employ residents in the surrounding areas, clearance of the roads leading to factories has facilitated the commute of hundreds of people per day to allow them access to their livelihoods. The government was also able to start a water grid, funded by the Ministry of Water Resources and the United Nations Development Programme (UNDP).¹²⁰

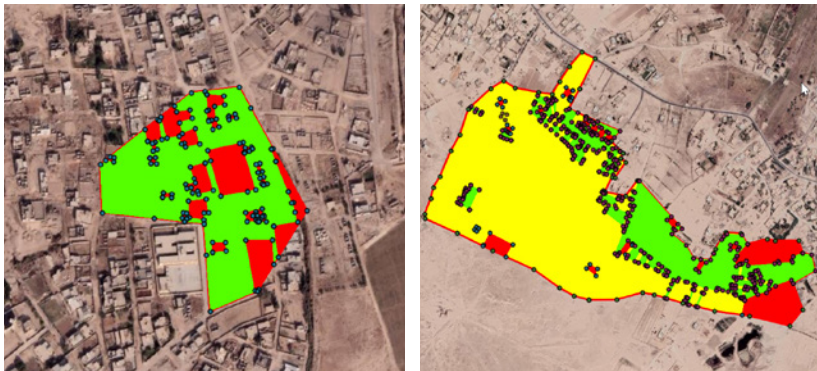
This land is mainly used for housing and residential purposes. As the mine action operator tasked with this area, The HALO Trust¹²¹ has already met with the mayor to discuss future development projects for a market, schools, and clinics. As such, continued clearance in the area would also enable access to water and electricity and create further additional opportunities.¹²²



View of foundation laid for house reconstruction, January 2023.

Humanitarian organisations cannot start projects before a clearance certificate is issued by the national authority.¹²³ For example, when the Directorate of Mine Action (DMA) decided to begin clearance of Garma, Albu Tayeh, other international organisations could start development projects in the area to provide services that are essential for the safe and dignified return of communities.

To date, the reported beneficiaries of the clearance projects in Garma, Albu Tayeh are 428 direct and 2,558 indirect. In Nuaimiya, Mesalama, operators have reported 216 direct and 7,384 indirect beneficiaries from this task alone. Residents in situ emphasised their overall sense of safety, and the freedom of movement to attend schools and go to the market, especially for women and girls. This is a stark difference from previously being unable to even walk into the area.¹²⁴



Satellite images of the tasks in residential neighbourhoods of Nuaimiya, Mesalama (left) and Garma, Albu Tayeh (right) in Fallujah. The polygon shows the areas that have been cleared of explosive war remnants (green), areas that have not been cleared (red) due to residents' refusal, and area reduced through technical survey (yellow), 2022. Source: Google Earth.

THE TELAFAR COMPLEX

Located in the outskirts of the town of Telafar in the Ninewa Governorate, in an area where agriculture is the primary source of livelihood, the Telafar Complex was controlled by Daesh in 2014 and used as a training area for militant operations.¹²⁵ Funded by the Iraqi government, under the Ministry

of Housing and Construction, building is still in progress and expected to be finished by the end of 2025. The project consists of 40 residential buildings, as well as three schools, a shopping centre, a mosque, and a hospital; apartments will be prioritised for widows and people with limited incomes.¹²⁶

After liberation from Daesh in 2017, the complex was destroyed and contaminated with IEDs planted by Daesh throughout the area to stop the advance of the Peshmerga forces.¹²⁷ After initial clearance operations had been conducted by the Iraqi Army, Mines Advisory Group (MAG) began operations, in 2022, on five three-storey buildings, on request from the local authorities. This followed some fatal accidents that had taken place inside the complex¹²⁸ and because of the very high number of IEDs around residential areas and buildings, which also prevented the resumption of construction work. After completion of this task, the Government of Iraq provided funds for reconstruction and rehabilitation of the complex, which is expected to house hundreds of people.¹²⁹



Picture of the Telafar Complex damaged during the conflict, 2022. Source: MAG

RESIDENTIAL NEIGHBOURHOODS IN MAKHMOUR DISTRICT

In the Qarj sub-District of the Makhmour District (Mosul Governorate), the Kharbani village had 85 homes and 700 citizens before Daesh invaded. The entire population evacuated when Daesh arrived, with 10 houses destroyed during the conflict in addition to buildings and infrastructure in nearby towns. The area around the village was heavily contaminated with EO, particularly IEDs forming a defensive line between the neighbouring villages of Futuma and Mahmudiyah, in addition to villages beyond. Fondation suisse de déminage (FSD) Iraq commenced clearance operations in 2019, which were halted due to COVID-19 and the security situation, and completed in 2021, enabling the local population to return. FSD cleared agricultural land, recreational areas, as well as electrical power lines, releasing 3 million m² of land and removing 800 items of EO. With safety for agricultural activity and livestock assured, farmers were able to generate income in the local area and the sowing of wheat crop seed and rice commenced. Today, Kharbani has a population of 300 residents with 35 houses now inhabited.¹³⁰

In Mahmudy, also located in the Qarj sub-District of Makhmour, there were 55 houses and 550 residents before Daesh invaded. Five homes were destroyed during the conflict. Currently, 25 families have returned to the village with about 200 citizens living there today. Clearance operations commenced in 2019, with over 2.5 million m² of land released and the removal of 100 items of EO. Further clearance work remains to be conducted around Mahmudy village and in the surrounding areas. After clearance, the reconstruction of housing will commence, as well as the installation of security services, access and use of the village cemetery, movement by road between villages, and schooling and agricultural activities. It is hoped that the remaining 30 families, consisting of 350 people, will soon be able to return to their homes.¹³¹

HOUSING PROJECT IN SHATT AL-ARAB DISTRICT

In Basra, clearance of the Shatt Al-Arab District has also enabled the reconstruction of homes, with more than 30,000 units of land already distributed to people in the community. More than 10 housing compounds were handed over to investment authorities as well. The government is also expected to start an infrastructure and housing construction project in this area over the next 4–5 years, referred to as the ‘New Basra’, which would not have been possible without prior demining activities. According to the mayor of the District, over the last 20 years the population has grown in this area from 94,000 to more than 400,000 people today.¹³²



Housing compounds built after survey and clearance in Shatt Al-Arab District. Source: DMA

Land release has enabled access for the expansion and reconstruction of residential infrastructure and housing developments. These reconstruction projects have been crucial to enable safe, regular, and comprehensive access to essential public services including education and healthcare in the affected areas. As a prerequisite to this, land release is a direct contributor to **SDG 9** Industry, Innovation and Infrastructure, and its **target 9.1** on developing infrastructure, to support economic development and human well-being. There are also linkages to **SDG 11** Sustainable Cities and Communities, and its **target 11.1** on ensuring access to safe and affordable housing, and **target 11.3** on enhancing sustainable urbanisation.

ACCESS TO EDUCATION

REHABILITATION OF SCHOOLS AND UNIVERSITIES

In Iraq, EO contamination and the severe destruction of educational infrastructure has prevented the delivery of quality education. The aftermath of liberation from Daesh left limited access to educational opportunities for Iraqis between the ages of 15 and 24 (comprising nearly 20 percent of the population,¹³³ with those under 19 years old accounting for about 50 percent of the population).¹³⁴ This is crucial, given that Iraq's second National Voluntary Review on the SDGs (2019) identifies young people, in particular, as agents of change for sustainable development.¹³⁵

Financial constraints have limited investment in educational infrastructure for schools and universities with enrolment decreasing, due to greater insecurity following the 2003 Iraq War and increased terrorist operations.¹³⁶ In the Ninewa Governorate, which experienced severe destruction under the Daesh occupation, the net enrolment rates for elementary (84 percent) and secondary education (32 percent) are lower than the national averages (94 percent and 58 percent, respectively). The reason for this is damage and destruction, and the slow pace of development, construction and reconstruction, hindering recovery.¹³⁷

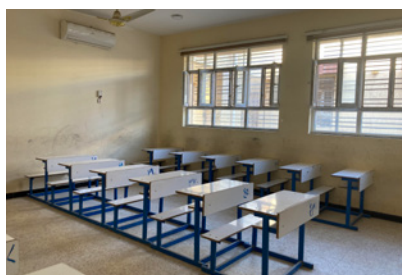
ACCESS TO PRIMARY AND SECONDARY EDUCATION

NUAIMIYA, FALLUJAH DISTRICT

In the Nuaimiya neighbourhood of the Fallujah District (Anbar Governorate), a primary and intermediate school called Al Baqeea was rebuilt under UNDP's 'Funding Facility for Stabilization' project following its clearance.¹³⁸

¹³⁹ Although there was not much contamination inside the school, heavy IED contamination in the areas surrounding it posed a serious risk to the safety of residents and students walking to and from the school. This clearance task followed a devastating accident which occurred in 2019, killing five children as they were on the way to school in the morning. The children were only 150 m away from the school building, when one 3rd grader found a mortar bomb under a tree, which exploded on his picking it up and throwing it against a wall. This had a significant impact on the perception of safety and prevented parents from allowing their children from going to school. Around 20 people in total, both men and women, have died in the area due to contamination.¹⁴⁰

In addition to contamination, the building suffered damage from an explosion during the fighting, which resulted in broken windows, weakened water pressure, and the electricity burned out. Clearance allowed for reconstruction to take place. The school currently receives a total of 800 students in three groups: two primary schools, with 260 girls attending one and 300 boys attending the other, as well as a middle school for both girls and boys with 250 students who are all now able to safely attend.¹⁴¹



Front of reconstructed Al Baqeea school (left) and classroom (right), January 2023

In another primary school, the Al Yaqda School for Girls in Al Shifa District (West Mosul, Ninewa Province), an Optima high risk search team discovered an IED located in a building during clearance operations, left over from the battle with Daesh. The clearance operations that followed facilitated safe reconstruction of the school, which is now fully operational.¹⁴²

SINJAR DISTRICT

Daesh invaded the Sinjar District (Ninewa Governorate) on 3 August 2014, killing and displacing thousands of Yazidis while perpetrating major crimes against civilians. The UN Mine Action Service (UNMAS) reported that as of 2020, more than 49,000 families had been prevented from returning to their villages due to the presence of EO, and approximately 9,600 households that had returned were at risk.¹⁴³ As of the end of 2021, two-thirds of Sinjar's population (over 193,000 Yazidis, Arabs, and Kurds) were reported to still be displaced.¹⁴⁴

According to the International Organization for Migration (IOM), the reasons given by IDPs for returning to Sinjar include the improved security situation, and encouragement from local authorities and *mokhtars* (trusted community leaders) in addition to local NGOs and other returnees. The availability of essential services, namely education and health, were also key driving factors in their decision. Upon their return to Sinjar, one of the main challenges faced by returnees was reported to be debris removal, considering the large-scale destruction that took place in this area.¹⁴⁵ In this regard, demining was fundamental to the long-term stability and sustainable return of affected individuals to Sinjar.

Coordination between the mine action sector and humanitarian organisations has therefore been critical in ensuring safe access to the area for reconstruction projects to take place. For example, MAG's clearance activities and rubble removal in Sinjar have facilitated school reconstruction projects organised by Nadia's Initiative.^{146 147} In 2022, Nadia's Initiative requested MAG support to clear school buildings, and community liaison teams conducted internal investigations on possible EO presence, including

in a school in the Al-Jazeera complex as well as in another in Tal Banat, which was already in use by children from the local community. When the absence of EO was confirmed, both schools could be safely rebuilt.¹⁴⁸

Organisations like Nadia's Initiative recognise the physical and psychological threat that EO poses in the region, hindering the return of its displaced former residents as well as economic development and access to basic services.¹⁴⁹ Nadia's Initiative has focused on rebuilding schools and constructing school libraries, in addition to providing education for early childhood and post-secondary students in Sinjar after its liberation in 2015. The organisation emphasises that access to education is key to the healing process of children and especially Yazidis who have endured conflict and prolonged displacement. Nadia's Initiative reports that 60 percent of Yazidi girls surveyed have never been enrolled in school and 48 percent of Yazidi children surveyed do not regularly attend school.¹⁵⁰

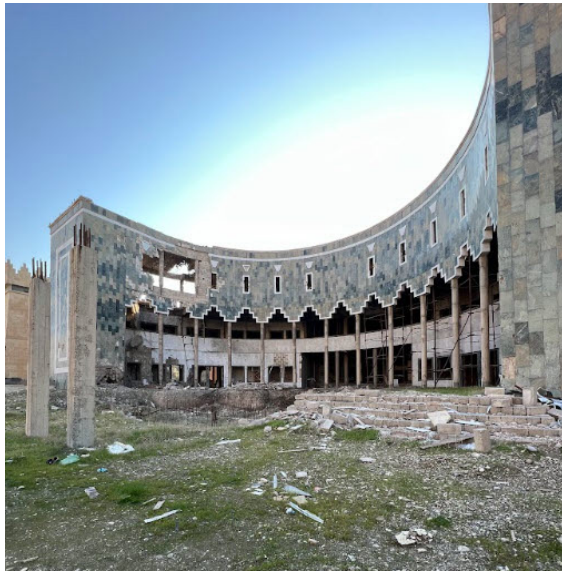
ACCESS TO TERTIARY/HIGHER EDUCATION

Universities were among the critical infrastructure that was completely destroyed during the recent conflict. Several examples demonstrate how land release has enabled the safe return of students and staff.¹⁵¹ In the Anbar Governorate, schools including the University of Anbar (Ramadi) and Fallujah University have been cleared of IEDs and explosive remnants of war (ERW), as have Ninewa University and University of Mosul, in the Ninewa Governorate.

UNIVERSITY OF MOSUL

The University of Mosul was considered to have been Daesh's headquarters and as a result, the entire campus was contaminated and booby-trapped. 80 percent of the buildings were burned or destroyed and today 70 percent of the structures have been rehabilitated. Clearance of the University of Mosul was necessary for the reconstruction of infrastructure to take place, allowing normal student life to return. As the entire campus was contaminated, clearance was needed to ensure safe access to its 24 faculties and six research centres.

During the occupation, Daesh used the facilities, equipment, and amenities at the university to print materials that it distributed as propaganda. Selected buildings were used for IED production. For instance, workshops were set up in the Assyrian Library and College of Archaeology, including storage rooms for ammunition, rockets, and missiles, liquid and chemical IED precursors, as well as metal fragments which were used to increase the impact of shrapnel propelled by an explosion.



College of Archaeology, University of Mosul, January 2023. Source: UNMAS

There was also heavy damage to the university's laboratories and equipment, used to produce IEDs with chemical and biological components. These additional contamination factors made it complicated for operators and the army to safely clear the area in a short time. The DMA issued task orders to the Ministry of Defence, in addition to different implementing partners, to address the complex operational needs of this contamination. For example, a special civil force of the Ministry of Interior was called on to dispose of chemical components in 2017.¹⁵²

No accidents have been reported since liberation in 2017, neither during nor after clearance operations. The university administration has a clear protocol and coordination mechanism to handle and report suspicious items found on campus, which foresees involving the ISF and/or relevant mine action authorities for removal.¹⁵³

Since the clearance of the University of Mosul, over 65,000 students, 4,000 faculty members, and 4,000 administrative staff have been able to return, as well as additional short-term staff. Its opening also facilitated the safe return of many people to the city, including families of students, as well as the reactivation of many small businesses linked to the campus, such as those in the construction sector.

The clearance of schools has meant that critical educational infrastructure could be rebuilt, enabling safe and regular access to education. This has had a significant impact on the quality of life of students of all ages who have suffered conflict and prolonged displacement, linking it to **SDG 4** Quality Education, and its **target 4.1** on ensuring that all girls and boys complete free and equitable primary and secondary education, and **target 4.3** on ensuring equal access for all women and men to quality tertiary education, including university.

The clearance of primary schools and universities is undoubtedly an investment which will strengthen communities and open doors for future job opportunities and skills development. As such, it links to **SDG 8** Decent Work and Economic Growth, particularly **target 8.6** on reducing the proportion of youth not in employment, education or training. Promoting access to education has further links to **SDG 10** Reduced Inequalities on protecting vulnerable groups, especially children and youth across gender and ethnic backgrounds, linking to **target 10.2** on empowering and promoting the social, political, and economic inclusion of all. By enabling access to education for all, especially through clearance of girls' schools, land release has also further promoted access to education for girls, including from minority groups (namely the Yazidi community in Sinjar), contributing to **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls.

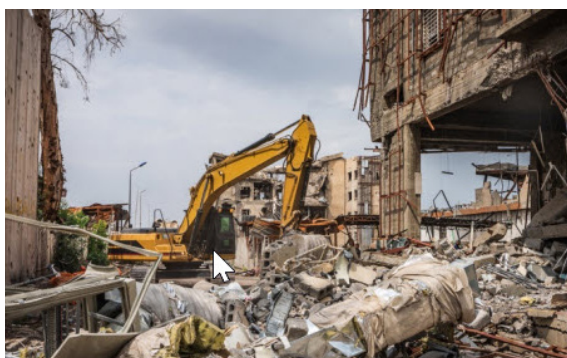
ACCESS TO HEALTH

IBN SENA HOSPITAL (AL SHIFA HOSPITAL) IN MOSUL

Before the Daesh occupation, the Ibn Sena Hospital (also known as Al Shifa Hospital) was a major hospital in the Al Shifa District that served many residents in the area and provided 90 percent of the medical needs in Ninewa. Prior to its construction, people had to travel long distances, by air or road, to receive treatment. It comprised 12 buildings, encompassing maternity and oncology departments, a blood bank and surgical facilities, among other services. The overall infrastructure was heavily damaged or destroyed, but after clearance four out of the 12 buildings are now open to patients again, providing consultation and maternity services.¹⁵⁴

The hospital was taken over by Daesh as it was a critical control point between East and West Mosul, and it also allowed them to treat their own fighters. In addition, the basement was used as a weapons and IED manufacturing facility, which meant the additional presence of industrial and highly toxic chemicals that were used in the manufacture of IEDs.¹⁵⁵ Hundreds of unused mortars were also found in the basement.¹⁵⁶ Primary explosives such as detonators were buried underneath the rubble, posing a further threat to personnel during survey and clearance operations.¹⁵⁷ The kinds of explosive hazards found on site included all types of conventional weapons, Daesh-made weapons, different types of IEDs (victim-operated, radio-controlled, and passive infra-red) as well as suicide belts.¹⁵⁸

*Armoured heavy
machinery operations
removing building
rubble for inspection
during clearance.
Source: UNMAS*



The hospital complex was cleared of over 2,000 explosive items in 2017. The Al Shifa Surgical Center was opened by UNDP and the Government of Iraq in February 2020,¹⁵⁹ and serves as the primary medical facility for East Mosul's population of approximately 800,000 people. The project included the rehabilitation of inpatient wards with 24 beds for both men and women, two full operating rooms, two intensive care units, as well as examination and sterilisation rooms. A new oxygen generator supplies high-quality oxygen to the entire hospital and has the capacity to cater for external demands.¹⁶⁰

Enabling the hospital's safe repair and rehabilitation not only restored needed medical services to the District, but it also relieved the burden on smaller hospitals in the area to where patients and medical personnel had been transferred. As one of the few major hospitals in the District, repair of its facilities would also attract IDPs and patients from neighbouring Districts seeking medical care. Clearance of the surroundings is also linked to facilitating the long-term return of IDPs and ensuring safe movement of people and patients through the area.¹⁶¹

Since Ibn Sena was also formerly used as a teaching hospital, rehabilitation of the teaching sections facilitates capacity building of future medical staff and increases the availability of trained medical professionals to be deployed to other parts of Iraq. This in turn relieves the pressure from temporary assistance structures, such as mobile clinics.¹⁶²



Newly-rehabilitated Al Shifa surgical centre, 2020. Source: UNDP Iraq

RAMBUSI HEALTHCARE CENTER IN SINJAR

Prior to the Daesh occupation in 2014, the Rambusi Primary Healthcare Center served over 100 patients daily from Rambusi and nearby villages, providing medical check-ups, free medication, and vaccinations for young children and infants. Daesh had installed explosives storage facilities in the building, for the manufacture of IEDs.

Surveys conducted by Nadia's Initiative indicated that over five villages in the area depended on the centre's healthcare services. MAG was requested to clear the area to ensure safe reconstruction and access to health services. MAG's support and operations expedited and enabled the safe provision of health services for the families returning to the area. From May to December 2021, MAG teams¹⁶³ released 82,153 m² in Rambusi, retrieving a total of 555 items, the majority being small arms ammunitions and including 15 UXO, 11 IEDs, and four improvised anti-personnel mines.

Clearance was finished in April 2022, allowing for the rehabilitation of the centre by Hungarian Interchurch Aid and Nadia's Initiative,¹⁶⁴ and its consequent reopening and resumption of services in January 2022. Nadia's Initiative currently provides the healthcare centre with medical supplies and equipment. Since its restoration, the healthcare centre has been cited as one of the main reasons that more families have returned to the area, along with the restoration of other public services.¹⁶⁵



Rambusi Healthcare Centre after rehabilitation in Rambusi village, Sinjar District, 2022. Source: MAG

Land release has been a prerequisite to reconstruction and rehabilitation of essential medical facilities. Through the re-establishment of larger emergency medical care and surgical facilities, in addition to increasing local capacities for treatment, mine action has impacted communities on the regional/district and local levels. In the case of Al Shifa Hospital, rehabilitation of the teaching sections have also facilitated capacity development of future medical staff. Clearance therefore has linkages to **SDG 3** Good Health and Well-Being, and in particular its **target 3.4** on reduction of premature mortality from non-communicable diseases through prevention and treatment, **target 3.8** on universal health coverage and quality healthcare services, and **target 3.c** on increasing the financing, recruitment, and training of the health workforce.

FACILITATING SAFE MOBILITY AND RETURN

Land release has been essential for facilitating the safe mobility and sustainable return of IDPs and refugees. The results extend far beyond Iraq, also impacting those who are internationally displaced, including Syrian refugees. Perceptions of safety and security, housing conditions, the lack of basic services (water, electricity, healthcare and education) have all hindered long-term returns, and are cited by more than 55 percent of IDPs as the reason to stay in displaced locations rather than return to areas of origin.¹⁶⁶ These connected humanitarian needs require inter-sectoral responses to ensure a safe and durable return for IDPs, refugees, and other displacement-affected populations.

Mine action has therefore played a crucial role in enabling efforts that can ensure comprehensive support for the sustainable return and reintegration of IDPs. As the enabler of activities at this critical intersection under the durable solutions coordination mechanisms in Iraq,¹⁶⁷ mine action also leverages the humanitarian-development-peace nexus, also known as the triple nexus.

With the violent insurgency of Daesh, Iraq witnessed massive levels of internal displacement of entire communities from 2014 to 2017, with nearly 6 million people (15 percent of the population)¹⁶⁸ evacuating their homes. This included 10 ethno-religious minority groups targeted by Daesh, especially in Sinjar and Ninewa, where Yazidi and Christian groups lived. The majority of IDPs were Sunni Arabs living in the western and northern Governorates (including Anbar, Kirkuk, Ninewa, and Salah Al-Din) in the areas that became the centre of Daesh's military operations.¹⁶⁹

Iraq currently has a population of 1.17 million IDPs and a returnee population of 4.97 million people, according to the most recent IOM data.¹⁷⁰ In addition, the Syrian conflict resulted in the flow of refugees from north-east Syria into Iraq, bringing the total number of registered Syrian refugees in Iraq to 262,412 as of 2022,¹⁷¹ with about 39 percent living in camps in the Kurdistan Region of Iraq (KRI) today.¹⁷² IDP camp consolidation and closures in 2020–2021¹⁷³ however, left many in particularly vulnerable situations, especially during the COVID-19 pandemic, with no choice but to prematurely return to or settle in underserved informal camps, host communities, or urban areas.¹⁷⁴

Data suggest that a great need for support and humanitarian assistance remains for those still displaced, particularly in areas exposed to the threat of EO. According to the most recent data from the UN High Commissioner for Refugees (UNHCR), there are still about 180,000 IDPs living in 26 formal camps, and over 103,000 IDPs living in other locations throughout the country. IDPs living in formal camps include approx. 36,000 households, including those headed by children, women, and the elderly. From 3 million in 2014, the number of IDPs has reduced with mass returns to areas of origin, and it continues to decrease given the number of camps that have closed.¹⁷⁵ The long-lasting impact of land release on communities is therefore also measurable in terms of numbers of returnees over time.

TRANSITION AND RECOVERY EFFORTS

Following significant closures of formal IDP camps,¹⁷⁶ the operational focus shifted towards coordination between the mine action sector and development and humanitarian actors, to promote their safe return to affected areas and to address the needs of returnees.

There was a vital need for more detailed information on the extent of contamination in affected areas for returnees, and for NTS and information-sharing capacities within and beyond the mine action sector. Teams were organised in 2021 to conduct NTS in West Anbar for example, with over 100 million m² of land surveyed. This provided critical data to the DMA and other agencies in support of returnees. Comprised fully of national staff, the team structure ensured the effectiveness and sustainability of project implementation.¹⁷⁷

In the residential neighbourhoods of Al-Mushahada and Al-Khatuniya in West Mosul, next to areas previously controlled by Daesh (Qatheeb Al-Ban and Al-Nabi Jarjis, respectively), clearance was essential for residents to be able to return to a sense of normality.¹⁷⁸ Clearance facilitated the resumption of trade and the reopening of small and medium businesses and enterprises, further boosting the economic situation. Clearance was also reported to enhance the sustainability of humanitarian aid, as people were receiving support in their homes. Approximately 300 families had returned to the Al-Mushahada neighbourhood as of 2018.¹⁷⁹

The Transition and Recovery Division of IOM Iraq, which is, among other programmatic components, responsible for the facilitation of voluntary returns in coordination with various stakeholders, also coordinated infrastructure work which included a cash-for-work initiative. This project involved a scheme for daily, labour-intensive work, to remove debris. Coordination with mine action agencies to conduct NTS and TS, was necessary for the project to be carried out and for the debris to be safely sorted, then crushed. The aim of this was for some of the concrete blocks formed in this process, from buildings severely damaged by the conflict, to be utilised for future activities in the area, to be determined by the municipality.¹⁸⁰

Additionally, some shelter rehabilitation activities followed in places that were deemed safe, with clearance conducted in coordination with the DMA as well as international commercial demining agencies. EO hazard assessments had to be carried out first, to safely offer temporary livelihood opportunities to individuals from the area within the cash-for-work scheme. At the same time, IOM beneficiaries were able to take care of crucial rehabilitation specifications. Land release was the enabling factor which furthered early economic recovery of the area via livelihood and infrastructure support projects, and by providing rehabilitation of buildings that had been impacted (functioning before the conflict). The impact on livelihoods went beyond employment in the cash-for-work initiative, with the additional opening of businesses taking place.¹⁸¹

MAG land release efforts also facilitated a joint UNDP-IOM project to rebuild homes, allowing for the return of IDPs. MAG also helped to initiate the first steps in the construction work.¹⁸² UNDP Iraq has completed more than 2,300 stabilisation projects in 31 liberated towns and Districts, helping local authorities to rehabilitate essential infrastructure and services, and contributing to the return of more than 4.6 million IDPs.¹⁸³

By facilitating the transition and recovery of IDPs, and enabling comprehensive access to services and livelihoods, mine action has contributed to **SDG 8** Decent Work and Economic Growth. It further links to **SDG 10** Reduced Inequalities, by way of **target 10.7** on facilitating orderly, safe, regular and responsible migration and mobility of people. Land release contributes to broader peace and security agendas, directly contributing to **SDG 16** Peace, Justice and Strong Institutions.

Land release has enabled comprehensive interventions and coordination mechanisms by humanitarian and developmental actors such as IOM and UNDP to be carried out, namely livelihood and infrastructure projects, in support of the sustainable return and reintegration of IDPs. These coordinated efforts with actors involved in supporting displaced persons are indicative of mine action's support to **SDG 17** Partnerships for the Goals, its **target 17.16** on enhancing the global partnership for sustainable development, and **target 17.17** on enhancing public, public-private and civil society partnerships.

SUSTAINABLE INFRASTRUCTURE AND ECONOMIC GROWTH

Land release has provided a safe environment for the repair of damaged infrastructure as well as construction of new development projects. The increased mobility, internal and regional connectivity, and efficiency produced by such projects are essential to the country's long-term stability, recovery, and development.

BRIDGES AND ROADS

In Anbar Governorate, key rehabilitated bridges link Ramadi and Fallujah to the international highway, allowing for vehicle and pedestrian traffic.

In Fallujah, the Japanese Bridge sustained damage due to aerial bombardment and IED contamination. The laying of IED belts to protect Daesh fighting positions has in fact been observed at other major road entries into Fallujah, to control more areas with less personnel. These belts stretch from between several hundred metres to several kilometres.

The Japanese Bridge site is comprised of two side-by-side dual carriageway bridges crossing the Tharthar Canal. Given the bridge's weight capacity and width, it was utilised as part of a major trade route connecting Baghdad, through Fallujah, to Ramadi and as far as the satellite town of Rutba (about 340 kilometres away). Clearance of the bridge coordinated by UNMAS, and conducted by Optima and Tetra Tech, allowed contractors to safely access and conduct repair works on the bridge under the UNDP Funding Facility for Stabilization mechanism. This in turn enabled the transportation of goods, in addition to obtaining wider reach and mobility of security forces to outer areas of Iraq, where Daesh may have retreated to.¹⁸⁴



Japanese Bridge, 2018. Source: UNMAS

Under the same UNDP mechanism, a team of specialised scuba divers disposed of explosive material in 2018 to enable the reconstruction of the Fallujah Iron Bridge. The reconstruction of bridges allows for movement of people and goods to and from Fallujah, enabling businesses to return to normal; it also supports future reconstruction and development activities.¹⁸⁵

In the Zakho District (Duhok Governorate of KRI), clearance was conducted in a mountainous area which was previously a military headquarters. Commencing in 2011 and completed in 2013, a total area of 63,037 m² was cleared, enabling construction of the Duhok-Zakho Highway tunnel through the village of Hasanfa.¹⁸⁶ Construction of this double-lane highway tunnel began in 2013;¹⁸⁷ it has a total length of 7,200 m, of which 2,970 m passes through a previously contaminated area.¹⁸⁸ As an international road, it serves as the main connector linking Turkey to the Kurdistan region and Federal Iraq. The highway therefore plays a significant economic and social role, as it facilitates trade flows and supports the development of trade relations between Iraq and Turkey. Furthermore, construction of the highway supported employment opportunities for 300 people from Turkey and 100 people from Iraq.¹⁸⁹

The clearance of secondary roads also has great implications across various social and economic dimensions at both local and regional levels. In Wassit Governorate, clearance of a road¹⁹⁰ linking the agricultural villages of Al-Ta'an to the Badra District opened up an important route for the transport of raw materials (gravel and plaster) from quarries. It also provided an access

route for tourist mobility in the mountains and border areas. Clearance of the road further contributed to the rehabilitation of the surrounding agricultural land, directly impacting 150 beneficiaries.¹⁹¹

ACCESS TO ELECTRICITY

Contamination along electricity power lines has hampered their maintenance and repair from damage, in addition to posing a great physical threat to the surrounding populations. Clearance of electricity pylons has also unblocked surrounding agricultural land, enabling communities to safely access their livelihoods, and supports additional development of infrastructure in the affected areas.



Final stages of clearance around the electrical grid in Kharbani village, Makhmour District. Reconnection of electrical services is vital for return of the local population. Source: FSD

Land release has also enabled the construction of key infrastructure supplying energy to the national grid. For instance, clearance of a battlefield area by the Iraqi Kurdistan Mine Action Agency (IKMAA) in 2006 enabled construction of the Erbil Gas Power Station, operated by the private company MASS Global Energy Ltd. Located 22 km from Erbil city centre, the station covers an area of 750,000 m². Prior to contamination, the land was an agricultural area in addition to being used as a military base. The facility, which began operating in 2007, has now reached an extension of 1500 MWh and supplies electricity to Mosul, Kirkuk and Erbil.

It directly serves 3,000–4,000 beneficiaries, with around 6 million indirect beneficiaries, as 10 percent of the power supply is sent to the national grid. Before construction of the plant, the area was in dire need of electricity, with only the Dokan Hydroelectric Power Plant in Sulaymaniyah providing power, and only covering 10 percent of KRI consumption at the time. The Erbil Power Station also supports the local communities, providing job opportunities and currently employing 330 people. It provides reliable electricity all year round for local businesses¹⁹² and provides the energy to support further development of the region’s infrastructure.¹⁹³



Erbil Gas Power Station. Source: IKMAA



Green polygon indicating the cleared area, which encompasses the site of the recently constructed gas power station, 2022. Source: IKMAA

In the Baghdad Governorate, clearance conducted by the Directorate of Civil Defence enabled access to and operationalisation of substations for the distribution of electricity to residents and the neighbouring villages of Albu Aitha, Al-Amal, and Tajiyat, each serving about 50,000 beneficiaries.¹⁹⁴ The Directorate of Civil Defence also conducted NTS in a polygon near the Bismayah residential complex,¹⁹⁵ with no items found. A gas power station was then able to be constructed and began working in 2015, providing supplies to the residential complex and producing 4500 MW.¹⁹⁶ A modern road network is also being built in this area as part of this project, linking the residential complex to the highway and connecting it to the capital.¹⁹⁷

In Fallujah (Garma, Albu Tayeh and Nuaimiya, Mesalama) for instance, engineers from the Ministry of Electricity could not reach and repair broken power lines and electricity towers prior to the disposal of IEDs from defensive lines by The HALO Trust.¹⁹⁸ This has enabled the supply of energy to the surrounding residential areas in support of safe return.

INDUSTRIALISATION AND ECONOMIC GROWTH

Land release in Fallujah also enabled the reopening of nearby factories for asphalt and gypsum production which were previously not operational, in addition to the construction of six gypsum factories. Furthermore, it opened up a road that factory workers could drive along, with hundreds of people using it each day to access their livelihoods.¹⁹⁹ Establishing local factories has provided job opportunities for residents in the surrounding areas, and enabled support for development and access to materials, which will in turn bring more people into the area. Production of materials can further reduce dependence on imports, and even facilitate trade revenue through exports.^{200 201 202}

OIL PRODUCTION

In Basra, drilling operations at the Sindbad oilfield, which covers an area of 181 km², were interrupted by the Iraq-Iran War (1980–1988) and the oilfield was heavily contaminated with mines and ERW.²⁰³ Clearance of 11 million m² was completed in 2016 by commercial operators contracted by the Iraq Basra Oil & Gas Company,²⁰⁴ which falls under the Ministry of Oil. Oil production is now at 10,000 barrels per day.²⁰⁵ Iraq recently signed deals with the Chinese company United Energy Group Ltd. for the development of the Sindbad oilfield, which will produce natural gas for power stations and further cut the country's imports.²⁰⁶ The outcome of this clearance project has involved many sectors and has also provided a range of employment opportunities, including for the subsequent construction of a highway and electricity power stations.²⁰⁷



Mine contamination in the Sindbad oilfield before clearance. Source: DMA

Clearance of the Cham Kafr minefield enabled the extension of the Kirkuk-Ceyhan pipeline, from KRI to the Turkish port of Ceyhan via Zakho. Clearance took place from 2009 to 2013 over a suspected hazardous area with a total of 52,038 m² cleared (251 APMs found).²⁰⁸ The original pipeline's capacity was reduced following destruction during the Gulf War, and rendered inoperable following the 2003 Iraq War and attacks from militant

groups, and Daesh in the years after.²⁰⁹ With a total length of 960 km, the new pipeline was constructed in 2013 with oil production now at 450,000 barrels per day, shipping oil from Kirkuk to international markets through Turkey.²¹⁰



Extended Kirkuk-Ceyhan pipeline. Source: IKMAA

NEW INFRASTRUCTURE DEVELOPMENTS

Land release has led to the development and expansion of residential infrastructure and population increase. Clearance by the DMA of a former army training centre enabled the construction of Bismayah New City, the largest residential project in Iraq and the first project of the National Housing Programme under the National Investment Commission (NIC). Following a request by the NIC, the joint clearance effort was taken on by the DMA, the Directorate of Civil Defence and the Municipality of Baghdad. NTS, TS and clearance were completed, and clearance finished in March 2012.^{211 212} The project is part of the NIC's overall efforts to address the housing crisis and develop the housing sector in the country.²¹³

Just 10 km outside of the capital Baghdad, development of the project is being undertaken by the Korean construction company Hanwha Corporation/E&C. Once completed, it is expected to house 600,000 people. This residential project is planned as an entirely new city, covering 59 city blocks including 8 towns, 834 apartment complexes, and an expected

100,080 units. The site area covers 18.3 million m². Clearance enabled several stages of land development and phases of construction to be carried out, including soil excavation and paving works, installation of piping for water and sewage treatment facilities,²¹⁴ as well as installation of power/communications lines buried in a 20-km underground concrete gallery network. The following community facilities and comprehensive services are planned in each town: 1) Education facilities: kindergarten, primary, secondary school; 2) Safety elements: police station,²¹⁵ fire station, and secured entrance; 3) Youth and cultural centre and recreational facilities;²¹⁶ 4) Commercial centres²¹⁷ and 5) Medical facilities (total of 10 health centres, distributed 2 per block). Dedicated to treating emergencies and accidents, just one of the two health facilities in a town will deliver services to about 650 patients per day (400 during the day, 250 at night) and employ 150 people.²¹⁸



A recreational field nestled in the residential complexes of Town A in Bismayah New City, January 2023

By unblocking access, land release has contributed to **SDG 9** Industry, Innovation and Infrastructure, and its **target 9.1** on developing infrastructure to support economic development and human well-being. By facilitating the active use of roads, land release has further contributed

to **SDG 8** Decent Work and Economic Growth, particularly **target 8.2** on economic productivity through diversification and technological upgrading, and **target 8.5** on productive employment. By enabling the development and repair of critical infrastructure, land release also links to **SDG 11** Sustainable Cities and Communities and its **target 11.1** on ensuring access to adequate and safe housing, **target 11.2** on providing access to safe and sustainable transport systems for all and improving road safety, and **target 11.3** on enhancing sustainable urbanisation.

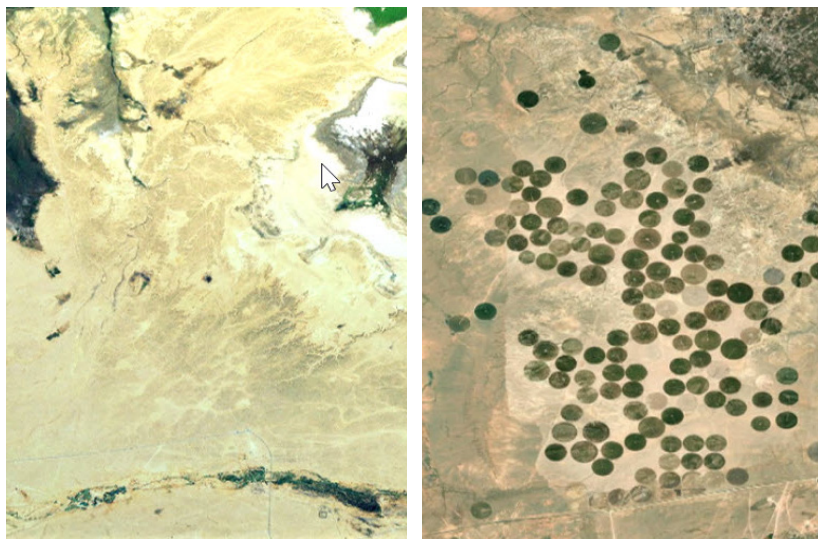
ACCESS TO DRINKING WATER AND IRRIGATION

Iraq is considered one of the most vulnerable nations to the environmental impacts of climate change, soil degradation and water shortages,²¹⁹ with a projected acceleration of decline in water supplies.²²⁰ This has been exacerbated by the recent conflict, due to the destruction of dams, pumping stations, and irrigation canals in areas now liberated from Daesh, with total damage to the water resource sector making up 94 percent of all facilities, significantly impacting agricultural production throughout most of Iraq.²²¹

AL-SAQI PROJECT IN KARBALA

A Daesh-controlled dam in the Karbala province, located 100 km south-west of Baghdad, was previously one of Daesh's major weapons production centres. In 2021, Ministry of Defence teams conducted operations, clearing an area of 1.2 million m².²²²

First launched in 2016, the Al-Saqi project was able to be completed following clearance by the engineering projects department at Al-Abbas's Holy Shrine, also based in Karbala. Additional water wells were drilled in areas containing renewable groundwater, for a total of 55 wells connected by a network of pipes with a capacity of 1,500 L/second, providing alternative irrigation water and contributing to addressing the water scarcity crisis. The water extraction process relies on solar energy.²²³ Once a desert land, 11,000 acres of green oasis is visible today.²²⁴



Satellite images reveal Karbala's desert-to-fertile transformation post Al-Saqi project, highlighting significant land use changes and agricultural development due to groundwater stimulation and completion of the project (2021) after clearance. Source: DMA

Clearance also benefitted 100,000 inhabitants and the surrounding areas. It enabled the cultivation of palm trees, multiple types of evergreen trees, and high-quality varieties of wheat and citrus fruits which could be supplied to local markets. Three wells were also allocated to the Ministry of Water Resources for scientific research purposes.²²⁵

A variety of palms were chosen to be planted in this fertile area, for symbolic reasons, as they are representative of the identity of Iraq, with about 17,000 trees planted in total. Clearance also benefitted the area by creating hundreds of job opportunities for neighbouring residents including fishing projects, with 4,000 tonnes of fish produced per year and sent to markets.²²⁶

SHATT AL-ARAB RIVER AND CANAL IN BASRA

The Shatt Al-Arab River is the main channel originating from the confluence of the Tigris and the Euphrates Rivers. It is 195 km long and passes south-east along the city of Basra in the south of the country, towards the Iraqi port of Abu Flous and Iranian port of Abadan, the city of Al-Faw, before discharging into the Persian Gulf.²²⁷

As it is located 17 km from the Iranian border, the area is contaminated with EO from the Iraq-Iran War (1980–88) and the 1991 Gulf War. Once covered by the largest date palm forest in the world with an estimated 13 million date palms in the mid-1970s, over 9 million palms were destroyed due to salinity intrusion^{228 229} and during the conflicts that also ensued.²³⁰



Mines and UXO found in Shatt Al-Arab District, Source: DMA

In 2013, the DMA and the south regional mine action centre along with the Ministry of Defence, Ministry of Interior and implementing partners Danish Refugee Council (DRC) and Iraq Mine and UXO Clearance Organization conducted NTS in Basra province, identifying more than 919 km² of confirmed hazardous areas and suspected hazardous areas in the Shatt Al-Arab District. NTS and clearance activities, implemented through government efforts and with international support via different operators, have been ongoing since 2013 with about 74.5 million m² cleared²³¹ and 20.7 million m² cancelled since 2013. Despite these efforts, Shatt-Al Arab still has a significant contamination area covering 839 million m² today.²³²

Land release in Shatt Al-Arab enabled completion of the north-south water canal in 2016. As the main source of surface water, this serves many purposes, including drinking water supply, irrigation, and support of the local fish market. This irrigation project is run under the auspices of the Ministry of Water Resources. The length of the canal is about 128 km, with approx. 14 km of its length passing through EO-contaminated areas (totalling 20.2 million m²). The project supplies drinking water to three Districts: Shatt Al-Arab (providing water to 440,000 people), Abu Al-Khaseeb District (supplying 450,000 people), and Al-Faw District (providing water to 100,000 people).²³³



Shatt Al-Arab irrigation canal in Basra. Source: DMA



Satellite images of Shatt Al-Arab District before (left, 2013) and after (right, 2022) showing the irrigation canal and agricultural developments in the area. Source: DMA

AL-JAZEERA DAM

A partnership between the Food and Agriculture Organization of the United Nations and MAG in 2016 allowed for the restoration of the Al-Jazeera irrigation scheme, affecting 250,000 hectares of farmland 30 km west of Mosul. One hundred smaller canals in the system were damaged, in addition to the pumping station feeding the canal system from the Mosul Dam. Clearance of unexploded ordnance from farmland around the canals allowed farmers to safely access the land for the first time since 2014 and enabled access for the repair of the irrigation scheme, which was previously an essential source of water for agriculture, livestock, and domestic use. Water flowing through the canals made the land fertile once again, meaning it could be safely accessed for income-generating activities such as safely planting crops (namely vegetables, wheat, and barley) and grazing livestock. Restoration of the water supply meant that 5,000 farmers in the immediate area would be able to plant and harvest crops for trade and food supply, also providing 6-months work each year for up to 200,000 casual farm labourers. The project also contributed to less reliance on imports of fruit and vegetables.^{234 235}

WATER PIPELINE BETWEEN TELAFAR AND MOSUL

In 2022, MAG community liaison (CL) teams worked with the International Committee of the Red Cross (ICRC) to support NTS for the repair of a 70-km water pipeline system between Mosul and Telafar. The route this pipeline followed was known to go through areas liberated from Daesh. After consultation with the Ninewa Water Authority, the ICRC and MAG, the task commenced in March 2022 and took one month to complete. Two CL teams were involved, one starting from the Mosul end of the pipeline and another CL team from Bardiya starting at the Telafar end. During NTS, no hazardous areas were identified but one explosive ordnance disposal spot task was registered and completed. NTS enabled engineers from the ICRC to start the reconstruction, which is still ongoing.²³⁶ The pipeline has the capacity to reach between 13 and 16 villages, with the total number of expected beneficiaries being 242,770.²³⁷

DRINKING WATER PROJECT IN DERALUK DISTRICT, DUHOK GOVERNORATE

In Deraluk, a District in the Duhok Governorate of KRI, clearance along the Great Zab River enabled the construction of a drinking water station and a water dam in 2012, which produces 27 MW of hydropower per day. IKMAA cleared a total area of 47,202 m² from 2011 to 2013. The water supply now reaches infrastructure including residential complexes in the Districts of Amadiya, Sarsing (a key tourist area), and Deraluk.²³⁸



Deraluk water dam constructed in 2012, Deraluk District. Source: IKMAA



Great Zab River, 2011 (left) and 2013 (right). Source: Google Earth



Deraluk dam (yellow arrow) and areas cleared along the Great Zab River (green polygons). Source: IKMAA

IRRIGATION SYSTEM IN TEL KAIF

In Tel Kaif, water pipelines in two valleys were cleared of contamination by Global Clearance Solutions (GCS). New pipes were also put in place to ensure water flow, opening up the irrigation system not only to the formerly contaminated area where the irrigation system begins (Filfiel village), but also connecting to and supplying other areas. Through clearance activities, nine items of EO were retrieved from the valleys containing large pieces of shrapnel inside. Thanks to the pipelines, local residents and farmers can access the water to support their livelihoods and agricultural activities.²³⁹

Clearance and survey of water pipelines allowed for their repair and thus enabled the restoration of the irrigation system. Considering the role of land release as an enabler of major local productive activities, by enabling safe and efficient access to water, it has also contributed to **SDG 1** No Poverty, especially towards **targets 1.1** and **1.4** that address extreme poverty and access to resources, including water. By helping to address the water scarcity crisis, clearance also positively impacts **target 1.5** on building the resilience of the poor and reducing their exposure and vulnerability to climate-related extreme events.

By promoting all aspects of agricultural activity and improving soil fertility, safe access to water also has linkages to **SDG 2** Zero Hunger. Specifically, it has contributed to **target 2.1** on ending hunger and ensuring access to safe, nutritious and sufficient food, **target 2.3** on agricultural productivity and incomes of small-scale food producers, family farmers and herders, as well as securing access to land. In line with this contribution, land release has positively impacted **target 2.4** on sustainable food production systems that increase productivity.

The removal of EO contamination is also linked to **SDG 12** Responsible Consumption and Production and its **target 12.2** on sustainable management of natural resources, as well as **SDG 6** Clean Water and Sanitation on ensuring availability and sustainable management of water, and its **target 6.1** on achieving universal access to safe and affordable drinking water for all, **target 6.3** on improving water quality by removing pollution and minimising release of hazardous chemicals, and **target 6.4** on increased water-use efficiency and reducing the number of people suffering from water scarcity.

AGRICULTURE AND FOOD SECURITY

In Iraq, water scarcity and soil and land degradation due to climate change, hamper agricultural production and result in food shortages. These environmental conditions disproportionately impact the most socio-economically vulnerable communities.²⁴⁰ This is exacerbated by the presence of EO, which further inhibits farmers' safe access to land.

Chemical toxins from EO pollution are an added detriment to the overall quality of produce, environmental health, and health of the population. In the south of Iraq, mine and cluster munition contamination and the resulting soil pollution have severely damaged agriculture and the natural environment.²⁴¹

During the latest conflict, large expanses of fertile land were contaminated with IED defence lines, and key infrastructure was targeted and booby-trapped, including pumping stations and barns. Additional impacts include

damaged irrigation wells, burned down orchards, and destroyed agricultural infrastructure and equipment. All these factors have completely ruined the livelihoods of several rural villages.²⁴²

This section outlines various examples of how land release has promoted agricultural activity and productive use of the land. This has promoted food security and has enabled access to livelihoods, as land release has ensured safe access for farmers to safely return, cultivate crops, graze livestock, and access local markets. This is especially crucial considering the environmental barriers to agricultural cultivation and the threat of chemical hazards from the presence of EO left behind in targeted critical infrastructure.

AGRICULTURE IN BASRA

In Iraq, environmental damage has had a disproportionately high impact on vulnerable groups, who rely more upon natural resources to secure their livelihood and must continue accessing contaminated areas despite threats to safety associated with EO and hazardous chemicals.²⁴³

Significant climate-change related illnesses and health consequences have been reported related to air, soil and water pollution in Iraq, particularly in Basra.²⁴⁴ The Basra Governorate has been the most affected by climate change, with extreme temperatures, scarce fresh water, and increased soil and water salinity.²⁴⁵

The presence of EO has further environmental impacts, placing an additional burden on the health and well-being of already vulnerable populations. Water pollution is a key example of this, resulting from the leaking of energetic materials from burnt debris falling to the ground, impacting surface and groundwater. Such hazardous chemicals can have long-lasting effects given their high mobility, even moving deeper through soils.²⁴⁶ In Basra, released land is helping to pave the way for farmers to work safely in areas that were previously heavily contaminated with cluster munition remnants.

For instance, Norwegian People's Aid (NPA) has conducted clearance throughout Safwan village in the Al-Zubair District of Basra, clearing 1.4 million m² of land in and around the village since January 2020, with activities still ongoing.^{247 248} In one clearance task, suspicious items were discovered on farmland and reported to local authorities by residents. Families suffered financially due to the presence of contamination since the land was unable to be safely cultivated for their livelihood. Sheep were also kept enclosed, unable to roam freely. Upon completion of this task in 2022, an area of 67,000 m² was cleared²⁴⁹ in just three weeks. This was immediately followed by productive cultivation of the land for the first time since the Gulf War (1990–1991). Mostly, tomatoes were grown which were then able to be harvested and sold in the local market.²⁵⁰



Beneficiary farmers with tomato crops in Safwan village, Al-Zubair District, 2022. Source: NPA

NINEWA PLAINS

In the Ninewa Plains, operators conducted most of the clearance activities in open areas that are now planted with wheat in very early spring, so that the crop can be harvested before the hot season. A portion of the yields are for local consumption, but the vast majority is sold to the government to fill up grain silos.²⁵¹

In Sefdinan village in Al-Hamdaniya, FSD was tasked by IKMAA to clear two sites²⁵² that had been predominantly contaminated by UXO (mortars, projectiles, rocket-propelled grenades), high explosive, and white phosphorus from the 2003 conflict. This area was also an entry point for IDPs to cross into KRI from Daesh-controlled areas, and eventually also became a Daesh-controlled area. Before the conflict, the land was mainly a residential and agricultural area, with wheat primarily being grown. The completion of the task in January 2023²⁵³ means that the local community can safely return and recommence farming, and agricultural and recreational activities. This includes outdoor activities, such as collecting truffles, especially in the spring. Given that accidents have recently occurred here, for instance from children playing with a mortar bomb, this underscores the urgency of ensuring that outdoor spaces can be safely traversed. The land was in fact already being used by the community before land release began, as residents knew how to reach agricultural fields by following specific paths and they did not want to stop cultivation activities when FSD arrived. Mine action activities therefore already contributed to the safety of farmers even for the duration of the clearance process, as it was taking place.²⁵⁴



UXO collected during FSD clearance activities in Sefdinan village, Al-Hamdaniya, 2023. Source: UNMAS

In Tel Kaif, clearance activities were conducted by MAG and GCS in Hassan Jallad and Filfiel villages²⁵⁵ to remove IED defence lines that had been laid by Daesh, cutting right through farmland. Hassan Jallad was a strategic point as it sits on the border with KRI and the Mosul Dam. IEDs had been laid in a belt formation to prevent ISF from advancing, with an IED laid approximately every two metres. This was also an important agricultural

area and the land had previously been highly utilised. A 10,000 km² radius was cleared, allowing freedom of movement so that farmers did not have to keep circumventing the 7 km-long contamination line and traverse 11 km to reach the other side of the land. Eventually the IED line joins with others, and there is more than one belt connected all the way through Mosul and into Salah Al-Din, sometimes separating into three parallel lines.²⁵⁶



Contamination line in Tel Kaif, North Mosul, January 2023

Land release in this agricultural area since the start of GCS operations in 2020 has served a total of 825 beneficiaries and 165 families.²⁵⁷

Following clearance, children could safely play and farmers could go out to cultivate the land, with both men and women feeling safe to work. Livestock could also be safely grazed. Since this was previously one of the most dangerous areas, farming could not take place before land release activities began.

Once the land could be safely accessed, it was immediately cultivated (plowed, planted, and harvested) with wheat, potatoes and barley for the first time in seven years. Potatoes were already harvested and taken to markets in Mosul just two weeks after clearance finished, in addition to being used for local consumption and as food for animals.²⁵⁸

Wheat is mostly grown on this land, with vegetables first cultivated in order to revive the land since it had been abandoned. 4,500 items were recovered from this land alone, which covers an area of 1.4 million m² in total. The land has been farmed twice since clearance finished. Similar cases can be evidenced throughout the villages and in the surrounding areas, with the farmland being freed for cattle herding and farming activities and providing a means of income and livelihood for families.

GRAIN STORAGE FACILITY IN RAMADI

Clearance was conducted at a grain storage facility in the city of Ramadi, which is the capital of Anbar Governorate, situated west of Baghdad at the intersection of the Euphrates River and the Al-Warrar Canal.²⁵⁹ This area was subjected to intense battles, as the grain storage facility was a stronghold for Daesh and part of their front-line defence strategy before ISF regained control of the facility. It was a complicated clearance activity, as explosive hazards were contained in the collapsed, reinforced concrete of a multi-story structure.²⁶⁰ A task was also issued to clear an IED belt running through the Al-Tash neighbourhood. The community was actively engaged, shown by residents approaching the teams to report UXO within and around the area.²⁶¹

Over the operational period, The HALO Trust delivered explosive ordnance risk education to more than a thousand community members. Mechanical assets cleared a total of 478,027 m² and manual teams cleared 5,949 m², recovering 309 complete IEDs, 13 IED components, 103 main charges and 8 conventional ERWs.²⁶²

Clearance enabled the damaged grain stores to be rebuilt, so the staff could safely access, repair, and develop the infrastructure and further expand the site. Enabling this extra percentage of grain and rice storage for re-distribution to the population benefits the residents in and around Ramadi.²⁶³ As a result of this clearance, the beneficiaries reached were 3,592 men, 3,445 women, 3,380 boys and 2,453 girls.²⁶⁴ Towards the final stages of clearance operations, operators noted developments in the area including a highway that bypasses the cleared polygon, and plans to develop housing, shopping, and educational facilities.²⁶⁵



View of a collapsed grain storage facility, 2019. Source: UNMAS

Land release directly contributed to **SDG 2** Zero Hunger. It particularly contributed to **target 2.1** on ending hunger and ensuring access to safe, nutritious and sufficient food, **target 2.3** on agricultural productivity and incomes of small-scale food producers, family farmers and herders, as well as securing access to land. It also positively impacted **target 2.4** on sustainable food production systems that increase productivity. By removing contamination from the ground, land release has been essential to safely accessing land for agricultural yields and for ensuring livelihoods. In this regard, it contributed to **SDG 3** Good Health and Well-being, contributing to its **target 3.9** on reducing the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution.

Considering its role as an enabler of major local productive activities, land release has also contributed to **SDG 1** No Poverty, especially towards **targets 1.1** and **1.4** that address extreme poverty and access to resources, including land. The development of new agricultural projects and support of small-scale farmers has also promoted **SDG 8** Decent Work and Economic Growth, particularly **target 8.5** on achieving full and productive employment and decent work for all women and men.

The ability to safely access land for productive use encouraged the return of families to their communities, promoting the capacity to earn livelihoods, with both men and women feeling safe to work and freely access nearby

markets. By benefitting women, land release has supported **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls, and **target 5.a** on undertaking reforms to give women equal rights to economic and other resources. It has further contributed to **SDG 10** Reduced Inequalities and particularly to its **target 10.2** aimed at empowering and promoting inclusion for all, and **target 10.3** on ensuring equal opportunity and reducing outcome inequalities.

ENVIRONMENTAL PRESERVATION

Clearing the land from EO has allowed land to be safely accessed for environmental preservation and reforestation initiatives, helping to reduce the effects of climate change by protecting ecosystems and natural habitats. By enabling forms of livelihood through environmental rehabilitation projects and safe mobility, even in less populated areas, land release in this context promotes economic and social development.

Al-Zubair is an area close to the border with Kuwait and the Kingdom of Saudi Arabia with over 20 million m² suspected to be contaminated with cluster munitions. Upon receiving information from the Ministry of Environment, NPA was tasked with NTS and cluster munition remnants survey of the area to allow the establishment of a nature reserve in Basra and Missan. Despite not being very populated, it has been a great risk to Bedouins and shepherds passing through the area, especially during the winter when there is more grass. Considering the number of accidents, as well as the economic aspects and environmental preservation, the area was made a priority.²⁶⁶

Formerly a Daesh training ground, Al-Ghabat (also known as Mosul Forest) was extensively contaminated with UXO²⁶⁷ over a total area of 2 million m² that was cleared during battle area clearance (BAC) operations. Upon completion of the clearance task in 2021, it was handed over to the government to contribute to the re-development and sustainable rehabilitation of Mosul.²⁶⁸

The removal of physical threats to safely accessing the land meant that it could be used for public use and livelihoods. There has since been significant government investment in the area between the forest and the Tigris River, which now has a vibrant social environment restored where families and friends can meet in their leisure time and for recreational activities. There are additional long-term government plans in place for the continued restoration of the natural environment and development of communal spaces.²⁶⁹

Forest restoration and agricultural activities could also be established in the area after clearance. Community resilience projects were implemented in 2021, clearing ten hectares of forest and preparing the soil for planting trees, in addition to the construction of 12 greenhouses on the government-owned land. The greenhouses were cultivated with gourd, eggplant, and green beans and handed over to the local authorities for management. This project provided employment opportunities to Mosul residents, in addition to helping rehabilitate Al-Ghabat by clearing space for trees to be planted and crops to grow in the greenhouses, contributing to the development of a safe and green space in the city.²⁷⁰



Clearance operation in Mosul Forest, 2021. Source: DRC

By enabling environmental conservation activities including forest restoration, land release has contributed to **SDG 13** Climate Action and its **target 13.1** on strengthening resilience and adaptive capacity to

climate-related hazards and natural disasters. It also links to **SDG 15** Life on Land and its **target 15.1** on ensuring conservation, restoration and sustainable use of terrestrial ecosystems, **target 15.2** towards promoting the implementation of sustainable management of all types of forests and **target 15.5** on taking action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.

By creating job opportunities and safe mobility for migrant populations like Bedouins, land release is also linked to the reduction of rural poverty and the promotion of livelihoods. This contributes to **SDG 8** Decent Work and Economic Growth and its **target 8.8** on ensuring safe and secure working environments for all.

CULTURAL HERITAGE CONSERVATION AND SUSTAINABLE TOURISM

OLD CITY OF MOSUL

As one of the oldest cities in the world, the Old City of Mosul has historically been a major crossroads of diverse cultures and groups over the centuries, symbolic of Iraq's pluralistic society and the co-existence of its different ethnic, linguistic, and religious groups.²⁷¹ During Daesh's occupation and government-led military campaigns to retake the area from 2014 to 2017, more than 5.8 million people were displaced²⁷² and 80 percent of the Old City was destroyed. This included religious sites of great historical importance like the Al-Nouri Mosque and Al-Hadba Minaret as well as the convent of Notre-Dame de l'Heure, Al-Tahera Church, and Al-Saa'a Church.²⁷³

Destruction of cultural heritage sites and monuments resulting from Daesh insurgencies included places of worship of monotheistic religions, namely Islamic mosques, shrines and tombs, and the destruction of pre-Islamic art and archaeology.²⁷⁴

Clearance of the Old City of Mosul has paved the way for UNESCO's cultural rehabilitation initiative, 'Revive the Spirit of Mosul,' in coordination with the Government of Iraq, local partners and international experts. The goal of this project is to recover and rehabilitate the heritage and cultural life of the city. This includes efforts to revive 124 heritage houses and the Al-Ekhlash Primary School²⁷⁵ in addition to rebuilding the various religious sites.²⁷⁶

Clearance in the Old City was challenging, given the area's historical significance and the potential risk of further damaging the buildings during the operators' search process, with the aim of preserving original historic parts. As this was the last Daesh stronghold and battleground, valuable items were placed in the vaults of historical homes. This presented an additional challenge in terms of clearance as the rubble needed to be flattened to access and further search the basements for EO. Moreover, suicide belts and other explosives were found buried under the rubble.²⁷⁷



Historic houses which have been cleared of rubble and UXO, with a view of basement vaults inside, January 2023. Source: UNMAS

Following clearance of the four sites (Al-Tahera Church, Al-Saa'a Church, Al-Nouri Mosque, and Al-Hadba Minaret) that were extensively damaged due to booby-traps, hazardous materials and UXO, reconstruction activities could take place. This involved not only the removal of old stones, but also the retrieval of vulnerable pieces amidst the rubble that could be used for the reconstruction phase to rebuild it "as it was" and preserve its

cultural value. The selection of such valuable building fragments and their separation from the rubble was done under the guidance of international experts and archaeology students from the University of Mosul. The base of the Al-Hadba Minaret for example needed to be secured, cleaned, and stabilised during the first phase of reconstruction work. In a survey conducted by UNESCO and the University of Mosul, 94 percent of those surveyed expressed a desire to see the Minaret restored exactly as it was before its destruction in 2017.²⁷⁸

In particular, the Al-Nouri Mosque in Mosul is where the ‘new caliphate’ was declared in 2014 and destroyed in 2017. Through cooperation with the Ministry of Defence and Tetra Tech,²⁷⁹ clearance allowed UNESCO’s work that resulted in an archaeological discovery made by experts from the Iraqi State Board of Antiquities and Heritage. Four rooms built of stone and plaster dating from the 12th century were uncovered, in addition to other artifacts. This discovery will be made visitable and integrated in the reconstruction design of Al-Nouri Mosque to capture the different phases of the mosque’s history. Following reconstruction, which began in 2022, the prayer hall will look as it was before its destruction in 2017. A 2020 survey also showed that 70 percent of people wished to see the Al-Nouri Prayer Hall rebuilt as before and wanted assurances that the structure’s original features would be preserved.²⁸⁰



Al-Nouri Mosque, 2018 (left) and 2021 (right). Source: Google Earth

According to UNESCO, 20 pieces of EO were carefully extracted from important religious sites, including an item of UXO which was found underneath the dome of Al-Nouri Mosque. 9,940 tonnes of rubble have been removed from the four main sites (2,480 from Al-Tahera Church, 1,600 from Al-Saa'a Church, and 5,860 from Al-Nouri Mosque and Al-Hadba Minaret).²⁸¹

In 2019 UNESCO relaunched the cultural festival in Mosul, which had not taken place since the beginning of the 2014 occupation. This event was held on Al-Najafi Street, considered the cultural centre of the city. Events including musical performances, readings and open-air cinema screenings gave the city a renewed sense of cultural life.²⁸²

UNESCO also launched a vast programme – Prevent Violent Extremism through Education (PVE-E) – in addition to rehabilitating classrooms, training more than 8,000 teachers, educators and parents in Mosul to support 50,000 students. Over 4,000 parents and educators from 130 schools have been trained through this programme, and more than 5,000 local jobs overall were created by UNESCO's Revive the Spirit of Mosul initiative.²⁸³

This UNESCO initiative has garnered feelings of community, belonging and social cohesion, which are key drivers of sustainable peace and recovery. Rehabilitation of the Al-Nouri Mosque for example, aims to restore the sense of belonging and identity for all Moslawis.²⁸⁴ Overall, the revival of cultural activities further re-establishes the ethos of Mosul as a centre of multicultural creativity. Land release has therefore enabled one of UNESCO's greatest campaigns, and the capacity to safely undergo these projects that directly impact its three pillars of heritage, cultural life, and education.

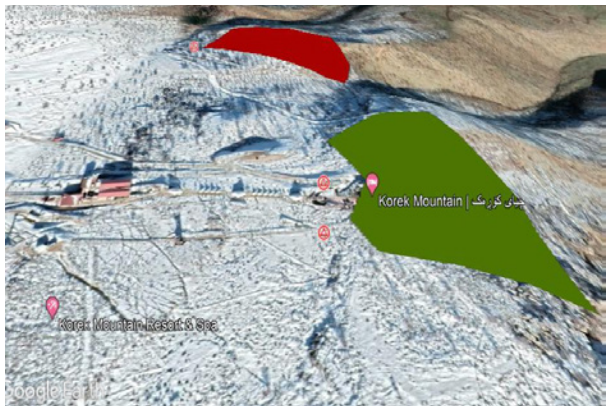
KOREK MOUNTAIN RESORT

In Duhok (KRI), clearance in the Korek mountains was completed in 2010 by IKMAA,²⁸⁵ over an area which was previously a military command headquarters and line of contact in the Iraq-Iran War.²⁸⁶ Normally pastureland for animals, contamination in this mountainous area meant that it was no longer safe for them to graze freely. After clearance, the Korek

Mountain Resort could be built, as well as a 4 km-long cable car system. It is a very popular tourist location, especially in the summertime given the lower temperatures in the mountains. By enabling the resurgence of tourist activities, clearance was additionally important in securing livelihoods for the surrounding communities in this area.²⁸⁷ At an altitude of 2,000 m, the resort hosts a range of different activities all year round, including skiing during the winter, and offers panoramic views of the surrounding nature and waterfalls.²⁸⁸



Korek Mountain Resort. Source: IKMAA



Polygons showing the clearance task in the Korek mountains, indicating the area cleared (green) and not yet cleared or worked on (red), 2022. Source: IKMAA

Mine clearance and land release are direct contributors to **SDG 8** Decent Work and Economic Growth as well as **SDG 11** Sustainable Cities and Communities, particularly **target 11.4** on strengthening the efforts to preserve the world's cultural heritage. Regarding tourism, land release also has linkages to **SDG 9** Industry, Innovation and Infrastructure, and its **target 9.1** on developing sustainable infrastructure to support economic development.

By enabling UNESCO's Revive the Spirit of Mosul initiative, land release made important community rehabilitation and cultural projects possible, which are central to sustainable peace and recovery. The facilitation of PVE-E training, for example, contributes to **SDG 4** Quality Education, in particular its **target 4.7** on education for promotion of a culture of peace and non-violence and the contribution of culture to sustainable development. The UNESCO initiative further benefits local women and men through employment opportunities and on-the-job training linked to the restoration and reconstruction of cultural heritage. This, in particular, links to **target 8.1** on per capita economic growth, **target 8.3** on development-oriented productive activities, **target 8.5** on decent work, and **8.9** on promoting sustainable tourism that creates jobs and promotes local culture and products.

Through allowing the safe practice of religious and spiritual activities, and the preservation of historical buildings for public visits, mine action in this context has further linkages to **SDG 4** Quality Education, particularly aspects of **target 4.7** on promoting appreciation of cultural diversity and of the contribution of culture to sustainable development. Through the rehabilitation of historical and religious sites, mine action also provides contributions to **SDG 16** Peace, Justice and Strong Institutions on promoting peaceful and inclusive societies.



Head of Victim Assistance Department, Directorate for Mine Action, during dialogue on assistance to mine victims and clearance of landmines, October 2022. Source: AP Mine Ban Convention ISU

2. VICTIM ASSISTANCE

FIGURE 5

CONTRIBUTION OF VICTIM ASSISTANCE TO THE SUSTAINABLE DEVELOPMENT GOAL (SDG) TARGETS IN IRAQ



- 1.3** Implementation of social protection systems and measures



- 8.5** Full and productive employment and decent work



- 3.4** Reduction of premature mortality through prevention and treatment
- 3.8** Access to essential health-care services
- 3.c** Increased health financing and health workforce



- 10.2** Social, economic, political inclusion of all
- 10.3** Equal opportunities, reduction of inequalities
- 10.4** Adoption of social protection policies



- 4.3** Equal access to technical, vocational and tertiary education



- 17.9** Enhanced international support for capacity-building

The wording of the SDG targets listed above has been simplified; the full list of targets and their official names can be found on the United Nations website: <https://www.un.org/sustainabledevelopment/>

Victim assistance refers to a set of activities addressing the needs and rights of explosive ordnance (EO) victims and comprises emergency and ongoing medical care, rehabilitation, psychological and psychosocial support, socio-economic inclusion, as well as data collection and laws and policies.²⁸⁹

Victims include persons either individually or collectively who have suffered physical, emotional and psychological injury, economic loss or substantial impairment of their fundamental rights through acts or omissions related to the use of EO. Victims include directly impacted individuals (direct victims), as well as their families, and communities affected by EO (indirect victims).²⁹⁰

Survivors refer to men, women or children who have been injured and possibly impaired as a result of an accident with EO.²⁹¹

Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.²⁹²

Victim assistance is an integral pillar of mine action in Iraq. As a cross-cutting issue, victim assistance involves a range of different sectors and mechanisms including health, disability, education, and social protection. It therefore requires organisational cooperation both internally and beyond the mine action sector, at the same time prioritising a rights-based and participatory approach. Evidence has pointed to the importance of including EO survivors and persons with disabilities (PwDs) as essential to upholding human rights, sustainable development, and peace and security.^{293 294}

The prioritisation of inclusion of PwDs through victim assistance activities in Iraq is therefore in line with broader agendas including the humanitarian, development and peace nexus as well as national and international frameworks.

Victim assistance is a crucial pillar to address the long-term and multidimensional impacts of armed conflict and can contribute to conflict transformation.²⁹⁵

Iraq's National Mine Action Strategy 2022–2028 also affirms the commitment to ensure that approaches to victim assistance in mine action are gender and diversity sensitive, and safeguard the equal access of rights-based services and opportunities to all EO victims.²⁹⁶ Similarly, the National Victim Assistance and Disability Action Plan 2019–2021 asserts that Iraq's victim assistance activities and implementation of the Action Plan will centre on the key principles of non-discrimination, participation, inclusion, human rights, national ownership, transparency, and gender equality.²⁹⁷

NEEDS AND CHALLENGES

Institutional efforts have been made to enshrine the rights of EO victims in legislation and through the provision of State and international support, including programmes to support and empower victims of armed conflict. However, considering the significant need for service provision in the country, greater prioritisation of victim assistance activities and related funding are important for ensuring these needs are met. Greater integration of victim assistance support provided by disability rights, in addition to health and social development activities of State and humanitarian actors, would also enable longer-term outcomes for EO victims and further work towards ensuring that support can be sustained.

As one of the countries most affected by explosive ordnance, victim assistance is particularly relevant in Iraq. It is also estimated that Iraq has one of the largest populations of PWDs in the world.²⁹⁸ A lack of comprehensive data collection about EO victims and PWDs has however prevented a substantive, rights-based assessment of needs, despite recognition that PWDs are disproportionately affected by war and conflict, terrorism, and economic and political difficulties.²⁹⁹

Reports suggest that PWDs in Iraq are socially and economically disadvantaged due to stigma and exclusion caused by a lack of general understanding or knowledge about disability rights, whilst State support and services still require improvements in many areas including social protection, accessibility of transport and infrastructure, healthcare, and education for PWDS.³⁰⁰

In the 2016 National Disability Survey by the Ministry of Planning and Central Statistical Organization in Iraq, over 1.3 million Iraqis were identified as having disabilities (57 percent men and 43 percent women). However, due to the lack of data and an integrated social healthcare system for persons with disabilities, the types and causes of impairments is unknown, including whether they are EO survivors.³⁰¹

Victim assistance is necessarily a long undertaking requiring sustained support and monitoring. The national authorities and mine action operators interviewed acknowledged that current capacity is limited in this respect, and that more funding is needed to finance organisations working with victim assistance. An insufficient prioritisation of victim assistance by key stakeholders and the consequent shortages of funding have been noted as two of the main reasons for poor, fragmented, and limited availability of provisions and services for EO victims.³⁰²

There is a need for up-to-date, comprehensive, and nationwide data of EO victims in Iraq. Current limitations around unified data collection and referrals have led to deficiencies in the identification and registration of survivors, with implications for the proper assessment of EO victims' needs and the subsequent provision of services. This has implications for the ability of relevant actors to provide adequate healthcare and social support to EO victims. The Directorate for Mine Action (DMA) has noted that work on data unification has been hindered by a lack of mechanisms and resources.³⁰³

The availability of rehabilitation services presents a particular challenge in rural regions of Iraq. First aid posts and other pre-hospital care are not available for the immediate care of persons in need, resulting in an increased chance of fatalities. Physical rehabilitation centres are mostly limited to urban settings, creating additional barriers to EO survivors who must travel for treatment.³⁰⁴ Daesh also destroyed critical buildings

that delivered healthcare, particularly in Mosul, Salah Al-Din, and Anbar Governorates.³⁰⁵ Ninewa, in particular, has suffered damage to the healthcare sector following the conflict, including destroyed medical facilities which impedes access to health services; this barrier to access is further limited by disability, gender, age, and socio-economic factors.³⁰⁶ The situation is further exacerbated by a shortage of skilled health practitioners in Iraq,³⁰⁷ with over 600,000 Iraqis estimated to be in need of rehabilitative services.³⁰⁸

Despite the legal frameworks safeguarding the rights of PwDs, there are still many challenges to individuals' full participation in society. In Iraq, conflicts have further exacerbated these challenges and the marginalisation already faced by PwDs, resulting in additional barriers to accessing protection, livelihood opportunities and basic medical and rehabilitative needs.³⁰⁹

Due to the specific local cultural context and expectations around gender interactions, women and girls with disabilities experience even further restrictions and barriers. For various reasons (such as social attitudes, traditional customs, safety concerns), affected girls and women are often isolated at home and escorted by family members when they go outside. They do not, therefore, enjoy free movement and are prevented from engaging in activities specifically organised for persons with disabilities, nor can they access resources. Young women with disabilities have also often been denied the opportunity to marry, start a family,³¹⁰ and access reproductive healthcare.³¹¹

VICTIM DATA

Since 2021, information on EO incidents and victims has been collected and stored in IMSMAng (Information Management System for Mine Action New Generation).³¹² Both the DMA and the Iraqi Kurdistan Mine Action Agency (IKMAA) have adopted this online reporting system, which serves to promote the accuracy, reliability, and transparency of data.³¹³

The highest number of EO accidents in Federal Iraq for 2021 and 2022 were recorded in the Anbar Governorate, with a total of 63 victims reported in 2022 (women: 14, men: 49).³¹⁴ While overall estimated contamination rose slightly in 2019 throughout all Daesh liberated areas, it particularly increased in Anbar, as operators only began non-technical survey there in 2019 as compared to other areas where operations started in 2017.³¹⁵ In KRI, the highest number of EO accidents in 2021 and 2022 were recorded in the Sulaymaniyah Governorate, with a total of 25 victims reported in 2022 (women: 1, men: 21, boys: 3), due to legacy contamination that remains from the war with nearby Iran.³¹⁶

Of the cluster munition casualties in Federal Iraq, 12 (41 percent) of the 29 total reported in 2021 were children (10 boys and 2 girls).³¹⁷

Also of note, the sex and age disaggregated data show men to be the vast majority of direct EO victims in Iraq. Young men are particularly at risk due to their involvement in occupations which place them at risk of exposure to EO.³¹⁸ Boys, although underage, are also likely to participate in labour activities, to help support their families. For this reason, over 80 percent of children affected by EO are boys.³¹⁹ However, a pattern emerged regarding the risk of death from accidents, with the percentage of casualties that were fatal being 79 percent for girls, 43 percent for women, 64 percent for boys, and 26 percent for men.³²⁰ These data suggest that, despite higher numbers of male victims of EO, girls and women accounted for the highest fatality rates. This points to the additional gender dimensions around the risk of death following an accident, and the consequent importance of gender-sensitive considerations for victim assistance.

FIGURE 6 TOTAL NUMBER OF EO VICTIMS REPORTED IN IRAQ, 2015–2022

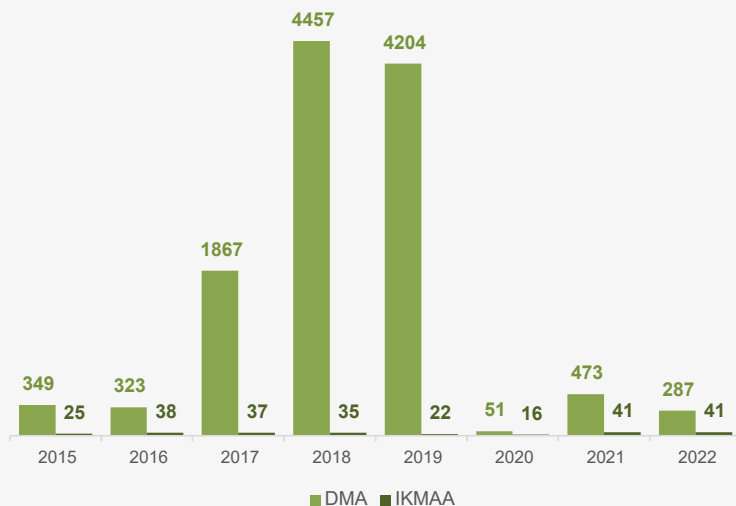
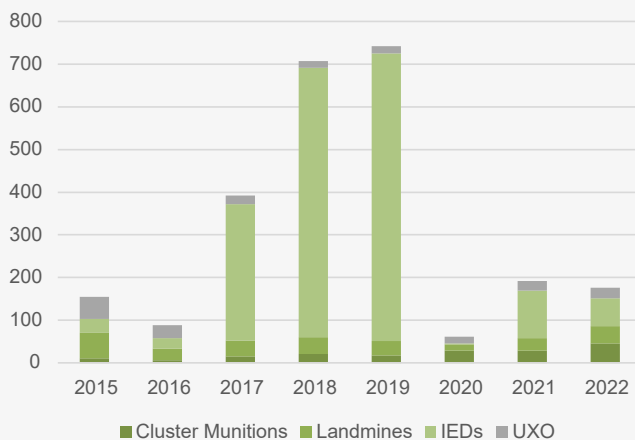


FIGURE 7 TOTAL NUMBER OF EO ACCIDENTS BY DEVICE TYPE REPORTED IN IRAQ, 2015–2022



Source: DMA and IKMAA



National Dialogue on assistance to mine victims and clearance of landmines hosted by DMA, October 2022. Source: AP Mine Ban Convention ISU

LEGAL FRAMEWORKS FOR SAFEGUARDING THE RIGHTS OF PwDs

Iraq follows various national and international instruments related to victim assistance, disability, and inclusivity.

INTERNATIONAL FRAMEWORKS:

- **Anti-Personnel Mine Ban Convention (APMBC)**, the **Convention on Certain Conventional Weapons (CCW) Protocol V**, and the **Convention on Cluster Munitions (CCM)**, which all require the State Parties to provide support to victims.³²¹
- **United Nations Convention on the Rights of Persons with Disabilities (CRPD)**, ratified in 2013.
- **Convention on the Rights of the Child (CRC)**, ratified in 1994, which contains provisions on the rights of PWDs and protection from all forms of discrimination, and ensuring full and equal participation in society.

NATIONAL FRAMEWORKS:

- According to the **Constitution of Iraq (2005)**, “Every individual has the right to live in safe environmental conditions” (**Article 33**). This is closely linked with humanitarian mine action’s overall objective to ensure land is safe from EO for all persons. According to **Article 30**, the State shall guarantee social and health security to Iraqis in the case of old age, sickness, and employment disability. **Article 32** reaffirms the importance of protecting the rights of PwDs, stating that the State shall care for the handicapped and those with special needs, and ensure their rehabilitation and reintegration into society.³²²
- The **Care of Persons with Disabilities and Special Needs Act (Law No. 38)** was adopted in 2013, and safeguards provisions for PwDs in Iraq in accordance with the articles of the UN Convention (CRPD).³²³ **Article 15** specifies an allocation of monthly aid to PwDs and those with special needs who are unable to work in accordance with the law. It also mandates that five percent of employment opportunities within public institutions be given to PwDs, however there are no details on the status of quota enforcement.³²⁴
- **Law 22 of the Kurdistan Regional Government (KRG)** issued in 2011 by the Kurdistan Regional Parliament on the rights of persons with disabilities and people with special needs. It includes the right to education for all (Section 3, Part 2) and governmental support of inclusive education.
- **The Social Protection Law No. 11** was adopted in 2014 and covers social protection assistance for families and individuals living below the poverty line in Iraq, specifically including PWDs and their families. It includes not only financial assistance but also services designed for poverty reduction such as labour assistance.³²⁵

- **Law on Compensation of Victims of War Operations, Military Mistakes and Terrorist Operations** (2009).³²⁶

According to this law, mine victims are eligible to receive financial assistance from the government after approval with a certificate from the DMA, Ministry of Health or Ministry of Labour and Social Affairs.³²⁷

In Federal Iraq, victim surveys are being conducted by the national authorities (DMA, Ministry of Health, and Ministry of Social Affairs) throughout several Governorates. They are not only critical for the purpose of data collection, but also to inform all national policies and programmes. They also allow EO survivors to formally register in order to have access to financial assistance, compliant with the Law on Compensation of Victims of War Operations, Military Mistakes and Terrorist Operations (2009).³²⁸

COORDINATION MECHANISMS AND ACTIVITIES

The **National Victim Assistance and Disability Action Plan 2019–2021** was drafted by the Ministry of Environment (MoE) and the DMA. It outlines the most urgent needs of mine victims, their families, and other persons with disabilities in Iraq. It includes recommendations related to medical care, rehabilitation, psychological assistance, and socio-economic support. Its implementation is led by the DMA, MoE, and Ministry of Social Affairs. Its Strategic Goal #6 establishes a strong coordination system that will work towards achieving the objectives the plan has set in place. This involves an annual review to ensure the plan's continued relevance.³²⁹

The **Commission on the Care of Persons with Disabilities and Special Needs**³³⁰ was established by Law No. 38 on the Care of Persons with Disabilities and Special Needs, in 2013. The Commission oversees the implementation of government policy related to the rights of PwDs in Iraq.³³¹ It provides financial grants, training, loans, employment, as well as other opportunities and rehabilitation services in accordance with Law No. 38. It is however limited at present due to the lack of financial allocations and the general security situation.³³²

The **Disability and Special Needs Body** was also formed under Law No. 38 (2013) and held inter-ministerial meetings in 2017. This led to the formation of a legal committee to review the articles of Law No. 38 and ensure alignment with Iraq's obligations under international conventions. It also coordinated with various NGOs to address building accessibility. An additional outcome of this coordination body resulted in the establishment of an appeals committee for the MoE to review beneficiary complaints regarding medical reports submitted.³³³

The **National Strategy to Combat Violence against Women and Girls 2018–2030** addresses the design and implementation of interventions towards the protection of women and girls of different physical and mental conditions, from all forms of gender-based violence.³³⁴

The **National Development Plan 2018–2022** includes objectives for further development of systems and legislation which secure the rights of PWDs to improve their quality of life as well as the provision of labour, rehabilitation, and training to victims of terrorism to ensure their social integration.³³⁵

These legal frameworks and coordination mechanisms in support of PWDs and victims of war have contributed to the achievement of **SDG 10** Reduced Inequalities, its **target 10.2** on the social, economic and political inclusion of all and **target 10.4** on the adoption of policies to achieve greater equality. In particular, the social protection systems for EO victims, including PWDs and their families, enable contributions to **SDG 1** No Poverty and its **target 1.3** on the implementation of social protection systems and measures.

In Iraq, responsibility for the support of victims of EO is shared between the DMA and its Victim Assistance Department, the Iraqi Kurdistan Mine Action Agency (IKMAA), the Ministry of Environment, the Ministry of Labour and Social Affairs (MOLSA), the Ministry of Youth and Sport, and the Ministry of Higher Education and Scientific Research.³³⁶ This effort is led by the National Commission of Persons with Disabilities and Special Needs within MOLSA, and requires cooperation across sectors in order to provide therapeutic, rehabilitative, medical, social and economic services across its geographic areas, including remote regions.³³⁷

Victim assistance activities are undertaken by a range of stakeholders including government entities, and humanitarian organisations, both national and international, as well as national/public health services and rehabilitation centres. The DMA and IKMAA have a facilitating role, providing support through information management and data collection.³³⁸ The DMA has a field-based team on the ground, which includes representatives from the Victim Assistance Department as well as from the MoE, MOLSA, municipal councils, the police, and civil defence centres.³³⁹ The Victim Assistance Department of the DMA, in cooperation with the relevant ministries, coordinates with regional mine action centres in order to conduct comprehensive victim surveys under each region in Federal Iraq.³⁴⁰

The DMA and IKMAA, jointly with Humanity & Inclusion (HI), have worked on developing national standards based on International Mine Action Standard (IMAS) 13.10 on victim assistance. This process included contributions from two DMA employees who are mine victims themselves, helping to shape the Standard.³⁴¹ Launched in January 2023, the Standard supports the furthering of integrated efforts on the part of national mine action authorities, relevant ministries, and mine action operators, strengthening the sustainability of national efforts towards advocating for and addressing the needs of victims.³⁴²

Before the war with Daesh, there were 18 national rehabilitation centres, and 20 prosthesis and orthosis centres in Iraq operating under the MoE. Some of these were destroyed and are now being reconstructed with support from international partners, but others continue to function.³⁴³ These include the Iraqi Red Crescent Society, which provides rehabilitation and emergency medical assistance in branches across the country, the Diana Orthopaedic Rehabilitation and Vocational Training Centre in Erbil, and the Centre for Rehabilitation and Prosthetic Limbs in Duhok.^{344 345}

International actors providing victim assistance support include HI, International Committee of the Red Cross (ICRC), and EMERGENCY, all of which address a broad range of healthcare needs. These include EO victim assistance as part of broader support for PWDs and victims of armed conflict such as physical rehabilitative care, mental health and psychosocial support (MHPSS), training of medical staff including physiotherapists, prosthetists/orthotists and other rehabilitation professionals.^{346 347 348}

For instance, in 2021 the ICRC treated approximately 23,400 PWDs at centres in Erbil and other areas, including two State-run centres which receive ICRC support.³⁴⁹ The Erbil centre also provided MHPSS to 43 PWDs. The ICRC's Physical Rehabilitation Centre in Erbil is the largest in the country, equipped to serve up to 6,000 PWDs per year.³⁵⁰ ICRC outreach in remote regions has enabled the provision of assistive devices to PWDs as well as referrals for physical rehabilitation. The ICRC has also provided income support for a total of 241,120 patients and partnered with academic institutions, professional associations, and government ministries to support the long-term sustainability of the physical rehabilitation sector.³⁵¹ It currently supports physical rehabilitation centres in Nasiriyah, Mosul, Fallujah, Erbil, and Baghdad.

HI provides a range of humanitarian and disability support services in the Governorates of Anbar, Ninewa, Kirkuk, Sulaymaniyah, and Diyala. Approximately one-third of its beneficiaries have been PWDs since 2014.³⁵² EMERGENCY works in Erbil and Sulaymaniyah in KRI. Its Rehabilitation and Social Reintegration Centre was built in 1998 specifically to cater for the needs of EO survivors. As of its 24th anniversary in 2022, it had treated over 12,000 patients and provided over 17,400 prostheses.³⁵³

In addition to physical rehabilitation activities, many international humanitarian organisations also provide training to local practitioners in recognition of the need for more skilled workers in rehabilitation and prosthetics. The ICRC estimates that at least 600,000 Iraqis require physical rehabilitation services, including over 200,000 who require a prosthesis and/or orthosis.³⁵⁴ The ICRC therefore initiated a 4-year programme at the Prosthetic and Orthotic College in Erbil, in collaboration with Erbil Polytechnic University, with the aim of establishing a sustainable workforce of local professionals in this field. HI also provides training to paramedics and medical staff whilst EMERGENCY, in addition to hiring local workers, focuses on capacity building for local medical professionals.³⁵⁵

In a partnership between The HALO Trust and INTERSOS, psychological support is delivered as part of an integrated response to mine victims in displaced populations.³⁵⁶

The aim of organisations providing victim assistance in Iraq has been to offer comprehensive support, not only for physical but also the mental health of EO victims. By ensuring that these victims have access to healthcare services, including immediate medical care, physical rehabilitative care, mental health and psychosocial support, as well as prosthetics, victim assistance efforts have directly contributed to **SDG 3** Good Health and Well-Being, in particular its **target 3.8** on universal health coverage and quality healthcare services. These services also contribute to **target 3.4** on the reduction of premature mortality through prevention and treatment.

The focus on capacity development and training for local medical practitioners has also contributed to **target 3.c** on increasing the financing, training and recruitment of the health workforce. Partnerships between international NGOs and local health practitioners, the government, and academic institutions presents contributions to **SDG 17** Partnerships for the Goals and its **target 17.9** on enhanced international support for capacity building.

SOCIO-ECONOMIC INCLUSION OF DIRECT AND INDIRECT EO VICTIMS

Through its diverse activities, victim assistance provides for inclusive access to services for all persons with disabilities as well as indirect victims, reaching across age, gender, and ethnic backgrounds. Services include access to medical rehabilitation, psychological support, education, livelihood and employment, and social inclusion. Victim assistance therefore involves coordination with actors beyond mine action in the undertaking of victim assistance efforts, in accordance with IMAS 13.10.

While there has been progress at the policy level after accession to the CRPD, the National Victim Assistance and Disability Action Plan 2019–2021 notes that a paradigm shift is required when it comes to the rights of PWDs in Iraq. This involves responding to the needs of EO survivors in an inclusive way, one that shifts away from considering victim assistance as ‘charity’, to its recognition as part of human rights protection.³⁵⁷



National Stakeholder Dialogue on victim assistance, 2018. Source: AP Mine Ban Convention ISU

Incomplete data on EO victims and their living conditions means that the challenges related to social and economic inclusion of this group are not well known. However, it is recognised that greater support is likely needed in this area.³⁵⁸ Participants³⁵⁹ of the national victim assistance stakeholder dialogue in 2018 (led by the DMA and the MoE) noted that improvements to social and economic inclusion would be greatly needed in the long term.³⁶⁰ ³⁶¹ There were also suggestions that many of the rights afforded to PWDs under legislation are not enforced in practice.

Although victim assistance has yet to be well-integrated into State support, many of the international humanitarian organisations undertaking activities include support for socio-economic inclusion. These comprise the provision of small business grants, vocational training, and social and occupational reintegration programmes. For instance, HI reported piloting an inclusive livelihood project in KRI which aims to support PWDs and vulnerable households through small business grants and psychosocial support.³⁶² EMERGENCY's Rehabilitation and Social Reintegration Centre in Sulaymaniyah employs 76 local staff, of whom more than half are former patients of the centre or PWDs.³⁶³ The ICRC's Physical Rehabilitation Centre in Erbil provides small business grants, vocational training, and MHPSS, in addition to undertaking physical rehabilitation activities.³⁶⁴

These efforts to improve socio-economic integration through victim assistance contribute to the achievement of **SDG 10** Reduced Inequalities and its **target 10.2** on the social, economic, political inclusion of all, as well as **SDG 8** Decent Work and Economic Growth and its **target 8.5** on full and productive employment and decent work.

DISABILITY-INCLUSIVE LIVELIHOOD OPPORTUNITY PROJECT IN NAJAF

In recognition of the difficulties faced by PWDs when accessing training or educational opportunities, the Observer Human Rights Centre (OHRC) implemented a livelihood project in Najaf in partnership with a local vocational training centre.³⁶⁵ The project aimed at increasing access to the job market and promoting income-generating activities for marginalised groups. The OHRC specifically targeted PWDs for inclusion in this project, working with representative organisations for PWDs in the region to identify and communicate with PWDs who could benefit from the project. The project also ensured accessibility for participants, providing transportation and other services as needed. The project was able to successfully recruit 30 PWDs for their courses, with an equal number of women and men enrolling. Participants gained practical knowledge in the use of computers and in sewing.

These initiatives reflect a growing recognition of the particular social and economic needs of PWDs. Although greater efforts are needed in this area, these projects demonstrate an initial contribution to **SDG 4** Quality Education and its **target 4.3** on equal access to technical, vocational, and tertiary education and **SDG 10** Reduced Inequalities and its **target 10.3** to ensure equal opportunity and reduce inequalities.



NPA EORE instructor conducts ad-hoc EORE with children from a neighbourhood in Rawa, Anbar near a large, improvised minefield where clearance is being conducted. Source: NPA

3. EXPLOSIVE ORDNANCE RISK EDUCATION

FIGURE 8

CONTRIBUTION OF EORE TO THE SDG TARGETS IN IRAQ



4.a Building safe and inclusive learning environments



11.7 Universal access to public spaces



5.5 Women's full and effective participation at all levels of decision making

5.b Enhancing the use of enabling technology to promote the empowerment of women



16.1 Reduction of all forms of violence

16.a Strengthened national institutions, including through international cooperation



10.3 Equal opportunities, reduction of inequalities

10.7 Safe migration and mobility



17.9 Enhanced international support for capacity-building

The wording of the SDG targets listed above has been simplified; the full list of targets and their official names can be found on the United Nations website: <https://www.un.org/sustainabledevelopment/>

Explosive ordnance risk education (EORE) “refers to activities which seek to reduce the risk of injury from explosive ordnance (EO) by raising awareness of women, girls, boys and men in accordance with their different vulnerabilities, roles and needs, and promoting behavioural change. Core activities include public information dissemination, education and training.”³⁶⁶

International Mine Action Standard (IMAS) 12.10 on explosive ordnance risk education (EORE),³⁶⁷ Second Edition, Amendment 3, September 2020 represents the most substantial update of this standard since 2009. One of the key changes in the revised IMAS 12.10 is the shift in terminology from mine risk education (MRE) to EORE which has been widely adopted by the sector.

The updated IMAS 12.10 on EORE establishes principles and provides guidance for the effective assessment, planning, implementation, management, monitoring and evaluation of EORE interventions.

Considering the existing contamination in Iraq, EORE has been a key enabling factor for the continuation of daily activities that are essential to social and economic recovery,³⁶⁸ and preventing casualties. Due to the widespread extent and diverse nature of EO contamination, EORE in Iraq must cater to the differing needs of communities and individuals at risk of encountering EO to ensure that messaging around safe behaviours and information on the identification of EO can effectively reduce risk. EORE providers have explored a range of different modalities as well as data collection methods to ensure this is achieved.³⁶⁹

As a State Party to the Anti-Personnel Mine Ban Convention (APMBC), Convention on Cluster Munitions (CCM), and Convention on Certain Conventional Weapons (CCW), Iraq is committed to EORE implementation following IMAS 12.10 and in line with international good practice. EORE is also included in Iraq’s National Mine Action Strategy 2022–2028,

which recognises the important role of strengthening local and national EORE capacities and structures and promoting increased localisation and sustainability in line with the Oslo Action Plan Action #31.^{370 371}

National authorities and operators implement EORE interventions through a mix of approaches and innovative strategies to ensure effective delivery and uptake of messages in impacted areas. As will be further outlined, the following EORE methods have been the most common in Iraq: school-based (focused on children), community-based (involving community volunteers and focal points as well as coordination with local leaders or *mokhtars*), camp-based for internally displaced persons (IDPs), and via mass media (TV, radio, billboards, social media, and SMS).

COORDINATION AND INTEGRATION OF EORE AT THE DMA AND IKMAA

In Federal Iraq, all survey, clearance, and EORE activities are tasked by the DMA, ensuring prioritisation is undertaken through a centralised process, whilst IKMAA undertakes this responsibility in the Kurdistan Region of Iraq (KRI).

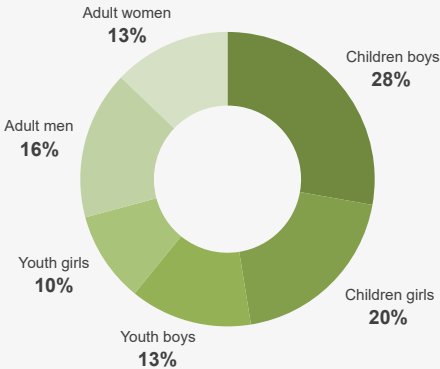
The DMA supervises its own EORE work plans and activities, as well as the projects submitted by national and international organisations. However, it works alongside other federal ministries for the planning and prioritisation of EORE activities across Federal Iraq. In the planning process, the Media and Awareness Department of the DMA consults externally with the Ministry of Health and internally with the DMA's Victim Assistance Department, to prioritise EORE activities according to areas that have witnessed more EO victims.³⁷²

In addition, the DMA oversees EORE training certification, working jointly with implementing organisations and monitoring all training activities.³⁷³ Both the DMA and the Directorate of Civil Defence operate free phone lines through which members of the public can report any sightings of EO.³⁷⁴

In the KRI, IKMAA coordinates and implements all EORE activities. This involves ensuring that EORE messaging is appropriate for target groups, overseeing the implementation of EORE by outreach staff, and conducting EORE training courses.³⁷⁵

In implementing EORE, IKMAA has also reported using diverse modes of engagement including summer school activities, messaging through social media platforms, as well as supporting and training community safety wardens.³⁷⁶

FIGURE 9 PERCENTAGE OF EORE BENEFICIARIES DISAGGREGATED BY GENDER AND AGE IN IRAQ, 2022



CHILDREN (AGE 5-12)		YOUTH (AGE 13-18)		ADULT (19+)	
BOYS	GIRLS	BOYS	GIRLS	MEN	WOMEN
85,670	60,567	41,330	30,700	50,271	39,662

Source: DMA and IKMAA

INTERPERSONAL EORE

GENERAL APPROACHES

In recent years, the priority focus for EORE activities has been on liberated areas, due to the extensive level of contamination with improvised explosive devices (IEDs) and booby-traps, in support of safe resettlement of returning internally displaced persons (IDPs). There has also been an increased focus on the Basra Governorate, given the high cluster munition remnant contamination and limited access to EORE activities.³⁷⁷ IKMAA reports targeting the most vulnerable groups across all its provinces, including populations that risk approaching minefields during their livelihood activities such as shepherds, for example.³⁷⁸

The DMA has noted the significance of EORE in local community rehabilitation, from both a cultural and educational perspective, having a vital role in creating communal security which can enable increased economic and developmental activity.³⁷⁹

Stakeholder interviews with mine action operators have further highlighted the key role of *mokhtars*.³⁸⁰ Consulting with *mokhtars* is considered a prerequisite to project implementation and a crucial element in making operators aware of the local context. In most cases, *mokhtars* are the main focal points of non-technical survey (NTS), community liaison and EORE teams on the ground.

Through this consultative process, EORE in Iraq is better adapted to each locality according to the type of contamination, the gender-specific and cultural context, as well as the language spoken (Kurdish, Arabic). As the work to create a centralised national database on victims is ongoing,³⁸¹ most mine action operators report relying on their own victim data analysis to target risk education as well as relying on information accessed through partnerships with organisations undertaking victim assistance activities.³⁸²

Most humanitarian mine actors conducting EORE in Iraq have teams that are fully dedicated to EORE, or that organise community liaison teams that conduct both risk education and NTS. Mines Advisory Group (MAG) reported that conducting surveys has promoted a stronger connection with

community members. It has also allowed for the ability to deliver on-the-spot risk education, reaching people who are returning to their homes. Local support and acceptance have been necessary not only for operators to carry out clearance activities, but also for ensuring the effective delivery of awareness messaging.³⁸³

According to the UN Mine Action Service (UNMAS), providing EORE messaging to areas surrounding clearance operations was important to prepare the community for the arrival of the clearance team and to understand and respect safety markings.³⁸⁴ UNMAS also underscores the importance of evaluating EORE projects in Iraq, to understand the impact after project completion and to make sure that the messaging is understood by local communities. For example, an evaluation may indicate the need for an area to be covered once again. Following recent accidents, the DMA, IKMAA and UNMAS have developed a KAP (knowledge, attitudes and practice) survey that aims to better prioritise EORE for affected areas.³⁸⁵



Health and Social Care Organization in Iraq (IHSCO) team member conducts KAP survey interview with returnee in Telafar who previously attended IHSCO EORE session in an IDP camp in Ninewa one year before, 2021. Source: IHSCO

In some cases, Norwegian Peoples' Aid (NPA) conducted EORE on the spot in emergency situations where clearance had yet to begin. This included an understanding of the type of contamination, as well as how to stay safe around contaminated areas, for example informing the community about what picket and warning signs mean. Aside from emergency cases, EORE also serves to reinforce safety messages, as individuals have been known to ignore pickets and enter potentially hazardous areas out of necessity. Many shepherds, for example, report knowing people who have been wounded and killed in this way. They are often aware of the problem but engage in risk-taking behaviour to support their livelihood, often propelled by difficult economic circumstances. This highlights the importance of analysing barriers to the adoption of safe behaviours and understanding the behavioural drivers of at-risk groups. After EORE, NPA reported seeing some changes in behaviour such as the reporting of suspicious objects to operating teams and an overall more direct line of communication between community members and NPA staff.³⁸⁶

In Filfiel, Tel Kaif, behavioural changes also followed from having a direct line of communication with mine action operators. According to *mokhtars* and local authorities, this village is where most accidents have taken place involving children as well as shepherds. To date, around 20 casualties have occurred among both adults and children, resulting in five fatalities. Upon seeing the impact of clearance teams working in the area, members of the community reported suspicious items and provided information to operators about the incidents, which led to reported behavioural changes. This has been monitored and is reflected in the reduced number of casualties and injuries reported since GCS community liaison and clearance teams have been in the area.³⁸⁷

EORE IN SCHOOLS

Children in general are more susceptible to EO accidents as they may be attracted to unknown objects which are colourful or unusual in appearance. Stakeholders have noted, for instance, that children have been particularly impacted in the region of Basra which has heavy contamination from the Iran-Iraq War.³⁸⁸ EO that is considered 'new contamination' is particularly

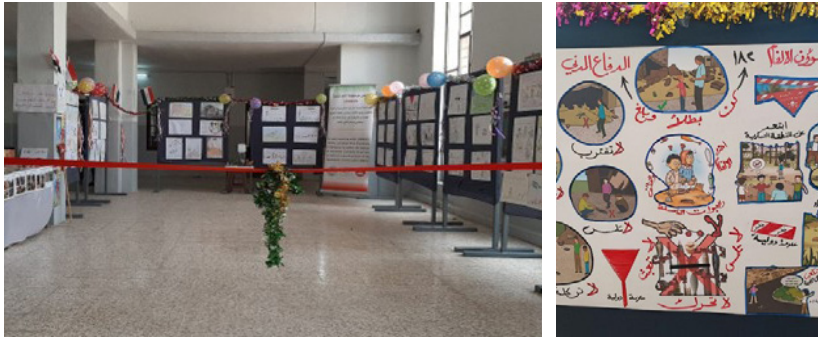
concerning in such cases as these devices are more likely to be improvised in nature and scattered in urban environments, rather than buried in the ground.³⁸⁹

In 2021, the UN Children's Fund (UNICEF) reported an increase in the number of children killed and injured by EO in Iraq, as compared to 2020.³⁹⁰ In the five years leading up to 2022, over 519 children were victims of EO in Iraq. More than 80 percent of these victims were boys, many of them working to support their families, and therefore more likely to encounter EO.³⁹¹ To address the risk of children's exposure to EO, EORE for schoolchildren is tailored to their specific needs, with messaging adapted to particular age groups. For many mine action operators, children are a priority group, as they are not only particularly at risk but can also spread messaging to their families.³⁹²

In order to integrate EORE into school curricula, operators require permission from the Ministry of Education in order to work with schoolchildren, and each Governorate has its own regulations about providing EORE in schools. The DMA also coordinates with the Ministry of Education for the integration of EORE into the primary school curricula for grades 5 and 6.³⁹³ This has included planning the broadcasting of EORE clips for children on educational television channels and the coordination of training of trainers (ToT) courses for teachers, equipping them with the necessary materials to deliver essential awareness messaging to students.³⁹⁴

Innovative activities have been used by organisations to try to help reinforce EORE messaging for schoolchildren. In cooperation with the Ninewa Directorate of Education, the Health and Social Care Organization in Iraq (IHSCO) delivered a project using sand table models to help raise awareness about the dangers of EO contamination among children in schools and other educational institutions in the Ninewa Governorate. The sand tables reproduce the different types of warning signs, hazard markings, and cordoned off areas which indicate potential EO hazards. Together with standing lectures and presentations, these sand tables have helped reinforce EORE messaging on general safety risks.

Similarly, IHSCO partnered with the Ministry of Education in 2022 to hold art competitions for schoolchildren with the aim of raising awareness of EO contamination. The events involved a range of activities including drawing, singing and theatrical performances. The project reached 31 schools and included 392 participants.



Exhibition of artwork showcasing EO awareness messages by students from several schools in Ninewa Governorate, 2022. Source: IHSCO

Partnerships between mine action organisations, educational institutions, and government agencies across Iraq suggest a strong level of cooperation between different sectors. Many mine action operators benefit from partnerships in the delivery of EORE. UNICEF, for instance, has worked with many local operators including Shareteah Humanitarian Organization, Baghdad Organization for Removing Mines, and Al-Ghad League for Woman & Child Care to help build capacity.³⁹⁵ The involvement of organisations like UNICEF for EORE can also be beneficial for the broader coordination of work among key actors across the triple nexus. UNICEF works across different clusters including mine action as well as child protection and education clusters.

Opportunities for youth engagement on EORE have also been bolstered through partnerships for capacity building. For example, IHSCO trained 28 master trainers from the Ninewa Department of Education who will be managing and sustaining the EORE curriculum within the educational system. The focus was on planning, managing, delivery of EORE training, and reporting of EORE activities in schools. Included in this partnership,

IHSCO's Awareness Football League organised a football tournament in collaboration with the Department of Sports Activity and Schools under the Ninewa Directorate of Education in 2022. The tournament included six teams from Ninewa and focused on raising awareness of the risks of EO for its 60 youth participants, in addition to providing ToT for teachers. Through the support and mentorship of IHSCO teams, master trainers from the Ninewa Department of Education went on to train a total of 1,800 teachers during the tournament. This highlights the sustainable impact of this capacity-building approach to ToT.³⁹⁶



Participating team in IHSCO football tournament, June 2022. Source: IHSCO

Humanity and Inclusion (HI) has also constructed safe spaces such as playgrounds, volleyball courts, and parks in affected areas to provide places for youth and children's recreation, as their options to play and walk safely and freely are limited. UNMAS reported that this had a positive impact on reducing the number of EO incidents.³⁹⁷ The goal was to redirect traffic from contaminated areas, such as rubble piles or destroyed or damaged buildings, to safe areas for play. UNMAS built a playground for children in Anbar, a community park with internet access for youth in West Mosul, and space for a volleyball field in Sinjar. The implementation of projects to construct safe spaces included EORE and life-saving messages.³⁹⁸



Children playing in a recreational space constructed in west Mosul, 2021. Source: HI



Newly constructed volleyball court, 2022. Source: HI

GENDER AND DIVERSITY SENSITIVE EORE

The benefits of employing women as community liaison points and risk educators extend beyond securing a livelihood and socio-economic security for themselves and dependent family members. It has also been reported by stakeholders to be crucial in extending the accessibility of education to all members of communities.

When it comes to gender and diversity considerations, operators have been ensuring gender balance in EORE teams. This has been shown to allow access more effectively to the information for women and girls, especially in specific local contexts with limitations around male-female interactions. All-women teams in Iraq have challenged traditional norms in mine action, and have generated positive results, which in turn have contributed to the sustainable development of communities.

Gender-sensitive approaches to EORE have also been further mainstreamed into the messaging and materials disseminated in communities. For example, UNMAS implements gender-sensitive EORE messaging showcasing women engaging in different activities on risk education posters and other materials. The designs were presented first to groups in the affected areas, to ensure approval of the material.³⁹⁹



Mixed-sex community liaison (CL) team delivers EORE to children in an at-risk area, targeting boys and girls. Source: UNMAS

The focus on incorporating EORE into age- and gender-sensitive activities has allowed for contributions to **SDG 4** Quality Education and its **target 4.a** on the building of safe and inclusive learning environments.

By expanding the reach of messaging to include women, girls, boys, and men via innovative technologies, inclusive EORE activities, and mixed CL teams, **SDG 5** Gender Equality is supported. It particularly strengthens its **target 5.5** on ensuring women's full and effective participation and equal opportunities for leadership in public life as well as **target 5.b.** on enhancing the use of enabling technology, particularly information and communication-related technology, to promote the empowerment of women.

The construction of safe spaces has also allowed for contributions to **SDG 11** Sustainable Cities and Communities and its **target 11.7** on providing universal access to safe and accessible public spaces.

TAILORED AND TARGETED EORE FOR SPECIFIC AT-RISK GROUPS

EO can be particularly hazardous for people on the move. For instance, IDPs may come across EO as they travel through unfamiliar areas, former military zones, and when returning to homes that had previously been impacted

by conflict. For this reason, EORE is extremely important for IDPs who are living and travelling under difficult conditions. EORE in camps is not only transferrable to beneficiaries upon return, but also critical to their safety in the camps due to contamination in the area.⁴⁰⁰ While many IDP camps in the country have been closed, mine action operators had previously carried out delivery of risk education in these camps.

For example, in the third quarter of 2021, Shareteah Humanitarian Organization conducted EORE sessions for up to 300 IDP households in the Al-Jada'a camp following requests from the International Organization for Migration (IOM). The aim of these sessions was to pass on valuable information on the identification of EO and safe behaviours before IDPs returned to their homes.⁴⁰¹

In 2020, during the COVID-19 pandemic, mine action operators were forced to adjust their communication strategies for EORE training for IDPs. MAG, for instance, had noted that the situation had led to an increase in returnees due to concerns about the spread of coronavirus in IDP camps. Given that traditional face-to-face sessions were no longer undertaken due to health risks, MAG began to provide EORE to returnees over the phone.⁴⁰² They also supplemented this training with mobile messaging including information on how to identify hazardous items and how to stay safe around potential contamination. Between June and November 2020, MAG supported 820 households returning to Sinjar.⁴⁰³

During Ramadan, IDPs in camps can experience difficult conditions when fasting in high temperatures. Considering this, IHSCO launched its emergency risk education campaign called 'Break your Fasting with Risk Education' in Shirqat, Tikrit, Al-Alam and Balad IDP camps as well as IDP camps in Ninewa, especially targeting children. IHSCO teams distributed water bottles and packs of dates, with messaging in addition to leaflets, booklets, and posters. IHSCO has also integrated EORE into leisure activities, providing an engaging medium for awareness materials across all ages and simultaneously providing a form of social support in IDP camps. This has included competitions organised around the game of '*Mhebis*', which is traditionally played during Ramadan evenings.⁴⁰⁴



IHSCO team member holding a date pack containing EORE messaging during a session with IDP camp residents. Source: IHSCO

Risk awareness was also provided to other organisations working on the ground. For example, MAG provided risk awareness to IOM personnel performing activities within communities.⁴⁰⁵

Targeted and tailored EORE is also provided to Bedouin populations in the south of Iraq following certain migratory seasons. They migrate to an area in the south where more contamination of cluster munitions is found, namely Basra and Muthanna Governorates. In the seasons where high numbers of people are passing through this area, many accidents are reported. The DMA targets the Bedouin population especially during the spring season, due to the practice of animal grazing in the Samawah desert, which is heavily contaminated with explosive remnants of war (ERW). The sessions target women, girls, boys, and men, warning populations about the risks of entering these dangerous areas.⁴⁰⁶ Guided by these migratory movements, NPA also conducts EORE as well as NTS, adapting the programming based on results.⁴⁰⁷

Given the implementation of innovative methods of EORE dissemination to address varying levels of access and the needs of different communities, including for IDPs and Bedouin populations, efforts have contributed to **SDG 4** Quality Education, its **target 4.a** on providing safe, non-violent, inclusive and effective learning environments for all. It also contributes to **SDG 10** on reducing inequality, namely its **target 10.3** on equal opportunity and the reduction of inequalities. As populations like IDPs and Bedouin communities may be moving across larger regions, EORE has also enabled **target 10.7** on ensuring safe migration and mobility.

MASS MEDIA AND DIGITAL EORE

In addition to face-to-face EORE sessions, diversified and innovative modalities for EORE dissemination are being implemented by stakeholders in Iraq to reduce contact with EO, promote safer behaviour and ensure greater outreach. As already mentioned, such modalities were also an effective means of circumventing the challenges around delivering in-person sessions during the COVID-19 pandemic.

The implementation of digital EORE messaging is highlighted in Iraq's National Mine Action Strategy 2022–2028 to better reach and accommodate the needs of wider audiences through mobile phone text messages, radio programming, and coordinating with local TV channels to disseminate EO messages through advertising.^{408 409 410}

The DMA coordinates with organisations to set up warning signs in areas where new injuries have occurred, including with the International Committee of the Red Cross (ICRC).⁴¹¹ Since 2016, the DMA has expanded its EORE outreach to include billboard signs, radio and television programme awareness clips, cartoon films, plays, and educational sessions to ensure accessibility.⁴¹² Its Media and Awareness Department also approves the distribution of other types of awareness materials, with a documented total of 50,258 posters and 26,744 booklets provided by the DMA in 2021.⁴¹³



Installation of EO awareness signs by the DMA and ICRC in Babil, July 2022. Source: DMA

In cases where access to digital tools was limited, operators used other methods to reach more people, such as the daily delivery of audio messages through loudspeakers transported by vehicles,⁴¹⁴ including scooters. This has been particularly effective in remote areas and especially in terms of reaching women who remain at home.⁴¹⁵



In another mobile EORE strategy, IHSCO fixed billboards on goods transport and grocery trucks, 2020. Source: IHSCO

Focusing on social media messaging, UNMAS also undertook a strategic communications campaign in 2020 and 2021 called 'Safe Steps' in the Governorates of Kirkuk, Ninewa, Anbar, Diyala, and Salah Al-Din.⁴¹⁶ The campaign mainly utilised Facebook which was the most popular platform in Iraq at the time. Results were positive, showing an active following of 6,872 people, with 25,853 people reached and 1,097 people engaged. The campaign targeted young people, considered to be a "primary at-risk group."⁴¹⁷ In 2021, UNMAS added to this campaign through the broadcasting of three EORE videoclips on the popular TV channels Dijlah, UTV Iraq, and Al-Rasheed.⁴¹⁸

UNMAS also reported new technologies being used by its implementing partners, such as a risk education mobile application – the first one to be implemented in Iraq by the Health and Social Care Organization in Iraq (IHSCO). It was disseminated by their EORE teams while delivering sessions

to local communities. In 2022, teachers in school had reported using this application and incorporating it in their curriculum for students to use as well.⁴¹⁹

In another innovative example, contamination information was made available to be accessed by the public. In 2022, iMMAP Iraq announced the launch of its new Risk Mitigation Resource Center incident geoportal. Although discontinued at this time, this dashboard presents incident reports, obtained from online reliable media sources and recorded in the iMMAP Explosive Hazard Incidents database. The geoportal has interactive tools to enable user tracking of incidents throughout Iraq and by Governorate. It provides an overview of various incident types, including national security operations, explosive hazard incidents, and total number of casualties.⁴²⁰

Newer modalities of EORE are being adopted by several other operators as well. MAG has partnered with a local company to produce over 30 videos in both Kurdish and Arabic, considering culture and different types of beneficiaries, to cover communities near the ongoing operations in legacy minefields in KRI as well as in other areas.⁴²¹ The HALO Trust, in partnership with UNICEF, has undertaken a social media campaign focusing on Facebook ads to raise awareness. At the same time, UNICEF has reported using several different dissemination tools including radio channels and videos, and has plans to create a mobile application.⁴²²

Since the COVID-19 pandemic, NPA has also incorporated more digital programmes. In remote areas of the south, NPA has disseminated risk education video messaging over Whatsapp, sent to families through *mokhtars* including a link where they can complete a short survey to also provide information on who watched the video. During the early stages of COVID-19 when in-person EORE was not possible, NPA conducted campaigns through local radio stations explaining what to do in the case of seeing a suspicious object and how to report it.⁴²³

TRAINING OF TRAINERS

Whilst many mine action operators provide EORE directly to individuals and communities impacted by EO contamination, adopting a training of trainers (ToT) approach to risk education can be a more sustainable and effective way of ensuring behavioural change. By training educators or other local community members, ToT can ensure that work to raise awareness about EO risk within communities continues to be provided over longer periods of time, and that EORE courses promote local ownership and leadership.

UNMAS supports teacher focal points in these areas with ToT, also providing them with educational materials such as posters and brochures. In 2021 for instance, UNMAS delivered EORE training to 33 community focal points (20 men, 13 women) in Sinjar and Telafar, and 53 community focal points in Ninewa and Anbar, who now act as educators in their communities.⁴²⁴ ⁴²⁵ The training provided community focal points with the skills and equipment to deliver EORE in their communities, to report any suspected EO contamination, and to raise any additional needs or high-risk behaviour observed. The impact of this is long term, as the delivery of messaging can continue if funding for training has ended, encouraging people to adopt safe behaviours. UNMAS, along with its implementing partner, has also worked to build institutional capacity in the Ninewa Directorate of Education, and to support both the Directorate and the Ministry of Education to undertake EORE initiatives.⁴²⁶ As a result, 12 trainers from the Directorate were trained to increase their EORE capabilities and to provide ToT to schoolteachers. In 2021, 927 teachers were trained with over 10,000 schoolchildren receiving EORE training as a result. The DMA has also begun delivering ToT sessions for youths, teachers, and social workers, supported by UNICEF through funding from the German KfW Development Bank.⁴²⁷

In the KRI, MAG has also collaborated with IKMAA and the Department of Education to support the integration of risk education into the school curriculum as part of Kurdish language lessons. This included training teachers to deliver risk education messages to 3rd and 5th grade primary schoolchildren (9 and 11 years old). In addition to this, MAG regularly provides EORE to ensure that the messaging is delivered to as many teachers as possible. Furthermore, in coordination with IKMAA, MAG carries out a programme to involve teachers in focal point training

courses.⁴²⁸ In August 2022, IKMAA trained 18 teachers from 18 schools across Erbil and Duhok provinces, all of whom have also been serving as safety wardens in their communities. Since this training, the focal points have reported more than 50 items of EO to IKMAA.⁴²⁹

In many cases, sport is used as a medium through which children can be taught EORE in a memorable and effective way. Recognising this, the DMA coordinates with the Ministry of Children's Culture and the teachers' union on utilising recreational activities and sports including football, to raise awareness of the risks of EO. In one example, the DMA facilitated a ToT course for physical education teachers, in partnership with a local NGO, Bustan Association for Children's Protection & Education, and together with the Spirit of Soccer organisation, in Ninewa Governorate, Al-Hamdaniya District. One teacher from each of the 27 schools participated in this training (17 men, 10 women).⁴³⁰ The course ensured that instructors would be able to return to their own schools and provide EORE through physical education classes to students. By providing a single ToT course, this partnership ensured that many children would be able to receive EORE in different schools across the District.



ToT course for physical education instructors facilitated by the DMA, October 2022. Source: DMA



ToT course for young people on EORE run by the DMA jointly with the Bustan Association, with the support of the Ministry of Sports and Youth in Babil, August 2022. Source: DMA

COMMUNITY AND YOUTH ENGAGEMENT

EORE in Iraq has focused on community and youth spaces to build local engagement, and to ensure that training caters to the needs of groups at risk, including children. Innovative approaches to youth engagement for EORE delivery has been witnessed across various organisations throughout Iraq.

Spirit of Soccer is one example of this type of engagement. It is an organisation which trains local soccer coaches to raise awareness of EO through a unique curriculum combining soccer training with EORE. It has worked to raise awareness about EO in Iraq since 2009, with over 50 affiliated instructors visiting schools and communities to teach young people about the dangers of EO through soccer.⁴³¹ In 2019, the organisation had reached over 300,000 children. In addition to delivering direct training, Spirit of Soccer also organises ToT in different cities including Kut, Ramadai, and Samawah. These ToT sessions aim to generate a network of volunteers who can use their skills to spread awareness of EO in different areas.

EORE initiatives have also recognised that young people can be more than simple beneficiaries of EORE. A two-day training course held in August 2022 taught young athletes to deliver risk education in youth forums within various Districts affected by EO. The training involved 30 youth representatives in cooperation with the Bustan Association and with the support of the Ministry of Sports and Youth in the Babil Governorate. The training course included a theoretical aspect, delivered by a DMA official, as well as a technical aspect on passing awareness messages through sports activities and the game of football. The aim of training was to qualify participating youth representatives as activists in the delivery of awareness messaging in their affected communities. Football was used to engage a participatory approach in EORE, especially targeting adolescents while providing an opportunity to enhance community well-being.⁴³²

UNMAS supported the training of volunteer Risk Education Youth Ambassadors (REYA) who volunteered to deliver safety messages to their affected communities. The purpose of this activity was to ensure the sustainability of EORE messages among the affected communities through these ambassadors. Individuals are eager to volunteer and are selected from different areas of the community itself; they are then made known to the *mokhtar*, so that they can be reported to in case anything is needed. They can also be referred to in the community in case of any questions related to safety, behaviour, and reporting.⁴³³

In 2022, IHSCO provided EORE training to 10 REYA from the Ninewa Governorate, five men and five women. They were able to reach a reported 3,853 beneficiaries and disseminated over 6,000 items of EORE print materials.⁴³⁴

By delivering EORE tailored to the specific needs of children and youth populations, mine action organisations aim to reduce casualties in the wider community, with a focus on those most at risk. At the same time, ToT approaches through creative and recreational activities also support the psychological and social well-being of children of all ages. This has supported **SDG 16** Peace, Justice and Strong Institutions, in particular **target 16.1** on the reduction of all forms of violence.

These EORE interventions were undertaken through necessary coordination and partnerships between organisations across different sectors, contributing to **SDG 17** Partnerships for the Goals and its **target 17.9** to enhance international support for capacity building. Similarly, these partnerships have allowed for contributions to **target 16.a** and the strengthening of national institutions to prevent violence, including through international cooperation.



Searchers from Global Clearance Solutions (GCS) on International Women's Day in Tel Keif, Ninawa, March 2023. Source: UNMAS

4. GENDER AND DIVERSITY MAINSTREAMING

FIGURE 10

CONTRIBUTION OF GENDER AND DIVERSITY MAINSTREAMING TO THE SDG TARGETS IN IRAQ



- 1.4** Equal rights to economic resources and access to basic services



- 10.2** Social, economic, political inclusion of all



- 5.1** End all forms of discrimination against all women and girls
- 5.2** Elimination of violence against women and girls
- 5.5** Women's full and effective participation at all levels of decision making
- 5.a** Women's equal rights to economic resources
- 5.c** Strengthened policies and legislation for gender equality



- 11.1** Access to adequate, safe and affordable housing



- 16.b** Non-discriminatory laws and policies



- 8.5** Full and productive employment and decent work

The wording of the SDG targets listed above has been simplified; the full list of targets and their official names can be found on the United Nations website: <https://www.un.org/sustainabledevelopment/>

As emphasised by UN Security Council resolution 1325 on women, peace and security, there is a need for all parties to ensure that mine clearance and mine awareness programmes consider the special needs of women and girls.⁴³⁵ In line with this, mine action works to improve the impact of interventions on affected women, girls, boys and men from diverse groups.

This section focuses on the direct contributions of gender and diversity mainstreaming to the Sustainable Development Goals (SDGs). However, it should be noted that, to ensure that the overarching principle of leaving no one behind is upheld, gender and diversity mainstreaming needs to be implemented and monitored as a cross-cutting approach in all mine action programmes, projects, and activities.

Women, girls, boys, and men are affected differently by explosive ordnance (EO). As a result, gender and diversity sensitive approaches in mine action are crucial to ensuring that programming has an equal impact on beneficiaries, taking into consideration the differing needs, priorities, and barriers to access all members of a community. Women, girls, boys, and men of different ages in a community for instance can carry different knowledge about contaminated areas in their communities, as a result of gender specific mobility patterns, roles, and responsibilities. Power dynamics based on gender, age, physical ability, ethnicity, among other diversity dimensions, means that different groups will have different access capabilities to participate in activities such as data-gathering and decision-making processes.⁴³⁶

Iraq's National Mine Action Strategy acknowledges the importance of considering the differing needs of women, girls, boys, and men in the programming and prioritisation of activities, as varied roles, responsibilities, and experiences shape the ways in which they may be affected by EO contamination. With many mine action activities carried out in liberated areas and internally displaced persons (IDP) camps, the Strategy notes the importance of being aware of the devastating and gender-relevant impacts of the war with Daesh. These include recruitment of men and boys to the armed forces and militia groups, targeted killings and abuse, and sexual violence, particularly against women and girls. The Strategy further affirms that collecting and reflecting on sex, age, and disability disaggregated data for the targeted design of projects is essential for the effectiveness, inclusivity, and sustainability of results.⁴³⁷

Iraq ranked 152 out of 153 countries in the Global Gender Gap Report 2020 and 146 out of 162 countries in the Gender Inequality Index. Women in Iraq are also disproportionately affected by poverty, and the constraints and challenges surrounding it. The UN Economic and Social Commission for Western Africa regional gender gap report further highlights the gender-based dimension of poverty in Iraq, citing that over 60 percent of women's work is unpaid as well as a great disparity in the unemployment rate for women (31 percent) and men (10 percent).⁴³⁸

According to Article 14 of Iraq's Constitution (2005), Iraqis are equal before the law without discrimination based on gender, race, ethnicity, nationality, origin, colour, religion, sect, belief or opinion, economic or societal status.⁴³⁹ Its Article 16 also guarantees the right to equal opportunities for all Iraqis, and the State's role in ensuring this.⁴⁴⁰

Among the recent national legislative and policy frameworks and action plans adopted by Iraq regarding gender equality are the following:

- Iraq adopted its first National Action Plan (NAP) for the United Nations Security Council Resolution 1325 on Women, Peace and Security in 2014, and was the first country in the Middle East and North Africa to adopt a NAP for its implementation.⁴⁴¹ The Directorate for Mine Action's (DMA's) Gender Focal Point, who heads the DMA's gender unit, participated in its development.⁴⁴²

- Iraq's first National Strategy to Combat Violence Against Women and Girls was adopted in 2013, and an updated version developed for 2018–2030.⁴⁴³ The Kurdistan Regional Government (KRG) has a domestic violence law which addresses violence against women, including in Articles 128, 141, 377 of the Penal Code and Article 125 of the Personal Status Law No. 188 of 1959.⁴⁴⁴ KRG has adopted an anti-violence strategy and is also working on a strategy for the advancement of women.
- Iraq ratified the Convention on the Elimination of All forms of Discrimination against Women (CEDAW) in 1986 and the Convention on the Rights of the Child in 1994.
- Iraq's National Development Plan presents 10 social challenges, including two related to gender and diversity, and five cross-cutting objectives to empower women under the human and social development objectives of the Plan.⁴⁴⁵

In mine action specifically, there have been growing attempts to better mainstream gender across national agencies. In its administration, the Iraqi Kurdistan Mine Action Agency (IKMAA) employs 29 percent women (112 men and 33 women).⁴⁴⁶ Women employees in the DMA make up 32 percent of the total staff, with 21 women in management roles responsible for departments and sections in the DMA, out of a total of 85 women employed. The DMA also reports inclusivity in its employment of individuals from different backgrounds (Kurdish, Yazidi, Christian, and Turkmen) as well as persons with disabilities through its various units, especially in its Baghdad headquarters.⁴⁴⁷

Additionally, the DMA has engaged with operators since 2016 to further strengthen gender and diversity in mine action, and there has been an overall increase in the number of women staff other than in administrative tasks, as well as increased capacity building and training opportunities.⁴⁴⁸

In 2017, the DMA established a Gender Unit which is responsible for integrating gender mainstreaming into the national mine action programming and its activities, as well as addressing any gender-related

gaps which have not been filled. These efforts include mainstreaming equal treatment of women and men in mine action, in addition to providing beneficiaries with equitable access to mine action activities for women, girls, boys, and men, including persons with disabilities (PWDs). The Gender Unit also organises workshops internally to further the implementation of gender mainstreaming across DMA activities. These courses are held for both DMA staff as well as mine action operators, delivered by the Planning and Information Department/Training Section of the DMA.⁴⁴⁹ In 2019, the Gender Unit was involved in the implementation of non-technical survey (NTS) and risk education, particularly in areas liberated from Daesh.⁴⁵⁰

Beyond the integration of gender mainstreaming into projects and procurement, capacity building for all staff was mentioned across the DMA, IKMAA, and operators that were interviewed. This includes involving women in training and providing professional and skill-building opportunities for them. For example, 15 women were included in explosive ordnance disposal (EOD) training organised by the UN Mine Action Service (UNMAS) in 2021–2022. This included participants from several organisations, including two from IKMAA, three from the DMA, seven from UNMAS, and one from each of The HALO Trust, Shareteah Humanitarian Organization, and the Health and Social Care Organization in Iraq (IHSCO).⁴⁵¹



Participants of all-woman EOD Level 1 & 2 training that took place in January 2022 in both the Kurdistan Region of Iraq and in Salman Pak, south of Baghdad. Source: UNMAS

The gender and diversity mainstreaming efforts in mine action in Iraq demonstrate a growing understanding of the disproportionate impacts of conflict on women and girls and minority groups, as well as the need to ensure full and equal participation of women and girls. These efforts have helped to improve the integration of gender-specific needs in programming as well as improve women's representation in mine action, contributing to **SDG 5** Gender Equality and its **target 5.1** on ending all forms of discrimination against women and girls. There has also been action taken to anchor gender mainstreaming efforts in national policy and law, contributing to **target 5.c** on adopting and strengthening policies and legislation. Overall, these efforts contribute to **SDG 10** Reduced Inequalities and its **target 10.2** on empowering and promoting the social, economic, and political inclusion of all.

GENDER AND DIVERSITY MAINSTREAMING WITHIN MINE ACTION ORGANISATIONS

Many mine action operators in Iraq have reported efforts to better mainstream gender and diversity within their own organisations as well as supporting efforts across the sector. For instance, UNMAS has provided implementing partners with a Gender and Diversity Toolkit,⁴⁵² developed by UNMAS with the Geneva International Centre for Humanitarian Demining (GICHD) and Gender and Mine Action Programme (GMAP), aimed at improving gender and diversity mainstreaming in the sector for the process of hiring and retaining staff, and ensuring a gender-sensitive workplace. The toolkit includes guidance for implementing organisations on how to incorporate gender and diversity mainstreaming into their work.

In its effort to build sustainable capacity for gender and diversity mainstreaming in mine action, Norwegian People's Aid (NPA) established a Gender Focal Points Network, designating one woman and one man per project location. All NPA employees in Iraq (about 550 staff in total) have been trained on various topics including gender and diversity in mine action, gender equality in the workforce, and gender analysis. Gender-

focused research and surveys were also conducted to gain a better understanding of gender mainstreaming in the sector. The organisation has also conducted a gender and diversity analysis in 12 Districts across Anbar, Basra, and Muthanna Governorates since December 2019. One of NPA's achievements in Iraq has been the increase in the number of women working in operational roles, from 1 percent in January 2020 to 23 percent in March 2023.⁴⁵³

NPA also has a Gender Policy, which promotes equal rights for all regardless of sex, ethnicity, religion, sexual orientation, disability, and social status. NPA's policy acknowledges the need for greater influence and involvement of women in organisational activities, while at the same time emphasising the importance of increasing men's participation in gender equality efforts.⁴⁵⁴

Stakeholders have acknowledged that the perception of women and mothers as the primary caregivers results in a double burden, with women working both inside and outside the home.⁴⁵⁵ Regardless of having a job, women employees often wake up earlier, preparing food for their family before starting the workday, followed by additional responsibilities on returning home.⁴⁵⁶ The HALO Trust's Equality, Diversity and Inclusion Policy commits to ensuring equal opportunities, inclusion, and gender and diversity sensitive approaches across its programmes.⁴⁵⁷ Considering these pressures, The HALO Trust has implemented a Childcare Project and started providing financial support in the form of childcare stipends to the mothers of young children. This support was secured after women staff reported that they would be forced to resign if unable to find childcare support. The HALO Trust in Iraq is hopeful to start recruiting and to appeal to more women as a larger base thanks to these stipends.⁴⁵⁸

In 2021, Mines Advisory Group (MAG) was able to appoint its first Gender Focal Point in Iraq, following the participation of a community liaison team leader in the GICHD's Gender Focal Point Capacity Development Programme. The Gender Focal Point led an expansion of inclusion initiatives in the organisation such as the integration of gender and diversity indicators in MAG's reporting forms and the initiation of Community Focal Point sessions which encourage women in the organisation to participate and

share ideas and concerns. Additional gender, diversity and inclusion-related goals and initiatives included the increased involvement of PWDs and providing gender and diversity training to staff in all MAG field locations.⁴⁵⁹

Danish Refugee Council (DRC) implements a Safeguarding System, which is embedded institutionally to help protect and mitigate any risk of harm that can affect staff and stakeholders. In addition to delineating human resources processes, it also covers child protection and measures for ensuring the safety and well-being of staff including pregnant staff⁴⁶⁰ and staff with chronic health conditions.⁴⁶¹

The implementation of inclusion policies by mine action operators has allowed for an increase in the representation of women staff as well as enabling greater integration and more suitable conditions to support female staff. These efforts contribute to **SDG 5** Gender Equality and its **target 5.5** on women's full and effective participation and equal opportunities for leadership at all levels.

MIXED GENDER AND ALL-WOMAN CLEARANCE TEAMS

National authorities and other mine action stakeholders have noted challenges around the inclusion and equal employment of women in operational activities (such as NTS and clearance teams). Gender-based perceptions around mine action have presented barriers, including some challenges in terms of cultural acceptance in social and familial contexts. Given the physical dangers of mine action work and the masculine, military-style uniforms of mine action staff, operational work is often viewed as a job exclusive to men. In recent years however, there has been an increase in the number of women recruited to clearance jobs in mine action.⁴⁶²

Equal training and employment opportunities can create a change in attitude and in perceptions around work, making the mine action sector more available for women in Iraq. In the case of UNMAS-supported teams where there were initially no women in operational (technical and explosive ordnance risk education (EORE)) units, there is now female participation

after six years of Daesh occupation. All UNMAS grants and contracts have a requirement for gender mainstreaming, and average 25 percent of female staff. This change in perception has a ripple effect that extends beyond the number of square metres cleared.⁴⁶³ UNMAS reports this community-led change in attitudes in its baseline study of the Socio-Economic Empowerment of Women Through Mine Action in Ninewa Governorate, which examines data from UNMAS-supported mixed-sex explosive hazard management (EHM) and EORE teams.⁴⁶⁴ Implementing partners for mixed-sex teams who were interviewed for the baseline study were Fondation Suisse de déminage (EHM),⁴⁶⁵ Global Clearance Solutions (EHM and EORE), IHSCO (EORE), Al-Ghad League for Woman & Child Care (EORE), and Humanity and Inclusion (EORE).⁴⁶⁶

In one example, it was reported that in 2014–2016 there was a ‘180 degree’ change in the role of women and men in the Sinjar community. Young men and women insisted on clearance teams being equally mixed rather than separated by sex,⁴⁶⁷ and concluded that men and women working together and ensuring diversity in the group, would result in a stronger team. The team was formed in 2019, with people originally from Sinjar returning and starting clearance, motivated by the desire to make their home a safe place for their community. Following this experience, UNMAS thought to normalise women’s inclusion in mine action internally and externally with implementing partners, ensuring that there is mentorship and empowerment at decision-making levels across risk education, community liaison, and clearance.⁴⁶⁸

MAG has made important steps towards gender mainstreaming, continuing to employ all-woman and mixed gender demining teams, and gender-balanced community liaison (CL) teams to ensure meaningful participation of women in CL activities.

As of February 2023, MAG had approximately 12 all-woman or mixed sex teams (varying as deminers move between teams). As of October 2022, there were 126 female staff out of a total of 779 MAG Iraq staff. Women are employed in diverse positions across the organisation including in key leadership positions: Operations (68 including 5 team leaders, 2 deputy team leaders, 1 senior deputy team leader, 2 dog handlers, 2 kennel handlers and 1 mechanical asset operator); Medical (8 medics); Support

(25 including field support officers, logistics, and other administrative positions); and Community Liaison (25 community liaison staff including 2 CL supervisors and 3 CL team leaders).⁴⁶⁹

Experience has shown that the more women are employed in mine clearance, the lower the barriers become for more women to be recruited.⁴⁷⁰ Increased employment opportunities have not only contributed to the empowerment of women as individuals, and perceptions around traditional gender roles, but have also contributed to the socio-economic recovery of their respective communities.⁴⁷¹

Particularly in situations of displacement and considering economic imperatives in Iraq, there is a greater impetus for women to accept jobs in the mine action sector, something that would previously have been considered non-traditional and unconventional.⁴⁷² Women from Sinjar, for example, reported feeling pride in being able to contribute to the financial situation of their families and their ability to help rebuild their homes and communities.^{473 474}

By providing employment opportunities for women in operations teams, mine action is challenging traditional limitations towards women's employment and contributing to **SDG 5** Gender Equality and its **target 5.5** on women's full and effective participation and equal opportunities for leadership and decision-making at all levels. It has also contributed to **SDG 8** Decent work and Economic Growth, and its **target 8.5** on full and productive employment and decent work for all.



All-woman clearance team from GCS during operations in Barbarosh, a neighborhood in Sinjar, enabling the population to return home, August 2022. Source: UNMAS



GCS battle area clearance operations in Tel Kaif, Ninewa, March 2023. Source: UNMAS

PROTECTION MECHANISMS

While the mine action sector still faces some challenges to fully mainstream links to protection activities,^{475 476} there is great potential in this regard to identify certain risks in populations and to address these situations more effectively through referrals. An integrated approach leverages the sustainable impacts of mine action and considers mine action interventions in communities to be interlinked with other issues. This includes environmental protection, social cohesion, livelihoods, safe shelter, land ownership and housing land and property (HLP) rights, prevention of violence, and gender-based violence.⁴⁷⁷

For example, protection is central to the DRC's emergency response with the aim of strengthening the sustainable impact of activities through an integrated programming approach. Mainstreaming protection also ensures safety, dignity, non-discrimination, and impartial access to affected populations. Humanitarian demining and EORE are included as a key aspect of its protection programming, alongside other sectors like legal assistance, child protection, community-based protection, gender-based violence, and psychosocial support.⁴⁷⁸

DRC links mine action to protection through its designated PSEA Focal Points (protection against sexual exploitation and abuse) in its various locations. These Focal Points (one man and one woman) raise awareness for all staff, including its demining staff, through the dissemination and production of material, posters, and booklets with key messages for all staff, outlining PSEA standards for the humanitarian sector and how to raise concerns. This training is in line with the Inter-Agency Standing Committee (IASC) global agenda⁴⁷⁹ and occurs alongside the general code of conduct training. This safeguarding lens takes into consideration the highly male-dominated environment of mine action. PSEA Focal Points are interinstitutional, and there are currently 15 across the entire organisation in Iraq.^{480 481}

Ensuring an integrated approach to protection programming, including through the integration of PSEA Focal Points, has leveraged the role of mine action in coordination with other protection activities, contributing directly to **SDG 5** Gender Equality, and its **target 5.2** on the elimination of

violence against women and girls and **SDG 16** Peace, Justice and Strong Institutions, and its **target 16.2** on ending abuse, exploitation and all forms of violence.

MINE ACTION AND HOUSING, LAND AND PROPERTY RIGHTS

HLP rights is an important issue for the mine action sector and it can benefit greatly from the support and expertise of actors in other sectors. HLP rights are particularly important for ensuring that *Do No Harm* principles are followed and can be a key consideration for conducting conflict-sensitive interventions in certain contexts due to the potential for land disputes.

In Iraq, collaboration between mine action and HLP stakeholders is particularly crucial considering the complex EO contamination and displacement issues across different periods, resulting in negative practices such as “secondary occupation of properties, engaging in removal of [explosive hazards] by civilians, or paying third party groups to do so”.⁴⁸² Barriers to HLP rights include a lack of, or destruction of, formal ownership documentation as well as secondary occupation of residential properties.⁴⁸³ A range of issues can also be both relevant and sensitive to address, such as the disproportionate impact of HLP issues on households headed by women and widows due to cultural norms and barriers, sensitivities surrounding properties with cultural or historical significance that require additional verification, and the legacy of privilege that directs land use and ownership.⁴⁸⁴

Daesh systematically confiscated property from persons deemed disloyal, mostly from minority groups such as Yazidi, Christian and Shia communities, as well as those affiliated with the Iraqi government.⁴⁸⁵ Confiscation of both housing and agricultural land was followed by its redistribution and sale. New owners were often provided with a written sales document, but its legality is not recognised by the Iraqi government today. Despite this however, the new occupiers are often not ready to vacate, resulting in overlapping claims on single pieces of property. Properties belonging to IDPs were also occupied by the Iraqi Security Forces and allied militias

when areas were retaken as well. The outcome has been insufficient availability of housing, illegal occupation, land grabbing, and competing property claims.⁴⁸⁶

Only a small percentage of Iraqis have the appropriate documentation due to the destruction of many Land Registry offices during the conflict which hinders property ownership transfers and registration. 33 percent of in-camp IDP households cited damage/destruction, secondary occupation, or lack of proof of ownership, as a reason for not returning to their areas of origin.⁴⁸⁷

Women and girls face limitations to their ability to access housing, land, and property rights when attempting to prove their legality of occupation. They also often experience discriminatory treatment rooted in cultural norms which further prevents the rightful inheritance of land. This discrimination presents additional barriers in situations where women are missing certain ownership documents and trying to reclaim possession of occupied property, access courts, and access compensation claims for damaged or destroyed properties.⁴⁸⁸ Households headed by women and widows have been reported to be particularly vulnerable when it comes to tenure security, given the cultural factors and norms that do not allow for their formal registration as property owners. The HLP rights verification and due diligence process as jointly outlined by the Mine Action Sub-Cluster and Housing, Land, and Property Sub-Cluster⁴⁸⁹ include ensuring that women, persons with disabilities, and other vulnerable groups are not excluded.⁴⁹⁰

Between October 2019 and September 2020, MAG and the Norwegian Refugee Council (NRC) undertook a formal partnership which focused on linking mine action and HLP issues and enabled MAG to integrate and mainstream HLP across their processes. Through this partnership, MAG incorporated context-specific analysis of local HLP issues through assessment and mapping of tenure systems, and identification of needs and barriers across groups.⁴⁹¹ NRC support through workshops and training allowed MAG to develop procedures for due diligence and expand the role of community liaison teams to collect information on HLP issues and contribute information to HLP due diligence processes. The partnership also

enabled the longer-term provision of legal assistance from NRC on HLP issues through the development of a referral system in cases of disputes or related legal identity issues.⁴⁹²

The success of the partnership highlights the importance of work across sectors to ensure the best long-term outcomes for beneficiaries. As an actor working specifically on HLP issues, NRC was able to provide its expertise to support the integration of HLP considerations throughout MAG's operational procedures.

This partnership better ensures that those impacted by EO can access their HLP rights, contributing to **SDG 1** No Poverty and its **target 1.4** on equal rights to economic resources and access to basic services, including ownership and control over land and other forms of property, as well as **SDG 11** Sustainable Cities and Communities and its **target 11.1** on access to adequate, safe and affordable housing.

As HLP issues disproportionately affected women, these efforts also support **SDG 5** Gender Equality and its **target 5.a** on women's equal rights to economic resources.

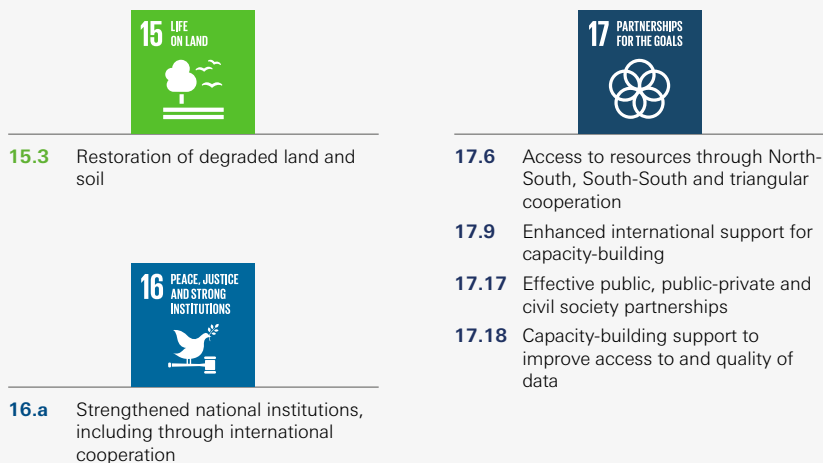


Delegates from DMA and IKMAA at the Twentieth Meeting of the States Parties to the Convention on the prohibition of anti-personnel mines, November 2022, UN Geneva. Source: AP Mine Ban Convention ISU

5. PARTNERSHIPS AND COOPERATION

FIGURE 11

CONTRIBUTION OF PARTNERSHIPS AND COOPERATION TO THE SDG TARGETS IN IRAQ



The wording of the SDG targets listed above has been simplified; the full list of targets and their official names can be found on the United Nations website: <https://www.un.org/sustainabledevelopment/>

As recognised by UN Security Council resolution 2365, partnerships and cooperation are central to the success of mine action, particularly among national authorities, the United Nations, regional organisations, civil society, and the private sector.⁴⁹³

Partnerships are voluntary and collaborative relationships in which all participants agree to work together to achieve a common purpose or undertake a specific task, as mutually agreed.⁴⁹⁴

The 2030 Agenda for Sustainable Development stresses the importance of drawing on a diversity of financial resources, beyond official development assistance.^{495 496} This points to the key role of bridging partnerships for the Sustainable Development Goals (SDGs) between philanthropic institutions, the United Nations, governments, the private sector, and civil society.

Both within and beyond the mine action sector, partnerships and coordination have been fundamental in facilitating sustainable reconstruction and rehabilitation efforts during this critical time, contributing towards the safe transition and recovery of returning communities. Coordination mechanisms have enabled access to comprehensive services including education, safe housing, drinking and irrigation water, electricity, and other facilities. Mine action therefore continues to directly facilitate the work of other humanitarian organisations working in Iraq, paving the way for the interlinking needs of communities to be addressed.

Partnerships and coordination in Iraq have also been essential to mine action coordination and key to ensuring the long-term institutional capacity of local actors. Internally, the new national mine action strategy highlights the achievement of a unified programme of cooperation between the Directorate of Mine Action (DMA) and the Iraqi Kurdistan Mine Action Agency (IKMAA). It involves regular and structured coordination meetings between the entities. Furthermore, the DMA will work closely with IKMAA to organise bi-annual coordination meetings with Iraqi ministries, international donors, and national and international operators. The DMA and IKMAA will also collaborate with the Ministry of Planning and advocate for inclusion of mine action in broader national programmes, including the National Development Plan and Poverty Reduction Strategy.⁴⁹⁷ The National Mine Action Strategy asserts that strengthened information sharing and coordination with relevant ministries serves to further reinforce the connections between the mine action sector and broader development and humanitarian agendas, including Iraq's Vision for Sustainable Development 2030.⁴⁹⁸

Planning to meet Iraq's commitment to the SDGs is entrusted to the National Committee for Sustainable Development, which is chaired by the Ministry of Planning (MoP) and includes 27 members including ministry representatives, director generals and experts. Ongoing collaboration between the DMA, IKMAA, and the MoP could therefore have positive

implications on the mainstreaming of mine action in sustainable development planning. In January 2022, the MoP launched the Iraq Forum for Sustainable Development in partnership with the United Nations Human Settlements Programme (UN-Habitat).⁴⁹⁹ This platform aims to strengthen and broaden discussions on sustainable development in the country and can open up dialogue and data sharing with more diverse stakeholders, including those in the mine action sector.

At the national level, the DMA coordinates a governmental working group known as the National Forum which provides a platform for discussing the implementation of the Anti-Personnel Mine Ban Convention (APMBC).⁵⁰⁰ The working group allows for governmental oversight on mine action as well as coordination across national and regional agencies. The latest (fourth) meeting of the National Forum, on 21 September 2022, brought together representatives from the Office of the Prime Minister, the General Secretariat of the Ministers Council, as well as major government ministries including Foreign Affairs, Defence, Interior, Oil, Finance, Planning, Trade, and Industry, and national agencies.⁵⁰¹ Representatives from the Governorates including Wassit, Basra, Muthanna, Maysan, Diyala and the environment directorates were also present. Held in Baghdad, the meeting was arranged to discuss the implementation and reporting of Iraq's obligations towards the APMBC, and enabled decisions to be made regarding communication across government agencies, national funds, as well as defining the responsibilities of the separate ministries in attendance.⁵⁰²

*Head of south regional
mine action centre, DMA,
during the Nineteenth
Meeting of the State
Parties of the APMBC in
the Hague, November
2021. Source: AP Mine
Ban Convention ISU*



Regionally, IKMAA met with the Center for Humanitarian Demining and Expertise in Armenia to exchange experiences and develop closer ties in 2022.⁵⁰³ The two agencies signed a memorandum of understanding for further cooperation and IKMAA representatives met with several government representatives from the Armenian Ministry of Defence, and the Department of International Security within the Ministry of Foreign Affairs.

Representatives from the DMA and IKMAA have also been involved in the Arab Regional Cooperation Programme (ARCP), coordinated by the Geneva International Centre for Humanitarian Demining (GICHD), engaging in multi-stakeholder dialogue and knowledge sharing across pillars of the mine action sector. Representatives from both national authorities participated in an ARCP explosive ordnance risk education (EORE) workshop in November 2022, which facilitated cooperation between EORE practitioners from other national mine action authorities and stakeholders to address key challenges, identify needs, and share good practices. Representatives from Norwegian People's Aid (NPA) and Mines Advisory Group (MAG) in Iraq participated in an ARCP Community of Practice workshop in February 2022, which aimed to highlight gender and diversity mainstreaming achievements and discuss lessons learnt, both at the individual and organisational levels, particularly following participation in the ARCP Gender Focal Point Capacity Development Programme conducted by the GICHD.

Partnerships and cooperation outside of the mine action sector has also proven essential to navigating the complicated and challenging terrain of safe return for internally displaced persons (IDPs). The International Organization for Migration for instance regularly coordinates with the UN Mine Action Service (UNMAS) to provide critical information regarding the risks of explosive hazards in affected communities.⁵⁰⁴

Through this multi-stakeholder engagement and partnerships at different levels, mine action outcomes are closely linked to **SDG 17** Partnerships for the Goals and its **target 17.6** on enhancing all types of cooperation and knowledge sharing on mutually agreed terms, and **target 17.9** on supporting capacity building to implement all the SDGs (including all types of collaboration) through national plans.

These coordination efforts improve the coherence of national strategies for mine action and ensure contributions towards **SDG 16** Peace, Justice and Strong Institutions and its **target 16.a** on strengthened national institutions, including through international cooperation.

INFORMATION MANAGEMENT

Strengthening the capacity for knowledge sharing through the mobilisation of technological resources has been key towards the achievement of the SDGs. Establishment of a common operating framework facilitates information sharing among implementing partners and promotes effective planning and prioritisation processes across the pillars of land release, victim assistance, and EORE.⁵⁰⁵

In this context, iMMAP Iraq's Information Management System for Mine Action (IMSMA) and geographic information systems (GIS) technical expertise provide technical and information management and capacity building support to IKMAA and the DMA along with implementing partners⁵⁰⁶ working in mine action in Iraq since 2003.

The DMA requested support from the GICHD to implement the latest generation of IMSMA – IMSMA Core⁵⁰⁷ – in Iraq, and implementation started at the end of 2022. iMMAP is currently supporting the DMA to move to digital forms and to implement IMSMA Core. iMMAP also designed a web-based Open-Source Database for Mine Action for IKMAA which was released in 2021. It allows users to customise the system according to evolving demands and requirements as well as changing the scope of information of mine action activities.⁵⁰⁸ This enables updates to be made according to the needs and requirements of IKMAA for reporting, including the addition of specific fields or updating questions on data collection forms to reflect the work that is taking place.⁵⁰⁹

Representatives from both national authorities participated in the ARCP IMSMA Core workshop and IMSMA Core training in 2022. Direct support from the GICHD on the use of IMSMA and IMSMA Core also aims to

improve data collection and management capabilities. This support will promote close collaboration with international operators to ensure alignment with other information management systems.

There are also efforts to apply data analysis and information sharing methods to address gaps in mine action while ensuring the data can be made to be understood by a range of stakeholders. The Mile Organization for Environmental Protection (MOEP) is a local organisation which aims to improve the data measurement process for understanding the impact of land release on interlinking environmental factors like air quality, flooding, and soil contamination. This information can, for instance, help identify what type of agriculture would be suitable for repairing the soil after clearance. In 2022, MOEP staff organised a skills-building training course for 21 staff members working in information management from the Ministry of Environment (MoE). The overall aim was to strengthen capacity to link mine action data with environmental data, providing tools for visualising the data and creating an ops dashboard that can make this information available to decision makers. Trained individuals will in turn train other MoE staff members in the same way, promoting the continuation and sustainability of this knowledge in practice.⁵¹⁰



Data visualisation training for MoE staff which included GIS remote sensing and spatial analysis, 2022. Source: Mile Organization for Environmental Protection MOEP

By improving information management and the capacity for knowledge sharing, these efforts have enabled contributions to **SDG 17** Partnerships for the Goals, and its **target 17.18** on capacity-building support to improve access to and quality of data. The training initiative of MOEP has particularly strengthened the ability to connect environmental data with mine action data, also contributing to **SDG 15** Life on Land, and its target **15.3** on restoration of degraded land and soil.

LOCALISATION STRATEGIES AND STRENGTHENING THE SUSTAINABLE CAPABILITY OF NATIONAL INSTITUTIONS

In Iraq, the focus in mine action efforts has begun to move towards strengthening national capacity and the localisation of work. In 2021, the mine action Area of Responsibility developed a localisation plan which aimed to prepare for a transition from mine action coordination through the humanitarian cluster system to a nationally led coordination framework.⁵¹¹

National capacity-building efforts have included activities to facilitate cooperation and joint planning between the DMA and IKMAA, as well as targeted technical training in areas such as GIS and advanced quality management, results-based management and strategic planning, and the development of guidelines for thematic areas such as gender mainstreaming.⁵¹²

These efforts also extended to other partners, as UNMAS provided training on mine action management to officials within the Ministry of Interior, including improvised explosive device (IED) disposal and explosive hazard first responder courses.⁵¹³ Training support was also offered to national NGOs on clearance operations, and gender and diversity mainstreaming. UNMAS reported that particular attention was placed on ensuring the inclusion of women throughout its training sessions.^{514 515 516}

COORDINATION MECHANISMS FOR SAFE AND SUSTAINABLE RETURN

As the severity of humanitarian conditions/needs differs greatly by District, coordination between the mine action sector and local authorities has been central to ensuring the safe and sustainable return of communities in Iraq.

Many operators report working closely with local leaders, or *mokhtars*, as a vital aspect of successful operations. *Mokhtars* are an important focal point, providing local knowledge as well as having influence as respected members of the community. As a trusted locally elected representative, *mokhtars* have a deep understanding of the needs and concerns of constituents. They possess a wide network of key stakeholders in the community with whom they can connect operators to, in addition to holding information about accidents, injuries, and present contamination. Organisations seeking permission to conduct a project in the community can further gain support for their efforts through the *mokhtar's* well-established influence.⁵¹⁷

For IDPs (both in-camp and those living outside camps) and returnees, *mokhtars* are a source of trusted information, alongside local authorities, humanitarian/development actors, and friends and family.⁵¹⁸ Encouragement from *mokhtars* has been cited as a reason for IDPs to attempt returning to their homes.⁵¹⁹ In Nuaimiya for instance, operators faced difficulties first in convincing the local population that the area was contaminated. Public figures and *mokhtars* played an important role in helping to warn residents of the contamination risks and to reassure community members once it became safe to return.⁵²⁰

In addition to *mokhtars*, operators such as DanChurchAid report liaising with faith community leaders in Iraq to strengthen local ownership of operations, as well as relying on these partners to provide local expertise, and to help identify vulnerable communities in need of support.⁵²¹

THE PARTNERSHIP MODEL

In 2020, UNMAS developed a partnership model to strengthen national capacity for mine action and promote sustainability. The model formalised capacity development partnerships between national and international partners as a means of knowledge sharing, mentorship, and support. Three partnerships were established between national risk education organisations and international NGOs for capacity building over two years, with the end goal of becoming independent actors with full accreditation, able to conduct the full range of humanitarian mine action activities and trained in the IED-specific context of Iraq.⁵²²

This partnership model demonstrates the importance of considering existing mine action activities in the context of longer-term sustainable development objectives. The importance of building local capacity, in particular, allows for the empowerment of Iraqis through economic opportunity, and educational and technical experience. This programme also recognises the important and unique role of local and national actors who may have a better understanding of local community needs. Existing partnerships are between Fondation Suisse de déminage (FSD) and Shareteah Humanitarian Organization (SHO), The HALO Trust and Al-Ghad League for Woman & Child Care, and DanChurchAid and the Health and Social Care Organization in Iraq (IHSCO).⁵²³

Whilst the partnerships are ongoing, impacts of the model are already evident, as two national NGOs, the SHO and IHSCO, have gained DMA accreditation to undertake IED clearance activities independently, with IHSCO working in areas around Mosul where IEDs are blocking access to agricultural land.⁵²⁴ Al-Ghad League for Woman & Child Care is also on its way to accreditation, with clearance teams working on sites around Garma, a city north of Fallujah.

As the first national NGO in this partnership model to gain accreditation, SHO has had successes to report, having cleared mines around a football field in the village of Sultan Abdullah in the Ninewa District.⁵²⁵ Having been held by Daesh from 2014 to 2016, the village had extensive explosive ordnance (EO) contamination, with buildings, fields, and roads booby-trapped, and EO laid in and around the local football field. During the years

before clearance, this contamination had led to four recorded EO incidents and four victims, with one deceased and three injured. Work by SHO meant land could be released back to local villagers in March 2022, and displaced families have begun returning to their homes. In addition, the football field can now be used, and local electricity transformers can also be accessed and repaired.⁵²⁶



Clearance activities conducted around football field in Sultan Abdullah, March 2022. Source: Shareteah Humanitarian Organization (SHO)

Despite these successes, the impact of the partnership model is not limited to clearance, with support provided in other areas such as administration, finance, and management skills⁵²⁷ (as well as grant management, security, human resources, and monitoring and evaluation).⁵²⁸ The model recognises that a range of other capabilities are necessary to manage, produce, direct, and sustain mine action work such as leadership, management, and resource mobilisation.⁵²⁹ Certain partnerships, such as that between HALO and Al-Ghad League for Woman & Child Care, have also focused on other activities such as EORE, with innovative projects such as the design and construction of a small recreational park meant to share and encourage behaviour change in the Old City of Mosul.⁵³⁰

The use of this partnership model in Iraq has helped to strengthen local capacity and has directly contributed to **SDG 17** Partnerships for the Goals and its **target 17.9** on enhancing international support for capacity building as well as **target 17.17** on encouraging and promoting effective public, public-private, and civil society partnerships.

CONCLUSIONS

The Iraq case study demonstrates clear evidence of the multidimensional impacts of mine action on sustainable development at different levels, reducing risk to local communities and enabling access to essential services and humanitarian aid by removing barriers caused by the presence of explosive ordnance (EO).

The Sustainable Development Goal (SDG) framework enabled the identification of mine action's direct contribution to 15 SDGs and to at least 42 of their targets in Iraq, benefitting the five critical dimensions of the 2030 Agenda: partnership, peace, people, planet, and prosperity.

In addition to physically unblocking access to land for the development of agricultural activities, affecting livelihoods and food security, many other positive results have also resulted from land release. For instance, linkages are found with more efficient resource management and the facilitation of infrastructure projects, such as the Shatt al-Arab Irrigation Channel and Deraluk water dam. The study demonstrates how this has been crucial to promoting sustainable and inclusive economic growth through the enabling of major local productive activities, particularly considering environmental challenges like water scarcity in the region.

Land release in residential areas has particularly been crucial for the safe transition and recovery of returning communities, by making the land accessible for construction and repair of infrastructure including homes, schools, and hospitals. Given the complexity of EO contamination, coordination mechanisms both within and beyond the mine action sector have been crucial to enabling access to comprehensive services including electricity, safe drinking water, among other facilities. In this regard, the study demonstrates the vital enabling role of mine action in facilitating the work of other humanitarian organisations working towards the sustainable rehabilitation, social cohesion, and healing of conflict-affected communities.

The study illustrates the impact of partnerships on strengthening national and local capacities, and supporting targeted and integrated mine action approaches that more effectively reach vulnerable communities. Coordinated efforts on explosive ordnance risk education, local cooperation to ensure safe and effective land release, and capacity-building programmes aim to address the varying levels of access and the needs of

different communities, including for IDPs and Bedouin populations moving across larger regions. Ongoing work to strengthen victim assistance and holistic support for persons with disabilities also presents evidence on the importance of collaborative efforts at a national level. Implementation of this work will similarly require funding support, improved data collection, and capacity development.

The study also highlights the integral role of gender and diversity mainstreaming in supporting efforts towards gender equality within the sector and leveraging the role of mine action, ensuring the best long-term outcomes for beneficiaries. For instance, context-specific analysis of local HLP issues has been important to help address the disproportionate access to housing, land and property rights for women.

The systematic inclusion of mine action in national strategic and policy processes also contributes to the implementation and operationalisation of more comprehensive and holistic mine action efforts. The adoption of relevant indicators related to mine action by the Ministry of Planning would also help to better prioritise the needs of each governorate, further supporting the sustainability of collective outcomes.

Through the SDG framework, the international community and key stakeholders can increase cross-cutting policy coherence, evidence-based planning, reporting, and data collection to help integrate mine action activities into national SDG efforts and enhance their visibility and funding opportunities.

ANNEX

SELECTED FIELD VISIT SITES

LOCATION	DISTRICT	GOVERNORATE	IMPLEMENTING OPERATOR	
Sefdinan village	Al-Hamdaniya	Erbil	FSD	Kurdistan Region of Iraq
Erbil Power Station	Erbil	Erbil	IKMAA	
University of Mosul Al Shifa Hospital	Mosul	Ninewa	Optima	Federal Iraq
Filfiel village Hassan Jallad village	Tel Kaif	Ninewa	GCS	
Nuaimiya, Mesalama & Garma, Albu Tayeh neighbourhoods	Fallujah	Ninewa	The HALO Trust	
Bismayah New City		Baghdad	DMA	

END NOTES

- 1 In September 2000, the United Nations Member States adopted the United Nations Millennium Declaration to reduce extreme poverty, hunger, and child mortality as well as to promote gender equality, and all this through a global partnership. The Declaration set out eight measurable goals, known as the Millennium Development Goals, to be reached by 2015.
- 2 United Nations resolution (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. UN Doc. A/RES/70/1.
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- 4 United Nations Resolution (2015). Doc. A/RES/70/1.
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- ⁶⁵ The HALO Trust has operated since 2018 in Fallujah and Ramadi (Anbar Governorate), and in Baiji and Tikrit (Salah Al-Din Governorate).
- ⁶⁶ DRC has been conducting mine action in Federal Iraq (Basra) since 2003 and in KRI since 2015, operating in Erbil and Duhok Governorates.
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Geneva International Centre for Humanitarian Demining (GICHD)

Maison de la paix, Tower 3, Chemin Eugène-Rigot 2C
PO Box 1300, CH – 1211 Geneva 1, Switzerland

info@gichd.org

gichd.org

