



# THE SUSTAINABLE DEVELOPMENT OUTCOMES OF MINE ACTION IN JORDAN

The Sustainable Development Outcomes of Mine Action in Jordan,  
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# THE SUSTAINABLE DEVELOPMENT OUTCOMES OF MINE ACTION IN JORDAN

## CONTRIBUTORS

### GENEVA INTERNATIONAL CENTRE FOR HUMANITARIAN DEMINING (GICHD)

The GICHD is a neutral, independent and well trusted centre of expertise and knowledge. The GICHD works towards reducing risk to communities caused by explosive ordnance, with a focus on landmines, cluster munitions and ammunition stockpiles.

We help national authorities, international and regional organisations, NGOs and commercial operators to develop and professionalise mine action and ammunition management. The GICHD supports around 40 affected states and territories every year.

### UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

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### NATIONAL COMMITTEE FOR DEMINING AND REHABILITATION (NCDR)

The NCDR is Jordan's national mine action authority. Established in 2000, the NCDR coordinates and supervises all programmes and activities related to mine and explosive remnants of war (ERW) including mine and ERW clearance, mine risk education, survivor and victim assistance, universalisation of the Anti-Personnel Mine Ban Convention, resource mobilisation, and training programmes.

For the past 17 years, Jordan has been working to free its land from 305,500 known landmines which posed a threat to the social and economic development of the affected regions, and to the safety of individuals living in those regions.



## ACKNOWLEDGEMENTS

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The author of this study is Angela Hoyos Iborra, External Relations and Policy Advisor, GICHD, with contributions from Olaf Juergensen, UNDP.



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# LIST OF ACRONYMS AND ABBREVIATIONS

<b>APC</b>	Arab Potash Company	<b>JOD</b>	Jordanian Dinar
<b>APM</b>	Anti-personnel mine	<b>KHBTDA</b>	King Hussein Bin Talal Development Area
<b>APMBC</b>	Anti-Personnel Mine Ban Convention	<b>JAF</b>	Jordanian Armed Forces
<b>ARCP</b>	Arab Regional Cooperation Programme	<b>KCL</b>	King's College London
<b>ASEZA</b>	Aqaba Special Economic Zone Authority	<b>LRS</b>	Landmine retrofit survey
<b>AVM</b>	Anti-vehicle mine	<b>MRE</b>	Mine risk education
<b>EHRE</b>	Explosive hazards risk education	<b>NCDR</b>	National Committee for Demining and Rehabilitation
<b>EORE</b>	Explosive ordnance risk education	<b>NPA</b>	Norwegian People's Aid
<b>ERW</b>	Explosive remnants of war	<b>REC</b>	Royal Engineering Corps
<b>FAO</b>	Food and Agriculture Organization of the United Nations	<b>SDG</b>	Sustainable Development Goal
<b>FTZ</b>	Free trade zone	<b>SIPRI</b>	Stockholm International Peace Research Institute
<b>GDP</b>	Gross domestic product	<b>UNDP</b>	United Nations Development Programme
<b>HCD</b>	Higher Council for the Rights of Persons with Disabilities		
<b>IMAS</b>	International Mine Action Standards		

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# FOREWORD

The recipe for effective, efficient, and sustainable mine action is well known to our sector and includes strong national ownership, strategic planning, and sound operations, underpinned by the application of the latest standards, methods, and tools.

As a result of many years of hard work and collective efforts, a tacit understanding about the transformational role of mine action has emerged, but challenges remain to measure its holistic impact in the medium and long term, beyond the square meters released.

This first-of-its-kind study proves that the 2030 Agenda, which is comprehensive by design and covers the full spectrum of the humanitarian, development, and peace nexus, can help the sector in this regard. It relies on a globally agreed framework that enables practitioners and the international community to assess whether a mine action intervention leads to progress on this triple nexus.

The present study identifies the critical role played by mine action in Jordan to address the immediate humanitarian risks originated by the presence of explosive ordnance contamination, while establishing some of the foundations for sustainable development.

The findings of this study demonstrate how various efforts undertaken in mine action directly contributed to more than sixty targets of the Sustainable Development Goals, promoting the three core elements behind sustainable development: economic growth, social inclusion, and environmental protection.



Evidence-based studies identifying the precise impact of mine action across the SDG spectrum can enable increased policy coherence and help integrate mine action activities into broader national efforts to meet its targets. This, in turn, can enhance stronger and sustainable partnerships to maximize the impact of mine action to ensure that ‘no-one is left behind’.

The example of Jordan testifies to the role of mine action in fostering long term development and we hope that this study will stimulate further global efforts in better connecting mine action and sustainable development.



**HRH Prince  
Mired Raad Zeid Al-Hussein**

Chairman of the Board  
National Committee for Demining  
and Rehabilitation (NCDR)



**Ambassador  
Stefano Toscano**

Director  
Geneva International Centre  
for Humanitarian Demining



# KEY FINDINGS

This is a first-of-its-kind study that comprehensively maps the sustainable development outcomes of mine action activities in Jordan.

The Sustainable Development Outcomes of Mine Action in Jordan, analyses the impact of land release and of the ongoing efforts regarding victim assistance, explosive ordnance risk education (EORE), gender mainstreaming, and partnerships and cooperation, towards the overarching principle of ‘leaving no one behind’, in the medium and long term.

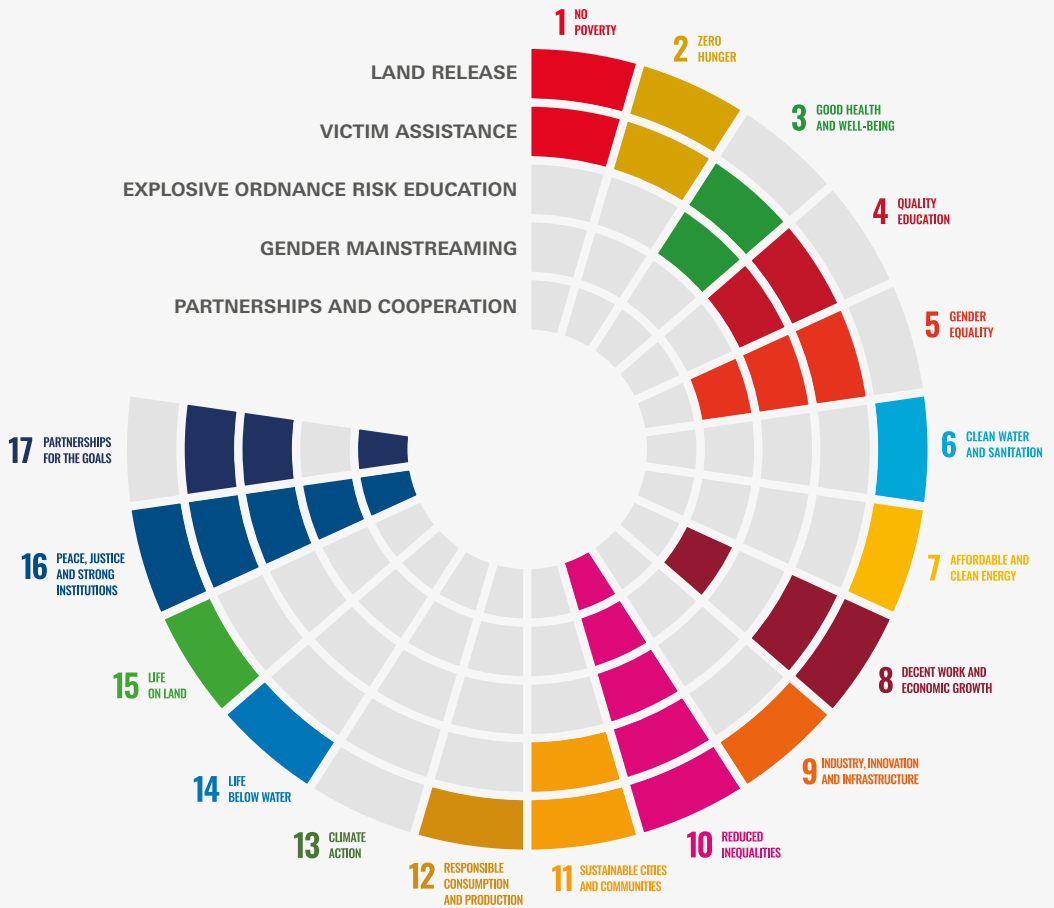
The study presents evidence on the multidimensional and transformative role of mine action by identifying its direct contribution to 16 Sustainable Development Goals (SDGs) and to at least **63 of their targets**. In the Jordanian context, the mine action sector has clearly contributed to the five dimensions of the 2030 Agenda for Sustainable Development: partnership, peace, people, planet and prosperity.

FIGURE 1 CONTRIBUTION OF MINE ACTION TO THE SDGs IN JORDAN



FIGURE 2

## CONTRIBUTION OF MINE ACTION TO THE SDGs BY ACTIVITY IN JORDAN



# LAND RELEASE



In Jordan, mine contamination was mostly concentrated in military-controlled areas close to the borders with Israel and Syria. Eight years after the declaration of completion of Jordan's obligations under Article 5 of the Anti-Personnel Mine Ban Convention, the study analyses the impact of land released in the three primarily affected areas: the northern border with Syria, the Jordan Valley and Aqaba.

Besides the immediate contribution to SDG 16 on peace, justice and strong institutions and its target 16.1 on the reduction of all forms of violence, the study found evidence of the contribution of land release to 12 SDGs and 33 SDG targets.

## THE NORTHERN BORDER

### FACILITATING SAFE MOBILITY

The northern border with Syria was the last contaminated area to be cleared in Jordan in 2012. Land release in this area has directly contributed to **target 10.7** to facilitate orderly, safe, regular and responsible migration and mobility of people.

## ACCESS TO NATURAL RESOURCES

Land release was essential for the construction of the Al-Wehda Dam, which is of major importance for the socio-economic development of this semi-desertic area given that water is Jordan's most scarce resource. Land release has directly contributed to **target 6.1** on access to safe and affordable drinking water, **target 6.4** on increasing water-use efficiency, and **target 6.5** on implementing integrated water management.

Regarding sustainable tourism associated with the environmental upgrade of this area, linkages are found with **target 8.9** on promoting sustainable tourism, and **target 6.6** on restoring water-related ecosystems in the riparian area. However, the contribution to **target 8.9** might be hampered by the Syrian civil war.

## AGRICULTURAL ACTIVITIES

By expanding access to arable fields along the northern border area, land release has helped small-scale family agriculture and herding activities, and contributed to **target 2.3** on increasing agricultural productivity, **target 2.4** on ensuring sustainable food production and consequently to **targets 1.1** and **1.4** that address extreme poverty and access to resources, including land.

## SUSTAINABLE ECONOMIC GROWTH AND INFRASTRUCTURE

Lastly, land release has allowed the establishment of a free trade zone,<sup>1</sup> which has promoted investments in infrastructure and the creation of jobs. Unblocking access to this land has contributed to **target 9.1** on equitable access to infrastructure, **target 9.2.** on inclusive, sustainable industrialisation, and **target 9.3** on integration into value chains and markets.

Additionally, through the creation of formal employment opportunities in a previously contaminated area, linkages are found with **target 8.1** on increasing per capita income growth, and **target 8.2** on increasing economic productivity through innovation.

# THE JORDAN VALLEY

## ACCESS TO NATURAL RESOURCES

By enabling access to the potassium-rich soil and the establishment of the Arab Potash Company, land release has contributed towards **target 9.1** on quality infrastructure to support economic development, **target 9.2** on raising industry's share of employment and GDP, and **target 9.3** on upgrading infrastructure to make it sustainable.

## AGRICULTURAL ACTIVITIES

The Jordan Valley area is considered to be the national 'breadbasket', since it contains most of the arable and irrigated land in the country and has the major concentration of agricultural activity.

By unblocking resources and releasing uncultivated land to the original owners, mine action has contributed to **target 1.4** on ensuring access to economic resources, including over land.

The cleared fields were immediately used for agricultural purposes, which has contributed towards **target 2.1** on ending hunger, **target 2.3** on increasing agricultural productivity, and **target 2.4** on ensuring sustainable food production.

The development of new agricultural projects and the support to small-scale farmers have promoted **target 8.2** on achieving higher productivity through innovation and **target 8.5** on full and productive employment and decent work.

Regarding the quality of land and soil, it is worth noting that former minefields were dried out, and land release has contributed to **target 15.1** on ensuring conservation, restoration and the sustainable use of terrestrial ecosystems, **target 15.3** on restoring degraded land soil affected by desertification and drought, and **target 6.b** on participation of the local communities in water management with regard to the engagement of the Jordan Valley Authority with the local farmers.



## SUSTAINABLE ECONOMIC GROWTH

Land release has also contributed towards **target 8.2** on economic productivity through technological upgrading and diversification and **target 8.5** on productive employment. Regarding the efficient use of natural resources, land release is linked to **target 12.2** on the sustainable management of natural resources, to **target 6.1** on access to water and **target 6.4** on increased water-use efficiency.

Land release in the Baptism Site has contributed to **target 8.9** on promoting sustainable tourism that creates jobs and promotes local culture and products and **target 11.4** aimed at strengthening the efforts to preserve the world's cultural heritage.

## AQABA

### SUSTAINABLE ECONOMIC GROWTH AND BIODIVERSITY

As Jordan's only seaport city, Aqaba is divided into five 'special areas' and plays an important role for the Jordanian economy. The released land is comprised within the Aqaba Special Economic Zone. Taking this into account, the study analyses the case of Ayla, located in a former minefield where hotels, apartments and a marina now operate.

By releasing land, mine action has contributed to **target 9.1** on developing sustainable infrastructure to support economic development, **target 8.1** on per capita economic growth, **target 8.3** on development-oriented productive activities, **target 8.4** on resource consumption efficiency, **target 8.5** on decent work, and especially to **target 8.9** on promoting sustainable tourism that creates local jobs.

In relation to clean energy, the project has promoted **targets 7.1, 7.2** and **7.3** on access to renewable and modern energy and energy efficiency. Additionally, mine clearance has fostered progress towards **target 12.b** on developing tools for monitoring sustainable development impacts for sustainable tourism.

With a clear environmental dimension, which includes numerous phases of the project to be powered by solar energy produced on site, an innovative approach to water efficiency and grey water recycling, land release has contributed to **target 6.3** on water quality, **target 6.4** on water-use efficiency, **target 6.5** on integrated water resources management at all levels, and **target 6.6** on restoring water-related ecosystems. In terms of the conservation of marine resources, mine clearance has also contributed to **target 14.2** on sustainably managed marine and coastal ecosystems to avoid significant adverse impacts.

## SUSTAINABLE INFRASTRUCTURE AND HOUSING

Aqaba has continually expanded since it became a special economic zone in 2001. Since former mined areas were mainly underdeveloped, the released land has provided safe space for large-scale housing developments in response to the population growth.

There are linkages between mine action and **target 8.1** on sustaining per capita economic growth, **target 11.1** on ensuring access to adequate housing, and **target 11.3** on enhancing sustainable urbanisation.

Mine clearance has also supported the provision of clean energy for Aqaba by enabling the establishment of a solar panel farm, therefore contributing to **targets 7.1, 7.2** and **7.3** on access to renewable and modern energy and energy efficiency.

# VICTIM ASSISTANCE



Since 1948, Jordan has had 1,019 reported landmine victims: 828 survivors and 191 fatalities.

The study identified direct contributions of victim assistance to 10 SDGs and 21 of their associated targets.

While survivors still face several challenges related to full access to health services, victim assistance efforts have directly contributed to **target 3.8** on access to essential universal healthcare services and **target 3.c** on increasing the financing, training and recruitment of the health workforce.

By facilitating universal access to healthcare services, there is also a link with **target 5.1** on ending all forms of discrimination.

There are several examples of institutional partnerships that have contributed to **target 17.6** on triangular regional and international cooperation to enhance access to mine action and victim assistance knowledge, **target 17.9** on enhanced international support for implementing effective and targeted capacity building, and **target 17.16** on knowledge sharing and expertise through multi-stakeholder partnerships.

By enabling the active engagement of victims in priority setting, victim assistance is a contributor to **target 16.6** on developing accountable institutions, **target 16.7** on ensuring inclusive decision-making at all levels, and **target 16.b** on non-discriminatory laws and policies.

Victim assistance has also contributed to **target 8.3** on the promotion of development-oriented policies that support productive activities and access to financial services and **target 8.5** on achieving decent work for all.

By promoting victims' and survivors' access to economic resources and financial services, it has promoted **target 1.3** on implementing social protection systems and measures, **target 1.4** on ensuring equal rights, access to economic resources and basic services, **target 1.5** on building resilience, and **target 1.b** on creating frameworks based on pro-poor and gender sensitive development strategies.

Also, by enhancing agricultural activities and income, victim assistance has contributed to **target 2.3** on agricultural productivity and the income of small-scale food producers.

Similarly, by promoting social and economic inclusion and adopting social protection policies, victim assistance has contributed to **target 10.2** on social, economic, and political inclusion, **target 10.3** on endorsing policies and action that reduce inequalities, and **target 10.4** on adopting social protection policies.

In terms of facilitating access to education, victim assistance has contributed to **target 4.5** on ensuring access to education for the vulnerable, including persons with disabilities. Also, by facilitating access to public spaces, victim assistance has contributed to **target 11.7** on access to safe, inclusive and accessible public spaces for persons with disabilities.

# EXPLOSIVE ORDNANCE RISK EDUCATION



The National Committee for Demining and Rehabilitation (NCDR) incorporated a mine risk education programme (MRE)<sup>2</sup> in 2007, and since then, more than 900 volunteers have been trained and certified to work in raising awareness in affected communities.

The study shows direct contributions of explosive ordnance risk education with 6 SDGs and 12 of their associated targets.

The NCDR estimates that the MRE programme has reached more than one million beneficiaries, including Jordanian and Syrian nationals, contributing to **target 16.1** on significantly reducing all forms of violence by promoting a reduction of at-risk behaviour in a sustainable manner and increasing the security situation and the perception of safety in contaminated areas.

By targeting women, girls, boys and men in accordance with their respective needs and by promoting safer behaviour, the MRE programme has contributed to **target 4.5** on eliminating gender disparities in education and **target 4.a** on providing safe, non-violent, inclusive and effective learning environments for all. A linkage with **target 4.7** on enabling skills to promote sustainable development was also found.

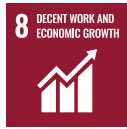
Accordingly, EORE / MRE is also linked with **target 5.1** on ending all forms of discrimination against women and girls.

By establishing several partnerships, the MRE programme has also supported **target 17.6** on triangular regional and international cooperation to enhance knowledge sharing, **target 17.9** on international support for implementing effective and targeted capacity building, and **target 17.16** on knowledge sharing and expertise through multi-stakeholder partnerships.

By reducing risks from explosive ordnance for refugees arriving from or returning to Syria, MRE has contributed to **target 10.7** on facilitating safe migration and mobility of people.

Additionally, by enabling the affected communities to participate in priority setting and strengthening their skills to participate in these processes, EORE is a contributor to **target 16.6** on developing accountable institutions and **target 16.7** on ensuring inclusive decision-making at all levels.

# GENDER MAINSTREAMING



Mine action has shown successful examples in promoting the substantive participation and the inclusion of women in the efforts of the sector in Jordan.

Gender mainstreaming in mine action contributes directly to 4 SDGs and 9 of their associated targets.

Gender mainstreaming in mine action has helped increase female representation and participation and has thus contributed to **target 5.1** on ending all forms of discrimination against women and girls, **target 5.5** on ensuring women's full and effective participation, **target 5.a** on undertaking reforms to give women equal access to economic resources, and **target 5.c** on adopting policies for the promotion of gender equality.

By promoting equal employment opportunities, gender mainstreaming has also contributed to **target 10.2** on empowering and promoting inclusion for all, **target 10.3** on reducing outcome inequalities, **target 10.4** on adopting policies to achieve greater equality, and **target 16.b** on non-discriminatory laws and policies.

Additionally, linkages with **target 8.5** on ensuring decent work for all were found.

# PARTNERSHIPS AND COOPERATION



Partnerships, South-South and triangular cooperation directly contribute to 3 SDGs and 10 of their related targets.

Through multi-stakeholder engagement and partnerships at different levels, mine action outcomes are closely linked to **target 17.3** on mobilising financial resources, **target 17.6** on enhancing all types of cooperation, **target 17.9** on supporting capacity building to implement all the SDGs, **target 17.17** on enhancing public, public-private and civil society partnerships, and **target 17.18** on capacity building support to increase the availability of high-quality, timely, reliable, and disaggregated data.

By promoting good governance, mine action has also contributed to **target 16.6** on developing accountable institutions, **target 16.7** on participatory decision-making at all levels, **target 16.8** on broadening participation of developing countries in institutions of global governance, and **target 16.a** on strengthening relevant national institutions, including through international cooperation.

As a result of these partnerships and exchanges, mine action has contributed to **target 10.b** on encouraging official development assistance and financial flows.



# **PURPOSE AND METHODOLOGY**

The purpose of this study is to map and analyse the overall sustainable development outcomes of mine action in Jordan, using the SDGs as an analytical framework.

While the impact of mine action in terms of the square metres released and the reduction of casualties is immediate and tangible, its contribution to broader sustainable development is not immediate and is more difficult to measure in the medium and long term.

This study attempts to identify the extent to which mine action activities have had a positive impact, considering diverse humanitarian, social, economic and environmental implications, using the SDGs and their targets as the framework of reference.



### **The 2030 Agenda for Sustainable Development**

Building upon the achievements and lessons learnt from the Millennium Development Goals,<sup>3</sup> in 2015 the United Nations Member States adopted the 2030 Agenda for Sustainable Development as a new plan of action for the following 15 years.<sup>4</sup> The 2030 Agenda is universal, transformative and rights-based, under the premise that 'no one will be left behind'.<sup>5</sup> 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.<sup>6</sup>

The SDGs serve to measure the longer-term consequences of mine action interventions, since they allow the integration and assessment of 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 projects.<sup>7</sup>

The Jordan case study allows for analyzing the contributions of mine action in the medium and long term, through an assessment of the impact of land release and the ongoing efforts regarding victim assistance, explosive ordnance risk education, gender mainstreaming, and partnerships and cooperation towards the overarching principle of 'leaving no one behind'.

Although the findings of this study are not meant to serve as an evaluation of the mine action activities conducted, they are an effective reference to highlight the value of connecting sustainable development and mine action as mutually reinforcing agendas across the full cycle of a mine action programme: from planning to monitoring and evaluation.

The study builds on two previous publications: the GICHD-UN Development Programme (UNDP) joint study 'Leaving no one behind: Mine action and the Sustainable Development Goals',<sup>8</sup> and the GICHD-King's College London (KCL)-Stockholm International Peace Research Institute (SIPRI) pilot study entitled 'The Socio-economic Impact of Anti-vehicle Mines in Angola'.<sup>9</sup>

- **'Leaving no one behind: Mine action and the Sustainable Development Goals'**. The GICHD-UNDP study was conducted to better understand the linkages between mine action and the SDGs. It concluded that 12 SDGs are directly linked to mine action, and found indirect links with four other SDGs.
- **'The Socio-economic Impact of Anti-vehicle Mines in Angola'**. The GICHD-KCL-SIPRI pilot study used the SDGs as an analytical framework to illustrate the socio-economic impact of anti-vehicle mine (AVM) contamination in Angola and the benefits of AVM clearance on sustainable development. This study was able to showcase the drastic effect that mine contamination has on agriculture infrastructure and access to essential services. Moreover, the Angolan case study emphasised the benefits of mine clearance across the SDG spectrum.<sup>10</sup>

Based on the findings of these previous research efforts, this first-of-its-kind study comprehensively maps the sustainable development outcomes of mine action activities in Jordan.

In order to obtain all the relevant information, the research combined documentary analysis and field research, including field observation and structured and unstructured interviews<sup>11</sup> with key stakeholders.

The initial research plan was modified due to the mobility restrictions stemming from the COVID-19 pandemic. Specifically, a follow-up field research mission was cancelled, and the primary data collected during the field visit was mainly cross-referenced with secondary data and grey literature sources.<sup>12</sup> For this reason, the research relied mostly on desk analysis and remote exchanges with key stakeholders.

Primary data from the interviews was cross-referenced with available statistics and documentary analysis of various official reports, including those provided by the National Committee for Demining and Rehabilitation (NCDR). The analysis of cleared minefields using NCDR documentation was complemented by satellite imagery analysis to illustrate the development change after the release of previously contaminated land.

Collected information was analysed using the SDGs and their targets as the analytical framework to identify the sustainable development outcomes of mine action activities. Observations in the studied areas were centered on the five critical dimensions at the core of the 2030 Agenda: people, prosperity, planet, partnership, and peace.<sup>13</sup>

**INTRODUCTION**

**MINE ACTION  
IN JORDAN**

Fifteen years after joining the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (APMBC), the Hashemite Kingdom of Jordan declared completion of its obligations under Article 5 of the Convention in 2012.<sup>14</sup>

Mine contamination in Jordan was the result of the 1948 partition of Palestine, the 1967–69 Arab-Israeli conflict, the 1970 civil war, and the 1975 confrontation with Syria.<sup>15</sup> This contamination was mostly localised in military-controlled areas close to the borders with Israel and Syria. Three areas were primarily affected: 1) the northern border with Syria (mainly the western part), 2) the Jordan Valley stretching from the north tip of the Dead Sea to the Syrian Border, and 3) the territory between Aqaba and the southern tip of the Dead Sea.<sup>16</sup>

The total number of landmines in Jordanian territory was initially estimated to be over 300,000.<sup>17</sup> By 2012, 279,000 landmines had been removed from 500 minefields, clearing vast tracts of land totaling approximately 60 million square metres.<sup>18</sup>

Jordan's contamination has been primarily limited to landmines and explosive remnants of war (ERW), while there is no known contamination from cluster munition remnants.<sup>19</sup> Most of the landmines were anti-personnel mines and anti-vehicle mines, and were laid in 'clusters' in zigzag rows.<sup>20</sup> Jordan reported that no fragmentation, chemical or booby-trapped mines, either unmarked or scattered minefields, were ever used.<sup>21</sup>

Since landmines throughout the country were predominantly laid by the Jordanian Armed Forces (JAF) or the Israel Defense Forces, fairly accurate military records and maps were preserved. The JAF kept all original records, including information about the location, number, type, benchmarks and basic sketch maps for the period 1948–1993.<sup>22</sup> These original location and pattern records provided a sound starting point to understand the size and scope of the contamination problem when the Royal Engineering Corps (REC) of the JAF initiated clearance activities in 1993.

**FIGURE 3** MINEFIELD CLEARANCE MAP OF JORDAN  
AS OF DECEMBER 2020

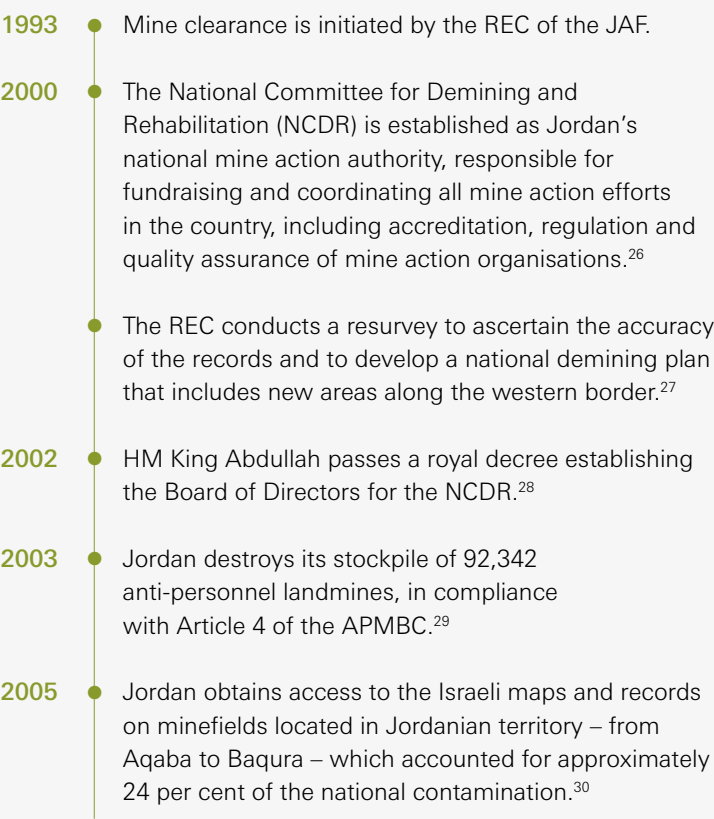


Source: NCDR

However, records were more than four decades old and the accuracy of the database had been affected by flooding, leading to the possible shifting of surface soils as well as the erosion of marks. In addition to the potential displacement of mines, there were issues regarding record-keeping,<sup>23</sup> including vague sketches of legacy minefields and the use of an old mapping system.<sup>24</sup>

Demining was conducted by two main operators: REC and Norwegian People's Aid (NPA).<sup>25</sup>

**FIGURE 4** HISTORY OF MINE ACTION IN JORDAN





- 2006 ● The NCDR invites NPA to assist with mine clearance in Jordan and commissions a landmine retrofit survey (LRS). The LRS combines operational and developmental approaches and gathers relevant data through a task impact assessment.<sup>31</sup>
- 2007 ● The LRS is complemented by a technical assessment to confirm and harmonise available records and information.
- 2008 ● Jordan applies for an extension to the APMBC Article 5 deadline, as the clearance of the northern border takes longer than planned.<sup>32</sup>  
  
● Jordan completes clearance of the Jordan Valley and establishes the Jordan Valley Sampling and Verification project, to conduct post-clearance procedures in both the Jordan Valley and along the northern border.<sup>33</sup>
- 2009 ● The NCDR starts conducting ERW non-technical survey and surface survey.<sup>34</sup>
- 2012 ● Jordan declares completion of its obligations under Article 5 of the APMBC and submits the Declaration of completion of implementation of Article 5 in December 2012.<sup>35</sup>
- 2018 ● The sampling and verification project is completed. There are currently no areas left with confirmed or suspected landmines.<sup>36</sup>



# **THE CONTRIBUTION OF MINE ACTION TO THE SDGs IN JORDAN**

Given that most of the minefields were placed in restricted zones along the Jordanian borders, the contaminated areas were sparsely populated and presented minimal economic activity. In this sense, it is estimated that around 8 per cent of the population was affected by mines.<sup>37</sup> Hence, the number of casualties remained low and mine action was not seen as a direct enabler of poverty alleviation.<sup>38</sup> However, areas that were not key for economic development in the past had significant potential to become highly productive after mine clearance.

Jordan approached this in a long-term perspective, thinking not only of the short-term impact of contamination but also of the potential medium- and long-term benefits of being able to use inaccessible land. The Jordanian government paid particular attention to the socio-economic benefits of clearance and considered mine contamination as both a humanitarian and a developmental issue, recognising mine clearance as one of the main drivers to trigger development in affected regions.<sup>39</sup> Mine clearance also appeared as a contributor to the country's social and economic transformation programme and to the achievement of the Millennium Development Goals<sup>40</sup> in several key governorates.<sup>41</sup>

In line with the human security approach, which pursues the aim of freeing people from 'fear' and 'want',<sup>42</sup> the 2030 Agenda for Sustainable Development calls for the development of strategies that result in more resilient societies where people are safe and protected from sudden disruptions in their daily lives, enabling them to pursue their developmental prospects.<sup>43</sup>

Mine action interacts with and can reinforce other existing humanitarian and developmental efforts in mine-affected settings. Therefore, this assessment explores the outcomes of mine action's activities, and is structured alongside the following categories of mine action interventions: i) land release, ii) victim assistance, iii) explosive ordnance risk education, iv) gender mainstreaming, and v) partnerships and cooperation.



# 1. LAND RELEASE

FIGURE 5

## CONTRIBUTION OF LAND RELEASE TO THE SDG TARGETS IN JORDAN



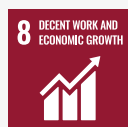
- 1.1** End of extreme poverty
- 1.4** Equal rights to economic resources and access to basic services



- 7.1** Access to modern energy services
- 7.2** Increased renewable energy
- 7.3** Improved energy efficiency



- 2.1** Access to food
- 2.2** End of malnutrition
- 2.3** Doubling of the agricultural productivity of small-scale food producers
- 2.4** Sustainable food production



- 8.1** Sustained economic growth
- 8.2** Increased economic productivity through innovation
- 8.4** Improved resource efficiency in consumption and production
- 8.5** Full and productive employment and decent work
- 8.9** Promotion of sustainable tourism



- 6.1** Access to safe and affordable drinking water
- 6.3** Improved water quality
- 6.4** Increased water-use efficiency
- 6.5** Integrated water resources management
- 6.6** Protection and restoration of water-related ecosystems
- 6.b** Participation of local communities in water management



- 9.1** Equitable access to infrastructure
- 9.2** Inclusive, sustainable industrialisation
- 9.3** Increased access to financial services



**10.7** Safe migration and mobility



**14.2** Sustainable management and protection of marine and coastal ecosystems



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

**11.3** Inclusive and sustainable urbanisation

**11.4** Safeguarding the world's cultural and natural heritage



**15.1** Restoration and conservation of terrestrial and inland freshwater ecosystems

**15.3** Restoration of degraded land and soil



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

**12.b** Development and implementation of sustainable tourism



**16.1** Reduction of all forms of violence

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'<sup>44</sup> to identify, define, and remove all presence and suspicion of explosive ordnance (EO)<sup>45</sup> through non-technical survey, technical survey and / or clearance.<sup>46</sup>

Through the re-establishment of safe physical living environments, land release pursues the reduction of casualties and the removal of blockages that constrain economic activity and development, relating, for instance, to the access to natural resources and the exploitation of arable land.

Land release, whose aim is to decrease casualties caused by EO, is the most direct entry point for the mainstreaming of mine action into the SDGs, particularly **SDG 16, target 16.1**, centered on significantly reducing all forms of violence and related death rates.

Even though mine contamination in Jordan was concentrated in scarcely populated areas, its broader socio-economic impact was magnified by an elevated population growth rate and the ensuing growing need for housing space, the limited availability of arable land and meagre water reserves.<sup>47</sup> Furthermore, some of the communities most affected by mines turned out to be 'poverty pockets'.<sup>48</sup> In such a context, the socio-economic impact of releasing land has been significant.<sup>49</sup>

Since the minefields were concentrated in three major areas, the assessment analyses the specific contributions of land release towards the SDG targets in these three case study areas: 1) the northern border, 2) the Jordan Valley, and 3) Aqaba.

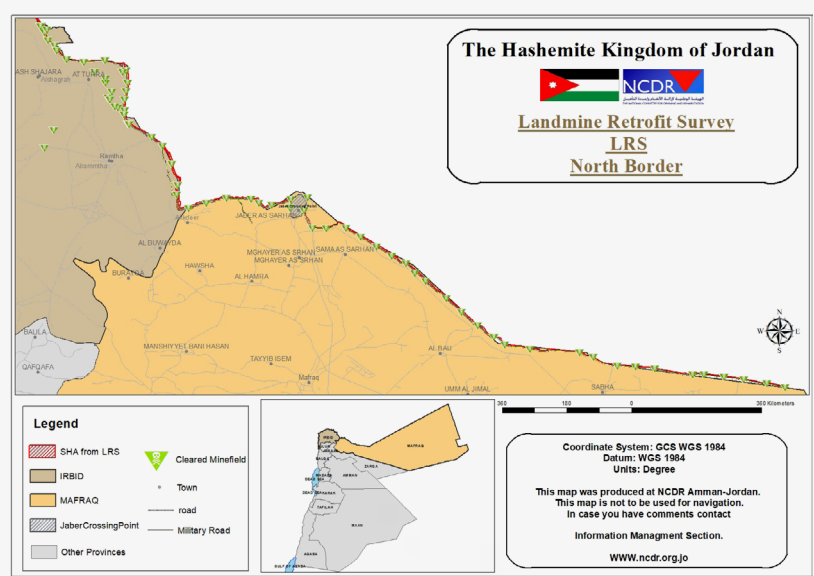


# THE NORTHERN BORDER

The northern border with Syria, which contained around 136,000 landmines,<sup>50</sup> was the last contaminated area to be cleared in Jordan in 2012. The minefields alongside the border had strategic value, since they served as a buffer zone and were also seen as an important prevention tool against large-scale cross-border smuggling of livestock.<sup>51</sup>

These minefields, combining anti-personnel mines (APMs)<sup>52</sup> and anti-vehicle mines (AVMs),<sup>53</sup> were often very close to populated areas. Agricultural activities were taking place along most parts of the border, within areas controlled by the military, but these agricultural fields were interrupted by the minefields on the Jordanian side. The minefields, laid along the official border, but also in straight lines or along easily accessible routes for practical reasons, became a de facto border.<sup>54</sup>

FIGURE 6 MINEFIELD CLEARANCE MAP OF THE NORTHERN BORDER



Source: NCDR

## FACILITATING SAFE MOBILITY

While approximately 50,000 civilians were exposed to the risk of mine contamination in this area,<sup>55</sup> the number of beneficiaries is considered to be much higher, given the great increase in the number of Syrian refugees entering Jordan and settling in this area in recent years.

Since the outbreak of the Syrian crisis a decade ago, the number of registered refugees has skyrocketed: from 74,447 in January 2013 to 657,287 in June 2020,<sup>56</sup> and around 45 per cent of them have settled in the governorates bordering Syria: Irbid and Mafraq.<sup>57</sup>

The verification efforts of the National Committee for Demining and Rehabilitation (NCDR) in this area were finished in 2018<sup>58</sup> and no accidents have been recorded since. Therefore, in light of the humanitarian crisis and the fact that this area is considered the main transportation node<sup>59</sup> between Jordan and Syria,<sup>60</sup> the humanitarian impact of land release in the northern border region is considered to be substantial.

Land release in the northern border area has directly contributed to **SDG 10** by reducing inequalities and particularly its **target 10.7** on facilitating orderly, safe, regular and responsible migration and mobility of people.

Moreover, the demilitarisation of the Jordanian side of the border has contributed to peacebuilding efforts after years of conflict and tensions along the bordering areas,<sup>61</sup> directly contributing to **SDG 16** on peace, justice and strong institutions. By promoting safe mobility, land release has also directly contributed to **target 16.1** on reducing all forms of violence and related death rates, contributing to an improvement of the security conditions and a potential increase in the perception of safety of refugee populations and bordering communities.

## ACCESS TO NATURAL RESOURCES

### Access to drinking water and irrigation

Water is Jordan's most scarce resource, which has played a crucial role in the peace agreements signed with its neighbouring countries. Water is also a subject of international cooperation and large-scale development projects,<sup>62</sup> since Jordan shares most of its water resources with its neighbours.<sup>63</sup> However, in spite of being listed as one of the 10 poorest countries in terms of water resources per inhabitant,<sup>64</sup> 99 per cent of the people living in Jordan currently have access to basic drinking-water services.<sup>65</sup>

In order to provide water for agricultural irrigation and human consumption purposes, Jordan counts on an extensive water supply infrastructure, including the Al-Wehda Dam on the Yarmouk River, located in the northern border area.

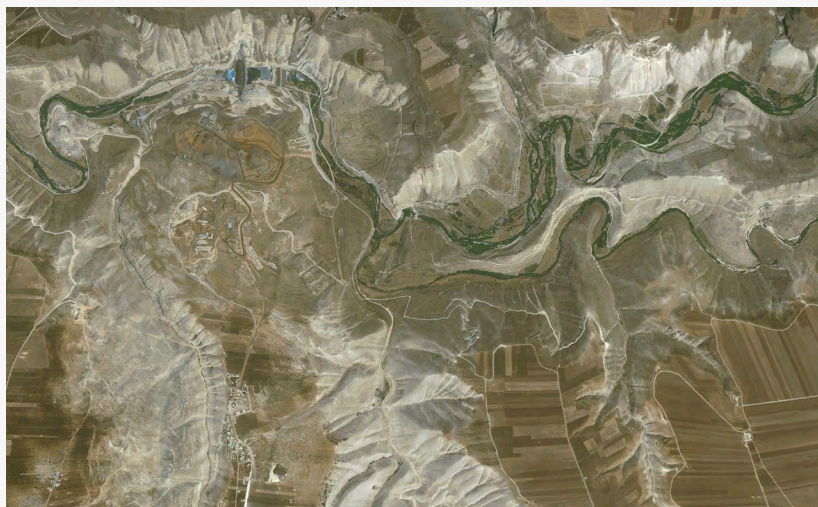
### Al-Wehda Dam

The construction of the Al-Wehda Dam finished in 2011, and land release was essential to ensure its completion and the safe passage of the construction workers. Containing 110 million cubic metres of water and allowing for the irrigation of 30,000 donums<sup>66</sup> of land and the provision of 50 million cubic metres of drinking water yearly, the dam has had a key impact in reducing drinking-water shortages and improving the well-being of people in the area.<sup>67</sup>

Although these plans did not materialise in full, the dam was also conceived as a source of electric energy and an enabler of tourism by enhancing the environmental conditions of the riparian area.<sup>68</sup> While the environmental upgrade, including reforestation, is visible in the satellite images below (Images 1 and 2), research for this study did not find available tourism statistics for this area. The Syrian civil war also affected the prospects for tourism in the border regions.

FIGURE 7

## SATELLITE IMAGES OF THE AL-WEHDA DAM



The Al-Wehda Dam in 2004



The Al-Wehda Dam in 2018

Source: NCDR

Land release has directly contributed to **SDG 6** on clean water and sanitation, its **target 6.1** on achieving universal access to safe and affordable drinking water for all, and to **target 6.4** by reducing the number of people suffering from water scarcity.

Land release is an indirect contributor to **target 6.5**, which aims to implement integrated water resources management, including through transboundary cooperation such as the Jordanian-Syrian Higher Committee,<sup>69</sup> given the specific characteristics of the Yarmouk River and the pre-existence of an agreement concerning the use of shared waters. Since the Yarmouk is the main tributary of the Jordan River, and the largest river in Jordan,<sup>70</sup> the agreement foresees the construction of several dams to provide the additional water needed by Jordan, and the electric power needed by both states.<sup>71</sup>

Regarding sustainable tourism associated with the environmental upgrade of the second major river in Jordan, linkages are found with **SDG 8** and its **target 8.9** on devising policies to promote sustainable tourism, and **SDG 6, target 6.6** on restoring water-related ecosystems in the riparian area. However, the contribution to **target 8.9** might be hampered by the Syrian civil war, due to its proximity to the border and the overall security situation in this area.

## AGRICULTURAL ACTIVITIES

According to the NCDR-Norwegian People's Aid (NPA) landmine retrofit survey (LRS), the mine belt on the northern border was blocking around 10.5 million square metres of land, hampering agricultural and herding activities in the border communities and directly affecting 63,000 people.<sup>72</sup> Considering that this area is also characterised by badia rangelands (semi-desertic areas), nomadic pastoralism and transhumance livestock movements were also hindered by the threat posed by mine contamination.<sup>73</sup>

The negative impact of this blockage was exacerbated by the shortage of arable land in the surrounding areas. With regards to this, UNDP reported that as the result of the 2009–2011 Northern Border Clearance Project, seven million square metres of fertile land had been returned to the original owners.<sup>74</sup>



Jaber Town, February 2020

By expanding access to arable fields along the northern border area, land release enabled small-scale family agriculture and herding activities. This, in turn, allowed for the cultivation of irrigated fruit trees in the western-central areas, as well as wheat, irrigated vegetable and fruit trees, in the rest.<sup>75</sup>

In this context, land release is a direct contributor to **SDG 2**, which focuses on ending hunger, achieving food security and improving nutrition and sustainable agriculture. Specifically, it has contributed to **target 2.3** on agricultural productivity and incomes of small-scale food producers, family farmers and herders, as well as secure access to land. In line with this contribution, it has positively impacted **target 2.4** on sustainable food production systems that increase productivity and that help to maintain ecosystems.

Considering its role as an enabler of major local productive activities, land release is also linked to **SDG 1** on ending poverty in all its forms, especially towards **targets 1.1** and **1.4** that address extreme poverty and access to resources, including land.

## SUSTAINABLE ECONOMIC GROWTH AND INFRASTRUCTURE

After land release took place, economic and trading zones, including free trade zones (FTZs)<sup>76</sup> were established around the city of Mafraq and the border area between Jordan and Syria.<sup>77</sup>

In 2006, the King Hussein Bin Talal Development Area (KHBTDA) was opened in Mafraq, in an area very close to the Jaber minefields. Covering 21 square kilometres, this has functioned as a key industrial centre and logistics hub since its creation.<sup>78</sup> The KHBTDA has attracted several factories, with an investment value of about 270 million Jordanian Dinars (JOD),<sup>79</sup> and more than a thousand jobs.<sup>80</sup> Additionally, according to the Jordanian government, the value of the land tripled with the establishment of the FTZs.<sup>81</sup>

The establishment of FTZs promoted investments that allowed building infrastructure and the creation of jobs.<sup>82</sup> By unblocking access to this land, land release contributed to **SDG 9** dedicated to resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation, particularly its **target 9.1** on developing infrastructure, including regional and transborder infrastructure, to support economic development, **target 9.2**, on promoting industrialisation and raising the industrial share of employment and GDP, and **target 9.3** on increased access of small-scale enterprises to value chains and markets.

Additionally, through the creation of formal employment opportunities in a previously contaminated area, a linkage is found with **SDG 8** on decent work and economic growth, especially with regard to **target 8.1** on sustaining per capita income growth, and **target 8.2** that aims to achieve higher levels of economic productivity through diversification, technological upgrading and innovation.

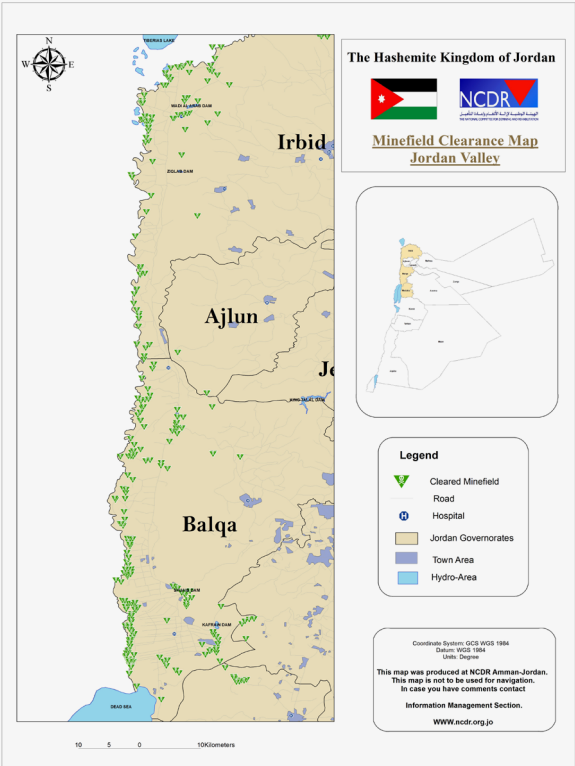
Nonetheless, this research acknowledges that the potential impact of land released, in terms of cross-border trade with Syria, has suffered as a result of the war.

# THE JORDAN VALLEY

The Jordan Valley area establishes the border between the East Bank and the West Bank and is considered to be the national ‘breadbasket’. Substantial mine clearance began in 1993 in this area, which contains most of the arable and irrigated land in the country and has the major concentration of agricultural activity.<sup>83</sup> Given that these early demining efforts occurred prior to the creation of the International Mine Action Standards (IMAS), the NCDR verified and released more than 10 million square metres in 2013.<sup>84</sup>

FIGURE 8

MINEFIELD CLEARANCE MAP OF THE JORDAN VALLEY  
AS OF DECEMBER 2020



Source: NCDR



Prior to 1980, horticulture was very limited, and produce was targeted for the local markets. Since the Kingdom has limited agricultural land and scarce water supplies, further investments were needed to develop modern irrigation systems and crop production, in order to enter the global market.

A collective system for water management is overseen by the Jordan Valley Authority, with water productivity levels<sup>85</sup> significantly higher than those of the Highlands, and most of the vegetable crops harvested in the off season.<sup>86</sup> The off-season production of vegetables, which are mainly produced in the Highlands, is an undertaking that generates a higher added value, especially through exports, compared to that of the summer period.<sup>87</sup>

Given the scarcity of water nationwide and the fact that arable land<sup>88</sup> in Jordan is reported to be 18.5 per cent,<sup>89</sup> land release in the Jordan Valley has had a major impact on the increase of agricultural activities, since an intensive agricultural industry is prevalent and a wide range of vegetables and fruits are grown in this area.<sup>90</sup>

Contaminated land was not available for civilian use; currently, approximately 80 per cent of the cleared land in the Jordan Valley is accessible or it is owned by local inhabitants.<sup>91</sup> The LRS estimated in 2006 that the increase of fertile land could bring at least an additional 25 per cent of income to the average household.<sup>92</sup>

While its contribution to gross domestic product (GDP) is not significant, and domestic agriculture is not the main contributor to the Jordanian food supply,<sup>93</sup> it provides important resources to local communities, promotes rural employment, and is a source of hard currency from exporting high-value vegetables and fruits.<sup>94</sup> The sector employs around 3.5 per cent of the active labour force<sup>95</sup> and generates 17 per cent of exports.<sup>96</sup> The rural poor, in particular, rely heavily on agriculture.<sup>97</sup>

## ACCESS TO NATURAL RESOURCES

There are some projects related to access to and extraction of natural resources that depended on mine action to be fully developed or established in a feasible and safe manner.<sup>98</sup>

Early clearance efforts were undertaken in 1988 to gain access to the potassium-rich soil around the Dead Sea, in an area under military surveillance, but where industrial activities are allowed.<sup>99</sup> The construction of the Arab Potash<sup>100</sup> Company (APC) finished in 1982 while more ditches and plants were developed later. Besides employing more than 2,000 people and having net consolidated profits of JOD 151.7 million in 2019,<sup>101</sup> the APC is the eighth largest potash producer worldwide<sup>102</sup> and the sole producer of potash in the Arab World.<sup>103</sup>



Entrance to the Arab Potash Company, in front of the Martyr's Edifice

Land release also promoted safe access for the implementation of water projects and the establishment of irrigation systems in the area. For instance, the area surrounding the Karameh Dam was cleared between 1993 and 1999, with further re-clearance in 2009. The construction works started in 1994. The dam provides around 2,400 cubic metres of water for the local population, on a daily basis, allowing for the cultivation of over 50,000 hectares of land.<sup>104</sup> However, the extent of the positive impact of this dam has been questioned by some experts due to challenges for water collection.<sup>105</sup>

By enabling the establishment and operationalisation of the APC, land release contributed towards **SDG 9** on sustainable industrialisation, and its **target 9.1** on quality infrastructure to support economic development, **target 9.2** on raising industry's share of employment and GDP, and **target 9.3** on upgrading infrastructure to make it sustainable.

Land release also contributed towards **SDG 8** on economic growth and productive work, particularly **target 8.2** on economic productivity through technological upgrading and diversification and **target 8.5** on productive employment. Regarding the efficient use of natural resources, land release is linked to **SDG 12** on sustainable production patterns and its **target 12.2** on sustainable management of natural resources, as well as **SDG 6** on sustainable management of water, its **target 6.1** on access to water, and **target 6.4** on increased water-use efficiency.

## AGRICULTURAL ACTIVITIES

### Food security and small-scale farming

There are numerous examples of fruit and vegetable farms being established or re-established throughout the Jordan Valley once the land was returned to its original owners.<sup>106</sup> This also includes the north-west part of the Valley (North Shuna), considered as one of the most impoverished districts in Jordan.<sup>107</sup>

By clearing and releasing arable land, mine action enabled access to fertile and irrigated land for small-scale family farmers, as well as the establishment of new highly profitable agricultural industries, such as date farming.

This relatively new harvesting industry presents a trend of fast growth, both in terms of the area of cultivation and production<sup>108</sup> and regarding income generation.<sup>109</sup> Additionally, dates have a short production chain and their water productivity<sup>110</sup> is amongst the highest.<sup>111</sup> This is especially important considering the fact that few primary production crops and systems<sup>112</sup> provide positive net returns.<sup>113</sup>

In recent years, there has been an increase in the number of small-scale family-owned farms. Several of these date farms were established right after land was released, with the Mubarekeh and Golden Palm date farms standing out, being amongst the largest agricultural development projects.

### Golden Palm date farm

The Golden Palm date farm located on the flood plains of the Jordan River is an evident example of the impact of mine clearance in the Valley. The farm was established in 1999, right after the REC cleared mines from the area, and full production was reached in 2010.<sup>114</sup> While no accidents have been recorded since then, unexploded ordnance caused damage to machinery and some mines were found hanging in the trees.<sup>115</sup>

Producing more than 100 tons of *medjool* and 20 tons of *barhee* dates annually, this farm has exported worldwide since 2006.<sup>116</sup> The medjool, a date variety grown only in the Jordan Valley and in California, offers the best potential for expansion since a kilogramme of these dates costs around USD 12.<sup>117</sup>

The farm employs around 700 people during peak season. Employees mostly come from the Jordan Valley area, which has a direct impact on local development.<sup>118</sup>

By unblocking resources and releasing uncultivated land to the original owners, mine action contributed to **SDG 1** on ending poverty and its **target 1.4** on ensuring access to economic resources, including over land.

FIGURE 9

## SATELLITE IMAGES OF GOLDEN PALM DATE FARM



Golden Palm date farm in 2004



Golden Palm date farm in 2018

Source: NCDR





Golden Palm date farm, February 2020



Palm trees at the Golden Palm date farm, February 2020

Since the Jordan Valley presents a large concentration of irrigated and arable land, the cleared fields were immediately used for agricultural purposes, which contributed towards **SDG 2** on ending hunger, achieving food security and promoting sustainable agriculture. In this sense, land

release supported **target 2.1** on ending hunger, **target 2.3** on agricultural productivity and incomes of small-scale food producers, including through secure access to land and market opportunities, and **target 2.4** on sustainable food production systems that improve the quality of land and soil.

The development of new agricultural projects, also at the family level, and supporting small-scale farmers promoted **SDG 8** on sustainable economic growth and decent work, its **target 8.2** on achieving higher productivity through innovation and focus on labour-intensive sectors, and **target 8.5** on productive employment, by creating local job opportunities and enabling new infrastructure and improvements for existing ones.

Regarding the quality of land and soil, it is worth noting that former minefields were dried out, and land release contributed to **SDG 15** on reversing land degradation and its **target 15.1** on ensuring conservation, restoration and sustainable use of terrestrial ecosystems, **target 15.3** on restoring degraded land soil affected by desertification and drought, and **SDG 6, target 6.b**, on participation of local communities in water management with regard to the engagement of the Jordan Valley Authority with the local farmers.

In absolute terms, given that agriculture is not a significant contributor to GDP and there are reasonable concerns about the water resources allocated to the agricultural sector, support for agriculture can be questioned.<sup>119</sup> However, improving the productivity of small farmers is crucial to enhance food security in the rural areas, given that the agricultural sector is the main source of employment, providing food and income, and is the basis on which many non-agricultural activities rely, both pre- and post-production.<sup>120</sup>

Therefore, besides the economic impact associated with the crop trade, there are long-term benefits such as the regeneration of land, industrialisation, development of sustainable irrigation systems or local job opportunities, which have an impact on the overall quality of life in the area by promoting broader sustainable development.<sup>121</sup>

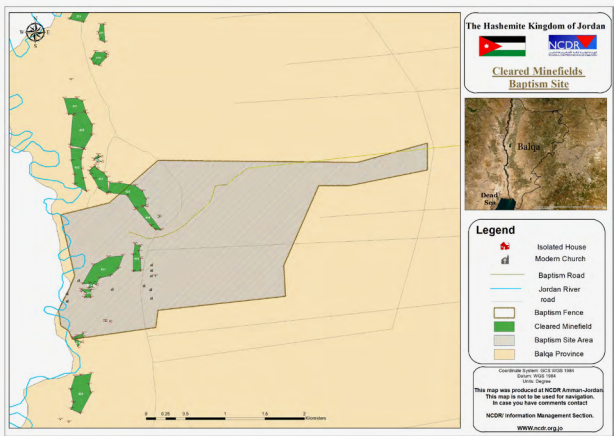
# SUSTAINABLE ECONOMIC GROWTH

## Sustainable local tourism and cultural heritage conservation

The Baptism Site ‘Bethany Beyond the Jordan’ (Al-Maghtas),<sup>122</sup> located in the Jordan Valley, was designated as a world heritage site in 2015. The site includes archaeological structures of Roman and Byzantine origin which showcase the cultural and religious tradition of baptism; it has been considered to be the original location of the baptism of Jesus and the ministry of John the Baptist since at least the Byzantine period,<sup>123</sup> and is therefore highly appreciated by those in the Christian faith.<sup>124</sup>

Demining activities in the Baptism Site and the surrounding area were concluded in 1997, clearing 11 minefields and allowing it to open to the public in 2000. Since then, this religious site has become a significant contributor to the local economy through sustainable tourism. In addition, the board of trustees of the Baptism Site Commission donated land for new churches to be built,<sup>125</sup> reinforcing the position of the Baptism Site as a Christian pilgrimage centre.

FIGURE 10 MINEFIELD CLEARANCE MAP OF THE BAPTISM SITE AREA AS OF DECEMBER 2020



Source: NCDR



The number of visitors has constantly increased, receiving an average of 100,000 tourists per year, with further plans for the expansion of the site.<sup>126</sup> There has been a positive trend in terms of visitors, increasing 28 per cent annually,<sup>127</sup> most of them foreigners.

The Baptism Site presents a strong case regarding the direct and indirect impact of land release on sustainable development. Mine contamination was blocking access to a unique historical and religious site, impeding further investments for its preservation and development along with its exploitation as a source of revenue.



The newly built Saint John the Baptist Greek Orthodox Church

Mine clearance and land release in the Baptism Site are direct contributors towards **SDG 8** on sustainable economic growth, especially **target 8.9** on promoting sustainable tourism that creates jobs and promotes local culture and products. They also contribute to **SDG 11** on safe and sustainable cities and **target 11.4** on strengthening the efforts to preserve the world's cultural heritage.

# AQABA

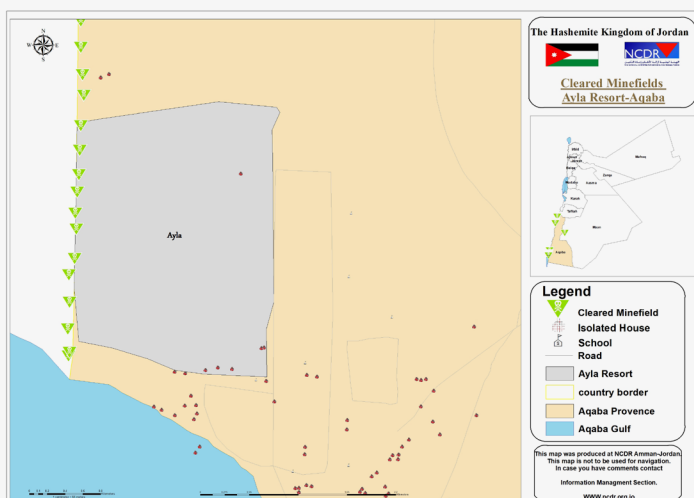
Minefields in the southern part of Jordan were, in general, properly fenced and located in controlled areas close to the border with Israel. This area was barely populated and mainly deserts, with limited agricultural activity due to water scarcity. Only the city of Aqaba presented significant population density.<sup>128</sup>

Mine clearance started substantially in 2006. Since then, Aqaba has experienced an important population growth, from 110,500 inhabitants in 2004 to 208,000 in 2019.<sup>129</sup>

As Jordan's only seaport city, Aqaba is divided into five 'special areas' and plays an important role for the Jordanian economy.<sup>130</sup> Bordering both Israel and Saudi Arabia, and also extending to the territorial waters of Egypt, it is considered to have a high economic potential thanks to different touristic, trade, and infrastructure plans.

FIGURE 11

MINEFIELD CLEARANCE MAP OF AQABA AND WADI ARABA  
AS OF DECEMBER 2020



Source: NCDR

The released land is comprised within the Aqaba Special Economic Zone, currently hosting hotels, apartments and a marina. Therefore, from a broad perspective, mine action has benefitted commercial development projects. Direct beneficiaries, in this particular case, belong to a higher economic stratum compared to the usual beneficiaries in other mine-affected countries, as well as in other cleared areas in Jordan.<sup>131</sup>

As part of its mandate, the Aqaba Special Economic Zone Authority (ASEZA) aims to attract business and tourism investments, while simultaneously enhancing the quality of life and prosperity of the local Aqaba community through sustainable development.<sup>132</sup> Therefore it is relevant to analyse the extent to which mine action has facilitated investments for sustainable development and its tangible outcomes.

## SUSTAINABLE ECONOMIC GROWTH AND BIODIVERSITY

### Innovation and sustainable tourism

Tourism in Jordan is a fast-growing sector and an important pillar of the country's economy. Aqaba has attracted some multiple large-scale investments that are transforming the port city into a resort destination. Consequently, in the period between 2006 and 2019, employment in touristic activities in Aqaba had increased by 37.4 per cent,<sup>133</sup> and the number of hotels had grown by 82.6 per cent.<sup>134</sup> Amongst the new mega building projects, mine clearance was essential for the development of Ayla.

### Ayla

Ayla stands in a former military area that presented mixed contamination<sup>135</sup> and was demined by the Royal Engineering Corps (REC) and Norwegian People's Aid (NPA) in 2007, with an additional underneath water survey in 2009.<sup>136</sup> In total, 19,800 mines were cleared and more than 1.5 million square metres of 'valuable land' released.<sup>137</sup> According to Ayla's managing director 'this project is a perfect example of how demining can contribute to regenerate an area, and transform a military area to a prosperous zone'<sup>138</sup>

FIGURE 12 SATELLITE IMAGES OF AYLA



Ayla in 2004



Ayla in 2012



Ayla in 2020

Source: NCDR

The project has been defined as a ‘positive private-public sector partnership’,<sup>139</sup> since Ayla also contributed with funds for demining and to secure the border with Israel, given the fact that military surveillance towers are adjacent to the resort.<sup>140</sup>

Ayla comprises residential, commercial and leisure areas and hotels. It was designed with a clear environmental sustainability dimension,<sup>141</sup> which allows for numerous phases of the project to be powered by solar energy produced on site, an innovative approach to water efficiency and grey water recycling.<sup>142</sup>



Apartments, hotels and port of Ayla, February 2020

Regarding solar energy, Ayla has constructed a 3.2-megawatt photovoltaic solar panel station above the water channels,<sup>143</sup> providing clean energy that reduces energy costs and makes the water being pumped to the internal lagoons and the golf course sustainable, with a self-sustained irrigation system.<sup>144</sup>





Solar panels and military surveillance tower in the bordering area, February 2020



Solar panel station above the water channels, February 2020

Considering biodiversity as a key asset,<sup>145</sup> and with the aim of positioning Aqaba as a marine-biodiversity friendly touristic option,<sup>146</sup> the UNDP supported ASEZA in the development of the Aqaba Ecotourism Development Plan<sup>147</sup> to ensure coral reef protection.<sup>148</sup> Since Aqaba is an important location for migratory birds, with pelicans and other bird species arriving in Ayla, they also worked with the Royal Society for the Conservation of Nature regarding the Aqaba Bird Observatory Centre.<sup>149</sup>

The resort permanently employs around 700 workers and this number is expected to increase once the marina is open.<sup>150</sup> In order to train local people and provide them with the skills needed to work in the tourism industry, Ayla has created the Makarem Academy.<sup>151</sup>

As shown in the Ayla case study, mine clearance has contributed to **SDG 6** on sustainable management of water and sanitation, its **target 6.3** on water quality, **target 6.4** on water-use efficiency, **target 6.5** on integrated water resources management at all levels, and **target 6.6** on restoring water-related ecosystems. In terms of the conservation of marine resources, mine clearance has also contributed to **SDG 14** on the use of the sea for sustainable development and its **target 14.2** on sustainably manage marine and coastal ecosystems to avoid significant adverse impacts.

In relation to clean energy, the project promotes **SDG 7** on ensuring access to sustainable energy and its **targets 7.1, 7.2** and **7.3** on access to renewable and modern energy and energy efficiency. Additionally, mine clearance has promoted progress towards **SDG 12** on ensuring sustainable consumption and its **target 12.b** on developing tools for monitoring the sustainable development impacts for sustainable tourism.

By providing productive employment, there is also a linkage with **SDG 8** on sustainable economic growth, its **target 8.1** on per capita economic growth, **target 8.3** on development-oriented productive activities, **target 8.4** on resource consumption efficiency, **target 8.5** on decent work, and especially with **target 8.9** on promoting sustainable tourism that creates local jobs.

By releasing land, mine action has also contributed to **SDG 9** on resilient infrastructure and its **target 9.1** on developing sustainable infrastructure to support economic development.

## ECONOMIC INFRASTRUCTURE AND HOUSING

Aqaba has continually expanded since it became a special economic zone in 2001. Nowadays, it has a number of significant residential, commercial and industrial spaces and tourism projects under development.<sup>152</sup> As a reflection of this expansion, only 44 per cent of the buildings in the city were built before 1990.<sup>153</sup>

Also, the average annual household income increased by 60.5 per cent between 2007 and 2017.<sup>154</sup> This income growth, and the associated job opportunities, have attracted internal migration from different parts of Jordan, including Bedouin tribes.<sup>155</sup>

Since former mined areas were mainly underdeveloped, the land released provided safe land for large-scale housing developments in response to the population growth.<sup>156</sup>

Land release played a role in housing and urbanisation, since these housing projects had been postponed due to mine contamination.<sup>157</sup> After releasing more than 2.5 million square metres, several housing projects were undertaken, including the Alkarameh Housing Project, the Alabdaleih Housing Project, the Tal Khuzlan Housing Project and the Qasabeh Housing Project. These projects provided thousands of newly built family units, as well as roads and sewer systems.<sup>158</sup>

Mine clearance has also supported the provision of clean energy for Aqaba. In January 2020 the NCDR completed a technical survey and the construction of a solar panel farm was started just two days later.<sup>159</sup> According to the engineer in charge, 'ensuring the safety of this land is key, since renewable energy projects are very much needed given the scarcity of natural resources in Jordan'.<sup>160</sup>





Start of the construction of the solar panel farm right after technical resurvey

There are linkages between mine action and **SDG 8** on decent work and economic growth, its **target 8.1** on sustaining per capita economic growth, **SDG 11** on sustainable cities and communities, its **target 11.1** on ensuring access to adequate housing, and **target 11.3** on enhancing sustainable urbanisation.

By enabling the establishment of a solar panel farm, mine clearance has contributed towards **SDG 7** on ensuring access to sustainable energy and its targets **7.1**, **7.2** and **7.3** on access to renewable and modern energy and energy efficiency.





## 2. VICTIM ASSISTANCE

FIGURE 13

## CONTRIBUTION OF VICTIM ASSISTANCE TO THE SDG TARGETS IN JORDAN



- 1.3** Implementation of social protection systems and measures
- 1.4** Equal rights to economic resources and access to basic services
- 1.5** Improved resilience, reduced vulnerability
- 1.b** Creation of pro-poor policy frameworks



- 2.3** Doubling of the agricultural productivity of small-scale food producers



- 3.8** Access to essential healthcare services
- 3.c** Increased health financing and health workforce



- 4.5** Equal access to education



- 5.1** End of all forms of discrimination against women and girls



- 8.3** Support for productive activities and decent job creation
- 8.5** Full and productive employment and decent work



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



- 
- 11.7** Universal access to public spaces



- 
- 16.6** Development of accountable institutions
  - 16.7** Inclusive, participatory, representative decision-making
  - 16.b** Non-discriminatory laws and policies



- 
- 17.6** Access to resources through North-South, South-South and triangular cooperation
  - 17.9** Enhanced international support for capacity-building in developing countries
  - 17.16** Enhanced global partnership for sustainable development

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 all aid, relief, comfort and support provided to victims (including survivors) with the purpose of reducing the immediate and long-term medical and psychological implications of their trauma.<sup>161</sup>

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 mines or the presence of explosive remnants of war (ERW). Victims include directly impacted individuals, their families, and communities affected by landmines and ERW.<sup>162</sup>

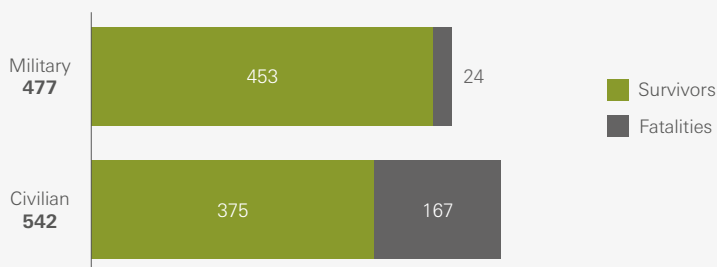
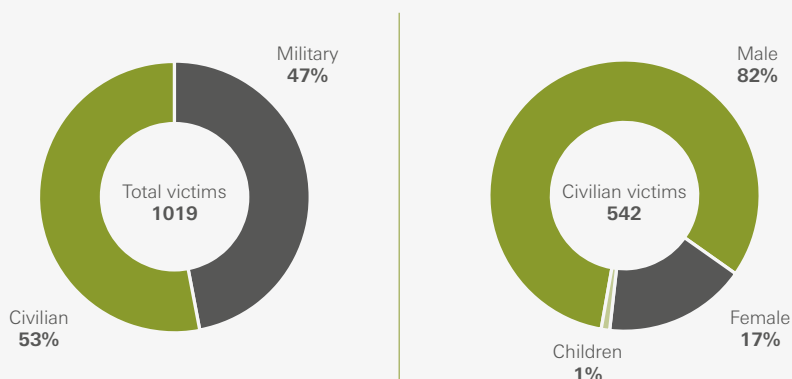
Survivors refer to men, women or children who have suffered harm as a result of a mine, ERW or cluster munition accident.<sup>163</sup>

Since 1948, Jordan has had 1,019 reported landmine victims, 828 survivors and 191 fatalities. Based on these figures, Jordan was designated a country with a significant number of landmine survivors by the States Parties to the Anti-Personnel Mine Ban Convention (APMBC).<sup>164</sup>

Victim assistance has been primarily delivered by military institutions such as the Jordanian Royal Medical Services, national and international NGOs and the Hashemite Charitable Society for Soldiers with Special Needs,<sup>165</sup> supported by several ministries<sup>166</sup> and the National Committee for Demining and Rehabilitation (NCDR).

Advancing the integration of victim assistance into broader disability national frameworks is crucial to ensure that, in the long term, the rights of mine victims are guaranteed, with their needs being supported also after mine clearance completion.<sup>167</sup>

**FIGURE 14** NUMBER OF MINE/ERW VICTIMS IN JORDAN



Source: NCDR, 20 October 2020.

The Jordanian disability sector is governed by the 'Law on the Rights of Persons with Disabilities' (20/2017). In order to mainstream issues related to landmine survivors within the national strategy on disability, a steering committee on survivor and victim assistance was established in 2009, under the umbrella of the Higher Council for the Rights of Persons with Disabilities (HCD).<sup>168</sup> The NCDR's role is to support organisations in building capacity to provide relevant assistance to landmine survivors.<sup>169</sup>

In addition to being carried out in accordance with the core humanitarian principles,<sup>170</sup> victim assistance should be guided by non-discrimination, participation, inclusion and gender and diversity considerations, amongst other key principles.<sup>171</sup>

Besides providing immediate medical care and rehabilitation, victim assistance remains crucial to guarantee that mine survivors are not left behind. However, ensuring effective participation and full economic and social reintegration of mine survivors has been one of the most prominent challenges in mine-affected countries.<sup>172</sup>

Physical and functional rehabilitation has been at the centre of victim assistance efforts to meet their needs, while the development of robust reintegration systems remains challenging due to the resources needed.<sup>173</sup>

The Jordanian victim assistance programme was integrated as part of the national disability framework, and mine action specific resources have been used to improve the quality of assistance, based on lessons learnt from other mine-affected countries.<sup>174</sup> Concretely, the focus of the NCDR's assistance has been put on civilian survivors and their family members,<sup>175</sup> since the Hashemite Commission for Disabled Soldiers takes care of the needs of military personnel and veterans.<sup>176</sup>

To enhance national capacities for providing comprehensive assistance to mine victims, the NCDR raised funds for the establishment of the National Centre for Rehabilitation of Amputees<sup>177</sup> and a prosthetic / orthotic centre in Irbid.<sup>178</sup>

In addition, and to ensure that accurate data on mine / ERW casualties was available, the NCDR improved the national database.<sup>179</sup> During the period 2005–2009, the NCDR created a national record of mine / ERW victims. In April 2010 the NCDR, in collaboration with Survivor Corps Jordan, conducted a victim surveillance and needs assessment survey<sup>180</sup> in which almost every Jordanian survivor received a home visit. Since then, the database has been updated annually. Given the diverse initiatives undertaken under the victim assistance programme, mine action appears to be a contributor to several SDGs.



While survivors still face several challenges related to full access to health services, including long-term rehabilitation services or psychosocial support,<sup>181</sup> there is no doubt that victim assistance efforts have directly contributed to **SDG 3** on good health and well-being, in terms of **target 3.8** on universal health coverage and quality healthcare services, and **target 3.c** on increasing the financing, training and recruitment of the health workforce.

By facilitating universal access to healthcare services, including the access of women, girls, boys and men to physical or psychosocial rehabilitation, as well as social and economic reintegration, there is also a link with **SDG 5** on gender equality and its **target 5.1** on ending all forms of discrimination.

There are several examples of institutional partnerships, such as with the Polus Center International or the Montmorency College in Canada, to train local medical personnel and technicians in different fields, including knowledge of orthopedics and prosthesis or creating peer support networks.<sup>182</sup> Besides the specific contribution to SDG 3, the establishment of these partnerships also promotes **SDG 17** on partnerships for the Goals and its **target 17.6** on triangular regional and international cooperation to enhance access to mine action and victim assistance knowledge, **target 17.9** on enhanced international support for implementing effective and targeted capacity building, and **target 17.16** on knowledge sharing and expertise through multi-stakeholder partnerships.

In 2015 the NCDR also carried out a needs assessment survey for the purpose of priority setting, programming and planning of mine action activities. By enabling the active and equal engagement of victims in priority setting,<sup>183</sup> victim assistance is a contributor to **SDG 16**, **target 16.6** on developing accountable institutions, **target 16.7** on ensuring responsive, inclusive and representative decision-making at all levels, and **target 16.b** on non-discriminatory laws and policies.

To promote the economic reintegration of victims and survivors, women and men, the NCDR has implemented several initiatives with the Ministry of Agriculture and the Jordan Agricultural Credit Corporation<sup>184</sup> to fund agricultural projects aimed at improving the living standards of victims and

survivors.<sup>185</sup> As a result of these initiatives, more than 104 survivors had received small loans to kick-start their own businesses as of December 2020.<sup>186</sup>

Recently, the NCDR has partnered with the Ministry of Agriculture to establish a farm for victims and survivors on two plots of land loaned by the Jordan Valley Authority. The main goal is for the farm to be self-sustainable and provide revenues for the victims, most of whom used to work in the Valley prior to being injured.<sup>187</sup>

The NCDR has supported victims and survivors through the national disability framework<sup>188</sup> and policies, which include further support such as tax-free import of cars for mine victims and financial support to low-income families and veterans,<sup>189</sup> as well as health insurance coverage, employment quotas, and access to education and public facilities.<sup>190</sup>

While there is clear understanding that the completion of mine clearance could lead to the operational closure of the NCDR at some point, there are several issues related to victims and survivors that still need to be addressed.<sup>191</sup> For this reason, a local trust fund has been established to support victims and survivors with small credits or loans, and there are existing plans to establish a regional trust fund for survivors in Arab countries.<sup>192</sup>

Victim assistance has contributed to **SDG 8** on decent work and economic growth, with regard to **target 8.3** on the promotion of development-oriented policies that support productive activities and access to financial services and **target 8.5** on achieving decent work for all, which specifically refers to persons with disabilities.

By promoting the access of victims and survivors to economic resources and financial services, victim assistance has directly contributed to **SDG 1** on ending poverty and its **target 1.3** on implementing nationally appropriate social protection systems and measures for all, **target 1.4** on ensuring that the poor and the vulnerable have equal rights to economic resources and financial services, **target 1.5** on building resilience of the poor and vulnerable to shocks, and **target 1.b** on creating frameworks based on pro-poor and gender sensitive development strategies.

Also, by enhancing agricultural activities and income, victim assistance has contributed to **SDG 2** on ending hunger, in particular its **target 2.3** on agricultural productivity and incomes of small-scale food producers.

Similarly, by promoting social and economic inclusion and adopting social protection policies for victims and survivors, victim assistance has contributed to **SDG 10** on reducing inequalities, to **target 10.2** on promoting the social, political and economic inclusion of all, irrespective of disability, **target 10.3** on endorsing policies and actions that reduce inequalities, and **target 10.4** on adopting fiscal, wage and social protection policies.

When reviewing how mine action has facilitated access to education, victim assistance has contributed to **SDG 4** on inclusive education, particularly in terms of **target 4.5** aimed at ensuring access to education for the vulnerable, including persons with disabilities. Also, by facilitating the accessibility of public spaces, victim assistance has contributed to **SDG 11** on sustainable cities and communities and its **target 11.7** on access to safe, inclusive and accessible public spaces for persons with disabilities.





### 3. EXPLOSIVE ORDNANCE RISK EDUCATION

Explosive ordnance risk education (EORE) 'refers to activities which seek to reduce the risk of injury from 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.'<sup>193</sup>

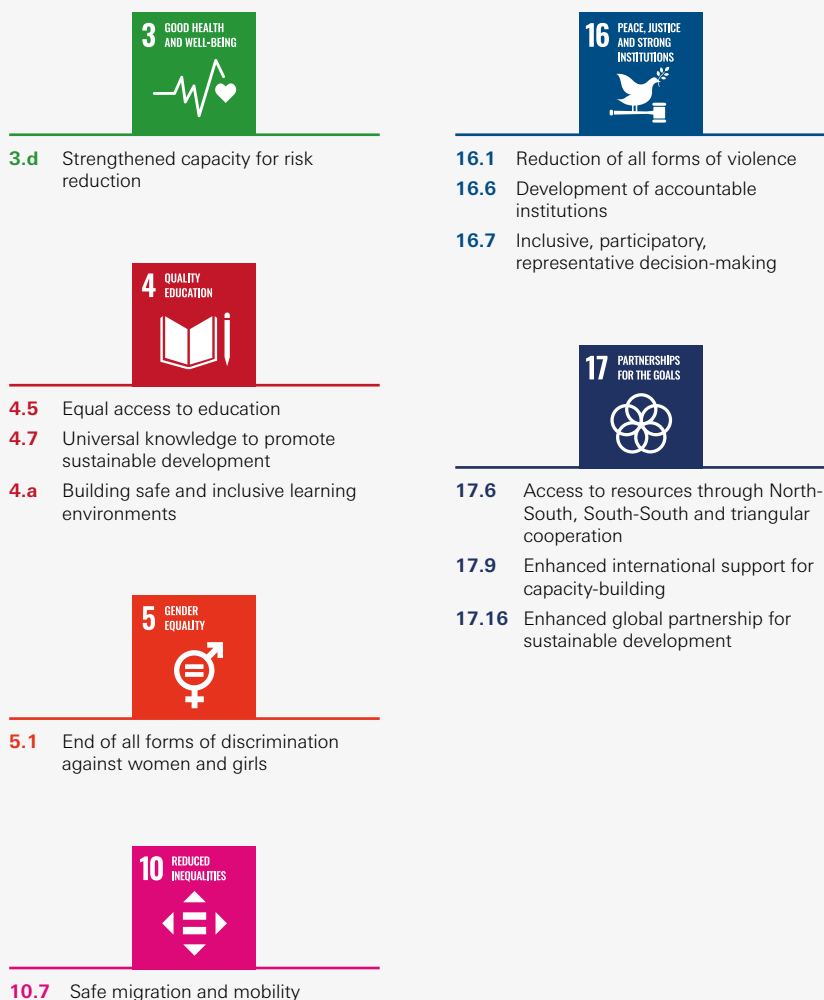
International Mine Action Standard (IMAS) 12.10 on mine risk education (MRE)<sup>194</sup> represents the most substantial update of this standard since 2009, and also marks the shift in terminology from MRE to EORE.

In this context, 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.

The National Committee for Demining and Rehabilitation (NCDR) incorporated a mine risk education programme in 2007, building upon the International Committee of the Red Cross's (ICRC) and Jordanian Red Cross's mine education programmes for Iraqi refugees in 2003. Currently, the NCDR coordinates all the MRE activities conducted by accredited stakeholders.<sup>195</sup>

To standardise the delivery of risk education, the NCDR developed MRE national standards, standard operational procedures and trainers' manuals and materials in line with the IMAS.<sup>196</sup> These developments have promoted **SDG 3** on good health and well-being and its **target 3.d** on strengthening the capacity for early warning, risk reduction and management of health risks.

FIGURE 15 CONTRIBUTION OF EORE TO THE SDG TARGETS IN JORDAN



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/>

The MRE programme has targeted the most affected communities and mainly focused on the central and northern governorates, with ad hoc projects in the Jordan Valley. Besides traditional target groups,<sup>197</sup> the NCDR has also focused its attention on engaging with the scrap metal industry,<sup>198</sup> such as collectors and dealers, but also reaching smugglers, by holding meetings to raise awareness on the dangers of dealing with explosive remnants of war and abandoned ordnance.<sup>199</sup>

Regarding inclusiveness and equality, the NCDR found that its efforts to incorporate women into its MRE team had immediate positive results, since it facilitated access to other women in households and communities and provided relevant guidance on how to effectively present MRE materials to women and children.<sup>200</sup> As a result, and even if men seem to be the most at risk, approximately 70 per cent of the total beneficiaries were women.<sup>201</sup> Based on this experience, women seem to be more eager to engage and disseminate the knowledge within the household.

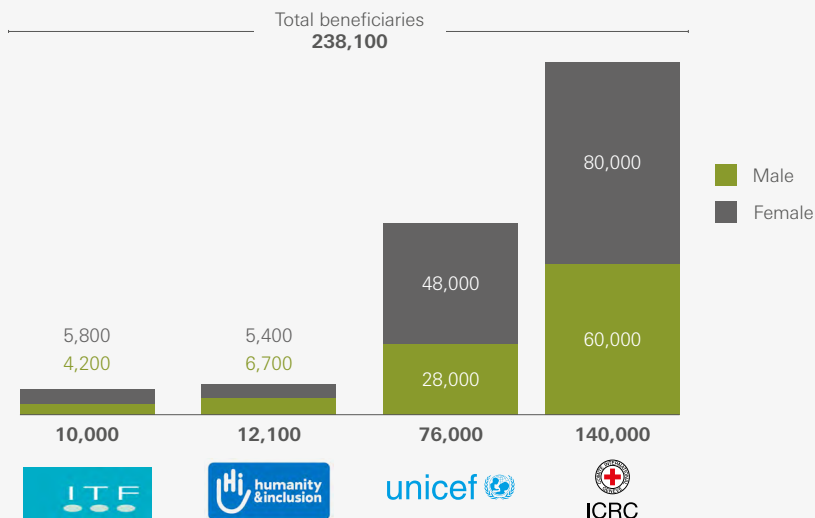
Following a ‘training the trainers’ approach throughout 65 basic MRE courses, more than 900 volunteers, men and women, and community leaders, were trained and certified to work in raising awareness in affected communities.

By targeting women, girls, boys and men in accordance with their different vulnerabilities, roles and needs and by promoting safer behaviours, the MRE programme has contributed to **SDG 4** on quality education, its **target 4.5** on eliminating gender disparities in education at all levels for the vulnerable, and **target 4.a** on providing safe, non-violent, inclusive and effective learning environments for all. A linkage with **target 4.7** on enabling skills to promote sustainable development, including sustainable lifestyles, gender equality and non-violence is also found. Accordingly, EORE is also linked with progress towards **SDG 5** on gender equality and its **target 5.1** on ending all forms of discrimination against women and girls.



FIGURE 16

## NUMBER OF BENEFICIARIES FROM AN MRE CAMPAIGN FOR SYRIAN REFUGEES IN JORDAN



Source: NCDR

After the outbreak of the Syrian crisis, the NCDR and international organisations<sup>202</sup> developed an emergency MRE programme with the aim of targeting Syrian refugees in the northern border area, given that most of them came into Jordan through former minefields without having any prior risk education.<sup>203</sup> In 2020, the Regional Durable Solutions Working Group (RDSWG) on explosive hazards risk education (EHRE) developed guidelines on EHRE for safer return, which include recommendations on programming, messaging for safer return, and EHRE risks analysis.<sup>204</sup>

The MRE programme also collaborates on a regular basis with key governmental stakeholders and local partners.<sup>205</sup> The establishment of these partnerships supports **SDG 17** on partnerships for the Goals and its **target 17.6** on triangular regional and international cooperation to enhance knowledge sharing, including through improved coordination, **target 17.9**

on enhanced international support for implementing effective and targeted capacity building, and **target 17.16** on knowledge sharing and expertise through multi-stakeholder partnerships.

By reducing risks from explosive ordnance for refugees arriving from or returning to Syria, MRE has contributed to **SDG 10** on reducing inequalities and its **target 10.7** on facilitating orderly, safe, regular and responsible migration and mobility of people.

The NCDR estimates that this programme has reached more than a million beneficiaries,<sup>206</sup> including Jordanian and Syrian, and the yearly average number of accidents has been drastically reduced.<sup>207</sup> Therefore, there is also a contribution to **SDG 16** and its **target 16.1** on significantly reducing all forms of violence and related deaths, by promoting a reduction of at-risk behaviour in a sustainable manner and increasing the security situation and the perception of safety in contaminated areas.

Additionally, by enabling the affected communities to participate in priority setting and strengthening their skills to participate in these processes, EORE is a contributor to **target 16.6** on developing accountable institutions, and **target 16.7** on ensuring responsive, inclusive and representative decision-making at all levels.



## 4. GENDER MAINSTREAMING

As emphasised by UN Security Council resolution 1325 on women and 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.<sup>208</sup> Consequently, mine action works to improve the impact of its interventions on affected women, girls, boys and men from diverse groups.<sup>209</sup>

Gender mainstreaming in mine action refers to the process of assessing the different implications for women, girls, boys and men of any planned action, including legislation, policies or programmes, in all areas and at all levels.<sup>210</sup> Besides increased effectiveness, a gender-sensitive approach to mine action<sup>211</sup> can play a key role in women's empowerment in contexts where inequality is present.

The Global Gender Gap Index 2020 ranks Jordan 138 out of 153 countries, based on indicators of economic participation and opportunity, educational attainment, health and survival, and political empowerment. In terms of economic participation and opportunity, Jordan reaches the 145<sup>th</sup> position out of 153 countries, with a female labour force composed of only 15.1 per cent in comparison with 67.4 per cent for men.<sup>212</sup> This percentage of female participation is one of the lowest in the world.<sup>213</sup>

In such a context of existing inequalities, mine action has shown successful examples in promoting the substantive participation and the inclusion of women in the efforts of the sector in Jordan.

For instance, the National Committee for Demining and Rehabilitation (NCDR) and Norwegian People's Aid (NPA) undertook a gender-sensitive landmine retrofit survey where women and men in affected communities were interviewed by gender-balanced survey teams, which in turn enhanced the effectiveness of the survey process and allowed for the collection of more inclusive, gender-sensitive, and reliable data.<sup>214</sup>

FIGURE 17

## CONTRIBUTION OF GENDER MAINSTREAMING TO THE SDG TARGETS IN JORDAN



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/>

Through its mine action gender mainstreaming action plan, the NCDR was able to promote gender equality in recruitment processes and increase gender balance within the workplace. Concretely, they employed 9 women out of the total of 20 employees in the mine risk education (MRE) area,<sup>215</sup> which helped to increase the effectiveness of mine action, particularly in terms of survey and MRE.<sup>216</sup>

Also, NPA established an all-female demining team in 2008 to remove 136,000 landmines in the northern area. The 24 trained Jordanian women became the first female demining team in the Middle East.<sup>217</sup>

Recent research has shown evidence of the links between female employment in mine action and sustainable development.<sup>218</sup> In the Jordanian case, gender mainstreaming in mine action helped increase female representation and participation, and thus contributed to **SDG 5** on gender equality and its **target 5.1** on ending all forms of discrimination against women and girls, **target 5.5** on ensuring women's full and effective participation and equal opportunities for leadership at all levels, **target 5.a** on undertaking reforms to give women equal access to economic resources, and **target 5.c** adopting policies for the promotion of gender equality.

By promoting equal employment opportunities and encouraging the recruitment of women, gender mainstreaming contributed to **SDG 10** on reducing inequalities and particularly to its **target 10.2** aimed at empowering and promoting inclusion for all, **target 10.3** on ensuring equal opportunities and reducing outcome inequalities, and **target 10.4** on adopting policies to achieve greater equality. Gender mainstreaming also contributed to **SDG 16** on peace, justice and strong institutions and its **target 16.b** on non-discriminatory laws and policies

Additionally, linkages with **SDG 8** on decent work and economic growth are found, in terms of **target 8.5** aimed at ensuring decent work for all.

This section focuses on the direct contributions of gender mainstreaming to the SDGs. However, it should be noted that, in order to ensure that the overarching principle of leaving no one behind is upheld, gender mainstreaming as an approach needs to be implemented and monitored in all mine action programmes, projects, and activities.



## 5. PARTNERSHIPS AND COOPERATION



Strong cooperation at the global, regional, national and local levels is needed to realise the 2030 Agenda and the SDGs. Given the multidimensional, interlinked, and overarching character of the goals, no country can achieve them alone.

As recognised by UN Security Council Resolution 2365, partnerships and cooperation are central to the success of mine action, particularly between national authorities, the United Nations, regional organisations, civil society, and the private sector.<sup>219</sup>

Partnerships are voluntary and collaborative relationships in which all participants agree to work together to achieve a common purpose or undertake a specific task and, as mutually agreed.<sup>220</sup>

The mine action sector in Jordan represents a case where strong national ownership has enabled strategic partnerships, international cooperation and assistance, that in turn have helped to strengthen national capacities. This has also allowed the country to more rapidly implement its demining plans, and fulfill its Article 5 obligations under the APMBC.

Regarding policy coherence and intergovernmental partnerships, Jordan has hosted global conferences organised by the NCDR and has had an active role within the international community, enhancing the visibility of Jordan's mine action efforts and evidencing close coordination and collaboration between the NCDR and the Government of Jordan,<sup>221</sup> which in turn is perceived as a strong commitment towards its landmine problem.

Several examples of partnerships (including private-public),<sup>222</sup> international assistance and cooperation have been identified in the previous sections addressing land release, victim assistance, EORE, and gender mainstreaming. Therefore, this section also focuses on South-South and triangular cooperation in mine action to analyse the associated outcomes in terms of the SDGs.



FIGURE 18

## CONTRIBUTION OF PARTNERSHIPS AND COOPERATION TO THE SDG TARGETS IN JORDAN



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/>

South-South cooperation is not a substitute for, but rather a complement to, traditional North-South cooperation. South-South cooperation refers to the process whereby two or more developing countries pursue their individual and / or shared national capacity development objectives through exchanges of knowledge, skills, resources and technical know-how, and through regional and interregional collective actions, including partnerships involving governments, regional organisations, civil society, academia and the private sector, for their individual and / or mutual benefit within and across regions.<sup>223</sup>

Triangular cooperation is the collaboration in which traditional donor countries and multilateral organisations facilitate South-South initiatives through the provision of funding, training, management and technological systems, as well as other forms of support.<sup>224</sup>

In its latest National Mine Action Plan 2015–2020, the NCDR aims to assist other countries still facing contamination challenges and to transition into a regional training and research institution.<sup>225</sup> So far, the NCDR has conducted several mine action courses and workshops, including regional ones in Arabic.<sup>226</sup> In this way, the NCDR has been actively present and participated in the framework of the GICHD's Arab Regional Cooperation Programme (ARCP) since its establishment in 2012.<sup>227</sup>

The NCDR contributes by sharing good practice of its mine action operations with the regional participating programmes. The NCDR hosted an ARCP regional workshop on operational efficiency and land release in 2013, and a regional ARCP ammunition practitioner training course in 2018.

More recently, in December 2019, the NCDR hosted the ARCP 7th Annual Conference bringing together national mine action directors and relevant operational personnel from the region. The conference discussed and helped raise awareness on the newly issued International Mine Action Standards, as well as agreed on Arabic terminology.

Through this multi-stakeholder engagement and partnerships at different levels, mine action outcomes are closely linked to **SDG 17** on partnerships for the Goals and its **target 17.3** on mobilising financial resources for developing countries, **target 17.6** on enhancing all types of cooperation and knowledge sharing on mutually agreed terms, **target 17.9** on supporting capacity building to implement all the SDGs (including all types of collaboration), **target 17.17** on enhancing public, public-private and

civil society partnerships, and **target 17.18** on capacity building support to increase the availability of high-quality, timely, reliable, and disaggregated data.

By promoting governance and strengthening institutional accountability towards both donors and beneficiaries, mine action has contributed also to **SDG 16** on peace, justice and strong institutions and its **target 16.6** on developing effective, accountable and transparent institutions, **target 16.7** on participatory and representative decision-making at all levels, **target 16.8** on broadening participation of developing countries in institutions of global governance, and **target 16.a** on strengthening relevant national institutions including through international cooperation, for building capacity at all levels.

As a result of these partnerships and exchanges, mine action has contributed to **SDG 10** on reduced inequalities and to its **target 10.b** on encouraging official development assistance and financial flows.



# CONCLUSIONS

The presence of explosive ordnance constitutes an obstacle to safety and security by posing a threat to the lives of the population. In addition, it prevents people from accessing resources or creating alternative sources of income, alienating potential investors, and generating negative psychological impacts for the affected communities within contaminated areas.

Hence, mine action does not only save lives. It is also a transformative activity that enables large socio-economic benefits and lays the foundation for sustainable development in the medium and long term. To maximise its impact, strategic planning in mine action should consider its expected outcomes as an integral part of broader rehabilitation, reconstruction and sustainable development plans.

The mapping of mine action's humanitarian and development outcomes in Jordan, and their links to the SDGs, serve to demonstrate how mine action can play a key role in advancing sustainable development in a range of crucial activities.

The SDG framework enabled the identification of mine action's direct contribution to 16 SDGs and to at least 63 targets, benefitting the five critical dimensions of the 2030 Agenda: partnership, peace, people, planet, and prosperity.

In the case of Jordan, relevant milestones can be attributed to the joint efforts of the mine action sector. Amongst them, land release in Aqaba has unlocked the only exit to the sea, allowing this high-potential area to develop different touristic and infrastructure projects. In the northern border area, intersectoral efforts to conduct land release and explosive ordnance risk education have prevented a potentially massive crisis with the flow of Syrian refugees entering Jordan through areas that were heavily mined in the past. Additionally, the access to fertile fields in the Jordan Valley and the support to victims has turned out to be a game changer for vulnerable communities dependent on agricultural activities.

The continuous refinement of methodical analyses of humanitarian and development outcomes derived from mine action will help to strengthen the evidence of the role of mine action in fostering the triple nexus between broader humanitarian, development, and peace initiatives. In turn, these align and scale up mine action activities with other related initiatives.

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 its visibility, while contributing to strengthening the effectiveness of mine action.





# ENDNOTES

- 1 King Hussein Bin Talal Development Area.
- 2 This document refers both to EORE, as this is the terminology adopted by the updated IMAS 12.10 on EORE, and to MRE, as the latter is the official name used by the NCDR programme.
- 3 In September 2000, the United Nations Member States adopted the United Nations Millennium Declaration to reduce extreme poverty, hunger, 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.
- 4 United Nations Resolution (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. UN Doc. A/RES/70/1.
- 5 Ibid.
- 6 Ibid.
- 7 In line with the definition of impact evaluation in IMAS 14.10, First Edition (Amendment 3, June 2013), Guide for the evaluation of mine action interventions.
- 8 GICHD and UNDP. 2017. *Leaving no one behind: Mine action and the Sustainable Development Goals*.
- 9 [GICHD, KCL and SIPRI. 2019. \*The Socio-economic Impact of Anti-vehicle Mines in Angola\*](#).
- 10 Ibid, p. 32.
- 11 In structured interviews, questions are planned and created in advance, while in unstructured interviews questions arise spontaneously in a free-flowing conversation which allows for a more tailored approach.
- 12 Materials and research produced by organisations outside of the traditional commercial or academic publishing and distribution channels.
- 13 United Nations Resolution (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. UN Doc. A/RES/70/1.
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- <sup>227</sup> Information provided by the Coordinator of the GICHD Regional Cooperation Programme.





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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](mailto:info@gichd.org)

[gichd.org](http://gichd.org)

