Report on the 8th Round of Data Collection of the Monitoring and Evaluation Mechanism for the United Nations Strategy for Mine Action 2013-2018

(with data as of 31 December 2017)

Prepared by the United Nations Inter-Agency Coordination Group on Mine Action

1. Executive Summary

This report provides an overview of how the UN has contributed to mine action using data collected through the UN's M&E mechanism for mine action.[1] It is reporting within the framework of the Strategy of the United Nations on Mine Action 2013 – 2018, which is the first strategy for which the UN in mine action has implemented such a monitoring system, that was launched in 2014.[2]

2. UN in Mine Action 2013 – 2018

The UN provides direct mine action support to twenty-nine of the sixty states and territories confirmed or strongly suspected to be contaminated with anti-personnel mines ([3]), as well as seven additional countries and territories affected by ERW and other types of explosive devices, but where there is no known contamination by anti-personnel mines ([4]). Over the past five years, the UN's engagement in mine action has evolved in response to global conflicts and the needs of countries and territories affected by mines and ERW. The UN has completed its mine action programmes in five countries ([5]) and opened new programmes in seven.[6]

Over the period of 2014 – 2017, Landmine and Cluster Munitions Monitor reported that USD 2.5 billion was provided to the mine action sector, of which 10.7% (USD 0.26 billion) was channeled through the UN trust fund for mine action.[7] A further USD 0.75 billion was channeled to mine action through the UN regular budget, making the global total provided to the mine action sector USD 3.2 billion, of which 31.4% (USD 1.01 billion) was channeled through UN mine action (see Exhibit 1).

[1] The M&E mechanism has collated data from 75% of the UN mine action programmes.
[2] https://www.mineaction.org/en/reportings-strategy-2013-2018
[3] *Landmine and Cluster Munitions Monitor*, p. 23. Available at: http://www.the-monitor.org/en-gb/reports/2018/Landmine-monitor-2018
[4] Abyei, Albania, CAR, Darfur, Mali, Nigeria, Niger
[5] Algeria (UNDP, 2018), Côte d'Ivoire (UNMAS, 2017), Egypt (UNDP, 2018), Mozambique (UNDP, 2015), Nepal (UNICEF, 2015);
[6] Iraq (UNMAS, 2015), Myanmar (UNICEF, 2016), Niger (UNICEF, 2015), Nigeria (UNDP, 2017), Syria (UNMAS, 2015), Vietnam (UNDP, 2018), Yemen (UNDP, 2015);
[7] Landmine and Cluster Munitions Monitor 2015, 2016, 2017 and 2018

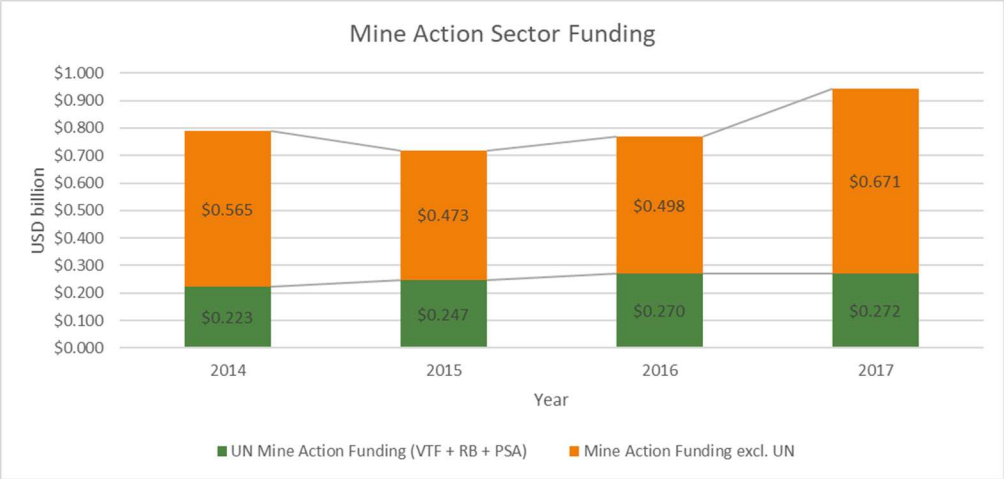

Exhibit 1: UN Contribution to Mine Action Sector by funding
Source: Landmine and Cluster Munitions Monitor and the UN[8]

To remove and mitigate the threat of mines and ERW, the UN provides in-country mine action support channeling funds on behalf of donors to implement mine action. These funds are focused on priority areas identified in the 2013 – 2018 UN mine action strategy and locally defined priorities. The UN's support is aimed to reduce the risk of mines and ERW (strategic objective one) while, in parallel, increasing the capacity of the host government to nationally manage it's the mine and ERW threat without external support (strategic objective three). For those individuals and communities already impacted by mines and ERW, defined in international humanitarian law as victims of mines and ERW, the UN engages in and promotes support and advocacy (strategic objective two). Reporting through the M&E mechanism, twenty-eight of the UN mine action programmes reported funding of USD 0.64 billion between 2014 and 2017, which gives an indication of the allocation of funding across different functional areas. The majority of UN funding allocated to mine action was in support of strategic objective one, fifty-one percent of funds of programme funds were allocated to survey, clearance and EOD support and six percent of funds allocated to mine risk education. A further four percent was allocated to capacity development projects. An estimated one percent of UN mine action funding was allocated to support for victim assistance projects. A further thirteen percent of programme funds was allocated to coordination support, five percent to programming and twenty percent to other functions.

To complement the UN's direct support in country, it also mainstreams issues involving mine action within UN country responses for protection of both civilians and humanitarian workers. At the global level, the UN advocates for and facilitates policy discussions within the General Assembly and the First Committee of the General Assembly, as well as the Security Council, as well as other global relevant framework and fora (strategic objective four).

UN mine action is committed to gender and diversity. While it is recognized that traditionally the mine action sector is predominantly male dominated, the UN is committed to achieving gender parity and increased diversity in support of the UN's system wide gender parity strategy. For example, the gender ratios for personnel across UNMAS duty stations in 2017 are shown in Exhibit 2,[9] where it can seen that 73% are male and 27% female.

[8] UN mine action funding sources include the Voluntary Trust Fund, the UN Regular Budget allocated to mine action and the peacekeeping support account for coordination allocated to mine action. Figures do not include UNDP and UNICEF budgetary funds allocated to mine action.
[9] Personnel included in the data collection are those only on UNOPS International Individual Contractor Agreements.

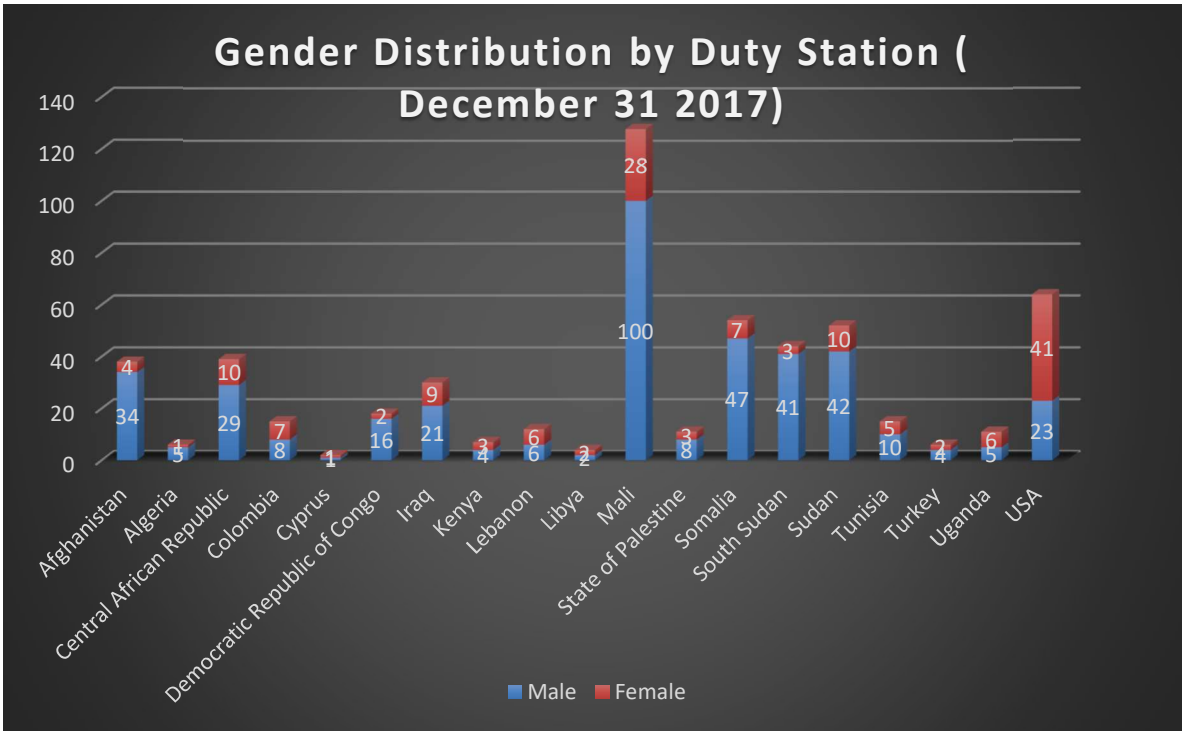

Exhibit 2: Gender Ratios of personnel working in mine action across UNMAS Field Programmes
Source: UNOPS

With an amplified focus on talent outreach in 2018, an increase in female representation by 3% overall was seen with ratios of 71% male and 29% female. As a cross-cutting outcome in the new United Nations Mine Action Strategy 2019-2023, it is envisaged that UN mine action will see greater gains in the area of gender parity and mainstreaming, as well as diversity, by enhancing the integration and mainstreaming of relevant considerations across all UN country strategies, programmes and operations, as well as staffing, management, and reporting.

3. Strategic Objective One

Reducing the risk of mines and ERW is a central priority for the UN in mine action. Mine/ERW casualties continue to be relatively high. There is also the increasing threat posed by IEDs. Analysis conducted on the trend of casualties by type of device is shown in Exhibit 3, with data from thirteen countries, making up eighty-eight percent of the casualties reported through the UN's M&E mechanism: The Mine/ERW casualty rate per 100,000 population shows a slightly decreasing trend from 0.81 in 2015 to 0.71 in 2017. The IED casualty rate per 100,000 population has increased from 0.41 in 2015 to 1.18 in 2017 (type of IEDs included in analysis: 'Command-detonated', 'Time detonated' and 'Type unknown'). 10 The trend for victim-operated IEDs was estimated to increase from 0.18 in 2015 to 0.42 in 2017. Direct casualties disproportionately affect men and boys, an observation noted broadly in the sector.

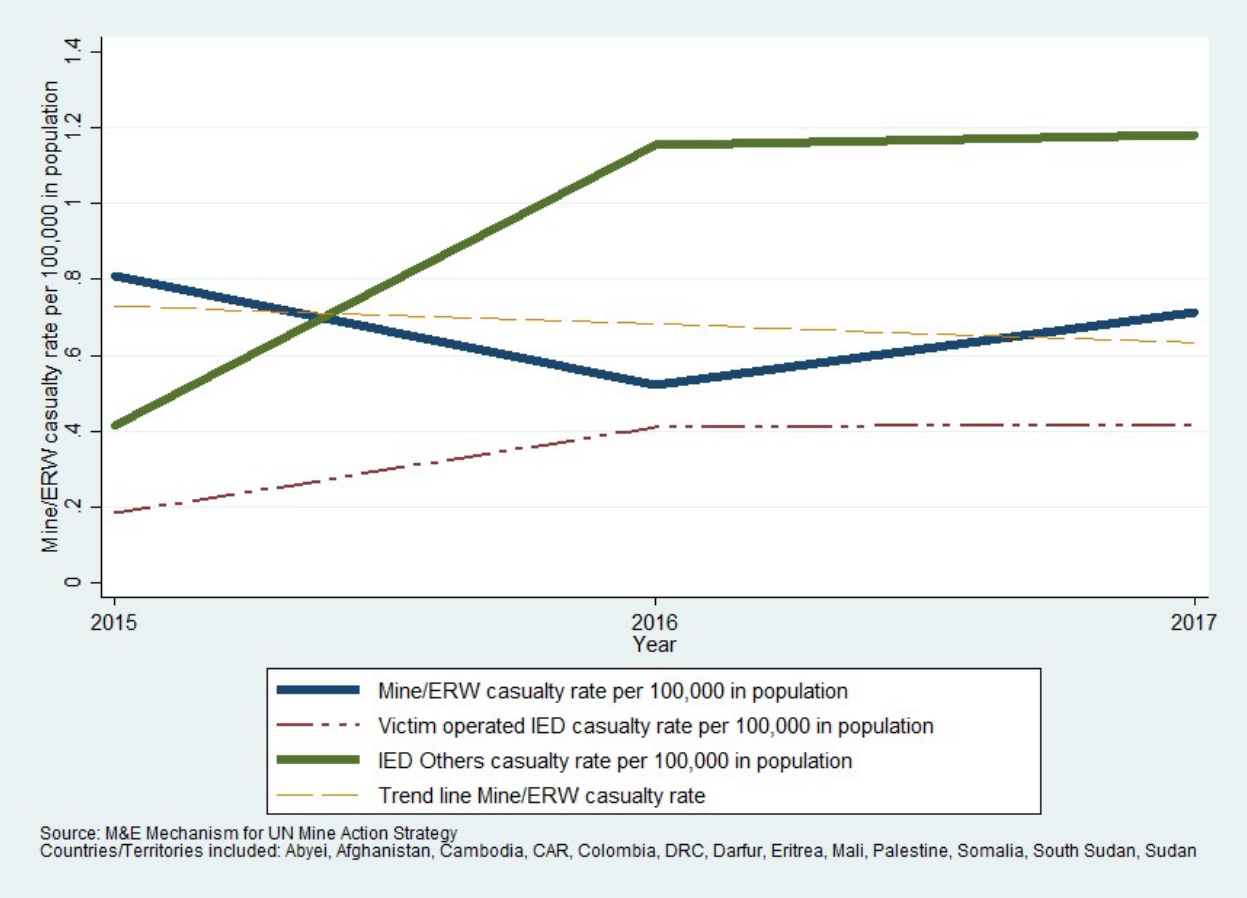

Exhibit 3: Trend of Mine/ERW and IED casualty rate 2015 – 2017
Source: UN M&E Mechanism for mine action

[10] https://unmas.org/en/improvised-explosive-device-lexicon

As shown by the casualties, there continues to be a threat posed by **anti-personnel mines**. As noted in the previous report, the largest amounts of land suspected and confirmed to be contaminated with anti-personnel mines using non-technical survey are found in five countries, four of which have a UN mine action presence: Afghanistan, Bosnia and Herzegovina, Cambodia, Ethiopia and Iraq (see Exhibit 4).

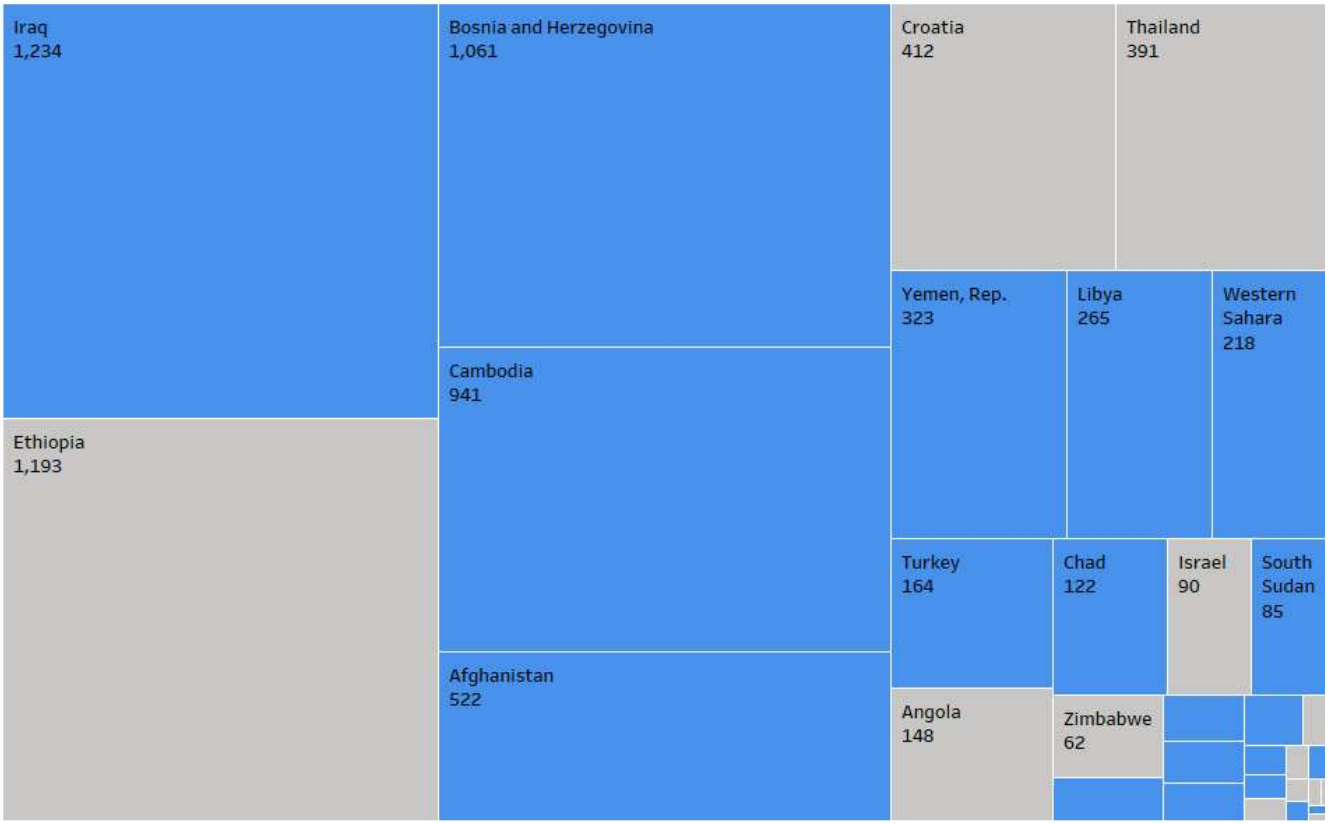

Exhibit 4: Area in square kilometers suspected and confirmed to be contaminated by anti-personnel mines in 2017
Blue indicates countries with a UN mine action presence
Source: Landmine and Cluster Munitions Monitor

Steady progress is being made globally to cancel, reduce and clear land contaminated by anti-personnel mines. Since 2014, the 1,723 square kilometers of land have been cancelled, reduced and cleared, or an average of 431 square kilometers per year. Based on this rate of progress, the process of cancelling, reducing and clearing land will need to continue for an additional 17 years. This is an average across all countries included in the analysis and it will be valuable to conduct country-by-country analysis according to international priorities for reduction of contamination (see Exhibit 5).

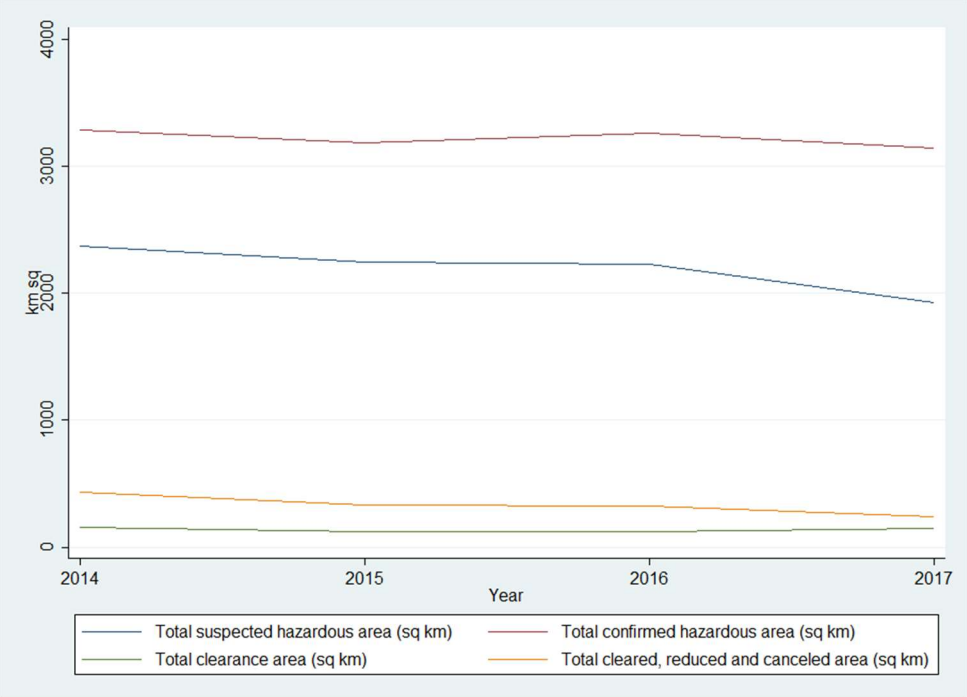

Exhibit 5: Suspected and confirmed hazardous area, total cleared, and total area cancelled, reduced and cleared, in square kilometers
Source: Landmine and Cluster Munitions Monitor

In addition to anti-personnel mines, there continues to be contamination from **mine other than anti-personnel mines (MOTAPM)** e.g. anti-tank mines. The full extent of the contamination from MOTAPM is not known however a study was conducted by SIPRI and GICHD to investigate their effects. A recent option paper for the IACG-MA on MOTAPM noted: "SIPRI/GICHD study through the three-year period revealed that the scale of the impact has remained stable. Between 2015 and 2017, the study recorded 528 Anti-Vehicle Mine incidents that caused 1,508 casualties. The highest numbers of casualties recorded between 2015 and 2017 occurred in Ukraine, Pakistan, Mali, Syria and Yemen.

United Nations provides direct support for clearance of anti-personnel and anti-tank mines. For example, in Western Sahara, the UN is supporting clearance of land east of the berm. However, in most contexts where the anti-personnel and anti-tank mines contamination is well known and recorded, the United Nations support is focused on providing advisory services to the government to facilitate national clearance operations, for example by supporting resource mobilization and procurement. Examples include Cambodia, Lebanon, Tajikistan and Turkey, where the United Nations provides mine action advisors to the government.

There are many areas that are suspected to be contaminated with **Explosive Remnants of War (ERW**) but not necessarily by anti-personnel mines or MOTAPM, in which non-technical survey has not been carried out due to access limitations. The full extent of this contamination is expected to be significant. For example, the 2016 Syria Humanitarian Needs Overview notes that: "In 2015, communities identified the presence of explosive remnants of war as among the greatest risks in 50 per cent of governorates, a marked increase from 2014".[11] Considering that comprehensive and comparable estimates of the amount of land contaminated with ERW is not available, it may

[11] 2016 Humanitarian Needs Overview: Syrian Arab Republic, p. 7, https://reliefweb.int/sites/reliefweb.int/files/resources/2016_hno_syrian_arab_republic.pdf

be worth considering whether desktop methods, for example using GIS technologies, to estimate the extent of the contamination could be developed in order to support planning and resource mobilization. A type of explosive remnant of war, **Cluster munitions,** are monitored more closely due to the existence of the Convention on Cluster Munitions, which entered into force in 2010. The Cluster Munitions Monitor reports that as of August 2017, 26 states (12 States Parties, one signatory, and 13 non-signatories) and three other areas are contaminated by cluster munition remnants, and it is unclear whether two States Parties are contaminated. New use increased contamination in Syria and Yemen in both 2016 and 2017, and in the area of Nagorno-Karabakh in early 2016. In 2016, at least 88 square kilometers of contaminated land is reported to have been cleared.[12]

In such environments where the risks are not fully known or where clearance may not yet be possible due to security or political reasons, risk education is used to reach out to local communities and displaced persons to inform them of the risk posed by mines and ERW, in an effort to reduce casualties. The UN supports provision of risk education to affected civilians and government and humanitarian workers operating in affected areas. MRE is prioritized according to need in terms of casualties, as indicated by Exhibit 6 which shows that more MRE is delivered when the casualty figures are higher. For example, in Yemen in 2017, the UN has provided messages on risks associated with mines and ERW to over 1.6 million people, and to over 2 million people in Syria.[13] The UN also integrates risk messaging into broader child protection support provided to Syrian refugees in Egypt, Iraq, Jordan, Lebanon and Turkey.[14]

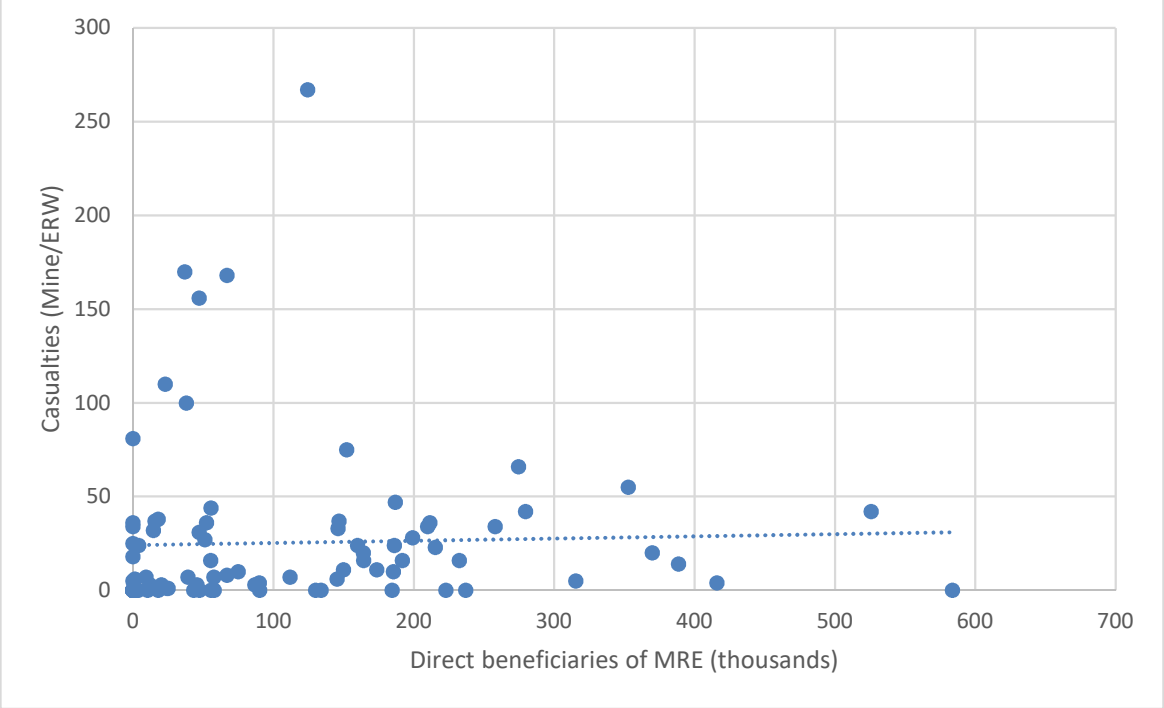

Exhibit 6: MRE beneficiaries and mine/ERW casualties for data available between 2014 to 2017 (blue dots represent country data collection rounds)
Source: UN M&E Mechanism for mine action

[12] Cluster Munitions Monitor 2017, pp 6 -7, http://www.the-monitor.org/media/2582190/Cluster-Munition-Monitor-2017_web4.pdf
[13] https://www.unicef.org/appeals/files/UNICEF_Yemen_Humanitarian_Situation_Report_Year_End_2017.pdf
[14] https://www.unicef.org/appeals/files/UNICEF_Syria_Crisis_Humanitarian_Situation_Report_Year_End_2017.pdf

MRE can take many different forms depending on the type of threat and the operating environment. MRE has been mainstreamed or is in progress of being mainstreamed in education systems in 14 countries in which the UN has a mine action presence. MRE can be delivered through classes, through performances in local villages, through posters or messages on existing material to help people (bottles of water, playing cards). In addition, public information campaigns and radio broadcasts are developed to mainstream important safety messages into entertainment. For example, in South Sudan and DRC, MRE messages were delivered through songs developed by local pop groups.[15] In CAR, a moto-taxi visibility campaign was completed where the UN distributed visibility vests containing MRE sensitization key messages (which included both explosive hazards and SALW) to moto-taxis. Although the effects of MRE are difficult to measure, behavioural changes have been observed. For example, in Cambodia, it has been observed that fewer people are resettling and reclaiming contaminated land for cultivation, collecting UXO/AXO for sale as scrap metal and going into forest for food and by-forest products. The casualties in Cambodia from mines have reduced from 48 in 2013 to 22 in 2017.

As indicated by the casualty rates, a significant development in recent years has been the emergence of new, mostly improvised contamination that is increasingly being managed in the context of mine action. No estimates are available of the extent of contamination from Improvised Explosive Devices (IEDs), partly because of lack of information but partly because there is not consensus on how to capture and record this information. The use of IEDs can be differentiated by their use in an 'active-conflict' and in a 'post-conflict' setting, although it is important to recognize the line between the two contexts is not always clear. In a post-conflict setting, IEDs are often considered to have a similar impact as mines: IEDs threaten lives and inhibit access, recovery and development. Once the devices are removed, then the risk is reduced, and access is enabled to the affected area and to critical infrastructure. By contrast, in an 'active-conflict' context, removal of a device does not necessarily change the threat environment or increase access to areas because the devices are used as part of ongoing conflict and there is a risk that additional devices can be emplaced in the area in the future. In these environments, risk reduction could involve improving analysis of usage trends as well as training of personnel to deal with the devices. There is an ongoing discussion in the mine action sector about terminology related to Improvised Explosive Devices. The UNMAS IED lexicon differentiates between three types of IEDs depending on its type of switch, the device that activates the IED: command-detonated, time-detonated and victim-operated. Standards for clearance of IEDs have been defined by the UN to use by peacekeeping troops, and an international mine action standards (IMAS) chapter for the clearance of IEDs is under development.

An example of UN provision of support in the case of IED contamination is in Iraq. The UN mine action response in Iraq has been in support not of legacy minefields but of identification and removal of threat of explosive hazards in areas liberated from ISIL. The UN mine action response has focused on clearance of key infrastructure (water treatment plants, hospitals, roads, bridges, schools).[16] The impact of explosive weapons on urban services is known to have a reverberating effect on the ability of communities.[17] Enabling access to key infrastructure has also enabled the reconstruction effort and allowed people displaced by the fighting to return to what is left of their homes so they can start to rebuild their lives. The work is complicated by a still-emerging consensus on international standards and processes for removal of the threat from IEDs and informed by the work underway.

Another form of reducing risk that is supported by the United Nations is through weapons and ammunition management. Eight out of the thirty-six countries and territories that have a UN mine action presence provide support to WAM. In Côte d'Ivoire, the mine action programme of the United Nations was part of the United

[15] https://www.youtube.com/watch?v=Dse1iZg7auc ; https://www.youtube.com/watch?v=xKT0kUrCrpc
[16] https://unmas.shorthandstories.com/unmas-in-iraq/index.html
[17] 'The impact of explosive weapons on urban services: Direct and reverberating effects across space and time', by Mark Zeitoun and Michael Talhami

Nations Operations in Côte d'Ivoire (UNOCI) and supported the Ivorian government rehabilitate the storage of its ammunition and 75% of its weapons assets prior to the UNOCI closure in 2017. In Libya, the UN has contributed to reducing the unsafe storage of arms and ammunition, for example by facilitating the destruction of over 200 tonnes of ERW in Misrata. In CAR, the UN's work in weapons and ammunition management supports the restauration and extension of State authority throughout the territory as well as the CAR government's compliance with the sanctions arms embargo regime, for which a comprehensive WAM structure is necessary in the processes of exemption requests.

4. Strategic Objective Two

The term 'victim' is defined broadly and incorporates family members and communities directly and indirectly impacted by explosive ordnance.[18] This broad definition makes estimates of the number of victims challenging to obtain, and therefore challenging to develop meaningful advocacy and interventions. Casualty figures in countries with a UN mine action presence collated since the M&E Mechanism was set up record that 66% of the casualties were injured by mines, ERW and IEDs. However, direct injuries by mines, ERW and IEDs underrepresents the number of victims because it does not include estimates of families or of communities directly or indirectly impacted by explosive ordnance. Sectoral consensus on different types of victims and the different types of support that can be provided will enable more targeted and measurable responses.

Support provided to those affected by mines and ERW varies depending on the victim type is also broadly defined, and, unsurprisingly, meaningful estimates of their availability and breadth is also challenging to obtain. A full range of services cover emergency response, continuing medical care, rehabilitation, psychological and psycho-social support as well as support for social and economic inclusion, requiring integration into a range of sectors including but not limited to health, education and transport. Support providers also cover many different actors, including national health authorities, as well as a range of international actors. Sixty-two percent of countries reporting to the UN's M&E mechanism reported that the government made some investment in provision of victim assistance services, and half of the countries reported that a full range of services to victims was available, respecting that the interpretation of service type varies in different country contexts.[19] However only forty-two percent (11 out of 26 reporting programmes) were able to provide limited information on the number of beneficiaries of victim assistance support either because the UN mine action programme in the country is not engaged in victim assistance or no victim assistance programmes are underway. Of the available beneficiary figures, these tend to be a small percentage of the overall mine/ERW injury figures, suggesting that many victims are not receiving support services. Data collection suffers from inconsistent data definitions (for example, for the provision of ongoing support to victims, it was not clear if these were returning victims as part of ongoing rehabilitation, or new victims). Due to the broad definitions of victims and support to victims, there is an opportunity for more standardization in how victim assistance information data is monitored.

Forty-two percent (11 out of 26 reporting programmes in 2017) reported that UN-channeled funds were invested in victim assistance activities from the most recent round of data collection for the M&E mechanism. Unsurprisingly, given the broad definitions of both victims and services to victims, the United Nations support for victims varies widely. Lebanon, for example, has a relatively strong national infrastructure to support victims of mines and ERW. It has a national database recording over 3,700 people who have received physical injuries from mines and ERW and contributes 50% of the support for healthcare for people with disabilities. In this context, UNDP is supporting a Lebanese government corporate social responsibility initiative requiring companies to employ at least 3% of people who have a disability. In addition, UNDP provides training on support to victims to the Lebanon Mine Action Center.

The UN has provided valuable advocacy support for victims of mines and ERW, despite the challenges presented by provision of direct support to victims. During the period of the last strategy, the UN updated its policy on victim assistance, which acts as a sector reference in the interim until a mine action standard is agreed.[20] Within UN country programmes, the UN advocates for national disability policies to be in place that make appropriate

[18] https://www.mineaction.org/sites/default/files/un_policy_on_victim_assistance_in_mine_action_2016_update_0.pdf
[19] Countries reporting a full range of services are available to victims are: Afghanistan, Bosnia, Colombia, Eritrea, Jordan, Mali, South Sudan, Sri Lanka, Sudan, Tajikistan. Countries that reported a full range of services are not available to victims are: CAR, DRC, Egypt, Libya, Myanmar, Nigeria, Palestine, Somalia, Yemen;
[20] https://www.mineactionstandards.org/standards/international-mine-action-standards-imas/imas-in-english/

references to mine and ERW victims. Eighty-six percent of the twenty-one countries that responded to the most recent round of data collection in the M&E Mechanism reported the presence of a national disability policy in 2017. Two countries, Eritrea and Somalia, reported that drafted policies have been put in place during the period of the last UN mine action strategy.

The presence of a national disability policy appears to be a relevant indicator on the maturity of a country's response to its mine action threat, as reported in the last M&E mechanism report. Analysis from the M&E Mechanism indicates that states affected by mines and ERW with a disability policy relates to a stronger national commitment to health system development, higher GDP and a lower number of injuries from mines/ERW. The presence of a national disability policy also is an indication that more victim assistance services are made available: out of countries with victim services recorded as available, on average, countries with a disability policy in place offered 67% more types of services than in countries without a disability policy. Of those services available, the most common were emergency response services and the least common were psychosocial support. From this one can infer that the presence of a disability policy can increase focus and create a better umbrella under which victim assistance services can be delivered.

In the 2019-2023 UN mine action strategy, the role of the UN to advocate for mainstreaming survivors, support existing standards and develop institutional structures in line with provisions of the CRPD and connect with existing support structures has been elaborated. In emergency response contexts, the UN will advocate for people with disabilities. In cases where existing support not available, the UN can provide direct support, however the priority is to connect survivors and their families into existing national support networks.

5. Strategic Objective Three

A key challenge is that states affected by mines and ERW are not able to manage the threat within existing national structures, and need to develop the policy framework, infrastructure and technical skills to be able to manage the threat, support victims of mines and ERW, and meet international obligations, as relevant. Along with assessment of contamination, sustainable and effective national capacity is at the heart of mine action: many states suffer from the mine and ERW threat, current or 'legacy', and many manage this issue within existing national systems and structures. However, if the threat is too great, the national capacity too weak, or both, then additional support is needed. In these circumstances, the United Nations can provide support, if requested. Exhibit 7 shows that the UN presence is in all countries with a human development index ('HDI') lower then 0.5, i.e. UN assistance is focused on countries with lower HDI. It also illustrates that countries with UNMA presence and lower HDI suffer from an increased casualty burden.

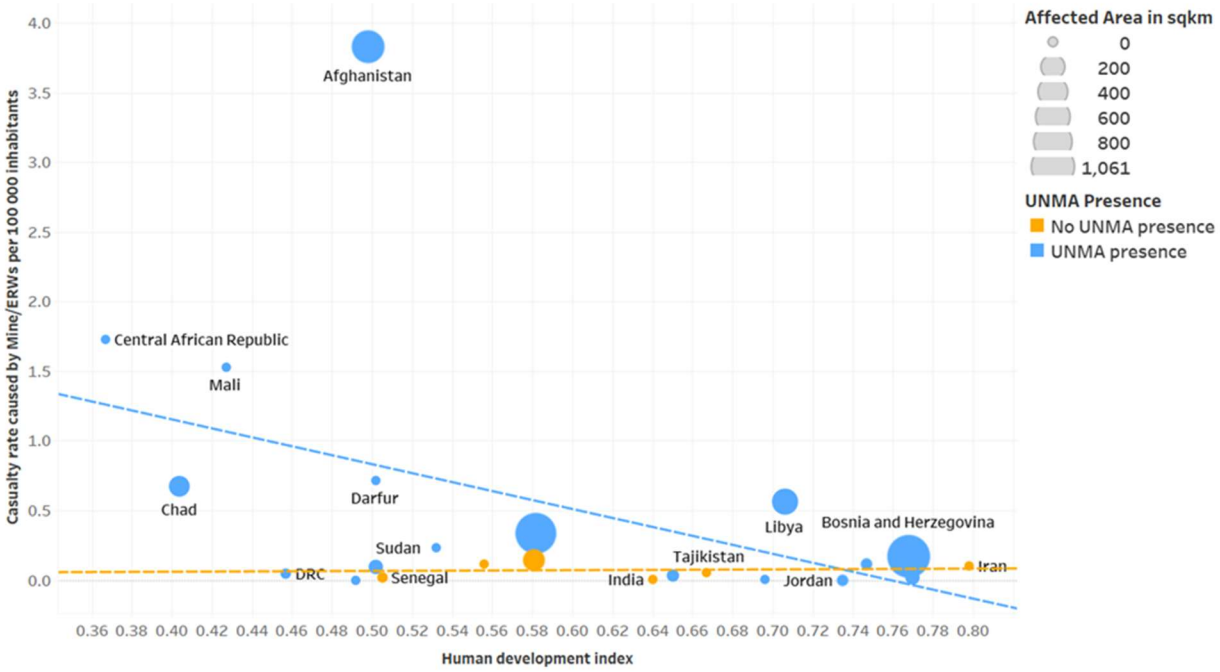

Exhibit 7: Relationship between a country's human development index and the number of mine/ERW casualties, showing UN mine action presence
Sources: UN M&E Mechanism for mine action, Human Development Index;

Another factor that seems to affect a country's capacity to manage the threat of mines and ERW nationally is whether countries are currently experiencing armed conflict.[21] The impact of mines and ERW in terms of the casualty rate is higher in countries in which armed conflict is ongoing. These countries also have lower levels of development, as indicated by the human development index score. Countries with lower levels of development and in which armed conflict is ongoing have higher levels of UN mine action investment. Exhibit 8, below, shows

[21] 'Whether a country is in 'armed conflict' includes the types of war of 'civil war' and 'transnational terrorism' as defined by the Global Conflict Tracker (https://www.cfr.org/interactives/global-conflict-tracker#!/global-conflict-tracker); This has been triangulated by using proxy indicators on political stability and absence of violence from the World Bank governance indicators database: http://info.worldbank.org/governance/wgi/#home;

that in countries in which armed conflict is ongoing (red line) have higher mine/ERW casualty rates per 100,000 population.

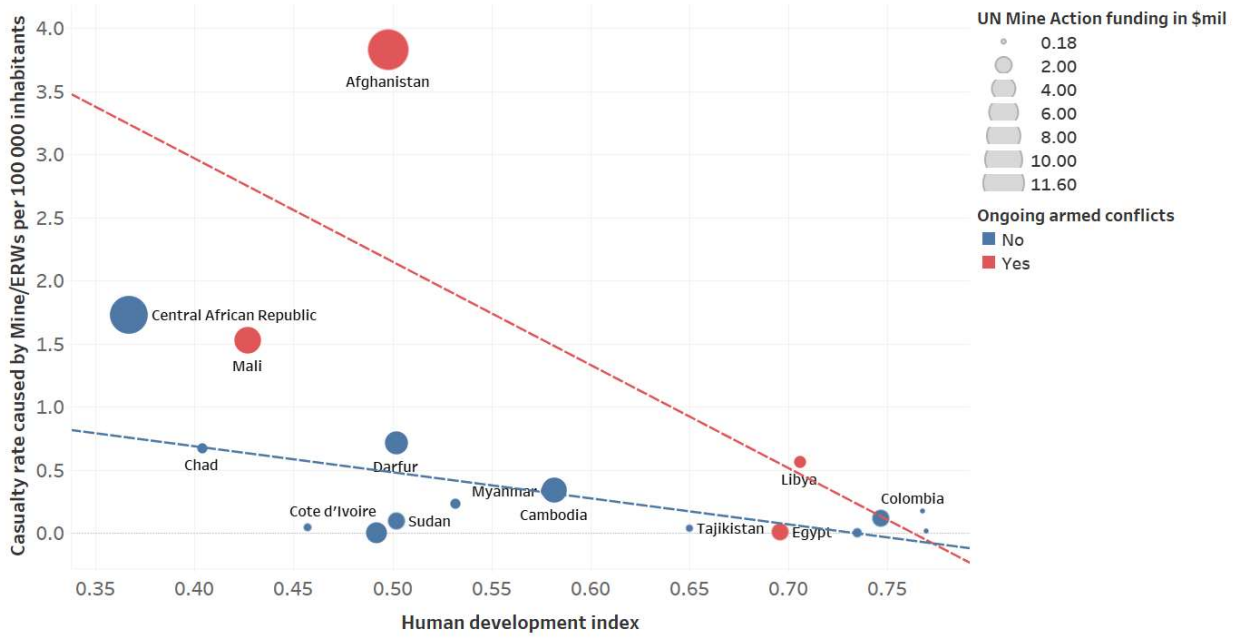

Exhibit 8: Relationship between a country's human development index and the number of mine/ERW casualties, showing whether a country is experiencing ongoing armed conflict
Sources: UN M&E Mechanism for mine action, Human Development Index, Global Conflict Tracker, World Bank Governance Indicators;

UN support for national capacity development is context specific as there is no official 'standard' on what constitutes a strong mine action national capacity: it is considered to be unique to each country context. Contributing factors to the effectiveness of a national response include: the context and stage of conflict (i.e. active conflict, post-conflict); the burden of casualties or affected areas; the existing national infrastructure (governance, system and fiscal capacity); and national political, funding and capacity investment in mine action. Despite no standard approach for mine action, there appears to be consensus that to have an effective mine action capacity, a country requires national frameworks in place (laws, policies, strategies); information about the mine action threat available (injury surveillance system, IM system); physical infrastructure in place (people, an office, funding, ability to mobilize resources and contract services) and an operational capacity for clearance and assistance to victims in place (national standards, prioritization system, accreditation process for operators, QA system). In addition, guidance is available to the mine action sector on management of mine action programmes, including information management.[22]

[22] https://www.gichd.org/topics/management-of-mine-action-programmes/#.XEB1X1z7SUl; https://www.gichd.org/topics/information-management/#.XEB1ZFz7SUk

Data collected through the UN's M&E mechanism for the 2013-2018 Strategy gives an indication of the extent of the range of national capacities for some indicators of the extent of national mine action assessment, planning, management and sustainability, in terms of national investment.

- For assessment of the mine action threat, there are opportunities for further investment, data gathering and analysis: just under half of respondents (45%) identified that a socio-economic impact survey had been conducted and just over half of respondents reported the national mine action authority had adopted a plan or strategy on information management (67%). 57% of respondents reported a national injury surveillance system was in place.[23]

- On mine action planning and management, a greater number of countries report planning structures are in place. 16 out of 20 (80%) of respondents indicated a national strategy on mine action has been developed or is in draft, or mine action has been incorporated into existing strategies and 13 out of 16 (81%) of respondents indicated their country has, or is developing, NMAS based on IMAS. Two thirds (14/21) of respondents indicated that MRE is integrated into national school curricula.[24]

23

Indicator	Yes	In Draft
45% of respondents indicated that a socio-economic impact survey been conducted in the mine affected areas (9 out of 20 respondents)	7 (Afghanistan, B&H, Cambodia, Jordan, Libya, Tajikistan, W Sahara;	2 (Colombia, Syria);
67% of respondents indicated the national authority has adopted a plan or strategy on Information Management (14 out of 21 respondents);	14 (Afghanistan, B&H, Cambodia, Colombia, Darfur, DRC, Egypt, Jordan, Myanmar, Somalia, Sri Lanka, Sudan, Tajikistan, Yemen);	
57% of respondents indicated that indicated that the country/territory has established or intends to establish an Injury Surveillance system that collects data on mine, ERW and IED victims (12 out of 21)	11 (Afghanistan, B&H, Cambodia, CAR, Colombia, Darfur, DRC, Jordan, Myanmar, Palestine, Sri Lanka);	1 (Eritrea)

24

Indicator	Yes	In Draft / In Progress
80% of respondents indicated a national strategy on mine action has been developed or is in draft, or mine action has been incorporated into existing strategies (16 out of 20);	13 (Afghanistan, B&H, Cambodia, Colombia, Darfur, Jordan, Myanmar, Palestine, Somalia, South Sudan, Sri Lanka, Sudan, Tajikistan);	3 (CDI, DRC, Egypt);
81% of respondents indicated their country has, or is developing, NMAS based on IMAS (13 out of 16 respondents);	10 (Afghanistan, B&H, Cambodia, CAR, Colombia, Eritrea, Jordan, Palestine, Tajikistan, Yemen)	3 (DRC, Libya, Somalia);
67% of respondents indicated that MRE is integrated into national school curriculum (14 out of 21 respondents);	9 (Afghanistan, Darfur, Egypt, Eritrea, Somalia, Sri Lanka, Sudan, Syria, Tajikistan)	5 (CAR, DRC, Mali, Myanmar, Palestine)

- For sustainability of mine action, assessed by whether national governments invest in mine action, 81% (21/26) reported that the country is investing financially in at least some aspects of mine action. The priority areas of national investment identified were mine risk education, capacity building, survey and clearance, and coordination (see Exhibit 9). [25] No information on the amount of funds invested is available.

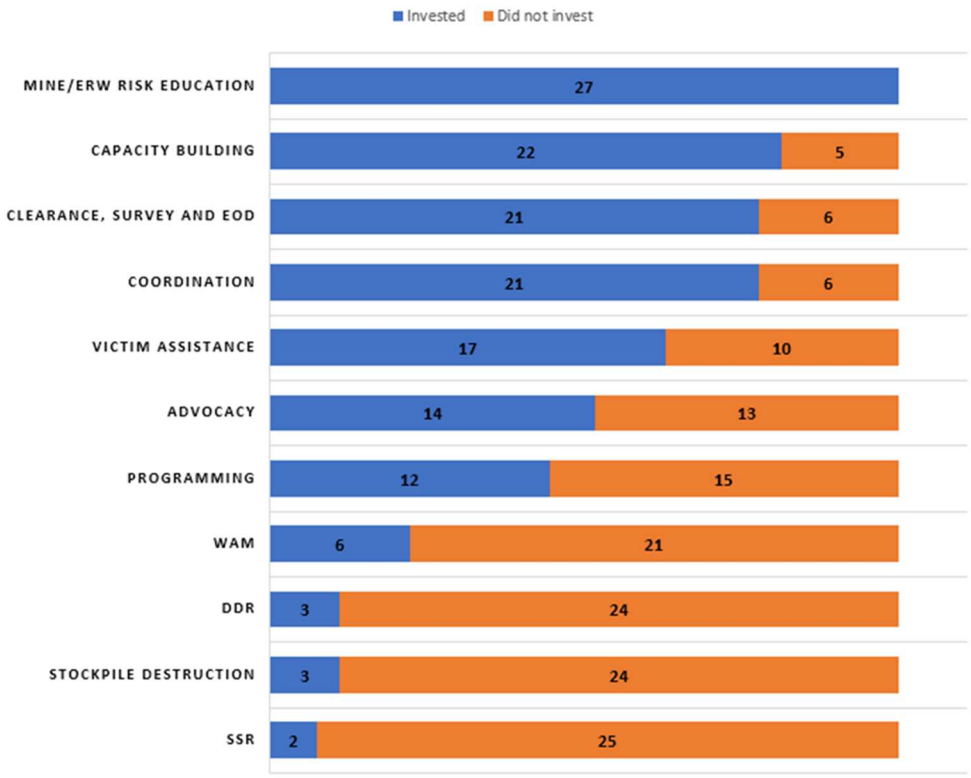

Exhibit 9: Investment by national authorities by mine action function
Source: UN M&E Mechanism for mine action

25

Indicator	Yes	No / Not available
Some level of financial investment in mine action: 21 out of 26 respondents;	21 (Afghanistan, B&H, Cambodia, Chad, Colombia, CDI, Darfur, DRC, Egypt, Eritrea, Jordan, Libya, Mali, Myanmar, Nigeria, Palestine, South Sudan, Sri Lanka, Sudan, Tajikistan, Yemen)	5 (Abyei, CAR, Somalia, Syria, W Sahara)

The UN started seven new mine action programmes during the period of the last strategy. As the new UN mine action programmes develop, the UN works with the host government to agree its management structure and coordination processes for mine action. One example is in Myanmar in which a coordination structure with the government and other mine action organizations has been set up. Another example is in Mali in which the UN is working with the government of Mali to designate a new or existing structure with a mine action mandate. Naturally the national political situation in a country impacts the national mine action structures in place. For example, in Libya, Iraq and Yemen there are different national stakeholders taking ownership over mine action covering different parts of the countries, which in some cases are contested. During the period of the last strategy, the UN finished its mine action programmes in five countries. This was due either to the country's successful completion of its APMBC commitments (Algeria, Mozambique) or agreement with the host country that sufficient relevant national capacity was in place (Côte d'Ivoire, Egypt, Nepal).

6. Strategic Objective Four

Traditionally, the mine action related normative frameworks are the 'Anti-Personnel Mine Ban Convention ('APMBC') the Convention on Cluster Munitions ('CCM'), the Convention on Certain Conventional Weapons ('CCW') which covers a variety of devices including landmines, booby traps and explosive remnants of war, and the Convention on the rights of Persons with Disabilities ('CPRD'). The UN advocates for all countries to accede to these treaties. When the UN operates a mine action programme within a country, it works with the host government to encourage treaty accession and support the development of relevant applications and reports as needed. Out of the countries with a UN mine action presence, accession to relevant international mine action treaties ranges from 89% (for the CCW Protocol 2) to 44% (the CCM). For the APMBC, 76% of countries with a UN mine action presence have acceded to this treaty, including two during the period of the last strategy (State of Palestine, Sri Lanka). The UN continues to have a mine action presence in 7 countries that are not signatories of the APMBC and will continue to advocate for accession.[26]

Other international frameworks to which mine action contributes is the development and implementation of peace and ceasefire agreements. Since 2013, there have been references to mine action in nine out of sixty-six peace and ceasefire agreements (14%) in or between five states affected by mines and ERW, four of which have a UN mine action presence.[27] One significant example of the role mine action can play in peace negotiations is the development of the 2016 Peace Accord between the Government of Colombia and the Revolutionary Armed Forces of Colombia (FARC-EP). Rural land development and reform was a central part of peace negotiations and therefore technical advice and agreement on contamination and clearance was required as part of development, and then implementation of the Accord.[28] The UN has supported Colombia during the Accord negotiations and now in advises Colombia's national mine action body, Dirección Descontamina Colombia. Another example is Cyprus's Committee on Missing Persons which has been set up to determine the fate of missing persons as part of promoting reconciliation. The UN, through integration of mine action in the peacekeeping mission UNFICYP, provides practical support to ensure safe access to areas in which the Committee conducts activities.[29]

Much of the advocacy conducted by the UN in mine action takes place internally to ensure that relevant sectors are aware of mine action issues (refugees, water and sanitation, resettlement, economic development etc), and to ensure mine action issues are incorporated into relevant planning and programming, share information, provide technical advice and inform a more targeted and effective mine action response. At the international level, mine action references are integrated into UN reports and resolutions, as well as development and cooperation frameworks, including UNDAFs and UN Country Programme documents. Considering that mines and ERW inhibit socio-economic development, mine action has also been incorporated into relevant development and cooperation frameworks within specific country contexts. As noted in the previous report on progress of the UN mine action strategy, a key development for the UN in mine action during the period of the last strategy was the first-ever resolution passed by the Security Council on mine action (S/RES/2365). This complements the existing mine action resolutions in the General Assembly: the resolution A/RES/72/75 on "Assistance in mine action" has been renewed unchallenged during the period of the last strategy. The UN in mine action has also responded to

[26] The UN has a mine action presence in 7 countries that are not signatories of the APMBC (Azerbaijan, Lao PDR, Lebanon, Libya, Myanmar, Pakistan, Syria). The UN has a mine action presence in 14 countries that are not signatories of the CCM (Azerbaijan, Cambodia, Eritrea, Jordan, Libya, Myanmar, Pakistan, South Sudan, Sudan, Syria, Tajikistan, Turkey, Ukraine, Yemen). The UN has a mine action presence in 11 countries that are not signatories of the CCW (Azerbaijan, CAR, Chad, DRC, Eritrea, Libya, Myanmar, Somalia, South Sudan, Syria, Yemen). The UN has a mine action presence in 4 countries that are not signatories to the CRPD (Eritrea, Somalia, South Sudan, Tajikistan).

[27] Central African Republic, Colombia, Philippines (*), Libya, Myanmar; (* No UN mine action presence)

[28] https://reliefweb.int/report/colombia/humanitarian-demining-and-conflict-prevention-lessons-colombia-s-farc-peace-process

[29] www.cmp-cyprus.org, https://peacekeeping.un.org/en/mission/unficyp

the threat posed by IEDs through adopting resolution A/RES/72/36 on "Countering the threat posed by improvised explosive devices". For mine action overall within relevant UN reports and resolutions, there has also been a positive trend in the references to mine action, explosive remnants of war (ERW) and improvised explosive devices (IEDs) in relevant UN reports and resolutions during the period of the last strategy.

At the country level, UN mine action supports the integration of mine action into UN-coordinated responses. The period of the last strategy saw the reactivation of the mine action area of responsibility as part of the Inter-Agency Standing Committee's cluster approach and currently there are 15 active mine action sub-clusters or working groups to which the UN in mine action contributes to coordination, in addition to the global mine action area of responsibility.

An example is the integration of mine action into a humanitarian response is the case of Syria in which the integration of mine action into the broader humanitarian response is prominent. Activities such as risk education and raising awareness on explosive hazards has been incorporated across clusters, such as female risk education officers providing sessions in Women and Girl Safe Spaces, the provision of backpacks with key messaging on safety for schoolchildren as part of a Back to Learning campaign, and the addition of leaflets in distributable food packages and shelter kites. Recognizing the importance of mine action integration, the number of organisations delivering or incorporating mine action components into their programming has increased from 8 in 2015 to 28 for the 2019 Humanitarian Response Plan. The UN mine action team working with the mine action sub-cluster also ensured mine action requirements were incorporated into the data gathering process and subsequent priorities identified in the humanitarian needs overview and humanitarian response plan, which is necessary to enable access to programmatic funds.[30]

Since the last strategy, the 2030 Agenda on the 'Sustainable Development Goals' ('SDGs') have been adopted and the UN's Secretary-General has introduced several key priorities as well as launched several reform agendas related to peace and security, disarmament, peacebuilding and development, to name a few. The UN mine action, working with partners, is already ensuring the contribution of mine action to these priorities is articulated and then delivered.[31] The next UN mine action strategy, and its monitoring framework, will further continue these developments.

[30] https://www.humanitarianresponse.info/en/operations/whole-of-syria

[31] Examples of how mine action contributes to the SDGs: http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/mine-action-and-the-sustainable-development-goals.html

7. Lessons Learned from implementation of the M&E Mechanism for the UN in mine action

The 2013-2018 UN mine action strategy was the first for which the IACG-MA requested to develop an accompanying mechanism "… to assess progress made by the UN in the implementation of its vision, strategic objectives and internal initiatives"[32] and it is the first time the UN has mine action has aggregated consistent information across all UN mine action programmes, including benchmarking of national capacity levels. The mechanism was specified, piloted and then rolled out between 2013-2014 through an interagency development process. Since then it has delivered biannual reports to the IACG-MA providing an up-to-date overview of where the UN is operating in mine action and key areas of UN investment to guide IACG-MA decision making for resource prioritization. It has provided an overview of progress against the strategy's objectives which has been used in IACG-MA reporting and analysis. UN mine action country programmes have been able to use the monitoring mechanism to as an external benchmark against which to record progress.

The mechanism is formed of a survey distributed to focal points from UN mine action programme as well as supporting research on the integration of mine action into key UN documents and peace and ceasefire agreements. Organizational structures have been set up to deliver this mechanism: A governance body overseeing the M&E mechanism that reports to the IACG-MA has been formed. The governance body is known as the Consultative Working Group (CWG) and is made up of active membership representing UNDP, UNICEF, UNMAS and UNOPS. A core delivery team has been established for the data collection, analysis, reporting and maintenance. The core delivery team relies upon a network of country focal points that engages biannually to share information about progress against the strategic objectives from the UN mine action strategy for their countries and territories. To address issues of data quality, a survey manual was developed to capture standard definitions for key terminology. Where available, the survey manual reference definitions already available in the sector, such as terminology from IMAS and the definition of MRE beneficiaries agreed by key stakeholders in the mine action sector.

In addition to reporting on progress of the current UN Mine Action Strategy, delivery of the monitoring mechanism has also highlighted challenges. One central challenge has been managing expectations about what the monitoring mechanism can and should deliver. The monitoring mechanism was designed to monitor the sector-level outcomes identified in the UN mine action strategy. The strategy, and therefore its accompanying monitoring mechanism, do not separate out the individual role of the UN from that of other partners – it can be challenging and, in some cases, controversial to attribute specific sector developments to any single contributor. If any attribution of results to the UN were possible, it would need to take place thorough targeted evaluations in specific project contexts with clarity on what the UN is delivering, availability of a baseline on sectoral outcomes and the capacity to control for other factors influencing the outcomes. Future monitoring initiatives need a more nuanced understanding of what is realistic to demonstrate the UN's contribution to the mine action sector, progress within the mine action sector, and the mine action sector's contribution towards broader humanitarian and development outcomes.

Another key challenge identified through the monitoring mechanism has been issues of data quality. Despite the delivery of the survey manual, data definitions vary across different mine action contexts. For example, defining whether people live 'in proximity' to mines and ERW depends on the country context and the contamination itself. Even terms that are defined within IMAS can be used differently across countries and therefore aggregating information poses challenges. The UN's M&E mechanism aggregates information globally that is already collated at country level and that already follows locally defined data standards and definitions. So, despite good intentions, the terminology used within the survey and accompanying survey manual of the M&E mechanism

[32] Strategy of the United Nations on mine action 2013 – 2018, p. 22, (http://www.mineaction.org/sites/default/files/publications/mine_action_strategy_mar15.pdf)

needs to penetrate more deeply into the data collection and aggregation processes already in place in each country to be able to be effective. The mine action sector is working to address these challenges through the definition of minimum data standards to be captured in a 'Technical Note on Information Management' to accompany the IMAS on information management, implementation of which is the responsibility of national mine action authorities.

Related to the issue of data quality is the issue of data availability, which varies significantly. This is partly due to resource constraints: engagement of UN mine action programmes in the M&E mechanism ranges between 65 – 70% for each data collection round because there are not always the in-country resources available to collate and provide the required data. Secondly, even if UN resources are available to contribute the data into the M&E Mechanism, the requested data is not accessible. In some cases the data is available but not shared with the UN focal point (for example, with centralized national mine action authorities) , in some cases the UN programme does not support the relevant pillar (this is often the case with data on victim assistance) and so cannot access the relevant data in a cost effective way, and in some cases the data is just not available, either because contaminated areas are not known, the situation is too volatile to meaningfully collate casualty data or for other reasons. Lastly, there is often an unwillingness to making estimates, for example of people at risk from mines/ERW. These kinds of estimates, if done in a methodologically sensible way and used with appropriate caveats in place, can provide valuable context to assess the coverage of mine action support provided (casualty rates, MRE beneficiaries, victim assistance received).

Through a combination of the network and organizational structures developed and the challenges faced in structuring and developing the M&E mechanism over the last five years, the IACG-MA is in a stronger position to determine how it can move forwards in cost effective way to assess progress of the new mine action strategy.

8. Conclusion: Implications for the new UN mine action strategy and monitoring mechanism

To build on the momentum from the last five years, the IACG-MA has developed a mine action strategy for 2019 – 2023 and is updating its monitoring mechanism.[33] The strategy identifies not just the outcomes towards which the UN in mine action wants to contribute, but also the outputs that the UN intends to deliver to contribute to the desired outcome demonstrated in a theory of change. The 2019 – 2023 strategy's monitoring mechanism will use this theory of change to broaden the information it collates in line with the new strategy's direction.

The IACG-MA has agreed on some key principles of the monitoring of the new UN mine action strategy:

- *Build on momentum of current structure:*
    - Maintain governance structure
    - Continue to capture progress in mine action sector

The monitoring infrastructure developed acts as a research unit pooling mine action data at the global level. This information can be collected from a variety of reliable sources and should be used by the IACG-MA, or IACG-MA entities, to support strategic planning and decision-making in mine action, as well as incorporated into IACG-MA reporting obligations. There is also an opportunity to show relationships between sets of data, like if there is a relationship between funding levels, capacity levels, casualty levels etc. that help inform investment decisions and demonstrate the consequence of decisions. Currently data on countries with a UN mine action presence is collated – it will be useful to extend to all mine/ERW affected countries to increase the ability to draw comparisons and see if the UN presence has a noticeable impact of progress.

- *Capturing outputs:*
    - Integrate with existing operating reporting and highlight gaps

Implementing this relies on greater focus within each UN mine action programmes and likely increased budget. For example, with MRE beneficiaries and casualty rates: it is important to know what percentage of MRE beneficiaries are funded with UN funds to demonstrate the UN's contribution. Reporting needs to be clear that this is an indication of contribution but does not prove a causal relationship or provide definitive evidence of UN impact, just like other organizations in the sector, and, indeed, beyond the mine action sector. It will be valuable to support monitoring data with qualitative assessments such as case studies. This should take place at the programme level, but also adhere to quality guidelines agreed to at the global level. Adherence to these guidelines would ideally be monitored, because at the moment the quality of country monitoring systems varies a lot depending on the interest of the programme manager in country.

    - Capture more outputs on internal UN coordination at HQ and field to show how UN mine action integrates mine action into broader UN responses.
    - Capture UN outputs contributing to the development of national structures and policies that are owned by the affected states themselves (e.g. strategy development, treaty ratification, implementation of injury surveillance system, etc.): UN to highlight gaps in structures or quality of structures, and use for advocacy, but it is ultimately member state decision to implement relevant structures.

- *Enhance existing M&E structure*
    - *Capturing outcomes and impact:* Use centralized team to build up evidence base using publicly available data sources and examples from targeted studies & case studies
    - Move to annual reporting cycle
    - Improve data quality control
    - Develop reporting template

[33] https://www.mineaction.org/en/resources/un-mine-action-strategy-and-monitoring-and-evaluation-mechanism

Exhibit 10 summarizes enhancements of the M&E framework for the new UN mine action strategy.

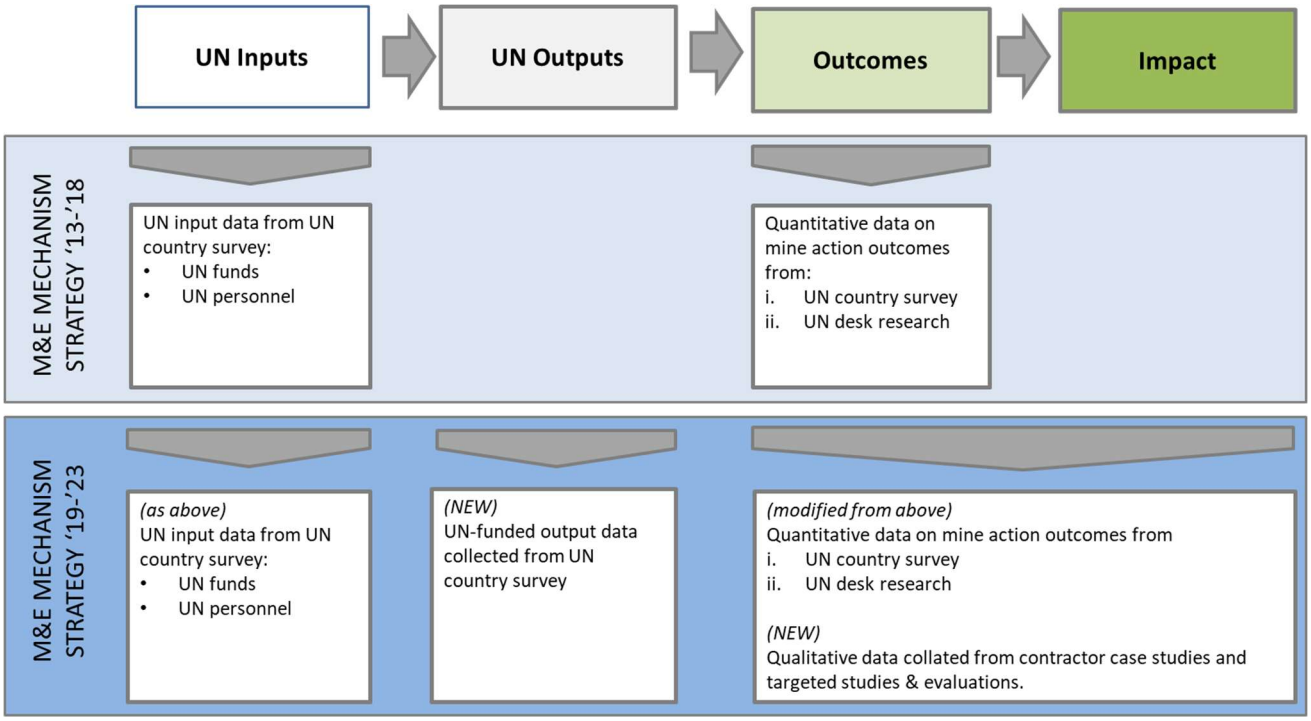

Exhibit 10: Comparison of M&E mechanisms between former and current M&E mechanism for the UN mine action strategy.

Annex I: Factors that impact a country's casualty rate – Regression Analysis

As in the previous report on the M&E mechanism, this report continues to explore the relationship between casualties and the amount of hazardous area to understand the scale of the effect on the casualty rate (mine/ERW deaths per 100,000 population), as well as exploring other factors that can have an effect.

Using the latest data from the M&E mechanism for mine action, regression analysis was again conducted including more data points. It is expected that, on average, an increase in affected area (using data on confirmed hazardous area in square kilometers) will increase the casualty rate. Also, it is expected that stronger national capacity and a higher MRE beneficiary rate weighted by population reduces casualties. In addition, it is hypothesized that countries with higher political stability and an absence of violence will have a lower casualty rate. The variable that our model is predicting is the casualty rate per 100,000 population. The factors that are used to make the prediction are: affected area in square kilometers, capacity development index, population who received MRE per 100,000 population and absence of violence.[34]

The first regression conducted used a random effects (RE) model and confirmed the expectations of which factors were predictors of a country's casualty rate. The RE model estimated a positive and significant association between affected area and a country's casualty rate with a regression coefficient 0.001 ($p<0.05$). **The regression coefficient means that for every additional 1,000 square kilometers of confirmed hazardous area, the casualty rate increases by 10 times, all other factors in the model being constant.** In addition, as expected, the absence of violence, capacity development index and MRE beneficiary rate have a negative association with the casualty rate which suggests that higher levels of capacity and more MRE contributes to a reduced casualty rate. The results from the RE model is shown in Exhibit 11.

	Fixed eff.	Random eff.
Affected area (sq.km)	0.002	0.001*
	(0.002)	(0.001)
Capacity development index	-0.086	-0.147
	(0.211)	(0.105)
log(MRE direct beneficaries p.c.)	0.814	-0.018
	(0.641)	(0.087)
Absence of violence	-0.883	-0.352*
	(0.783)	(0.151)
Interaction term MRE*HDI	-1.204	0.141
	(1.371)	(0.108)
Constant	0.274	0.716
	(2.322)	(0.694)
N	96	96

* p<0.05, ** p<0.01, *** p<0.001

Exhibit 11: Results of regression to assess effect on casualty rate of confirmed hazardous areas, capacity development index, MRE beneficiaries and absence of violence[35]

[34] In the model explored in the previous report, other predictors explored with the government commitment and level of UN funding, however these were not observed to be a significant predictor of a country's casualty rate.

[35] Analysis includes: Abyei, Afghanistan, Cambodia, Central African Republic, Colombia, Cote d'Ivoire, DRC, Egypt, Eritrea, Libya, Mali, Palestine, Somalia, South Sudan, Sudan, Tajikistan, Western Sahara

Notes on the development of the Regression model in this report on the 8th round of data collection, compared with the report on the 7th round of data collection:

- The RE model was selected in this report because the Hausman specification test indicated that this is the best model specification.[36]
- The results of the RE regression model above are in the line and consistent with the results obtained from the RE regression model in the report on the 7th round of data collection in terms of regression coefficients, significance of variables and effects of independent variables on casualty rate.[37] In comparison to the report on the 7th round of data collection, the following variables were changed:
    - The variable for 'GDP per capita' was dropped, as it is not significant. Instead, the variable for 'HDI' was employed.
    - The variables of 'level of UN mine action funding' and a proxy for health system, 'Immunization coverage' were both dropped as they showed no significance. A Fixed Effects (FE) model was also developed which shows a better fit without these two variables. Please contact the report authors for more information on this model.
    - An interaction terms 'MRE*HDI' has been introduced in the model used in this report as these two variables together indicated a stronger effect on the reduction of casualties. This suggests that MRE is more effective to contribute towards reduced casualties in countries with a higher level of human development index.
- For more information about the model developed in this report, please contact the report authors for more information: https://unmas.org/en/contact

[36] https://www.jstor.org/stable/1913827?seq=1#page_scan_tab_contents
[37] Report on the 7th round of data collection: https://mineaction.org/sites/default/files/documents/un-memechansim-mineaction-round7report-final-online.pdf