Countering the threat posed by improvised explosive devices

Report of the Secretary-General

**Summary**

The development and use of improvised explosive devices (IEDs) continue to increase.

Major dimensions of IED use are covered by international law: there seems to be no need for further restrictive measures. The problem lies predominantly in the massive, deliberate violations of international law by armed groups.

To effectively address the issue of IEDs at the national level, it is essential to have effective legislation, regulation and procedures in place. Close coordination among the different government departments and entities involved in addressing the issue of IEDs is important.

Ongoing and significant challenges entail preventing precursor materials that are available commercially and military munition stockpiles from being utilized in the development of IEDs.

Internationally, coordination and information-sharing, among Member States, international and regional organizations and the commercial sector, need to be strengthened.

The United Nations and other relevant international organizations such as the International Criminal Police Organization (INTERPOL), the World Customs Organization and the International Committee of the Red Cross play a multifaceted role in assisting States in countering the growing threat posed by IEDs.

* A/71/150.
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1. The present report has been prepared pursuant to General Assembly resolution 70/46, paragraph 16. Nineteen States submitted views pursuant to the same paragraph of the same resolution. Their views are available at www.un.org/disarmament/ieds.

I. Growth and impact of improvised explosive device (IED) attacks

2. Improvised explosive devices (IEDs) are among the world’s oldest types of weapons. Their use is regulated. In situations of conflict, warring parties may employ IEDs if they fully adhere to international humanitarian law, in particular the rules of distinction, proportionality and precautions in attack. Indiscriminate use or the targeting of the IEDs against civilians or civilian objects is strictly prohibited.  

3. There has been a marked increase in the unlawful use of improvised explosive devices (IEDs), particularly by non-state armed groups and rogue individuals. Such IED attacks deliberately target concentrations of civilians to achieve a maximum effect of lethality, terror and societal disruption; and they currently occur globally on a scale of hundreds per month.  

4. Annually, IED attacks kill and injure more people than do attacks with any other type of weapon except firearms. A review of selected international media reports from 2011 to 2015 revealed more than 6,300 recorded IED explosions, resulting in over 105,000 casualties.  

5. The countries most affected by IED attacks are Afghanistan, Iraq, Nigeria, Pakistan and the Syrian Arab republic. However, proliferation of IED use is an unmistakable trend: IEDs have recently been used from India to the United States of America, from Norway to Turkey, from Colombia to Belgium and from the Russian Federation to Thailand. About half of the world’s countries have currently been impacted by IEDs (S/2014/41). In 2015 alone, suicide attacks involving IEDs occurred in over 10 per cent of Member States, a greater proportion than any recorded ever before.  

6. Several factors contribute to the growth in IED attacks. IEDs can be simple to design, and components remain cheap and easily accessible, including through criminal networks and porous borders, and as a result of corruption and poor ammunition stockpile management. Groups such as Da’esh, Al-Qaida and Boko

For a recent overview of the issue of IEDs, see United Nations Institute for Disarmament Research (UNIDIR), “Addressing improvised explosive devices: options and opportunities to better utilize UN processes and actors” (Geneva, 2015), to which the present report is indebted. Available at www.unidir.org/files/publications/pdfs/en-641.pdf.


The issue of the use of IEDs by government forces in violation of international humanitarian law, such as the barrel bombs dropped on Syrian populations (see, e.g., A/HRC/30/48), is also of great concern but falls outside of the scope of this report.


Haram have recruited extensive cadres which can be trained to manufacture and use IEDs. Such groups often combine a deliberate disregard for international humanitarian law with the intention to wreak massive havoc. Precisely because these groups often aim at any gatherings of civilians, the locations of their victims are widespread and it is almost impossible to predict whom they will be.

7. In addition, terrorist groups have sometimes made enduring gains in territorial control, creating areas where sophisticated IED production facilities can go undetected for long periods of time. The financial and organizational prowess of several of these groups allows their IED manufacturers to continually adapt to counter-IED (C-IED) measures.

8. The spread of communications technology has greatly abetted IED knowledge-sharing. Online, groups share instructional videos or materials, both on IED construction and on execution of attacks. Currently, travel for IED-related training among organizations is also occurring.

9. Moreover, foreign fighters have been returning to their home countries or have crossed borders into third countries, bringing the skills learned in conflict zones with them. Returnees have formed cells and networks providing access to weapons and materials for IED construction, while capitalizing on acquired battlefield skills and explosives-related training.

10. In countries where strict weapons controls are in place, IEDs seem to form an increasingly attractive alternative or addition to illicit small arms.

**Impact on civilians**

11. The majority of IED attacks occur in populated areas, causing harm overwhelmingly to civilians. In the period 2011-2015, 82 per cent of recorded casualties were civilians. In Nigeria, suicide bombers caused the most civilian harm in 2015, with over 2,000 casualties in that year. In Afghanistan, one of the world’s most heavily landmine-contaminated countries, IEDs kill 10 times more civilians than do landmines. Use of victim-activated IEDs is in some places on a scale akin to that of the minelaying of the twentieth century, with their being scattered over fields and roads to deny access to towns and infrastructure.

12. In some cases, IED attacks deliberately target civilian objects, including airports, markets, police stations, schools, public transit, commercial hubs, nightclubs, courts, political gatherings and sports venues, to ensure infliction of the greatest amount of civilian harm. In addition to producing large-scale carnage, such attacks can impede commerce, contribute to internal displacement and refugee flows, obstruct humanitarian responses and civil society activity, and disrupt the provision of health care, education and sanitation and the practice of governance.

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7 Conflict Armament Research, “Inside Islamic State’s improvised weapon factories in Fallujah” (London, 2016).
8 UNIDIR, “Addressing improvised explosive devices: options and opportunities to better utilize UN processes and actors”.
9 S/2014/770, para. 19.
12 S/2015/289.
13. In addition to violating international humanitarian law, the use of IEDs against civilians affects the entire spectrum of their human rights, including the rights to life, physical security, education and health. Moreover, the socioeconomic impact on the Sustainable Development Goals, in particular Goals 1 and 16, can be significant. Political instability, destruction of infrastructure and the high costs of recovery and rehabilitation of livelihoods are key drivers feeding enduring poverty.

**Children**

14. Children are often among the victims of IEDs (S/2016/360). In Afghanistan and Iraq, IED attacks killed or injured almost 1,000 children in 2014 alone. Concentrations of children, including girls’ schools, have been the targets of IED attacks. Unexploded and abandoned IEDs also pose a particular risk to children, with over 60 per cent of the casualties of explosive remnants of war (ERW), including IEDs, being under 18 years of age in 2014.14

15. Children are sometimes used in support roles, for transport and employment, as well as in IED combat activities such as the planting of the devices and suicide bombings. The number of children involved in suicide attacks in the Lake Chad basin rose from 4 in 2014 to 44 in 2015. More than 75 per cent of those children were girls. As suicide attacks involving children become commonplace, children are at risk of being seen as threats to the community’s safety.15

**Impact on the military and police**

16. The use of IEDs represents a massive concern for the armed forces and security forces. In some countries, such as Mali and Somalia, IEDs are often used to assassinate politicians and kill uniformed personnel.

17. A situation of recurrent IED attacks creates an environment of sustained insecurity which saps the morale of security forces, hinders recruitment and impedes security sector reform.

18. Over the past decade, the need for IED threat mitigation has resulted in a profound change in military priorities, tactics and strategy, often involving the incurring of mammoth costs. The transformations range from increased use of helicopters over vehicles, extensive overhaul of training and sweeping battlefield treatment changes, to the emergence of a multibillion dollar industry encompassing surveillance, counter-intelligence, computer analysis, ground-penetrating radar, electrical jamming, body and vehicle armour, and computerized prostheses.

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14. Cluster Munition Coalition and International Campaign to Ban Landmines, “Landmine and Cluster Munition Monitor: The impact of mines/ERW on children”, November 2015. Also, according to the Landmine and Cluster Munition Monitor, in 2014, 60 per cent of all casualties from explosive remnants of war (ERW) were children.

15. See www.unicef.org/media/media_90827.html.
Impact on United Nations personnel, including peacekeepers

19. IEDs pose grave threats to the safety of United Nations personnel. These threats are now common, as the United Nations is increasingly called upon to intervene in violent environments where there is no formal peace agreement or even a peace to keep. In addition, United Nations personnel and peacekeepers are indirectly impacted by IEDs intended to cause damage to parties engaged in conflict.

20. The United Nations has been the target of IED attacks at residences and offices and against vehicles, to devastating effect. The year 2015 witnessed 38 direct attacks against United Nations personnel and peacekeepers, resulting in fatalities, injuries and damage to property, in Afghanistan, the Democratic Republic of the Congo, Mali, Pakistan, Somalia, the Syrian Arab Republic, Thailand, the United Republic of Tanzania and Yemen.

21. The presence of IEDs seriously impedes the ability of the United Nations to deploy and effectively fulfil its mandates. This results in delay or the reduced capacity of the United Nations to deliver crucial life-saving humanitarian and development programmes. It restricts force mobility, hampering logistics, patrolling, peace monitoring and engagement with leaders of factions and local communities. United Nations personnel and peacekeepers operating in a high-threat IED environment require significantly more resources, for example, rotary-wing aircraft and armoured vehicles, as well as specialized training and medical support. This substantially increases the costs and logistical challenges faced, while reducing operational tempo. At the September 2015 Leaders’ Summit on Peacekeeping, “better protection against IEDs and improved information and analysis” featured prominently on the Secretary-General’s list of necessities for which every nation should consider providing support.

Impact on political processes

22. IED attacks can also impact on political processes when they are used to attain power, claim territorial control, disrupt elections and target individuals and institutions, including the United Nations.

Impact on humanitarian relief efforts

23. Attacks on humanitarian personnel can either be direct or take the form of sequential attacks on first responders after they have arrive on the scene of an incident. Such attacks affect the delivery of humanitarian and food-related assistance and the safe return of internally displaced persons and refugees, as well as the socioeconomic recovery of affected nations. IEDs that remain undetonated on

urban or rural terrain can block humanitarian access to vulnerable populations and vital infrastructure, and hinder reconstruction efforts.  

24. Over the last decade, hundreds of humanitarian workers have been killed or injured by IEDs. Nearly one third of the incidents occurred in Afghanistan, where one quarter of non-governmental organizations have had staff that were killed or injured by IEDs; and one third of those organizations have pulled entire operations from specific areas owing to IED threats. Humanitarian organizations spend increasing amounts of their budget on their own security in order to ensure adequate protection for their personnel.

II. Production and delivery

25. IEDs are assembled outside of military production or mainstream commercial channels, by individuals or groups. The United Nations defines an IED as “a device placed or fabricated in an improvised manner incorporating explosive material, destructive, lethal, noxious, incendiary, pyrotechnic materials or chemicals designed to destroy, disfigure, distract or harass” which “may incorporate military stores, but are normally devised from non-military components”. Bomb makers strive continuously to alter the characteristics, functioning or delivery context of a device.

26. IEDs generally consist of a switch, power source, initiator, container and explosives. Initiation methods include time-controlled, command-initiated, radio-controlled, and victim-operated systems. Main charges can be drawn from commercial or military explosives. Casings can range from soda cans, plastic bags, pressure cookers and shoeboxes to suicide vests, gas cylinders and trucks. In some instances, booby traps meet the definition of an IED as well.

27. IEDs can be statically deployed or hand-launched, delivered by vehicle, boat, aircraft, or rocket launcher or by mail or strapped to a person or animal.

Military components

28. IED components can be sourced from conventional munitions, such as artillery shells, mortar bombs and landmines, which are found in government and non-state actor stockpiles and abandoned military positions, and in explosive remnants of war both in conflict areas and where active hostilities have ceased. Effectively addressing the sourcing of military components entails ensuring that surplus munitions are systematically identified and disposed of, stockpiles are secured, and explosive remnants of war are cleared.


19 Ibid.

20 International Mine Action Standard (IMAS) 04.10 3.137; see also IATG 01.40:2011.
Commercial components

29. Often, the components used in IEDs are easily obtainable commercial goods, such as fertilizer, bleach (peroxide), nail polish remover, brake fluid, herbicides, disinfectants and cleaning solvents. Their trade, transfer and storage are typically subjected to a lesser degree of scrutiny and regulation than the transfer and storage of munitions. Commercial explosives and detonators for mining and construction are also sought-after components. IEDs may be packed with additional materials, such as nails or ball bearings, to enhance fragmentation. Enhancements may also include copper plates, which can threaten the integrity of armoured vehicles and pose a particular threat to peacekeepers.

30. Research on IEDs has not revealed direct transfers of commercial goods from legal manufacturers to armed groups. Rather, small local trade entities, having obtained dual-use goods from regional distribution companies, appear to be the weakest link in the chain of custody.\(^\text{21}\)

31. Effectively addressing the sourcing of commercial components means ensuring that commercial explosives are regulated in conformity with international law, that businesses involved with commercial goods that can form components of IEDs are recurrently made aware of the risks of their trade and of effective measures to lower those risks, and that government and industry engage in international coordination and cooperation.

III. Addressing the IED issue

32. Arms control and arms regulation are measures under which governments regulate their arsenals, secure their stockpiles or prevent diversion of their weapons and ammunition to illicit markets. Separate multilateral agreements exist for many weapons categories. In the area of small arms, in addition to ownership by government forces, civilian possession may be allowed, but, there also, government regulations apply, typically on the basis of a licensing system. IEDs stand out as a category because their production and trade typically take place wholly outside government controls. A traditional approach regulating governmental production, trade and use of weapons in this category on the basis of a multilateral weapons-specific agreement therefore has only limited value.

33. Instead, addressing the issue of IEDs will have to focus on the capacity of Governments to effectively bring together several policy strands for comprehensive action. The impact of IEDs touches upon areas ranging from inner-city development, security and customs controls to violent extremism, forced displacement and public health; from law enforcement, child protection and commercial mining to military stockpile management, agriculture and aviation security. Owing to the extent of the cross-cutting nature of the issue, a whole-of-government approach is essential for making progress in dealing with IED threats.

34. At the level of international organizations, the architecture mirrors the national multifaceted configuration and is similarly fragmented. Organizations across many sectors have mandates and expertise that can contribute to a useful set of IED mitigation measures. Therefore, also at the global level, it is essential for

\(^{21}\) See, e.g., “Inside Islamic State's improvised weapon Factories in fallujah” (see old footnote 7).
stakeholders to acknowledge the added value of the various processes and actors, and to invest significantly in coordination and information exchange.

35. Efforts to address the issue of IEDs can be grouped under four main categories: prevention, preparedness, response and recovery. IED threat mitigation efforts should always ensure that humanitarian organizations and activities are never perceived as being part of a conflict.

**Prevention**

**Controlling commercial precursors**

36. Regulatory frameworks for commercial explosives and for dual-use goods such as fertilizers exist in many countries. However, gaps remain and enforcement is often deficient.

37. Some States have introduced programmes designed to make retailers aware of the risk of precursor abuse, to encourage them to secure their fertilizer, report any suspicious purchase or enquiry and keep records of transactions.

**Recommendation 1**

Rigorous government scrutiny of commercial sectors from which IED components are sourced is essential, including at the local level. In particular, a regulatory framework over precursor materials, such as fertilizers and detonators for the mining and construction industry, should be in place. Purchase information on large or suspicious transactions of precursor materials should be recorded nationally, and shared internationally, where relevant.

Industry and retail organizations and communications companies should be encouraged to develop national and international codes of conduct to assist such regulatory framework.

**Global Shield**

38. Programme Global Shield, managed by the World Customs Organization (WCO), in partnership with the International Criminal Police Organization (INTERPOL) and the United Nations Office on Drugs and Crime (UNODC), monitors the international movement of 14 chemical explosive precursors which pose the greatest risk for the manufacture of explosives. In addition, cross-border movements are monitored for fuses, igniters and detonators. When national customs agencies identify suspicious movement or seize material, WCO and the customs administrations participating in the programme are notified when needed, and a warning message is generated to INTERPOL. In such cases, INTERPOL engages with relevant national central bureaux with the aim of collecting additional information that could be beneficial in cross-border, multi-agency investigations.

39. UNODC contributes to Global Shield by enhancing the capacities of national law enforcement and criminal justice authorities in developing necessary policy and organizing the surveillance of storage and movement of dual-use chemical materials within a country, particularly as related to the 14 precursor chemicals used for IEDs.

40. Under this programme, over 90 countries have shared real-time information on cross-border movements of high-risk explosive precursor chemicals. Global Shield
includes capacity-building of States and assists in improving communication between customs and other law enforcement agencies. Practical tools available include explosive identification kits and identification devices for chemicals and explosives.

**INTERPOL CHASE Programme**

41. The INTERPOL Chemical Anti-Smuggling Enforcement (CHASE) programme counters the smuggling of chemicals used in the manufacture of weapons. CHASE increases the capacity of police, customs, immigration and chemical and border security agencies through training sessions and a multinational operation.

42. The INTERPOL Chemical Risk Identification and Mitigation Programme (CRIMP) aims towards developing the capacity of countries to identify the regional risk posed by the chemical warfare agents, toxic industrial chemicals and their precursors obtained and used by non-state actors.

**Recommendation 2**

*Programme Global Shield and the INTERPOL CHASE and CRIMP programmes provide an excellent infrastructure for functioning international cooperation on controlling explosive precursors. The programmes would benefit from higher-level participation by States, and from further financial and technical support from States in a position to provide such support.*

**Preventing diversion of military materials**

43. In effectively preventing the access of IED manufacturers to military munitions, three actions are key: securing munitions stockpiles, disposing of surplus munitions, and clearing and destroying landmines and explosive remnants of war.

**Stockpile management**

44. Armed forces’ munitions depots are a major source of illicit munitions and explosives used in manufacturing IEDs. Stocks are susceptible to diversion if they are not appropriately secured and managed. Many armed forces, while possessing vast munitions stockpiles, lack the ability to engage in thorough planning and to focus attention consistently on safe and secure storage, handling, transportation and disposal. Poor national inventory practices mean that surpluses cannot be identified, leading to extensive build-ups of frequently unnecessary munitions stockpiles.

**Disposal of surpluses**

45. A central element in adequate stockpile management is the identification of surpluses, i.e., the munitions that do not constitute an operational need. When surpluses are not recognized, the entirety of the national stockpile may continue to be viewed as of operational value. Although not used, ammunition surpluses thus continue to fill warehouses and to pose a grave risk.

46. Generally, it is preferable to destroy surplus weaponry than to store it. In post-conflict settings, the immediate destruction of surplus weapons and munitions

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22 See A/63/182.
24 See A/CONF.192/15.
eliminates possible new instability of fuel and its use in making IEDs. Also, properly securing and maintaining stockpiles require funding and organizational capacity, which are often scarce in post-conflict settings and result in the diversion of resources away from urgently needed recovery and development efforts. Thus, when the costs of destruction are measured against the costs associated with safe long-term storage and maintenance, destruction tends to be seen as economically advantageous as well.  

_Clearing explosive remnants of war_

47. One of the risks associated with unexploded ordnance left behind after conflict is its possible use in connection with IED components, as is the case in Libya. Apart from direct humanitarian considerations, this is an additional argument for prompt clearance.

**Recommendation 3**

Defective stockpile management has been assessed as the norm rather than as the exception in many developing countries and in States recovering from armed conflict. In those circumstances, it is not only surplus stocks that should be the focus of attention, but the lack of appropriate policies and management processes behind this situation. Governments remain unaware of surpluses; their national stockpiles remain a risk to public safety and continue to be possible source of IEDs. Adequate munitions stockpile management and swift destruction of surplus munitions — in all countries of a challenged region — should be a priority in mitigating the threat posed by IEDs.

**Recommendation 4**

In granting export licences for munitions, any exporting country should weigh the receiving country’s ability to sustainably secure its ammunition stockpiles, for instance, by effectively applying international guidelines to that end.

**Recommendation 5**

Member States should provide the necessary support to relevant international and regional organizations to strengthen implementation of the Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects (A/CONF.192/15, chap. IV), particularly through weapons and ammunition management using authoritative standards such as the International Small Arms Control Standards (ISACS) and the International Ammunition Technical Guidelines (IATG).

**Addressing violent extremism**

48. To diminish the frequent use of IEDs by armed groups, often in settings of extremist violence, the conditions contributing to the emergence of violent extremism need to be addressed early on. Measures to counter violent extremism must always be complemented with preventive action. Overwhelmingly, IED use seems to be initiated by young males. Addressing the root causes of this

\[25\] UNIDIR, _Costs of Disarmament: Cost-Benefit Analysis of SALW Destruction versus Storage_ (United Nations publication, Sales No. GV.E.06.0.13).
phenomenon and making prevention an integral part of a comprehensive approach will help in tackling a number of the underlying conditions that drive individuals to join violent extremist groups. The Secretary-General’s Plan of Action to Prevent Violent Extremism provides guidance to that end.

**Recommendation 6**

Good governance, compliance with human rights and the rule of law, effective measures and mechanisms for addressing marginalization and grievances of specific groups, including minorities and women, and promoting sustained and inclusive socioeconomic growth should be seen as essential elements of the process of addressing the issue of IEDs.

**Preparedness**

**Setting norms, standards and policies**

*International law*

49. For a discussion of relevant instruments of international law, see the study by UNIDIR cited at the beginning of this report, and the Compilation of existing guidelines, best practices and other recommendations aiming at addressing the diversion or illicit use of materials which can be used for Improvised Explosive Devices (IEDs), compiled in the context of the Convention on Certain Conventional Weapons.

50. The main instruments of international law regarding IEDs are described in the table directly below.

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26 UNIDIR, “Addressing improvised explosive devices”.
<table>
<thead>
<tr>
<th>Instrument</th>
<th>IED-related Purpose</th>
<th>Number of States parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCW APII</td>
<td>Prohibition in conflict to use “devices that are designed or of a nature to cause superfluous injury or unnecessary suffering”, “against the civilian population as such or against individual civilians or civilian objects” or in an “indiscriminate” manner. Prohibition to use &quot;devices that are attached to or associated with: internationally recognized protective emblems, corpses or graves, medical facilities or transportation; object intended for children, food or beverage; objects of a religious character; historic monuments, works of art or places of worship, animals or their carcasses;” “in any city, town, village or other area containing a similar concentration of civilians in which combat between ground forces is not taking place or does not appear to be imminent, unless: (a) such weapons are placed on or in close vicinity of a military objective, or (b) measures are taken to protect civilians from their effects, for example, the posting of warning sentries or the issuing of warnings”; operational information exchange and following the cessation of active hostilities, other devices are to be cleared.</td>
<td>102</td>
</tr>
<tr>
<td>CCW Protocol V 30</td>
<td>Clearance, operational information exchange; victim assistance plan of action; voluntary best practices in annex.</td>
<td>91</td>
</tr>
<tr>
<td>Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (United Nations, Treaty Series, vol. 2056, No. 35597)</td>
<td>Prohibitions, clearance; operational information exchange; victim assistance; mine/ERW risk education</td>
<td>162</td>
</tr>
</tbody>
</table>

In addition to these specific instruments, international human rights law clearly lays out the obligations of States to respect, protect and fulfil the human rights of all individuals under their jurisdiction.

Major aspects of IED use are covered by international law. Use of IEDs is governed by international humanitarian law (in armed conflict) and by international human rights law. The only existing directly relevant legal instrument that explicitly mentions IEDs is the Protocol on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices as amended on 3 May 1996 (Amended Protocol II) to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects. There seems to be no need for further restrictive measures; however, the adherence to the instruments of international law is far from universal, as only 102 States have ratified this Protocol. The problem lies predominantly in the massive, deliberate violations of international law by armed groups. One of the key responses to the IED issues is international, national and local stigmatization of their use which could serve as a deterrent to those armed groups which are seeking political legitimacy or support within a local community.

**Recommendation 7**

Instruments of international law directly relevant for addressing the issue of IEDs need universal adherence and compliance. States that have not yet done so should accede to these instruments as a matter of urgency. This would further strengthen the international legal regime and allow a State to make full use of the related implementation arrangements as a possible part of national IED strategies. States parties to relevant international humanitarian law instruments should actively promote adherence to those treaties so as to uphold the norms that safeguard humanity.

**Recommendation 8**

In accordance with the Paris Principles, States should regard children accused of crimes under international law allegedly committed while they were associated with armed forces and armed groups, primarily as victims of
offences against international law, and not only as perpetrators.\textsuperscript{29} They must be treated in accordance with international law in a framework of restorative justice and social rehabilitation.

53. At the level of international policy, IEDs are addressed through resolutions of the General Assembly (in particular resolutions 70/46 and 70/80) and the Security Council, and policies of respective United Nations entities and other international organizations.

Peace operations

54. The deliberate targeting of peacekeepers with IEDs has been one of the factors influencing the profound changes under way in peace operations. Relevant responses by the United Nations system include enhanced security threat assessment and management tools, a consolidation of all Secretariat security resources under the Department of Safety and Security (DSS) and the provision of on-demand specialized training and guidance, for example pre- and post-deployment training, the provision of equipment to troop-contributing countries, development of IED-specific training for United Nations civilian staff, and IED defeat (IEDD) training to engineering/explosive ordnance disposal companies.

55. While mitigation activities are intrinsic to countering the threat posed by IEDs, the focus of United Nations peace operations is on force protection, the safety and security of personnel and the effective implementation of the mandate, including, where relevant, the protection of civilians. The United Nations does not directly engage in military counter-terrorism operations; however, it must be capable of operating safely and effectively in environments where asymmetric tactics, such as those entailing use of IEDs, are employed (see A/70/357-S/2015/682).

56. While the United Nations develops standards on which training should be based, and identifies the capabilities and equipment required for peacekeepers, Member States deploying uniformed personnel to peace operations continue to bear responsibility for ensuring that military and police operating in high-risk environments are properly prepared before deployment and have the appropriate equipment combined with the tactics, techniques and procedures necessary to do so effectively.

Recommendation 9

When deciding on peace operations mandates, the Security Council should take into account the situational context of the IED threat and, when relevant, include comprehensive IED threat mitigation measures.

57. At the level of tools and guidelines, the International Mine Action Standards (IMAS) provide a global guiding framework of good practice for mine action, which includes IED threat mitigation. The International Ammunition Technical Guidelines (IATG) are technical standards for safe and secure ammunition life-cycle management. While the Mine Action Standards do not specifically address IEDs, standards such as IATG can assist those stakeholders in search of authoritative humanitarian good practices for preventing the diversion of munitions.\textsuperscript{30}

\textsuperscript{29} www.unicef.org/emerg/files/ParisPrinciples310107English.pdf.
58. The Department of Peacekeeping Operations of the United Nations Secretariat is developing an explosive ordnance disposal military unit manual and an IED Threat Mitigation Military and Police HQ Handbook. These doctrines-based publications, developed through consultation with Member States, will focus on enhancing the capacity of troop contributors in support of peacekeeping operations and will provide an operational uniformed staff functions reference guide to support the understanding, planning and execution of IED threat mitigation activities in United Nations peacekeeping.

59. Internal Improvised Explosive Device (IED) Threat Mitigation in Mission Settings Guidelines, issued in 2016, put forward a set of planning and coordination items for consideration in the development of a coherent response by peace operations to reducing the impact of IEDs on United Nations personnel and assets. Rather than outline operational tactics or provide guidance on the development of a comprehensive IED mitigation response, these Guidelines codify United Nations operational best practices on IED threat mitigation and constitute the framework for a comprehensive United Nations strategy.

60. Recently, the United Nations also revised the United Nations Security Policy Manual to address IED threats, and updated the Landmine and Explosive Remnants of War Safety guidance.


62. In the humanitarian field, the General Assembly has noted the pressing humanitarian need when non-state actors deploy IEDs, along with the humanitarian threat posed by IEDs in a post-conflict environment (resolution 70/80). Member States with the capacity to do so are called upon, along with the United Nations, to provide affected countries with the information and technical, financial and material assistance necessary to locate, remove and destroy IEDs. UNMAS and other entities provide training, equipment and capacity-building in the area of IED threat mitigation to affected States and peacekeeping missions. The United Nations Children’s Fund (UNICEF) proffers support to States in the area of risk education and in developing injury surveillance systems to protect children and their communities.

63. IED awareness is also integrated into the Safe and Secure Approaches in Field Environments (SSAFE) training for staff safety in a number of countries, which is required by all United Nations staff. The UNHCR Emergency Handbook has integrated IED responses in its staff instructions.

64. The Security Council Committee established pursuant to resolution 1373 (2001) concerning counter-terrorism maintains a directory of recommended international practices, codes and standards, which includes attention to eliminating IED use.
the supply of weapons to terrorists, transfer controls for arms and explosives, and control programmes designed to detect and prevent the smuggling of weapons.\textsuperscript{34}

65. In 2015, the Thirty-second International Conference of the Red Cross and Red Crescent adopted a resolution on the safety and security of humanitarian volunteers, urging relevant actors to provide them with protection, training, support, and insurance to help minimize and address the range of risks that they face in their efforts.\textsuperscript{35}

**Recommendation 10**

**Peace operations should fully implement the Guidelines on IED Threat Mitigation in Mission Settings in a timely manner.**

**Recommendation 11**

**Drawing from existing International Mine Action Standards, the United Nations shall develop international IED defeat standards through consultation with Member States.**

**National legislation, regulations and procedures**

66. States need to ensure that they have effective legislation, regulations and procedures in place which allow them to address the IED issue in a holistic manner. Given the involvement of various government entities, a national self-assessment may assist in mapping existing measures and identifying gaps.

**Recommendation 12**

**Information derived from all relevant sectors of government should provide an overview of those areas in need of strengthening with regard to the issue of IEDs.**

**Recommendation 13**

**In order for the issue of IEDs to be effectively addressed, it is essential to comprehend the importance of actions needed at the local and community levels. Through activities ranging from awareness-raising with local retailers and intelligence-gathering to establishing de-radicalization programmes, national Governments will need to engage continuously with local authorities and groups.**

**Recommendation 14**

**States are encouraged to support the United Nations Institute for Disarmament Research (UNIDIR) in developing a voluntary self-assessment tool which can assist States in self-identifying gaps and challenges in national IED regulation and preparedness.**

**Coordinating at the national and international level**

67. At the national level, information exchange among police, customs and military communities is often inadequate. Functioning national coordination

\textsuperscript{34} www.un.org/en/sc/ctc/practices.html.

\textsuperscript{35} See ICRC resolution 32IC/15/R5 (2015).
structures, underpinned by secure channels for day-to-day exchanges of operational information, are essential.

68. At the international level, existing tools and resources are dispersed over numerous entities, while until recently, there was no formal venue where the issue of IEDs in all its aspects could be discussed by all Member States. Through the adoption of a General Assembly resolution on the issue of IEDs, States have created such a central venue.

Recommendation 15

In their annual discussion within the General Assembly on the resolution on IEDs, States could, in particular, focus on matters of coordination between the various initiatives and approaches already existing, within the United Nations and beyond. If needed, such discussions could be prepared through open, informal meetings preliminary to the drafting and submission of the Assembly resolution. This would be an inclusive and highly cost-effective process.

Recommendation 16

In striving to diminish duplication of work at the global level and to maximize the comparative advantages of various multilateral bodies, States may wish to concentrate and consolidate activities within certain organizations and processes. For instance, activities in the technical areas under humanitarian mine action, such as clearance, victim assistance, risk education and stockpile management, apply as much to IEDs arising from conflict as they do to other explosive remnants of war; therefore, current mine action processes include the IED threat and support the coordination of the United Nations humanitarian response.

Databases

69. The General Assembly has called for the engagement by all Member States in a comprehensive and coordinated community of action to counter the global threat posed by IEDs (resolution70/46). Databases are important instruments for coordination, information exchange and capacity-building. At the same time, given the sensitive subject matter of IEDs, there are limits to the amount of information that can be openly shared. Some international databases require a secure environment with limited government access. Proper deliberation is needed to determine in which web environment such databases should be established; in this regard, the General Assembly has encouraged steps “to harmonize diverse ongoing efforts” (resolution 70/46, para. 15).

Recommendation 17

Databases on the issue of IEDs seem best placed in intergovernmental institutions with global or near-global membership, whose websites will be visited by officials for other authoritative information as well and where year-on-year maintenance is ensured and secure information channels are available for sensitive data.
Recommendation 18

To maximize synergies, the United Nations Office for Disarmament Affairs, supported by other relevant United Nations entities, should establish an online hub providing impartial, authoritative guidance on information relevant to addressing the issue of IEDs in a comprehensive manner. The hub would include the four main topics covered in the present section, thus facilitating navigation, without duplication, towards existing tools presenting good practices, inside and outside of the United Nations system, and filling gaps, where needed.

Recommendation 19

Several countries maintain a publicly available national database on detonator manufacturers. Combining this national information in one global repository would strengthen possibilities for investigative and prosecutorial action. Such a database could include the name and contact information of manufacturers, and the characteristics of their serial numbers and other distinguishing markings. As this would be a tool for operational use mainly by law enforcement, it would be best established in INTERPOL.

Collecting data, sharing information

Data collection

70. Incident and casualty data linked to the use of IEDs is often difficult to obtain (S/2014/41). The information on IEDs that is collected tends to be fragmentary — and restricted, e.g., to meeting military, commercial or humanitarian needs — and based on different methodologies, with source material being available only in a limited number of languages. This makes meaningful comparisons and analysis often impossible. In order to address the issue of different definitions of IEDs and a lack of disaggregation (by incident type, weapon type or detailed data on victims and impacts), UNMAS has produced an IED Lexicon.36

71. Accurate and detailed information related to IED incidents is essential for developing effective responses to the threats posed by IEDs. In addition to contributing to law enforcement, judicial proceedings and military operations, high-quality data sets could assist in developing effective responses so as to minimize civilian casualties and attending to the needs of victims.

72. Existing data-collection mechanisms on explosives have begun to also collect casualty data derived from incidents involving IEDs.37 As demonstrated through the activities of the United Nations Assistance Mission in Afghanistan (UNAMA) in IED data collection, consistent collection using adequate disaggregation could inform IED mitigation strategies, hold users to account and advocate measures designed to reduce civilian casualties.

73. To improve its reporting and situational analysis in peace operations, the United Nations is currently developing the UN SAGE reporting tool. It allows for the standardization of incident reporting across all missions.

37 For example, the data-collection mechanism for the United Nations Strategy on Mine Action 2013-2018 collects casualty data from incidents involving IEDs.
Recommendation 20

An annual publication with an overview of IED-related data per country, allowing also for regional- and global-level assessments, would be valuable for developing adequate and measurable policy responses. It would be important for such a recurring publication to draw on sources in a variety of languages. As data collection is central to developing informed decision-making on IED issues, States are encouraged to sustainably fund possible initiatives in this direction.

Recommendation 21

The United Nations should continue to build on data collection and analysis already undertaken and to develop an IED-related technical database with the support of Member States in a position to provide such support.

Research

74. Areas where more research is needed include:

- Rationales and narratives of armed groups on the use of IEDs
- Tracing IED components
- Regional specificities in IED production and use
- Diminishing the explosive properties of fertilizers
- Interventions and success in IED threat reduction
- Sociopolitical and economic effects of IED use

Impact on vulnerable groups, including women and children

- Role of civil society in combating the rise of IED use

Recommendation 22

Further research on various dimensions of IED issues, including prevention, preparedness, response and recovery, can help inform a better understanding of the multifaceted approach required to address the issue of IEDs. UNIDIR, along with other relevant research institutions, could be engaged by States in such tasks.

Information-sharing

75. Sharing of information on IED incidents, on devices and components, on suspicious activities involving explosives and on individuals and networks involved in IED use improves the planning and policy formulation of IED mitigation, informs training and capacity development, helps identify trends and patterns in IED use and construction, and facilitates the mapping of IED networks. It is often the case, however, that at the national level, different intelligence, police, border control and military agencies have not yet established adequate cooperation patterns.

76. In addition, as IED threats are rarely purely national ones. exchanges of intelligence information between countries are essential. A lack of trust regarding sensitive intelligence, including within friendly alliances, often prohibits such
cooperation. Shortage of resources for collecting and analysing data on IEDs can compound the issue.

77. Within the context of sanctions against Da’esh and Al-Qaida, the Security Council has noted the need to enhance coordination and information-sharing, both between Member States and between Governments and the private sector, so as to prevent the flow of IED components such as chemical components, detonators and detonating cords (Council resolution 2255 (2015)).

**Recommendation 23**

For secure operational information-sharing, States may use the INTERPOL I-24/7 network and the WCO CENcomm network, wherever possible.

78. The INTERPOL Project WATCHMAKER provides operational and specialized support to all of its 190 member countries through the issuing of INTERPOL Notices and warning messages on individuals known to manufacture or employ IEDs. Currently, the WATCHMAKER database includes over 1,000 bomb-maker profiles from 25 countries, allowing authorities to exchange biometric data and document records. In this context, INTERPOL has so far issued over 700 Notices, including 176 Red Notices for wanted persons involved in IED incidents, and 67 INTERPOL-Security Council Special Notices related to individuals targeted by Security Council sanction regimes. INTERPOL Purple Notices — focused on modus operandi — are issued with a view to sharing technical information on IEDs, based on information directly provided and updated by member countries’ authorities.

79. Within the context of the informal Group of Experts on Improvised Explosive Devices under Amended Protocol II to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or To Have Indiscriminate Effects, States exchange information on technical developments, on risk awareness and on IED-related incidents, and are establishing a network of national points of contact.

80. The Axon Global IED Partnership aims at encouraging nations and jurisdictions to reduce the barriers to information-sharing. Basic post-event IED data are shared in a repository. Currently, some 12 countries and several international organizations including UNMAS and INTERPOL are participating in this pilot project.

**Recommendation 24**

Initiatives to create international platforms for information exchange should first assess which forum is best placed for which type of information exchange.

**Recommendation 25**

Where possible, the development of globally-applicable standards or guidelines should replace platforms focused on sharing of good practices.

**Recommendation 26**

The sharing of purchase information on large or suspicious transactions of precursor materials may be best channelled through INTERPOL and WCO.
Raising awareness

81. The United Nations Global Counter-Terrorism Strategy\textsuperscript{38} and the Plan of Action to Prevent Violent Extremism (A/70/674) provide comprehensive guidance on addressing some of the key root causes of increased IED misuse.

82. As components of IEDs nearly always include commercial goods, awareness-raising at the national level through contact with relevant industry sectors is of particular importance when addressing the issue of IEDs.

83. In many affected countries, the United Nations supports government and partners in integrating IED risk education activities into broader mine/ERW risk education programmes.

84. Programme Global Shield includes engagement with private industry to establish best-practice programmes on avoiding illicit diversion of precursor chemicals. For example, WCO has engaged in participation at the meetings of the International Fertilizer Industry Association (IFA).

85. The United Nations is providing pre-deployment training on IED awareness to peacekeepers\textsuperscript{39} alongside extensive risk education to impacted communities.

86. The Landmines, Explosive Remnants of War and IED Safety Handbook provides guidance on warning signs and clues, and basic safety advice for organizations and individuals.\textsuperscript{40}

Advocacy

87. United Nations advocacy with parties to a conflict can have an impact on IED use when backed by credible data and sustained engagement. For example, the United Nations Assistance Mission in Afghanistan (UNAMA) has initiated advocacy in the form of dialogue with parties to the conflict in that country, regular public reporting on civilian casualties including casualties resulting from IED use, and statements of condemnation for particularly egregious or emblematic IED incidents. This advocacy was made possible through the systematic documentation of incidents causing civilian casualties in Afghanistan and sustained engagement by the Mission.

Response

Clearance

88. Clearance for humanitarian purposes of landmines, booby traps and other abandoned improvised explosive devices, in areas where active hostilities have ceased, is a prerequisite for safe returns of internally displaced persons and refugees. Apart from these direct factors, the possible use for IED components of unexploded ordnance left behind after conflict offers an additional rationale for prompt clearance.

89. With the increased use of IEDs, the United Nations and implementing partners, government mine action agencies, and national and international non-governmental organizations are increasingly requested to clear contaminated

\textsuperscript{39} “United Nations overview of the improvised explosive device situation” (see footnote 17).
\textsuperscript{40} Available at http://www.mineaction.org/sites/default/files/publications/Handbook_English.pdf.
areas. The scale of the problem is currently illustrated in the city of Ramadi in Iraq. As of April 2016, the city, after having been delivered from the occupation of Da’esh, remained 95 per cent uninhabitable because of threats posed by IEDs and other explosive remnants of war.

90. The existing United Nations Mine Action Service IED threat mitigation capacity provides the United Nations system with technical and advisory expert services on the detection, defeat and disposal of IEDs, as well as on post-blast investigations.

Recommendation 27

Member States should take into account the increasing complexity and scale of IED contamination in planning and programming humanitarian responses.

Recommendation 28

Member States should provide necessary support to relevant international and regional organizations and expert non-governmental organizations in the undertaking of rapid and effective clearance of IEDs and other explosive hazards.

Disrupting use, conducting forensic operations and gathering intelligence

91. IED post-blast investigations can provide essential information concerning the source and origin of components and other clues to the nature of the IEDs, as well as their users, producers and providers of components. Forensic capabilities to investigate IED attacks are thus essential for efforts to combat IED threats. The INTERPOL Chemical Awareness and Scene Management Project (CHASM) provides trained law enforcement officers with additional knowledge and skills to reinforce their capacity to identify, operate within and investigate crime scenes that are contaminated by chemical materials.

92. Within the United Nations, the Counter-Terrorism Implementation Task Force is mandated to strengthen coordination of the counter-terrorism efforts of the United Nations system. A Task Force working group on border management and law enforcement also deals with questions of access to weapons.

93. Existing initiatives to prevent terrorism already include various measures to combat IEDs, and their effective implementation to combat terrorism would also have the beneficial effect of preventing IED attacks.

Recommendation 29

Further implementation of mechanisms and initiatives addressing terrorism such as the International Convention for the Suppression of Terrorist Bombings (United Nations, Treaty Series, vol. 2149, No. 37517), relevant Security Council resolutions, the sanctions regime concerning Islamic State in Iraq and the Levant (ISIL) (Da’esh), Al-Qaeda and associated individuals, groups, undertakings and entities and the United Nations Global Counter-Terrorism Strategy is needed. At the same time, it would be beneficial for these initiatives and mechanisms to refocus on the issue of IEDs within the context of terrorism and on how terrorists acquire, produce and use IEDs.
94. The United Nations Counter-Terrorism Centre aims at becoming a centre of excellence on counter-terrorism narratives, counter-radicalization, enhanced dialogue and cooperation between national development and security sectors, and terrorist use of the Internet. The Centres working with the Global Counterterrorism Forum (GCTF) on a joint border security initiative on gathering and disseminating good practices on border security and management in the Sahel and the Horn of Africa.

95. The International Bomb Data Center Working Group is a collaborative body of recognized government agencies focused on the sharing of technical intelligence on explosives as well as information related to their unlawful use. Currently, 40 nations participate in the working group, with 12 other countries granted observer status.

**Recommendation 30**

*States affected by IED attacks should prioritize investments in forensic capabilities and receive assistance to that end.*

**Providing victim assistance**

96. In Afghanistan, the fact that the number of civilians maimed by IEDs is twice the number of those killed, results in a situation where there are long-term medical and rehabilitation needs for civilians already suffering from protracted conflict.41

97. The United Nations Policy on Victim Assistance in Mine Action (2016) frames the work of the entities of the Inter-Agency Coordination Group on Mine Action in support of victims of mines and other explosive remnants of war, including cluster munitions and IEDs.


**Recommendation 31**

*Victims of IED attacks should receive a full range of support actions including treatment for physical and psychological harm, as well as the long-term socioeconomic impact of their injuries. States should work to recognize and support the rights of victims in keeping with the Convention on the Rights of Persons with Disabilities. More research is required on the long-term and indirect harm inflicted by IED attacks.*

**Building capacity**

99. IED-relevant technical and financial assistance would include strengthening of national control systems and border controls, and provision of legal assistance in establishing or improving controls over precursor materials. In its resolution 2220 (2015), the Security Council encouraged the Counter-Terrorism Committee and the

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Counter-Terrorism Committee Executive Directorate, within their existing mandates and in close cooperation with all relevant United Nations counter-terrorism bodies, to focus on Member States’ capacities and needs with respect to addressing the threats posed by accessibility of weapons used by terrorists, as well as to countering the supply and trafficking of weapons to terrorists.

100. The Counter-Terrorism Committee Executive Directorate is mandated to report within the existing reporting framework to the Counter-Terrorism Committee on gaps in such capacities, and to present concrete plans for facilitating technical assistance for strengthening Member States’ capacities.

101. States Parties to Amended Protocol II launched a voluntary questionnaire on international cooperation in countering IEDs. 42

102. UNMAS has been providing support, training, mentorship and equipment to States and peacekeepers, in particular to infantry units and explosive ordnance disposal companies in missions in the Central African Republic, Iraq, Libya, Mali and Somalia. In Somalia, UNMAS has been training and equipping the African Union troops and the Somalia security forces in order to strengthen their capacities to deal with IEDs. In 2015, the first national IED defeat capacity was established within the Somali police force.

103. The United Nations is committed to the sustained transfer of mine action functions to national actors (A/70/207), including the capacity to address the issue of IEDs.

104. Post-blast investigation (PBI) often requires a combination of highly trained specialists, such as bomb squad technicians and forensic scientists, which may not be available in all countries. These countries would require international cooperation and assistance in developing these capacities. There have already been initiatives undertaken in this regard; for example, UNMAS has provided post-blast investigations training to the local Somali police.

105. For more than a decade, UNODC has been strengthening the capacity of the judiciary and law enforcement to deal with IEDs and dual-use chemical materials. This is achieved through targeted technical assistance to help, for example, improve, the management of terrorist crime scenes involving IEDs, organization of surveillance of storage and movement of dual-use chemical materials, and support provided to victims of terrorist attacks using IEDs. Furthermore, UNODC works to facilitate coordination and cooperation among the relevant international and national stakeholders and provides, upon request, equipment relevant to detection of IEDs.

Recommendation 32

Member States in a position to do so should provide affected countries with the information and technical, financial and material assistance needed to locate, remove and destroy IEDs; where needed, States should receive assistance in assessing their national commercial and military stockpiles and addressing the related risks.

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42 CCW/APII/CONF.17/WP.1.