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General and complete disarmament

Countering the threat posed by improvised explosive devices

Report of the Secretary-General

Summary

Pursuant to General Assembly resolution [71/72](#), the present report is submitted to reflect the challenges related to countering the threat posed by improvised explosive devices), taking into account existing efforts and initiatives carried out within and outside the United Nations system.

Since the first report of the Secretary-General on this matter ([A/71/187](#)), many stakeholders, including States, international and regional organizations, non-governmental organizations and private industry, have undertaken efforts to combat the cross-cutting and multidimensional challenges posed by the devices, including to develop standards, disseminate guidance, furthering the exchange of information, engage with the private sector and adopt new resolutions in the General Assembly and the Security Council.

The impact of improvised explosive devices on civilians remains a serious concern to the international community, including in the perpetration of terrorist attacks on roads, in commercial premises, markets and places of worship and at public events. The widespread use of the devices has been well documented in Afghanistan and Somalia, as well as in Iraq, the Syrian Arab Republic and Yemen, and actors in the Sahel and the Lake Chad Basin are also increasingly using them.

In many conflicts, in particular those involving non-State armed groups, the use of improvised explosive devices has become a common practice. They are frequently fabricated to create improvised mortars, projectiles, grenades and landmines that are used during hostilities in a similar fashion to their conventionally produced equivalents.

* [A/73/50](#).



The increased number of crisis and conflict situations around the world has contributed to a dramatic surge in the manufacture and use of improvised explosive devices in recent years. They are no longer a fringe category of explosive device, but rather a staple component of ad hoc arsenals. The increased scale, lethality, sophistication and diversity of the devices is alarming.

The proliferation of mass-produced improvised explosive devices has further complicated the problem. The predominance of such weapons in Iraq, the Lake Chad Basin, the Syrian Arab Republic and Yemen has shown that non-State armed groups have used expertise and production technology to circumvent conventional arms controls, including the ban on anti-personnel landmines and various sanctions regimes.

States have continued to address the threat posed by improvised explosive devices in various multilateral forums, including the Security Council, the General Assembly and relevant treaty bodies, including 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. Discussions across such forums were reflected security, humanitarian, counter-terrorism and mine-action perspectives, illustrating the complexity of developing a comprehensive response to improvised explosive devices.

Building on the first report on this matter and the substantive recommendations contained therein, the present report is aimed at providing a current state of play with regard to the threat posed by improvised explosive devices, highlighting two priority themes for further consideration: leveraging existing mechanisms and initiatives and enhancing international cooperation, assistance and information-sharing. The present report also contains conclusions and recommendations, including a non-exhaustive review of the recommendations made in the first report.

I. Current state of play: developments and trends

Increasingly urban nature of conflict and the impact of improvised explosive devices on civilians

1. The asymmetrical nature of modern conflict has brought the violence and destruction once reserved for remote battlefields to the doorstep of civilian populations. Increasingly, conflicts are waged in the streets and on the homes and infrastructure of urban areas. The use of improvised explosive devices in densely populated areas has been catastrophic — lives have been lost and individuals have been displaced and are increasingly unable to return home. The widespread use of the devices to terrorize populations has exacerbated the devastation that they and other explosive devices wreak long after the battle has moved on to the next city.

2. Increasingly, non-State armed groups are turning to improvised explosive devices as weapons of choice and utilizing them indiscriminately. The devices are laid in homes, preventing families from returning, and on streets and bridges, preventing commerce from resuming. Schools, hospitals, water treatment plants, wells, markets and places of worship alike are littered with them.

3. The humanitarian impact and indiscriminate effects of improvised explosive devices constitute a key consideration in addressing the threat they pose. Their improvisational nature often renders them inaccurate and erratic, thus posing a serious threat to communities as well as to humanitarian workers and to United Nations staff and peacekeepers.

4. Survivors of attacks in which improvised explosive devices have been used are often left with complex, life-changing injuries that also have an impact on their families and communities. Victims will often require emergency and specialized medical treatment, rehabilitation and psychosocial support services that are often unavailable, particularly in situations of armed conflict. The respective needs of women, men, girls and boys must be considered in this context.

5. In the past two years, civilians have continued to bear the brunt of attacks in which improvised explosive devices have been used, with the majority of the attacks occurring in populated areas. According to a recent report, it is estimated that of the 31,904 civilian casualties of explosive devices in 2017, 11,791 resulted from improvised explosive devices.¹ Afghanistan, Iraq, Pakistan, Somalia and the Syrian Arab Republic each sustained more than 1,000 casualties as a result of attacks using improvised explosive devices. Afghanistan was the country most affected by such attacks in 2017, which resulted in 4,151 civilian casualties (1,229 dead and 2,922 injured) comprising 40 per cent of total civilian casualties for that year.² A single attack in Kabul in May 2017 resulted in more than 542 people killed or injured. The worst reported incident in 2017 involving improvised explosive devices occurred in Mogadishu in October, with the detonation of a truck bomb that resulted in more than 800 deaths and injuries.

6. Recent research shows that nearly 50 countries experienced at least one casualty related to the use of improvised explosive devices in 2017,¹ demonstrating that the threat is not confined to a region or contextual setting, but has become a global problem that spans settings of conflict, crime and terrorism.

¹ Action on Armed Violence, “The burden of harm: monitoring explosive violence in 2017” (2018).

² United Nations Assistance Mission in Afghanistan, *Afghanistan: Protection of Civilians in Armed Conflict — Annual Report 2017* (2018).

7. The use of improvised explosive devices by terrorist groups across the Levant and North Africa remained acutely alarming (see [S/2018/14/Rev.1](#)). In addition, abandoned devices in so-called recaptured areas posed a challenge to clearance and stabilization efforts. Thus, these devices often have effects beyond the immediate harm caused by their detonation. Reports of tens of thousands of devices left behind in the city of Raqqa by Islamic State in Iraq and the Levant (ISIL, also known as Da'esh) illustrated the scope of the clearance problem and the urgent need for a risk education campaign in such areas.³

8. The recruitment and use by non-State armed groups of children to act as carriers of person-borne improvised explosive devices, including to lay the devices, has become an issue of increasing concern over the reporting period covering the past two years. The particular impact of the devices on children in Iraq, Libya, Mali, Somalia, the Syrian Arab Republic and Thailand was already noted in the 2017 report of the Secretary-General on children and armed conflict ([A/72/361-S/2017/821](#)). In general, improvised explosive devices exacerbate grave violations committed against children in the course of armed conflict, in particular since they put children at risk of being killed, maimed, denied access to humanitarian aid, recruited or used, including in the context of attacks on schools and hospitals.

9. The monitoring and reporting mechanism on grave violations against children in situations of armed conflict documented 566 children killed by person-borne improvised explosive devices in the north-eastern part of Nigeria in 2017. In that year alone, the number of children used in such attacks in Nigeria was three times greater than the number in 2014, 2015 and 2016 combined.⁴

10. Such statistics paint a grim picture of the impact of improvised explosive devices on civilians. Attacks involving the devices in the past two years overwhelmingly targeted civilians and civilian objects, in violation of international humanitarian law. Such attacks on public roads, commercial premises and markets caused the highest number of civilian casualties in 2017, followed by attacks in places of worship and urban and residential areas.¹

Impact on humanitarian assistance and sustainable development

11. The use of improvised explosive devices continued to have a deleterious impact on the provision of humanitarian assistance, in particular to the most vulnerable populations. Humanitarian actors, including those performing mine clearance activities, were increasingly required to work in hostile environments wherein improvised explosive devices had become a regular challenge with which they had to cope.

12. The humanitarian disposal of improvised explosive devices remained an important consideration and a means to mitigate the harm that the devices can cause. Another humanitarian consideration concerned the disposal of devices left undetonated after active hostilities have ceased. Rendering critical infrastructure safe and releasing land contaminated by the devices represented major impediments to sustainable development and a tremendous drain on a State's financial resources as well as those of international organizations. For example, the Mine Action Service of the United Nations indicated that its financial needs for clearance and stabilization

³ See <http://www.unhcr.org/sy/11607-first-un-humanitarian-mission-raqqa-city-post-isis.html>.

⁴ Monitoring response mechanism and *2018 Humanitarian Response Plan: January-December 2018 — Nigeria*, available from www.reliefweb.int/sites/reliefweb.int/files/resources/2018_hrp_v5.4.pdf.

operations in Iraq exceeded \$216 million and that clearance efforts could take decades.⁵

13. The disruption caused in communities as a result of improvised explosive device attacks has a definite impact on the potential to achieve the Sustainable Development Goals, including with regard to sustainable cities and communities (Goal 11), life below water and on land (Goals 14 and 15), and peace, justice and strong institutions (Goal 16). Attacks can result in death, injury, economic loss, displacement and the destruction of infrastructure and private property. Contamination from the devices has disastrous environmental consequences, including on water and sanitation.

New developments in the design and detonation of improvised explosive devices

14. Owing to their improvised nature, improvised explosive devices remain in constant flux with regard to methods of manufacture and modes of detonation.

15. The growing sophistication of their design is undeniable and includes an increasing number and type of switches and an association with other linked and connected devices. There have been significant developments in their design, primarily with regard to the configuration of main charges and the use of multiple switches, that have enabled non-State armed groups to construct devices that are easier to conceal and harder to detect and render safe. Often, improvised explosive devices have been designed and laid specifically to endanger both returning civilian populations and operators tasked with clearance of the devices.

16. Non-State armed groups have significantly stepped up production of improvised weapons as a result of considerable innovation, engineering capacity and production management, combined with extensive acquisition networks through which device components and chemical precursors can be procured. Attacks using vehicles operated by suicide bombers have increasingly become a deployment method of choice for such groups. Examples of newly developed improvised weapons include shoulder-fired recoilless rocket launchers, improvised claymores⁶ and multiple switches to arm and fire improvised explosive devices. They are used in a variety of ways, including as anti-personnel devices and anti-tank/vehicle devices. Improvised explosive devices that are air dropped from unmanned aerial vehicles are also an alarming development.

17. The use of projected grenades as airborne improvised explosive devices by ISIL has been documented.⁷ In addition, there has been a trend in the design of projected devices more generally, such as improvised mortars and rockets, to maximize the range and effect of the device. Other developments in design include those related to device concealment.

18. ISIL in particular has used improvised explosive devices since its inception, but its ability to develop capacities to assemble and detonate them on an industrial scale and to use commercially available means for their delivery, such as drones, has become especially distressing (see [S/2017/467](#)).

New initiatives in the Security Council

19. The adoption of resolutions [2365 \(2017\)](#) and [2370 \(2017\)](#) over the course of 2017 explicitly demonstrated the rising concern in the Security Council over the threat that improvised explosive devices pose to international peace and security. The frequency of references in the Security Council to the devices is also indicative of

⁵ See <http://www.mineaction.org/programmes/iraq>; and http://www.mineaction.org/sites/default/files/documents/Iraq_Newsletter_May_2018.pdf.

⁶ Known as a directionally focused fragmentation charge or horizontal effect.

⁷ Conflict Armament Research, "Islamic State's multi-role IEDs", April 2017.

their increased use as a means to threaten and inflict harm, principally on civilians, but also on humanitarian and peacekeeping staff.

20. The Security Council adopted resolution [2365 \(2017\)](#) as its first stand-alone resolution on mine action and explosive hazard threat mitigation. The Council noted with grave concern that the indiscriminate use of the improvised explosive devices, including by terrorists remained a major threat to the civilian population, including refugees returning to their homes and the safety of peacekeeping personnel. The Council requested the Secretary-General to provide the Council information on threats posed by landmines, explosive remnants of war and improvised explosive devices, and on measures to mitigate the threats, when reporting on peacekeeping operations, special political missions and humanitarian responses.

21. In its resolution [2370 \(2017\)](#), the Council called upon Member States to enhance institutional capabilities and resources for preventing and countering the threat posed by improvised explosive devices. It encouraged Member States to share information, establish partnerships and develop national strategies and capabilities to counter the devices. It also encouraged Member States to prevent and disrupt procurement networks for such weapons, systems and components between ISIL, Al-Qaida and associated individuals, groups, undertakings and entities.

22. The role of improvised explosive devices in the perpetration of terrorist attacks remained a central point of concern for States in other resolutions and debates. The Security Council remained seized of that dimension of the threat posed by the devices, principally in the context of the situation in Afghanistan and the threats by the Taliban, Haqqani Network, ISIL, Al-Qaida and affiliates (see resolutions [2344 \(2017\)](#) and [2368 \(2017\)](#)). Previously, the Council had raised the issue of improvised explosive devices in discussions related to foreign terrorist fighters (see resolution [2178 \(2014\)](#)).

General Assembly consultations

23. Pursuant to General Assembly resolution [71/72](#), an informal consultative process, including ongoing multilateral and integrative discussions, has been established on the issue of improvised explosive devices. The informal process allows for sufficiently flexible discussions on an ongoing basis.

24. In its resolution [71/72](#), the General Assembly underlined that, for the issue of improvised explosive devices to be effectively addressed, it was essential to comprehend the importance of action at the local and community levels through activities ranging from awareness-raising to deradicalization programmes. It also encouraged Member States to enhance, as appropriate, international and regional cooperation, including the sharing of information on good practices as appropriate and where relevant, in cooperation with the International Criminal Police Organization (INTERPOL) and the World Customs Organization.

25. The General Assembly encouraged Member States to hold open, informal consultations, where appropriate, on matters of coordination, between the various existing initiatives and approaches relating to improvised explosive devices, and on efforts to prevent, counter and mitigate the threat posed by the devices. The first informal consultation was convened in 2017, providing States with the opportunity to discuss the range of challenges posed by the devices and utilize the expertise of international, regional and non-governmental organizations. The consultations also served as a useful forum for identifying good practices.

26. Consultations held in 2018 focused on engagement with the private sector, with a view to stemming the flow of dangerous precursor materials; and on the importance of standards, guidelines and good practices in preventing and mitigating improvised

explosive devices. States, international organizations and non-governmental organizations participated in an active exchange, contributing to the growing body of information and common understanding related to the threat posed by the devices.

II. Leveraging existing mechanisms and initiatives

Review of Member State efforts

27. The Counter-Terrorism Committee and the Counter-Terrorism Committee Executive Directorate continued, within their respective mandates, to review Member State efforts to eliminate the supply of weapons to terrorists in the context of implementing Security Council resolution [1373 \(2001\)](#), with a view to identifying good practices, gaps and vulnerabilities. During its relevant assessments in Iraq, the Executive Directorate identified a need for assistance aimed at enhancing the capacity of national authorities to combat ISIL, including training in countering the use of improvised explosive devices, home-made explosives and car bombs. Similar efforts have been undertaken in cooperation with national authorities in Afghanistan, the Lake Chad Basin and the Sahel.

Development of guidance and standards

28. The United Nations continued to play a role in developing globally relevant, standardized guidance for the benefit of interested States. As the threat posed by improvised explosive devices evolves, the pool of guidance and standards must progress apace.

Standards for the disposal of improvised explosive devices

29. Complex improvised explosive devices pose a unique challenge with regard to clearance. In response to calls from Member States, the United Nations initiated the development of standards for the safe, effective and efficient disposal of the devices in order to ensure the safety of those tasked with their clearance, as well as to promote a level of quality assurance in that task. Coordinated by the Mine Action Service, and in close cooperation with the Office of Military Affairs of the Department of Peacekeeping Operations and with Member States, the standards for the disposal of improvised explosive devices went into effect in 2018. The development of the standards benefitted from views presented by a broad range of States, non-governmental organizations and United Nations representatives.

30. The standards are of a technical nature and are intended for use by operators tasked with the disposal of the devices and the organizations and units that employ the operators under the auspices of the United Nations. The standards provide guidance on how to undertake threat and risk analysis with regard to the devices; the competencies and associated training and equipment required to conduct disposal operations; approaches to clearance of the devices in rural and urban areas; managing information on the devices; and risk education on the devices.

31. The standards fill a gap in the technical guidance required to respond to the expanding and increasingly complex problem of improvised explosive devices. The United Nations has a duty of care to ensure that those tasked with disposing of the devices are guided by a competent and practical standard.

Guidelines on Improvised Explosive Device Threat Mitigation in Mission Settings

32. The Mine Action Service has been monitoring the implementation by peace operations of the Guidelines on Improvised Explosive Device Threat Mitigation in Mission Settings, which were prepared by the Department of Peacekeeping Operations and the Department of Field Support. The Guidelines serve to codify the best practices of the Mine Action Service, identify relevant stakeholders for improved decision-making and highlight the importance of risk awareness material.

33. In Mali, the Guidelines helped the country to develop a threat mitigation governance framework and standard operating procedures. The development and implementation of such a self-sustaining approach for threat mitigation has been an innovative achievement for the Mine Action Service and the Department of Peacekeeping Operations.

34. The Department of Peacekeeping Operations Office of Military Affairs developed a handbook on mitigating threats from improvised explosive devices and an Explosive Ordnance Disposal Military Unit Manual to be used by uniformed personnel deployed to mission settings. Together with the standards for the disposal of improvised explosive devices, these two handbooks form an integral pillar of guidance to promote the safety and security of United Nations peacekeepers as well as the effective discharge of their mandates.

International Ammunition Technical Guidelines

35. With regard to stockpile management and the dangers of the diversion of explosive material for the manufacture of IEDs, existing international standards should be maximally utilized. Inadequately managed stockpiles represent a prime target for those seeking the explosive materials required for IED fabrication. The International Ammunition Technical Guidelines are a critical tool in combatting the diversion of explosive items such as military demolition materials and large-calibre ammunition including artillery shells and mortar bombs.

36. The United Nations, through the SaferGuard Programme, continues to support national authorities in the safe and secure management of ammunition in accordance with the International Ammunition Technical Guidelines with a view to preventing diversion and the manufacture of improvised explosive devices.

Focus on precursor materials and engagement with the private sector

37. The wide spectrum of materials that can be used to manufacture improvised explosive devices includes those that can be sourced from military and civilian industry, including all types of explosives — military, civilian, such as those used in mining, and improvised — as well as detonators, detonating cords, poisons and dual-use chemical precursors such as ammonium nitrate, nitric acid and potassium chlorate. As States continue to pursue solutions to the growing threat posed by the devices, it is imperative that there be an examination of the role, responsibility and potential contributions of the private sector in stemming the flow of the devices and related materials. Such an examination becomes especially important in view of complex supply chains involving distributor, wholesaler and retailer levels, the specifics of which will vary by region. Prevention efforts all along the supply chain are critical to the extent that diversion remains a threat at all stages.

38. Industry itself has pursued a number of initiatives aimed at increased oversight and accountability along the supply chain with regard to precursor components. Such programmes include chain-of-custody verification and product stewardship

programmes.⁸ For example, security considerations were notably included in the assessment methodology of the International Council of Chemical Associations Responsible Care Programme. The European Responsible Care Security Code, the United Kingdom Chemical Business Association security code and the Fertilizers Europe Product Stewardship Programme also constitute useful examples of private industry taking into consideration the dangers posed by the acquisition of materials for manufacture of the devices.

39. Other notable examples of good practices by private industry include the establishment of focal points and the production and distribution of informative materials. Constructive efforts have also been focused on raising awareness on the threat down the supply chain as well as through strengthening physical security and record-keeping. The role of local industry must also be underscored.

World Customs Organization

40. Preventing incidents involving improvised explosive devices requires the participation of a variety of stakeholders at different levels. In respect of preventing the international movements of precursor chemicals and other components used to manufacture the devices, customs administrations play a central role. They have the capacity to interdict illicit shipments or refer cases deemed suspicious to counterpart agencies. In addition, customs authorities have a wealth of information at their disposal due to the data collected in customs clearance systems that could be used to identify security-related risks.

41. The work of the World Customs Organization in this area is noteworthy. The longest-running security-related programme of the World Customs Organization, Programme Global Shield represents a coherent attempt to monitor certain highly explosive chemical precursors that could be used in the fabrication of the devices. The programme has promoted effective coordination between the organization, INTERPOL and the United Nations Office on Drugs and Crime. Since its inception, its law enforcement operations have resulted in the seizure of precursor materials, detonators and transmitting devices. With regard to capacity-building, more than 400 officials have been trained in the detection of suspicious movements of chemicals, detonators and transmitters. The programme recently reviewed its list of monitored commodities and will undertake further activities in the South-East Asian region and the West, Central and East African regions.

42. In addition, the World Customs Organization has adopted the Framework of Standards to Secure and Facilitate Global Trade. The Framework consists of the following elements: harmonizing the advance electronic cargo information requirements on inbound, outbound and transit shipments, committing to a consistent risk-management approach to address security threats, including outbound inspection of high-risk cargo preferably using non-intrusive inspection equipment, and supporting partnerships with businesses that meet minimal supply chain security standards and best practices. Letters of intent to implement the Framework have been submitted by 169 members of the World Customs Organization that are at different stages of implementation.

⁸ See UNIDIR report on the informal private sector consultative meeting held in Geneva on 6 and 7 March 2017 entitled “Examining the roles, responsibilities and potential contributions of private sector industry actors in stemming the flow of improvised explosive devices and related materials”, available from www.unidir.org/files/publications/pdfs/ied-geneva-meeting-march-2017-en-683.pdf.

INTERPOL

43. The Chemical Risk Identification and Mitigation Programme (CRIMP) remains a flagship INTERPOL programme with regard to addressing precursor materials. It is designed to increase the capacity of agencies involved in counter-terrorism activities and infrastructure protection to identify chemicals at particular risk of diversion and misuse by criminals and terrorist groups. Understanding the threat allows for the creation of sustainable and focused chemical countermeasures, led by law enforcement agencies and supported by partners in industry and academia.

44. Through the Chemical Risk Identification and Mitigation Programme, INTERPOL has identified a prioritized list of the most significant chemicals of concern with a view to supporting States in developing chemical countermeasures programmes. The Programme is building a sustainable cadre of national officials proficient in risk assessment, chemical-threat prioritization and targeted chemical countermeasures.

United Nations Institute for Disarmament Research

45. The United Nations Institute for Disarmament Research (UNIDIR) organized and held an informal consultative meeting with representatives from the private sector to ascertain their perspective on the roles, responsibilities and potential contributions of private sector actors in stemming the flow of improvised explosive devices and related materials. Private sector experts shared their views on regulatory frameworks, physical security considerations, information-sharing processes, awareness-raising activities and good practices.⁹

Deepening research and expanding data collection

46. Incident reporting in relation to improvised explosive devices merits additional resources and attention, given that the pool of professional research and analysis of device use and impact is insufficient to enable the international community to formulate an effective, evidence-based response.

47. Accurate data and corresponding analysis is at the heart of effective policymaking and is particularly crucial in the context of conflict situations and humanitarian emergencies. As the likelihood of reporting in conflict and post-conflict environments is often diminished, efforts to deepen and expand data collection in these contexts are imperative.

48. More concrete information on types of improvised explosive devices, including means of detonation and their effects, is a necessity in order to best inform the response by the international community to the evolving threat posed by them. More information on how users of the devices access materials required for their manufacture is needed, as is information on the full short- and long-term impact of attacks involving the devices on communities. The latter is especially wanting in view of the psychological, sociological and developmental consequences that extend well beyond the moment of the device's detonation.

49. While the challenges of reporting on incidents involving improvised explosive devices are clear, owing to the improvised nature of the devices and the fact that the attacks often take place in remote areas with little media coverage, it is essential that more data, including the specific physical impact of the different types of devices, be collected to understand the harm they cause.

⁹ Ibid.

50. Other areas that stand to benefit from additional research include behavioural factors driving the use of improvised explosive devices and regional specificities in their production and use, as well as interventions and successes in threat reduction.

United Nations Assistance Mission in Afghanistan

51. In respect of data collection, the United Nations Assistance Mission in Afghanistan (UNAMA) has been reporting on civilian casualties since 2007. UNAMA investigates reports of civilian casualties by conducting on-site investigations, where possible, and by consulting a range of sources and types of information evaluated for credibility and reliability.

52. In 2017, UNAMA documented 10,453 civilian casualties, 40 per cent of which were caused by suicide attacks and improvised explosive devices.¹⁰ From 1 January to 31 March 2018, UNAMA documented 2,258 civilian casualties (763 dead and 1,495 injured), reflecting similar levels of civilian harm documented in the first three months of 2017 and 2016. Suicide bombings using the devices and complex attacks were the leading cause of civilian casualties, a new trend observed by UNAMA in 2018.¹¹

INTERPOL

53. Since 2014, INTERPOL has managed the Project Watchmaker initiative, which supports military and police forces in their efforts to counter the threat posed by improvised explosive devices. Efforts include gathering, analysing and sharing intelligence on the devices. The data exchange is aimed at identifying, locating and arresting suspected bomb makers. Thus, a critical component of initiative is the generation of data on individuals involved in the acquisition, manufacture or use of the devices.

54. The Project Watchmaker database currently includes over 3,100 names of known and suspected bomb makers as well as over 100 methodologies that bomb makers are using to construct and use the devices. Project Watchmaker developed a region-focused model and established regional working groups in South-East Asia, the Middle East and North Africa. While each region is distinct with regard to the relative weight of specific groups and modus operandi, there are promising signs of information exchange between them.

III. Enhancing international cooperation, assistance and information-sharing

Enhancing United Nations coordination

55. The complexity of the improvised explosive device issue rests, in part, on the number of actors operating in contexts where the devices are typically deployed. Stakeholders include humanitarian and mine action actors, State and military forces and specialized private sector entities. Each actor takes specific approaches to respond to the threat posed by the devices depending on its mandates, roles and resources. Local-level actors, including law enforcement and commercial entities, often play a significant role.

¹⁰ United Nations Assistance Mission in Afghanistan, *Afghanistan: Protection of Civilians* (see footnote 2 above).

¹¹ United Nations Assistance Mission in Afghanistan, *2018 Quarterly Report on the Protection of Civilians in Armed Conflict: 1 January–31 March 2018*.

56. The broad range of United Nations entities engaged in work related to improvised explosive devices should be seen as an asset in leading to a strong, collective response by the Organization to the threat, which has become one of the most pressing issues both inside and outside of armed conflicts.

57. In that regard, taking into consideration the recommendations contained in the report entitled *Performance Peacekeeping: the Final Report of the Expert Panel on Technology and Innovation in United Nations Peacekeeping*,¹² the Mine Action Service carried out a mapping exercise to identify and analyse responses across the Organization to threats posed by improvised explosive devices. The mapping confirmed that attacks and incidents involving the devices adversely affected the delivery of programmes and mandates, especially in the context of protecting civilians and providing humanitarian assistance. The exercise also found that United Nations efforts to deal with the devices remained somewhat disparate, in terms of both addressing the immediate threat and developing a coherent, operational, policy-related and doctrinal framework on them. Additional challenges that were identified included how best to increase the sharing of expertise and guidance; undertake more cross-cutting, joint projects, including on a regional basis; benefit from existing threat mitigation approaches; and generate greater cooperation among partners.

58. Building on the results of the mapping exercise, as well as the call to action contained in the Secretary-General's new disarmament agenda, entitled "Securing our common future: an agenda for disarmament", the United Nations, under the leadership of the Mine Action Service and in coordination with other relevant entities, will deepen its engagement with regard to improvised explosive devices and ensure a whole-of-system approach.

Strengthening the provision of assistance and capacity-building

59. Building the capacity of States to prevent and respond to incidents involving improvised explosive devices remains paramount. Addressing the threat in an effective, comprehensive and sustainable manner requires efforts by the whole international community, including affected and non-affected States, civil society, the United Nations and other specialized organizations. Many of the efforts to support State capacity-building have already been well documented, including in the previous report of the Secretary-General on the topic (A/71/187).

60. The United Nations has highlighted the need to further develop an understanding of the evolving technical composition and structure of improvised explosive devices deployed in the field. Knowing how the devices work and understanding their component parts are the first steps towards building the necessary capacity that can provide the United Nations with comparative advantages in protecting forces operating in asymmetric environments. This would also enable the United Nations to support affected States in developing national capacities.

Mine Action Service

61. The Mine Action Service actively worked with Member States and troop-contributing countries to provide capacity-building training to address the threat posed by improvised explosive devices to those deployed to peacekeeping missions. In the case of Mali, the combination of training and mentoring for troop-contributing countries by the Mine Action Service and several other threat mitigation measures contributed to an overall reduction in casualties among peacekeepers of 50 per cent from 2016 to 2017, despite an increase in the overall number of incidents targeting

¹² See https://peacekeeping.un.org/sites/default/files/performance-peacekeeping_expert-panel-on-technology-and-innovation_report_2015.pdf.

the United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA). The measures have enhanced the safety, resilience and freedom of movement of MINUSMA.

62. The Mine Action Service helped national authorities to develop the required technical capacity to safely manage improvised explosive devices, coordinate the response and comply with international standards through the provision of training and technical equipment, as well as mentoring and advisory support. Support for capacity-building was also extended to weapons and ammunition management in order to help in preventing illegal access to explosive precursor material.

INTERPOL

63. INTERPOL continued to work through its Chemical Anti-Smuggling Enforcement (CHASE) programme to build the capacity of police, customs, immigration and government chemical and border security agencies to work both within and across borders to target the illegal movement of chemical warfare agents, toxic industrial chemicals and explosive precursor materials.

64. Efforts through the INTERPOL Chemical Awareness and Scene Management Project (CHASM) continued to support crime scene examiners from law enforcement agencies in dealing with chemical and/or explosive contaminated incident scenes. The programme strengthened the ability of law enforcement agencies to investigate chemical attacks, manage chemical crime scenes and forensic protocols and foster cooperation among themselves.

65. Six project courses were held in 2016 and 2017 for Cameroon, Indonesia, Malaysia, Mali, Nigeria and the Philippines. Owing to the success of the courses, a train-the-trainer course has been developed and earmarked for 2018.

Counter-Terrorism Committee Executive Directorate

66. During on-site visits by the Counter-Terrorism Committee, the Counter-Terrorism Committee Executive Directorate engaged with Afghanistan and Iraq in line with the request contained in Security Council resolution [2370 \(2017\)](#). The Committee, with the support of the Counter-Terrorism Committee Executive Directorate, continued to facilitate technical assistance and capacity-building and raise awareness on eliminating the supply of weapons, including the devices, to terrorists, in particular by strengthening its dialogue with States and relevant international, regional and subregional organizations and by working closely, including through sharing information, with relevant bilateral and multilateral technical assistance providers.

United Nations Office on Drugs and Crime

67. Strengthening the national capacity of Iraq to address improvised explosive devices has been one of the main pillars of the work of the Terrorism Prevention Branch of the United Nations Office on Drugs and Crime (UNODC) since 2015. In 2017 and 2018 the Branch continued to provide capacity-building support to Iraqi criminal justice and law enforcement officers, resulting in the drafting of a national strategy to monitor and control the movement and use of certain chemical materials that are frequently used in the devices.

Office of Counter-Terrorism

68. In partnership with the United Nations Regional Centre for Peace and Disarmament in Africa and the Government of Cameroon, the United Nations Counter-Terrorism Centre, which was placed within the Office of Counter-Terrorism, conducted a project on capacity-building for States in Africa to prevent the acquisition of arms and ammunition by non-State actors. The project helped to implement Security Council resolution [2178 \(2014\)](#) by strengthening the capacities of African States to prevent the acquisition of arms and ammunition by non-State actors, such as terrorist and other armed groups.

69. Within the framework of the initiative of the United Nations Counter-Terrorism Centre on Integrated Assistance for Countering Terrorism in Mali, the Centre, together with MINUSMA and the United Nations Police, held a series of workshops to strengthen the ability of law enforcement officials to develop strategies to prevent suicide attacks and understand the process of radicalization that leads to terrorism.

Deepening the exchange of information

70. Information-sharing among Member States, international and regional organizations and the private sector is central to addressing the issue of improvised explosive devices. The coordination of information-sharing in this area is challenging owing to the complexity of the issue and the number of stakeholders involved. Considerable efforts have already been made, both inside and outside the United Nations, to better coordinate information-sharing, including the exchange of good practices.

71. Existing mechanisms and platforms for information-sharing are highlighted in table 1.

Table 1
Mechanisms and platforms for information-sharing

<i>Mechanism/platform</i>	<i>Description</i>
Project Watchmaker	The INTERPOL Project Watchmaker platform facilitates the flow of data from military forces deployed to relevant hotspots through police channels. Project Watchmaker supports information-sharing by channelling military intelligence through international policing mechanisms in order to support law enforcement authorities on the front lines.
United Nations Office for Disarmament Affairs information hub on improvised explosive devices (https://www.un.org/disarmament/convarms/ieds/)	Established pursuant to General Assembly resolution 71/72 , this online information portal provides Member States with information on existing initiatives, policies and tools, including work conducted by the United Nations system and other international organizations such as INTERPOL and the World Customs Organization. States and relevant entities are invited to submit information for inclusion on the online portal.
Compilation of existing guidelines, best practices and other recommendations in the framework of the Convention on Prohibitions or Restrictions on the Use of	The fourteenth conference of High Contracting Parties requested that the Implementation Support Unit of the Convention on Certain Conventional Weapons, in consultation with the Co-Coordination

<i>Mechanism/platform</i>	<i>Description</i>
Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects	on improvised explosive devices and the High Contracting Parties, maintain the compilation on an ongoing basis, including to update it as new relevant guidelines, best practices, recommendations and other comments are issued. The High Contracting Parties to the Convention are invited to update the compilation at any time.
Improvised Explosive Device Lexicon	<p>The document is intended for individuals working in environments contaminated with improvised explosive devices. It provides an agreed common language, which is a prerequisite for data aggregation and analysis, including data transfer between the improvised explosive device databases used by States, non-governmental organizations and private companies.</p> <p>The purpose of the lexicon is to address the issue of differing definitions of improvised explosive devices and the lack of disaggregation of data (by incident type or weapon type, or detailed data on victims and impacts), as well as to guarantee the consistency of the terms used by various organizations in relation to incidents involving the devices.</p>

IV. Follow-up on past recommendations

72. In the previous report ([A/71/187](#)), 32 recommendations were made covering prevention, preparedness and response. The recommendations remain valid and should be considered further by States, relevant international and regional organizations, non-governmental entities and the private sector.

73. Examples of some of constructive action taken by relevant entities on the recommendations contained in the previous report are summarized in table 2.

Table 2
Examples of action on recommendations

<i>Recommendation</i>	<i>Implementing entity</i>	<i>Activity</i>
<p>(1) Rigorous government scrutiny of commercial sectors, from which improvised explosive device components are sourced, is essential, including at the local level. In particular, a regulatory framework for 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.</p> <p>Industry and retail organizations and communications companies should be encouraged to develop national and international codes of conduct to assist such a regulatory framework.</p>	<p>INTERPOL, World Customs Organization, participating States</p>	<p>In 2017 the World Customs Organization, together with INTERPOL, conducted the initiative Programme Global Shield in North Africa and the Near and Middle East regions to target commodities used by terrorists and violent extremist organizations to manufacture improvised explosive device. During the operational phase, customs activities focused on the movement of chemicals and other components of the devices into the targeted region.</p> <p>When national customs agencies identified suspicious movements or seized material, the World Customs Organization was notified and a warning message was sent to INTERPOL to advise police authorities. In such cases, INTERPOL informed the relevant national central bureaus in order to stimulate a multi-agency approach. The organization encouraged the national police forces to actively support their customs counterparts in investigating the circumstances surrounding the warning message.</p>
<p>(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 high-level participation by States, and from further financial and technical support from States in a position to provide such support.</p>	<p>INTERPOL, World Customs Organization, participating States</p>	<p>INTERPOL has conducted specialized working group meetings, training sessions and operations in the framework of the CHASE and CRIMP programmes since the previous report of the Secretary-General on this topic. The targeted regions have included South-East Asia, South Asia and the Middle East.</p>
<p>(11) Drawing from existing International Mine Action Standards, the United Nations shall develop international improvised explosive device defeat standards through consultation with Member States.</p>	<p>Mine Action Service</p>	<p>The Mine Action Service coordinated the development of the disposal standards for improvised explosive devices, which came into effect in June 2018 for United Nations personnel and those carrying out activities on behalf of the Organization.</p>

<i>Recommendation</i>	<i>Implementing entity</i>	<i>Activity</i>
(14) States are encouraged to support the United Nations Institute for Disarmament Research in developing a voluntary self-assessment tool which can assist States in self-identifying gaps and challenges in national improvised explosive device regulation and preparedness.	UNIDIR	UNIDIR launched a project to develop a voluntary self-assessment tool that can assist States in self-identifying gaps and challenges in national improvised explosive device regulations and preparedness. It represented the first phase of an initiative to build national capacities to self-assess regulatory frameworks that address the threat of IEDs. States were encouraged to support UNIDIR in implementing the project.
(15) In their annual discussion within the General Assembly of the resolution on improvised explosive devices, 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 in preparation for the drafting and submission of the Assembly resolution. This would be an inclusive and highly cost-effective process.	All States	At the initiative of Afghanistan, the lead sponsor of the relevant resolution in the General Assembly, States convened for informal consultations on various aspects of the threat posed by improvised explosive devices. Through these inclusive discussions, which have also leveraged expertise from non-governmental and international organizations, States addressed various strands of the challenge posed by the devices, including international cooperation and assistance, engagement with the private sector and the role of standards, guidelines and good practices.
(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 improvised explosive devices in a comprehensive manner. The hub would include the four main topics of the present section thus facilitating navigation, without duplication, towards existing tools presenting good practices, inside and outside the United Nations system, and filling gaps, where needed.	United Nations Office for Disarmament Affairs	The online information portal provides Member States with information on existing initiatives, policies and tools, including work conducted by other entities of the United Nations system. It was established and launched in March 2017 and is regularly updated with additional resources and relevant information.

<i>Recommendation</i>	<i>Implementing entity</i>	<i>Activity</i>
<p>(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 marks. As this would be a tool for operational use mainly by law enforcement, it would be best established in INTERPOL.</p>	INTERPOL, participating States	<p>In 2017 INTERPOL created the Watchmaker Crime Analysis File, which makes it possible to process the growing body of information provided by participating member countries. It also allows INTERPOL to produce analytical reports that are more specialized and to better exploit existing data and links.</p> <p>Information on detonator manufacturers can be channelled to the Watchmaker Crime Analysis File and used as a global repository that would strengthen possibilities for investigation and prosecution.</p>
<p>(23) For secure operational information-sharing, States may use the INTERPOL I-24/7 network and the Customs Enforcement Network Communication Platform (CENcomm) of the World Customs Organization, wherever possible.</p>	INTERPOL, participating States	<p>The INTERPOL initiative Project Watchmaker provided operational and specialized support to all of its 192 member countries through the issuance and dissemination of INTERPOL notices on improvised explosive devices and bomb makers. The Watchmaker database currently contains over 3,100 bomb maker profiles (compared with over 1,000 in 2016) from 61 countries (compared with 25 in 2016).</p>
<p>(26) The sharing of purchase information on large or suspicious transactions of precursor materials may be best channelled through INTERPOL and the World Customs Organization.</p>	INTERPOL, participating States	<p>Within the framework of the World Customs Organization initiative Programme Global Shield and through direct communication with member countries, INTERPOL shared purchase information on large or suspicious transactions of precursor materials.</p>
<p>(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 improvised explosive devices and other explosive hazards.</p>	INTERPOL, participating States	<p>Since forensic capabilities to investigate IED attacks are essential for efforts to combat threats from such devices, INTERPOL, with substantial support from host countries in Africa, conducted a number of CHASM courses for crime scene examiners from law enforcement agencies on dealing with chemical and/or explosive contaminated incident scenes.</p>

Recommendation	Implementing entity	Activity
		INTERPOL developed a specialized chemical investigation, examination and forensics course, which was designed to provide information on bomb scene examination and management, contaminated crime scene awareness, the role of explosives officers and explosive ordnance disposal specialists, exhibit management, forensic recovery and safety at scenes.

V. Recommendations

74. While progress has been made, more needs to be done. In addition to the broad areas of work outlined above, the following actions are recommended:

Action 1: Enhance discussions on improvised explosive devices in relevant forums

- **The issue of improvised explosive devices should be addressed from multiple complementary angles, including counter-terrorism, explosive threat mitigation, mine action, the protection of civilians and export controls.**
- **States are encouraged to engage actively in the informal consultations held pursuant to General Assembly resolution 71/72, on countering the threat posed by improvised explosive devices, in which the Assembly provided an essential framework for all stakeholders to exchange views and coordinate approaches on the range of aspects relating to the threat posed by the devices.**
- **States that have not yet become parties to the Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-traps and Other Devices as Amended on 3 May 1996 (Protocol II as amended on 3 May 1996) are encouraged to do so. They are also encouraged to participate in the discussions on improvised explosive devices within this framework, including by contributing to the compilation of existing guidelines and best practices disseminated through the Group of Experts.**
- **States should consider supporting the regional working groups of the INTERPOL Project Watchmaker that have been developed in line with the current threat landscape and emerging trends related to improvised explosive devices.**
- **States are encouraged to make use of the Improvised Explosive Device Lexicon of the Mine Action Service in order to guarantee the consistency of terms.**
- **States are encouraged to support further research on various dimensions of the improvised explosive device issue in order to better understand the multifaceted approach required to address the issue at forums. UNIDIR, along with other relevant research institutions, could be engaged by States in such tasks.**

Action 2: Support practical, operational measures to prevent and mitigate threats posed by improvised explosive devices

- With regard to mandates for peace operations, it would be beneficial if the Security Council were to take into account the situational context of the threat posed by improvised explosive devices and, when relevant, include comprehensive threat mitigation measures.
- The inadequate management of stockpile of conventional ammunition, which is often sourced for the manufacture of improvised explosive devices, should be a priority for States in mitigating the threat posed by the devices. Paying attention to surplus stocks is especially important. States are encouraged to utilize the International Ammunition Technical Guidelines in this regard.
- States are encouraged to further integrate security-related mandates into customs and border control activities with a view to preventing the diversion of precursor chemicals and other materials that could be used in the manufacture of improvised explosive devices. Resources should be allocated accordingly.
- States are encouraged to build the capacity to improve record-keeping and the collection of forensic evidence. Assistance to States is encouraged in this regard.

States are encouraged to consider the voluntary provision of improvised explosive device-related training to troop-contributing countries by the United Nations, including with the support of the Mine Action Service.

- States are encouraged, where appropriate, to support the Mine Action Service in the development of standardized improvised explosive device-related training courses.
- States are encouraged to support the Mine Action Service in updating the International Mine Action Standards, utilizing the good practices identified in the United Nations standards for the disposal of improvised explosive devices, when setting out the requirements for clearance of the devices in strictly humanitarian environments.
- States are encouraged to make use of INTERPOL notices as well as relevant programmes, including Project Watchmaker.
- States are encouraged to examine the role, responsibility and further potential contributions of the private sector in combatting the threat posed by improvised explosive devices. States are encouraged, in particular, to support efforts to prevent the diversion of precursor chemicals and other materials in the supply chain.

Action 3: Take measures to protect civilians from, and support victims of, harm resulting from improvised explosive devices

- States are encouraged to take all feasible precautions to protect civilians from the effects of improvised explosive devices, including through the establishment or consolidation of appropriate awareness and risk education campaigns.
- Adequate victim assistance must be explored further by States and all relevant stakeholders, taking into account the frequent lack of emergency

care available at the time of an incident involving improvised explosive devices.

- **States are encouraged to support further research and data collection on incidents involving improvised explosive devices in order to better inform measures to protect civilians from the harm caused by these devices.**
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