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Problems arising from the accumulation of conventional ammunition stockpiles in surplus

Group of Governmental Experts on problems arising from the accumulation of conventional ammunition stockpiles in surplus

Note by the Secretary-General

The Secretary-General has the honour to transmit herewith the report of the Group of Governmental Experts on problems arising from the accumulation of conventional ammunition stockpiles in surplus. The Group was established pursuant to paragraph 16 of General Assembly resolution 72/55.

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Report of the Group of Governmental Experts established pursuant to General Assembly resolution 72/55 on problems arising from the accumulation of conventional ammunition stockpiles in surplus

Summary

In the present report, the Group of Governmental Experts established pursuant to General Assembly resolution 72/55 stresses that ineffectively managed ammunition stockpiles often lead to a growth in surplus ammunition. Furthermore, the management weaknesses that lead to their growth usually apply throughout the national stockpile – not just to the portion of the stockpile that is in surplus. With that in mind, the Group also notes that safety and security problems associated with conventional ammunition extend beyond national stockpile facilities.

In the case of safety risks, the management of conventional ammunition poses challenges throughout its life – from the factory to its eventual use or disposal. Equally, from a security perspective, ammunition is vulnerable to diversion throughout its life – whether during storage, transport or deployment – and along the full length of the supply chain. The Group therefore adopted a more comprehensive approach to understanding the safety and security risks posed by conventional ammunition than its predecessor, the Group of Governmental Experts established pursuant to General Assembly resolution 61/72, which had focused largely on the management of national ammunition stockpiles (A/63/182).

The Group determined that there is a pressing need to concentrate on through-life ammunition management as a means to identify and address ammunition safety and security risks. It also stressed that through-life ammunition management, if it is to be effective, must apply to all convention ammunition types. In that regard, the Group noted that most existing frameworks address small arms and light weapons ammunition only, which leaves many of the risks associated with larger ammunition calibres unaddressed.

Based on this holistic risk assessment, the Group concluded that, in order to prevent both unplanned ammunition explosions and the diversion of ammunition, a comprehensive framework should be established to support safe, secure and sustainable through-life ammunition management at the national, subregional, regional and global levels, building upon and complementing existing frameworks. Under this comprehensive framework, a set of political commitments should be negotiated under the auspices of the General Assembly.

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Foreword by the Secretary-General

Inadequately managed ammunition poses a serious danger to civilians, infrastructure and the environment. More than half of States Members of the United Nations have experienced an unplanned explosion at a munitions site over recent decades.

This materiel is at high risk of being diverted to criminal and terrorist groups. It is particularly attractive to non-State actors because it can be used to manufacture improvised explosive devices. In this way, ammunition stolen from storage sites can contribute to armed violence, conflict and insecurity.

Building on this understanding of dual risks, in the present report, the Group of Governmental Experts examines the issue of the accumulation of conventional ammunition stockpiles in surplus in a comprehensive way, by considering safety and security challenges across the full life cycle of conventional ammunition, from manufacture to disposal or use.

In the report, the Group considers applicable frameworks and commitments at the global and regional levels. It recognizes that, although this issue features in several international and regional instruments, its treatment is fragmented and limited in scope. The Group recommends specific safety and security measures and tackles overarching issues, including international cooperation and assistance and the mainstreaming of gender considerations.

It concludes with practical, concrete recommendations for a comprehensive framework on conventional ammunition that supports both the prevention of unplanned explosions and of the diversion of ammunition. The Group explores a multilayer framework composed of global commitments, regional and subregional efforts and national measures.

I am grateful to the members of the Group of Governmental Experts for their dedication, especially in the light of the challenges posed by the coronavirus disease (COVID-19) pandemic. I thank the Group for recommending to the United Nations membership concrete and comprehensive steps to address this issue.

Letter of transmittal dated 14 September 2021 from the Chairperson of the Group of Governmental Experts established pursuant to General Assembly resolution 72/55 to address matters relevant to problems arising from the accumulation of conventional ammunition stockpiles in surplus, taking into account the exchanges in the open, informal consultations held in 2018 and 2019

The problems arising from the accumulation of conventional ammunition stockpiles in surplus continue to be of growing concern to the international community. Diverted ammunition provides deadly oxygen to armed violence and conflicts around the world. At the same time, ineffective management of ammunition stockpiles can result in disastrous accidental explosions that cut short thousands of lives and destroy livelihoods and communities.

The Group of Governmental Experts established pursuant to General Assembly resolution 72/55 was tasked to address matters relevant to problems arising from the accumulation of conventional ammunition stockpiles in surplus, taking into account the exchanges in the open, informal consultations held in 2018 and 2019.

The Group was composed of 18 experts with due regard for geographic diversity and gender balance. A list of the participating experts is included in the annex to the report.

The Group held its first session at United Nations Headquarters from 20 to 24 January 2020. The second session took place from 17 to 21 May 2021 in a hybrid format at the Palais des Nations in Geneva, and the final session was held at United Nations Headquarters in a hybrid format from 7 to 10 September 2021.

Through its deliberations, the Group agreed that deficiencies in conventional ammunition management preclude the identification of surplus ammunition and, in order to effectively discharge its mandate, it needed to consider comprehensively the dual risks to safety and security posed by the ineffective management of ammunition within and beyond national stockpiles.

The Group considered it important to provide two sets of recommendations. First, practical measures were elaborated relating to the safety and security challenges at individual stages of the through-life management of ammunition. Second, a recommendation was explored to establish a comprehensive framework to support safe, secure and sustainable through-life management of conventional ammunition. It is the recommendation of the Group that a set of political commitments should be negotiated under the auspices of the General Assembly.

I would like to thank the members of the Group for their outstanding commitment, constructive approach and thoughtful contributions. I am especially grateful for the flexibility demonstrated in the face of the ongoing coronavirus disease (COVID-19) pandemic. On behalf of the Group, I also wish to express my appreciation for the support received from the staff of the United Nations Secretariat and the United Nations Institute for Disarmament Research.

The Group has requested me to submit to you on its behalf the present report, which was adopted by consensus.

(*Signed*) Marcus **Bleinroth**
Chairperson of the Group of Government Experts
established pursuant to General Assembly resolution 72/55

I. Introduction

1. In making its recommendations, the Group of Governmental Experts on problems arising from the accumulation of conventional ammunition stockpiles in surplus was conscious that certain conventional ammunition[1] measures are technical and pertain to specific activities, while others are more general in scope. For these reasons, the Group's recommendations on particular challenges at specific stages during the through-life management of ammunition are contained in sections V and VI of the present report, while its general recommendations are set out in section VIII.

II. Problems arising from the accumulation of conventional ammunition stockpiles in surplus

2. With regard to conventional ammunition, the Group defined "surplus" ammunition in the following terms: (a) the accrual of unserviceable ammunition;[2] and (b) ammunition that a State determines exceeds its own defence and security requirements, resulting, inter alia, from changing national security or defence requirements; security sector reform activities; and changing equipment requirements. The Group noted that these security sector processes do not apply to ammunition held by civilians. The Group reaffirmed the finding of its predecessor, the 2008 Group of Governmental Experts on considering further steps to enhance cooperation with regard to the issue of conventional stockpiles in surplus, that it was the prerogative of each State to assess its conventional ammunition requirements and levels in accordance with its legitimate security needs.

3. In a significant number of States, however, deficiencies in conventional ammunition management preclude the identification of surplus ammunition. Problems arise, in particular, when States lack the regulations, policies, procedures, organizational structures and resources required to monitor the quantity and condition of ammunition, classify it by role and serviceability, and account for its location, condition and function within stockpiles.

4. The Group also noted that, in some circumstances, many States are hampered in exercising the correct ammunition management processes required to identify and classify serviceable ammunition. In some cases, differing challenges and priorities, or a lack of political will, hamper States in developing such processes or providing requisite resources.

5. Ineffectively managed ammunition stockpiles often lead to a growth in surplus ammunition. Furthermore, the management weaknesses that lead to their growth usually apply throughout the national stockpile – not just to the portion of the stockpile that is in surplus. This is particularly pronounced in conflict and post-conflict settings in which States have suffered institutional collapse. In this respect, States that inadvertently generate surpluses frequently lack the institutions and processes required to classify and dispose of unserviceable ammunition or to identify and address

[1] A complete device (e.g. missile, shell, mine, demolition store, etc.), charged with explosives, propellants, pyrotechnics or initiating composition for use in connection with offence, or defence, or training, or non-operational purposes, including those parts of weapons systems containing explosives (International Ammunition Technical Guideline 01.40).

[2] The term "unserviceable" refers to any item of ammunition that does not fulfil its function adequately. The term encompasses, but is not limited to, unstable ammunition, which can be defined as items whose physical and chemical characteristics have deteriorated to the extent that their regular storage, transportation, or use would result in intolerable safety risks.

diversion (the national or international transfer of legally held ammunition to, or its acquisition by, unauthorized users) across the full extent of the national stockpile.

6. In particular, the Group noted that States with the most severe ammunition management problems are often those that are least equipped to identify and address them. This underscores a need for international cooperation and assistance in enabling such States to identify and address problems related to conventional ammunition.

7. For the reasons set out above, the Group agreed with the findings of its predecessor, the 2008 Group of Governmental Experts, that ineffective stockpile safety and security led to two major issues of international concern: (a) the stockpiling of unserviceable ammunition, types of which can pose an explosive risk to civilian populations, national infrastructure and the environment; and (b) inadequately secured ammunition, which may be diverted to unauthorized users, including criminal and terrorist groups.

8. The Group concluded that, in order to discharge its mandate, which was to examine the issue of problems arising from the accumulation of conventional ammunition stockpiles in surplus in a comprehensive manner, it needed to consider safety and security risks pertaining to all conventional ammunition – not only surplus or stockpiled ammunition. In this respect, it referred to paragraph 18 and to the preambular paragraphs of General Assembly resolution 74/65, which highlight ammunition safety (explosions) and security (diversion) risks.

9. In this context, the Group noted that safety and security problems associated with conventional ammunition extend well beyond national stockpile facilities. In the case of safety risks, the management of conventional ammunition (a percentage of which is likely to have become unstable through poor storage or management) poses challenges throughout its life: from production until its disposal or use. Equally, from a security perspective, ammunition is vulnerable to diversion throughout its life (along the full supply chain).

10. In this regard, the Group noted furthermore that the aforementioned paragraphs of General Assembly resolution 74/65 contain direct reference to action taken to improve the regulation of transfers and prevent the diversion of conventional ammunition, thereby recognizing that risks associated with conventional ammunition extend beyond national stockpile facilities and are present along the full supply chain.

11. Finally, the Group took note of paragraph 16 of General Assembly resolution 74/65, in which the Assembly called upon the Group to take into account exchanges in open, informal consultations. Those who participated in the discussions consistently pointed towards approaches to the conventional ammunition problem that encompassed through-life management (from production until use or disposal) to ensure its safety and security (including along the full supply chain). The Group also noted that conventional ammunition poses safety and security risks when illicitly cached or abandoned or left uncleared as unexploded ordnance. The Group therefore adopted a more comprehensive approach to understanding safety and security risks posed by conventional ammunition than had the 2008 Group of Governmental Experts, which had focused largely on the management of national ammunition stockpiles.

III. Ammunition safety and security risks

12. The ineffective management of ammunition poses two major risks to States. When States face safety challenges, for instance through the improper storage or handling of ammunition, or its instability (which develops unnoticed in the absence of effective surveillance), they risk declining ammunition performance, a greater frequency of ammunition-related incidents and, in the worst outcomes, catastrophic

explosions.[3] When States experience security weaknesses, there is an increased risk of ammunition loss and theft (owing to stockpile insecurity) and they face difficulties in being able to verify transfer documentation and the end users of consigned ammunition (a lack of supply chain security). In either case, the risk of ammunition diversion to unauthorized users, including criminal and terrorist groups, is elevated. In the following sections of the report, the Group summarizes its most salient findings in relation to the safety and security challenges posed by ammunition.

13. The Group noted that the safety issues outlined in section III below do not apply to small-calibre ammunition.[4] When stored separately from other, less stable types of ammunition, small-calibre ammunition poses minimal explosive risk.

A. Ammunition safety and the risk of unplanned explosion

14. From 1979 to 2019, more than 623 unplanned explosions of ammunition resulted in nearly 30,000 casualties in 106 States, leading to the displacement of entire communities and disrupted livelihoods.[5] Unplanned explosions have also had significant environmental consequences. Research into the longer-term impact of these accidents suggests that a single major event of this kind can place direct and indirect costs on national Governments exceeding $600 million and sometimes reaching several billion United States dollars.[6] The costs can outweigh annual investments in national defence and security forces in the countries concerned and may dwarf national spending on health and social welfare. Such unforeseen expenditures, moreover, have obvious consequences for future spending on public health, development and the budgets of relevant national security institutions – very often in countries that already suffer economic difficulties and face significant development and security challenges.

15. These events arise because of a number of factors, of which most can be attributed to safety challenges in the through-life management of ammunition, including deficient storage, handling or surveillance measures. While many of the challenges would be addressed by greater use of existing guidance on stockpile management – as articulated in the International Ammunition Technical Guidelines and parallel standards or guidelines adopted by States – some of the challenges originate outside the context of national ammunition stockpiles and require additional measures. They include the following:

[3] Surveillance is used here as defined in International Ammunition Technical Guideline 01.40, i.e. as “a systematic method of evaluating the properties, characteristics and performance capabilities of ammunition throughout its life cycle in order to assess the reliability, safety and operational effectiveness of stocks and to provide data in support of life reassessment. The constant review of accumulating test results ensures that the overall quality remains acceptable. The term is also applied to the continuing examination of the stores themselves”. Proof is defined as “the functional testing or firing of ammunition and explosives to ensure safety and stability in storage and intended use”. Surveillance does not refer to physical oversight in this case.

[4] Commonly identified as cartridge-based ammunition with a calibre (projectile diameter) of less than 20 mm.

[5] Referred to by the Small Arms Survey as “unplanned explosions at munitions sites”. The cited dataset also includes explosions during the transport of ammunition. See “Unplanned Explosions at Munitions Sites”. Available at www.smallarmssurvey.org/weapons-and-markets/stockpiles/unplanned-explosions-at-munitions-sites.html.

[6] See Small Arms Survey, “Countdown to catastrophe: the Mpila ammunition depot explosions”, in *Small Arms Survey 2014* (Geneva), pp. 156 and 157; and North Atlantic Treaty Organization, “Cyprus accident: part II” (slide 14), presentation by the Munitions Safety Information Analysis Centre, PARARI 2013 conference, Canberra.

(a) Deficiencies in applying the fundamental principles of ammunition management, notably through-life management;

(b) Use by different States of differing marking systems, applied at the place of production to ammunition packaging, which complicates the identification of ammunition hazard and compatibility groups;

(c) Critical lack of national capacity, including relevant institutions and organizational structures, to conduct scheduled surveillance (propellant stability assessments) and proof (functioning tests);

(d) Lack of important technical data (notably regarding the provision of, or access to, propellant stability data) provided to ammunition customers – in particular in the case of surplus transfers or the retransfer of ammunition;

(e) Lack of organizational capabilities (see sect. IV) – notably a State's ability to manage its defence and security forces across a range of essential functions, including doctrine, organization, training, material, personnel, finances, infrastructure and safety and security measures (often described as "capability-enabling lines")[7] – necessary to manage ammunition sustainably and effectively (in accordance with International Ammunition Technical Guideline 01.35).

B. Ammunition security and the risk of diversion

16. From 2009 to 2021, national defence and security forces operating in 26 States recovered more than 600,000 units of diverted conventional ammunition from criminal and terrorist groups.[8] This is a sample of diverted ammunition, collected over a relatively restricted geographic area. However, in the absence of more expansive data collection it points to the magnitude of the global ammunition diversion problem.

17. Conventional ammunition diversion has an impact on States and societies across the globe, whether originating from domestic sources or owing to proximity to States with major diversion problems. In areas of the world affected by high levels of armed criminality, where diverted small-calibre ammunition has been used in a significant number of events resulting in death or injury, the direct and indirect costs of armed violence suffered by the worst affected States can exceed $4 billion annually.[9] In conflict-affected States, the diversion of conventional ammunition plays a major role in sustaining insurgency and terrorism. For example, the more than 40,000 units of diverted conventional ammunition recovered from Da'esh in Iraq and the Syrian Arab Republic provide a snapshot of the firepower available to some non-State actors, such as small-calibre ammunition, artillery rounds, free-flight rockets and guided missiles – and including man-portable air defence systems and anti-tank guided weapons.[10] The acquisition of diverted conventional ammunition on this scale has

[7] Capability-enabling lines are functional capabilities related not solely to ammunition management, but also to the management of any type of equipment.

[8] As at 9 July 2021, the figure was 605,248, according to data collected by Conflict Armament Research field investigation teams, including publicly accessible data uploaded to the iTrace global weapon reporting system, a project funded by the European Union and jointly co-financed by the Government of Germany and Conflict Armament Research – in addition to non-publicly accessible data (largely under judicial seal or subject to ongoing investigations) collected and analysed by Conflict Armament Research under formal bilateral agreements with the States in which the ammunition was recovered.

[9] Geneva Declaration on Armed Violence and Development secretariat, *Global Burden of Armed Violence 2015: Every Body Counts* (Geneva, 2015), p. 173.

[10] Conflict Armament Research, *Weapons of the Islamic State: A Three-Year Investigation in Iraq and Syria* (London, 2017).

been instrumental in the capture of national territory by such groups for protracted periods of time, with long-term impacts on international peace and security.

18. A further dimension of the conventional ammunition problem, which has generated growing international concern in recent years, is the threat posed by improvised explosive devices. The explosive material within conventional ammunition (including materiel collected from abandoned explosive ordnance and unexploded ordnance) can provide terrorist groups – and certain criminal organizations – with safer, more reliable and more enhanced performance than would typically be achieved through the production of homemade explosives.[11] In addition, the mass production by terrorist groups of improvised weapon systems that are specifically designed to fire or launch conventional ammunition underscores the need for more effective ammunition security measures.[12]

19. The conventional ammunition diversion problem has many modes, including the loss and theft of ammunition from legal civilian holdings, State-sponsored diversion to criminal and terrorist groups, leakage from ineffectively secured national stockpiles and, in the most extreme cases, the overrunning of national defence and security forces or the collapse of the State itself.[13] Although not all of these modes of diversion (e.g. major war leading to State collapse) can easily be addressed by enhancing the through-life management of ammunition, many share similar causes and hence can be addressed in comparable ways. The Group considered a wide range of diversion dynamics and identified several that it believed were critically important to address and could be mitigated substantially by concerted international counter-diversion measures:

(a) Legacy conventional ammunition circulating in post-conflict settings, whether illicitly cached, illicitly held, abandoned or left uncleared as unexploded ordnance;

(b) Retransfer of conventional ammunition to unauthorized destinations and parties in recipient States, including the issue of State-sponsored diversion to criminal and terrorist groups;

(c) Problems experienced by supplier States in fully identifying parties to the supply chain, or verifying transfer documentation and end users, prior to the transfer of conventional ammunition;

(d) Marking and record-keeping systems – including transfer, shipping and delivery documentation – that lack the specificity required to trace certain types of conventional ammunition in the event of its diversion (recognizing that most small-calibre ammunition cannot be traced when removed from its packaging and is often difficult to trace even when it remains in its original packaging, often owing to high-volume transfers to numerous recipients of the same batch or lot number. This does not, however, preclude the potential utility of identifying information, including

[11] Improvised explosive device threat mitigation encompasses a number of ammunition-related measures, including the following: (a) unexploded ordnance clearance and the disposal of unguarded legacy stockpiles in order to deny terrorist groups easy access to explosives used in the manufacture of improvised explosive devices; (b) stockpile security enhancements to deny terrorist groups access to diverted explosive ammunition; and (c) national controls on the transfer and availability of explosives and explosive precursor chemicals.

[12] See Conflict Armament Research, *Technical Report: Islamic State Recoilless Launcher Systems* (London, 2018) and Conflict Armament Research, *Frontline Perspective: Islamic State's Multi-role IEDs* (London: 2017).

[13] See paper submitted on behalf of the Chair of the Group of Governmental Experts on problems arising from the accumulation of conventional ammunition stockpiles in surplus, entitled "Diversion typology" (GGE/PACAS/2020/3).

marks applied to ammunition and its packaging, that may help to identify patterns of diversion in certain circumstances);

(e) Limited capacity of certain national authorities to identify diverted conventional ammunition following its recovery from criminal and terrorist groups; collate and analyse ammunition diversion data; and share information (whether nationally or with other States and sometimes for legal reasons).[14]

IV. Need for a comprehensive approach to ammunition management

A. Methods to address effective and sustainable through-life ammunition management

20. Considering the risks identified in section III, the Group noted that there is a pressing need to address the through-life management of conventional ammunition from the perspectives of both safety and security.

21. The Group noted that safety measures encompass all measures to protect individuals, infrastructure and the environment from the risks arising from conventional ammunition. It also recognized that safety risks occur throughout the life of ammunition, and are not only present in national stockpiles, and therefore cannot be mitigated through stockpile-specific measures alone.

22. The Group also noted that security measures encompass all measures to prevent ammunition diversion to criminal and terrorist groups. In this regard, it noted the potential for ammunition diversion along a chain of transactions extending throughout the life of ammunition. This approach also recognizes the importance of having the fullest possible knowledge of the supply chain.[15]

23. The Group noted that these processes – whether focused on identifying safety risks or security deficiencies in the supply chain – should operate as a feedback loop, whereby the continual detection of problems prompts States to enact corrective measures to enhance the safety and security of ammunition throughout its life.

24. Accordingly, the Group adopted a through-life management approach when considering risks, as well as measures to promote safe, secure and sustainable ammunition management. The Group also segmented through-life management into different stages, in order to identify specific risks and measures applicable to each stage, as follows:

(a) Production: the stage at which a company manufactures ammunition;

(b) Pre-transfer (export licensing): the stage before an international transfer of ammunition from one entity to another. This stage can occur several times throughout the life of ammunition;

(c) Transfer (national or international): the stage at which one entity (custodian) physically transfers ammunition to another custodian. This stage can occur several times throughout the life of ammunition;

[14] See, for example, the working paper submitted by Ghana, entitled “Priorities for ECOWAS Member Countries”. Available at https://unoda-web.s3.amazonaws.com/wp-content/uploads/2020/01/GGE.Ghana-working-paper-11.pdf.

[15] United Nations Institute for Disarmament Research (UNIDIR), *Conventional Ammunition Management: Gap Analysis* (2019) and *Key Issues and Processes Pertinent to the Management of Conventional Ammunition: Report of the Third Seminar* (2019).

(d) Stockpile: the stage at which a State or other entity stores ammunition. This stage can occur several times throughout the life of ammunition;

(e) Recovery: the stage at which national defence and security forces take custody of ammunition that has been illicitly cached, seized in the course of defence and security force operations or secured on the battlefield (including abandoned explosive ordnance and unexploded ordnance);

(f) Use and disposal: the stage at which ammunition is either used (i.e. fired or launched) or disposed of.

25. The Group recognized that there are numerous measures that could promote safe, secure and sustainable ammunition through-life management. While some apply only to specific stages in the life of conventional ammunition, others apply throughout all stages, which reinforces the Group's focus on feedback loops. The measures identified in sections V and VI are presented accordingly.

26. Finally, when considering what makes an ammunition through-life management system effective and sustainable, the Group recognized that States need appropriate organizational capabilities. According to the International Ammunition Technical Guidelines, these include: (a) ammunition-specific through-life processes, which range from procurement to use and disposal; (b) organizational structures, which allow for the identification and allocation of responsibilities for each process throughout the life of ammunition; and (c) capability-enabling lines. Not all States have the organizational capabilities, including relevant institutions and organizational structures, in place to enact sound ammunition management.

B. Existing international frameworks

27. At the global level, voluntary commitments and normative efforts have been undertaken to address conventional ammunition in the form of international treaties, arrangements, guidelines and best practice documents.

28. At the regional and subregional levels, there are many frameworks that address ammunition in their scope of application and play an important role in driving national requirements for conventional ammunition.

29. In considering the different existing international frameworks, the Group noted that they address some aspects of conventional ammunition through-life management, but collectively fall short in the following respects:

(a) Most existing frameworks tend to be focused on small arms and light weapons ammunition, rather than on the full spectrum of conventional ammunition;

(b) Frameworks that address fully all types of ammunition tend to have a narrow scope and are focused on either stockpile management or transfer controls;

(c) Existing frameworks tend to treat ammunition as an adjunct to weapon systems, commonly employing phrases such as "and their respective ammunition";

(d) Definitions of ammunition differ considerably across various frameworks;

(e) Transfer control frameworks that list pre-transfer risk assessment criteria provide little detail on ammunition diversion risk indicators.

30. Consequently, when viewed collectively, existing frameworks do not address the through-life management of conventional ammunition comprehensively.

31. Of equal importance is the fact that no existing framework enjoys universal membership.

32. Given these observations, the Group noted that the absence of a universally accepted framework to address ammunition through-life management measures poses the following practical challenges:

(a) Since most frameworks tend to address small arms and light weapons ammunition only, many of the risks associated with larger ammunition calibres tend to go unaddressed;

(b) While stockpile management is an effective way to address safety and security risks within ammunition stockpiles and associated transport – and its implementation is addressed comprehensively in the International Ammunition Technical Guidelines and parallel standards or guidelines adopted by States – it does not address the many safety and security risks that occur outside the context of ammunition stockpiles. Since frameworks tend to be limited in scope, critical linkages between ammunition safety and security are overlooked;

(c) Since in existing frameworks ammunition is treated as an adjunct to weapons, most of their provisions are geared towards weapon management and do not specifically address the often-different safety and security challenges posed by ammunition. It is only in the fields of explosive remnants of war and stockpile management that the specific problems associated with ammunition in its own right have been addressed on different levels.[16]

33. Finally, existing frameworks arguably lack essential security measures, which apply at all stages of through-life management (including throughout the supply chain) to mitigate diversion. Such measures include the systematic analysis of data on diverted ammunition, generated through the collection of seized and recovered munitions, and through the exchange of information among concerned parties, with the purpose of detecting and quantifying the sources of diversion and thereby provide a basis for formulating effective measures to address it.

V. Ammunition safety

34. In considering ammunition safety risks, the Group welcomed the comprehensive stockpile safety, security and management measures addressed in the International Ammunition Technical Guidelines. Furthermore, a number of other multilateral and national standards, as well as regional or subregional guidelines and best practices, provide either equivalent, more detailed or additional guidance on stockpile management.

35. In addition, the Group observed that ammunition safety risks extend beyond national stockpiles and identified relevant safety measures that apply at different stages in the through-life management of ammunition, as shown in table 1.

[16] Protocol on Explosive Remnants of War 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 (Protocol V) and the International Ammunition Technical Guidelines.

Table 1
Through-life conventional ammunition safety measures

Stage	*Recommended through-life safety measures*
Production	•States should minimize ammunition safety risks at production facilities by ensuring that such facilities apply the fundamental principles of ammunition management (as addressed in the International Ammunition Technical Guidelines and parallel standards or guidelines adopted by States)
	•States would facilitate safe ammunition storage at storage sites by encouraging ammunition producers to use the United Nations explosive hazard classification system and codes[a]
	•States would facilitate the prospects for through-life traceability[b] of ammunition for accounting reasons, by encouraging the application of identifying marks where feasible, practicable and consistent with national legislation, for accurate record-keeping
	•States could consider encouraging industry, working in conjunction with national ammunition management authorities, to refine or develop technologies for timely, on-site ammunition propellant stability testing
Pre-transfer (export licensing)	•States, where feasible and consistent with national legislation, could consider stockpile safety standards or guidelines employed at ammunition transfer destinations and available information on the record of ammunition safety at such sites, when compiling pre-transfer risk assessment reports (export licensing)[c]
Transfer (national and international)	•States would enhance the safety of ammunition in transport by encouraging transport agents to apply the fundamental principles of ammunition management (as addressed in the Guidelines and parallel standards or guidelines adopted by States)
	•States, when procuring ammunition, could encourage suppliers to consign producers' safety and quality control information, including surveillance and proof test records or propellant master records, with transferred ammunition – in particular with respect to transfers of surplus ammunition or in the case of ammunition retransfer (re-export)
Stockpile safety	•States would increase their chances of sustaining gains introduced by international cooperation and assistance programmes by strengthening or developing their national organizational capabilities (including capability-enabling lines, as mentioned in section IV of the present report and in Guideline 01.35). International cooperation and assistance programmes could support these measures through training and knowledge transfer
	•Without prejudice to the authority of the UN Saf*er*Guard Technical Review Board regarding the development, continuous review and updating of the Guidelines, States should encourage relevant bodies to develop further supplementary guidance to improve the awareness and implementation of the Guidelines in relation to national ammunition stockpiling, where necessary
	•Without prejudice to the authority of the Board regarding the development, continuous review and updating of the Guidelines, States should enhance promotion activities for the Guidelines at the international, regional and subregional levels, including through bilateral, multilateral and multinational assistance programmes

Stage	*Recommended through-life safety measures*
	•Without prejudice to the authority of the Board regarding the development, continuous review and updating of the Guidelines, States should encourage relevant bodies to translate the Guidelines and supplementary guidance into additional languages
Recovery	•States would minimize safety risks by applying the fundamental principles of ammunition management (as addressed in the Guidelines and parallel standards or guidelines adopted by States) to facilities that house recovered ammunition and also by recovering, after it has been assessed, and/or disposing promptly of illicitly cached or abandoned explosive ordnance and unexploded ordnance
Use and disposal	•States could adopt national processes, in accordance with internationally recognized standards or guidelines, to assess the safety, stability and serviceability of ammunition held by defence and security forces after operational deployment and classify it accordingly
	• States, and those relevant bodies duly authorized by them, could verify, through effective accounting and record-keeping, the disposal of ammunition held by defence and security forces (including recording serial, lot or batch numbers of demilitarized or destroyed munitions)

[a] *Globally Harmonized System of Classification and Labelling of Chemicals* (ST/SG/AC.10/30/Rev.8) (United Nations publication, 2019). Available at www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/ghs_rev08/ST-SG-AC10-30-Rev8e.pdf.

[b] Ammunition marking cannot be addressed without reference to the traceability of ammunition in record-keeping systems. The Group, however, felt that it was important to make a distinction between the traceability of ammunition for safety or product performance reasons and the tracing of ammunition to identify parties responsible for its diversion. The former operates in much the same way as manufacturers and distributors manage supply in a consumer goods market. Producers use lot and batch numbers to associate ammunition with specific customers. This enables them to recall products after sale, or advise customers of safety or performance issues, if they are found to be defective. Likewise, stockpile managers use lot and batch numbers to account not only for the physical location of ammunition, but also to maintain registries pertaining to its condition, shelf-life, test results and maintenance. In reality, the requirements for ammunition marking and record-keeping are the same for ammunition tracing – only the objectives differ (see discussion of ammunition tracing in footnote b to table 2).

[c] A precedent for such measures can be found on page 128 of the European Union *User's Guide to Council Common Position 2008/944/CFSP defining common rules governing the control of exports of military technology and equipment*.

A. Safety measures applicable to all stages of through-life ammunition management

36. In addition to the measures listed in table 1, the Group noted the critical role of safety measures that apply to all stages in the life of conventional ammunition. The performance of surveillance and proof throughout the life of ammunition is pivotal in this regard, as is the provision of training and technical capacity on the processes necessary for effective surveillance. The International Ammunition Technical Guidelines, and parallel standards or guidelines adopted by States, provide relevant guidance in this regard.

37. The Group also stressed the need for States to audit ammunition safety measures regularly, fully investigate ammunition incidents, including unplanned explosions, and refine or develop risk mitigation measures accordingly.

38. In this respect, the Group recognized the importance of collecting and analysing open-source information on ammunition-related safety incidents and stockpile

management programming, with the aim of identifying risks and developing risk management approaches.

39. Finally, the Group emphasized that States should apply the fundamental principles of ammunition management, as presented in the Guidelines and parallel standards or guidelines adopted by States, throughout the life of ammunition and not only to national stockpiles (such as at production facilities, in temporary storage sites during transfer or transit, for ammunition in transport and for ammunition stored in operational theatres). In this regard, the Group underlined the importance of States employing internationally recognized inventory management processes to account for operationally deployed ammunition.

B. Current limitations on the application of through-life ammunition safety measures

40. The Group noted that the capacity of States to implement the safety measures listed above varies greatly and often depends on a State's pre-existing structures, processes and national legislation. National capacities also diverge depending on the ammunition types in service with the State concerned.

41. The fact that some States tend to consider shelf-life expired – and even unstable ammunition – to be a strategic asset, rather than a liability, impedes effective risk and cost analysis. In this regard, the Group recognized that, although through-life ammunition management entails considerable costs, these can be dwarfed when costing the consequences of accidental explosions at ammunition storage sites.

42. The Group also recognized the difficulties experienced by States in developing, strengthening or solidifying organizational capabilities (processes, structures and capability-enabling lines) because they potentially entail reforms enacted throughout the security sector. It underlined, however, the importance of considering these capabilities in order to achieve sustainable ammunition management.

43. Finally, the Group recognized that States have not fully used either the International Ammunition Technical Guidelines or parallel standards or guidelines adopted by States. This poses a serious challenge to the broader application of sound through-life ammunition safety measures.

C. Measures to enhance the implementation of through-life safety measures

Activities to promote the International Ammunition Technical Guidelines

44. The Group welcomed ongoing reviews of the International Ammunition Technical Guidelines by the UN Saf*er*Guard Technical Review Board, with inputs from the Strategic Coordination Group. It underlined the authority of the Board and recognized that review and updating of the Guidelines should be steered by technical considerations.

45. The Group noted that applying the Guidelines is of paramount importance to addressing the safety risks associated with conventional ammunition. It also recognized that significant efforts have been made to operationalize the Guidelines through the development of implementation support materials, technical support and stockpile management programming.

46. These efforts include the UN Saf*er*Guard implementation support toolkit for the Guidelines, which contains a set of technical tools; the development of support documents for the Guidelines, including the *Critical Path Guide to the International*

Ammunition Technical Guidelines, *A Guide to Developing National Standards for Ammunition Management*, *Utilizing the International Ammunition Technical Guidelines in Conflict-Affected and Low-Capacity Environments* and various bilateral, multilateral and multinational stockpile management programmes that place the Guidelines and parallel standards or guidelines adopted by States at the core of stockpile management enhancement activities. The Group observed that, despite these operationalization efforts, many relevant national security institutions and national implementing bodies are unaware of their existence, often because stockpile management is not sufficiently prioritized in national decision-making. In some instances, this has been compounded by a lack of inter-agency communications and political will.

47. In this respect, the Group concluded that there was a need for greater outreach in the field of ammunition management and noted the critical role played by a wide range of bilateral, multilateral and multinational initiatives, projects and measures in promoting the Guidelines. In particular, it welcomed the joint initiative of the Geneva International Centre for Humanitarian Demining and the Office for Disarmament Affairs to establish an Ammunition Management Advisory Team.[17]

48. Finally, the Group noted that national capability assessments and resulting planning processes were the bedrock of successful through-life ammunition management initiatives. In this respect, international capacity-building assistance programmes played a vital role in initiating national action on ammunition management – in particular for States that face challenges in clarifying the nature and extent of national stockpile management challenges. In the interests of developing a uniform approach to implementing the basic principles of ammunition management, the Group called upon all international capacity-building assistance programmes to promote through-life ammunition management practices that are aligned with the Guidelines and parallel standards or guidelines adopted by States.

Encouraging sustainable stockpile management initiatives

49. The Group consulted widely on the main factors behind successful stockpile management initiatives. It noted that there were significant disparities in the scope, resourcing and effectiveness of related programming. The Group concluded that sustainable through-life ammunition management requires, inter alia, political will and the organizational capabilities and resources of the State in question, as mentioned in the Guidelines. To this effect, it is critical for States to develop ammunition management processes and organizational structures (including inter-agency structures) within their national institutions that are adequate to manage conventional ammunition. Without such national ammunition management organizations, the benefits of assistance programmes tend to be short-lived.

50. In addition to the ammunition management process and the national ammunition management structures within respective national institutions, States could consider developing or enhancing their capability-enabling lines.

51. The Group noted that, to be effective and sustainable, ammunition management should be based on national norms. International capacity-building assistance programmes should support the development or adaptation of respective regulations

[17] The main objectives of the Ammunition Management Advisory Team are: to foster greater use of the International Ammunition Technical Guidelines and good practice; to support States, upon request, with ammunition through-life management in accordance with the Guidelines, whether directly or in cooperation with other programmes; and to support the design of coordinated and integrated responses.

and policies within national institutions that may have differing ammunition management requirements.

52. Finally, the Group understood that sustainable through-life ammunition management requires national ownership, regional cooperation and international cooperation and assistance. The Group concluded that the UN Saf*er*Guard programme is well positioned to coordinate, in conjunction with other key stakeholders, responses to the above-mentioned challenges and requirements, while making use of, invigorating and complementing existing regional and subregional mechanisms.

VI. Ammunition security

53. The Group noted that ammunition security has received significantly less coverage in international, regional and subregional frameworks than has its safe management. Detailed guidance on ammunition security is largely restricted to stockpile management-focused documents, such as the International Ammunition Technical Guidelines and parallel standards or guidelines adopted by States, which are focused primarily on the security of stockpiled ammunition. This leaves large sections of through-life ammunition management (including critical parts of the supply chain) outside the scope of international attention.

54. Adopting a through-life management approach to the security of conventional ammunition highlights both challenges to and opportunities in its management. Supply chains are often complex, can extend across continents and may involve a chain of transactions spanning years, if not decades. In response, through-life management takes into account the interdependencies of security measures along the supply chain, which means that a measure taken at one point in the supply chain (e.g. pre-transfer risk assessment) has the potential to diminish security risks (e.g. stockpile diversion) further along the chain.

55. The Group acknowledged that ammunition is a consumable good. In this regard, it recognized the complexity of post-delivery verification measures, taken after the arrival of ammunition at its destination, whereby it becomes increasingly challenging to distinguish whether ammunition has been passed on to third parties or used by the end recipient. In this regard, while noting that post-delivery verification measures may still have some utility, the Group stressed that the pre-delivery phase is a particularly critical stage in preventing the diversion of conventional ammunition.

56. An overview of ammunition security measures is provided in table 2. Like the safety measures described above, they follow a through-life management approach. Taken collectively, they are aimed at promoting supply chain transparency prior to transfer, hindering unapproved onward transfers and identifying and addressing diversion when it occurs.

Table 2
Through-life conventional ammunition security measures

Stage	*Recommended through-life security measures*
Production	• States would minimize the risk of diversion from production facilities by ensuring that such facilities follow the stockpile security principles and systems provided in International Ammunition Technical Guideline 09.10, “Security principles and systems” and other relevant security principles and systems (recognizing the role of industry in complementing States in developing relevant guidance and practices)

Stage	*Recommended through-life security measures*
	• States would increase the prospects for the successful tracing[a] of conventional ammunition and, as appropriate, its packaging – and, in the specific case of most small-calibre ammunition, primarily its packaging – by applying sufficient markings
	• States would enhance their capacity to monitor small-calibre ammunition diversion by recognizing that: (a) basic markings applied to individual units of ammunition (identifying the manufacturer and year of production) may, in some cases, be employed to detect and track ammunition diversion and (b) collective identifiers (such as lot and batch numbers) applied to ammunition packaging, in some cases, permit the tracing of specific ammunition consignments, where feasible, practicable and consistent with national legislation[b]
	• States should consider marking the primary outer packaging of ammunition to indicate: (a) the identity of the manufacturer; (b) the identifying lot and batch numbers pertaining to the assembled unit of ammunition and, as required, to its constituent elements (explosive fill and propellant); (c) the calibre; (d) the load or fill; and (e) the relevant United Nations hazard classification
	• States could, if they require specific types of ammunition marking, request these of ammunition producers during their ammunition procurement processes[c]
	• States would reduce security risks by encouraging ammunition producers, where feasible, practicable and consistent with national legislation, to maintain effective accounting and record-keeping systems that permit the retrieval (by serial, batch or lot number) of detailed sales and transfer records. Ideally, such records should be digital, easily retrievable and held for as long as feasible
	• States could complement the primary role played by export licensing authorities in conducting diversion risk assessments by encouraging ammunition producers to exercise due diligence in verifying the identities of customers and other parties to the supply chain, being vigilant as to the forgery or misuse of end user documentation and flagging cases of attempted illicit acquisition to their competent national authorities without discharging export licensing authorities of their legal duties
	• States (exporters or importers) would reduce security risks by encouraging ammunition sellers to list all ammunition lot and batch numbers in sales documentation, where possible, for the purposes of cross-referencing with transfer, shipment and delivery documentation (i.e., an uninterrupted paper trail)
Pre-transfer (export licensing)	• States could consider, where appropriate, making mandatory the use of non-retransfer clauses in end user certification for State end recipients, which require those recipients to seek the original supplier’s approval before resale and retransfer

Stage	*Recommended through-life security measures*
	• States would greatly diminish the potential for the misuse or forging of transfer documentation by requiring either the use of the apostille certificate processes to authenticate transfer documentation;[d] the certification or validation of transfer documentation by competent importing State authorities; or the provision of an import licence issued by competent importing State authorities and other duly authorized parties
	• States would enhance due diligence by requiring that all parties involved in an international transfer are indicated in a transfer request, including intermediary recipients, freight forwarders and brokers. The entire onward transfer chain would then be visible and subject to pre-transfer risk assessment by competent authorities
	• Transfer control authorities could consider the following criteria when making pre-transfer diversion risk assessments, as deemed effective and relevant: – Analysis of the goods in relation to the end user – Verification of bona fides of end user – Verification of all parties involved in the transfer, with special attention to freight forwarders, brokers and consignees – Maintenance of registers and databases of transfers, manufacturers, brokers, vessels and aircraft, as well as end users, shippers and freight forwarders that have a history of diversion or poor security measures – Consideration of the risks of diversion associated with transit, trans-shipment and choice of route – Access to all relevant information from primary and open sources – Verification and authentication of transfer documentation – Use of delivery verification certificates and, where deemed effective and feasible, post-delivery verification programmes
Transfer (national and international)	• States could consider a range of post-delivery measures, as appropriate, and select those deemed most effective and feasible – including physical inspection, proof of delivery (including photographic confirmation), delivery certification, ammunition registry extracts or third-party verification – which would be conducted selectively according to risk assessment criteria and within the resource constraints of the transferring (exporting) State
	• Importing States would enhance supplier State confidence by restricting the number of national authorities that are authorized to issue end user certificates and delivery verification certificates for ammunition imports and by providing exhaustive and regularly updated lists of those authorities (names, departments and contact information) to supplier States; this measure would also build accountability within recipient States

Stage	*Recommended through-life security measures*
	• States would minimize the risk of diversion during the transport of ammunition by ensuring that shippers, transport agents and providers of in-transit storage follow the security principles and systems provided in Guidelines 08.10 and 09.10 and relevant international agreements and standards on the transport of hazardous goods
	• National authorities should ensure the effective implementation and enforcement of transfer (export and import) controls at their borders, pursuant to national laws and regulations
Stockpile security	• This is adequately addressed in Guideline 09.10 and parallel standards or guidelines adopted by States (see "stockpile safety" in table 1 on suggested measures to promote use of the Guidelines)
Recovery	• States would minimize the risks related to the storage of recovered ammunition by applying the security measures addressed in the Guidelines and parallel standards or guidelines adopted by States, after experts have assessed that such ammunition can be stored safely
	• The Group noted that the recovery of illicitly cached and abandoned explosive ordnance and unexploded ordnance was critical to denying criminal and terrorist groups access to explosive material. States should prioritize the prompt recovery of such ordnance and consider enhancing existing initiatives in this regard
Use and disposal	• States and those relevant bodies duly authorized by them could, for ammunition in the custody of defence and security forces, verify, through effective accounting and record-keeping, the disposal of ammunition (including recording serial, lot or batch numbers of demilitarized or destroyed munitions) to prevent its diversion

[a] Definition provided from paragraph 5 of the 2005 International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons: "'tracing' is the systematic tracking of illicit small arms and light weapons found or seized on the territory of a State from the point of manufacture or the point of importation through the lines of supply to the point at which they became illicit". In its discussion of ammunition marking, the Group was careful to note that, historically, States have developed ammunition marking systems to serve logistical functions (see the discussion of marking in the context of ammunition safety in footnote b to table 1). However, in providing identifying information, which forms the basis of a "paper trail" and underpins ammunition accounting and record-keeping systems, marking also permits the tracing of certain ammunition types.

[b] A select number of States have adopted requirements or practices of applying lot and batch numbers to individual small-calibre cartridges for specific procurements at the request of certain end users, with the aim of identifying, dissuading and combating diversion when deemed feasible, practicable and consistent with national legislation (see also footnote 17 above).

[c] The Group concluded that current marking practices for conventional ammunition (small-calibre ammunition excluded) were generally sufficient to permit its tracing – given accurate records and the cooperation of parties to the supply chain. It also noted, with the same caveats, that current marking practices for small-calibre ammunition packaging, in principle, permitted its tracing when the items remain packaged.

[d] The apostille certificate process applies to States Parties to the 1961 Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents. Under this Convention, States Parties, which would otherwise have to authenticate a variety of international transfer documentation and authenticate its issuing parties (including, inter alia: issuing entity, end user, signature, official stamp, and official capacity to sign), accept transfer documentation that bears the 'Hague Apostille' as authentic.

A. Security measures applicable to all stages of through-life ammunition management

57. In addition to the above measures, which apply to specific phases in the through-life management of ammunition, the Group noted that certain security measures apply throughout the life of ammunition, including the following:

(a) Where feasible, appropriate and consistent with national legislation, accurate and comprehensive record-keeping (production, sales, transfer and inventory management) throughout the supply chain;

(b) Capacity (skills and training) for law enforcement and other investigative bodies to identify, record and analyse recovered ammunition accurately and systematically;

(c) Use by law enforcement and other competent authorities of appropriate data collection systems and national database management solutions, consistent with national legislation, which can be populated with comparable data that are easily retrieved and shared;

(d) Cooperation of parties in the supply chain in responding either to requests for information or to formal trace requests issued for certain types of ammunition in conformity with the laws and regulations of the State.

58. Actors involved in generating information related to diversion include law enforcement agencies; defence forces; intelligence services; international law enforcement organizations (International Criminal Police Organization (INTERPOL) and European Union Agency for Law Enforcement Cooperation (Europol)); United Nations sanctions monitoring groups and relevant United Nations entities; and civil society investigative bodies.

B. Current limitations on the application of through-life ammunition security measures

59. The Group noted that State capacity varies greatly with regard to investigating seizures or recoveries of diverted ammunition. Some of these challenges derive from the types of ammunition in circulation. For example, the limited traceability of most small-calibre ammunition (which is the most frequently seized or recovered type of ammunition) poses serious challenges, in particular, to States that suffer high levels of armed criminality perpetrated with small arms.

60. However, capacity challenges also emerge for other reasons, notably a lack of technical training and the information processing systems required to identify, record and analyse ammunition accurately and systematically.

61. Additional challenges include the lack of established processes for collecting comparable data on recovered ammunition to enable law enforcement and other competent authorities to share information on diverted conventional munitions; and weak regional coordination regarding monitoring and information-sharing on illicit ammunition flows (cross-border trafficking), including international information-sharing platforms.

C. Measures to enhance the implementation of through-life ammunition security measures

62. The Group concluded that there was a need to assess existing good practice regarding the application of through-life security measures. It noted, in this regard, that numerous guides and standard operating procedures exist (e.g. on pre-transfer risk assessment, stockpile management, monitoring, profiling, tracing and information exchange), but are currently distributed across a range of agencies and organizations (of differing disciplines) and would be more effective if compiled into one or a series of guidance documents. Such guidance, the Group noted, could take the form of voluntary guidelines, which should take into account and complement existing standards, guidelines and best practices that address ammunition through-life security measures.

VII. Overarching considerations

A. International cooperation and assistance

63. The Group underscored the crucial importance of international cooperation and assistance and noted that cooperation programmes and projects play an integral role in the overall success of sustainable ammunition through-life management. The Group recognized that international cooperation and assistance can be articulated at different levels (national, subregional or regional) and by different stakeholder arrangements (bilateral, multilateral and multinational). Furthermore, the Group noted the centrality of information exchange among States, including on diversion trends and patterns, at the subregional, regional and international levels, as well as the sharing of good practices across the different disciplines involved in ammunition through-life management.

64. The Group highlighted existing examples of assistance, which has been delivered through various instruments and mechanisms. These included projects and programmes at the regional, subregional and national levels. The Group concluded that international cooperation and assistance initiatives should make use of, invigorate and complement existing mechanisms.

65. The Group acknowledged the challenges related to international cooperation and assistance in the field of ammunition management, including the following:

(a) Lack of approaches focused on developing organizational capabilities and long-term capacity-building in both conflict and non-conflict settings;

(b) Limitations in the mandates of United Nations peace operations and missions, which usually address only risk-mitigation measures and are short-term;

(c) Disconnection between stockpile management initiatives that address immediate risks as well as long-term challenges at the operational level and security sector governance and reform initiatives with a strategic focus on top-level government. The lack of cohesion between strategic and operational levels in these projects and initiatives reduces their effectiveness and sustainability;

(d) Lack of comprehensive approaches that address both the security and safety aspects of the through-life management of ammunition from the point of production until its disposal or use.

66. The Group noted that, in order to be efficient, effective and sustainable, international cooperation and assistance in through-life ammunition management

should be implemented, where feasible, practicable, and consistent with national laws and regulations, including by the following means:

(a) Providing, among other things, equipment, financial or in-kind support and technical expertise;

(b) Providing, where appropriate and upon request, legal, regulatory and procedural assistance, including, the provision of relevant model regulations, directives and standard operating procedures, which the recipient State could revise to meet its own requirements;

(c) Assisting States, upon their request, in the conduct of ammunition management baseline assessments[18] and diversion risk profiling, which would be designed to suit the national context;[19]

(d) Taking into account the International Ammunition Technical Guidelines and other multilateral and national standards, as well as regional or subregional guidelines, when implementing stockpile management projects, in conjunction with relevant existing national best practices in implementing those standards (e.g. standard operating procedures, model directives and organizational structures);

(e) Improving coordination and mutual understanding among all relevant stakeholders to avoid overlapping and duplication in the design and implementation of programmes and projects. In this regard, the Group encourages donors and affected countries to meet regularly to share information on assistance projects, lessons learned and best practices. Information-sharing could help in identifying potential synergies or gaps in the cooperation or assistance requested and also encourage the mainstreaming of sustainable through-life ammunition management into relevant existing programmes;

(f) Promoting risk mitigation approaches, while at the same time engaging in long-term and sustainable institutional capacity-building, including the development of organizational capabilities;

(g) Encouraging States in a position to do so to increase funding for relevant policies and programmes, advocacy, education, training and research – taking account of the differing impacts of the safety and security aspects of conventional ammunition on women, men, girls and boys;

(h) Going beyond stockpile-specific aspects of security to include other crucial activities necessary to prevent and combat diversion, such as pre-transfer risk assessment, border security, information exchange and the systematic analysis of diversion data;

(i) Encouraging the establishment or enhancement of dedicated channels to facilitate and expedite the exchange of information on diverted ammunition at the subregional, regional and global levels;

(j) Enhancing, where appropriate, mutual legal assistance and other forms of cooperation in order to assist investigations and prosecutions in relation to the cross-border diversion of ammunition.

[18] The United Nations Institute for Disarmament Research (UNIDIR) has conducted a number of weapon and ammunition management baseline assessments. To understand how they can contribute to conflict prevention and support security transitions, see “The role of weapon and ammunition management in preventing conflict and supporting security transitions” (UNIDIR, 2019).

[19] See ongoing operations of the European Union iTrace project, which provides mentoring and technical and policy support to national Governments in the on-the-ground identification, collation and analysis of data on diverted ammunition.

67. While acknowledging that donor assistance is vital for many States to develop sustained capacity to manage conventional ammunition effectively, the Group noted that the provision of assistance alone is not sufficient to ensure success. In addition, it is of particular importance that States receiving assistance do their utmost to enable the absorption, institutionalization and sustainability of assistance for the long term. As a first step, this means using existing capabilities to identify and mitigate safety and security risks at each stage of through-life ammunition management or, where required, further developing or creating those capabilities when they do not exist. In the long term, this means focusing on institutionalizing and adequately resourcing these capabilities within all relevant sectors to sustain the gains that international support has made possible.

68. The Group noted that, where appropriate, ammunition management activities could be integrated into the mandates of United Nations peace operations and missions in order to support ammunition management in host nations. It recognized that through-life ammunition management is addressed most effectively and sustainably if processes, structures and capability-enabling lines are strengthened as part of broader efforts to enhance security sector governance and reform and to develop strong and effective institutions. In this regard, the Group stressed the importance of considering host nation through-life ammunition management more deliberately when formulating the mandates of United Nations peace operations and missions.

69. The Group also noted that international cooperation and assistance should reflect broader peacebuilding and sustainable development cooperation, including to facilitate transition from peacekeeping to non-peacekeeping configurations. In this respect, the Group noted that the 2030 Agenda for Sustainable Development, the United Nations Sustainable Development Cooperation Frameworks and action 22 of the disarmament agenda of the Secretary-General, entitled *Securing Our Common Future*, may provide useful frameworks to promote and facilitate ammunition management cooperation and assistance.

70. The Group also recalled the establishment of the Ammunition Management Advisory Team in 2019. As a team of experts, the Team supports requesting States in improving the safety and security of stockpiles by developing effective, efficient and sustainable ammunition management processes and tools, in line with the International Ammunition Technical Guidelines and other multilateral and national standards, as well as regional and subregional guidelines, while supporting existing regional mechanisms and avoiding duplication through coordination and cooperation. The Team serves as a key means in realizing action 22 of the implementation plan of *Securing Our Common Future: An Agenda for Disarmament*.

71. The Group noted the value of the UN Saf*er*Guard Programme, in particular its role in facilitating and supporting the development of sustainable capacities and engagement in international cooperation and assistance. In this context, the Group also noted the importance of efficient processes through which States can request, receive and provide assistance – acknowledging ongoing efforts and experiences at the subregional and regional levels to that effect.

72. The Group underlined the important role of regional organizations in this context, due to their capacity to address regional particularities and sensitivities and could, where appropriate, promote regional and subregional cooperation and regional assistance mechanisms.

B. Applicable global and regional processes

73. As mentioned in section III of the present report, unplanned explosions at ammunition facilities can have severe humanitarian, socioeconomic, public health and environmental consequences. The diversion of ammunition threatens national, regional and international security, thereby fuelling conflict and violent crime and undermining peace. In this regard, the Group acknowledged that through-life ammunition management can contribute to and support broader efforts towards peaceful and sustainable societies and that this was also essential for countries afflicted by high levels of armed violence and criminality.

74. The Group underlined the need to explore the coherent integration of through-life ammunition management measures into conflict prevention, peacebuilding and sustaining peace and sustainable development frameworks, where relevant, at the policy and programme levels.

75. In this regard the Group reiterated the relevance of national peacebuilding frameworks, United Nations Sustainable Development Cooperation Frameworks, and the emphasis placed on conventional ammunition management in *Securing Our Common Future: An Agenda for Disarmament*. It underscored that peacebuilding and development frameworks should be needs driven.

76. Strengthening the body of evidence related to the linkages between conventional ammunition and broader peace and development agendas and frameworks may also help to raise awareness, facilitate multisectoral dialogue and prioritize comprehensive conventional ammunition management efforts in a sustainable manner.

77. The Group also recognized the importance of considering the linkages between safe and secure through-life ammunition management and relevant national processes pertaining to security sector governance and reform to ensure the effectiveness and sustainability of both processes (see table 3).

Table 3
Applicable processes and agendas of current and potential relevance for through-life ammunition management

Process/agenda	*Aspects relevant to through-life ammunition management*
2030 Agenda for Sustainable Development	Sustainable through-life ammunition management contributes to some of the following targets identified by Member States as essential for sustainable development: • Reducing violence and related deaths (target 16.1) • Curbing illicit arms flows (target 16.4) • Increasing urban safety (target 11.7) • Developing effective, accountable and transparent institutions (target 16.6), including strengthening national institutions through international cooperation and assistance (target 16.a)
Securing Our Common Future: An Agenda for Disarmament	Through action 22, the United Nations committed to enhancing State and regional action on excessive and poorly maintained stockpiles. Current implementation activities include, in particular: • Establishment of the Ammunition Management Advisory Team

Process/agenda	*Aspects relevant to through-life ammunition management*
	• Integration of weapons and ammunition management into disarmament, demobilization and reintegration programmes
Security sector governance and reform	The development, strengthening or solidifying of organizational capabilities should be more consistently connected with security sector reform and governance processes, thereby increasing the sustainability of through-life ammunition management.
United Nations Sustainable Development Cooperation Frameworks	The integration of safe and secure ammunition management considerations into common country analyses and United Nations Sustainable Development Cooperation Frameworks could further support the implementation of sustainable country-level approaches.
United Nations peace operations and missions	While some peace operations and missions are mandated to undertake certain ammunition management-related activities, where appropriate, mandating United Nations peace operations and missions to conduct through-life ammunition management in accordance with the International Ammunition Technical Guidelines should be further considered. In addition, such operations and missions are in a unique position to monitor flows of illicit arms and ammunition in their areas of operation.

C. Gender mainstreaming and conventional ammunition

78. The Group, which itself had achieved gender parity, noted that the link between gender and ammunition management has seldom been made and that gender remains insufficiently addressed and integrated into conventional ammunition management policy and practice.

79. It also noted the recognition by the General Assembly of the need for the full involvement of both women and men in ammunition management policy and practice (see resolution 74/65). In this respect, consistent mainstreaming of gender aspects into relevant ammunition management policies and practices supports cross-cutting objectives contained in a range of relevant global frameworks, such as the 2030 Agenda;[20] the women and peace and security agenda;[21] *Securing Our Common Future: An Agenda for Disarmament*;[22] the Arms Trade Treaty;[23] and the Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects.

80. During its discussions, the Group also noted that the gendered impacts of accidental explosions at ammunition facilities and the diversion of ammunition need to be better understood, including through research informed by the collection and analysis of gender- and age-disaggregated data, with a view to enhancing the benefits of through-life management and supply chain security approaches to conventional ammunition management and to mitigate risks effectively.

[20] In particular, target 5.1 (to end all forms of discrimination against women and girls everywhere), target 5.2 (to eliminate all forms of violence against all women and girls) and target 5.5 (to ensure women's full and effective participation and equal opportunities).

[21] Including, but not limited to, the call for the equal participation and full involvement of women at all levels of security policy (Security Council resolution 1325 (2000)).

[22] In particular, action 36 (full and equal participation of women in decision-making processes) and action 37 (gender parity on disarmament bodies established by the Secretariat).

[23] In particular, the gender-based violence criteria in arms export assessments (see art. 7.4).

81. The Group concluded that there is value in considering ammunition management throughout its life cycle, using a gender analysis, in order to identify relevant entry points for gender mainstreaming.[24] A growing body of research and guidance for gender mainstreaming into small arms and light weapons control policies and practice has become available in recent years. Such research and guidance could serve as a useful point of departure for similar undertakings specific to ammunition management.

VIII. Recommendations for a comprehensive framework on conventional ammunition

82. In order to prevent both unplanned ammunition explosions and the diversion of ammunition, a comprehensive framework should be established to support safe, secure and sustainable through-life ammunition management at the national, subregional, regional and global levels, building upon and complementing existing frameworks.

A. Establishment of a global framework

83. A set of political commitments should be negotiated as a new global framework under the auspices of the General Assembly.

84. These political commitments should address existing gaps in through-life ammunition management without prejudice to national legal systems addressing national ammunition ownership, possession and use.

85. These political commitments should address both safety and security aspects of through-life ammunition management from the point of production until disposal or use. The set of political commitments should:

(a) Identify and promote relevant safety and security measures to be applied at specific stages of the through-life management of ammunition: production, pre-transfer, transfer, stockpile, recovery, use and disposal;

(b) Identify and promote measures that are designed to monitor and enhance the effectiveness of safety and security measures at all stages of the through-life management of ammunition, including: surveillance and incident investigations (safety) and the record-keeping, investigation and analysis of diverted ammunition and international cooperation in investigations to address diversion (security).

86. The Group recognizes that, in addition to providing a framework at the global level for ammunition safety and security, including international cooperation and assistance, these political commitments should serve to trigger, or invigorate, regional and subregional commitments and national actions, as noted in sections B and C below.

87. These political commitments should, at the global level, provide a mechanism to support those regions and/or subregions, and Member States in those regions and/or subregions, that voluntarily wish to translate the agreed global-level political commitments and measures into legally binding instruments and/or tailored political commitments determined by each region or subregion. These political commitments

[24] The core tool in identifying gender-sensitive programming components, gender analysis, “asks questions about the differences between the positions of people of different genders relative to each other, and about their access to resources, opportunities, constraints, and power in a given context” (Emile LeBrun, ed., *Gender-Responsive Small Arms Control: A Practical Guide* (Geneva, Small Arms Survey, 2019), p. 25).

should recognize the importance of existing frameworks and encourage their further development and implementation.

88. These political commitments should also be supported by an implementation mechanism at the global level, including under the auspices of the UN Saf*er*Guard programme, that would, inter alia, enable the following actions:

(a) Facilitate international cooperation and assistance to support States in their implementation efforts and to ensure needs-based and tailored operationalization of standards, guidelines and best practices, taking into account existing mechanisms;

(b) Develop voluntary, operational guidelines related to security aspects of the through-life management of ammunition under the auspices of the United Nations, taking into account and complementing existing standards, guidelines and best practices, without duplicating them;[25]

(c) Support the voluntary adoption at the national, regional and subregional levels of targets and/or indicators and identify opportunities to support information exchange among States, including through the dissemination of national reports by the Secretariat;

(d) Develop an online repository of regional, subregional, and national political commitments;

(e) Facilitate participation in regular meetings of States to follow up and exchange information on implementation efforts.

B. Regional and subregional efforts

89. States, regional and subregional organizations and multilateral bodies should consider cooperation at the regional and subregional levels in the development of legally binding instruments or tailored political commitments on a voluntary basis, as appropriate. Implementation measures could be based on structured strategic processes, such as comprehensive road maps and/or action plans and on ammunition management, with possible performance indicators, as a joint effort of States, donors and implementing agencies.

C. National efforts

90. States should address conventional ammunition management in a comprehensive and sustainable manner by developing legal and regulatory frameworks where necessary and undertaking projects and programmes that effectively address safe and secure through-life ammunition management from the point of manufacture until its disposal or use. The strengthening of national organizational capabilities and relevant institutions plays an essential role in this respect.

91. In pursuing such an effort, States should develop national systems to monitor and prevent diversion. These systems could include, as relevant, ammunition identification, profiling, tracing and analysis, data collection and record-keeping mechanisms, information-sharing and exchange mechanisms, knowledge generation

[25] These guidelines should complement the International Ammunition Technical Guidelines, which are strictly focused on stockpile-specific aspects of through-life management of conventional ammunition. The new guidelines should have a focus beyond stockpiles and address the entirety of the ammunition supply chain from production to use or disposal and they should be available for States to use on a voluntary basis.

and capacity-building, export controls (including end user assurances), import controls, border controls and post-delivery assurances.

92. States should encourage the full involvement of both men and women in decision-making and implementation processes related to conventional ammunition management and should consider mainstreaming gender into policies and practice.

93. States should strive for sustainable ammunition management as part of broader efforts to develop strong and effective institutions in accordance with the 2030 Agenda. To that effect, they should also consider the link between sustainable, safe and secure through-life ammunition management and security sector governance and reform.

Annex

List of members of the Group of Governmental Experts on problems arising from the accumulation of conventional ammunition stockpiles in surplus

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