LAGOS MODEL UNITED NATIONS 2025

BACKGROUND GUIDE

General Assembly 1

United Nations (UN) Disarmament & International Security Committee

Property of the Lagos Model United Nations

Background Guide: United Nations Disarmament and International Security Committee

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LMUN 2025: The Ninth Session

Table of Contents

Letter From the USG
Abbreviations
Committee Overview
I - Introduction
II - Governance, Structure, and Membership
III - Mandate, Functions, and Powers
IV - Recent sessions and current priorities
V - Conclusion
VI - Annotated Bibliography
VII - Bibliography
Topic One: Chemical and Biological Weapons: Exploring Ways to Prevent the Proliferation and Use of Chemical and Biological Weapons
II - Introduction
III - International and Regional Framework
IV - Role of the International System
1. Historical Context and Evolution of International Responses to Chemical and Biological Weapons Threats
1.1 The Inception and Ethical Debate Around CBWs
2.1 Non State Actors and Terrorism
2.2 Technological Advancements and Dual-use Concerns
2.3 Non-Compliance and Recent Use of Chemical Weapons in Conflicts: The Case of Syria and Russia
3. Challenges in Enforcing the Chemical and Biological Weapons Convention: The Absence of a Verification Regime and Its Implications
4. Recommendations for Future Action
V- Conclusion
VI - Further Research
VII- Annotated Bibliography
VIII- Bibliography

Topic Two: Regulation of Weapon Legalization: Protection or Violation of Human Rights?

II- Introduction

III - International and Regional Framework

IV- Role of the International System

1. Global Variations in Weapon Legalization
2. Weapons as Tools of Protection: Justifications and Challenges
3. Weapon Legalization as an Instrument of Human Rights Violations
4. The Economic and Political Drivers of Weapon Legalization
5. Technology and the Future of Weapon Regulation
6. Effective weapon regulation as a tool for human rights protection and a solution to gun violence

V- Conclusion

VI- Further Research

VII - Annotated Bibliography

Letter From the USG

Dear Delegates,

It is a great pleasure to welcome you to the seventh session of the **Lagos Model United Nations (LMUN) conference, 2025**. For years, LMUN has been a platform for youth to lend their voices and champion brilliant solutions to contemporary global problems. They have done this by inciting discussions and deliberations that seek to funnel a drive towards innovative and sustainable solutions.

The LMUN conference offers you a golden opportunity to hone skills that will set you apart from the rest of the world, such as teamwork, diplomacy, research, public speaking, leadership, and, most importantly, networking. Having experienced the magic of LMUN for over 6 years, I am confident you are in for a beautiful ride. The conference guarantees a phenomenal experience and the opportunity to contribute your quota towards global development and sustainability. I hope you learn, network, participate actively, and have the most fantastic experience.

The General Assembly First Committee (DISEC) staff is **Amina**, a final-year law student at the University of Lagos with a keen interest in international law and diplomacy. Her keen interests are in tandem with her love for MUNs. In 2020, she was a delegate at LMUN conference under the Security Council committee, where she won the distinguished

delegate award. She was also a delegate at the International Model United Nations, where she won the verbal commendation award. In 2021. She was a researcher and rapporteur at the Lagos Model United Nations under UNICEF. She has also served as the Babcock International Model United Nations ambassador. In the leadership capacities, she was an under-secretary general at the Geneva International Model United Nations and the under-secretary general for research at the LMUN conference 2024. **Aisha** is a 400-level law student at the Faculty of Law, University of Lagos. She is an active participant in the Model United Nations. Her MUN journey began during the COVID-19 pandemic when she participated in virtual MUNs, notably two YISMUN Conferences and the WoCMUN in different capacities as delegate and staff member. In 2023, she participated in the LMUN Conference as a Delegate of the UNICEF Committee, and in LMUN Conference 2024 she served as Researcher of the UNSC Committee. On the strength of these experiences, she now serves as the Chair for the General Assembly 1 (DISEC) Committee. **Daniel** is a 400-level student of the Faculty of Law, University of Lagos who began his MUN journey at the LMUN'24. He was a delegate of the UNHRC where he won the Best Position Paper and the Distinguished Delegate awards. He currently serves as the Vice Chair for the General Assembly 1 (DISEC) Committee. Daniel has strong interests in international human rights law, diplomatic relations and global peace. **Roqeebah** is a 300-level student of the Faculty of Law, University of Lagos who began her MUN journey at the LMUN'24. She was a delegate of the GA1 where she gathered an insight into the intricacies of the United Nations. She currently serves as the Researcher I for the General Assembly I (DISEC) Committee. **Roqeebah** has an interest in Women Rights and an even stronger one in International Law. **Onyema** is a 400-level student of the Faculty of Law, University of Lagos. His passion for diplomacy, public policy, and human rights led him to work behind the scenes in LMUN 2025 as the Researcher II for the General Assembly I (DISEC)

Committee, contributing fresh perspectives and engaging meaningfully in global issues. **Wazeelah** is a 500-level law student of the Faculty of Law, University of Lagos. She has participated in multiple Model United Nations conferences, including YISMUN 2022, Wind of Change 2020, and LMUN 2021, where she served as a delegate representing Monaco. My passion for Model United Nations simulations stems from a strong interest in international relations, diplomacy, and regulatory frameworks. Wazeelah is dedicated to leveraging the MUN platform to engage with global issues and contribute to meaningful dialogue and policy development on an international scale.

Over the years, the General Assembly First Committee (DISEC) has consistently championed solutions to global issues on issues related to disarmament, tackling global challenges, and mitigating threats to peace within the international community. The topics to be discussed by the committe are:

I. **Chemical and Biological Weapons: Exploring Ways to Prevent The Proliferaion And Use of Chemical And Biologcal Weapons.**

II. **Regulation of Weapon Legalization: Protection or Violation of Human Rights.**

The background guide serves as a stepping stone to begin research on topics discussed during the conference and not as a replacement for individual research. As such, delegates are highly encouraged to conduct their research beyond the background guides and make use of the Further Research Questions, Annotated Bibliography, and Bibliography to aid in extensive research. Delegates, please note that the Delegate Prep Guide and the Rules

of Procedure will acquaint you with the conference's required conduct and procedural rules. These documents can be accessed on the LMUN website- www.lmun.ng.

To adequately prepare for the conference, each delegate must submit a position paper on a date to be communicated after registration, country, and committee assignment. The LMUN Position Paper Guide guidelines will guide delegates through this process. Delegates, please note that I am always available to guide you throughout your preparation process and during the conference, please contact me at usggeneralassembly@gmail.com for answers to all your questions.

It is with great pleasure that I welcome you to LMUN conference 2025. I look forward to you experiencing the magic of LMUN!

Aminat Yusuf,

USG, General Assembly Department, LMUN 2025.

Abbreviations

AFCONE African Commission on Nuclear Energy

AMR Antimicrobial Resistance

ATT Arms Trade Treaty

AU African Union

Beijing Convention Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation (2010)

BWC Biological Weapons Convention

CBRN Chemical, Biological, Radiological and Nuclear

CBW Chemical and Biological Weapons

CD Conference on Disarmament

CTBT Comprehensive Nuclear-Test-Ban Treaty

CWC Chemical Weapons Convention

DGACM Department for General Assembly and Conference Management

DIGECAM General Directorate for the Control of Arms and Ammunition

DISEC Disarmament and International Security Committee (First Committee of

the UNGA)

ECOWAS	Economic Community of West African States
EU	European Union
EU CBRN COE	European Union Centres of Excellence on CBRN Risk Mitigation
EUNDC	European Union Nonproliferation and Disarmament Consortium
FBI	Federal Bureau of Investigations
GAGV	Global Action on Gun Violence
Geneva Protocol	Geneva Protocol on the Prohibition of the Use of Chemical and Biological Weapons (1925)
IAEA	International Atomic Energy Agency
IANSA	International Action Network on Small Arms
INTERPOL	International Criminal Police Organization
ISS	Institute for Security Studies
LAA	Laws on Arms and Ammunition
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
OHCHR	Office of the United Nations High Commissioner for Human Rights
OPCW	Organisation for the Prohibition of Chemical Weapons

PoA	Programme of Action
RFID	Radio Frequency Identification
SADC	Southern African Development Community
SALW	Small Arms and Light Weapons
SDGs	Sustainable Development Goals
SSOD-I	Tenth Special Session on Disarmament of the United Nations General Assembly (1978)
TPNW	Treaty on the Prohibition of Nuclear Weapons
UK	United Kingdom
UN	United Nations
UN Charter	Charter of the United Nations
UNDC	United Nations Disarmament Commission
UNGA	United Nations General Assembly
UNHRC	United Nations Human Rights Council
UNIDIR	United Nations Institute for Disarmament Research
UNLIREC	United Nations Regional Centre for Peace, Disarmament and Development in Latin America and the Caribbean
UNODA	United Nations Office for Disarmament Affairs

UNPoA	United Nations Programme of Action on Small Arms and Light Weapons
UNREC	United Nations Regional Centre for Peace and Disarmament in Africa
UNRCPD	United Nations Regional Centre for Peace and Disarmament in Asia and the Pacific
UNSCR 1540	United Nations Security Council Resolution 1540 (2004)
UNSCR 2325	United Nations Security Council Resolution 2325 (2016)
UNSCR 2663	United Nations Security Council Resolution 2663 (2022)
USA	United States of America
WMD	Weapons of Mass Destruction

Committee Overview

I - Introduction

The United Nations General Assembly (UNGA) operates through six main committees, each tasked with upholding international order and addressing critical global concerns. Among these is the First Committee, officially known as the Disarmament and International Security Committee (DISEC), which focuses on resolving issues related to disarmament, tackling global challenges, and mitigating threats to peace within the international community.[1]

Following the establishment of the United Nations after World War II, the need to address disarmament and international security became a priority. Given these concerns and problems, DISEC was established in 1945, under *Article 11 of the UN Charter, to address disarmament and the problems of international security*.[2] DISEC quickly became a key platform for negotiating, drafting, and adopting landmark arms control agreements, such as the Biological Weapons Convention (BWC), the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and the Comprehensive Nuclear-Test-Ban Treaty (CTBT).[3]

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[1] UN General Assembly, First Committee, Disarmament and International Security.

[2] United Nations, "Repertory of Practice of United Nations Organs – Article 11" (2023) https://legal.un.org/repertory/art11.shtml accessed (accessed 9th February 2025).

[3] United Nations, "Disarmament" 2024 https://www.un.org/en/global-issues/disarmament (accessed 9th February). 2025).

DISEC's mandate has expanded beyond traditional disarmament to tackle modern threats like cybersecurity, terrorism, and autonomous weapons. In response to AI-powered warfare, such as in the Russia-Ukraine conflict, DISEC is shaping global frameworks for ethical regulation.

Each October, the First Committee meets for 4-5 weeks after the General Assembly debate, with all 193 member states participating.[4] The committee's work is organized into seven thematic clusters: nuclear weapons, other weapons of mass destruction, disarmament in outer space, conventional weapons, regional disarmament and security, additional disarmament measures and international security, and disarmament machinery.[5]

II - Governance, Structure, and Membership

The DISEC, following its pivotal role as a key component in the UNGA, seeks to focus on disarmament and international security. It is, however, not subordinate to the UN Security Council. It is also important to note that DISEC's resolutions are non-binding and serve as recommendations rather than enforceable decisions. The committee formulates resolutions and proffers recommendations aimed at addressing global security concerns, including nuclear disarmament, the regulation of arms trade, and the prevention of conflicts. It is important to note that DISEC's recommendations often focus on resolving

[4] United Nations Office for Disarmament Affairs, "General Assembly First Committee, Seventy-Ninth Session" (2024) available at https://meetings.unoda.org/ga-c1/general-assembly-first-committee-seventy-ninth-session-2024 (accessed 3rd April 2025).

[5] United Nations. "First Committee (Disarmament and International Security)" 2024 available at https://www.un.org/en/ga/first/index.shtml (accessed 3rd April 2025).

security challenges such as cyber threats, terrorism, and the proliferation of weapons of mass destruction.[6]

DISEC functions under the UN General Assembly, leading discussions on disarmament and international security during its annual sessions.[7] As the First Committee, it adopts resolutions that shape global norms on arms control and peacekeeping. Its work spans nuclear disarmament, outer space arms prevention, and conventional weapons regulation—highlighted by Resolution 73/29 in 2018, which sought protections for non-nuclear states and passed with 122 in favour, 0 against, and 65 abstentions.[8]

DISEC works closely with the United Nations Disarmament Commission (UNDC) and the Conference on Disarmament (CD) to address global peace challenges, supported by United Nations Office for Disarmament Affairs (UNODA) and the Department for General Assembly and Conference Management (DGACM). The CD is an independent multilateral forum established by SSOD-I (1978) for disarmament negotiations.[9] The UN Disarmament Commission (UNDC) is a UNGA subsidiary body with 193 members that recommend and implement disarmament measures.[10]

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[6] United Nations Information Service, "UN General Assembly First Committee Holds Debate on Information Security" available at https://unis.unvienna.org/unis/en/pressrels/2001/gadis3rd212.html (accessed 27th December 2024).

[7] General Assembly Rules of Procedure, Sessions, Rule 1.

[8] United Nations Office for Disarmament Affairs (UNODA), "First Committee Resolutions and Decisions Database" available at https://www.unoda.org/first-committee-resolutions-and-decisions-database (accessed 27th December 2024).

[9] United Nations Office for Disarmament Affairs, “Conference on Disarmament – UNODA” available at https://disarmament.unoda.org/conference-on-disarmament/ (accessed 27th December 2024).

DISEC is the only UNGA committee permitted to take verbatim records.[11] Its agenda items are assigned by the General Committee, and GA1 votes on these based on that allocation. The United Nations Office for Disarmament Affairs (UNODA) supports DISEC by providing up-to-date information on multilateral disarmament issues and promoting both norm-setting[12] and practical measures on nuclear disarmament and non-proliferation across various disarmament bodies.[13]

DISEC's sessions are structured into three key stages: general debate, thematic discussions, and action on drafts. During the general debate, member states outline their positions on disarmament and security issues, laying the groundwork for the committee's direction. For instance, in 2008, these debates emphasized the need for nuclear disarmament, contributing to the advancement of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).[14]

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[10] United Nations Office for Disarmament Affairs, "United Nations Disarmament Commission UNODA" available at https://disarmament.unoda.org/institutions/disarmament-commission/ (accessed 27th December 2024).

[11] United Nations, "Rules of Procedure of the General Assembly: Verbatim and Summary Records (Rule 58)" available at https://www.un.org/en/ga/about/ropga/recds.shtml (accessed 3rd April 2025).

[12] United Nations Office for Disarmament Affairs, "About Us – UNODA" available at https://disarmament.unoda.org/about/ (accessed 27th December 2024).

[13] United Nations Office for Disarmament Affairs, "About Us – UNODA" available at https://disarmament.unoda.org/about/ (accessed 27th December 2024).

[14] Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), "Near-universal support for CTBT at First Committee" available at https://www.ctbto.org/news-and-events/news/near-universal-support-ctbt-first-committee (accessed 9th February 2025).

The thematic discussions are more focused discussions often leading to the formulation of specific resolutions or proposals. Finally, the action on drafts is where the committee's resolutions or treaties are formally introduced, debated, and voted on by member states. Through these stages, general debate, thematic discussions, and draft actions, DISEC successfully shapes and influences global disarmament policies.[15]

III - Mandate, Functions, and Powers

The committee deliberates on critical issues relating to disarmament, nonproliferation, arms control, and international security, shaping the global agenda on these matters.[16] DISEC formulates resolutions and decisions on disarmament, international security, and related matters that are adopted by the General Assembly, contributing to the establishment of international norms and treaties. One notable resolution was the adoption of the *Arms Trade Treaty (ATT)* in 2013[17], which regulates international arms trade to prevent the flow of weapons into conflict zones. DISEC also played a role in fostering the *Treaty on the Prohibition of Nuclear Weapons (TPNW)*, adopted in 2017, which aims to create a world free of nuclear arms.[18]

Historically, DISEC has played a significant role in the negotiation and adoption of major international treaties such as the *Chemical Weapons Convention (CWC)*[19] and the Nuclear

[15] United Nations, "General Assembly of the United Nations" available at https://www.un.org/en/ga/ (accessed 27th December 2024).

[16] United Nations. "First Committee: Disarmament and International Security." available at https://www.un.org/en/ga/first/index.shtml (accessed 27th December 2024).

[17] United Nations, General Assembly Resolution A/RES/68/27 available at https://documents.un.org/doc/undoc/gen/n13/282/23/pdf/n1328223.pdf (accessed 1st April 2025).

[18] United Nations, "General Assembly Resolution" A/RES/71/28 available at https://documents.un.org/doc/undoc/gen/n16/466/69/pdf/n1646669.pdf (accessed 1st April 2025).

Non-Proliferation Treaty (NPT).[20] These treaties exemplify its capacity to influence international law and policy, particularly in areas related to disarmament and arms control. The committee also engages in broader strategies to promote global security, including conflict prevention, peacekeeping, combating terrorism, and fostering regional stability. To illustrate, DISEC's role in the Sudanese conflict in Darfur helped to facilitate international mediation, preventing further escalation.[21]

Through these resolutions, DISEC has helped establish critical international norms and treaties, advancing global disarmament goals and contributing to a more secure and peaceful world. By playing a central role in standard-setting and the codification of international law, the committee ensures the development of frameworks that address evolving global security concerns.

IV - Recent sessions and current priorities

The 79th session of the UN General Assembly, under President Philemon Yang,[22] emphasized global cooperation with the theme 'Leaving no one behind,' focusing on accelerating progress toward the SDGs.[23] This included the adoption of the historic Pact for the Future,[24] which addressed human rights, sustainable development, and digital

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[19] United Nations, "General Assembly Resolution" *A/RES/60/246* available at https://documents.un.org/doc/resolution/gen/nr0/024/06/img/nr002406.pdf (accessed 1st April 2025).

[20] United Nations Office for Disarmament Affairs (UNODA), "Treaty on the Non-Proliferation of Nuclear Weapons (NPT)" available at https://disarmament.unoda.org/wmd/nuclear/npt/ (accessed 1st April 2025).

[21] United Nations Department of Peace Operations, "United Nations Peacekeeping Operations" available at https://peacekeeping.un.org/en (accessed 1st April 2025).

[22] UNGA, "High -Level Meetings of the 79th Session of the UN General Assembly (Provisional)" available at https://www.un.org/en/ga/79th/meetings/index.shtml (accessed 27th December 2024).

[23] UNGA, "High- Level Meetings of the 79th Session of the UN General Assembly (Provisional)" available at https://www.un.org/en/ga/79th/meetings/index.shtml (accessed 27th December 2024).

governance, as well as critical issues such as global impunity, climate change, and Antimicrobial Resistance (AMR).[25] Building on these broader discussions, the Disarmament and International Security Committee (DISEC) held its seventy-ninth session from 7 October to 8 November 2024, with a continued focus on disarmament and international security issues central to the UN's peace and security efforts.

The Disarmament and International Security Committee (DISEC) seventy-ninth session was chaired by Her Excellency Maritza Chan Valverde, the Permanent Representative of Costa Rica to the United Nations. The committee convened from October 7 to November 8, 2024, focusing on disarmament and international security matters.[26]

The Committee tackled a wide range of nuclear disarmament proposals, set against escalating global tensions described as even more dangerous than the duration of the Cold War era. This critical moment led to the approval of 24 groundbreaking drafts on nuclear weapons, including a detailed roadmap aimed at reducing the impacts and risks of weapons and also paving the way for a weapon-free world. The actions taken reflect DISEC's critical role in navigating contemporary global security and its unwavering commitment to advancing the cause of peace and disarmament.[27]

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[24] United Nations Press. 2024 available at https://www.un.org/en/unis-nairobi/press-releaseunited-nations-adopts-ground-breaking-pact-future-transform-global (accessed 27th December 2024).

[25] World Organisation for Animal Health (WOAH). "World Leaders Commit to Decisive Action on Antimicrobial Resistance" available at https://www.woah.org/en/world-leaders-commit-to-decisive-action-on-antimicrobial-resistance/ (accessed 27th December 2024).

[26] UNGA, "UN General Assembly - Bureau of the 79th Session - First Committee - Disarmament and International Security" available at https://www.un.org/en/ga/first/79th/bureau.shtml?utm (accessed 27th December 2024).

[27] UN Press, "In 79th Separate Recorded Votes, First Committee Approves 24 Drafts on Nuclear Weapons, Including Traditional Text on Road Map to Nuclear-Weapon-Free World" | Meetings Coverage and Press Release available at https://press.un.org/en/2024/gadis3754.doc.htm (accessed 27th December 2024).

In addition, DISEC has identified the importance of addressing several other security challenges and threats such as cyber espionage, terrorism and the influence of arms proliferation. The committee seeks to involve member states in discussions that cater to diplomacy, peaceful conflict resolution, and the need for comprehensive frameworks that address security challenges that are becoming increasingly prevalent in the world.

V - Conclusion

In summary, DISEC plays an active instrumental role in shaping global disarmament and international security challenges. While it does lack binding decision-making authority, its recommendations and resolutions help to foster cooperation among member states, encourage the adoption of collaborative mechanisms, and advocate for the critical importance of disarmament and peacebuilding efforts. The recent focus on nuclear disarmament and the approval of significant draft resolutions on this issue further demonstrate DISEC's central role in navigating security challenges. Through its deliberative, policymaking, and representative functions, DISEC stands as a representative of the United Nations' collective efforts to promote peace, security, and long-term stability, ensuring that critical global issues remain at the forefront of international dialogue and action.

VI - Annotated Bibliography

United Nations, "First Committee: Disarmament and International Security" available at https://www.un.org/en/ga/first/index.shtml (accessed 27th December 2024).

The page provides an overview of the United Nations General Assembly First

Committee (Disarmament and International Security). It outlines the committee's role in addressing disarmament, global challenges to peace, and threats to international security.

United Nations, "Charter of the United Nations art 9(1)-(2)" available at https://www.un.org/en/about-us/un-charter/full-text (accessed 20th April 2025).

This page provides the full text of the Charter of the United Nations, the foundational treaty of the UN signed in 1945. It outlines the purposes and principles of the organization, including the maintenance of international peace and security, promotion of human rights, and cooperation among nations. The Charter is divided into a preamble and 19 chapters, covering key areas such as the functions of the General Assembly, Security Council, International Court of Justice, and other principal organs of the UN, as well as provisions on membership, dispute resolution, and amendment procedures.

United Nations, "Committees of the General Assembly" available at https://www.un.org/en/ga/about/subsidiary/committees.shtml (accessed 27th December 2024).

The page outlines the various subsidiary committees of the United Nations General Assembly, detailing their roles in supporting the Assembly's functions. It categorizes these committees into main committees, standing committees, and ad hoc committees, each addressing specific areas such as disarmament, economic development, and legal issues. The page also provides links to additional resources for more in-depth information on each committee's mandate and activities.

United Nations Office for Disarmament Affairs (UNODA), "Conference on Disarmament" – UNODA available at https://disarmament.unoda.org/conference-on-disarmament/ (accessed 27th December 2024).

> *This page contains information on the Conference on Disarmament (CD), established in 1979, serves as the international community's sole multilateral forum for disarmament negotiations. It has been instrumental in formulating key treaties, including the NPT, BWC, and CWC. Currently, the CD addresses issues such as nuclear disarmament, prevention of nuclear war, arms race in outer space, and transparency in armaments. Comprising 65 member states, the Conference convenes annually in Geneva, with sessions divided into three parts and chaired on a rotating basis.*

United Nations Office for Disarmament Affairs (UNODA), "First Committee Resolutions and Decisions Database" available at https://www.unoda.org/first-committee-resolutions-and-decisions-database (accessed 27th December 2024).

> *The UNODA website offers a comprehensive archive of resolutions and decisions adopted by the United Nations General Assembly's First Committee, which focuses on disarmament and international security. The database provides detailed information on each resolution, including agenda items, draft texts, main sponsors, voting records, and actions taken by both the First Committee and the General Assembly. This resource serves as a valuable tool for researchers, policymakers, and the public interested in the UN's disarmament efforts.*

VII - Bibliography

United Nations, "Charter of the United Nations, art 9(1)" available at https://www.un.org/en/about-us/un-charter/full-text (accessed 20th April 2025).

United Nations, "Charter of the United Nations, art 9(2)" available at https://www.un.org/en/about-us/un-charter/full-text (accessed 20th April 2025).

United Nations, "Committees of the General Assembly" available at https://www.un.org/en/ga/about/subsidiary/committees.shtml (accessed 27th December 2024).

United Nations, "First Committee (Disarmament and International Security Committee)" available at https://www.un.org/en/ga/first/index.shtml (accessed 3rd April 2025).

United Nations, "First Committee: Disarmament and International Security" available at https://www.un.org/en/ga/first/index.shtml (accessed 27th December 2024).

United Nations, "General Assembly of the United Nations" available at https://www.un.org/en/ga/ (accessed 27th December 2024).

United Nations, "General Assembly Resolution A/RES/60/246" available at https://documents.un.org/doc/resolution/gen/nr0/024/06/img/nr002406.pdf (accessed 1st April 2025).

United Nations, "General Assembly Resolution A/RES/68/27" available at https://documents.un.org/doc/undoc/gen/n13/282/23/pdf/n1328223.pdf (accessed

1st April 2025).

United Nations, "General Assembly Resolution A/RES/71/28" available at https://documents.un.org/doc/undoc/gen/n16/466/69/pdf/n1646669.pdf (accessed 1st April 2025).

United Nations, "Rules of Procedure of the General Assembly: Verbatim and Summary Records (Rule 58)" available at https://www.un.org/en/ga/about/ropga/recds.shtml (accessed 3rd April 2025).

United Nations Department of Peace Operations, "United Nations Peacekeeping Operations" available at https://peacekeeping.un.org/en (accessed 1st April 2025).

United Nations General Assembly, "Rules of Procedure of the General Assembly (Rule 1)" available at https://www.un.org/en/ga/about/ropga/ (accessed 20th April 2025).

United Nations General Assembly, "Rules of Procedure of the General Assembly (Rule 3)" available at https://www.un.org/en/ga/about/ropga/ (accessed 20th April 2025).

United Nations General Assembly, "Rules of Procedure of the General Assembly (Rule 8(a)" available at https://www.un.org/en/ga/about/ropga/ (accessed 20th April 2025).

United Nations General Assembly (UNGA), "High-Level Meetings of the 79th Session of the UN General Assembly (Provisional)" available at https://www.un.org/en/ga/79/meetings/index.shtml (accessed 27th December 2024).

United Nations General Assembly (UNGA), "UN General Assembly - Bureau of the 79th Session - First Committee - Disarmament and International Security" available at https://www.un.org/en/ga/first/79/bureau.shtml (accessed 27th December 2024).

United Nations Information Service, "UN General Assembly First Committee Holds Debate on Information Security" available at https://unis.unvienna.org/unis/en/pressrels/2001/gadis3212.html (accessed 27th December 2024).

United Nations Office for Disarmament Affairs (UNODA), "About Us – UNODA" available at https://disarmament.unoda.org/about/ (accessed 27th December 2024).

United Nations Office for Disarmament Affairs (UNODA), "Conference on Disarmament" – UNODA available at https://disarmament.unoda.org/conference-on-disarmament/ (accessed 27th December 2024).

United Nations Office for Disarmament Affairs (UNODA), "First Committee Resolutions and Decisions Database" available at https://www.unoda.org/first-committee-resolutions-and-decisions-database (accessed 27th December 2024).

United Nations Office for Disarmament Affairs (UNODA), "General Assembly First Committee, Seventy-Ninth Session (2024)" available at https://meetings.unoda.org/ga-c1/general-assembly-first-committee-seventy-ninth-session-2024 (accessed 3rd April 2025).

United Nations Office for Disarmament Affairs (UNODA), "Treaty on the Non-Proliferation of Nuclear Weapons (NPT)" available at https://disarmament.unoda.org/wmd/nuclear/npt/ (accessed 1st April 2025).

United Nations Office for Disarmament Affairs (UNODA), "United Nations Disarmament Commission – UNODA" available at https://disarmament.unoda.org/institutions/disarmament-commission/ (accessed 27th

December 2024).

United Nations Press, “In 79 Separate Recorded Votes, First Committee Approves 24 Drafts on Nuclear Weapons, Including Traditional Text on Road Map to Nuclear-Weapon-Free World” available at https://press.un.org/en/2024/gadis3754.doc.htm (accessed 27th December 2024).

United Nations Press, “United Nations Adopts Ground-breaking Pact for the Future to Transform Global Governance” available at https://www.un.org/en/unis-nairobi/press-releaseunited-nations-adopts-ground-breaking-pact-future-transform-global (accessed 27th December 2024).

World Organisation for Animal Health (WOAH), “World Leaders Commit to Decisive Action on Antimicrobial Resistance” available at https://www.woah.org/en/world-leaders-commit-to-decisive-action-on-antimicrobial-resistance/ (accessed 27th December 2024).

Topic One: Chemical and Biological Weapons: Exploring Ways to Prevent the Proliferation and Use of Chemical and Biological Weapons

I - QUOTE

"The proliferation of chemical and biological weapons poses a grave threat to international peace and security."

- Leon Panetta, *Former United States Secretary of Defense.*

II - Introduction

The rising proliferation and potential use of chemical and biological weapons is a deeply troubling trend that threatens to undo decades of global disarmament efforts. While the motivations behind state interest in bioweapons are complex, they are undeniably real, especially as experts believe that bioweapon proliferation is actively occurring and that terrorist groups are showing heightened interest in acquiring them. The fact that nearly a dozen countries are believed to possess such capabilities points to a persistent belief in their strategic value.[28] For some states, bioweapons serve as a defensive shield against

[28] Encyclopædia Britannica (n.d.). "Biological Weapons in History." available at: https://www.britannica.com/technology/biological-weapon/Biological-weapons-in-history (accessed 9th February 2025).

stronger adversaries; for others, they offer a way to elevate their geopolitical status or secure an offensive edge in future conflicts.[29]

Chemical weapons, like biological ones, differ widely in their composition and effects—from non-lethal agents like tear gas to deadly substances such as sarin and tabun.[30] While chemical agents often act immediately, biological weapons typically have delayed effects due to incubation periods. These can take the form of bacteria, viruses, fungi, or toxins, and may spread through various means. Alarmingly, some biological agents can mutate, becoming more resistant and dangerous over time, as seen in the evolving strains of the Ebola virus.[31]

Often described as the poor man's atomic bomb,[32] biological and chemical weapons possess great capacity to inflict mass suffering, death, and psychological terror.[33] Their destructive potential, coupled with the fear they generate, places them squarely among the most dangerous weapons of mass destruction. In light of this, it becomes critically important to interrogate their non-proliferation. This paper explores the unique threats posed by the development and use of such weapons, examining their nature, associated

[29] David P. Fidler, "Facing the Global Challenges Posed by Biological Weapons." available at https://doi.org/10.1016/S1286-4579(99)80523-1 (accessed 2nd February2025).

[30] K Ganesan,, S K Raza , R Vijayaraghavan, "Chemical warfare agents" 2010 Journal of Pharmacy and BioAllied Sciences available at https://pmc.ncbi.nlm.nih.gov/articles/PMC3148621/ (accessed 2nd February 2025)

[31] Jahrling P.B. et al., "Ebola Virus: From Discovery to Outbreak", *Journal of Infectious Diseases,* 2004.

[32] Federation of American Scientists (FAS) (n.d.). "Terrorist and Insurgent Capabilities for the Use of Biological Weapons." available at https://irp.fas.org/threat/an253stc.htm (accessed 9th February 2025).

[33] Simon Wessely, Kenneth Craig Hyams, Robert Bartholomew, "Psychological implications of chemical and biological weapons" 2001 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1121425/ (accessed 5th April 2025).

risks, relevant legal frameworks, and recent global actions. It further evaluates current strategies for prevention and response, while assessing the overall effectiveness of existing international measures aimed at curbing their spread.

III - International and Regional Framework

Various international protocols, treaties, and agreements regulate the non-proliferation, development, and use of chemical and biological weapons. The foundation for international efforts in disarmament and arms control can be traced back to the *United Nations Charter*, which came into force on October 24, 1945. *Articles 11 and 49 of the UN Charter*[34] empower the UN and the Security Council to maintain international peace and security, including the regulation of armaments. The provisions serve as the basis for subsequent treaties and agreements aimed at eliminating chemical and biological weapons.

One of the earliest efforts to address chemical and biological warfare was the *Geneva Protocol of 1925*. The *Geneva Protocol of 1925* emerged from a League of Nations-sponsored conference aimed at regulating the international arms trade post-World War I. While the primary intention was to curb the development of chemical weapons, the United States proposed a broader universal ban on asphyxiating gases in warfare.[35] The Protocol thus banned "the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices".[36] However, the Protocol's implementation faced

[34] United Nations, "Charter of the United Nations (24th October 1945)" available at https://www.un.org/en/about-us/un-charter/full-text (accessed 9th February 2025).

[35] Nwoye Victory Chinelo, Ahmadi Litas & Simon Godfrey Soban, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" *FUWJPD* 2023 available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed 4th April , 2025)

significant challenges due to differing national interpretations of the prohibited chemicals and materials, as well as reservations on its applicability. For instance, the United States, which did not ratify the Protocol until 1975, included a reservation allowing retaliation in kind if first attacked with chemical weapons. The Protocol's lack of enforcement mechanisms left it susceptible to misuse, as evidenced by the United States' use of herbicides during the Vietnam War.[37]

The 1972 Biological Weapons Convention (BWC) expanded on the Geneva Protocol by prohibiting the development, production, and acquisition of biological weapons, as outlined in its *Article I*. However, the BWC lacks formal verification mechanisms, relying on state goodwill for compliance, which has proven inadequate. The rise of dual-use technologies and advances in biotechnology have further complicated its enforcement. This weakness is underscored by the 2001 Anthrax attacks in the U.S., prompting criticism of the BWC's effectiveness and leading the U.S. to vehemently reject proposed verification protocols as flawed.[38]

The *1993 Chemical Weapons Convention (CWC)*, comprehensively prohibits the development, production, stockpiling, and transfer of chemical weapons while mandating the destruction of existing stockpiles.[39] Unlike the Geneva Protocol and the BWC, the CWC included rigorous verification mechanisms and monitoring of chemical production

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[36] Article 1, Geneva Protocol 1925.

[37] Institute of Medicine (US) Committee, "The U.S. Military and the Herbicide Program in Vietnam." available at: https://www.ncbi.nlm.nih.gov/books/NBK236347/ (accessed 20th April, 2025)

[38] Roberts Guy, "Arms Control without Arms Control: The Failure of the Biological Weapons Convention Protocol and a New Paradigm for Fighting the Threat of Biological Weapons" *INSS Occasional Paper 49* 2003 available at https://apps.dtic.mil/sti/tr/pdf/ADA435071.pdf (accessed 4th April , 2025)

[39] United Nations Office for Disarmament Affairs (UNODA), "Chemical Weapons" available at https://disarmament.unoda.org/wmd/chemical/ (accessed 9th February 2025).

facilities, aiming for the complete destruction of chemical weapons.[40] *Article 1* of the CWC binds signatories to not develop, produce, or acquire chemical weapons. The treaty also established the OPCW, tasked with overseeing the destruction of chemical weapon stockpiles and ensuring compliance. As of 2018, the CWC had achieved near-universal membership and overseen the destruction of large portions of declared chemical weapon stockpiles. However, countries like Israel, Egypt, and North Korea have not ratified the treaty.

One of the main criticisms of the CWC is its failure to address emerging chemical threats, such as non-lethal chemical agents and incapacitating agents, which are increasingly used in modern warfare.[41] These agents, which are designed not to kill but to incapacitate, could potentially undermine the spirit of the treaty. In addition, as an issue raised by feminist scholars, gender and environmental health effects in relation to chemical weapons destruction have been neglected in the treaty's framework.[42] Chemical terrorism, such as the Tokyo subway attack in 1995, further complicates the treaty's ability to address non-state actors' threats, which was not fully anticipated in the CWC's original framework.[43]

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[40] Nwoye Victory Chinelo, Ahmadi Litas & Simon Godfrey Soban, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" *FUWJPD* 2023rd available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed April 4th 2025)

[41] Nwoye Victory Chinelo, Ahmadi Litas & Simon Godfrey Soban, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" *FUWJPD* 2023rd available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed April 4th 2025)

[42] Perry, R. J. P. (2008), "Difficulties Facing the Chemical Weapons Convention." International Affairs 84:2. In Nwoye Victory Chinelo, Ahmadi Litas & Simon Godfrey Soban, 'Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects' *FUWJPD* 2023rd available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed 4th April , 2025)

[43] Nwoye Victory Chinelo, Ahmadi Litas & Simon Godfrey Soban, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" *FUWJPD* 2023rd available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed April 4th 2025)

In a bid to strengthen global measures against the proliferation of weapons of mass destruction (WMD), particularly chemical and biological weapons, the United Nations Security Council has adopted several landmark resolutions. Chief among them is *Resolution 1540 (2004)*, which, acting under *Chapter VII of the UN Charter*, established that the proliferation of nuclear, chemical, and biological weapons by non-state actors constitutes a threat to international peace and security. It obliges all UN member states to refrain from supporting non-state actors attempting to develop, acquire, manufacture, or use such weapons and their means of delivery, especially for terrorist purposes. States are also required to enact and enforce domestic legislation to criminalize such activities, and to establish effective controls over related materials and delivery systems to prevent their spread.[44]

To bolster these efforts, *Resolution 2325 (2016)* was unanimously adopted, urging all states to strengthen their national non-proliferation frameworks in line with Resolution 1540. It emphasized the need for timely reporting, capacity-building, and greater international cooperation, including the engagement of civil society, academia, and technical experts. In addition, *Resolution 2663 (2022)* extended the mandate of the 1540 Committee for another ten years, ensuring sustained oversight and support for implementation.[45]

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[44] Arms Control Association, "UN Security Council Resolution" 1540 At a Glance' 2021 available at https://www.armscontrol.org/factsheets/un-security-council-resolution-1540-glance (accessed 6th April 2025)

[45] United Nations Meetings Coverage and Press Releases, "Security Council Adopts Resolution 2325 (2016), Calling for Framework to Keep Terrorists, Other Non-State Actors from Acquiring Weapons of Mass Destruction" 2016 available at https://press.un.org/en/2016/sc12628.doc.htm (accessed 6th April , 2025)

In parallel, the *2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation (Beijing Convention)* expanded the legal tools for addressing WMD threats by specifically criminalizing the use of civil aircraft to deliver biological, chemical, or nuclear weapons, or to release such substances with intent to cause death, injury, or damage.[46] The Convention also outlawed the unlawful transport of BCN weapons, cyber-attacks on air navigation facilities, and credible threats or conspiracies related to such offences, thereby reinforcing the legal architecture for countering the use of WMD in aviation and addressing the evolving nature of such threats.[47]

In conclusion, while the *Geneva Protocol*, BWC, *and* CWC each represent significant milestones in the global effort to prevent the use of chemical and biological weapons, they have their weaknesses. The Protocol's lack of enforcement mechanisms and interpretive challenges limited its effectiveness. The BWC faced challenges in verification. The CW, with its verification mechanisms and near-universal adoption, has also struggled with issues such as incomplete membership, compliance gaps, and emerging threats like non-lethal chemical agents and terrorism.

IV - Role of the International System

[46] United Nations Office of Counter Terrorism, "International Legal Instruments" 2025 available at https://www.un.org/counterterrorism/international-legal-instruments (accessed 6th April 2025)

[47] Abeyratne R., "The Beijing Convention of 2010 on the suppression of unlawful acts relating to international civil aviation—an interpretative study" (2011) 4(2) Journal of Transportation Security 13rd1-143rd available at https://www.researchgate.net/publication/2263rd63rd589_The_Beijing_Convention_of_2010_on_the_suppression_of_unlawful_acts_relating_to_International_civil_aviation-an_interpretative_study (accessed 9th February 2025).

International organizations like the UN through UNODA[48] work to promote disarmament, transparency, and global security. They help prevent the spread and stockpiling of weapons while supporting peacekeeping, post-conflict recovery, and reintegration efforts. Cooperation between states is crucial in maintaining long-term stability.

The African Union (AU) has played a significant role in nonproliferation and disarmament efforts. Through binding treaties and conventions, it has established a strong legal framework to prevent the spread of these weapons among member states. A key example is the *Treaty of Pelindaba*, which creates an African Nuclear Weapons Free Zone, ensuring the continent remains free from nuclear threats. Additionally, the AU endorses international treaties like the *Biological and Toxin Weapons Convention* (BTWC) and the *Chemical Weapons Convention* (CWC), reinforcing global disarmament efforts. By raising awareness about the dangers of these weapons, the AU encourages compliance with nonproliferation agreements and urges member states to enact relevant national legislation.

The AU also actively supports member states by providing technical assistance, infrastructure, and expertise to help fulfill their treaty obligations. It fosters regional cooperation on disarmament and collaborates with global organizations such as the United Nations, the International Atomic Energy Agency (IAEA), and the OPCW. Institutional mechanisms like the African Commission on Nuclear Energy (AFCONE) have been established to oversee the implementation of disarmament treaties, ensuring continued progress in making Africa a secure and weapons-free continent.

[48] United Nations Office of Disarmament Affairs

The European Union (EU) as an organisation performs several roles, such as financial, technical, diplomatic roles in strengthening the fight against proliferation of weapons. The Union supports international treaties as well as encouraging compliance with these treaties from EU and non-EU countries. The EU funds various initiatives to curb the spread and development of chemical, biological, radiological, and nuclear weapons. Notable efforts include the EU Nonproliferation and Disarmament Consortium, which fosters research and education on disarmament, and the EU CBRN Centres of Excellence, a civilian security program collaborating with 64 partner countries to mitigate nuclear threats. The EU also advocates for nuclear weapons-free zones and cooperates with regional organizations to address disarmament challenges, using diplomatic pressure and sanctions against violators.

A noteworthy forum recognised by the international community as the most important multilateral disarmament forum is the Conference on Disarmament (CD) established in 1979.[49] This Conference is responsible for negotiating landmark treaties, including Comprehensive Nuclear Test Ban Treaty (CTBT), CWC etc. The goal, just like every other conference, instrument, or treaty, is the promotion of the non-proliferation movement. It discusses mechanisms to prevent the spread of these weapons, advocates for enhanced verification and monitoring systems, regulates conventional arms, and encourages international cooperation on controlling arms trade. The forum collaborates with the UN Institute for Disarmament Research (UNIDIR) to provide information, organize workshops, and conduct research. Although the CD doesn't directly support or fund

[49] General Assembly, "Resolutions and Decisions adopted by the General Assembly during its Tenth General Assembly Special Session", 1978 available at https://front.un-arm.org/wp-content/uploads/2020/12/GA-10th-special-session.pdf (accessed 9th February 2025).

initiatives, it indirectly supports initiatives such as the BTWC Implementation Support Unit, and some regional disarmament initiatives.

INTERPOL, an international law enforcement agency, also provides and shares information with regional law enforcement authorities. Interpol acts as a central hub for information on CBW related activities. They collect and analyze information on networks, groups, and individuals involved in the proliferation of these weapons through tools like the Bio-Tracker, an early warning system that helps law enforcement track and intercept non-state actors and terrorists.[50] In addition, Interpol offers forensic and response training to law enforcement agencies, improving detection, investigation, and enforcement capabilities.[51] Through networking, joint operations, and information exchange, it fosters international cooperation. Its efforts in threat identification, capacity building, and operational support have significantly contributed to disarmament and the prevention of CBW proliferation.

Finally, Non-Governmental and Civil Society Organizations (NGOs and CSOs) play a crucial role in curbing the proliferation of weapons of mass destruction, as recognized under *Article 71 of the UN Charter*. Groups like Greenpeace, Doctors Without Borders, and the Arms Control Association contribute through research, advocacy, and public awareness, complementing governmental and international efforts.[52] Institutions like the

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[50] INTERPOL, "Police Data Management and Analysis (Bioterrorism)" available at https://www.interpol.int/en/Crimes/Terrorism/Bioterrorism/Police-Data-Management-and-Analysis-Bioterrorism (accessed 9th February 2025).

[51] INTERPOL, "Digital Forensics" available at https://www.interpol.int/en/How-we-work/Innovation/Digital-forensics (accessed 9th February 2025).

[52] Anthony, I., "Reflections on Continuity and Change in Arms Control in SIPRI Yearbook 2006: Armaments, Disarmament and International Security" Stockholm International Peace Research Institute available at https://www.sipri.org/sites/default/files/YB06%20587%2012.pdf (accessed 9th February 2025).

Stockholm International Peace Research Institute (SIPRI) provide expert analysis on disarmament and proliferation, while campaigns such as ICAN, Abolition 2000, and Global Zero highlight the humanitarian and environmental impacts of these weapons. These organizations also influence policy by pressuring states to ratify treaties, offering training to enhance non-proliferation capacity in developing nations, and advocating for reparations and environmental remediation for affected communities.[53]

1. Historical Context and Evolution of International Responses to Chemical and Biological Weapons Threats

The use of chemical and biological weapons has a long and troubling history; documented instances date back over 2,500 years. Early forms of biological warfare involving the use of filth, cadavers, and animal carcasses, though crude, were effective in spreading contagion and weakening opposing forces.[54] One of the earliest recorded instances occurred in 600 BC, when Solon of Athens reportedly used the purgative herb hellebore during the siege of Krissa, to incapacitate the enemy forces.[55] In 1155, Emperor Barbarossa allegedly poisoned wells with human bodies during the siege of Tortona, while in 1346, Tartar forces at Caffa catapulted plague-infected corpses over city walls.[56] In

[53] Stockholm International Peace Research Institute, "Armaments, Disarmament and International Security." Stockholm International Peace Research Institute, 2020. available at http://www.jstor.org/stable/resrep253rd12 (accessed 31st January, 2025).

[54]AG Robertson and LJ Robertson, "From Asps to Allegations: Biological Warfare in History" (1995) 160(8) Military Medicine 369–373 available at https://pubmed.ncbi.nlm.nih.gov/8524458/ (accessed 31st January 2025).

[55] EM Eitzen Jr, & ET Takafuji, "Historical overview of biological warfare." in FR Sidell, ET Takafuji and DR Franz (eds), Medical Aspects of Chemical and Biological Warfare (Washington DC: Office of the Surgeon General, 1997), pp. 415–423.

1710, Russian troops allegedly hurled plague-infected bodies into Swedish cities and during the French and Indian War (1754–1767), British forces under Sir Jeffrey Amherst reportedly used smallpox as a weapon by distributing infected blankets to Native Americans, thereby triggering an outbreak.[57]

Chemical agents equally featured prominently in warfare. In 1675, German and French forces agreed to ban the use of poisoned bullets, marking one of the earliest known arms control agreements. However, the agreements did little to curb the use of chemical weapons in later conflicts.[58] As warfare evolved, the scale and sophistication of chemical and biological weapons (CBWs) increased. During World War I, both side experimented with biological agents like anthrax and glanders, while chemical weapons such as mustard gas were deployed on a massive scale.

CBWs continued to pose a significant threat. During World War II, Japan deployed agents like plague and anthrax. After World War II, the U.S., Britain, and the USSR raced to acquire German chemical weapons expertise — the Soviets seized chemical plants, while the Allies captured scientists and some nerve agents like Tabun and Sarin. The Cold War spurred rapid development of CBWs, with Britain refining VX in 1952, which was later mass-produced by the U.S. By the 1960s, chemical weapons were central to military strategies. Egypt used mustard gas in Yemen (1960s), while Iraq deployed Tabun and Sarin in the Iran-Iraq War and the Halabja massacre. By the late 1960s, concerns over biological weapons grew due to their unpredictability and lack of control measures.[59] The

[56] S. Riedel, "Biological Warfare And Bioterrorism: A Historical Review." 2004 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1200679/#B1 (accessed 31st January 2025).

[57] S. Riedel, "Biological Warfare And Bioterrorism: A Historical Review." 2004 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1200679/#B1 (accessed 31st January 2025)..

[58] S. Riedel, "Biological Warfare And Bioterrorism: A Historical Review." 2004 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1200679/#B1 (accessed 31st January 2025).

1925 Geneva Protocol was ineffective in preventing proliferation. This prompted Britain to propose a ban at the UN in 1969.

Eventually, the 1972 Biological Weapons Convention (BWC), which prohibited development, production, and stockpiling was made. While the BWC required destruction of stockpiles within nine months, it provided no firm guidelines for inspections or for dealing with violation of its provisions. The UN Security Council could investigate breaches, but the permanent members' veto power made enforcement weak. Terrorist groups also engaged in biological and chemical attacks.[60] Between the Soviet-developed Novichok and deadly sarin attacks by the Aum Shinrikyo cult in the 1990s, despite the 1993 Chemical Weapons Convention, enforcement and compliance remains a challenge. The proliferation of biological and chemical weapons thus remains a global threat.[61]

1.1 The Inception and Ethical Debate Around CBWs

During the Crimean War in 1854, British chemist Lyon Playfair proposed using cacodyl cyanide artillery shells to break the stalemate at Sevastopol.[62] Playfair argued that chemical warfare was a more humane alternative to conventional weapons. He contended that poisonous vapors could kill with less suffering than molten metal or bullets; war was inherently destructive and chemistry could minimize its barbarity.[63] This early debate laid

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[59] S. Riedel, "Biological Warfare And Bioterrorism: A Historical Review." 2004 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1200679/#B1 (accessed 31st January 2025).

[60] S. Riedel, "Biological Warfare And Bioterrorism: A Historical Review." 2004 available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1200679/#B1 (accessed 31st January 2025).

[61] Steve Gilbert, "Chemical Weapons History Overview" available at https://www.healthandenvironment.org/docs/ToxipediaChemicalWeaponsArchive.pdf (accessed 31st January, 2025).

[62] Jeffery K. Smart, "History Of Chemical And Biological Warfare: An American Perspective." available at https://www.hsdl.org/c/view?docid=3233 (accessed 8th February 2025)

the groundwork for future discussions on the legitimacy of CBWs, a perspective which contrasted sharply with the prevailing ethical norms of the time, which regarded CBWs as dishonorable and indiscriminate. However, as technology advanced, the line between ethical restraint and military necessity blurred.

Germany, capitalizing on its advanced chemical industry, led the way by deploying chlorine gas at Ypres in 1915 and advocates like Nobel laureate Fritz Haber, the architect of Germany's chemical weapons program, justified their use as a means to break deadlocks and expedite victory. Haber had infamously downplayed their impact, noting that poison gas caused fewer deaths than bullets.[64] However, by the end of the war, chemical weapons had caused over 90,000 deaths and 900,000 injuries.[65] The widespread devastation caused by CBWs led to international condemnation and spurred efforts to regulate their use.

2. Proliferation Risks of Chemical and Biological Weapons

The proliferation of CBWs remains a critical global security concern despite international efforts to curb their development and use.[66] Various states and non-state actors have pursued these weapons, exploiting the dual-use nature of many biological and chemical materials. Advances in biotechnology over recent decades have further reduced the

[63] Jeffery K. Smart, "History Of Chemical And Biological Warfare: An American Perspective." available at https://www.hsdl.org/c/view?docid=3233 (accessed 8th February 2025)

[64] Jeffery K. Smart, "History Of Chemical And Biological Warfare: An American Perspective." available at https://www.hsdl.org/c/view?docid=3233 (accessed 8th February 2025)

[65] Jeffery K. Smart, "History Of Chemical And Biological Warfare: An American Perspective." available at https://www.hsdl.org/c/view?docid=3233 (accessed 8th February 2025)

[66] David P. Fidler, "Facing the Global Challenges Posed by Biological Weapons." available at https://doi.org/10.1016/S1286-4579(99)80523-1 (accessed 8th February 2025).

barriers to producing and deploying biological weapons, making them a cost-effective alternative to nuclear programs.[67]

Despite the establishment of the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC), the development and attempt to acquire CBWs continued, often by exploiting loopholes in enforcement. The Soviet Union signing the BWC in 1972 maintained an extensive biological weapons program, as evidenced by the 1979 anthrax leak in Yekaterinburg, which resulted in at least 66 deaths.[68] This program, which modified pathogens to increase their lethality and make them resistant to countermeasures, continued in secrecy for decades.

In the Middle East and North Korea, CBW programs have continued to raise concerns about their proliferation. Reports suggested Iraq possessed a significant stockpile of chemical and biological weapons, including over 25 chemical/biological warheads for al-Hussein missiles and 2,000 aerial bombs.[69] It retains precursor chemicals capable of producing mustard gas, VX, and other nerve agents, in addition to having a substantial biological warfare capability, as well as mobile production facilities for lethal biological agents. Despite its past claims of destruction, Iraq has not accounted for key materials and maintains the expertise to rapidly reconstitute its CBW programs.[70]

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[67] David P. Fidler, "Facing the Global Challenges Posed by Biological Weapons." available at https://doi.org/10.1016/S1286-4579(99)80523-1 (accessed 8th February 2025).

[68] Juling, Dominic, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" (2023) 14(1) Journal of Advanced Military Studies available at https://doi.org/10.21140/mcuj.20231401005 (accessed 1st February 2025).

[69] Jonathan Tucker, "The Proliferation of Chemical and Biological Weapons Materials and Technologies to State and Sub-State Actors" 2001 *James Martin Centre for Non-Proliferation Studies,* available at https://nonproliferation.org/the-proliferation-of-chemical-and-biological-weapons-materials-and-technologies-to-state-and-sub-state-actors/ (accessed 2nd February 2025).

Similarly, Iran, despite being a signatory to both the BWC and CWC, has been accused of pursuing biological weapons research under the guise of civilian projects. Libya maintained a CW program throughout the 1980s, producing large quantities of agents at its Rabta facility. North Korea has a well-documented history of chemical weapons production, reportedly possessing stockpiles of sarin, VX, and mustard gas, while its BW research has focused on highly lethal pathogens such as anthrax, plague, and smallpox. Syria, which has refused to ratify the CWC, has developed a formidable chemical weapons arsenal and deployed sarin and other nerve agents during the Syrian Civil War.[71]

International oversight remains a critical challenge in combating the proliferation of biological weapons and the BWC remains plagued by compliance issues.[72] As long as verification mechanisms remain weak and enforcement remains inconsistent, the threat of biological and chemical weapons will persist. As economic instability and regional conflicts persist, small states, and non-state actors alike, with limited conventional military capabilities may increasingly view biological weapons as a viable alternative, amplifying the risk of their proliferation.[73]

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[70] Jonathan Tucker, "The Proliferation of Chemical and Biological Weapons Materials and Technologies to State and Sub-State Actors" 2001 *James Martin Centre for Non-Proliferation Studies,* available at https://nonproliferation.org/the-proliferation-of-chemical-and-biological-weapons-materials-and-technologies-to-state-and-sub-state-actors/ (accessed 2nd February 2025).

[71] Jonathan Tucker, "The Proliferation of Chemical and Biological Weapons Materials and Technologies to State and Sub-State Actors" 2001 *James Martin Centre for Non-Proliferation Studies,* available at https://nonproliferation.org/the-proliferation-of-chemical-and-biological-weapons-materials-and-technologies-to-state-and-sub-state-actors/ (accessed 2nd February 2025).

[72] Filipa Lentzos,"'Compliance and Enforcement in the Biological Weapons Regime" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 2nd February 2025).

[73] Graham S. Pearson, "The Prohibition of Biological Weapons: Current Activities and Future Prospects." *International Review of the Red Cross* available at https://international-review.icrc.org/sites/default/files/S0020860400084680a.pdf (accessed 1st February 2025).

The proliferation risks of chemical and biological weapons (CBWs) also arise from the dual-use nature of the technologies involved. While certain materials, technologies, and expertise can be used for peaceful purposes, they can also be diverted to develop harmful weapons.[74] Notable among these are CRISPR and synthetic biology, both of which are revolutionising medical and scientific innovation, offering groundbreaking solutions for disease treatment, biosensing, and environmental remediation. Notably, CRISPR-based therapies have been approved for treating sickle cell disease, and gene replacement therapies have shown success in combating inherited retinal disorders.[75] Synthetic biology, on the other hand, has enabled the creation of engineered microbes for biofuel production, environmental cleanup, and rapid, paper-based biosensors capable of detecting viruses like Ebola and Zika.[76] Developments which clearly highlight the immense potential of these technologies in improving human well-being and addressing critical global challenges.

However, the same capabilities that make CRISPR and synthetic biology transformative for healthcare also present serious risks of proliferation. The precision and efficiency of

[74] Indeed, chemical weapons can be manufactured in civilian chemical plants using facilities and materials that have perfectly legitimate civilian uses. Facilities used to manufacture fertilizers, insecticides, pharmaceuticals and petrochemicals can quickly be turned to the production of chemical weapons agents. Lyell (United Kingdom General Rapporteur) Committees of North Atlantic Assembly, "Chemical and Biological Weapons: The Poor Man's Bomb", available at https://irp.fas.org/threat/an253rdstc.htm (accessed 1st February , 2025).

[75] Badea, A.R., Feeney, O. "Genome Editing Dilemma: Navigating Dual-Use Potential and Charting the Path Forward. Bioethical Inquiry" (2024) available at https://doi.org/10.1007/s11673rd-024-103rd58-8 (accessed 1st February 2025).

[76] Fangzhong Wang and Weiweng Zhang, "Synthetic Biology: Recent Progress, Biosafety and Biosecurity Concerns, and Possible Solutions" (2019) 1(1) *Journal of Biosafety and Biosecurity*, 22–30 available at https://www.sciencedirect.com/science/article/pii/S25889thth3rd3rd8183rd00104?via%3rdDihub (accessed 1st February 2025).

CRISPR allow for the targeted modification of pathogens, potentially enhancing their virulence, resistance to treatment, or ease of transmission. Unlike traditional bioweapon development, which required sophisticated laboratory conditions and extensive expertise, CRISPR has drastically lowered the technical barriers to genetic engineering.[77] Similarly, synthetic biology makes it possible to recreate eradicated or highly dangerous pathogens, such as smallpox or more transmissible strains of existing viruses.[78]

Proliferation risks are often heightened in regions with ongoing conflict, where the control over dangerous substances may be weaker, and there is a higher potential for illegal access or misuse.[79] The risk is also particularly evident in states where regulatory oversight and export controls on chemical and biological materials are inadequate. This allows for the potential leakage of sensitive information or resources to rogue states or terrorist organizations that could use them for destabilizing purposes. The complexities of enforcing international norms, such as the Chemical Weapons Convention (CWC) and the Biological Weapons Convention (BWC), also contribute to these risks.[80]

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[77] Badea, A.R., Feeney, O. "Genome Editing Dilemma: Navigating Dual-Use Potential and Charting the Path Forward. Bioethical Inquiry" (2024) available at https://doi.org/10.1007/s11673rd-024-103rd58-8 (accessed 1st February 2025).

[78] Fangzhong Wang and Weiweng Zhang, "Synthetic Biology: Recent Progress, Biosafety and Biosecurity Concerns, and Possible Solutions" (2019) 1(1) *Journal of Biosafety and Biosecurity*, 22–30 available at https://www.sciencedirect.com/science/article/pii/S25889thth3rd3rd8183rd00104?via%3rdDihub (accessed 1st February 2025).

[79] Indeed, chemical weapons can be manufactured in civilian chemical plants using facilities and materials that have perfectly legitimate civilian uses. Facilities used to manufacture fertilizers, insecticides, pharmaceuticals and petrochemicals can quickly be turned to the production of chemical weapons agents. Lyell (United Kingdom General Rapporteur) Committees of North Atlantic Assembly, "Chemical and Biological Weapons: The Poor Man's Bomb", available at https://irp.fas.org/threat/an253rdstc.htm (accessed 1st February , 2025).

2.1 Non State Actors and Terrorism

Non-state actors[81] pose a significant threat in light of past efforts to acquire and use chemical and biological weapons, and the potential use of these weapons or related materials for terrorism or other criminal activities is one of the gravest threats of our time.[82] CB weapons are particularly appealing because of their potential to cause mass casualties, incite widespread fear, and attract media attention, all at relatively low cost and effort.

The first documented bioterrorist attack occurred in 1984 when the Rajneesh cult poisoned salad bars in Oregon with salmonella, infecting 751 people.[83] More sophisticated attempts emerged in the 1990s with Japan's Aum Shinrikyo cult, which sought to weaponize botulinum toxin and anthrax. Though the cult ultimately failed in its biological attacks, it successfully deployed sarin in the Tokyo subway in 1995. Also, after the 9/11 attacks, fears of bioterrorism escalated when anthrax-laced letters were sent to American officials, killing five people. The FBI traced the attack to a U.S. Army researcher, a highlight of the risks associated with insider threats.[84] In the late 1990s, al-Qaeda sought to develop

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[80] Treasa Dunworth, "Compliance and Enforcement in WMD-Related Treaties" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/wp-content/uploads/202d/05/compliance-wmd-treaties.pdf (accessed 1st February 2025).

[81] This classification includes terrorist organizations and individuals.

[82] UNODA, "Countering Chemical, Biological, Radiological And Nuclear Terrorism", available at https://www.unodc.org/unodc/en/terrorism/expertise/countering-chemical-biological-radiological-and-nuclear-terrorism.html (accessed 1st February , 2025).

[83] Dominic Juling, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" *JAMS* Vol. 14 No. 1 available at https://doi.org/10.21140/mcuj.2023rd1401005 (accessed 1st February , 2025).

[84] Dominic Juling, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" *JAMS* Vol. 14 No. 1 available at https://doi.org/10.21140/mcuj.2023rd1401005 (accessed 1st February , 2025).

anthrax in Kandahar; an Islamic State laptop seized in Syria in 2014 contained extensive CBW production plans;[85] while Da'esh repeatedly used chemical weapons in Iraq and Syria between 2014 and 2016.[86]

Notably, several ricin-related incidents have been reported in the U.S. and Europe, including an attempted attack in Germany in 2018, where an alleged jihadist successfully produced the toxin using instructions from the internet.[87] Ricin, a potent toxin derived from castor beans, has become a weapon of interest for jihadist groups, right-wing extremists, cults and lone actors.[88]

2.2 Technological Advancements and Dual-use Concerns

Biotechnology is rapidly expanding as a critical sector in global manufacturing. This raises dual-use concerns, particularly regarding the potential of biological warfare that attends it.[89] New technologies like 3D printing and the merging of chemical and biological sciences are changing how chemicals are made and distributed.[90] With 3D printing, important lab

[85] Dominic Juling, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" *JAMS* Vol. 14 No. 1 available at https://doi.org/10.21140/mcuj.2023rd1401005 (accessed 1st February , 2025).

[86] United Nations Interregional Crime and Justice Research Institute, "Preventing Chemical and Biological Terrorism", available at https://unicri.it/topics/cbrn-Preventing-Chemical-Biological-Terrorism (accessed 1st February , 2025).

[87] Dominic Juling, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" *JAMS* Vol. 14 No. 1 available at https://doi.org/10.21140/mcuj.2023rd1401005 (accessed 1st February , 2025).

[88] Dominic Juling, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" *JAMS* Vol. 14 No. 1 available at https://doi.org/10.21140/mcuj.2023rd1401005 (accessed 1st February , 2025).

[89] IAP Biosecurity Working Group, "The Biological and Toxins Weapons Convention: Implications of advances in science and technology." 2015 available at https://www.interacademies.org/sites/default/files/publication/iap-bwc-trends-booklet_dec2015.pdf (accessed 1st February 2025).

equipment can now be created more easily, lowering the barriers to illegal production.

Other advancements like nanotechnology enhance the delivery of biological agents by allowing them to bypass immune defenses and reach previously inaccessible parts of the body, while aerobiology improves the modeling and control of airborne pathogens for more effective aerosol-based dispersal. Novel acquisition strategies including, using the dark web, biotechnology e-commerce, and fabricating biological agents from non-controlled components, lower the barriers to bioweapon development. Moreso, modifying pathogens or toxins can hinder identification and medical countermeasures. The digitization of biology further exacerbates these risks, as publicly available datasets can be exploited to assess the feasibility of synthesizing biological agents, making it easier to develop and validate bio-weapon capabilities.[91]

Even more, advancements in high-throughput screening, autonomous molecular design, and small-scale chemical plants could be misused to develop sophisticated chemical warfare agents. The use of drones for dissemination also complicates regulation, while increasing chemical manufacturing capabilities threaten existing verification frameworks under the CWC.[92] To address these risks, experts recommend assessing the technological

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[90] DeSilva-Perera-Martinez, "Overview of Emerging Technologies with an Impact on Chemical Disarmament and Non-Proliferation Regime"s, available at https://unicri.it/sites/default/files/2024-09thth/UNSCR1540-DeSilva-Perera-Martinez-Technologies-Chemical-Disarmament-Non-Proliferation.pdf (accessed 1st February 2025).

[91] IAP Biosecurity Working Group, "The Biological and Toxins Weapons Convention: Implications of advances in science and technology." 2015 available at https://www.interacademies.org/sites/default/files/publication/iap-bwc-trends-booklet_dec2015.pdf (accessed 1st February 2025).

[92] Dominika Kunertova, "Drones have boots: Learning from Russia's war in Ukraine", Contemporary Security Policy, vol. 44, No. 4 (October 2023rd) in DeSilva-Perera-Martinez, Overview of Emerging Technologies with an Impact on Chemical Disarmament and Non-Proliferation Regimes, available at

impacts, raising awareness, establishing standardized policies, and strengthening capacity-building efforts. Enhanced export controls, international collaboration, and supply chain security are crucial to preventing illicit use while balancing innovation with global security.[93]

2.3 Non-Compliance and Recent Use of Chemical Weapons in Conflicts: The Case of Syria and Russia

The alleged use of internationally banned chemical weapons in Syria can be traced back to 2013. That year, one of the deadliest chemical attacks occurred in Ghouta, near Damascus, where rockets containing sarin gas were launched, killing hundreds of civilians, including many women and children. In response to the global outrage and the widespread condemnation this sparked, Syria joined the Chemical Weapons Convention and agreed to cooperate with the Organisation for the Prohibition of Chemical Weapons (OPCW) and the United Nations (UN) to dismantle its chemical weapons arsenal. By 2014, the country had accounted for and destroyed 1,300 metric tons of chemical weapons, including sulfur mustard and nerve agent precursors.[94]

Despite these disarmament efforts, chemical weapons continued to be used in the Syrian conflict. In 2014, the OPCW confirmed that chlorine gas had been systematically

https://unicri.it/sites/default/files/2024-09/UNSCR1540-DeSilva-Perera-Martinez-Technologies-Chemical-Disarmament-Non-Proliferation.pdf (accessed 1st February 2025).

[93] DeSilva-Perera-Martinez, "Overview of Emerging Technologies with an Impact on Chemical Disarmament and Non-Proliferation Regime"s, available at https://unicri.it/sites/default/files/2024-09thth/UNSCR1540-DeSilva-Perera-Martinez-Technologies-Chemical-Disarmament-Non-Proliferation.pdf (accessed 1st February 2025).

[94] World Economic Forum, "The major obstacle to a chemical weapons-free world", available at https://www.weforum.org/stories/2016/02/the-major-obstacle-to-a-chemical-weapons-free-world-c743rd4b90-7b06-4fba-893b-85f77188db65/ (accessed 1st February 2025).

deployed in several attacks in northern Syria, primarily in rebel-held areas. These chlorine bombings, though less sophisticated than sarin, were still highly toxic and caused significant civilian casualties.[95] According to the statistics, there have been 234 separate and documented chemical attacks since the beginning of the Syrian war, resulting in over 13,000 injuries and 3,415 deaths. Of these, 211 attacks were attributed to chlorine gas alone or chlorine mixed with traces of sarin.[96]

On the other hand is Russia's involvement with Novichok, which dates back to the Cold War when the Soviet Union developed a secret chemical weapons program under the Foliant initiative. The objective was to create highly toxic, undetectable nerve agents capable of penetrating protective gear.[97] These efforts led to the production of a new class of chemical agents known as the A-series, later dubbed Novichok, meaning "newcomer" in Russian. Despite Russia's formal commitment to the Chemical Weapons Convention (CWC), reports indicate that the development and potential stockpiling of these agents continued beyond the dissolution of the Soviet Union.[98] The continued presence of these nerve agents in global incidents, including its deployment in high-profile poisonings in the

[95] World Economic Forum, "The major obstacle to a chemical weapons-free world", available at https://www.weforum.org/stories/2016/02/the-major-obstacle-to-a-chemical-weapons-free-world-c743rd4b90-7b06-4fba-893b-85f77188db65/ (accessed 1st February 2025).

[96] Brooks, J., Erickson, T.B., Kayden, S. et al., "Responding to chemical weapons violations in Syria: legal, health, and humanitarian recommendations." *Confl Health* 12, (2018). available at https://conflictandhealth.biomedcentral.com/articles/10.1186/s13rd03rd1-018-0143-3 (accessed 1st February 2025).

[97] Carvalho, Luís., "Novichok(s): A Challenge to the Chemical Weapons Convention." 2021 available at https://www.researchgate.net/publication/3rd55773rd722_Novichoks_A_Challenge_to_the_Chemical_Weapons_Convention (accessed 1st February 2025).

[98] Carvalho, Luís., "Novichok(s): A Challenge to the Chemical Weapons Convention." 2021 available at https://www.researchgate.net/publication/3rd55773rd722_Novichoks_A_Challenge_to_the_Chemical_Weapons_Convention (accessed 1st February 2025).

21st century has raised concerns over Russia's adherence to the CWC and its potential use of chemical warfare capabilities outside declared military contexts.[99]

3. Challenges in Enforcing the Chemical and Biological Weapons Convention: The Absence of a Verification Regime and Its Implications

The enforcement of international treaties relies on mechanisms that ensure compliance with agreed-upon obligations. Enforcement, in this context, encompasses a range of actions, from technical assistance and diplomatic engagement to more stringent measures like public warnings, suspensions, or sanctions. However, unlike national laws that are upheld by centralized authorities, international treaties must rely on self-regulation, cooperative monitoring, and diplomatic pressure to ensure compliance.[100]

Both the CWC and BWC require that States enact domestic legislation prohibiting the production, possession, and use of chemical and biological weapons. Since World War II, transparency measures have become crucial for compliance with arms control treaties.[101] However, as mentioned prior, while the CWC has a structured verification regime under the Organisation for the Prohibition of Chemical Weapons (OPCW), the BWC lacks any formal verification system, a gap that significantly weakens its enforceability.[102]

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[99] Carvalho, Luís., "Novichok(s): A Challenge to the Chemical Weapons Convention." 2021 available at https://www.researchgate.net/publication/3rd55773rd722_Novichoks_A_Challenge_to_the_Chemical_Weapons_Convention (accessed 1st February 2025).

[100] Treasa Dunworth, "Compliance and Enforcement in WMD-Related Treaties" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/wp-content/uploads/202d/05/compliance-wmd-treaties.pdf (accessed 1st February 2025).

[101] Treasa Dunworth, "Compliance and Enforcement in WMD-Related Treaties" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/wp-content/uploads/202d/05/compliance-wmd-treaties.pdf (accessed 1st February 2025).

The absence of a verification system in the BWC was a political decision rather than an oversight. Although the treaty prohibits the development and stockpiling of biological weapons, enforcement relies on investigations initiated by the UN Security Council.[103] Compliance is assessed through a combination of legally binding obligations, politically binding commitments, and voluntary confidence-building measures. While review conferences periodically strengthen the treaty's framework, these alone are insufficient.[104]

The BWC is particularly difficult to enforce because biological agents can be used for both peaceful and harmful purposes. Further, biological knowledge is widely shared, and pathogens can replicate on their own, making oversight even more complex. The BWC relies on four main enforcement tools: national implementation through domestic laws,[105] consultation and cooperation among states,[106] complaints to the UN Security Council,[107] and assistance to affected states.[108] Of these, *Article V* has been the most utilized, allowing countries to raise concerns and request meetings to address potential violations.

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[102] Filipa Lentzos,"'Compliance and Enforcement in the Biological Weapons Regime" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 2nd February 2025).

[103] Filipa Lentzos,"'Compliance and Enforcement in the Biological Weapons Regime" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 2nd February 2025)..

[104] Filipa Lentzos,"'Compliance and Enforcement in the Biological Weapons Regime" *UNDIR Compliance and Enforcement Series* available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 2nd February 2025)..

[105] Article IV BWC

[106] Article V BWC

[107] Article VI BWC

[108] Article VII BWC

Investigations under *Article VI* are often blocked due to the Security Council's veto power, limiting the treaty's effectiveness.

Efforts to establish a verification system for the BWC gained momentum in the 1990s, spurred by concerns over Soviet non-compliance and Iraq's suspected biological weapons program. The Verification Experts (VEREX) group proposed a combination of on-site inspections and other monitoring measures to enhance transparency. However, states remained divided—some advocated for a verification protocol modeled after the CWC, while others opposed intrusive inspections. In 2001, negotiations collapsed when the U.S. rejected a compromise proposal, effectively ending hopes for a legally binding verification regime.[109] In the absence of such a system, enforcement of the BWC relies on voluntary transparency, diplomatic discussions, and political will of the member states.

4. Recommendations for Future Action

To address the threats of BCW proliferation, a comprehensive, multi-faceted approach that strengthens existing frameworks, encourages international cooperation, and builds local capacity is necessary. The following recommendations provide actionable solutions for preventing the further spread and use of chemical and biological weapons.

The first crucial step in strengthening the international response to chemical and biological weapons is the need to overhaul the BWC with a legally binding verification protocol. Currently, the BWC lacks a formal verification system, making it difficult to monitor compliance and hold violators accountable. Establishing a robust, legally

[109] Graham S. Pearson, "The Prohibition of Biological Weapons: Current Activities and Future Prospects." *International Review of the Red Cross* available at https://international-review.icrc.org/sites/default/files/S0020860400084680a.pdf (accessed 1st February 2025).

enforceable verification mechanism similar to the CWC's would involve regular, unannounced inspections and mandatory reporting requirements, to ensure greater transparency and accountability.

In addition, enhancing international cooperation through information-sharing platforms is essential for more effective monitoring and enforcement. Platforms like INTERPOL's Bio-Tracker, which facilitates the sharing of biosecurity data, should be expanded to encompass a broader network of countries, particularly those in regions most at risk. This would enhance global surveillance and help prevent the proliferation of these dangerous weapons.

Regional bodies must also play an integral role in enhancing security and preventing the spread of chemical and biological weapons. Regional organizations such as the African Union (AU) can offer tailored solutions to local challenges by developing strong monitoring and reporting systems. These bodies are better positioned to respond quickly to incidents, facilitate cooperation between member states, provide technical assistance in investigating potential violations and ensure that its member states remain compliant and better prepared to address chemical and biological threats.

Transparency is another fundamental principle for ensuring the effectiveness of international treaties. States should be encouraged to participate in confidence-building measures, which include sharing information about national chemical and biological research programs. These measures help reduce distrust among nations, promoting cooperation while also enhancing global security.

At the same time, it is essential to address the dual-use nature of biotechnology, as advancements in this field pose both opportunities and risks. International cooperation

must focus on establishing clear regulations for the responsible conduct of biotechnological research and the safe use of emerging technologies. This can include creating global standards for research transparency, controlling the publication of sensitive scientific data, and monitoring the development of synthetic biology. Through such proactive measures, the international community can ensure that advances in biotechnology do not inadvertently contribute to the creation or spread of biological weapons.

Finally, addressing the ethical dimensions of chemical and biological weapons use is essential for ensuring long-term success. States that continue to employ these weapons do so in violation of international norms, often for strategic purposes. The international community must integrate disarmament efforts into broader diplomatic and human rights frameworks. By raising awareness of the devastating humanitarian consequences of CBWs and advocating for stronger international norms, civil society organizations can play a critical role in pressuring governments to uphold their obligations. Encouraging states to see the prohibition of chemical and biological weapons as a moral and ethical responsibility, rather than just a political or security concern, will help ensure that these weapons are never used again.

V- Conclusion

Biological and chemical weapons pose a profound threat to global security, capable of inflicting widespread harm on humans, animals, and the environment. Their potential to trigger food shortages, pandemics, economic devastation, and mass fear makes their proliferation a matter of urgent concern. The allure of these weapons lies in their low cost and high impact, which makes them increasingly attractive to both state and non-state

actors. Despite international treaties like the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC), the persistent gaps in enforcement, combined with the dual-use nature of relevant technologies, continue to pose significant challenges. As technological advancements accelerate and regional instability grows, the risks associated with these weapons become more pronounced, with both state and non-state actors increasingly capable of developing or acquiring them.

Addressing these threats requires a multifaceted approach, beginning with strengthening international treaties by implementing legally binding verification systems, especially for the BWC. Global cooperation can be further enhanced through platforms like INTERPOL's Bio-Tracker to improve information-sharing and mitigate risks. At the regional level, organizations like the African Union should be empowered to develop robust monitoring and reporting mechanisms to bridge gaps in oversight. Alongside these measures, proactive diplomatic and economic pressure, including sanctions, must be applied to violators to uphold international norms.

VI - Further Research

1. How can artificial intelligence (AI) and machine learning be leveraged to detect and prevent the production and distribution of chemical and biological weapons?
2. How can intelligence-sharing and international cooperation be improved to monitor and prevent the transfer of dual-use materials to rogue actors?
3. What role does border security and supply chain monitoring play in preventing the illicit trade of chemical and biological weapon components?

4. How can biosecurity measures in laboratories and research institutions be improved to prevent the misuse of scientific research for weaponization?
5. In what ways can international legal frameworks evolve to more effectively prevent and respond to the threats posed by non-state actors and terrorist groups seeking access to chemical and biological weapons?
6. What roles can civil society groups and NGOs play a stronger, hands-on role in promoting the non-proliferation of chemical and biological weapons, particularly in regions with weak institutional capacity?
7. What new tools or strategies can be introduced to improve global monitoring and compliance with the Biological Weapons Convention, given it doesn't have a strong enforcement system?
8. How can the dual-use nature of biotechnology and chemical research be better regulated without stifling innovation in medicine, agriculture, and public health?
9. How can regional organizations create practical, homegrown policies or action plans to track and prevent the use of chemical and biological weapons in their own regions?
10. What practical deterrents and persuasive measures can be used to discourage states and non-state actors from developing, stockpiling, or using chemical and biological weapons, and to motivate those with existing stockpiles to disarm?

VII- Annotated Bibliography

United Nations Office for Disarmament Affairs (UNODA), "Disarmament in the General Assembly" available at https://disarmament.unoda.org/general-assembly/ (accessed 27th December 2024).

The site provides information on the role of the United Nations General Assembly in disarmament, especially through the First Committee, which addresses disarmament and international security issues. It includes information on resolutions, decisions, and the work of bodies like the United Nations Disarmament Commission (UNDC) including the regulation of chemical and biological weapons.

Edwards, B., Novossiolova, T., Crowley, M. et al., "Meeting the Challenges of Chemical and Biological Weapons: Strengthening the Chemical and Biological Disarmament and Non-proliferation Regimes" (2022) *Frontiers in Political Science* available at https://www.frontiersin.org/journals/political-science/articles/10.338/fpos.2022.805426/full (accessed 8th February 2025).

The article provides an in-depth analysis of the current technical and political challenges confronting the global chemical and biological weapons (CBW) regime. It highlights how rapid scientific and technological advancements, evolving global security threats, and limited verification and enforcement mechanisms have undermined the effectiveness of these treaties. The authors emphasize the need for strengthened international cooperation, greater transparency, adaptive governance, and meaningful civil society engagement to address emerging risks and maintain the relevance of CBW control frameworks.

Dunworth Treasa, "Compliance and Enforcement in WMD-Related Treaties" *UNIDIR Compliance and Enforcement Series* available at https://unidir.org/wp-content/uploads/2023/05/compliance-wmd-treaties.pdf (accessed 7th February 2025).

This article examines the mechanisms and challenges associated with ensuring adherence to international treaties concerning weapons of mass destruction (WMD). The paper delineates the concepts of compliance and enforcement, explores various treaty-based mechanisms such as national implementation, verification procedures, and transparency measures, and discusses responses to instances of non-compliance, including the roles of the Security Council and the International Court of Justice. Dunworth emphasizes the complexity of enforcing WMD treaties and underscores the necessity for robust, cooperative international frameworks to effectively address compliance issues.

Lentzos Filipa, "Compliance and Enforcement in the Biological Weapons Regime" *UNIDIR Compliance and Enforcement Series* available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 7th February 2025).

This article examines the mechanisms currently in place to assess and ensure adherence to the Biological Weapons Convention (BWC). It conceptualizes BWC compliance as comprising three layers: legally binding national implementation measures (Articles IV-VII), politically binding confidence-building measures (CBMs), and voluntary actions by States Parties. The paper also discusses the challenges of establishing a fourth verification layer, highlighting the absence of a formal verification regime as a significant gap in the BWC's framework. Lentzos emphasizes the need for strengthened compliance-monitoring mechanisms to enhance the effectiveness of the biological disarmament and non-proliferation regime.

Javed A, "Chemical Weapons and the Iran-Iraq War: A Case Study in Noncompliance" https://www.nonproliferation.org/wp-content/uploads/npr/81ali.pdf (accessed 9th February 2025)

This article examines the extensive use of chemical weapons (CW) during the 1980–1988 Iran-Iraq War and its implications for international arms control. It highlights how Iraq's deployment of CW, and Iran's alleged retaliatory use, violated the 1925 Geneva Protocol, exposing significant weaknesses in global enforcement mechanisms. This underscores the challenges of ensuring compliance with arms control agreements, especially when enforcement is hindered by geopolitical interests and the complexities of verifying violations in closed societies.

Nwoye VC, Ahmadi L and Soban SG, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" (2023) *FUW Journal of Politics and Development* https://fuwjpd.com.ng/download-pdf-article/274 (accessed 4th April 2025)

This article examines the Chemical Weapons Convention (CWC) as a pivotal international treaty aimed at eliminating chemical weapons globally. It highlights the CWC's strengths, such as its comprehensive verification mechanisms and universal membership, distinguishing it from other treaties like the Nuclear Non-Proliferation Treaty (NPT) and the Biological Weapons Convention (BWC). The authors acknowledge the CWC's successes in promoting chemical disarmament but also discuss ongoing challenges, including achieving total prohibition and addressing emerging threats.

VIII- Bibliography

Books and Journal Article

Abeyratne, R, “The Beijing Convention of 2010 on the Suppression of Unlawful Acts Relating to International Civil Aviation—An Interpretative Study” (2011) 4(2) *Journal of Transportation Security* 131-143.

Anthony, I, “Reflections on Continuity and Change in Arms Control” *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Stockholm International Peace Research Institute).

Atidoga, D F and Yakubu, U A, “Arms Control in West Africa: The Role of Civil Society” (2024) 2(2) *Journal of Political Discourse* 1.

Brooks, J, Erickson, T B, Kayden, S et al, “Responding to Chemical Weapons Violations in Syria: Legal, Health, and Humanitarian Recommendations” (2018) 12 *Conflict and Health* 12.

Carvalho, L, “Novichok(s): A Challenge to the Chemical Weapons Convention” (2021) available at https://www.researchgate.net/publication/355773722_Novichoks_A_Challenge_to_the_Chemical_Weapons_Convention (accessed 1st February 2025).

DeSilva-Perera-Martinez, “Overview of Emerging Technologies with an Impact on Chemical Disarmament and Non-Proliferation Regimes” available at https://unicri.it/sites/default/files/2024-09/UNSCR1540-DeSilva-Perera-Martinez-Technologies-Chemical-Disarmament-Non-Proliferation.pdf (accessed 1st February 2025).

Dunworth, T, “Compliance and Enforcement in WMD-Related Treaties” (UNIDIR

Compliance and Enforcement Series) available at https://unidir.org/wp-content/uploads/2023/05/compliance-wmd-treaties.pdf (accessed 1st February 2025).

Fidler, D P, "Facing the Global Challenges Posed by Biological Weapons" (1999) available at https://doi.org/10.1016/S1286-4579(99)80523-1 (accessed 2nd February 2025).

Ganesan, K, Raza, S K and Vijayaraghavan, R, "Chemical Warfare Agents" (2010) *Journal of Pharmacy and BioAllied Sciences* available at https://pmc.ncbi.nlm.nih.gov/articles/PMC3148621/ (accessed 9th April 2025).

IAP Biosecurity Working Group, "The Biological and Toxins Weapons Convention: Implications of Advances in Science and Technology" (2015) available at https://www.interacademies.org/sites/default/files/publication/iap-bwc-trends-booklet_dec2015.pdf (accessed 1st February 2025).

Jahrling, P B et al, "Ebola Virus: From Discovery to Outbreak" (2004) *Journal of Infectious Diseases.*

Javed, A, "Chemical Weapons and the Iran-Iraq War: A Case Study in Noncompliance" available at https://www.nonproliferation.org/wp-content/uploads/npr/81ali.pdf (accessed 9th February 2025).

Juling, D, "Future Bioterror and Biowarfare Threats for NATO's Armed Forces until 2030" (2023) 14(1) *Journal of Advanced Military Studies* available at https://doi.o/10.21140/mcuj.20231401005 (accessed 1st February 2025).

Kunertova, D, *Drones Have Boots: Learning from Russia's War in Ukraine* (2023) 44(4)

Contemporary Security Policy.

Lawrence, S W, "Where is the Nuclear Abolition Movement Today?" (2023) *UNIDIR Disarmament Forum* available at https://unidir.org/wp-content/uploads/2023/09/civil-society-and-nuclear-disarmament-en-321.pdf (accessed 9th February 2025).

Lentzos, F, "Compliance and Enforcement in the Biological Weapons Regime" (UNIDIR Compliance and Enforcement Series) available at https://unidir.org/files/2020-02/compliance-bio-weapons.pdf (accessed 7th February 2025).

Nwoye, V C, Ahmadi, L and Soban, S G, "Chemical Weapons Convention: A Critical Analysis of its Weaknesses, Achievements and Prospects" (2023) *FUW Journal of Politics and Development* available at https://fuwjpd.com.ng/download-pdf-article/274 (accessed 4th April 2025).

Roberts, G, "Arms Control without Arms Control: The Failure of the Biological Weapons Convention Protocol and a New Paradigm for Fighting the Threat of Biological Weapons" (2003) *INSS Occasional Paper 49* available at https://apps.dtic.mil/sti/tr/pdf/ADA435071.pdf (accessed 4th April 2025).

Schmitt, B E, "The First World War, 1914-1918" (1959) 103(3) *Proceedings of the American Philosophical Society* 321-331.

Wessely, S, Hyams, K C and Bartholomew, R, "Psychological Implications of Chemical and Biological Weapons" (2001) available at https://pmc.ncbi.nlm.nih.gov/articles/PMC1121425/ (accessed 6th April 2025).

Official Documents and Treaties

"Biological Weapons Convention (1972)" available at https://www.un.org/en/genocideprevention/documents/atrocity-crimes/Doc.37_conv%20biological%20weapons.pdf (accessed 9th February 2025).

United Nations, "*Charter of the United Nations* (24 October 1945)" available at https://www.un.org/en/about-us/un-charter/full-text (accessed 9th February 2025).

United Nations General Assembly, "*Tenth Special Session (SSOD-I)* (1978)"& available at https://front.un-arm.org/wp-content/uploads/2020/12/GA-10th-special-session.pdf (accessed 9th February 2025).

Reports and Online Sources

Arms Control Association, "UN Security Council Resolution 1540 At a Glance" (2021) available at https://www.armscontrol.org/factsheets/un-security-council-resolution-1540-glance (accessed 6th April 2025).

Encyclopædia Britannica, "Biological Weapons in History" available at https://www.britannica.com/technology/biological-weapon/Biological-weapons-in-history (accessed 9th February 2025).

Federation of American Scientists, "Terrorist and Insurgent Capabilities for the Use of Biological Weapons" available at https://irp.fas.org/threat/an253stc.htm (accessed 9th February 2025).

International Atomic Energy Agency, "The IAEA and the Non-Proliferation Treaty" available at https://www.iaea.org/topics/non-proliferation-treaty (accessed 9th

February 2025).

INTERPOL, "Chemical and Explosives Terrorism" available at https://www.interpol.int/Crimes/Terrorism/Chemical-and-Explosives-terrorism (accessed 9th February 2025).

INTERPOL, "Digital Forensics" available at https://www.interpol.int/en/How-we-work/Innovation/Digital-forensics (accessed 9th February 2025).

INTERPOL, "INTERPOL Virtual Academy" available at https://www.interpol.int/en/How-we-work/Capacity-building/INTERPOL-Virtual-Academy (accessed 9th February 2025).

INTERPOL, "Police Data Management and Analysis (Bioterrorism)" available at https://www.interpol.int/en/Crimes/Terrorism/Bioterrorism/Police-Data-Management-and-Analysis-Bioterrorism (accessed 9th February 2025).

Stockholm International Peace Research Institute, "Armaments, Disarmament and International Security" (2020) available at http://www.jstor.org/stable/resrep25312 (accessed 9th February 2025).

United Nations Interregional Crime and Justice Research Institute, "Preventing Chemical and Biological Terrorism" available at https://unicri.it/topics/cbrn-Preventing-Chemical-Biological-Terrorism (accessed 1st February 2025).

United Nations Meetings Coverage and Press Releases, "Security Council Adopts Resolution 2325 (2016), Calling for Framework to Keep Terrorists, Other Non-State Actors from Acquiring Weapons of Mass Destruction" (2016) available at

https://press.un.org/en/2016/sc12628.doc.htm (accessed 6th April 2025).

United Nations Office for Disarmament Affairs, "Arms Trade Treaty" available at https://disarmament.unoda.org/convarms/att/ (accessed 9th February 2025).

United Nations Office for Disarmament Affairs, "Chemical Weapons" available at https://disarmament.unoda.org/wmd/chemical/ (accessed 9th February 2025).

United Nations Office for Disarmament Affairs, "Programme of Action on Small Arms and its International Tracing Instrument" available at https://disarmament.unoda.org/convarms/salw/programme-of-action/ (accessed 3rd February 2025).

United Nations Office for Disarmament Affairs, "Science and Technology under the Biological Weapons Convention" available at https://disarmament.unoda.org/biological-weapons/science-and-technology/ (accessed 1st February 2025).

United Nations Office of Counter Terrorism, "International Legal Instruments" (2025) available at https://www.un.org/counterterrorism/international-legal-instruments (accessed 6th April 2025).

United Nations Peace and Security, "Disarming our World" available at https://www.un.org/en/peaceandsecurity/disarming-world (accessed 9th February 2025).

World Economic Forum, "The Major Obstacle to a Chemical Weapons-Free World" available at https://www.weforum.org/stories/2016/02/the-major-obstacle-to-a-

chemical-weapons-free-world-c7434b90-7b06-4fba-89db-85f77188db65/ (accessed 1st February 2025).

Topic Two: Regulation of Weapon Legalization: Protection or Violation of Human Rights?

I- Quote

"Laws that forbid the carrying of arms ... disarm only those who are neither inclined nor determined to commit crimes. Such laws make things worse for the assaulted and better for the assailants; they serve rather to encourage than prevent homicides, for an unarmed man may be attacked with greater confidence than an armed one"

– Thomas Jefferson, 3rd President of the United States of America

II- Introduction

For the Muslim community in New Zealand, the 15th March, 2019, would always ring a bell. The ugly situation resulted in a gory sight that claimed the lives of 51 worshippers, after a white supremacist opened fire inside a mosque in Christchurch.[110] In the wrong hands, weapons can be tools of oppression, used to commit violations of human rights.[111] Nevertheless, the right to life, liberty, and security would be a mirage if individuals were divested of the basic means to preserve their lives. Imagine a scenario where law-abiding

[110] Anna Murray, "Change is coming for New Zealand's gun laws: What you need to know" 1news 29th February 2024.

[111] Centre for Humanitarian Dialogue, "International law and small arms and light weapons control: Obligations, challenges and opportunities", available at https://www.files.ethz.ch/isn/253rd28/International_law_and_small_arms.pdf (accessed 4th March 2025).

citizens are left defenseless while criminals, who do not follow the law, acquire weapons illegally. In such a world, the right to self-defence — one of the most fundamental human rights — is rendered meaningless. According to Richard Henry Lee, an American Statesman and Founding Father from Virginia, "to preserve liberty, it is essential that the whole body of the people always possess arms, and be taught alike, especially when young, how to use them."[112]

Legalisation of civilian possession of arms dates as far back as the 12th century, when King Henry II of England signed the English Assize of Arms into law in 1181.[113] Acknowledging the need for human security, the law permitted carrying arms in self-defence. However, it drew the line against the use of arms, with the intention of terrifying the citizens. But what happens when these lines violate human rights instead, as was the case when the English Game Act of 1671 allowed only the wealthy to keep arms, leaving the poor vulnerable.[114]

The debate over weapon regulation centers on balancing individual rights to self-defence with the collective right to public safety. While some argue firearms uphold personal liberty, others see them as threats that fuel violence and human rights abuses.[115] This tension complicates global arms policy, especially with the widespread and easily concealed nature of small arms. With daily firearm-related deaths exceeding 600,[116] the

[112] Biography, "Richard Henry Lee" available at https://www.biography.com/political-figures/richard-henry-lee (accessed 1st February 2025).
[113] Encyclopedia.com, "The History of the Right to Bear Arms" available at https://www.encyclopedia.com/reference/history-right-bear-arms (accessed 1st February 2025).
[114] Encyclopedia.com, "The History of the Right to Bear Arms" available at https://www.encyclopedia.com/reference/history-right-bear-arms (accessed 1st February 2025).
[115] Constitutional Rights Foundation, "The Debate over Gun Violence in United States: An Introduction", available at https://teachdemocracy.org/images/pdf/challenge/The-Debate-Over (accessed 17th January 2025).

core challenge remains: protecting individual autonomy without compromising public security.

Juxtaposing the two sides of the coin, it is vital to have a glimpse of their impact in the real world. In the United States of America (USA), where firearms regulations are lax, the Federal Bureau of Investigation (FBI) in 2017 reported the usage of firearms in the perpetration of 76.6 percent of murders across the country.[117] Between 2016 and 2022, the United States experienced 3,431 mass shootings. In contrast, Switzerland, despite having high gun ownership and stricter regulations, recorded only two mass shootings during the same period.[118] This demonstrates that the difference arises from the distinct approaches to gun regulation in both countries.

In alignment with the United Nations' (UN) Sustainable Development Goals (SDG) 16 (Peace, Justice, and Strong Institutions), nations need to recognize that human rights, peace, security, and development are inseparably connected.[119] Therefore, re-examining weapon regulations is imperative to foster a better regime for preserving human rights and national development.

III - International and Regional Framework

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[116] Amnesty International, "Gun Violence", available at Gun Violence - Amnesty International (accessed 17th January 2025).

[117] Constitutional Rights Foundation, "The Debate over Gun Violence in United States: An Introduction", available at Microsoft Word - The-Debate - The-Debate-Over-Gun-Laws2.docx (accessed 17th January 2025).

[118] W. Stroebe, N. P. Leander, & A. W. Kruglanski, "Gun ownership and gun violence: A comparison of the United States and Switzerland, Aggression and Violent Behavior," (2024) 74 *Elsevier* 101987.

[119] UN and the Rule of Law, "Sustainable Development Goal 16" available at Sustainable Development Goal 16 - United Nations and the Rule of Law (accessed 16th January 2025).

Recalling the fundamental role the Universal Declaration of Human Rights (UDHR) plays in protecting the rights of individuals to life, liberty and security,[120] in 2001 the UN Conference on Illicit Transfer in Arms Trade and Light Weapons in All Its Aspects adopted a *Program of Action (PoA)*, in which it revealed deep concerns about the outrageous growth and uncontrolled spread of firearms.[121] Although it made no explicit reference to arms control, its draft version recommended the prohibition of unrestricted trade and private ownership of small arms and light weapons (SALW), specifically designed for military purposes. Nevertheless, the PoA provides for some limitations, including the criminalisation of illicit possession of arms and a requirement that states ensure responsibility for arms issued by them.[122]

In 2014, the UN General Assembly adopted the *Arms Trade Treaty (ATT)* to reduce harm from irresponsible arms transfers, enhance regional stability, and promote transparency.[123] It mandates national control systems, including control lists and oversight by competent authorities.[124] The treaty also underscores the risks of unregulated arms flow. Across continental demarcation, several frameworks have been developed to address the trend. In Africa, some of these frameworks include the *Bamako Declaration on an African Common Position on the Illicit Proliferation, Circulation, and Trafficking of Small Arms and Light Weapons (2000)*; *Protocol on the Control of Firearms, Ammunition, and other*

[120] Article 3 of the Universal Declaration of Human Rights 1948.

[121] Reports of the United Nations High Commissioner on Human Rights and the Regulation of the Acquisition, Possession, and Use of Firearms, 2018, A/HRC/32/21, p.5.

[122] D. Miller, W. Cukier, & et al, "Regulation of Civilian Possession of Small Arms and Light Weapons",available at https://www.international-alert.org/app/uploads/2021/09/Security-Biting-Bullet-Briefing-16-Civilian-Possession-Regulation-EN-2003.pdf (accessed 4th February 2025).

[123] Shervin Taheran, "The Arms Trade Treaty at a Glance", available at https://www.armscontrol.org/factsheets/arms-trade-treaty-glance (accessed 18th January 2025).

[124] Arms Trade Treaty (ATT) 2013, article 5.3.

Related Materials in the Southern African Development Community (SADC) Region; Economic Community of West African States (ECOWAS) on Small Arms and Light Weapons, their Ammunitions and Other Related Materials; Nairobi Protocol for the Prevention, Control and Reduction of Small Arms and Light Weapon in the Great Lakes Region, the Horn of Africa and Bordering States (2004); and Central African Convention for the Control of Small Arms and Light Weapons, their Ammunitions and All Parts and Components that can be used for Manufacture, Repair and Assembly (2010).[125]

In the Americas and South Pacific, the *Nadi Framework* was developed to strengthen regional arms control. It calls for domestic laws regulating the possession, concealment, carrying, and use of small arms and light weapons.[126] Member states are also urged to create national databases to monitor arms possession and cross-border movement. The framework is grounded in the belief that strict firearm controls enhance public safety.[127]

In 1991, the *European Union adopted Directive 91/477/EEC* on the control of the acquisition and possession of weapons and its amending *Directive 2008/51/EC*,[128] was developed. *Articles 7 and 8* of the directive provide that Member States shall not allow anyone to acquire or possess certain categories of weapons, except upon a licence.[129] Similarly, *Article 18* of the

[125] Reports of the United Nations High Commissioner on Human Rights and the Regulation of the Acquisition, Possession, and Use of Firearms, 2018, A/HRC/32/21, p. 12.

[126] Comunidad Andina, "Andean Plan to Prevent, Combat and Eradicate Illicit Trade in Small Arms and Light Weapons in all its Aspects", available at https://www.sipri.org/sites/default/files/research/disarmament/ (accessed 4th February 2025).

[127] Philip Alpers & Conor Twyford, "Small Arms in the Pacific: Regional Co-operation, the Nadi Framework, and the UN 2001 Small Arms Conference", available at https://www.jstor.org/stable/resrep10756.17?seq=1 p.109 (accessed 4th February 2025).

[128] European Union, "Controls on firearms purchases and possession", available at https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=oj:JOL_1991_256_R_0051_028 (accessed 4th February 2025).

[129] European Union Directive 91/477/EEC, Articles 7 & 8.

Directive demands that Member States must bring into force the laws, regulations, and administrative measures necessary to bring them into compliance by 1993.

In regions such as the Arab without common legal frameworks, model legislation such as the *Arab Model Law on Weapons, Ammunition, Explosives and Hazardous Materials (2002)*, was developed to inform and assist national efforts to regulate civilian access to arms.[130] For instance, *Section 3 Article 14 of the Arab Model Law* prohibits the acquisition, possession or use of firearms specified for civilian use without a license. Similarly, a license is subject to revocation where a licensee contravenes some requirements, such as using the weapon for purposes other than those specified in the license, where the licensee is declared bankrupt or where the licensee is caught drunk while in possession of the weapon.[131]

International and regional frameworks call for strict civilian firearm control, stressing the risks of unchecked access. They advocate for national laws, licensing, and regulations to govern small arms use and transfer. Despite varying in scope and implementation, they have a shared goal, which is to combat illicit trafficking, boost public safety, and reduce violence through accountability and transparency.

IV- Role of the International System

At the forefront, the UN Human Rights Council (HRC) took a more direct approach to assessing the impact of civilian acquisition, possession, and use of firearms on human

[130] Reports of the United Nations High Commissioner on Human Rights and the Regulation of the Acquisition, Possession, and Use of Firearms, 2018, A/HRC/3rd2/21, p. 12.

[131] Arab Model Law on Weapons, Ammunitions, Explosives and Hazardous Material (Tunisia 2002), Section 4 Article 33.

rights, taking the lead globally. The Council acknowledged that firearms were the primary medium for perpetrating human rights abuses and violations such as homicides, aggravated assaults, rape, sexual violence, robbery, theft, abduction, forced displacement and domestic violence; often encouraged by the availability and abundance of firearms.[132]

In *Resolution 50/12*, the HRC tasked the UN High Commissioner for Human Rights with examining how civilian firearm regulation impacts the protection of human rights, especially the right to life and security.[133] The Commissioner's report revealed that firearms are used in 41–46% of homicides, 82% of which occur in non-conflict settings.[134] This led to the adoption of *Resolution 38/10* on *Human Rights and Regulation of Civilian Acquisition, Possession, and Use of Firearms*, emphasizing that strong national gun laws help reduce firearm-related deaths and protect human rights. In 2016, the High Commissioner also criticized the U.S. for failing to prevent frequent, avoidable gun violence due to weak regulations.[135]

Moreover, through various projects and initiatives, the United Nations, through its Office for Disarmament Affairs (UNODA), has further widened its influence on global arms control across world regions. By establishing projects such as; the Regional Centre for Peace and Disarmament in Africa (UNREC), Regional Centre for Peace and Disarmament in Asia and the Pacific (UNRCPD), and Regional Centre for Peace, Disarmament and Development in Latin America and the Caribbean (UNLIREC), it pursues the overriding

[132] Reports of the United Nations High Commissioner on Human Rights and the Regulation of the Acquisition, Possession, and Use of Firearms, 2018, A/HRC/32/21, p.3.
[133] UN General Assembly, A/HRC/RES/50/12.
[134] UN General Assembly, A/HRC/RES/50/12.

[135] Office of the High Commissioner on Human Rights, "Gun Control in USA", available at https://www.ohchr.org/en/stories/2016/06/gun-control-usa (accessed 6th February 2025).

objective to enhance international, regional and national peace and security.[136] The activities of these organisations include regional workshops on harmonizing converging agendas on the implementation of small arms controls.

Civil societies have equally demonstrated strong support in advocacy for gun regulation across the globe. In 2003, the International Action Network on Small Arms (IANSA), Amnesty International, and Oxfam International launched the "Arms Control" campaign.[137] With the primary objective to influence the negotiations on the UNPoA, these societies have supported the formation of instruments and initiatives to prevent the misuse of SALW through policy innovation, lobbying, campaign actions, and publicity.[138] Presently, societies such as the IANSA with far-reaching global influence are in collaboration with the UNODA to foster regulation initiatives in various world regions.[139]

The Global Action on Gun Violence (GAGV) is an international nonprofit that tackles global gun harm through litigation and human rights strategies.[140] It has led groundbreaking cases, including Mexico's lawsuit against the gun industry, the first RICO case targeting gun manufacturers, and a Canadian class action by mass shooting victims.[141]

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[136] UNODA, "Supporting the United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects", available at https://disarmament.unoda.org/unpoa-project-2025/ (accessed 18th January, 2025).

[137] Centre for Humanitarian Dialogue, "International law and small arms and light weapons control: Obligations, challenges and opportunities", available at https://www.files.ethz.ch/isn/253rd28/International_law_and_small_arms.pdf (accessed 4th March 2025).

[138] IANSA Advocacy Guide, "Towards RevCon4: Civil Society Advocacy Guide on the United Nations Programme of Action on Small Arms", available at IANSA-CSO-Guide-towards-RevCon4-ENG.pdf (accessed 4th March 2025).

[139] UNODA, "Supporting the United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects", available at https://disarmament.unoda.org/unpoa-project-2025/ (accessed 18th January, 2025).

[140] Jonathan Lowy, "Global Action on Gun Violence", available at https://actiononguns.org/wp-content/uploads/2023rd/02/2023rd.01.3rd1.GAGV-OHCHR-Report.pdf (accessed 18th January 2025).

GAGV's founder describes gun violence as a civilian-driven global pandemic fueled by lax U.S. gun laws and reckless industry practices. The group advocates for strong measures like mandatory background checks to curb illegal gun transfers and reduce violence.[142]

1. Global Variations in Weapon Legalization

There are two variations of weapon legalisation practices across the globe. On the one side are countries that recognise civilian possession of weapons as a constitutional right; such as the United States of America, Mexico, and Guatemala, while on the far end are countries that allow citizens access to firearms but do not guarantee possession as a constitutional right; such as Japan, Germany, Israel, Brazil, South Africa, Britain, Yemen, Russia, New Zealand, Canada, Australia, Austria, and China.

A further distinction sprouts from the different constitutional provisions of countries where the right to bear arms is constitutionally guaranteed. For the United States, the Second Amendment of the US Constitution, which provides for the right to bear arms did not provide specific delineation, sabotaging some legislative attempts to restrict access.[143] On the other hand, *Article 10 of the Mexican Constitution* which authorises inhabitants of the State to own weapons, also provides restrictions to this right. Some of these restrictions include the prohibition of some arms for the exclusive use of the military,

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[141] Global Action on Gun Violence, "Who We Are", available at https://actiononguns.org/the-organization/who-we-are/ (accessed 20th January 2025).

[142] Jonathan Lowy, "Global Action on Gun Violence", available at https://actiononguns.org/wp-content/uploads/2023/02/2023.01.31.GAGV-OHCHR-Report.pdf (accessed 18th January 2025).

[143] Constitution Annotated, "Overview of Second Amendment, Right to Bear Arm", available at https://constitution.congress.gov/browse/essay/amdt2-1/ALDE_00000408/ (accessed 18th January 2025).

granting room for the enactment of laws on the cases, conditions, requirements and places where inhabitants can be authorized to carry weapons.[144]

Similarly, in 2009, Guatemala enacted the *Law on Arms and Ammunition (LAA)*, which provides some regulations for firearms possession and authorises the court to divest possession in certain circumstances.[145]The Guatemala Law on Arms and Ammunition specifies a minimum age of 25 for possession, and demands that simple possession of firearms must be registered. This includes certification of zero criminal and police record, and must be renewed every 6 months. The law also established the General Directorate for the Control of Arms and Ammunition (DIGECAM), responsible for regulating and supervising the possession and carrying of firearms, to curb misuse and illegal trafficking.[146] While the country recorded success in the seizure of about 47,340 illegal firearms between 2007 to 2017,[147] legal loopholes remain that limit the effectiveness of regulation. For instance, illicit trafficking remains a challenge, as the law does not fully cover all activities related to arms brokerage and transit.[148]

Situated in southern and northern America, respectively, Brazil and the United States were reported to have the highest number of deaths globally due to firearms in 2019, with 49,000 and 37,000 deaths of 250,000 in that order.[149] Notably, the situation in Brazil was

[144] Constitution of Mexico, 1917, article 10.
[145] Constitution of the Republic of Guatemala, 1985, Article 38.
[146] Macz Poou, Walter Geovani (2024), "MARCO JURÍDICO DE LAS ARMAS Y MUNICIONES EN GUATEMALA", available at https://data.mendeley.com/datasets/j974yzg/1 (accessed April 2025).
[147] Julie Lopez, "One Firearm Seized Every Two Hours in Guatemala", available at https://insightcrime.org/news/one-firearm-seized-every-two-hours-guatemala/ (accessed 5th February 2025).
[148] Macz Poou, Walter Geovani (2024), "MARCO JURÍDICO DE LAS ARMAS Y MUNICIONES EN GUATEMALA", available at https://data.mendeley.com/datasets/j974yzg/1 (accessed April 2025).

influenced by the relaxation of gun control laws by the government administration in 2019. However, following the inception of a new government, a new executive order was passed on gun control, reducing the number of firearms an individual can own to two, and requiring strict proof of necessity before purchase.[150]

In Australia, following the Port Arthur massacre, which claimed the lives of 35 people, the government rapidly reshaped its national regulations governing gun possession.[151] The country's firearm policy is presently recognised as the most comprehensive firearms regulation internationally,[152] governed by the National Firearms Agreement, 1996. The agreement restricts private ownership of automatic and semi-automatic firearms, requiring applicants for a gun owner's licence to furnish genuine reasons to own a firearm. In contrast to the situation in the US, the country recorded 240 total deaths because of weapons in 2019.[153]

In Asia, Japan represents one of the most effective regulations of gun possession, with one of the lowest homicide rates in the world. This is largely due to its Firearms and Sword Possession Control Act, aimed at preventing harms related to firearms and sword

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[149] Varchaswa Dubey, "Armed Public: Countries that Allow Arms Possession to the General Public and How it Affects the Order of the State", available at https://blog.ipleaders.in/ (accessed 16th January 2025).

[150] Nicole Froio, "Gun control: Brazilian government confronts dismantling of firearms regulation", available at https://www.ibanet.org/Gun-control-Brazilian-gov-confronts-dismantling-of-firearms-regulation (accessed 20th January 2025).

[151] Nick Baker, "How strong are Australia's gun laws?" available at https://www.sbs.com.au/news/article/how-strong-are-australias-gun-laws/tqj0mk9thth3e (accessed 20 th January 2025).

[152] Varchaswa Dubey, "Armed Public: Countries that Allow Arms Possession to the General Public and How it Affects the Order of the State", available at https://blog.ipleaders.in/ (accessed 16th January 2025), pp. 20.

[153] DataPandas, "Gun Deaths by Countries", available at https://www.datapandas.org/ranking/gun-deaths-by-country (accessed 20th January 2025).

possession. In 2018, it witnessed a fraction of 9 deaths due to firearms.[154] The policy requires an applicant to attend an all-day class and pass a written exam, and a shooting range test with at least 95% accuracy before a gun license can be granted.

In Europe, Britain sets the standard in the regulation of firearms laws. Following the Plymouth incident where a shotgun 'license' holder shot 6 people and himself to death in 2021, the government has two regulations to bolster the Guide to Firearms Licensing Law 2016, these are: the Firearms Security Handbook and the Statutory Guidance for Police Forces on Firearms Licensing. Thus, those who wish to own guns must obtain a license from the police, of which the police must conduct several checks to ensure the applicant has good reason to own a gun, is fit to own a gun, and can safely use the gun.[155]

In 2023, the ECOWAS Commission for the control of SALW in West Africa constituted a workshop to improve the control of weapons held by civilians and to present a guide on the licensing of weapons for civilians in Member States.[156] This is in line with its objective of reducing insecurity in the region. In South Africa, the Firearms Control Act 2000 regulates the possession of firearms by civilians. Despite the availability of this law, the situation is plagued by irregularities and discrimination in the issuance of firearms licenses. This, however, resulted in various legal actions challenging the Act as well as poor implementation of the law.[157]

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[154] Varchaswa Dubey, "Armed Public: Countries that Allow Arms Possession to the General Public and How it Affects the Order of the State", available at https://blog.ipleaders.in/ (accessed 16th January 2025), at para. 21-23.

[155] Jennifer Brown, "Firearms: licensing and safety", available at https://commonslibrary.parliament.uk/research-briefings/cbp (accessed 20th January 2025).

[156] Goddy Ikeh, "ECOWAS engages experts to review study on civilian possession of arms in W/Africa" available at https://apanews.net/ecowas-engages-independent-experts-to-review-study-on-civilian-possession-of-arms-in-the-region/ (accessed 6th February 2025).

In Nigeria, the regulation of firearms is governed by the Firearms Control Act of 1959, permitting civilians to possess firearms only upon licensing by the President or the Inspector General of Police. Unfortunately, it can be interpreted as a privilege, which may result in the deprivation of a license to several applicants, in the absence of a more specific guideline for licensing. In both countries, the rates of gun deaths in 2024 were reported to be 3,610 and 5,103 in the above order.[158]

In line with the above global variations in firearms regulations, particularly as it concerns the different categories of weapons, the UN CASA in its International Small Arms Control Standard, require National law to prohibit civilians from acquiring, owning or possessing certain types of weapons, such as automatic small arms, armour-piercing ammunition, which are to be reserved for the exclusive use of the military.[159]

Overall, the global variations in weapon legalization reveal a stark contrast in how nations perceive and regulate civilian access to firearms, shaped largely by constitutional guarantees, public safety priorities, and historical events. Countries with stricter laws, like Japan and Australia, generally report significantly lower gun-related deaths, while nations with more lenient or poorly implemented regulations, such as the U.S., Brazil, and parts of Africa, continue to struggle with high firearm-related violence. These differences

[157] Law Guide, "South Africa Firearm Regulation", available at https://lawguide.co.za/south-african-firearms-regulation/ (accessed 20th January 2025).

[158] DataPandas, "Gun Deaths by Countries", available at https://www.datapandas.org/ranking/gun-deaths-by-country (accessed 20th January 2025).

[159] United Nations CASA, "National Regulation on Civilian Access to Small Arms and Light Weapons", available at https://www.ohchr.org/sites/default/files/Documents/Issues/RuleOfLaw/CivilianAcquisition/UNAgencies_IO/International_Small_Arms_Control_Standards_Inter-Agency_Support_Unit.pdf (accessed 16th February 2025).

underscore the importance of comprehensive legislation, effective enforcement, and international cooperation in addressing gun violence and promoting public safety.

2. Weapons as Tools of Protection: Justifications and Challenges

The surge in global insecurities supports justification for legalisation of weapons. Legal access to weapons allows individuals to protect themselves, their families, and their property from criminal threats. Studies also suggest that armed civilians can deter crime. For example, reports found that a defensive gun can double as a significant factor in crime prevention.[160] From its 2019 reports, the US National Library of Medicine reveals that out of 418 gun violence incidents, 315 pepertrators were killed by victims, suggesting the effective use of guns in self-defense.[161]

The U.S. is the first modern country to constitutionally guarantee its citizens the right to bear arms, through the Second Amendment (1791).[162] However, this broad right has made it difficult to pass restrictive gun laws. In a landmark decision, the U.S. Supreme Court struck down a New York gun regulation, ruling that such laws conflict with the Second Amendment. The Court emphasized that firearms regulations must align with the constitutional text and the nation's historical tradition of gun control.[163]

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[160] Gary Kleck and Marc Gertz, "Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun", (1995) 86 The Journal of Criminal Law & Criminology, 150.

[161] David Hemenway, Chloe Shawah, & Elizabeth Lites, "Defensive gun use: What can we learn from news reports?", available at https://pmc.ncbi.nlm.nih.gov/articles/PMC9thth250204/ (accessed 17th April 2025).

[162] Varchaswa Dubey, "Armed Public: Countries that Allow Arms Possession to the General Public and How it Affects the Order of the State", available at https://blog.ipleaders.in (accessed 16th January 2025).

[163] New York State Rifle & Pistol Association v. Bruen [2022] 597 U.S. 1.

According to Martin Luther King Jr., "The principle of self-defence, even involving weapons and bloodshed, has never been condemned, even by Gandhi".[164] While faced with the debate on weapon regulation, proponents against gun control have argued that it impinges on a basic right of all the right to protect themselves, citing the US Second Amendment as proof of the importance of access to arms.[165] This belief stems from the idea that individuals and minorities or vulnerable groups can use weapons as tools for self-preservation and emancipation from oppression in its diverse form. However, challenges arise when such freedoms are abused, leading to increased violence and accidental deaths.

In Switzerland, firearm legislation is tied to the tradition of the citizen-soldier, allowing trained males to keep service weapons at home for self-defence. Despite this, strict licensing, mandatory training, and a safety-focused culture contribute to low crime rates. In contrast, the Philippines legalises firearms to help citizens defend against insurgencies, but this has also resulted in widespread misuse and unlawful killings in some areas.[166]

While weapon legalisation is essential in safeguarding the right to life and liberty, the situation in the US and Switzerland evidences that lack of appropriate regulation will result in more grievous violations.

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[164] Stanford, "The Social Organization of Nonviolence", available at https://kinginstitute.stanford.edu/king-papers/documents/social-organization-nonviolence (accessed 5th April 2025).
[165] Constitutional Rights Foundation, "The Debate over Gun Violence in United States: An Introduction", available at https://teachdemocracy.org/images/pdf/challenge/The-Debate-Over (accessed 17th January 2025).
[166] Chad de Guzman, "One Surprising Theory Why the Philippines Has Very Few Mass Shootings—Despite Easy Access to Lots of Guns", available at https://time.com/6186982/philippines-guns-mass-shootings/ (accessed 6th February 2025).

3. Weapon Legalization as an Instrument of Human Rights Violations

Civilians' access to firearms, which facilitates gun violence, has a wide implication for human rights. It is reported that each year, more than 250,000 people — children, women, and men — lose their lives to gun violence worldwide.[167] While armed conflicts draw significant attention, over 85% of these deaths occur in civilian settings, where over 85% of the world's billion guns are privately owned.[168] Considering the non-fatal consequences, the Secretary of the Geneva Declaration on Arms Violence and Development reported that at least 750,000 people are victims of non-fatal firearms injuries every year.[169] This does not, however, feature non-physical harm such as psychological trauma and stress, the effect of which can be felt even when it is only used for threats.[170]

Arguably, civilian possession of firearms largely contributes to the violations of human rights globally. For instance, in 2019, the Philippines recorded over 1,200 intentional killings involving firearms, ranking among the highest in Asia.[171] This alarming figure has been attributed to weak arms control laws that permit individuals to own up to 15 firearms, contrary to the UNPoA guidelines on civilian licensing. A similar consequence of lax firearm regulation was seen in Sweden, where a mass shooting on February 4, 2025, at

[167] Rowhani-Rahbar, A., & Schleimer, J.P. (2022). Gun Violence Epidemiology. In: Ahrens, W., Pigeot, I. (eds) Handbook of Epidemiology. Springer, New York, NY. available at https://doi.org/10.1007/978-1-4614-6625-3_77-1 (accessed 5th April 2025).

[168] United Nations High Commissioner for Human Rights, Reports on the Regulation of the Acquisition, Possession, and Use of Firearms (2018) UN Doc A/HRC/32/21, p. 5, para. 3.

[169] United Nations High Commissioner for Human Rights, Report on the Regulation of the Acquisition, Possession and Use of Firearms (2018) UN Doc A/HRC/32/21, p. 3.

[170] United Nations High Commissioner for Human Rights, *Report on the Regulation of the Acquisition, Possession and Use of Firearms* (2018) UN Doc A/HRC/3rd2/21, p. 3 available at https://undocs.org/A/HRC/32/21 (accessed 9th February 2025).

[171] Chad de Guzman, "One Surprising Theory Why the Philippines Has Very Few Mass Shootings—Despite Easy Access to Lots of Guns", available at https://time.com/6186982/philippines-guns-mass-shootings/ (accessed 6th February 2025).

an education centre in Örebro claimed 11 lives, including that of the perpetrator,[172] who was found to have possessed four rifles.[173] As reported by the Gun Violence Archive, there were 503 mass shootings in the U.S in 2024 alone.[174] One of these includes a mass shooting by a 14-year-old student on the 4th of September 2024 in Apalachee High School in Winder, Georgia.[175]

The tragic incident resulted in the deaths of two students, the shooter, and two teachers, with nine others severely injured. Similarly, on September 26, 2022, a mass shooting at a high school in Izhevsk, Russia, left 17 dead — including 11 children — and injured 24 more, most of them children.[176]

From the foregoing, it is observed that most of the victims of gun violence are the vulnerable population. Of the 37,000 gun-related deaths in the United States annually, 22,274 (61%) are suicides, 12,830 (35%) are homicides, 496 (1.4%) result from law enforcement shootings, and 487 (1.3%) are accidental.[177] Quite appalling, the majority of these deaths fall within the vulnerable population – women and children. As reported, in

[172] Johan Ahlander & Simon Johnson, "Sweden to tighten gun laws after mass shooting at school", available at https://www.reuters.com/world/europe/swedish-government-looks-tighten-gun-laws-after-mass-shooting-2025-02-07/ (accessed 16th April 2025).
[173] Phelan Chatterjee, "What We Know About the Sweden School Shooter?", available at https://www.bbc.com/news/articles/cvgp43j4l92o (accessed 16th April 2025).
[174] GVA, "Gun Violence Archive", available at https://www.gunviolencearchive.org/ (accessed 17th April 2025).
[175] Brooke Schultz & Caitlynn Peetz, "2 Students, 2 Teachers Killed in Georgia High School Shooting", available at https://www.edweek.org/leadership/georgia-high-school-shooting/2024/09 (accessed 17th April 2024).
[176] Aljazeera, "Russia: At least 17 dead, 24 wounded in Izhevsk School Shooting", available at https://www.aljazeera.com/news/2022/9thth/26/at-least-6-dead-20-wounded-in-school-shooting-in-russia (accessed 17th April 2025).
[177] Giffords Law Center to Prevent Gun Violence, "The US Gun Violence Epidemic as a Human Rights Issue", 2020 available at https://www.lawcenter.giffords.org/ (accessed 6th February 2025).

the US, about 1500 children are shot and killed annually, while 600 American women are shot to death by their intimate partners each year.[178] For minorities, black men account for 52% of all gun homicide victims, even though they represent less than 7% of the U.S. population.[179]

4. The Economic and Political Drivers of Weapon Legalization

The legalisation of weapons across the globe is shaped by a mix of economic incentives, security concerns, political ideology, and cultural traditions. Between 2018 and 2022, the world spent an estimated $112 billion annually on arms imports.[180] The top five arms exporters — the United States, Russia, France, China, and Germany — account for over three-quarters of the global arms trade, collectively selling approximately $85 billion worth of arms each year.[181]

Legalising weapons fosters a domestic arms industry, creating jobs and boosting economic activity. In its 2024 report, the US Firearms Industry Trade Association revealed that the gun industry employs as many as 154,611 people in the country and generates an additional 229,826 jobs in supplier and ancillary industries.[182] It also reported a

[178] Giffords Law Center to Prevent Gun Violence, "The US Gun Violence Epidemic as a Human Rights Issue", 2020 available at https://www.lawcenter.giffords.org/ (accessed 17th January 2025).
[179] Giffords Law Center to Prevent Gun Violence, "The US Gun Violence Epidemic as a Human Rights Issue", 2020 available at http://www.lawcenter.giffords.org/ (accessed 17th January 2025).
[180] OXFAM International, "Top five arms exporters hit yearly sales of $85 billion as 9,000 people die from conflict-driven hunger every day", 2023 available at https://www.oxfam.org/en/press- (accessed 6th February 2025).
[181] OXFAM International, "Top five arms exporters hit yearly sales of $85 billion as 9,000 people die from conflict-driven hunger every day", 2023 available at https://www.oxfam.org/en/press-. (accessed 6th February 2025).
[182] The Firearm Industry Trade Association, "Firearm and Ammunition Industry Economic Impact Report 2024", available at https://www.nssf.org/government-relations/impact/. (accessed 6th February 2025).

contribution of $10.90 billion in total to the country's revenue. For the industry, stricter regulations may mean decreased sales, leading to reduced production, layoffs, and even business closures.[183] Upon assuming office in 1989, the former Czechoslovakia president Vaclav Havel admitted that the elimination of the sales and possession of arms would dismantle one of the Slovak region's last viable industries, leading to economic ruin and therefore to national disintegration.[184] This was amidst concerns that Slovaks would demand independence if their arms industries faced restrictions.

In Countries such as the US, Mexico and Guatemala, weapon legalisation is deeply ingrained in their political systems, guaranteeing citizens the constitutional right to bear arms in self-defence. In parallel, political influence also doubles as a motivation for legalisation, since arms are often a means to political power. China's famous revolutionary strategist, Mao Zedong, was often quoted as saying that "power comes from the barrel of a gun."[185]

Analysing the situation in countries such as the Philippines, where election periods can be particularly bloody, civilian access to arms is often exploited for political goals. An example is the 2009 Maguindanao massacre of 58 people, during a gubernatorial election.[186] Legalisation and ownership have also been supported as a deterrent against external threats by countries in conflict-prone regions, such as Israel and Switzerland. On

[183] William Taylor, "How does gun control impact the economy?", available at https://thegunzone.com/how-does-gun-control-impact-the-economy/ (accessed 6th February 2025).
[184]Pearson, Frederic S., Global Spread of Arms: Political Economy of International Security (Routledge, 1994) ISBN 0-8133-1573-5, p. 3.
[185]Pearson, Frederic S, Global Spread of Arms: Political Economy of International Security (Routledge 1994) p 3.
[186] Chad de Guzman, "One Surprising Theory Why the Philippines Has Very Few Mass Shootings—Despite Easy Access to Lots of Guns", available at https://time.com/61869thth82/philippines-guns-mass-shootings/ (accessed 6th February 2025).

the flip side, political instability also influences countries against weapon legalisation. For instance, nations that have recently experienced internal strife, civil unrest, or political instability, like Eritrea, Guinea-Bissau, Somalia, and North Korea, all have a firm stance against legalisation.[187]

5. Technology and the Future of Weapon Regulation

Technology can play a crucial role in mitigating the uncontrolled spread of firearms and gun deaths through enhanced monitoring, enforcement and transparency. While technologies such as CCTV were developed partly to monitor crime, unfortunately, these cameras are primarily reactive and slow, since it is difficult for guards to maintain the stamina to watch multiple cameras simultaneously.[188] This can, however, be improved with AI to monitor gun possession in public places. At Volt AI, an American-based tech company, AI-powered cameras are being developed and used to perform object/weapon recognition, crowd analysis, license plate recognition, thermal imaging night vision, and facial recognition.[189] Notably, this technology can be exploited to detect behaviour change and those in possession of firearms in public places, and subsequently inform the authorities. Civil Societies like the Gifford Law Centre on Prevention of Gun Violence are strongly at the forefront of smart gun advocacy.[190] Smart guns use technologies like radio frequency identification (RFID) chips, fingerprint readers, or other biometric sensors to

[187] Wisevoter, "Countries where Guns are Illegal", available at https://wisevoter.com/country-rankings/countries-where-guns-are-illegal/ (accessed 6th February 2025).
[188] Dmitry Sokolowski, "New Tech In Gun Violence Prevention", available at https://www.forbes.com/councils/forbestechcouncil/2024/06/20/new-tech-in-gun-violence-prevention/ (accessed 5th February 2025).
[189] VolT AI, 'Video Intelligence ' available at https://www.volt.ai/video-intelligence (accessed 18th April 2025).
[190] Giffords Centre to Prevent Gun Violence, "Smart Guns", available at https://giffords.org/lawcenter/gun-laws/policy-areas/child-consumer-safety/smart-guns/ (accessed 6th February 2025).

prevent use by unauthorized people and verify a user's identity before a gun can be fired. An example is a fingerprint authentication system for handguns, developed by Omer Kiyani, a gunshot victim.[191] Another example is the high-tech guns produced by Biofire – a US-based company – that remain locked unless in the hands of an authorized user. As suggested by the Gifford Law Centre, this will mitigate gun violence since reports reveal that 380,000 guns are stolen from individual gun owners each year, which often end up as crime weapons.

Additionally, artificial intelligence and big data can be exploited by tech companies to analyse global arms trade patterns, detect illegal transactions, and predict areas of concern.[192] Notwithstanding the benefits technology presents, it is clear that it can also aid illegal acquisition of firearms and gun violence. For example, the rise of 3D printing technology has made it possible to manufacture "ghost guns" — unregistered, untraceable firearms that lack serial numbers.[193] In the United States, the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) reported over 27,400 ghost guns recovered from crime scenes between 2017 and 2023. Alternatively, technology can further facilitate the effective regulation of illegal possession of ghost firearms in response. Ballistic databases and digital registries can be used by governments, mandating that all gun owners are captured under it, to aid in monitoring civilian ownership, tracking firearm use in crimes,

[191] Oliver Mitchell, "Can Technology Help Stop Gun Violence?", 2018, available at https://www.alleywatch.com/2018/03/can-technology-help-stop-gun-violence/ (accessed 5th February 2025).

[192] Oliver Mitchell, "Can Technology Help Stop Gun Violence?", 2018, available at https://www.alleywatch.com/2018/03rd/can-technology-help-stop-gun-violence/ (accessed 17th February 2025).

[193] Kelly McLaughlin, "3-D printed guns allow the public access to real, working weapons that are virtually untraceable — here's how they work", available at https://www.businessinsider.com/3D-printed-guns-how-they-work-2018-7?r=US&IR=T (accessed 17th April, 2025).

and flag unusual purchasing patterns.[194] An example is Canada's Firearms Reference Table that helps law enforcement track and regulate civilian firearms, including renewals and storage compliance.[195]

Conclusively, while technology offers advanced tools for traceability, enforcement, and responsible ownership, it also amplifies the risks of illegal access through unregulated channels and DIY innovations. Thus, global response now hinges on finding a balance between innovation and control.

6. Effective weapon regulation as a tool for human rights protection and a solution to gun violence

Concern about gun control stems from the misuse of firearms, particularly their link to human rights violations against vulnerable groups. While strict regulation protects human life and security, excessive restrictions may infringe on the right to self-defence. Effective weapon regulation must balance both. Governments should adopt comprehensive policies that enable responsible ownership while preventing misuse.

A key starting point is policing the gun industry. Manufacturers and importers should avoid supplying dealers linked to criminal activity, train distributors on compliance, and adopt a code of conduct to secure firearms. Background checks must assess mental health, criminal history, and violence, as proven effective in countries like Great Britain

[194] Daniel W. Webster, "Comprehensive Ballistic Fingerprinting of New Guns: A Tool for Solving and Preventing Violent Crime", available at https://www.ojp.gov/ncjrs/virtual-library/abstracts/comprehensive-ballistic-fingerprinting-new-guns-tool-solving-and (accessed 17th April 2025).
[195] Royal Canadian Mounted Police, "Firearms Reference Table", available at https://rcmp.ca/en/firearms/firearms-reference-table (accessed 17th April 2025).

and Guatemala. Licensing should include mandatory training, as in Japan and Switzerland, with periodic reviews for compliance.

Gun control guidelines should be clearly specified to prevent oppressive application. Licensing should be granted as of right to those meeting requirements, protecting lawful access to self-defence. Secure storage of firearms should be legally required, with penalties for negligence, to reduce unauthorized access and prevent harm.

Governments must restrict firearm access for high-risk individuals, including those with records of domestic violence, substance abuse, extremist ties, criminal convictions, or mental disability. To implement this effectively, countries should adopt the UN Arms Trade Treaty's recommendation to establish a national database that tracks citizens' histories. This database will enable thorough background checks for firearm applicants and support responsible gun ownership.[196] High-powered and automatic firearms should face stricter regulations to limit their use in civilian environments. This aligns with the UN HRC's 2018 report, which recommends broad restrictions on civilian access to weapons like automatic rifles and machine guns.

Law enforcement must be empowered to trace illegal firearms, dismantle black-market networks, and enforce compliance among legal gun owners. They should also work with customs to curb cross-border arms trafficking, with strict penalties for violations. Additionally, governments should invest in smart gun technologies to prevent theft and misuse. States have a moral and legal duty under international humanitarian law to implement these controls and protect human rights.[197] By adopting these measures,

[196] Arms Trade Treaty (ATT) 2013, article 5.3.

societies can effectively reduce gun-related violence while maintaining a fair balance between self-defence rights and public safety.

V- Conclusion

A much-needed but grossly elusive concept in every society is balance. At the heart of the conversation around the right to bear arms for self-defence and the regulation of civilian possession and use of weapons are the lives of innocent children, women and men being lost to gun violence. Expressing the need for balance, Obama, former president of America, emphasized that while Second Amendment rights are important, they must be balanced with other fundamental rights — such as the right to life, safety, and peaceful assembly — which have been tragically violated in numerous mass shootings across the U.S.[198] With the continued liberalization of gun ownership, achieving a safe balance may be a faraway tale. A 2017 study showed that out of the 1 billion firearms in circulation globally, 857 million have found a home in civilian hands, and from 2006 to 2017, the global firearms stockpile in civilian possession shot up by 207 million.[199]

Recognising the rather negative impact of the uncontrolled spread of weapons, world nations must develop strict regulations and surveillance on the manufacture, export, import, sales and ownership of firearms, in line with UN directives.[200] According to John

[197] ICRC, "Arms availability and the situation of civilians in armed conflict: a study presented by the ICRC", available at https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc_002_0734_arms_availability.pdf (accessed 5th February 2025).

[198] Katie Reilly, "President Obama Announces Executive Action on Gun Control", available at https://time.com/4167749/obama-gun-control-remarks/ (accessed 5th April 2025).

[199] Small Arms Survey, 'Global Firearms Holdings' available at https://www.smallarmssurvey.org/database/global-firearms-holdings (accessed 5th April 2025).

Stuart Mill, political economist and the author of *On Liberty*, "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others". In other words, it is believed that the need for a wider protection of human rights against gun violence is rather a substantial justification for arms control and not a violation of human rights.

In conclusion, the debate over gun rights and gun control must not lose sight of the primary objective: safeguarding human lives. The right to bear arms must not override the right to live free from fear and violence. It is only through deliberate, coordinated action that nations can hope to balance individual liberties with collective security and uphold the dignity and sanctity of human life in a world increasingly threatened by the unregulated flow of arms.

VI- Further Research

1. How can international treaties better address the socio-political and economic contexts of weapon ownership?
2. What role does arms trafficking play in promoting illegal possession of firearms among civilians?
3. How can technology enhance weapon tracking and accountability mechanisms?
4. To what extent do the economic incentives from the sale of arms influence weapon regulation?

[200] Mayra Quijano, "How to Regulate?", available at https://www.howtoregulate.org/gun-regulations (accessed 17th January 2025).

5. How can smart gun technologies be integrated into national firearm regulation frameworks without infringing on personal privacy rights?
6. What legal models can effectively balance the constitutional right to self-defence with public safety in multi-ethnic, conflict-prone societies?
7. How can licensing frameworks be structured to ensure fair and non-discriminatory access to firearms for lawful self-defence?
8. To what extent do cultural perceptions of masculinity and power affect resistance to firearm regulation in different societies?
9. What are the psychological and societal impacts of widespread civilian gun ownership on communities, especially among youth and minority populations?
10. How can global arms control frameworks better address the rising threat of online arms markets and dark web firearm transactions?

VII - Annotated Bibliography

Arab League, "*Arab Model Law on Weapons, Ammunitions, Explosives and Hazardous Material*" (2002) available at https://www.sipri.org/sites/default/files/research/disarmament/dualuse/pdf-archive-att/pdfs/arab-league-model-law-on-weapons-ammunitions-explosives-and-hazardous-material.pdf (accessed 20 April 2025).

This model legislation serves as a reference for Arab nations seeking to regulate civilian access

to firearms and ammunition. It provides legal guidance on licensing, accountability, revocation, and restrictions on use, especially for non-military purposes. The document offers an important template for countries seeking to develop consistent firearm laws while addressing national security concerns and human rights obligations.

Centre for Humanitarian Dialogue, "*International Law and Small Arms and Light Weapons Control: Obligations, Challenges and Opportunities*" available at https://www.files.ethz.ch/isn/25328/International_law_and_small_arms.pdf (accessed 4 March 2025).

This report assesses the current state of international legal obligations surrounding small arms control. It highlights the legal responsibilities of states under international humanitarian and human rights law, and identifies legal and institutional weaknesses in national arms legislation. Importantly, it stresses the need for transparency, oversight, and proportionality in firearm legislation, especially in relation to civilian possession and state obligations to protect life.

Constitutional Rights Foundation, "The Debate Over Gun Violence in the United States: An Introduction" available at https://teachdemocracy.org/images/pdf/challenge/The-Debate-Over-Gun-Laws2.pdf (accessed 17th January 2025).
This source provides a detailed analysis of the arguments for and against gun control in the United States. It examines constitutional interpretations, public safety concerns, and the advocacy efforts supporting stricter firearm regulations. The document serves as a primer on the polarized national debate, highlighting key legal and social perspectives.

Giffords Law Center to Prevent Gun Violence, "*The US Gun Violence Epidemic as a Human Rights Issue*" (2020) available at http://www.lawcenter.giffords.org/ (accessed 17th

January 2025).

This report reframes gun violence in the U.S. as a human rights crisis, arguing that failure to enact strong firearm regulations violates citizens' rights to life and security. It offers policy recommendations such as universal background checks, restrictions on high-capacity magazines, and federal oversight of firearm dealers. The report is grounded in international human rights law, providing a compelling rationale for stronger domestic gun control.

International Action Network on Small Arms (IANSA), "Towards RevCon4: Civil Society Advocacy Guide on the United Nations Programme of Action on Small Arms" available at https://iansa.org/wp-content/uploads/2024/02/IANSA-CSO-Guide-towards-RevCon4-ENG.pdf (accessed 4th March 2025).

This guide outlines the critical role of civil society organizations in advancing the UN Programme of Action on small arms. It emphasizes grassroots advocacy strategies, including community-based firearms collection programs and public awareness campaigns in non-conflict settings. The document also provides practical tools for engaging policymakers in strengthening arms control frameworks.

International Committee of the Red Cross, "*Arms Availability and the Situation of Civilians in Armed Conflict*" available at https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc_002_0734_arms_availability.pdf (accessed 4th March 2025).

Though focused on conflict zones, this report discusses how legal access to arms among civilians can exacerbate humanitarian crises. It evaluates the relationship between widespread firearm availability and the breakdown of legal order, particularly in fragile or transitioning states. The ICRC's findings are vital in understanding the limits and risks of legal gun

ownership in volatile environments.

Lowy, Jonathan, "Global Action on Gun Violence" available at https://actiononguns.org/wp-content/uploads/2023/02/2023.01.31.GAGV-OHCHR-Report.pdf (accessed 18th January 2025).

This report exposes the firearms industry's influence in undermining arms control measures and perpetuating global gun violence. It documents case studies of corporate lobbying against regulations while highlighting counter-efforts by civil society groups to promote accountability and safer policies. The analysis links industry practices to human rights violations.

Office of the High Commissioner for Human Rights, "*Gun Control in USA*" available at https://www.ohchr.org/en/stories/2016/06/gun-control-usa (accessed 6th February 2025).

This publication critiques the U.S. for its failure to prevent gun violence through adequate legislation. It presents gun-related deaths as violations of international human rights obligations, particularly the right to life. The OHCHR calls for stronger legal frameworks to restrict access to firearms and reduce the country's high rate of preventable gun deaths.

OXFAM International, "Top five arms exporters hit yearly sales of $85 billion as 9,000 people die from conflict-driven hunger every day" available at https://www.oxfam.org/en/press-releases/top-five-arms-exporters-hit-yearly-sales-85-billion-9000-people-die-conflict-driven (accessed 6th February 2025).

This OXFAM report highlights how major arms exports fuel humanitarian crises, with $85 billion in annual sales contrasted against thousands of daily conflict-related deaths. It emphasizes the link between arms trading and human rights violations, supporting calls for

stricter global arms regulation.

United Nations Coordinating Action on Small Arms (CASA), "National Regulation on Civilian Access to Small Arms and Light Weapons" (2015) available at https://www.un.org/events/smallarms2006/pdf/arms060705CASA-eng.pdf (accessed 18th March 2025).

This technical standard from the UN system provides comprehensive guidance for national authorities on regulating civilian arms access. It covers licensing systems, safe storage requirements, and monitoring mechanisms, reflecting international best practices. The document forms part of the International Small Arms Control Standards (ISACS), designed to assist policymakers in developing evidence-based controls.

United Nations High Commissioner for Human Rights, "Report on the Regulation of the Acquisition, Possession and Use of Firearms" (2018) available at https://digitallibrary.un.org/record/841793/files/A_HRC_32_21-EN.pdf (accessed 18th March 2025).

This authoritative UN report investigates the human rights impacts of civilian firearm proliferation. It presents evidence linking lax gun laws to increased violence against vulnerable groups, including women and minorities. The document concludes with recommendations for states to align arms regulations with international human rights standards, including enhanced background checks and bans on military-style weapons.

United Nations Office for Disarmament Affairs, "Supporting the United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects" available at https://disarmament.unoda.org/unpoa-project-2025/ (accessed 18th January 2025).

While focused on illicit trade, this UNODA resource also supports member states in improving legal frameworks for civilian arms possession. It promotes transparency, accountability, and national reporting mechanisms to reduce gun misuse and align domestic regulations with global disarmament objectives.

VIII- Bibliography

Ahlander, Johan and Johnson, Simon, "Sweden to tighten gun laws after mass shooting at school" available at https://www.reuters.com/world/europe/swedish-government-looks-tighten-gun-laws-after-mass-shooting-2025-02-07/ (accessed 16th April 2025).

Alpers, Philip and Twyford, Conor, "Small Arms in the Pacific: Regional Cooperation, the Nadi Framework, and the UN" 2001 Small Arms Conference available at https://www.jstor.org/stable/resrep10756.17 (accessed 4th February 2025).

Amnesty International, "Gun Violence" available at https://www.amnesty.org/en/what-we-do/arms-control/gun-violence/ (accessed 17th January 2025).

Arab League, "Arab Model Law on Weapons, Ammunitions, Explosives and Hazardous Material" (2002) available at https://www.sipri.org/sites/default/files/research/disarmament/dualuse/pdf-archive-att/pdfs/arab-league-model-law-on-weapons-ammunitions-explosives-and-hazardous-material.pdf (accessed 20th April 2025).

Arms Control Association, "The Arms Trade Treaty at a Glance" available at https://www.armscontrol.org/factsheets/arms-trade-treaty-glance (accessed 18th January 2025).

Brown, Jennifer, "Firearms: licensing and safety" available at https://commonslibrary.parliament.uk/research-briefings/cbp (accessed 20th January 2025).

Centre for Humanitarian Dialogue, "International Law and Small Arms and Light Weapons Control: Obligations, Challenges and Opportunities" available at https://www.files.ethz.ch/isn/25328/International_law_and_small_arms.pdf (accessed 4th March 2025).

Chatterjee, Phelan, "What We Know About the Sweden School Shooter?" available at https://www.bbc.com/news/articles/cvgp43j4l92o (accessed 16th April 2025).

Constitution Annotated, "Overview of Second Amendment, Right to Bear Arms" available at https://constitution.congress.gov/browse/essay/amdt2-1/ALDE_00000408/ (accessed 18th January 2025).

Constitutional Rights Foundation, "The Debate Over Gun Violence in United States: An Introduction" available at https://teachdemocracy.org/images/pdf/challenge/The-Debate-Over (accessed 17th January 2025).

de Guzman, Chad, "One Surprising Theory Why the Philippines Has Very Few Mass Shootings—Despite Easy Access to Lots of Guns" available at https://time.com/6186982/philippines-guns-mass-shootings/ (accessed 6th February

2025).

Dubey, Varchaswa, “Armed Public: Countries that Allow Arms Possession to the General Public and How it Affects the Order of the State” available at https://blog.ipleaders.in/ (accessed 16th January 2025).

European Union, “Controls on Firearms Purchases and Possession” available at https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=oj:JOL_1991_256_R_0051_028 (accessed 4th February 2025).

Froio, Nicole, “Gun Control: Brazilian Government Confronts Dismantling of Firearms Regulation” available at https://www.ibanet.org/Gun-control-Brazilian-gov-confronts-dismantling-of-firearms-regulation (accessed 20th January 2025).

Giffords Law Center to Prevent Gun Violence, “The US Gun Violence Epidemic as a Human Rights Issue” available at https://www.lawcenter.giffords.org/ (accessed 17th January 2025).

GVA (Gun Violence Archive), “Gun Violence Archive” available at https://www.gunviolencearchive.org/ (accessed 17th April 2025).

IANSA, “Towards RevCon4: Civil Society Advocacy Guide on the United Nations Programme of Action on Small Arms” available at https://iansa.org/wp-content/uploads/2024/02/IANSA-CSO-Guide-towards-RevCon4-ENG.pdf (accessed 4th March 2025).

ICRC, “Arms availability and the situation of civilians in armed conflict: a study presented by the ICRC” available at

https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/icrc_002_0734_arms_availability.pdf (accessed 5th February 2025).

Kleck, G. and Gertz, M., "Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun" available at https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=6853&context=jclc (accessed 4th February 2025).

Law Guide, "South Africa Firearm Regulation" available at https://lawguide.co.za/south-african-firearms-regulation/ (accessed 20th January 2025).

Lopez, Julie, "One Firearm Seized Every Two Hours in Guatemala" available at https://insightcrime.org/news/one-firearm-seized-every-two-hours-guatemala/ (accessed 5th February 2025).

Lowy, Jonathan, "Global Action on Gun Violence" available at https://actiononguns.org/wp-content/uploads/2023/02/2023.01.31.GAGV-OHCHR-Report.pdf (accessed 18th January 2025).

McLaughlin, Kelly, "3-D printed guns allow the public access to real, working weapons that are virtually untraceable — here's how they work" available at https://www.businessinsider.com/3D-printed-guns-how-they-work-2018-7?r=US&IR=T (accessed 17th April 2025).

Mitchell, Oliver, "Can Technology Help Stop Gun Violence?" available at https://www.alleywatch.com/2018/03/can-technology-help-stop-gun-violence/ (accessed 5th February 2025).

Murray, Anna, “Change is coming for New Zealand's gun laws: What you need to know” 1news 29th February 2024.

Office of the High Commissioner for Human Rights, “Gun Control in USA” available at https://www.ohchr.org/en/stories/2016/06/gun-control-usa (accessed 6th February 2025).

OXFAM International, “Top five arms exporters hit yearly sales of $85 billion as 9,000 people die from conflict-driven hunger every day” available at https://www.oxfam.org/en/press-releases/top-five-arms-exporters-hit-yearly-sales-85-billion-9000-people-die-conflict-driven (accessed 6th February 2025).

Pearson, Frederic S., “Global Spread of Arms: Political Economy of International Security” available at https://www.researchgate.net/publication/325581306_The_Global_Spread_of_Arms_Political_Economy_of_International_Security (accessed 4th February 2025).

Poou, Macz and Geovani, Walter, “Marco Jurídico de las Armas y Municiones en Guatemala” (2024) available at https://data.mendeley.com/datasets/j974yzg/1 (accessed 18th April 2025).

Quijano, Mayra, “How to Regulate?” available at https://www.howtoregulate.org/gun-regulations (accessed 17th January 2025).

Reilly, Katie, “President Obama Announces Executive Action on Gun Control” available at https://time.com/4167749/obama-gun-control-remarks/ (accessed 5th April 2025).

Rowhani-Rahbar, A. and Schleimer, J.P., “Gun Violence Epidemiology” in Ahrens, W.,

Pigeot, I. (eds) Handbook of Epidemiology, Springer, New York available at https://doi.org/10.1007/978-1-4614-6625-3_77-1 (accessed 5th April 2025).

Royal Canadian Mounted Police, "Firearms Reference Table" available at https://rcmp.ca/en/firearms/firearms-reference-table (accessed 17th April 2025).

Stroebe, W., Leander, N. P., and Kruglanski, A. W., "Gun ownership and gun violence: A comparison of the United States and Switzerland" (2024) 74 Aggression and Violent Behavior, Elsevier 101987.

Taheran, Shervin, "The Arms Trade Treaty at a Glance" available at https://www.armscontrol.org/factsheets/arms-trade-treaty-glance (accessed 18th January 2025).

Taylor, William, "How does gun control impact the economy?" available at https://thegunzone.com/how-does-gun-control-impact-the-economy/ (accessed 6th February 2025).

UNODA, "Supporting the United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects" available at https://disarmament.unoda.org/unpoa-project-2025/ (accessed 18th January 2025).

United Nations CASA, "National Regulation on Civilian Access to Small Arms and Light Weapons" available at https://www.ohchr.org/sites/default/files/Documents/Issues/RuleOfLaw/CivilianAcquisition/UNAgencies_IO/International_Small_Arms_Control_Standards_Inter-Agency_Support_Unit.pdf (accessed 16th February 2025).

United Nations High Commissioner for Human Rights, "Report on the Regulation of the Acquisition, Possession and Use of Firearms" (2018) available at https://digitallibrary.un.org/record/841793/files/A_HRC_32_21-EN.pdf (accessed 18th March 2025).

VolT AI, "Video Intelligence" available at https://www.volt.ai/video-intelligence (accessed 18th April 2025).

Wisevoter, "Countries where Guns are Illegal" available at https://wisevoter.com/country-rankings/countries-where-guns-are-illegal/ (accessed 6th February 2025).