Research Report GA1 Jakob and Luis AMUN 2024

GA1

#### (Disarmament and international security) "Evaluating the Effectiveness of Current Regulations on Nuclear and Biochemical Weapons and Taking Measures as Necessary "

### 1. General information:

The proliferation of nuclear and biochemical weapons remains one of the most critical threats to global security. These weapons have the potential to cause mass destruction, inflict widespread casualties, and destabilize entire regions. Despite numerous international treaties and regulations aimed at curbing the development, proliferation, and use of these weapons, concerns persist regarding their effectiveness and enforcement. The goal is to provide a comprehensive analysis that can inform future policy decisions aimed at reducing the threat posed by these weapons of mass destruction (WMDs).

#### 2. Background:

Nuclear and biochemical weapons have been at the center of international security concerns since the mid-20th century. The catastrophic consequences of their use, demonstrated in Hiroshima, Nagasaki, and chemical warfare incidents, have driven the international community to establish treaties and conventions aimed at their control. Nuclear Weapons: The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), established in 1968, is the cornerstone of global efforts to prevent the spread of nuclear weapons. It seeks to promote disarmament, prevent the spread of nuclear weapons and weapons technology, and facilitate the peaceful use of nuclear energy. However, the NPT faces challenges, including the non-signature of key states, compliance issues, and the modernization of nuclear arsenals by nuclear-armed states.

Biochemical Weapons: The Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC) are the primary international agreements addressing the development, production, and use of biochemical weapons. The BWC, which came into force in 1975, prohibits the development, production, and acquisition of biological and toxin weapons. The CWC, effective from 1997, outlaws the production, stockpiling, and use of chemical weapons. Despite these treaties, concerns about verification, enforcement, and emergence of new biochemical technologies pose ongoing challenges

## 3. Issues that are likely to arise:

- Challenges in Verification and Compliance: The effectiveness of international treaties is often undermined by difficulties in verification and ensuring compliance. For example, while the CWC has a robust inspection regime, the BWC lacks a verification mechanism, making it difficult to monitor compliance and detect violations.
- Modernization of Nuclear Arsenals: Despite commitments to disarmament, several nuclear-armed states are modernizing their arsenals, which can undermine the spirit of the NPT. This modernization raises concerns about a new arms race and complicates effort towards nuclear disarmament.
- Emerging Technologies and Dual-Use Dilemmas: Advances in biotechnology and chemistry pose new challenges for existing regulations. Dual-use technologies, which can be used for both legitimate and military purposes, complicate the enforcement of the BWC and CWC. Regulatory frameworks need to adapt to these technological advancements to prevent misuse.

 Proliferation Risks: Non-state actors, including terrorist organizations, pose a significant threat in terms of acquiring nuclear or biochemical weapons. The current regulatory frameworks primarily focus on state actors, leaving gaps in addressing the risks posed by these groups.

## 4. Main Countries involved:

- United States: The U.S. is a key player in nuclear non-proliferation and disarmament efforts but faces criticism for its ongoing modernization of nuclear arsenals. It is also a leading state in the development and enforcement of biochemical weapon regulations.
- China: As a nuclear-armed state, China's stance on nuclear disarmament and nonproliferation is critical. China is also increasingly influential in the regulation of emerging biochemical technologies.
- Russia: Russia holds one of the largest nuclear arsenals and plays a crucial role in global nuclear non-proliferation efforts. However, its compliance with international treaties has been questioned, especially in the context of the CWC.
- North Korea: North Korea's nuclear weapons program represents a significant challenge to the global non-proliferation regime. Its continued testing and development of nuclear weapons pose a direct threat to regional and global security.
- Iran: Iran's nuclear program has been a focal point of international diplomatic efforts. The Joint Comprehensive Plan of Action (JCPOA) aimed to limit Iran's nuclear capabilities, but its future remains uncertain amid geopolitical tensions.
- 5. List of questions delegates should ask themselves in regards to the topic:
- How can the international community enhance verification mechanisms for the BWC and CWC to ensure compliance?
- What measures can be taken to prevent the modernization of nuclear arsenals from undermining global disarmament efforts?
- How can the dual-use of emerging technologies be effectively regulated to prevent their use in biochemical weapons development?
- What strategies can be developed to address the proliferation risks posed by non-state actors?

# 5. Key-terms and explanations:

- Weapons of Mass Destruction (WMDs): Weapons capable of causing large-scale destruction and loss of life, including nuclear, chemical, and biological weapons.
- Non-Proliferation Treaty (NPT): A treaty aimed at preventing the spread of nuclear weapons and promoting nuclear disarmament.
- Biological Weapons Convention (BWC): An international treaty about banning the development, production, and possession of biological and toxin weapons.
- Chemical Weapons Convention (CWC): An international treaty that outlaws the production, stockpiling and use of chemical weapons.
- Dual-Use Technology: Technologies that have both civilian and military application, particularly relevant in the context of biochemical research that could be repurposed for weaponization.

7. Useful sources: https://www.iaea.org/ https://www.opcw.org/ https://www.un.org/disarmament/ https://www.armscontrol.org/ https://www.nti.org/