

BWC at 50: Global South Perspectives on Biosecurity

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Summary

This article explores the engagement of Global South states with the Biological Weapons Convention. Drawing on deliberations from the Working Group on Strengthening the Convention, it was revealed that Article X and verification protocols remain the central points of contention.

Introduction

The Biological Weapons Convention (BWC) stands as a foundational pillar in the non-proliferation and disarmament regime of the Weapons of Mass Destruction (WMD). The emphasis on regulating these weapons emerged when the international community recognised their indiscriminate and destructive potential. The 1925 Geneva Conventions prohibited the use of asphyxiating, poisonous, or other gases, as well as the bacteriological methods of warfare. This development primarily set the stage for the Chemical Weapons Convention (CWC) and the Biological Weapons Convention (BWC). The Chemical Weapons Convention went on to become one of the most widely adhered to treaties of non-proliferation and disarmament. Its success also lay in the robust verification and monitoring protocols that were established to be implemented by the Organisation for the Prohibition of Chemical Weapons (OPCW). However, the Biological Weapons Convention struggled with developing the relevant verification and monitoring mechanisms.

The Biological Weapons Convention¹, in its current form, prohibits the development, possession, or production of biological toxins and agents. The convention does not explicitly ban the use of biological weapons in war but implicitly tries to achieve that objective through a prohibition on the possession and production of biological weapons. Fifty years since the treaty entered into force, verification protocols remain a contentious issue for the BWC regime. With the advent of emerging technological drivers, making the case for the development of a robust verification mechanism and international cooperation becomes all the more urgent.

What sets the BWC apart from the other legal instruments in the WMD non-proliferation regime is that it solely relies on confidence-building measures for the verification and implementation of the treaty's protocols. The confidence-building measures in the form of voluntary compliance reports render the Treaty dependent on the national interests of the states parties. The measures, although established in good faith, face a plethora of operational challenges. A substantial gap persists between how the developed and the developing world engage with the confidence-building measures and other mechanisms of the treaty. The states from the Global South and the Global North differ in their approach to the implementation of the Treaty. While the Global North states participate robustly in the confidence-building measures, the participation from the Global South remains limited. While the Global South states advocate for a legal verification protocol, the Global North states show reservations. Five decades after the BWC came into existence, these gaps pose certain structural challenges to the treaty that need to be addressed.

View from the Global South

Negotiations on compliance and verification issues have been met with consistent resistance from Western State parties, especially the United States (U.S.), on grounds of opposition to on-site inspections and the protection of the sovereign rights of the States Parties². The fifth review conference of the BWC failed to adopt a consensus document as the United States rejected the protocol on compliance mechanisms, and the negotiations fell through. In the 9th Review Conference, after more than two decades, the United States emphasised the need for implementing measures to ensure greater transparency and compliance with the mandate of the Convention³. The recommendations included

the creation of a working group to strengthen the convention, and that is exactly what followed as a result of the 9th Review Conference. Although the Working Group has brought forward voices from the Global South effectively, it falls short of obliging the States to conduct concrete discussions for building a legally binding verification mandate.⁴

The creation of this working group was steered by the U.S., a Global North power, but the leadership soon shifted to the Global South states. Brazil became the Chair of the Working Group to Strengthen the Biological Weapons Convention in 2023. An analysis of the statements made to the Group by representatives from the Global South reveals two major issues of contention - the implementation of Article X and the compliance with confidence-building measures. Article X of the Biological Weapons Convention relates to international assistance and cooperation⁵. It obliges the states to cooperate in the exchange of required materials, scientific resources, and technical information for the peaceful uses of biotechnology. In the discussions within the Working Group, the position of the Global South states regarding Article X was very evident. The Non-Aligned group of countries within the BWC emphasised how the COVID-19 pandemic exposed the weakness in the implementation of Article X and focused on the equitable access to technical assistance for developing countries⁶. States such as Iran⁷, Mozambique⁸, and the Lao PDR⁹ also highlighted the need for access to technical resources. Lao PDR's statement also mentioned that access to scientific resources and legal facilities remains a "legal right" as per Article X. India, along with emphasising international cooperation and compliance, has also focused on the National Implementation of the norms¹⁰. Building national implementation mechanisms for identifying and monitoring biothreats,

managing peaceful research on dual-use bioagents, and training of researchers and first responders has been at the forefront of the issues raised by India in the Working Group discussions. However, the overwhelming emphasis on the implementation of Article X implies that the states from the Global South struggle with obtaining access to biotechnology for peaceful research on biosecurity.

Implementing biosecurity: the role of Article X and Confidence-Building Measures

Gaining access to relevant technology and resources would allow the states from the Global South to build biosecurity measures effectively. However, the dilemma posed by dual-use agents makes it more difficult to oversee the transfer of this technology and ensure the peaceful uses of the resources. Implementing Article X, hence, would not be possible without legally binding compliance measures in place. This is precisely where verification and compliance protocols, Article X, and implementation of biosecurity intersect. Biosecurity¹¹ can be ensured through measures to protect and control biological materials, as well as by building relevant skills for reliable handling of biological resources to enhance peaceful research and development¹².

A report published by the United Nations Institute for Disarmament Research (UNIDIR)¹³ on addressing chemical and biological weapons challenges for a WMD Free Zone in the Middle East highlights that the states in the region struggle with the implementation of biosafety and biosecurity mechanisms due to a lack of funds available for technical capacity building. Making the relevant funds available would be under the direct mandate of Article X of the Biological Weapons Convention through ensuring consistent involvement in technology

transfer. In the discussions of the Working Group for Strengthening the BWC, the Global South states consistently maintained the position in favour of improving capacity in the implementation of biosecurity and biosafety measures. Similar opinions echoed in the Ninth Review Conference¹⁴ of the BWC, where the group of Non-Aligned Countries came together to reiterate that the developed world bears the responsibility to ensure the transfer of technology and improve international cooperation with the Global South.¹⁵ Independent organisations such as The Verification Research, Training and Information Centre (VERTIC)¹⁶ have initiated projects to improve biosecurity and biosafety in Africa and Southeast Asia. Facilitating the projects of such civil society organisations can add to strengthening the BWC's mandate in the Global South.

It is essential to note that the term 'Global South' is not a homogeneous conceptualisation. The regions categorised as the 'Global South' include the developing and the underdeveloped world, marked by immense diversity in culture, geographical, and political underpinnings. The 'Global South' world, however, despite the diversities in its contexts, faces certain developmental challenges that require international cooperation, especially from the countries possessing the necessary resources. This understanding is at the heart of the arguments presented by Non-Aligned countries and other states parties from the Global South regarding the judicious and non-discriminatory implementation of Article X.

Apart from international cooperation and assistance in technology transfer, the other aspect of ensuring biosecurity is through verification and protocol measures. In the absence of a legally binding verification mechanism, the BWC makes the use of confidence-building measures in the form of

voluntary compliance reports from the states parties. As part of these reports, States Parties have to disclose information related to their national biological research and development programmes, as well as national legislation and regulations in place. However, the irregular nature of the submissions makes it challenging for the Convention to monitor the developments regarding biosecurity infrastructure within the States Parties.

Disparities between the Global South and the Global North also become apparent in the analysis of compliance reports submitted to the convention. While the states of the Global North have a consistent record of submitting compliance reports, the states of the Global South have struggled to maintain that regularity. The number of report submissions improved markedly in the last two years, with the total submissions reaching up to 113 in 2024 and 111 in 2025¹⁷. Despite this welcome development, the majority of the states that did not submit the CBM reports remained in the Global South¹⁸.

This lack of participation can be attributed to a multitude of reasons, many of which have been reflected in the contributions made by the states of the Global South in the 9th Review Conference and the Working Group. The importance of resource allocation for institutional capacity building and scientific support was echoed by Mozambique on behalf of the African Group in the Working Group discussions.¹⁹ Mozambique also called for reforms in the CBM forms to reflect the current realities and challenges to biosecurity.

For the confidence-building mechanisms to work and create transparency within the regime, consistent and universal participation in the CBM reports is important. It would be difficult to improve the representation of Global South states

unless, along with CBM reports, the concerns around legally binding verification protocols and Article X implementation are adequately addressed.

Conclusion

The genesis of the Biological Weapons Convention can be traced back to the efforts of Western global powers²⁰. The United States, the United Kingdom, and the Russian Federation still occupy the status of the depositary states, responsible for receiving instruments of ratification and accession to the Convention. Within this core structure of Western power dominance, it is significant to keep reiterating the need for increasing regional representation, participation, and visibility within the convention. The threats posed by biological toxins and lethal pathogens make the population of the Global South States increasingly vulnerable, especially in the absence of robust public health and biosecurity infrastructure in certain regions, coupled with challenges posed by dual-use agents and bioterrorism²¹. In this context, the perspectives of the Global South need to be recognised not merely as nominal contributions but as critical inputs to improve the procedural and structural capacity of the convention in dealing with contemporary challenges.

Endnotes:

¹ United Nations. *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*. March 26, 1972. <https://front.un-arm.org/wp-content/uploads/2020/12/BWC-text-English-1.pdf>.

² Wright, Susan, ed. *Biological Warfare and Disarmament: New Problems/New Perspectives*. Lanham, MD: Rowman & Littlefield Publishers, 2002.

³ United States. "Statement by Under Secretary of State Bonnie Jenkins to the 2021 Biological Weapons Convention Meeting of States

Parties.” November 22, 2021. United Nations Office for Disarmament Affairs. <https://documents.unoda.org/wp-content/uploads/2021/11/US-FINAL-updated.pdf>.

⁴ Kelle, Alexander, and Malcolm R. Dando. “Behavioral Arms Control in the Century of Biology.” *The Nonproliferation Review* (2025). <https://doi.org/10.1080/10736700.2025.2505828>.

⁵ United Nations. *G/66/549/95: Improving transparency in the field of biological warfare – Note by the Secretary-General*. 2006. <https://documents.un.org/doc/undoc/gen/g06/654/95/pdf/g0665495.pdf>

⁶ Non-Aligned Movement (NAM), “Statement by the Delegation of Uganda on Behalf of the Non-Aligned Movement and Other States Parties to the Biological and Toxin Weapons Convention at the Sixth Session of the Working Group on the Strengthening of the Biological Weapons Convention, Geneva, 11-22 August 2025,” 22 August 2025, United Nations Office for Disarmament Affairs, https://docs-library.unoda.org/Biological_Weapons_Convention_-_Working_Group_on_the_strengthening_of_the_ConventionSixth_session_%282025%29/Final_NAM_statement_at_6th_Session_of_WG_on_BWC_revised.pdf

⁷ Islamic Republic of Iran. “Statement before the Sixth Session of the Working Group on the Strengthening of the Biological Weapons Convention (BWC), Geneva, 11 August 2025.” August 11 2025. United Nations Office for Disarmament Affairs. https://docs-library.unoda.org/Biological_Weapons_Convention_-_Working_Group_on_the_strengthening_of_the_ConventionSixth_session_%282025%29/Irands_Statement_befote_the_6th_Meeting_of_the_OEWG_on_BWC_-_11_August_2025.pdf

⁸ Republic of Mozambique. “Statement by Mozambique, 10 August 2025.” Presentation by the Delegation of the Republic of Mozambique at the Sixth Session of the Working Group on the Strengthening of the Biological Weapons Convention, Geneva, 11-22 August 2025. United Nations Office for Disarmament Affairs. https://docs-library.unoda.org/Biological_Weapons_Convention_-_Working_Group_on_the_strengthening_of_the_ConventionSixth_session_%282025%29/Statement_by_Mozambique_V._10.08.2025.pdf

⁹ Lao People’s Democratic Republic. “Intervention by the Lao PDR (International Cooperation and Assistance).” Statement at the Sixth Session of the Working Group on the Strengthening of the Biological Weapons Convention, Geneva, 11-22 August 2025. United Nations Office for Disarmament Affairs. https://docs-library.unoda.org/Biological_Weapons_Convention_-_Working_Group_on_the_strengthening_of_the_ConventionSixth_session_%282025%29/Intervention_by_the_Lao_PDR_%28_Internatioanal_Cooperation_and_Assistamce%29.pdf

¹⁰ India. “Statement by India.” Permanent Mission of India to the United Nations, Geneva. Accessed November 13, 2025. https://pmindia.un.gov/Cgeneva/statement_content/NDg1.

¹¹ Chinchilla, Mónica; Elisabeth Hoffberger-Pippin; Sannimari Veini; and Barry de Vries. *The Concepts of Biosafety and Biosecurity: The Need for a Coherent Approach*. CBW-Net Working Paper No. 12, June 2024. <https://cbwnet.org/media/pages/publications/working-paper/the-concepts-of-biosafety-and-biosecurity-the-need-for-a-coherent-approach/obf60805ee-1719315007/cbwnet-working-paper-no12-biosecurity-biosafety-for-web.pdf>

¹² Lele, Ajey, ed. *50 Years of the Biological Weapons Convention: Tracking the Journey*. New Delhi: Pentagon Press/M.P. IDSA, 2025. ISBN 978-81-988370-1-1.

¹³ Opatowski, Sarah Ruth. *Addressing Chemical and Biological Weapons Challenges through the Middle East Weapons of Mass Destruction-Free Zone*. Geneva: United Nations Institute for Disarmament Research, 2023. <https://doi.org/10.37559/MEWMDFZ/2023/CBW>

¹⁴ Ninth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. *Final Document of the Ninth Review Conference*, BWC/CONF.IX/9, December 22, 2022. <https://docs.un.org/en/BWC/CONF.IX/9>

¹⁵ Commonwealth of Dominica. “Article X Report under the Biological Weapons Convention.” n.d. <https://bwcimplementation.org/sites/default/files/resource/DominicaArticleX.pdf>

¹⁶ Brown, Thomas. “Project on Biosafety and Biosecurity in Mali Concludes.” Verification

Research, Training and Information Centre (VERTIC) News, January 17, 2020. <https://www.vertic.org/2020/01/project-on-biosafety-and-biosecurity-in-mali-concludes/>

- ¹⁷ United Nations Office for Disarmament Affairs. “CBM Statistics – Biological Weapons Convention.” Accessed November 4, 2025. <https://bwc-cbm.un.org/statistics>
- ¹⁸ United Nations Office for Disarmament Affairs. “BWC Confidence Building Measures Portal.” Accessed November 4, 2025. <https://bwc-cbm.un.org/>
- ¹⁹ Republic of Mozambique. “Statement by Mozambique, 10 August 2025.” Statement at the Sixth Session of the Working Group on the Strengthening of the Biological Weapons Convention, Geneva, 11–22 August 2025. United Nations Office for Disarmament Affairs. https://docs-library.unoda.org/Biological_Weapons_Convention_-Working_Group_on_the_strengthening_of_the_ConventionSixth_session_%282025%29/Statement_by_Mozambique_V._10.08.2025.pdf
- ²⁰ Wright, Susan, ed. *Biological Warfare and Disarmament: New Problems/New Perspectives*. Lanham, MD: Rowman & Littlefield Publishers, 2002.
- ²¹ Arnold, Kayla. “The Epidemic–Terrorism Nexus and How to Safeguard Africa against Bioterrorism: Lessons from the Global Polio Eradication Initiative?” *South African Journal of International Affairs* 28, no. 2 (2021): 145–165. <https://doi.org/10.1080/10220461.2021.1922309>