

Working Group on the Strengthening of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

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Identifying, examining and developing specific and effective measures, including possible legally-binding measures, and making recommendations to strengthen and institutionalize the Convention in all its aspects within the mandate of the Working Group

Verification Mechanism of the Biological Weapons Convention under New Circumstances

Submitted by China

Overview

1. Biosecurity knows no borders. Comprehensively strengthening the Biological Weapons Convention (BWC) mechanism to eliminate the threats of biological weapons and further promote peaceful uses of biotechnology serves the common interests of the international community.
2. Establishing a verification mechanism is the most effective means to ensure compliance and build mutual trust. Biosecurity should not be an exception. Disputes among States Parties over compliance in recent years have further highlighted the necessity and urgency of establishing a verification mechanism of the Convention.
3. The Ninth Review Conference of the BWC decided to establish a Working Group on the strengthening of the Convention. The aim of the Working Group is to identify, examine and develop specific and effective measures, including possible legally-binding measures, and to make recommendations to strengthen and institutionalize the Convention in all aspects, to be submitted to States Parties for consideration and further action.¹
4. The establishment of the above Working Group fully reflects the determination of the States Parties to uphold unity, promote cooperation and strengthen the Convention mechanism. The Working Group should, in accordance with its mandate, carry out substantive discussions with a focus on various aspects related to the establishment of a verification mechanism, so as to command the consensus and consolidate the foundation for restarting multilateral negotiations.
5. China has always advocated for the establishment of a verification mechanism of the Convention. Upon its accession to the Convention, China pointed out that the Convention fails to provide the concrete and effective measures for supervision and verification; and it lacks forceful measures of sanctions in the procedure of complaint against instances of violations of the Convention. Chinese Government hoped these defects may be made up or corrected at an appropriate time.

¹ Final Document of the Ninth Review Conference (BWC/CONF.IX/9).



6. President Xi Jinping of China has put forward the Global Security Initiative (GSI), calling on all countries to stay committed to the vision of common, comprehensive, cooperative and sustainable security; stay committed to the principles of extensive consultation, joint contribution and shared benefits in global governance; and work together to tackle global challenges including biosecurity. Guided by the GSI, China will continue to fully participate in the process of establishing a verification mechanism of the BWC. This working paper intends to review the background and foundation of the efforts to establish a verification mechanism, set out the basic principles that should be followed, and make recommendations on future work, with a view to serving as a useful reference for substantive discussions among States Parties.

I. Historical Background and Foundation of Work

7. There is not only clear political consensus but also a solid foundation for negotiations on the establishment of a verification mechanism among States Parties.

8. The Third Review Conference of the BWC in 1991 decided to establish an Ad Hoc Group of Governmental Experts (VEREX) to identify and examine potential verification measures. From 1992 to 1993, VEREX proposed 21 potential verification measures in three aspects, i.e. developing, acquiring and producing, and stockpiling, providing important technical reference for the subsequent negotiations on a protocol².

9. In 1994, the Special Conference of States Parties decided to establish another Ad Hoc Group to commence work on a draft protocol. Between 1995 and 2001, the Ad Hoc group met for twenty-four sessions, overall structure and key elements of the protocol were developed with positions of and differences among States Parties reflected. All parties expressed the willingness and confidence to conclude the negotiations in 2001.

10. Regrettably, the BWC protocol negotiation collapsed following the rejection of one State Party in 2001. Nonetheless, the majority of the States Parties have been consistently calling for the resumption of the multilateral negotiation and the establishment of a verification mechanism for the past 20 plus years. For example, the Group of the Non-Aligned Movement and Other States to the BWC repeatedly highlighted “the particular importance of strengthening the Convention through the resumption of the multilateral negotiation for a legally binding protocol dealing with all Articles of the Convention”³, stated that “the lack of such verification regime poses a challenge to the effectiveness of the Convention”⁴, and that “the multilateral negotiations aimed at concluding a non-discriminatory, legally binding agreement is the only sustainable method of strengthening the Convention”⁵, and “urged the party rejecting negotiations to reconsider its policy.”⁶

II. Verification Mechanism under New Circumstances

11. In recent years, biotechnologies such as gene editing and synthetic biology have developed rapidly and merged with other technologies such as artificial intelligence. These developments, while greatly improving the well-being of mankind, have also lowered the

² Ad Hoc Group of Governmental Experts (VEREX) to identify and examine potential verification measures from a scientific and technical standpoint report.(BWC/CONF.III/VEREX/9).

³ Proposals for the Final Document of the Ninth Review Conference of the Biological and Toxin Weapons Convention (BTWC): Final Declaration (BWC/CONF.IX/WP.54).

⁴ Proposals for the Final Document of the Ninth Review Conference of the Biological and Toxin Weapons Convention (BTWC): Final Declaration(BWC/CONF.IX/WP.54).

⁵ Proposals for the Final Document of the Ninth Review Conference of the Biological and Toxin Weapons Convention (BTWC): Intersessional Programme, Implementation Support Unit and Science and Technology(BWC/CONF.IX/WP.53).

⁶ Proposals for the Final Document of the Ninth Review Conference of the Biological and Toxin Weapons Convention (BTWC): Final Declaration(BWC/CONF.IX/WP.54).

threshold of developing, acquiring and using biological weapons and brought about the possibility of new forms of biological weapons.

12. Establishing a verification mechanism contributes to early detection and deterrence of intentional violations of the Convention, and provides institutionalized safeguards for resolving compliance disputes and assessing compliance risks, thereby minimizing the catastrophic consequences that could be caused by biological weapons and providing maximum guarantee for the peaceful uses of biotechnology. Voluntary and fragmented measures, with their obvious limitations, cannot achieve these objectives and thus should not replace the verification mechanism.

13. It is worth noting that technological developments bring forth expanded channels for verification. Continuous breakthroughs in microbial forensic medicine, nucleic acid sequence analysis, mass-spectrometry, isotope molecular clock, biosensor technology, artificial intelligence and other technologies improve the accessibility and effectiveness of verification in the field of biology, which has been tested in relevant practices of the States Parties and activities of the Secretary-General's Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons.

III. Overall Vision of a Verification Mechanism

14. A verification mechanism of the BWC is to be established to detect early and deter violations of the Convention, build confidence of compliance among States Parties, promote the peaceful uses of biotechnology, enhance the authority and effectiveness of the Convention, and facilitate common and universal security for all. The following elements can be considered in relevant discussions and negotiations:

A. Legal basis

The Protocol:

- Should be in conformity with the Charter of the United Nations and basic principles of international law;
- Should be in conformity with the BWC and the purpose and the aim of the 1925 Geneva Protocol. Any negotiation outcome should be regarded as a supplement to the Convention, rather than the modification of the Convention or limitation/reduction of the privileges and obligations of the States Parties.

B. Basic principles

- *Respect for sovereignty.* The verification mechanism should not interfere in the internal affairs of States Parties or impede the activities carried out by States Parties which are not prohibited by the BWC. It should safeguard the security interests and commercial and technological secrets of States Parties.
- *Impartiality and fairness.* The verification mechanism should set aside political considerations, maintain its non-discriminatory nature and seek no superiority for certain states or group of states. The discussion and negotiation process should ensure universal participation of all States Parties and be consensus-based.
- *Objectiveness and science-based approach.* Verification techniques, means and procedures should be feasible and effective. Abuse or misuse of verification should be prevented and rectified. However, carrying out verification activities does not naturally provide for judgement on compliance. Whether a State Party is in compliance with the Convention should be determined by a mandated mechanism following corresponding rules.

C. Key elements

- The language of the mandate of the 1994 Ad Hoc Group, i.e., “to consider appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention, to be included, as appropriate, in a legally binding instrument, to be submitted for the consideration of the States Parties,” could be used⁷.
- The outcomes of the work of the Ad Hoc Group in 1994 can serve as a foundation for future discussions and negotiations, in particular, for the overall structure of the protocol, which includes: 1. General Provisions; 2. Definitions, Lists, Declarations; 3. Visits, Investigations, Confidence-Building Measures; 4. Consultation, Clarification and Co-operation, Settlement of Disputes; 5. National Implementation; 6. Peaceful Uses and International Co-operation; 7. The Organization.

D. Relations with other international organizations

- Coordination with the World Health Organization and other international organizations related with human, animal and plant epidemics should be reinforced while avoiding duplication and enhancing complementarity.⁸

IV. Subsequent Discussions

A. Time frame

15. From 2023 to 2024: based on the outcomes of the Ad Hoc Group in 2001, States Parties shall review the progress made thus far and identify the challenges ahead; assess the implications of scientific and technological developments on the verification activities, with a focus on the difficulties of verification of dual-use biological facilities and equipment, and explore new technologies which can enhance the effectiveness of verification under current circumstances; assess the applicability of the outcomes of the Ad Hoc Group in 2001 based on the above-mentioned technical evaluations, determine the priority and direction of future negotiations and discuss preliminarily the overall structure and basic principles of the verification mechanism.

16. From 2025 to 2026: States Parties shall further conduct technical assessment, discuss the overall structure and basic principles of the verification mechanism, as well as the modalities of establishing an organization, and make recommendations on a road-map for resuming multilateral negotiations after the Tenth Review Conference in 2027.

17. During the discussions, initiatives of strengthening and institutionalizing the Convention proposed by States Parties in recent years, including Kazakhstan’s proposal of establishing an International Biosafety Agency, should be taken into full consideration.

B. Scope of professional fields

18. Considering that verification requires great expertise and is highly complex, we suggest that experts in the following fields be invited to participate in the relevant discussions in addition to government representatives:

⁷ Special 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.(BWC/SPCONF/1).

⁸ Protocol to the Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction 2001 (BWC/AD HOC GROUP/CRP.8).

- Microbiologists engaged in the research on bacteria, virus, rickettsia, and fungi that cause disease to humans, animals and plants;
- Toxicologists engaged in the research on virulent biological toxins;
- Preventive medicine and epidemiological experts engaged in the study of epidemic patterns and prevention and control of diseases caused by pathogenic microorganisms and biological toxins;
- Pharmaceutical experts and vaccinologists engaged in the research and development of drugs and vaccines related to virulent microorganisms and biological toxins;
- Clinical experts engaged in clinical research and treatment of infectious disease;
- Bioinformatics experts engaged in the study of tracing pathogen evolution and biological or medical information specialists;
- Biosafety experts engaged in designing, building, operating and maintaining high-containment biological laboratories, high-containment production units for drugs and vaccines, and internal biosafety equipment.

19. In addition, it is important to fully draw on the professional knowledge and expertise of relevant international organizations, such as the World Health Organization, the World Organization for Animal Health, the Secretariat of the United Nations Convention on Biological Diversity, the Organization for the Prohibition of Chemical Weapons, and the Food and Agriculture Organization of the United Nations.

C. Multilateral platforms

20. Apart from the Working Group on the strengthening of the Biological Weapons Convention, Meetings of States Parties to the Convention and Review Conferences of the Convention, other United Nations platforms such as the United Nations Disarmament Commission and the Conference on Disarmament can also be utilized to discuss extensively the establishment of a verification mechanism of the Convention.
