

# **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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## **Second Session**

**Geneva, 7-18 August 2023**

Agenda item 6

**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**

## **Measures on Scientific and Technological Developments Relevant to the Convention**

**Submitted by the Republic of Azerbaijan on behalf of the Group of the Non-Aligned Movement and Other States to the BWC**

### **Review of developments in the field of science and technology related to the convention**

#### **I. Introduction**

1. The Group of NAM and other States Parties to the BWC (hereby after referred to as the Group) welcomes the consensus reached by States Parties at the Ninth Review Conference of the Biological Weapons Convention (BWC) on establishing a Working Group to identify, examine and develop specific and effective measures, including possible legally-binding measures, and to make recommendations to strengthen and institutionalise the Convention in all its aspects to be submitted to States Parties for consideration and any further action.
2. The Group reaffirms that the Working Group, in carrying out its mandate, should be guided by the aim of strengthening the implementation of all articles of the Convention in order to better respond to current challenges.
3. The Group stresses that measures to strengthen the Convention should be designed and implemented in such a way to facilitate the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes as well as to avoid hampering the economic or technological development of States Parties to the Convention or international co-operation in the field of peaceful bacteriological (biological) activities, including the international exchange of bacteriological (biological) agents and toxins and equipment for the processing, use or production of bacteriological (biological) agents and toxins for peaceful purposes in accordance with the provisions of the Convention.
4. The Group recalls its position expressed at the Eighth Review Conference that there may be benefit in reviewing S&T developments in a regular and systematic manner. In this context, the Group welcomes the decision of the Ninth Review Conference to develop with



a view to establishing a mechanism to review and assess scientific and technological developments relevant to the Convention and to provide States Parties with relevant advice.

## **II. Measures on scientific and technological developments relevant to the Convention**

5. NAM and other States Parties believe that the rapid pace of developments in science and technology relevant to biological field has implications for the implementation of the BWC, both in terms of S&T advances which can be used for purposes contrary to the objectives of the Convention and S&T advances which could be of special relevance for the implementation of the Convention as well as for assistance and cooperation to the developing countries. The measures to be developed by the Working Group in this field have the potential to enhance scientific understanding and knowledge sharing among States Parties.

6. Advances in enabling technologies like bioinformatics; computational biology; DNA microarrays; gene synthesis technology; high-throughput mass spectrometry; high-throughput sequencing; nanotechnology; synthetic biology; systems biology; and whole-genome directed evolution, artificial intelligence, machine learning, super computers, additive manufacturing technology (i.e. 3D printing) and other emerging technologies in relation to biology, are critical for future life sciences research and development. These enabling technologies have many benefits in faster, cheaper, and easier application of biological science and technology for both public health and security purposes, increased capacity and better understanding of disease and healthcare technologies by more people in more locations throughout the world.

7. Furthermore, new science and technology developments have many potential benefits for the Convention in improved health care, increasing capacity to diagnose and treat diseases, more efficient food production, more renewable energy resources and better pollution management. In this regard, the Group stresses the importance of the adoption of a plan for active and fullest exchange of knowledge and technology in areas related to enabling and new technologies between developed and developing countries to ensure the unhindered flow of scientific information and technology.

8. There should be no hindrance to the peaceful activities of States Parties, such as vaccine development, medicines and diagnostic equipment, which are essential for developing countries for meeting their public health needs. There is need for equitable benefits from international cooperation in this area, keeping in mind the need for ensuring appropriate and affordable support for developing countries. The Ebola outbreak in West Africa and the COVID-19 pandemic signify the fact that any disruption of or delay in immunization services, even for short periods would risk the increase of the likelihood of vaccine preventable disease outbreaks. This means that States Parties must scale-up routine and urgent immunization activities. Therefore, we also are of the view that the developing countries need to meet their needs for cost-effective, affordable and quality assured medicines and vaccines including through provisions such as compulsory licensing or price controls.

9. The Group noted with great concern the severe negative impact on human health, safety and well-being caused by the coronavirus disease (COVID-19) pandemic, as well as the severe disruption to societies and economies and the devastating impact on lives and livelihoods, and that the poorest and most vulnerable are the hardest hit by the pandemic, noting the importance of solidarity amongst the Global South, achieved through the supply of vaccines between developing countries. The Group welcomes the efforts of countries which have donated COVID-19 vaccines and actively encourages further sharing of vaccines doses by all countries in a position to do so. In this context, we appreciate the support the work of the COVAX Facility and other constructive related initiatives to ensure affordable, equitable, universal and timely access to COVID-19 vaccines for all. The Group emphasizes the need for strengthening health systems and achieving universal health coverage, and recognizing that equitable and timely access for all to safe, quality, effective and affordable COVID-19 vaccines, therapeutics and diagnostics are an essential part of a

global response based on unity, solidarity, renewed multilateral cooperation and the principle of leaving no one behind.

10. States Parties should undertake all efforts to prevent actions and decisions within the BWC that would raise obstacles to the development of biological sciences in developing countries. The need to prevent harmful activities should never hamper scientific evolution for peaceful purposes and life-saving achievements including inter alia, vaccine development and medical therapeutics. Developing countries, in particular, could benefit from advances in technologies that make vaccine production simpler, faster, cheaper and more efficient.

11. The Group notes that there have been recent advances demonstrating the increasing sophistication of synthetic biology, together with other enabling technologies, which have benefits, together with the potential for uses contrary to the provisions of the Convention. All States must conduct such activities in a transparent manner, in order to build the confidence of other States Parties. There is a need to regulate these activities, to ensure that they do not lead to any concerns related to ethics, safety and security as well as any uses contrary to the Convention.

12. Such regulation must, however, be undertaken in a manner that does not hamper scientific and technological developments that are in keeping with the spirit and letter of the Convention, which are of benefit, more especially to developing countries. These recent advancements in S&T once again highlight the need to conclude a legally binding agreement on appropriate multilateral verification arrangements. In the past, useful work has been done in this regard under the BWC in the Ad-hoc Group and the Group continues to attach high importance to preserving and eventually resuming that work.

13. Concerning the dual use nature of some of the new technologies, the Group is aware that there is a potential for uses contrary to the provisions of the Convention including by programming cells to produce toxins, viruses or other cells which could cause harm, designing and building new or altered pathogenic viruses, the ability to confer mammalian transmissibility to viruses or drug resistance to pathogens, the decreasing genetic diversity and the development of incapacitating weapons and the increasing capacity to deliver biological weapons via the alimentary route.

14. The Group reiterates its position that the dual use nature of these technologies by itself should not in any way hamper the free and fullest exchange of technologies between the parties to the Convention especially when some developed countries are freely engaged in many activities that rest in the domain of these new technologies in the framework of their bio-defence programs.

15. The rapid development of science and technology has created significant opportunities for international cooperation to narrow the increasing gaps persisting in the fields of biotechnology, genetic engineering, microbiology and other related disciplines between developed and developing countries.

16. The Group highlights the importance of continued deliberations on S&T to promote common understanding and effective actions which would help States Parties to benefit from these developments.

17. The Group believes that enhancing scientific and technological understanding will be inadequate if ways and means are not found for technology transfers by the developed countries to developing ones. The unhindered exchange of science and technology in the framework of the Convention is also important in the context of enhanced national implementation of the Convention by developing countries which in many circumstances lack resources- technological, financial and human – required for the effective implementation of all provisions of the Convention.

18. The Group recommends following themes to be addressed under the topic, “Measures on scientific and technological developments relevant to the Convention”:

(a) New science and technology developments that have potential for uses contrary to the provisions of the Convention;

(b) New science and technology developments that have many potential benefits for full implementation of the Convention, including those designed to improved health care, increasing capacity to diagnose and treat diseases;

(c) New science and technology developments that have potential benefits for efficient food production, more renewable energy resources and better pollution management.

### **III. Science and Technology Review Mechanism**

19. The Group reiterates that any mechanism setup to review and assess scientific and technological developments relevant to the Convention should foster complementarity and synergies with the mechanism being developed to facilitate and support the full implementation of international cooperation and assistance under Article X. The S&T Review Mechanism should also be integrated organically with any other structures that may evolve under the Convention, including through discussions under “Measures on organizational, institutional and financial arrangements.

20. The Group recommends that S&T Review Mechanism should:

(a) Advise on new science and technology developments that are relevant to the implementation of any provision of the Convention;

(b) Advise on new science and technology developments relevant to the establishment of an institutional verification mechanism through a legally-binding instrument;

(c) Facilitate transfer of new technologies between developed and developing countries and ensure the unhindered flow of scientific information and technology;

(d) Support the peaceful activities of States Parties, such as vaccine development, medicines and diagnostic equipment, which are essential for developing countries for meeting their public health needs;

(e) Promote equitable benefits from international cooperation in this area, keeping in mind the need for ensuring appropriate and affordable support for developing countries;

(f) Help States Parties to scale-up routine and urgent immunization activities;

(g) Support developing countries in acceding cost-effective, affordable and quality assured medicines and vaccines;

(h) Advise States Parties on how to prevent actions and decisions that would raise obstacles to the science and technology developments in biological sciences in developing countries;

(i) Avoid any restrictions and/or limitations on exchange of scientific discoveries in the field of biology for prevention of disease and other peaceful purposes that may amount to a violation of obligations undertaken under Article X of the BWC;

(j) Facilitate cooperation and assistance in the form of education, research, training and capacity building to developing countries to set up advanced laboratories for detecting and responding to infectious diseases, collecting and disseminating information on S&T developments, including new research in areas relevant to the Convention;

(k) Exchange information about databases, networks and education in different fields of science and technology relevant to the Convention, facilitating access to such tools and training of personnel without any unjustified limitations that are of utmost importance for the developing countries;

(l) Establish links with and support relevant institutions working in S&T developments pertaining to the Convention;

(m) Advise on new science and technology developments that have potential for uses contrary to the provisions of the Convention.

#### **IV. Development of a voluntary model code of conduct for biological scientists and all relevant personnel, and biosecurity education, by drawing on the work already done on this issue in the context of the Convention, adaptable to national requirements**

21. The Group would like to reiterate its position related to codes of conduct which are part of the discussions on S&T review.

22. The Codes of Conduct remain the prerogative of the States Parties to decide on the development, content, promulgation and adoption of the code in accordance with relevant national laws, regulations and policies, consistent with the provisions of the Convention.

23. Voluntary Codes of Conduct should avoid any restrictions and/or limitations on exchange of scientific discoveries in the field of biology for prevention of disease and other peaceful purposes. Subjecting scientific research and the free flow of scientific information to undue restrictions and/or limitations may amount to a violation of obligations undertaken under Article X of the BWC.

24. The Group attaches importance to the common understanding and effective action reached in 2012, 2015 and in 2022 on the review of developments in the field of S&T.

25. To that end, we are of the view that progress towards further common understanding and effective action under this agenda item including consideration of developments of voluntary codes of conduct, shall be pursued in a balanced and holistic manner. In this regard, the Group while emphasizing its position with regard to Code of Conduct as above, takes positive note of working paper BWC/CONF.IX/WP.61 submitted by China and Pakistan and co-sponsored by Brazil and North Macedonia on The Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists, and working paper BWC/MSP/2019/MX.2/WP.5 submitted by the Islamic Republic of Iran on Scientific and Technological Developments of Relevance to the Convention, for further consideration.

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