
**Meeting 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**

2 September 2021

English only

2020 Meeting

Geneva, 22-25 November 2021

**Meeting of Experts on Review of developments in the field of science and technology related to the Convention
Geneva, 1-2 September 2021**

Item 8 of the agenda

Adoption of the factual report reflecting the deliberations of the meeting, including possible outcomes

**Draft report of the 2020 Meeting of Experts on review of
developments in the field of science and technology related to
the Convention***

I. Introduction

1. At the Eighth 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 ([BWC/CONF.VIII/4](#)), States Parties decided to hold annual meetings and that the first such meeting, in December 2017, would seek to make progress on issues of substance and process for the period before the next Review Conference, with a view to reaching consensus on an intersessional process.

2. At the Meeting of States Parties in December 2017, States Parties reached consensus on the following:

“(a) Reaffirming previous intersessional programmes from 2003-2015 and retaining the previous structures: annual Meetings of States Parties preceded by annual Meetings of Experts.

(b) The purpose of the intersessional programme is to discuss, and promote common understanding and effective action on those issues identified for inclusion in the intersessional programme.

(c) Recognising the need to balance an ambition to improve the intersessional programme within the constraints — both financial and human resources — facing States Parties, twelve days are allocated to the intersessional programme each year from 2018- 2020. The work in the intersessional period will be guided by the aim of strengthening the implementation of all articles of the Convention in order to better respond to current challenges. The Meetings of Experts for eight days will be held back to back and at least three months before the annual Meetings of States Parties of four days each. Maximum use would be made of the Sponsorship Programme funded by voluntary contributions in order to facilitate participation of developing States Parties in the meetings of the intersessional programme.

(d) The meetings of the MSP will be chaired by a representative of the EEG in 2018, a representative of the Western Group in 2019 and a representative of the Group

* Any entry listed in this document does not imply the expression of any opinion regarding, and is without prejudice to, the legal status of any country or territory or of its authorities.

of Non-Aligned Movement and Other States in 2020. The annual Chair will be supported by two annual vice-chairs, one from each of the other two regional groups. In addition to the reports of the Meetings of Experts, the Meetings of States Parties will consider the annual reports of the ISU and progress on universality. The Meetings of Experts will be chaired in 2018 by [the Group of the Non-Aligned Movement and Other States Parties to the BWC] (MX 1 and MX 2) and the Western Group (MX 3 and MX4), in 2019 by EEG (MX1 and MX 2) and NAM (MX 3 and MX 4), and in 2020 by Western Group (MX 1 and MX 2) and by EEG (MX 3 and MX 4); MX 5 will be chaired by the regional group chairing the MSP.

	<i>MSP</i>	<i>MX 1</i>	<i>MX 2</i>	<i>MX 3</i>	<i>MX 4</i>	<i>MX 5</i>
2018	EEG	NAM	NAM	WG	WG	EEG
2019	WG	EEG	EEG	NAM	NAM	WG
2020	NAM	WG	WG	EEG	EEG	NAM

All meetings will be subject mutatis mutandis to the rules of procedure of the Eighth Review Conference.

(e) The Meetings of Experts would be open-ended and will consider the following topics:

[...]

MX2 (2 days): Review of developments in the field of science and technology related to the Convention:

- Review of science and technology developments relevant to the Convention, including for the enhanced implementation of all articles of the Convention as well as the identification of potential benefits and risks of new science and technology developments relevant to the Convention, with a particular attention to positive implications;
- Biological risk assessment and management;
- 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;
- In 2018, the MX2 will address the specific topic of genome editing, taking into consideration, as appropriate, the issues identified above;
- Any other science and technology developments of relevance to the Convention and also to the activities of relevant multilateral organizations such as the WHO, OIE, FAO, IPPC and OPCW.

[...]

(f) Each Meeting of Experts will prepare for the consideration of the annual Meeting of States Parties a factual report reflecting its deliberations, including possible outcomes. All meetings, both of Experts and of States Parties will reach any conclusions or results by consensus. The Meeting of States Parties will be responsible for managing the intersessional programme, including taking necessary measures with respect to budgetary and financial matters by consensus with a view to ensuring the proper implementation of the intersessional programme. The Ninth Review Conference will consider the work and outcomes it receives from the Meetings of States Parties and the Meetings of Experts and decide by consensus on any inputs from the intersessional programme and on any further action.”

3. By resolution 75/88, adopted without a vote on 7 December 2020, the General Assembly, *inter alia*, requested the Secretary-General to continue to render the necessary

assistance to the depositary Governments of the Convention and to continue to provide such services as may be required for the conduct and the implementation of the decisions and recommendations of the review conferences.

II. Organization of the Meeting of Experts

4. In accordance with the decisions of the Eighth Review Conference, the 2017 Meeting of States Parties and the 2019 Meeting of States Parties, the Meeting of Experts was originally scheduled to take place from 27 to 28 August 2020. However, the Meeting was postponed several times due to the COVID-19 pandemic and, according to the agreement by States Parties by written silence procedure¹, it was instead convened at the Palais des Nations in Geneva from 1 to 2 September 2021, chaired by Mr. Kazuhiro Nakai of Japan.

5. On 1 September 2021, the Meeting of Experts adopted its agenda ([BWC/MSP/2020/MX.2/1](#)) as proposed by the Chair.

6. Following a suggestion by the Chair, the Meeting of Experts adopted as its rules of procedure, *mutatis mutandis*, the rules of procedure of the Eighth Review Conference, as contained in document [BWC/CONF.VIII/2](#).

7. Mr. Daniel Feakes, Chief, Implementation Support Unit, Office for Disarmament Affairs, Geneva, served as Secretary of the Meeting of Experts. Mr. Hermann Lampalzer, Political Affairs Officer, Implementation Support Unit, served as Deputy Secretary and Ms. Ngoc Phuong van der Blij, Political Affairs Officer, also served in the secretariat.

III. Participation at the Meeting of Experts

8. Ninety-two delegations participated in the Meeting of Experts as follows: Algeria; Angola; Argentina; Armenia; Australia; Austria; Azerbaijan; Barbados; Belarus; Belgium; Botswana; Brazil; Brunei Darussalam; Bulgaria; Canada; Chile; China; Colombia; Costa Rica; Cuba; Czech Republic; Democratic Republic of Congo; Dominican Republic; Ecuador; Estonia; Finland; France; Georgia; Germany; Ghana; Guyana; Holy See; Hungary; India; Indonesia; Iran (Islamic Republic of); Iraq; Ireland; Italy; Japan; Kazakhstan; Kenya; Kuwait; Lao People's Democratic Republic; Lebanon; Libya; Lithuania; Madagascar; Malaysia; Mauritius; Mexico; Montenegro; Morocco; Myanmar; Nepal; Netherlands; Nigeria; North Macedonia; Norway; Pakistan; Panama; Peru; Philippines; Poland; Portugal; Qatar; Republic of Korea; Romania; Russian Federation; Saudi Arabia; Senegal; Serbia; Slovakia; Slovenia; South Africa; Spain; Sri Lanka; Sudan; Sweden; Switzerland; Thailand; Togo; Turkey; Ukraine; United Arab Emirates; United Kingdom of Great Britain and Northern Ireland; United States of America; Uruguay; Venezuela (Bolivarian Republic of); Yemen; Zambia; and Zimbabwe.

9. In addition, one State that had signed the Convention but had not yet ratified it participated in the Meeting of Experts without taking part in the making of decisions, as provided for in rule 44, paragraph 1 of the rules of procedure: Egypt.

10. Two States, Chad and Israel, neither parties nor signatories to the Convention, participated in the Meeting of Experts as observers, in accordance with rule 44, paragraph 2.

11. The United Nations, including the United Nations Institute for Disarmament Research (UNIDIR), the United Nations Interregional Crime and Justice Research Institute (UNICRI), the United Nations Office for Disarmament Affairs (UNODA), the United Nations Office of Counter-Terrorism and the United Nations Office of Drugs and Crime (UNODC) attended the Meeting of Experts in accordance with rule 44, paragraph 3.

12. The European Union (EU), the International Committee of the Red Cross (ICRC), the International Criminal Police Organization (INTERPOL), the Organisation for the Prohibition of Chemical Weapons (OPCW), the Organization of American States (OAS) and

¹ See the letters from the Chair of the 2020 Meeting of States Parties dated 28 July 2020, 23 November 2020 and 9 February 2021.

the World Health Organization (WHO) were granted observer status to participate in the Meeting of Experts in accordance with rule 44, paragraph 4.

13. In addition, at the invitation of the Chair, in recognition of the special nature of the topics under consideration at this Meeting and without creating a precedent, six independent experts participated in informal exchanges in the open sessions as Guests of the Meeting of Experts: Dr. Gigi Gronvall, Senior Scholar, Johns Hopkins Center for Health Security; Dr. Peter McGrath, Coordinator, InterAcademy Partnership; Ms. Jenifer Mackby, Senior Fellow, Federation of American Scientists; Dr. Piers Millett, Vice President for Safety and Security, iGEM Foundation; Mr. Yorgo el Moubayed, Safety and Security Program, iGEM Foundation; and Dr. Leifan Wang, Center for Biosafety Research and Strategy, Tianjin University.

14. Twelve non-governmental organizations and research institutes attended the Meeting of Experts under rule 44, paragraph 5.

15. A list of all participants in the Meeting of Experts is contained in document BWC/MSP/2020/MX.2/INF.1.

IV. Work of the Meeting of Experts

16. In accordance with the provisional agenda ([BWC/MSP/2020/MX.2/1](#)) and an annotated programme of work prepared by the Chair, the Meeting of Experts had substantive discussions on the issues allocated by the 2017 Meeting of States Parties.

17. Under agenda item 4 (“Review of science and technology developments relevant to the Convention, including for the enhanced implementation of all articles of the Convention as well as the identification of potential benefits and risks of new science and technology developments relevant to the Convention, with a particular attention to positive implications”), working papers were introduced by the Russian Federation (BWC/MSP/2020/MX.2/WP.4), Germany (BWC/MSP/2020/MX.2/WP.5*), the United States of America (BWC/MSP/2020/MX.2/WP.7 and BWC/MSP/2020/MX.2/WP.9), Switzerland (BWC/MSP/2020/MX.2/WP.10), the Islamic Republic of Iran (BWC/MSP/2020/MX.2/WP.11) and Cuba (BWC/MSP/2020/MX.2/WP.12). Ms. Jenifer Mackby from the Federation of American Scientists made a presentation as a Guest of the Meeting without prejudice to the positions of the States Parties. Technical presentations were made by France, India and the United Nations Institute for Disarmament Research. There then followed an interactive discussion on the agenda item in which the following States Parties participated: Algeria; Brazil; Canada; China; Cuba; France; Germany; India, Iran (Islamic Republic of Iran); Italy; Japan; Kenya; Libya; Mexico; Netherlands; Norway; Pakistan; Philippines; Republic of Korea; Russian Federation; Switzerland; Ukraine; United Kingdom of Great Britain and Northern Ireland; United States of America; and Venezuela (Bolivarian Republic of). The European Union made a statement. Various views were expressed during the consideration of this agenda item.

18. Under agenda item 5 (“Biological risk assessment and management”), working papers were introduced by the United States of America (BWC/MSP/2020/MX.2/WP.1 and BWC/MSP/2020/MX.2/WP.8), by Belgium on behalf of Austria, Belgium, Chile, France, Germany, Iraq, Ireland, Netherlands, Spain and Thailand (BWC/MSP/2020/MX.2/WP.2) and by the United Kingdom of Great Britain and Northern Ireland (BWC/MSP/2020/MX.2/WP.3). Mr. Yorgo El Moubayed and Dr. Piers Millett of the iGEM Foundation made presentations as Guests of the Meeting without prejudice to the positions of the States Parties. The Netherlands and the World Health Organization (WHO) made technical presentations. There then followed an interactive discussion on the agenda item in which the following States Parties participated: Belgium; Brazil; Germany; Ireland; Philippines; Russian Federation; Switzerland; Ukraine; United Kingdom of Great Britain and Northern Ireland; and United States of America. The European Union made a statement. Various views were expressed during the consideration of this agenda item.

19. Under agenda item 6 (“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”), a working paper was introduced by China and Pakistan (BWC/MSP/2020/MX.2/WP.6). Dr. Gigi Gronvall from the Johns Hopkins Center for Health Security, Dr. Peter McGrath from the InterAcademy Partnership and Dr. Leifan Wang from Tianjin University made a joint presentation as Guests of the Meeting without prejudice to the positions of the States Parties. There then followed an interactive discussion in which the following States Parties participated: [...]. Various views were expressed during the consideration of this agenda item.

20. Under agenda item 7 (“Any other science and technology developments of relevance to the Convention and also to the activities of relevant multilateral organizations such as the WHO, OIE, FAO, IPPC and OPCW”), the Organization for the Prohibition of Chemical Weapons (OPCW) made a technical presentation. There then followed an interactive discussion on the agenda item in which the following States Parties participated: [...] Various views were expressed during the consideration of this agenda item.

21. In the course of its work, the Meeting of Experts was able to draw on a number of working papers submitted by States Parties, as well as on statements and presentations made by States Parties, international organizations and Guests of the Meeting, which were circulated in the Meeting.

22. The Chair, under his own responsibility and initiative, has prepared a paper listing considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from the presentations, statements, working papers and interventions on the agenda items under discussion at the Meeting. The Meeting of Experts noted that this paper had not been agreed and had no status. It was the Chair’s view that the paper could assist delegations in their preparations for the Meeting of States Parties in November 2021 and also in their consideration of how best to “discuss, and promote common understanding and effective action on” the topics in accordance with the consensus reached at the 2017 Meeting of States Parties. The paper prepared by the Chair, in consultation with States Parties, is attached as Annex I to this report.

V. Documentation

23. A list of official documents of the Meeting of Experts, including the working papers submitted by States Parties, is contained in Annex II to this report. All documents on this list are available on the BWC website at <https://meetings.unoda.org/section/bwc-mx-2020-mx2-documents/> and through the United Nations Official Document System (ODS), at <http://documents.un.org>.

VI. Conclusion of the Meeting of Experts

24. At its closing meeting on 2 September 2021, the Meeting of Experts adopted its report by consensus, as contained in document BWC/MSP/2020/MX.2/CRP.1, as orally amended, to be issued as document BWC/MSP/2020/MX.2/2.

Annex I

Summary report

**Submitted by the Chairperson of the 2020 Meeting of Experts on
Review of Developments in the Field of Science and Technology Related
to the Convention**

1. [...]

Annex II

List of documents of the 2020 Meeting of Experts on Review of developments in the field of science and technology related to the Convention

<i>Symbol</i>	<i>Title</i>
BWC/MSP/2020/MX.2/1	Provisional Agenda for the 2020 Meeting of Experts on Review of Developments in the Field of Science and Technology Related to the Convention - Submitted by the Chairperson
BWC/MSP/2020/MX.2/CRP.1 English only	Draft Report of the 2020 Meeting of Experts on Review of Developments in the Field of Science and Technology Related to the Convention - Submitted by the Chairperson
BWC/MSP/2020/MX.2/MISC.1 English/French/Spanish only	Provisional list of participants
BWC/MSP/2020/MX.2/WP.1 English only	Approaches to Governance for Scientific and Technological Advances in the Life Sciences Relevant to the Biological and Toxin Weapons Convention – Submitted by the United States of America
BWC/MSP/2020/MX.2/WP.2 English only	Biorisk management standards and their role in BTWC implementation – Submitted by Austria, Belgium, Chile, France, Germany, Iraq, Ireland, Netherlands, Spain and Thailand
BWC/MSP/2020/MX.2/WP.3 English only	Biological Risk Assessment and Management: A Need for Guiding Principles and Frameworks – Submitted by the United Kingdom of Great Britain and Northern Ireland
BWC/MSP/2020/MX.2/WP.4 English and Russian only	Strengthening the Biological Weapons Convention Proposal for the establishment of a Scientific Advisory Committee – Submitted by the Russian Federation
BWC/MSP/2020/MX.2/WP.5* English only	Exploring Science and Technology Review Mechanisms under the Biological Weapons Convention – Submitted by Germany
BWC/MSP/2020/MX.2/WP.6 and Corr.1 Chinese and English only	The Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists – Submitted by China and Pakistan and co-sponsored by Brazil
BWC/MSP/2020/MX.2/WP.7 English only	A Scientific and Technological Advisory Process for the Biological and Toxin Weapons Convention – Submitted by the United States of America
BWC/MSP/2020/MX.2/WP.8 English only	Summary of October 2020 Experts' Meeting on Strengthening Laboratory Biorisk Management – Submitted by the United States of America
BWC/MSP/2020/MX.2/WP.9 English only	Benefits of science and technology developments for the global COVID-19 response – Submitted by the United States of America
BWC/MSP/2020/MX.2/WP.10 English only	Managing Biosafety and Biosecurity Risks: The Importance of Codes of Conduct and a BTWC Science and Technology Advisory Process – Submitted by Switzerland

<i>Symbol</i>	<i>Title</i>
BWC/MSP/2020/MX.2/WP.11 English only	Review Process of Sciences and Technology Developments relevant to the BWC Convention: Some Considerations – Submitted by the Islamic Republic of Iran
BWC/MSP/2020/MX.2/WP.12 Spanish only	Examen de los adelantos en la esfera de la ciencia y la tecnología relacionados con la convención – Presentado por Cuba
