

Twenty-Fifth Session of the Conference of the States Parties

Remarks by Dr Christophe Curty, Chairperson of the OPCW Scientific Advisory Board

31 March 2021

Mr. Chairman,

Director-General,

Excellencies,

Distinguished delegates,

Ladies and Gentlemen,

2020 was the year of a new normality and the Scientific Advisory Board (SAB) could also not escape it!

Our talented and dedicated OPCW Science Policy Adviser and SAB Secretary, Dr Jonathan Forman, left the Organisation due to his tenure at the end of 2019. On behalf of the SAB I wish to express our deep appreciation to Jonathan for performing both roles brilliantly. The SAB is delighted to welcome Dr Peter Hotchkiss as the new OPCW Science Policy Adviser and SAB Secretary, a function that is essential to the work of SAB.

The Covid-19 pandemic with its new and changing restrictions has affected all of us. These difficulties have necessitated a rapid adjustment to a new normality in both our private lives and in the way we work. In this regard, the SAB would like to extend its sympathy to all who have been affected by Covid-19 and for the loss of so many lives around the world.

With the introduction of new worldwide restrictions to preserve the safety of people, in-person meetings in The Hague have not been an option. The SAB rapidly implemented virtual sessions, so that our 25 members could continue to discuss and provide specialised advice in areas of science and technology relevant to the Convention. The SAB expresses its profound appreciation for the support and effort provided by the Secretariat of the OPCW to make this possible. At the same time we also would like to congratulate the OPCW for continuing to perform all their essential activities in these difficult times.

The SAB, as stipulated under Article VIII of the Chemical Weapons Convention, enables the Director-General to render specialised advice on science and technology relevant to the implementation of the Convention to the Executive Council and Conference of the States Parties (CSP). In addition to requests from the Director General for advice on pertinent issues, the SAB is tasked to prepare and submit a comprehensive report to Review Conferences on developments in science and technology relevant to the implementation of the Convention.

We observed with interest the entry into force of the change in the Annex on Chemicals of the Convention. The SAB recommended such an approach in their last report on Developments in Science and Technology for the Fourth Special Session of the CSP in 2018. It is our pleasure to see that you, the States Parties, have worked together to make this world a safer place. On the other hand, the SAB was dismayed to hear about the use of a toxic chemical whose structure is not listed in the current new Annex on Chemicals of the Convention. The SAB encourages all efforts to address this outstanding issue.

The SAB held two regular Sessions in 2020, meeting virtually for its Twenty-Ninth Session in September 2020 and its Thirtieth Session in November 2020. We rapidly adapted to the use of the Microsoft Teams and SharePoint platforms to improve the capacity to discuss and share documents. The SAB invited external speakers to inform them on topics that included new tools to strengthen verification capabilities, approaches to improving laboratory synthesis and industrial production of chemicals, and methods used to treat the victims of chemical weapons.

The SAB appreciates the solid support and guidance provided by the Secretariat. It is important that the SAB periodically receives updates on internal scientific and technical projects and developments. This is not only to ensure that the SAB remains informed, but also to bring their attention to various projects and allow them to provide input. The developments on the OPCW Centre for Chemistry and Technology (ChemTech) have been followed with interest. The SAB is convinced that the ChemTech will be an important instrument in dealing with future challenges that the OPCW will be faced with. The Secretariat can count on support from the SAB for this relevant project.

The final report from the Temporary Working Group (TWG) on Investigative Science and Technology was endorsed by the SAB and submitted to the Director-General. The TWG report provides an in-depth review of methods and technologies that are used for investigative work and which are relevant to the Secretariat. The formal recommendations and the findings of the TWG provide support to the Secretariat to remain fit for future engagements in non-routine missions, which fall outside the provisions for investigation of alleged use or challenge inspection under Articles IX and X of the Convention. The SAB expresses a special thanks to Dr Veronica Borrett for supporting this TWG as Chairperson throughout its term of reference. Based on the TWG work, an essay on remote sensing technology in the context of the chemical weapons regime was written by the members of the TWG and published by the United Nations Institute for Disarmament Research (UNIDIR). This essay discusses, amongst other things, the increasingly important role of remote sensing tools such as chemical sensors mounted on uncrewed aerial vehicles (UAVs), GPS-enabled video cameras and social media in support of non-routine OPCW missions.

In response to our TWG report, the Director-General announced that he is establishing a new TWG on the analysis of biotoxins, an area that requires further research and analysis in light of recent technological developments. In the past, several biological toxins were weaponised, leading to the inclusion of both saxitoxin and ricin in Schedule I of the

Annex on Chemicals to the Convention. Further, some biological toxins are of interest to non-State actors. The objective of the new TWG is to review the science and technology relevant to the analysis of biotoxins and the considerations that need to be taken into account in investigations of their alleged use. An in-depth review of the methods and technologies used in the analysis of biotoxins would be useful and relevant and augment the capacity of the Secretariat. In this regard, I am pleased to inform the Conference that Dr Daan Noort, a SAB member, was nominated as TWG Chairperson and that the Terms of Reference of the new TWG have been defined. The new TWG will include current SAB members and external experts. The Director-General established the TWG for a 2-year period; its first meeting will be held in May 2021. We all look forward to a productive TWG!

I assure the Conference that in these special times the SAB continues its role in advising the Director-General. The most recent science and technology review was presented to the Fourth Review Conference in 2018. As this SAB report captured numerous scientific and technological approaches and advances of relevance to the OPCW, the SAB will consider a finer focus on topics of importance for the Fifth Review Conference. In their considerations for the report, the SAB will provide an in-depth review on the following areas relevant to the Convention: chemicals, developments in chemical production and chemical discovery, technologies for the delivery of toxic chemicals and drugs, science and technology of relevance to verification, assistance and protection, science and technology of relevance to chemical safety and security, as well as science advice and communication. The timeline will start from the last Review Conference in 2018 and continue until the next expected Review Conference in 2023.

The SAB also plans to hold a workshop later in 2021, in partnership with the Secretariat and the chemical industry, to discuss several topics of mutual interest such as the toxicities of chemicals, chemical decontamination and waste procedures, and chemical risk assessments and their utility in managing chemical inventories.

The new Schedule 1 chemicals are still a topic of interest for the SAB. With the lack of open-source available information on their detection and identification, as well as relevant protection and potential countermeasures, the SAB is not in a position to make recommendations to assist the Secretariat in developing the needed capacities. The SAB urges States Parties to share such relevant information to the Secretariat.

A decision was also made to intensify the collaboration with the Advisory Board on Education and Outreach (ABEO). We are convinced that greater collaboration between the Boards will be beneficial to everyone.

The Covid-19 pandemic has forced the SAB to shape a new normality for its work in advising the Director-General. We all miss the in-person meetings, communication with the delegations, discussions with OPCW staff members, as well as the Science for Diplomats initiative which serves to bridge the conversation between science and policy and provide meaningful scientific information to policymakers and permanent representatives of States Parties.

The SAB has a long tradition of scientific discourse and knowledge-sharing relevant to the Secretariat's needs. The SAB will continue to participate in and lead scientific conferences, meetings and research, and crucially will ensure that these experiences are shared with the Secretariat. These actions will also assist the SAB to properly prepare for the next Review Conference. The SAB will continue to think about the science and technology dimension underlying the Convention as well as the needs of the OPCW. The SAB sincerely appreciates the direct dialogues with the Director-General. His attentive response to our reports has provided the SAB with continued energy and inspiration to support the Convention.

The SAB takes this opportunity to reiterate its thanks to the Secretariat's Management for the strong support of its work.

I would like to express my thanks to all States Parties who have supported the work of the SAB with a special thanks to the EU for its support of SAB and TWG functions in 2020.

The SAB appreciates the EU's embrace of innovative projects to engage the scientific community in a project to better identify potential biomarkers of chemical exposure in common vegetation. The Secretariat, with support from the SAB as a scientific reviewing body, has launched the EU funded "Plant Biomarker Challenge" crowd sourcing project in 2020. This is in a spirit of the SAB's 2017 advice on innovative approaches to identify technical knowledge to benefit the implementation of the Convention.

Finally, I would like to thank all my colleagues for their dedication and enthusiasm in their efforts to support the SAB. It is a privilege to be one of you. Science and technology is our playground.

I thank you for your attention and wish you all a successful conference.