Twenty-Fourth Session of the Conference of the States Parties

Remarks by Mr. Cheng Tang, Chairperson of the OPCW Scientific Advisory Board

29 November 2019

Mr. Chairman.

Director-General,

Excellencies.

Distinguished delegates,

Ladies and Gentlemen,

(Slide 1) It is a great honour to stand before you today, especially be the last speaker of this conference, on behalf of the Scientific Advisory Board (the SAB) and provide this update to the Conference.

(**Slide 2**) The SAB, as stipulated under Article VIII of the Chemical Weapons Convention, (**Slide 3**) 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.

In addition to requests for advice on pertinent issues from the Director General, the Board is tasked to prepare and submit a comprehensive report (**Slide 4**) on developments in science and technology relevant to the implementation of the Convention to Review Conferences.

(Slide 5) The most recent science and technology review was presented to the Fourth Review Conference (RC-4) one year ago. As recorded in the Chairperson's informal final report (Slide 6), the Fourth Review Conference noted the SAB's latest report and acknowledged the impact of scientific and technological progress on the effective implementation of the Convention and the importance for the OPCW and its policy-making organs of taking due account of such developments. In the mean time, it also stressed that the SAB should continue its role in advising the Director-General.

I will now briefly summaries the program of work undertaken by the SAB this year.

(**Slide 7**) The Board held one regular Session, its 28th, in June which included a review of technical topics. Priority was given to developing a road map for, and initiating the next review cycle. The SAB appreciates the strong support and guidance provided by the Secretariat. Both the Director-General and Deputy Director-General attended the opening of the 28th Session.

While addressing the Board, the Director-General stressed that when considering the challenges before us, we must harness the power of science, to enable the OPCW to maintain and further build upon, capabilities necessary for effectiveness.

Recognising that the pace of scientific and technological change shows no sign of slowing, which poses open-ended questions on its implications for the Convention, the Director-General expressed the importance of having scientific advice for decision-makers that is practical, understandable and addresses the needs of the OPCW.

He asked the Board to continue providing useful insights on emerging tools and new scientific approaches to help navigate our dynamic and evolving operating environment, to engage with the Secretariat to understand pertinent issues, to support the project to upgrade the OPCW Laboratory into a Centre for Chemistry and Technology, and especially to draw upon the findings from the Temporary Working Group (TWG) on investigative science and technology for formulating advice. The SAB draws inspiration from these words as it embarks upon the next science and technology review cycle.

(Slide 8) I am pleased to inform the Conference that last week from 18 to 20 November, the TWG on Investigative Science and Technology held its final meeting in Helsinki, Finland, the same city where the TWG was originally proposed in 2016 (Slide 9). The SAB expresses a special thanks to VERIFIN and its Director (Slide 10), Professor Paula Vanninen for supporting this TWG throughout its term of reference.

The TWG was established for a 2 year period by the Director-General, its first meeting held in February 2018. The group has met five times under the able chairing of SAB member Dr Veronica Borrett.

(**Slide 11**) The TWG has received more than 100 briefings from experts in a wide range of fields relevant to the work of the TWG. The five meetings had a combined attendance of over 145 experts coming from 36 States Parties.

Rich discussions have inspired the formulation of advice on forensic methods and capabilities, data collection and management, sampling detection and analysis, integrity of scene and evidence collection, and provenance. The TWG's final report is under review and will be submitted to the Director General after endorsement by the SAB.

Dr Borrett presented the findings of this TWG and its deliberations at the Science for Diplomats side event that SAB organized the day before yesterday (**Slide 12**).

(Slide 13) Disarmament needs scientific literacy, demanding that the SAB do more than simply publish reports. Communication with the delegations, the ultimate recipients of the advice must be continuous and engaging. The Science for Diplomats initiative has served to bridge science with the OPCW's decision makers.

The SAB takes this opportunity to express its thanks to the Secretariat's Management for the strong support of its work. The Board would also like to thank the many ambassadors,

including our distinguished Chairperson of this Conference, and delegates who regularly attend SAB briefings and Science for Diplomats. (**Slide 14**). Your interest in science is inspirational, motivating us to continue to find creative ways to make these briefings informative, interactive and also fun!

(**Slide 15**) I would like to express my thanks to all States Parties who supported the work of the SAB (**Slide 16**) and special thanks to the EU and the delegations of Germany and Saudi Arabia, for financial and/or catering support to the work of the SAB and the Science for Diplomats initiative in 2019.

(**Slide 17**) 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. (**Slide 18**) The Secretariat with support from the SAB as a scientific reviewing body will launch 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.

(Slide 19) The SAB appreciates the Secretariat's efforts to provide useful background information on the Schedules of the Convention through the Science for Diplomats initiative. This year, delegations were taken on a journey into "The Expanding Chemical Universe: From C1 to C10 and Beyond" in March, chemical reactivity was illuminated in July, and "Chemical Action on Life Process" explained in October and chemical mystery explored the day before yesterday. These briefings have given the delegates opportunity to learn chemistry, appreciate the trans-disciplinary nature of the science underpinning our Convention with hands on learning activities.

With great support from the interns in the Office of Strategy and Policy, (**Slide 20**) a user friendly and scientifically annotated version of the Chemical Weapons Convention Annex on Chemicals was prepared to help the decision makers to understand and draw upon key chemistry concepts in their discourse. In his response to the report of the SAB's 28th Session, the Director General expressed support for this initiative and encouraged States Parties to consider the types of chemistry information (and formats) that would be useful to have readily available as resources for delegations. We have prepared some of our reference materials available for the delegates during this conference and we have found this Annotated Annex of Chemical booklet is the most popular one.

SAB members have also provided objective science advice on other timely issues, with the Dr Daan Noort and Dr Zrinka Kovarik explaining the SAB's advice on CNS-acting chemicals at side events in October and November respectively.

(Slide 21) In his response to the SAB's report to the Fourth Review Conference, the Director-General expressed support for "increased interaction between technical experts in other international fora, especially scientific advisory bodies of other disarmament and security focused organisations, who face similar challenges in keeping abreast of science and technology."

This past August, Dr Jonathan Forman and I were invite to the Biological Weapons Convention Meeting of Experts to share OPCW's experiences in the provision of scientific advice to disarmament decision makers, and in the development of the Hague Ethical Guidelines (**Slide 22**), which came about through two workshops chaired by former SAB Chairperson Professor Alejandra Suarez.

Next week, SAB member Dr Andrea Leisewitz will brief the BWC Meeting of States Parties on the scientific review process as proposals for a BWC science advice mechanism are discussed in Geneva.

(Slide 23) After serving for the SAB for the past 6 years, my term on the SAB is nearing its end. I wish to close with some personal thoughts and reflections.

I thank all the SAB members past and present for their dedication, especially the former chair Dr Christopher Timperley. I leave a Board that is energized, efficient, respectful of all members, and speaks as one. The SAB stands ready to provide scientific advice to support the Director-General and the mission of the OPCW, and especially to ensure that disarmament decision makers have the strong technical basis necessary to inform their deliberations.

(**Slide 24**) The provision of objective science advice for policy-makers will continue with the same ethos through the leadership of 2020 SAB Chair and Vice-Chair, Dr Christophe Curty and Dr Zrinka Kovarik. Under their able guidance, the Board will continue to disseminate its message – a message of diplomacy and science for peace – to all regions of the world.

(Slide 25) Over my 6 years of service, I have witnessed a significant rise in the Board's visibility in line with its technical output. Its advice to the Director-General and the States Parties has been published both as OPCW official series documents (Slide 26) and as peer-reviewed scientific papers (Slide 27), expanding the Board's reach into both diplomatic and scientific communities.

(**Slide 28**) Last but not least, on behalf of the Board I wish to express my deep appreciation to the OPCW Science Policy Adviser and SAB Secretary, Dr Jonathan Forman, for performing both roles brilliantly. Regrettably, we learned that Dr. Forman, such a talent and dedicated Secretary to the Board, is going to leave the Organisation due to his tenure. We had presented to Jonathan this picture that was signed by all the Board members, the interns and invited guest speakers who attended the SAB's 28th Session in June. We wish him great success in his future endeavors.

(**Slide 29**) I would like to end my talk with a Chinese Proverb - "The Future is Bright, The Road is Tortuous". A collective optimism and spirit of purpose is necessary to achieve a world free of chemical weapons. A sunny sky unclouded by chemical weapons is a vista we must all seek.

I thank you for your attention and wish you all have a successful conference. I request that this statement be issued as an official document of this conference and posted on the OPCW public website.