ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS

Twenty-Seventh Session of the Scientific Advisory Board

Remarks by the Director-General

OPCW Headquarters, The Hague, The Netherlands

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REMARKS AS DELIVERED

Mr Chairperson,
Distinguished members of the Scientific Advisory Board,
Dear colleagues,

I am very pleased to be here with you today, for this will be my final address to the Scientific Advisory Board as Director-General of the OPCW.

The Board plays a vital role in the implementation of the Chemical Weapons Convention and has been of incalculable value to the Organisation. It has been an immense privilege for me to have engaged with such a distinguished group of scientists, both past and present.

Over the course of my two terms as Director-General, we have sought to foster greater dialogue between scientists and policy-makers, institutionalise scientific literacy, and consider the continuing impact of science and technology on the operation of the Convention in our contemporary security environment. The Board has made every effort to contribute to and support these goals; and my successor is set to inherit a highly productive scientific advisory mechanism that he is sure to benefit from.

Distinguished members of the Board,

Article VIII of the Convention compels us to not only monitor and understand the impact of scientific developments, but to also consider how to make use of these advances for verification activities. Your reports have presented many examples of new science and technology with potential applications within the activities of the OPCW. These could benefit our operations in a range of activities - from enhancing sample collection and analytical capabilities to imparting greater levels of safety to inspectors working in hazardous and non-routine environments. While we cannot adopt technologies simply because they are exciting, your scientific review inspires us

to think critically about the necessary capabilities for our work and how these might be realized in the laboratory and the field.

The Board's engagement with members of the Secretariat to better understand the needs and constraints of field operations has strengthened the reporting of the scientific review. In this regard, I have read the report of the first meeting of the temporary working group (TWG) on investigative science. Dr Borrett's able chairing has placed the TWG in good stead to undertake an in-depth analysis of methods and technologies beneficial to the Secretariat's investigative work. I look forward to following further progress in this area.

As we discuss these aspects of science and technology, the OPCW Laboratory and the Secretariat's contingency operations will take prominence. Indeed, this includes the capabilities the OPCW Laboratory has developed since the Third Review Conference and the project for its upgrade. Yet science and technology reach into far broader areas of our work, whether it involves routine verification, assistance and protection, international cooperation, and education and outreach.

There are few facets of the Organisation that cannot be refined, renewed, or revolutionized by new science. When it comes to accessible technologies with capabilities only imagined by previous generations, we live in a golden age.

Distinguished members of the Board,

As science and technology evolve and drive change in the world around us, our mission to achieve a world free of chemical weapons continues to face significant and unprecedented challenges.

These include the all too frequent allegations of the use of chemical weapons in Syria, chemical terrorism, and global access to dual-use information and a multitude of accessible chemicals. Rapid advances in science and technology, including those adopted by industrial processes, have also been identified as an area of concern within security communities.

While we marvel at new breakthroughs or highlight their potential misuse, we must also recognize that some of most immediate chemical threats are underpinned by long-known scientific knowledge. The appearance of sulfur mustard in scientific literature is nearly 200 years old, and the ability to produce this chemical agent using a published 19th Century method has been demonstrated by non-state actors. Nerve agents were developed between the 1930s and 1950s, and are just as toxic and dangerous today. Highly active pharmaceuticals have also been recognized as potential chemical threats due to their effect on the central-nervous system, and a multitude of such chemicals are available through the illegal drug trade.

There are also numerous challenges to be found within our scientific knowledge. For instance, while our better understanding of nerve agents has suggested where medical countermeasures can be improved, those that are currently available were developed in the 1950s and 60s. As chemicals of concern expand beyond the schedules, so must our expertise and methods.

Distinguished members of the Board,

The Convention itself is a comprehensive treaty to counter the threat of chemical weapons in all their manifestations and for all time to come. Yet, as our operating environment changes, we must also evolve how we implement and uphold the obligations of chemical disarmament. Old threats have not completely disappeared and new challenges appear in previously unexpected ways.

As we approach the Fourth Review Conference, it needs to be borne in mind that more than 96% of the declared chemical weapons have been destroyed and the transition to preventing the re-emergence of chemical weapons is now upon us.

Significant challenges remain and finding sustainable solutions will require innovative approaches that may need to be just as dynamic as the world around us. The work of this Board provides great insight into how we may face the uncertainties of the future, not because of any specific scientific advancement, but through the views and perspectives by which your scientific review was undertaken.

I have followed the review through the reports of your regular sessions and workshops. The Board has managed to compile a wide breadth of considerations across a highly trans-disciplinary scientific world. The Board's demonstration of where the science, independent of discipline, intersects with the implementation of the Convention has been insightful and thought provoking. The work has been of value to the OPCW beyond scientific advice. Encouraging productive discussions across disciplinary boundaries has raised awareness of the Convention's norms among communities of innovators from all the regional groups of States Parties. Many of them, initially unfamiliar with the Convention, have shown great enthusiasm in debating scientific solutions to problems faced in chemical disarmament.

Keeping abreast of science and technology is an immense undertaking and it is not possible to truly be aware of everything. The Board's emphasis on trans-disciplinary engagement and the recognition of unexpected and unusual biochemical change is a useful approach in this regard. It allows us to go beyond a high-profile technology-only focus for potential risks. The solutions we need will be thematically cross-cutting and require that we examine them seriously and calmly.
The recommendations you formulate this week, and my response to them, will be viewed with intense interest by the States Parties. We have recently heard some delegations quoting text from your reports in the Open-Ended Working Group on the Review Conference. The advice and guidance you provide is sure to factor into deliberations amongst the States Parties in the lead up to, and during the Fourth Review Conference.

Distinguished members of the Board,

Just as scientific methodologies employed by the Secretariat must be rigorous, scientifically robust and incontrovertible, the Board must also maintain a high level of scientific credibility.

The work of the Board does not end with a report to the Review Conference. I continue to encourage you to publish your findings in peer-reviewed literature in order to raise its scientific

profile. And there must be engagement with the States Parties to ensure they are adequately informed on the key scientific and technological dimensions of your recommendations. Dr Timperley and Mr Cheng, as Chair and Vice-Chair, have brought praise and visibility to the Board through their regular and highly interactive discussions with delegations. Accordingly, the Review Conference report is sure to dominate the topics of upcoming briefings.

Looking beyond the Review Conference, the Board has already provided interesting views and some recommendations on innovation, the applications of emerging technologies and topics on investigative science. As in the past, a request for advice on a specific technological topic in the form of an intersessional review is likely to follow.

Distinguished members of the Board,

Before closing, let me echo the Deputy Director-General from earlier this week and welcome Professor Dimitrov, Dr Noort, Professor Razia and Dr Seto to the Board. Your knowledge and experience can only strengthen our scientific literacy.

I also recognize that I am not the only one who will be departing in 2018. Professor Mohammad Abdollahi, Professor David Gonzalez, Mr Francois van Straten, and Dr Christopher Timperley, the Chair since 2015, all reach the end of their tenure on the Board this year. I am grateful to each of them for the many contributions they made to this advisory mechanism and for their dedication to upholding the norms of the Convention. You will all leave a mark on this Board through a legacy of scientific excellence that you have helped foster. I am confident your colleagues will continue to carry this legacy forward.

I have been continually pleased with the levels of enthusiasm and engagement within this Board. It serves as both a model of scientist-policymaker engagement and science diplomacy. I commend Dr Timperley for cultivating this culture. His successor, like mine, is in good hands.

I wish you all continued success and I expect our paths will cross again along the road to a chemical weapon free world.

Thank you for your attention.

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