



**ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS**

**Eighth Singapore International Symposium on Protection Against Toxic Substances (SISPAT)**

**“Staying one step ahead of evolving CBRN threats through international cooperation”**

**Keynote Address by Ambassador Ahmet Üzümcü, Director-General**

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*REMARKS AS DELIVERED*

Excellencies, Distinguished Guests, Ladies and Gentlemen,

It gives me great pleasure to address you at this SISPAT / NCT Conference. I take this opportunity to commend Singapore for its commitment to the aims and goals of the Convention. The Organisation for the Prohibition of Chemical Weapons (OPCW) greatly appreciates the firm support of Singapore’s Government, of its National Authority, DSO, as well as the cooperation with the chemical industry.

SISPAT was launched in 1998. This was only a year after the creation of the OPCW. Both have since come a long way. SISPAT was a response to an important need. It has facilitated a vital exchange of knowledge amongst scientists and specialists in the field of CBRN defence from across the world. Such exchanges are crucial on the side of prevention.

Our mandate at the OPCW is to implement a prohibition - a comprehensive ban on chemical weapons that applies globally. Making this prohibition strong and enduring is the first line of defence against chemical weapons. Our respective endeavours are therefore complementary. Continuing to focus on effective prevention is a prudent and necessary course of action. For no matter how strong the prohibition, someone, somewhere is likely to breach it. We know that all too well, not least from our most recent and painful experiences. Use of chemical weapons has unfortunately once again raised its ugly head. This poses a grave challenge for the international community.

What this means is that we must redouble our efforts on both fronts; to make the prohibition stronger, but to also be fully prepared if the worst were to happen. The need for international cooperation and coordination has never been greater.

I commend the organisers for choosing that theme for this year's conference. International cooperation involving a number of stakeholders of diverse origin has been key to our own mission to rid the world of chemical weapons. Our present moment in history is truly extraordinary. We live in an era of unbounded opportunities but also serious challenges. Easy access to a wide range of products, processes and information dominates our everyday experience. These are the fruits of an interdependent and interconnected world which science and technology have helped create.

Chemistry in particular has had a transforming and positive influence. It has contributed immensely to raising the quality of life and explaining the deep mysteries of our existence. Its potential for bringing sustainable progress and prosperity remains immense. Nonetheless whilst as a global civilisation we have reached great heights of scientific accomplishment, we have also acquired the means to inflict great damage and destruction.

The challenges of climate change for example illustrate clearly that in today's world we face a common fate and future. We all share the same space. To manage such a globalised world, requires respect for and adherence to universal norms and values as opposed to narrow parochial interests. International treaties and multilateral institutions are founded on this principle. They represent our collective response to problems, and challenges that affect all nations and peoples. For technical organisations like ours, we also proceed with the realisation that progress in science must be mediated by a continual strengthening of the law and promotion of ethical norms and practices.

Yet, not much can be achieved without international cooperation. This is a theme for SISPAT 8 and also one that permanently defines our experience at the OPCW. While today our challenges seem many, it is important not to lose sight of our accomplishments. These are achievements that are full of valuable lessons and help reinforce our determination to build on them for the sake of a safe and peaceful world. The Chemical Weapons Convention remains the only international disarmament treaty to ban an entire class of weapons of mass destruction under international verification. And it is within close reach of achieving this objective.

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This year marks the 20th anniversary of the Convention, and the founding of the OPCW. It is an appropriate time to take stock of what we have accomplished and what remains to be done, especially, in the face of new and unprecedented developments and challenges. Today, 192 nations are States Parties to the Convention, meaning that 98% of the world's population live under its protection. Because of the commitment of these States Parties, we are approaching the complete elimination of declared chemical weapons.

Nearly 95% of more than 70,000 tonnes of those weapons have been destroyed under verification by the OPCW. This is a very significant achievement. The broader work of the Organisation is regarded as a substantial contribution to global peace and security and merited the Nobel Peace Prize in 2013. The stockpiles of the two largest possessor States, Russia and the United States, will be destroyed by the year 2020 and 2023 respectively.

In 2016, the OPCW successfully removed Libya's remaining chemical weapons, ensuring they will not fall into the wrong hands. Destruction of these weapons will be completed by year end at the GEKA destruction facility in Munster, Germany. This high-risk operation was a success made possible through the cooperative efforts of a dozen countries. Before that in Syria, the OPCW faced one of its most daunting challenges. The operation to remove and eliminate Syria's chemical weapons was a mission without parallel. Here again a remarkable international effort was undertaken pooling technical, financial and political support of over 30 States Parties.

The mission in Syria was obviously based on the Chemical Weapons Convention and the international community's determination to enforce its prohibitions. The Convention provided the necessary framework to act in order to eliminate a major chemical arsenal. More than this, it was the basis for consensus building to extend the application of the Convention in line with its true aims. This was reflected in our Member States' willingness to agree to the removal of weapon stocks for destruction outside of Syrian territory, a decision that was endorsed by the UN Security Council. In the end, the Syria mission strengthened the Convention by extending, and consolidating, the rules governing its implementation. In particular, it made it even more responsive to contingencies. The clearest evidence of this is how the OPCW has addressed ongoing allegations of use of chemical weapons in Syria.

In April 2014, I established a Fact-Finding Mission, which confirmed the use of chlorine as a weapon in northern Syria and, more recently, attacks involving the use of sulfur mustard by Daesh. Importantly, the work of this mission was followed up when the UN Security Council established the OPCW-UN Joint Investigative Mechanism (JIM). Its purpose was to identify the perpetrators of these and other chemical weapon attacks in Syria – and hopefully, to bring them to justice. The OPCW FFM and the JIM continue to investigate the most recent allegations of use of chemical weapons in Syria.

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The verification regime of the Convention is one of its key strengths. The Convention not only bans chemical weapons, but it also gives us the means to prove that this is being respected. All countries with chemical plants that are regarded as capable under the Convention, must allow inspections by the OPCW. Since its inception, the Organisation has conducted nearly 3500 industry inspections to verify the production and consumption of chemicals are intended for solely peaceful purposes.

Today, the global chemical industry is growing. States Parties have declared over 5,300 chemical production facilities, which are producing an ever wider range of new compounds. The geographic footprint of the chemical industry is also evolving. Rapid growth is occurring here in Asia. Since the inception of the Convention, over 50% of the chemical industry has become concentrated in this region. Further industry expansion is expected into the African region in the coming years. Maintaining a close relationship with National Authorities, scientists and experts, industry, international partners and non-government organisations is important for global chemical security and the effectiveness of the Convention.

In January this year, I signed a memorandum of understanding (MOU) with the World Customs Organization (WCO). The MOU sets the terms for close coordination with the WCO, which is essential for enforcement of the regime for transfers of scheduled chemicals on a global scale. This strengthened partnership will prevent the misuse of toxic chemicals, and enhance the security of the global supply chain.

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As a multilateral organisation, the OPCW's membership is diverse. States Parties range from the leading chemical producers in the world, to industry newcomers, to those without industry at all. The Convention promotes international cooperation and the exchange of scientific and technological information in the field of peaceful chemical activities. To assist States Parties, the Organisation has established a wide range of programmes, including, for instance, the training of young chemists in industrial best practices and the promotion of analytical laboratory skills.

Here I should like to underline that international cooperation and collaboration for the OPCW also means working closely with scientists and industry around the world to promote peaceful uses of chemistry. Science and technology have and will continue to play an especially important role in guarding against the re-emergence of chemical weapons which in the post destruction phase will remain our long term objective.

In the first instance, this means maintaining an ability to detect the presence of chemical warfare agents through effective sample collection and analytical methods. OPCW experts provided vital support to the UN Investigation into Allegations of Use of Chemical Weapons in Syria which was initiated by the Secretary-General of the United Nations in 2013. On the basis of analysis conducted at OPCW-designated laboratories of biomedical and environmental samples, the mission's report confirmed the use of the deadly nerve agent sarin in the Damascus suburb of Ghouta in August of that year. This finding precipitated strong international condemnation and was a decisive factor in rallying the collective international effort to eliminate Syrian chemical weapons in the wake of its decision to join the Convention.

Sampling and analysis is a powerful tool that our inspectors are able to utilise in support of their mission. Samples taken in support of these investigations are transported back to the OPCW Lab, where each sample is split into multiple aliquots. Identical sets of samples are then sent to two of our partner labs for analysis. Our network of partner Labs called OPCW designated Labs, are highly capable and are able to analyse environmental and bio-medical samples. We currently have a set of 23 Labs from 17 Member States in our network of designated Labs; 13 of these Labs are designated for both bio-medical and environmental analysis. DSO's national Laboratory is one of these Labs.

A more complex set of non-proliferation problems relates to building capabilities to meet new and emerging challenges in the form of new types of chemicals and technologies, as well as other relevant scientific advances. At the OPCW, scientists and policy-makers work together – notably, through the OPCW Scientific Advisory Board. The Board composed of eminent experts coming from 25 different States Parties helps to keep us abreast of these developments, and to understand how we can better use them for fulfilling our mandates.

In this way, the independent scientific advice we source through the Board acts as an early-warning system. It allows us to recognise where new developments could have an impact on implementation of the Chemical Weapons Convention. We cannot, of course, hope to control every new chemical – nor should we try to. Accordingly, it is imperative that our work strikes as informed a balance as possible – between prevention and promotion in relation to applications that have malevolent and beneficial uses.

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States Parties also agree to provide assistance to other members should they come under the threat of chemical attack. This is an essential part of the security assurance that States receive by joining the Convention. For this mechanism to be effective, we work extensively with Member States to ensure that an adequate emergency response capacity is available at all times should the need ever arise. As part of such preparedness, we have established a Rapid Response and Assistance Mission (RRAM) to be deployed upon requests from our members for emergency measures of assistance in the case of use of chemical weapons.

The RRAM is equipped with analytical equipment to detect toxic chemicals, secure the affected area, and provide assistance to victims. Importantly, the team is enabled to cooperate and coordinate with UN and other relevant international organisations. In January, we tested the RRAM at a table-top exercise held in the framework of the UN Counter-Terrorism Implementation Task Force (UNCTITF) at OPCW headquarters. The OPCW also works closely with its Member States to develop the capacity and expertise to manage and mitigate the use or threat of use of chemical weapons. This is achieved through a comprehensive programme of training and capacity building for first responders and other relevant agencies in States Parties. This training programme emphasises the importance of regional cooperation and the exchange of skills and expertise among practitioners.

The benefit of this approach is that the skills and capacities developed to counter a chemical weapons threat are equally applicable in dealing with industrial accidents or other disaster scenarios involving toxic chemicals. Developing protective measures against exposure to chemical weapons is an area in which the positive application of advances in science and technology are very much in evidence. This is the case in the life sciences, which provide opportunities for developing better medical counter-measures for those affected by exposure to hazardous chemicals, as well as treatment for the longer-term effects of such exposure.

Assistance and protection is nonetheless about more than medical counter measures. Advances in materials science and nanotechnology have allowed us to greatly improve protective equipment, thus ensuring the health and safety of those who are exposed to chemicals, both in response to chemical attacks as well as accidents. Under the auspices of a range of programmes, we hold workshops and exchanges designed to enhance capacity and the quality of laboratory work. We wish that States Parties have the necessary analytical capabilities. We also support internships for young scientists and engineers, provide opportunities for academics and practitioners to attend conferences, and facilitate a program to make used but usable equipment available to laboratories with an identified need.

The overwhelming focus of this work is on countries with developing economies and economies in transition. The principle that informs this work is twofold. Firstly, that durable security must be based on equitable access to scientific knowledge and technical know-how, and secondly that all States Parties must have at least a basic capacity to implement the Convention from a scientific and technical perspective. These are vital assets also for helping to underwrite our Member States' engagement on our common purpose, as well as their prosperity. Scientific collaboration is especially well placed in this regard, since science knows no geographical boundaries. It is, accordingly, an excellent vehicle for enhancing dialogue and building trust between nations.

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Collectively, we have made significant progress towards a world free from chemical weapons. However, recent events demonstrate the urgency of the work left to be done. There have been several recent incidents involving the use of chemical weapons. Some I have already mentioned. You are all aware of the recent fatality reported by Malaysia caused by the use of VX nerve agent at Kuala Lumpur International Airport. If the results of the on-going investigation conclusively prove the use of the nerve agent, this incident will add a new dimension to the threat of chemical weapons.

The Executive Council of the OPCW has expressed its grave concern over this reported incident. On the part of the Organisation, I have offered the government of Malaysia technical assistance in its national investigation of the incident and also provided to them technical materials to assist in this enquiry. Reports on the use of chemical weapons in Mosul, Iraq, are also a source of serious concern. In this case, we are working with the Iraqi authorities and have offered assistance to the investigation. Unfortunately it is very clear that even as stockpiles of chemical weapons diminish, the threat of chemical terrorism remains.

Chemical terrorism is no longer a possibility or even imminent threat, but a reality. It is a reality that could affect many more across the globe over the coming years. This new and elusive threat presents a serious challenge to the OPCW. Until recently, strong support for the global ban seemed to be a robust barricade against the use of chemical weapons. Yet, its core prohibitions are being violated. This means that our work is far from over. It is not enough to agree on a norm. Now we face the more challenging work of making it truly universal and enduring.

We must redouble our efforts to persuade a handful of countries – Egypt, Israel, North Korea and South Sudan – to join the Convention to make it truly universal. In the face of new threats, especially, terrorism, full implementation of the Convention by all our States Parties is critical. The Convention is not an anti-terrorism instrument. However, the full enforcement of the Convention's legal framework offers the best defence against chemical terrorism.

This would mean criminalising the development, production, stockpiling and transfer of chemical weapons or the use of toxic chemicals as weapons by all natural or legal persons under the jurisdiction of individual States Parties. In other words, the full and effective implementation of the Convention under the domestic laws of all 192 of our Member States would deter and combat acts of chemical terrorism.

We assist our States Parties in this important area through training programmes, information sharing, and capacity-building activities. These are designed to promote best practices in legal processes and enforcement. The international legal framework also offers several avenues for greater cooperation and coordination between international organisations in the context of counter-terrorism. The OPCW's open-ended working group on terrorism met in January this year to review such mechanisms and opportunities for enhanced interaction and coordination.

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When the Convention came into force in 1997, the main priority was to verify the destruction of huge quantities of declared chemical weapons. Today, our priorities are shifting. It is clear that more complex dynamics are at work and we must adapt. The extraordinary missions carried out in Syria and Libya, the threat of chemical terrorism, the continuing use of chemical weapons, and rapid advances in science and technology are all shaping our future. As we shift focus away from destroying existing chemical weapons to preventing re-emergence, new approaches are needed.

An overarching principle guiding our activities will be to look beyond traditional disarmament and non-proliferation objectives to seek a more holistic approach. This will require education and engagement. To this end, the OPCW has established an Advisory Board on Education and Outreach. This body will guide the development of new activities, and teaching tools to increase awareness of the dangers posed by the possible misuse of dual-use technology. They will also help us to expand our reach into universities and schools in order to nurture a culture of responsible science. The aim should be to develop and promote professional ethics that support the aims of the CWC.

Asia will have a prominent role to play in this respect for a variety of reasons. Increasingly, scientists and engineers in the region are at the cutting edge of technological developments and industrial applications. The region is already a major production base for chemical materials and technologies. Furthermore, the regions' role as a hub for global trade is set to expand in the future. In a world that sometimes finds it difficult to find consensus, the CWC and the OPCW remain a clear example of the success of multilateralism and the benefits of international cooperation. Our progress reaches beyond the field of disarmament, and touches on humanitarian ideals. These achievements are valuable, but we must not rest on our laurels. There is one important lesson we can take away from our 20 years of implementing a major international treaty. There is much more we must do.

The threat of chemical weapons remains, and it requires a concrete response by States and international organisations. The existing international instruments of arms control, disarmament and non-proliferation must not be weakened under any circumstances; indeed, we must continue to ensure they are strengthened. The Convention and the OPCW are an essential part of the global system to protect against chemical weapons, and enhance international peace and security. I feel confident that the Organisation will continue to make our world a safer place for us, and for future generations. I wish you a productive and fruitful conference.

Thank you.

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