ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS

"The Chemical Weapons Convention: Science in Service of Peace"

Speech to Bangladesh University of Engineering and Technology

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Dhaka, Bangladesh

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SPEECH AS DELIVERED

Vice- Vice Chancellor Professor Saiful Islam,

Professor Chaudry,

Distinguished faculty members,

Dear students,

Ladies and gentlemen,

This is my first official visit to Bangladesh as Director-General of the Organisation for the Prohibition of Chemical Weapons, or OPCW.

I consider it particularly important to visit centres of learning and to interact with those associated with such institutions. These are the places where ideas germinate and where the thought process is disciplined to make creative energies productive.

The content and direction of progress in a country is largely determined by the quality of its educational institutions.

Your university is renowned not only as one of the oldest and largest centres of higher learning in Bangladesh. It is noted for its high quality research and academic programmes in technology and engineering.

It, therefore, gives me great pleasure to be with you here today.

Later this week, Bangladesh will mark forty-five years of its independence.

Over this time, your country has taken significant strides in advancing progress for its people.

Bangladesh also has a worthy record as a responsible global citizen.

It is one of the largest contributors to the United Nations peacekeeping operations.

By subscribing to all major disarmament treaties, Bangladesh participates in the endeavour to make our world a place safe from weapons of mass destruction.

Your country is an original signatory to the Chemical Weapons Convention (CWC), a landmark international treaty that bans an entire class of weapons of mass destruction under international verification.

As State Party to this Convention, Bangladesh participates in the work of the OPCW which oversees its implementation.

The OPCW was created to promote our common goal of peace and security in the world. But this objective requires the strong support of citizens and not just governments.

Citizens have the ultimate stake in peace and citizens can be the drivers of peace. In this regard, scholars, scientists, academics, and future engineers such as yourselves, have a particularly important role to play.

To rid the world of chemical weapons, and to keep them from ever again being developed, requires that science always works in the service of peace. And this places an obligation on us all to play our part and to make whatever contribution we can in our respective fields of endeavour.

In the words of famous Bengali writer and Poet Rabindranath Tagore

"You can't cross the sea merely by standing and staring at the water."

We have not been idle. We have come a long way in eliminating a cruel type of warfare. Chemical weapons are weapons of mass destruction that have historically been used repeatedly.

The Chemical Weapons Convention which entered into force less than two decades ago together with work of the OPCW is the singular reason that today these weapons are universally condemned.

The 2013 Nobel Peace Prize was awarded to the OPCW in recognition of this unprecedented achievement.

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Today, over 94% of all declared stockpiles of chemical weapons worldwide have been destroyed, and what is left – largely in Russia and the United States – will be eliminated by 2023.

In other words, within the next seven years, all known stocks of chemical weapons will have been eliminated.

192 countries are now members of the CWC, covering 98 per cent of the world's territory and population, making it a truly global norm.

This is not a merely declaratory regime.

The OPCW works actively with its Member States to ensure that the Convention is effectively implemented and its compliance monitored. The CWC contains a robust verification regime.

Our inspectors have conducted some 6,000 inspections – at military as well as commercial industrial facilities around the world – to verify that weapons are being destroyed, and that no activities prohibited under the Convention are being undertaken.

The OPCW's work to bring about global chemical disarmament has rendered far reaching results. It is also an outstanding example of effective multilateralism.

In the course of our work to implement the ban on chemical weapons, we have faced some extraordinary challenges. The international effort to remove and destroy Syria's chemical weapons was anchored in the work of the OPCW.

Following Syria's accession to the CWC in September 2013, a programme of destruction of its stockpiles and facilities was established by the OPCW Executive Council and endorsed by the United Nations Security Council. Following these decisions, all of Syria's declared chemical weapons were removed from the country and destroyed.

This was an unprecedented mission, involving more than 30 countries, with the United Nations providing important logistical and security support.

The generous extent to which States Parties contributed, in terms of financial and technical assistance, attests to the strength of the global consensus against chemical weapons.

The mission also served to demonstrate the resilience and ongoing importance of the CWC.

More recently, in August this year the remaining chemical weapons in Libya have been transported outside of the country and are now being destroyed in Germany. In view of the security situation in this country and the increasing threat of DAESH, States Parties have decided that destruction activities could not take place there.

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As a collection of participating States, the OPCW can be described as a political organisation. At the same time, the nature of our work makes it a technical organisation. At the heart of our record of success has been our ability to demonstrate a high degree of competence, technical skills and the commitment of our staff.

These are professional virtues which, I am sure, are only too well understood here.

The negotiations for the Convention had sought to create not only legal obligations prohibiting chemical weapons but also a new regime for verification of compliance with those obligations.

Scientists and technical experts played a vital role in developing such an international verification regime. They needed to demonstrate that verification was not only possible but workable.

They developed the tools for an inspection and monitoring regime that could verify that Member

States were complying with their obligations under the Convention.

Negotiators catered to the possibility of undeclared violations by introducing the concept of short notice challenge inspections. While this provision of the Convention has never been used, it serves as a strong deterrent against cheating.

Science informs almost every aspect related to the implementation of the Convention.

From complicated, environmentally safe technologies for destroying chemical weapons, to sensitive monitoring and detection devices used in the field by OPCW inspectors.

From accurate laboratory analysis of chemical samples, to the development of credible verification techniques and methods.

That is why the OPCW invests considerable energy and effort in its partnerships with the scientific community and industry.

The OPCW Scientific Advisory Board is a vital organ in this regard. It is composed of 25 eminent experts coming from States Parties.

It provides independent expert advice on a wide range of topical issues in science and technology with a view to enhancing implementation of the Convention.

Among issues addressed by the Board, for example, was the growing convergence of chemistry and biology, and what implications this could have for the OPCW's verification activities.

We also draw on a global network of more than twenty OPCW-designated laboratories that have been accredited to the highest possible standards for chemical analysis.

Several of these laboratories played a crucial role in confirming the use of the deadly nerve agent sarin in 2013 in the Damascus suburb of Ghouta and other verification activities in Syria.

In short, scientists help us to better understand how advances in their field can create challenges, as well as opportunities for our work.

The practical importance for disarmament of technical innovation and cooperation with industry was made especially clear in the course of the Syria mission.

Two examples stand out in this respect.

Syria's most dangerous chemical weapons were destroyed on a sea-based platform. A United States naval vessel was equipped with a field deployable hydrolysis system and successfully and rapidly neutralised some 600 tonnes of sulphur mustard and stocks of a precursor chemical for sarin. This was accomplished in a safe and environmentally sound manner.

And to destroy other toxic chemicals used in Syria's weapons programme, as well as some of the effluent resulting from the hydrolysis operations, the OPCW engaged two commercial entities through a tender process.

This was a notable example of how the private sector can make an important contribution to addressing disarmament challenges.

More recently, we have been analysing evidence for the purposes of investigating allegations of use of toxic chemicals as weapons in Syria, notably chlorine.

This mission is of utmost importance, particularly in the light of the OPCW-UN Joint Investigative Mechanism, established last year in August by the UN Security Council.

The objective of this Mechanism is to identify those responsible for either carrying out or sponsoring attacks using chlorine or other toxic chemicals.

Bringing accountability in the case of use of chemical weapons will serve to strengthen the authority of the norm that the international community regards as sacrosanct.

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Practical, tangible and sustained benefits of disarmament are not possible without the participation of scientists and industry experts who can communicate effectively with policy makers and diplomats.

Those of you embarking on careers in science and industry can choose to participate in activities that raise awareness of the crucial nexus between science and security.

This is especially true in the case of the chemical and biological sciences, given the potential for them to be misused.

The thousands of victims of chemical warfare over the past hundred years are tragic testimony of this.

It is worth recalling in this regard that the Nobel laureate who saved millions from starvation by devising a way of synthesising ammonia and establishing the modern fertiliser industry also oversaw Germany's chemical weapons programme during the First World War.

The example of Fritz Haber a German scientist is always important to remember.

It reminds us to always remain alert to the dual use potential of chemical substances and technologies – to benefit as well as to harm humankind.

For our part, we are extending our outreach efforts internationally, to reach the experts and practitioners in the field of chemistry and its related sciences.

Just last week, the OPCW participated in the latest edition of the Asian Chemical Congress that took place here in Dhaka.

The Congress, a biennial gathering of more than 30 chemical societies, is one among many events that provide the OPCW opportunities to convey our message which is the use of chemistry for only peaceful purposes.

We are also working closely with partners in universities and research institutions to promote projects that teach responsible science.

OPCW has recently established an Advisory Board on Education and Outreach to help us broaden our community of stakeholders through new engagement strategies and tools. The Board

has held two meetings since its inception and is in the process of submitting recommendations for consideration by the States Parties.

At the OPCW we had facilitated discussions among scientists and industry representatives to develop ethical guidelines – a kind of Hippocratic Oath for chemistry professionals. The guidelines have been widely circulated. You can also access them on OPCW's website. I encourage you all to read them.

But this is not to say that preventing the re-emergence of chemical weapons is only about preventing misuse of scientific knowledge.

Scientists can play a proactive role in not only developing methods to improve our confidence in verification of disarmament agreements, but also in enhancing safety and security more broadly.

The world has witnessed accidents at chemical plants or storage facilities that had devastating consequences. Safety and security is an area requiring continual attention and investment, especially in the face of the growing threat of terrorism.

Science can also help us to enhance the assistance and protection provisions laid out by the Convention, ensuring that States Parties are well prepared in the event of a chemical incident, deliberate or accidental.

The dual use nature of chemistry and countless chemical compounds underlines the need for effective monitoring and control.

Take the widely traded industrial chemical chlorine, for instance.

The same chemical used to purify municipal water supplies can be used as a poison gas to inflict severe harm or death, as the recent tragic events in Syria demonstrated.

This 'dual-use dilemma' goes to the very core of what makes our task so challenging.

Given the sheer pace of the discovery of new chemical substances, we need to rethink our strategies.

This means developing new synergies between governments and industry, scientists and civil society that can serve to make our societies safe and advance the goals of the Convention.

To supplement our monitoring and control measures, for example, we need to create new partnerships that promote responsible science. In fact, it is imperative to create such a global culture.

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The last two decades have seen incredible strides in the eradication of chemical weapons.

As I have noted, the goal of a world free of these barbarous weapons is now within our reach.

This is not to underestimate the challenges ahead.

We still need to persuade a handful of countries – Egypt, Israel, North Korea and South Sudan –

to join the Convention to make it truly universal.

And, as the likelihood of states using chemical weapons has become distant, concerns over non-state actors accessing and using chemical weapons must be addressed in more effective ways.

As we take the final steps towards destruction of existing chemical weapons stockpiles, we must remain mindful of the challenges that lie ahead.

Preventing chemical weapons from re-emerging in the future will remain our long term pre-occupation. This objective will require the same degree of commitment that the international community demonstrated in eliminating declared chemical weapons.

The OPCW has proven to be an effective forum for collaboration and cooperation in order to realise the objectives of the CWC.

By intensifying our interaction with scientists, engineers and industry experts, we can prepare ourselves well for dealing with the complex security challenges that we face.

Bangladesh is home to a growing chemical industry with which we can work productively to expand our monitoring and verification goals, and to develop new initiatives for promoting peaceful uses of chemistry.

There lies significant work in enhancing the national implementation of the Convention in many of our States Parties, an important area in which Bangladesh can provide significant support.

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After more than one century following the first use of chemical weapons, we need to draw lessons not only from the tragic legacy of chemical warfare, but also from the political will that the world has shown in creating a global norm against these weapons.

The Chemical Weapons Convention has stood the test of time in prohibiting the development, production, stockpiling and use of chemical weapons.

It is vital that we use our partnerships – with policy-makers, scientists and students such as yourselves – to ensure the Convention's continuing effectiveness as advances in science and technology shape our future.

These partnerships will remain a vital investment in the contribution made by the Convention towards enhancing global peace and security.

Individuals have a foremost responsibility to serve the societies to which they belong. But in our interdependent and interconnected world, we are also called upon to work for the betterment of humanity.

The ideals before you are captured concisely in the mission statement of your institution - to ‘create new knowledge to solve the problems of chemical, biological, materials, and energy industries in service of the nation and in turn the world’.

As citizens of the world, each one of you can participate in the project to make it a better place for ourselves and our future generations.

Every journey begins with the first steps. In contemplating your future as professionals, do consider the steps that you might want to take in devoting a part of your time, your knowledge and your skills both in the service of your nation and the world.

Thank you.