

**Keynote by the Executive Secretary
Preparatory Commission for the
Comprehensive Nuclear-Test-Ban Treaty Organization**

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Pugwash Conference

Nuclear tests: past and future

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Excellencies, Ladies and Gentlemen,

1. It is my pleasure to speak at this International Pugwash conference. Pugwash has been an invaluable advocate for true human and global security since its first meeting in Nova Scotia in 1957.
2. A number of challenges face the international community today. This makes the need for dialogue and discussion between practitioners, academic communities and international organizations more critical than ever before.
3. I am particularly happy to be speaking here because Pugwash has one foot in science and the other in global affairs. As the Executive Secretary of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), this science-policy nexus is exactly what I have devoted myself to. It feels really enlivening to be around people who share the goal of making the world safer through science and international cooperation.
4. The theme for this conference is confronting new nuclear dangers. In the next days, we are to consider it from regional and global perspectives. I have the experience confronting one particular type of nuclear danger. The danger posed by nuclear weapon testing. It has had a dangerous and

destabilizing impact on global security, and terrible effects on human health and environment.

5. Thankfully, nuclear weapons have not been used for their intended purpose since those two terrible cases in 1945, but the absence of wartime use does not mean the absence of victims.

Lessons learnt from Kazakhstan's experience of nuclear tests

6. Kazakhstan is a vivid example of the risks posed by nuclear explosion tests. On 29 August 1949 at the Semipalatinsk test site the Soviet Union detonated its first nuclear explosive device.
7. Over the next forty years, 456 nuclear explosive tests were conducted at Semipalatinsk, with devastating consequences for the hundreds of thousands of people who lived in the region and for their environment.
8. Though birth defects and leukaemia are no longer so commonplace, other effects have lingered, such as an overall decrease in life expectancy. Some areas are still too dangerous to enter or go near. This experience has given Kazakhstan an added sense of purpose and responsibility pushing for a total ban on nuclear tests.
9. On 29 August 1991, President Nazarbayev permanently closed the Semipalatinsk Nuclear Test Site. Leading by example, Kazakhstan also voluntarily renounced the fourth largest nuclear arsenal in the world.

CTBT role in promoting nuclear test free world

10. In his Manifesto, President Nazarbayev rightly points out that the effects of nuclear weapons and nuclear testing cannot be contained in either time or space. They are a global issue which requires global cooperation.

11. Four days from now, on the very same 29 August, we will mark the International Day Against Nuclear Tests. Indeed, the CTBTO works hard every day to make sure that every day is a day against nuclear tests.
12. As we work to consign nuclear testing to history, we must not forget the importance of trust at the regional and international levels. It takes time to build trust and much more to rebuild it. But once it is there, many things become possible.
13. With uncertainties clouding the international political area, it may seem difficult to agree on much. But we can still agree that the world does not need more nuclear weapons or nuclear testing.
14. We all want a world free of nuclear weapons. While there are different views on how to reach that goal, we must remind ourselves that we do not yet have even a nuclear-test free world. This objective – a vital specific step towards nuclear disarmament - is within our reach.
15. It is achievable if there is a strong political will and preference for multilateralism and collective security. The CTBT should serve as a common denominator and a solid basis for continuing dialogue and expanding cooperation. This should especially be considered in light of current tensions in the Korean Peninsula. Putting at least a testing moratorium up front in discussions with the DPRK would be a positive development.
16. The CTBTO is doing important work by giving States confidence that the global moratorium against nuclear testing is being upheld and that no nuclear test or explosion will go undetected.
17. The CTBTO's International Monitoring System, or IMS, can credibly verify compliance with the ban on nuclear testing. The IMS is a global

network of monitoring facilities that makes it impossible to conduct a nuclear test without the international community knowing it. Together, the 288 monitoring facilities of the IMS form a global radar system that covers every part of the planet. This system is supported by the International Data Centre (IDC) in Vienna which processes and analyses data non-stop.

18. The IMS is currently 92% complete. Yet, it has already exceeded expectations in terms of coverage and detection capabilities. The readiness and speed with which 97 seismic stations detected the 2016 DPRK nuclear tests demonstrated the effectiveness of the verification system. It also highlighted the democratic nature of the data collection, which enabled the international community to be provided with impartial evidence.

19. Today, we can say with confidence that even if a country conducting a nuclear test does not announce it, the IMS and IDC would ensure that the international community will get reliable, objective and verifiable data about the situation on the ground.

20. In addition to its verification purpose, our data is useful for many civil and scientific purposes, including tsunami prediction and monitoring the effects of climate change. This data is shared with all States Signatories. It is also made available to organizations and academics in Member States.

21. The IMS and IDC represent a real achievement for science and diplomacy in making the world a better place. It is a representation of what we can achieve when we work together as the international community rather than individual States.

CTBT: the Way Forward

22. The CTBT has a unique position in the history of treaties. It is nearly universally adhered to but not yet technically in force. While the Treaty has established an international norm against nuclear testing, action still needs to be taken to secure the future of the Treaty as a firm legal barrier against a return towards nuclear testing.

23. There are also many aspects to the Treaty which only become valid *after* the Treaty has officially come into force. First of all, the ability of the CTBTO to conduct on-site inspections, similar to the unprecedented on-site field exercises held by the CTBTO in Semipalatinsk in 2008 and Jordan in 2014.

24. To finish what we started, we still need the ratification of the Treaty by the eight remaining States listed in Annex 2 to the CTBT. China, Egypt, Iran, Israel and the United States have signed but not yet ratified the Treaty. India, North Korea and Pakistan have neither signed nor ratified the Treaty. Many of these States take the position that they will not ratify the Treaty unless some other Annex 2 State does so. The problem arises when States on both sides say the same thing. Someone always has to show leadership.

25. We are working closely with our 183 members to reach the finish line. Every two years CTBT States Signatories meet for an Article XIV Conference to advance the Treaty's entry into force. The last conference, which was presided over by Kazakhstan and Japan, was held in 2015. The next Conference, to be led by Belgium and Iraq, will take place on 20 September 2017 in New York. During the following two years, the Co-presidents will employ a targeted approach to reach out to key decision-makers in the eight remaining Annex 2 States.

26. While such direct engagement with the mentioned eight States will continue, there is also a central role the academic community, civil society and youth can play in supporting the entry into force of the Treaty. In fact, the Pugwash Conference has been an important forum in this regard.

Conclusion

27. No speech to the Pugwash conference would be complete without a mention of that immortal line from the Russel-Einstein manifesto “remember your humanity and forget the rest.” And I want to close by considering what it really means, why sometimes living up to it can be so difficult, and what happens when we don’t.

28. Pugwash brings together science and global politics, two fields which can seem, at times, to be quite cold and heartless. But they only seem like this when we forget that the true purpose of science and politics is to benefit humanity, *our* humanity.

29. We need to ensure that the wellbeing of people will not be sacrificed for false notions of power and prestige in a zero-sum game. The result is suffering, like that of many people around Semipalatinsk. The fear of a mother hoping her baby will be spared the birth defects she has seen happening all around her. The fear of those wondering if their loved one with cancer will survive.

30. This suffering is not “old news,” it continues to this day. It is our duty at these conferences to not only search for ways to ease this suffering, but to simply remember it and hold it in our minds. It reminds us of our humanity, and reminds us of what would happen were we to forget it and allow once again an outbreak of nuclear testing.

31. Thank you. I look forward to our exchange of ideas.