

## [SE6-LT-1] Comprehensive Test Ban Treaty

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### Full Summary

Comprehensive Test Ban Treaty is intended to ban all nuclear weapons test explosives or any other nuclear explosions. The Treaty was negotiated in Geneva by the Conference on Disarmament, was adopted by the General Assembly as resolution A/RES/50/245 on 10 September 1996. It was then opened to signatures. Article XIV of the Treaty requires ratification by 44 named states (listed in Annex II of the Treaty), before the Treaty can enter into force. Currently, out of required 44 states, three states – India, Pakistan, DPRK – have not signed the Treaty. Another six states out of 44 have signed, but not ratified - Indonesia, Egypt, China, Iran, Israel, and the United States.

Although the Treaty is intended to stop nuclear arms race, it does not prohibit research on nuclear weapons. The Treaty's main objectives are further disarmament and prevention of further nuclear weapon modernization and subsequent arms races.

Panelists focused primary on the verification mechanism, particularly on the status of the International Monitoring System (IMS). As Jenifer Mackby stated, International Monitoring System has a very high credibility. The data is routinely analyzed and is regularly provided in a standard format by the countries all over the world. Data analyses and data mining have also been recently introduced to IMS. The CTBTO is completing an upgrade of its computer systems. The newest computers at the IDC are now more than 50 times faster at processing and analyzing IMS monitoring data than the original ones installed in 1997. This additional capacity enables the IDC to keep up efficiently with the further increase in IMS data, which doubles every few years, as well as add new capabilities<sup>1</sup>.

U.S. has large and wide discussions on the scope of CTBT. October 13, 1999, the US Senate decided not to ratify the CTBT. The reason for rejection was the fear that the fact that the U.S. ratifies it won't stop other nations to go nuclear and therefore it is not in the U.S. national security interests to ratify CTBT. Due to the global nonproliferation movement, the prospects

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<sup>1</sup> Building up the Regime for Verification of CTBT, <http://www.armscontrol.org/print/3813> (accessed 09/07/2011)

of the U.S. to ratify CTBT are higher than ever. The prospect of U.S. ratification has already led Indonesia's Foreign Minister to pledge in May 2009 Jakarta's support for ratification if the United States goes forward. There are speculations that China will follow U.S. CTBT ratification. India has also been having internal debates on the prospects of ratification of CTBT. Ms. Mackby concluded her speech by stating that P5 states agreed that CTBT should be "zero yield". Unfortunately, however there is no agreed definition of "zero yield". Therefore states like Russia and China do not apply the U.S. definition of absolutely "zero yield" which allows them to benefit from such tests.

Ola Dahlaam, who has been engaged in arms control negotiations for over thirty years and who headed the Working Group on verification issues (WGB) at the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) from 1996-2006, stated that the main benefit of CTBT is the fact that it allows international community to focus on specific issues rather than talking in general senses. This helps with both detection and location capabilities.

There are three main steps in verification of CTBT that are proven to be very effective. The first step is International Monitoring System (IMS) that consists of 321 monitoring stations and 16 radionuclear laboratories in 89 countries all over the globe. The second one is Data collecting by IMS. It is transferred via six geostationary satellites to the International Data Centre (IDC) in Vienna. The third element is the on-site inspection regime which provides a clear, up-to-date picture on the event recorded by the IMS and IDC. According to Ola Daahlam, these three elements of the global alarm system are proven to be very effective and accurate.

David McCormack who is currently a head of nuclear explosion monitoring programme of the Geological Survey of Canada, focused his presentation on the challenges that the CTBTO is faced with. Although significant progress has been made in detection system among states through various types of detection capabilities, there is a concern in data flow from some large states. Another challenge is to keep the focus of the organization and avoid movement into the areas such as social concerns with all the challenges that the world is faced with nowadays. Also, the CTBTO is democratized: it created a second generation CTBT from a broad spectrum of scientists' term-limits in Vienna which contributed to the shift from the original treaty.

Lee Dong Myung concentrated on the ideas of strengthening regional cooperation. There is a proposal to create centers that will be a point of regional cooperation.

Hossam Eldeen Aly continued the idea of regional cooperation on CTBT and stated that there

should be a promotion of regional centers such as training centers and scientific exchanges. Also, the Conference on Disarmament should be activated and led by CTBT which will bring the progress in regional cooperation. CTBT by definition is a regime/instrument to consolidate NPT. It is not only nonproliferation, but also a disarmament tool. Therefore, international community needs to use the success from the 2010 NPT Review Conference and use “lessons learned” into moving forward with the CTBT process.

From the Chinese perspective on regional cooperation expressed by Wang Jun, there is a financial concern. Some local stations are not a part of CTBT, which means there is a big gap between regional view on CTBT and CTBT in general.

China's policy toward the CTBT proceeds from its basic philosophy on nuclear armament: refrain from nuclear arms race for parity; unconditional no-first use of nuclear weapons; negative nuclear security guarantee; NPT based non-proliferation commitments and strict observance of nuclear test moratorium. China is yet to ratify the CTBT but the government has submitted it to the People's Congress. Meanwhile, China actively participates in and contributes to the CTBT regime buildup. The most recent action was the feeding of radionuclide and noble gas data from all three IMS stations in China (Beijing, Lanzhou and Guangzhou) to the IDC as requested to assist the nuclear release situation in Fukushima<sup>2</sup>.

Compared to the Chinese position on CTBT, Russian position towards the treaty is quite different, as it became clear during the Q&A session. During the discussions between U.S. and Russia in 2000, there was opposition against CTBT because of the geographical issue as U.S. placed its stations on the territories of its allies such as Australia, Japan, Europe and not Russia or China. CTBT is also considered a problem among Russian military officials when it comes to Russian military modernization ( particularly modernization of nuclear forces, as the testing of Bulava sea-based ballistic missile has shown). In addition, Russia does not see any commitments from other states when it comes to moratorium on nuclear testing. “The Russian Federation is the only nuclear power that is fully engaged in test ban regime. Britain and France have ratified the CTBT but have not declared a moratorium on nuclear testing. By contrast, the United States and China have declared moratoria on nuclear testing but have not ratified the treaty. India, Pakistan, Israel, and North Korea – who are operating outside the international non-proliferation regime – have neither declared moratoria on nuclear testing nor signed the CTBT.”<sup>3</sup> There are speculations that Russia might withdraw from CTBT which might trigger withdraw of other countries and nuclear arms race.

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<sup>2</sup> SILENCE IS LOUDER THAN THE BANG: SIGNIFICANCE OF CTBT Synopsis of Wang Jun, for Asan Plenum

<sup>3</sup> Russia and the Future of CTBT, Alexei Fenenko, [http://en.rian.ru/valdai\\_op/20101103/161192733.html](http://en.rian.ru/valdai_op/20101103/161192733.html)

## Session Sketches II

To conclude, the panelists all agreed that there is an urgent need for the regional cooperation on CTBT. Although the three elements of CTBT are effective, the treaty remains to be a political tool. A false assumption exists, that the U.S. should take a lead on CTBT. Instead, there should be a mutual global interest in the future of the CTBT.

\* The views expressed herein do not necessarily reflect the views of the Asan Institute for Policy Studies.

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