Latin America and Nuclear Disarmament

The Latin America and Caribbean countries have traditionally been at the forefront of nuclear disarmament and non-proliferation. The region was the world’s first to become a nuclear-weapon-free zone when the Treaty of Tlatelolco entered into force in 1968.

All of the region’s 33 States are party to the 1970 Nuclear Non-Proliferation Treaty (NPT) as non-nuclear weapon States. The NPT aims at preventing the spread of nuclear weapons and weapons technology, advancing nuclear disarmament, and facilitating the peaceful use of nuclear energy.

“The CTBT stands as a beacon, lighting the path towards a peaceful world, free from nuclear explosions, whether for military or for peaceful purposes.”

Kamla Persad-Bissessar, Prime Minister of Trinidad and Tobago.
Latin America and the CTBT

Thirty-one of the 33 States in the region - all except Cuba and Dominica - have signed and ratified the Comprehensive Nuclear-Test-Ban Treaty (CTBT). To enter into force, the CTBT must be signed and ratified by 44 specific States, so-called Annex 2 States. These States participated in the negotiations of the Treaty in 1996 and possessed nuclear power or research reactors at the time. In Latin America and the Caribbean, all six Annex 2 States – Argentina, Brazil, Chile, Colombia, Mexico and Peru – have signed and ratified the CTBT.

Pushing for the CTBT’s entry into force

The Latin America and Caribbean States played an active role in the CTBT’s negotiations and are strong advocates of the Treaty’s entry into force. Patricia Espinosa Cantellano, Secretary of Foreign Relations of Mexico, co-chaired over the Conference on Facilitating the Entry into Force of the CTBT in September 2011 with Swedish Foreign Minister Carl Bildt. Both countries are spearheading the entry into force process between 2011 and 2013.

The CTBT

The 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans all nuclear explosions. As of mid-2012, over 180 States had signed and nearly 160 had also ratified the Treaty. Of the 44 nuclear technology holder countries whose ratification is needed for the Treaty’s entry into force, eight have yet to ratify: China, Egypt, India, Iran, Israel, North Korea, Pakistan and the United States. India, North Korea and Pakistan also still have to sign the Treaty.

“Through the Tlatelolco Treaty, the Latin American and Caribbean Region took a pioneer step towards international peace and security and constituted the first inhabited region in the world to become a nuclear-weapon-free zone. The CTBT supersedes the commitments of the Tlatelolco Treaty and establishes a global norm against testing. In addition, it establishes a monitoring system to verify compliance.”

President Oscar Arias of Costa Rica
The Treaty of Tlatelolco

The 1968 Treaty of Tlatelolco bans nuclear weapons and all related activities from the continent. The ban on nuclear tests is its very first provision. In 2002, the Tlatelolco treaty organization OPANAL and the CTBTO concluded a cooperation agreement, which includes the exchange of information and reciprocal representation at meetings of the two organizations. The CTBTO concluded a similar cooperation agreement with the Association of Caribbean States in 2005.

Benefits of the CTBT

A State gains a number of political benefits when signing and ratifying the CTBT. It subscribes to an important norm in the field of nuclear disarmament and non-proliferation. A CTBTO Member State joins forces with other like-minded States that have committed themselves to rid the world of nuclear weapons.

Only nationals of CTBT States Signatories may work in the organization. As of mid-2012, 16 of the CTBTO’s around 170 internationally recruited staff members came from the region of Latin America and the Caribbean. The CTBTO’s highest-ranking staff member from the region is Vorian Maryssael (Mexico), Director of the International Monitoring System Division since February 2012. The region
accounts for around 5% of the CTBTO’s budget of approximately US$ 120 million.

Latin American States have also repeatedly assumed the chairmanship of the CTBTO Member States’ decision-making bodies. These include three Chairpersons of the Preparatory Commission, the main decision-making body: Ambassador Alfredo Alejandro Labbé Villa (Chile) in 2012, Ambassador Ana Teresa Dengo (Costa Rica) in 2007 and Ambassador Javier Paulinich (Peru) in 2003.

National capacity-building

Besides the political benefits, a CTBTO Member State is entitled to receive around 10 gigabytes of data harvested daily by the worldwide network of monitoring stations as well as their analysis. This allows each Member State to make its own assessment as to whether a suspicious event was a nuclear test or not. CTBTO data also has added value for disaster mitigation, for example for tsunami warning and tracking radiation from nuclear accidents. Moreover, it is relevant for research on the Earth’s core, on climate change, meteorology, and a number of other fields.

In order to help CTBTO Member States derive maximum benefits from the data, national experts are regularly offered the chance to participate in capacity building workshops and training. Such workshops have taken place in Antigua and Barbuda, Argentina,

“As a geophysicist, working as a waveform (i.e. seismic, infrasound, hydroacoustic) data analyst at the CTBTO is a unique and challenging experience: monitoring data are collected by more than 240 waveform stations worldwide and transmitted daily to Vienna for analysis. No organization anywhere else in the world carries out similar work on this scale!”

CTBTO analyst Marcela Villarroel (Chile)
“The destruction of the stations on Juan Fernandez was of small consequence compared to the damage and loss of life suffered on the island. In the emergency situation, with food, clothing and shelter in short supply, little thought was given to the children who had lost their toys and playthings. But, very quickly, staff at CTBTO headquarters responded. A collection in support of the children of Robinson Crusoe Island raised more than 1,000 Euros in less than a day.”

CTBTO hydroacoustic engineer Andrew Forbes

Brazil, Chile, the Dominican Republic, Guatemala, Jamaica and Mexico.

Beyond this technical training, the CTBTO also offers several live lectures and online courses under the auspices of the Capacity Development Initiative (CDI) covering the political, legal and technological aspects of the Treaty and its verification regime.

Monitoring stations in the region

Technical support is as impressive as the region’s political backing of the Treaty. Of the 47 CTBTO monitoring facilities foreseen for the region, all but six were fully operational by mid-2012. The countries hosting the highest number of stations are Argentina (9), Brazil and Chile (7 each).

In order to install these facilities, the host country’s cooperation is of paramount importance.

The CTBT verification regime

A global network of 337 facilities - over 85% are up and running - constantly scans the Earth for evidence of a nuclear blast.

Seismic, infrasound and hydroacoustic stations listen for signs of a nuclear explosion in the ground, the air and under water, while radionuclide and noble gas stations sniff the air for radioactivity. All monitoring data are sent to the CTBTO’s headquarters in Vienna for processing and analysis. Findings are shared with Member States in near real time. Once the Treaty is in force, Member States will be able to request inspectors to collect evidence on the ground if monitoring data and their analysis indicate that a nuclear explosion might have taken place in violation of the Treaty.
In addition to hosting stations, Argentina, Guatemala, Mexico, Panama, Paraguay and Peru have also concluded Facility Agreements with the CTBTO to regulate all related legal, technical and logistical aspects. Station maintenance and operation is challenging particularly for very remote stations, such as the two on Juan Fernandez Islands off the coast of Chile. They were destroyed in the February 2010 tsunami and will take several years to rebuild.

“The people of Latin America are to be congratulated for leading the world down the road of denuclearization; for proving to us that the term “people power” is not an exaggeration; for giving us the hope for a better world: a world without nuclear weapons.”

CTBTO Executive Secretary Tibor Tóth, at the commemoration of the 45th Anniversary of the Signing of the Treaty of Tlatelolco, Mexico City, 14 February 2012