

# Latin America and the CTBT – A Strong Partnership

## 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 to

prevent the spread of nuclear weapons and weapons technology, advance nuclear disarmament, and facilitate 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, Former Prime Minister of Trinidad and Tobago.





MINISTER OF FOREIGN AFFAIRS OF COSTA RICA, BRUNO STAGNO UGARTE, ADDRESSING THE 2009 CONFERENCE ON FACILITATING THE CTBT'S ENTRY INTO FORCE. UGARTE CHAIRED THE ENTRY INTO FORCE PROCESS WITH AUSTRIAN FOREIGN MINISTER URSULA PLASSNIK FROM 2007 TO 2009.



CUBA'S AMBASSADOR PEDRO LUIS PEDROSO CUESTA PRESENTS THE COUNTRY'S INSTRUMENT OF RATIFICATION OF THE CTBT AT THE UNITED NATIONS IN NEW YORK, FEBRUARY 2021

## The CTBT

The 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans all nuclear explosions. As of early 2022, over 185 States have signed and 170 have 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 have yet to sign the Treaty.

## Latin America and the CTBT

Thirty-two of the 33 States in the region - all except 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.

“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.”

Oscar Arias, Former President of Costa Rica

## Pushing for the CTBT's entry into force

Latin American and Caribbean States played an active role in the CTBT's negotiations and are strong advocates of the Treaty's entry into force. In a General Assembly High-level Plenary Meeting to commemorate and promote the International Day against Nuclear Tests, Ronaldo Costa Filho, the Permanent Representative of Brazil to the United Nations, said that CTBT ratification is one of the simplest means for states to demonstrate commitment to nuclear disarmament and related environmental health.



THE MEXICAN DIPLOMAT ALFONSO GARCÍA ROBLES (1911-1991) IS KNOWN AS THE “FATHER” OF THE TLATELOLCO TREATY. HE ALSO PLAYED A KEY ROLE IN THE SUCCESS OF THE 1978 UN GENERAL ASSEMBLY DISARMAMENT SESSION. HE WAS AWARDED THE NOBEL PEACE PRIZE IN 1982.



WORKING WITH HIS EXCELLENCY DARÍO CHIRÚ OF PANAMA AS THE NEXT CHAIR OF THE PREPARATORY COMMISSION IN 2022.

### 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

“As a non-nuclear weapon State, we have the right to demand that those States listed in Annex 2 which have not yet ratified the Treaty drop their objections, since the right of the majority of the international community to ensure peace and international security through disarmament cannot be ignored by only a few.”

Patricia Espinosa Cantellano, Former Secretary of Foreign Relations of Mexico

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, 13 of the CTBTO’s around 260 internationally recruited staff members came from the region of Latin America and the Caribbean. The CTBTO’s highest-ranking staff members from the region are Loipa Sanchez Lorenzo – Chief, External Relations (Cuba) , Jose Rosemberg – Senior Liaison Officer (Ecuador), and Guillermo Rocco – Programme and Project Coordinator (Argentina).

**The CTBTO**

The Vienna-based Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) is tasked with building the CTBT verification regime so that it will be fully operational when the Treaty enters into force. Its mandate also includes the promotion of signatures and ratifications of the Treaty.



MAINTENANCE WORK AT IS14 JUAN FERNADEZ, CHILE



AUXILIARY SEISMIC STATION AS002, USHUAIA, ARGENTINA

The region accounts for around 7.5% of the CTBTO’s budget of approximately US\$ 130 million

Latin American States have also repeatedly assumed the chairmanship of the CTBTO Member States’ decision-making bodies. These include six Chairpersons of the Preparatory Commission, the main decision-making body -- most recently Ambassador Darío Chirú, Permanent Representative of Panama (2022).

**National capacity-building**

Besides the political benefits, a CTBTO Member State is entitled to receive around 35 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, Brazil, Chile, the Dominican Republic, Guatemala, Jamaica and Mexico.

“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 Waveform analyst Marcela Villarroel (Chile)



INFRASOUND ARRAY AT INFRASOUND STATION IS41, VILLA FLORIDA, PARAGUAY



HYDROACOUSTIC STATION HA03, JUAN FERNANDEZ ISLAND, CHILE, SEEN HERE DURING CONSTRUCTION. THE STATION WAS DESTROYED BY A TSUNAMI IN FEBRUARY 2010 THAT DEVASTATED THE ENTIRE ISLAND.



PICTURE TAKEN AFTER THE TSUNAMI DISASTER IN THE VICINITY OF HYDROACOUSTIC STATION HA03, JUAN FERNANDEZ ISLAND, CHILE.

“The Latin America and the Caribbean region is a leader in nuclear disarmament and non-proliferation, and continues to demonstrate its long-standing commitment to the goal of a world free of nuclear weapons. From establishing the region as a nuclear-weapon-free zone through the Treaty of Tlatelolco, the first of its kind, to hosting more than 40 International Monitoring System stations to detect nuclear tests, Latin American and the Caribbean states are an integral partner in the CTBTO’s efforts to put an end to nuclear tests as an essential step towards a nuclear weapons free world.”

CTBTO Executive Secretary, Robert Floyd

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 three were fully operational by the end of 2021. 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 - around 90% 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 Hydroacoustic Stations HA03 and HA06, hosted by Chile and Mexico respectively. Station HA03 at Juan Fernandez Islands was destroyed by a tsunami in February 2010 and reinstalled in March 2014.

“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.”

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



SITE OF HYDROACOUSTIC STATION HA06 ON SOCORRO ISLAND, MEXICO

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