GA1: Diasarmament and International Security Committee

Student Officer: Maya Dallal

Issue: Expanding ratification of the Comprehensive Nuclear-Test-Ban Treaty

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Committee: Disarmament and International Security Committee (GA1)

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I. Introduction

In Africa, the global movement toward nuclear disarmament has been met with notable regional commitment, yet the full ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) remains incomplete. Adopted by the United Nations General Assembly in 1996, the CTBT was designed to prohibit all nuclear explosions for both civilian and military purposes, representing a critical instrument for reinforcing international peace and security. Despite its widespread recognition as a cornerstone of global non-proliferation efforts, the Treaty has yet to enter into force due to the failure of several key states listed in Annex 2 to ratify it. This delay undermines the international legal framework, limiting the enforcement mechanisms necessary to hold states accountable and weakening the global non-proliferation regime. The absence of universal ratification also complicates verification efforts, reducing the ability to monitor and prevent clandestine nuclear testing. Furthermore, the delayed entry into force sends mixed signals to the international community, potentially slowing progress on complementary disarmament initiatives and non-proliferation agreements.

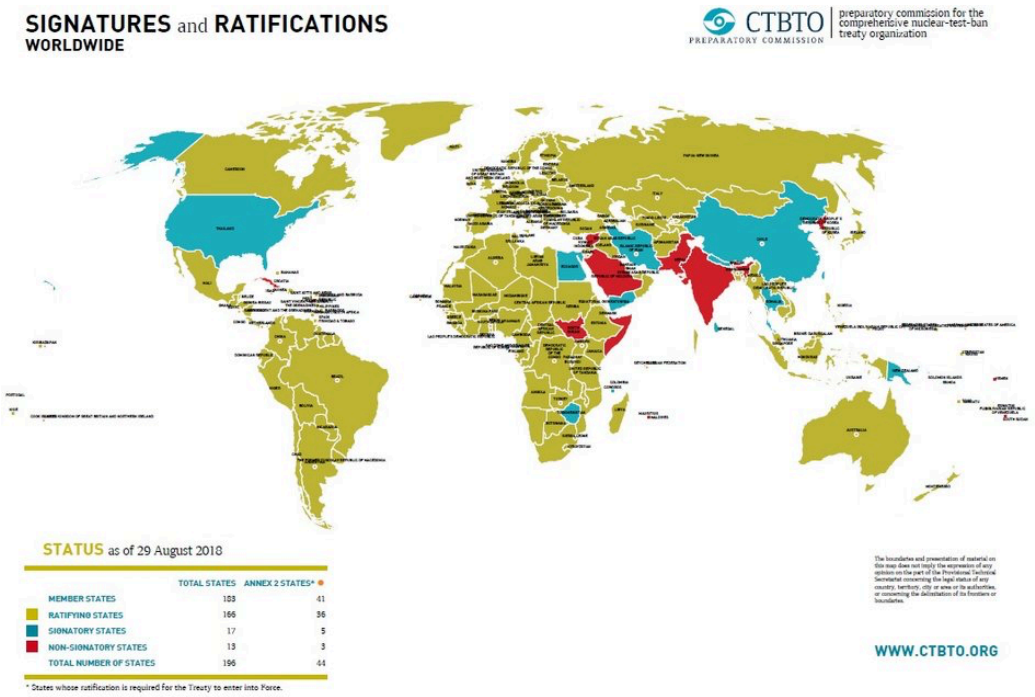


Image 1: Representation of signatures and ratifications of the Nuclear Test Ban Treaty worldwide

African states have consistently demonstrated strong support for the CTBT, with nearly all member states of the African Union having signed and ratified the Treaty. However, the implementation and effectiveness of the Treaty within the region remain constrained by structural and political challenges. Limited technical capacity, political instability, and competing national priorities can hinder the enforcement of treaty obligations and slow progress on monitoring and verification. Moreover, expanding the ratification is not merely a procedural concern; it is deeply linked to broader geopolitical dynamics, including regional trust deficits, historical inequities in nuclear technology access, and uneven distribution of resources needed for compliance verification.

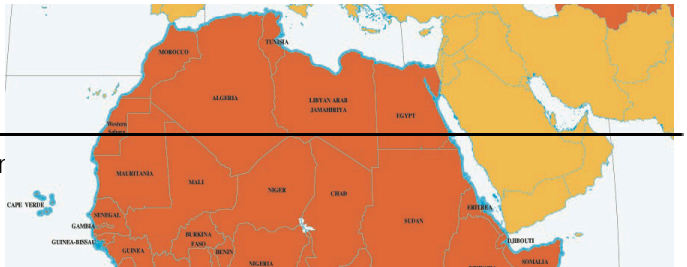
The importance of expanding CTBT ratification in Africa reflects the need for regional cooperation, mutual accountability, and strategic dialogue. Establishing trust among states is essential, particularly in areas such as compliance verification, data sharing, and technical support. Without a foundation of mutual confidence, broader ratification efforts may stall, leaving gaps in both regional and global security frameworks. Strengthening collaboration between African nations can help create a cohesive approach that balances national interests with collective responsibility, reinforcing Africa's position as a constructive actor in global nuclear governance.

Addressing these challenges requires a focus on Africa as a nuclear-weapon-free zone, as enshrined by regional treaties, and on institutions such as the African Commission on Nuclear Energy (AFCONE), which are tasked with supporting compliance, promoting transparency, and facilitating intra-continental cooperation. Expanding ratification and enhancing implementation mechanisms are not solely matters of disarmament; they also represent opportunities to bolster Africa's influence in global peacebuilding, strengthen regional security structures, and promote trust-based international partnerships in an increasingly complex geopolitical environment. By prioritizing collaboration, technical support, and strategic dialogue, African nations can ensure that their commitment to the CTBT translates into tangible security, environmental, and developmental benefits both regionally and globally.

II. Key Vocabulary

Comprehensive Nuclear Test-Ban Treaty (CTBT): Adopted by the United Nations General Assembly in 1996, the CTBT is a multilateral treaty that bans all nuclear explosions for both military and civilian purposes. Although it has been signed by 187 countries and ratified by 178, it cannot enter into force until 44 specific countries listed in Annex 2 have ratified it. The CTBT aims to curb the development and qualitative improvement of nuclear weapons and contributes to global nuclear non-proliferation and disarmament.

Annex 2 States: These are the 44 countries that participated in the CTBT negotiations and possess



either nuclear reactors or research capabilities. All these states must ratify the treaty before it can enter into force. As of 2025, several key Annex 2 states, including some nuclear-armed countries, have yet to ratify the Treaty, preventing its full implementation.

Verification Regime: A global monitoring system designed to detect nuclear explosions anywhere on Earth. This includes a network of seismic, hydroacoustic, infrasound, and radionuclide stations coordinated by the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). For many African states, accessing and contributing to this system poses logistical and technical challenges, often requiring international support and capacity-building.

Image 2: Nuclear Weapons Free Zone according to the Treaty of Pelindala

African Commission on Nuclear Energy (AFCONE): An African union body responsible for ensuring compliance with the treaty of Pelindaba, which declares Africa a nuclear-weapon-free zone. AFCONE plays a central role in promoting nuclear disarmament, peaceful nuclear-technology use, and coordinating Africa's position in international non-proliferation efforts.

Treaty of Pelindaba: A Regional agreement signed in 1996 that prohibits the development, acquisition, testing, or possession of nuclear weapons across Africa. It entered into force in 2009 and provides a legal framework for Africa's nuclear-free status, making it one of the most advanced regions in terms of formal commitment to disarmament.

Nuclear Non-proliferation: A principle and set of international efforts aimed at preventing the spread of nuclear weapons and weapons technology. The CTBT is one of the key tools supporting nuclear non-proliferation, alongside treaties such as the Nuclear Non-proliferation Treaty (NPT).

Confidence-Building Measures (CBMs): Actions or agreements between states designed to reduce mistrust and increase transparency, especially in areas of military or security concern. In the context of CTBT ratification, CBMs include data sharing, technical cooperation, and open inspections, which help nations feel secure that others are complying with treaty obligations.

Capacity-building: The process of strengthening the abilities of individuals, institutions, and countries, particularly developing nations, to participate in and benefit from international systems, such as the CTBT's verification regime. In Africa, this includes training experts, installing monitoring equipment, and supporting education in nuclear science and diplomacy.

III. Involved Countries and Organizations

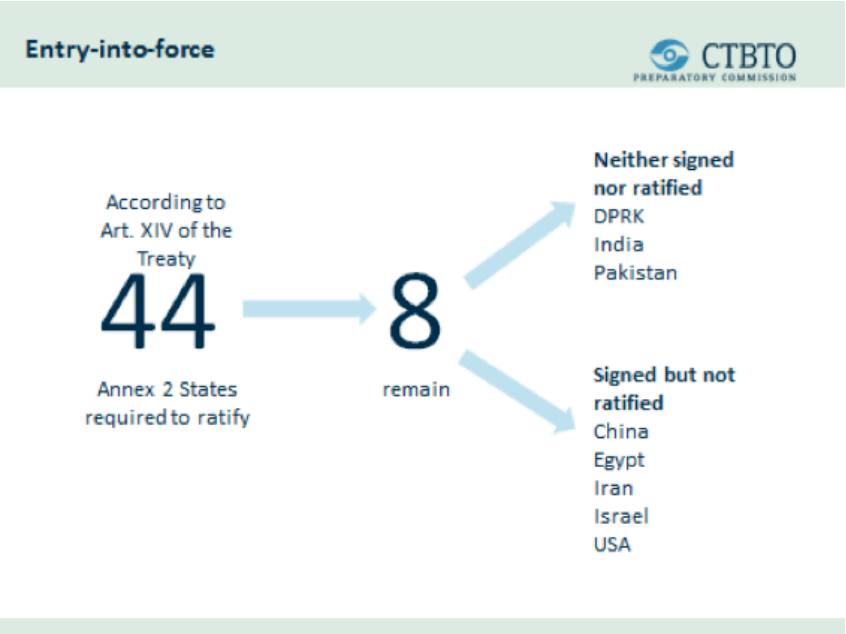


Image 3: Representation of countries that have not yet signed/ratified the treaty

South Africa

South Africa is the only Annex 2 state in Africa and was one of the first countries to voluntarily dismantle its nuclear weapons. The country ratified the CTBT in 1999 and has consistently advocated for the Treaty's entry into force. Beyond the national commitment, South Africa actively promotes nuclear disarmament through regional and international platforms, including the African Union, the Non-Aligned Movement, and various United Nations disarmament forums. Its efforts emphasize the importance of global cooperation in achieving a nuclear-free world, and it views full CTBT ratification as a critical step toward enhancing international peace and security.

African Commission on Nuclear Energy (AFCONE)

The African Commission on Nuclear Energy (AFCONE) is the African Union body responsible for implementing the Treaty of Pelindaba, ensuring that Africa remains a nuclear-weapon-free zone. It supports disarmament, promotes the peaceful use of nuclear energy, and collaborates closely with the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). AFCONE plays a central role in coordinating Africa's position on the CTBT, providing guidance on compliance, fostering regional cooperation, and strengthening Africa's collective voice in global nuclear disarmament efforts.

Comprehensive Nuclear Test-Ban Treaty Organization (CTBTO)

The Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) is responsible for overseeing the implementation and monitoring of the CTBT. It supports African states by developing verification infrastructure, providing technical training, and promoting capacity-building initiatives. Through these efforts, the CTBTO enhances regional trust, ensures technical readiness for compliance, and strengthens the ability of African nations to actively participate in global nuclear-monitoring and verification processes. By collaborating with African institutions and governments, the CTBTO helps integrate the continent into broader international disarmament frameworks and reinforces Africa's role as a constructive partner in advancing nuclear non-proliferation and
security.

Image 4: CTBTO

Nigeria

Nigeria ratified the CTBT in 2001 and maintains an active role in both international and regional disarmament discussions. The country regularly participates in the United Nations First Committee and advocates for nuclear non-proliferation across West Africa. In collaboration with AFCONE, Nigeria has supported initiatives to enhance nuclear education and promote scientific capacity-building programs. Through these efforts, Nigeria demonstrates its commitment to strengthening collective regional and global security frameworks and advancing the objectives of the CTBT.

Algeria

Algeria signed the CTBT in 1996 and ratified it in 2003. The country strongly supports nuclear disarmament, influenced in part by the legacy of French nuclear tests conducted on its territory. Algeria actively advocates for full CTBT ratification within both African and Arab diplomatic forums. Its efforts highlight the importance of ensuring a future free from nuclear testing, reflecting a commitment to regional and global peace and security.

African Union (AU)

The AU promotes nuclear disarmament through its support of the Treaty of Pelindaba and platforms like Agenda 2063. It works with AFCONE and the CTBTO to encourage full African participation in global disarmament efforts. The AU frames nuclear issues as part of peace, security, and development goals for the continent. It urges African nations to cooperate and build trust, which aligns with TIMUN'25's theme of "Navigating Uncertainty Through Mutual Trust".

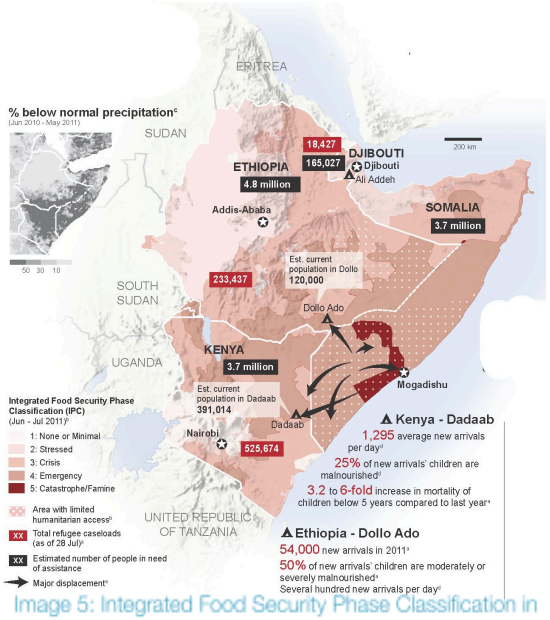


Image 5: Integrated Food Security Phase Classification in Africa

IV. Focused Overview of the Issue

1. A brief contemporary history of the Comprehensive Nuclear-Test-Ban Treaty (CTBT)

The Comprehensive Nuclear-Test-Ban Treaty was adopted by the United Nations General Assembly on September 10, 1996, after decades of growing international concern over the environmental, health, and security consequences of nuclear weapons testing. The Treaty establishes a global prohibition on any nuclear weapon test explosion or any other nuclear explosion, regardless of its purpose or location. Its adoption marked a significant milestone in multilateral disarmament efforts, representing the international community's commitment to halting the development and qualitative improvement of nuclear weapons.

As of 2025, the CTBT has been signed by 187 states and ratified by 178. However, the Treaty has not yet entered into force due to the requirements of Article XIV, which stipulates that all 44 states listed in Annex 2, those with nuclear reactors or research reactors at the time of negotiations, must both sign and ratify the agreement. Currently, eight of these Annex 2 states have not ratified the Treaty, including the United States, China, Pakistan, Israel, Iran, Egypt, and the Democratic People's Republic of Korea (DPRK).

This incomplete ratification prevents the CTBT from becoming legally binding under international law, limiting its enforcement mechanisms and the formal verification of compliance.

The CTBT represents the culmination of global efforts to limit nuclear testing that began in the 1950s, when the dangers of atmospheric and underwater nuclear tests first drew widespread attention. Initial attempts, such as the 1963 Partial Test Ban Treaty, prohibited testing in the atmosphere, outer space, and underwater but allowed underground nuclear tests to continue. During the Cold War, underground testing became a major point of strategic competition among nuclear powers, prolonging the development and refinement of nuclear arsenals. With the end of the Cold War and a shift in geopolitical dynamics, the international community found an opportunity to negotiate a truly comprehensive ban, resulting in the CTBT, which sought to close all remaining loopholes and establish a framework for global monitoring, verification, and eventual disarmament.

Image 6: US president John F. Kennedy signing the Nuclear Test Ban Treaty

2. The political and strategic barriers to ratification

The slow pace of ratification is not due to a lack of international support; the vast majority of United Nations member states have endorsed the Treaty, demonstrating near universal recognition of its importance for global security and non-proliferation. Instead, the delays reflect a complex mix of geopolitical considerations, domestic political dynamics, and strategic calculations among key nuclear-armed states. Some countries, including the United States and China, have signed the Treaty but have not ratified it, often citing concerns related to national security, the credibility of their nuclear deterrent, and the robustness of verification mechanisms. Other states, such as India and Pakistan, have refrained from signing, linking their decision to unresolved regional security tensions and longstanding strategic rivalries.

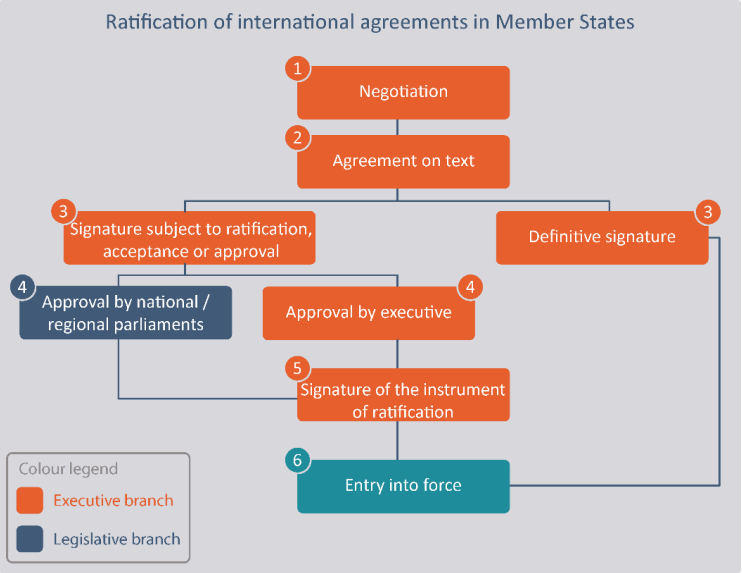


Image 7: Ratification of International Agreements by EU Member States

The Democratic People's Republic of Korea remains firmly opposed to the Treaty, having conducted multiple nuclear tests since 2006, in direct defiance of international norms and sanctions.

The Treaty's verification regime, particularly the international Monitoring System (IMS), has proven technically capable of detecting even small-scale underground nuclear tests, highlighting the effectiveness of global monitoring networks. Nevertheless, some states remain hesitant, arguing that the Treaty could limit their strategic flexibility and nuclear deterrence without providing equivalent security guarantees. Domestic political considerations also play a significant role: in certain countries, legislative bodies or political factions are reluctant to ratify the Treaty due to concerns about ceding control over military decisions or perceived sovereignty issues. These intersecting political, strategic, and technical considerations have created persistent obstacles to universal ratification, despite widespread international support and the proven capacity of the CTBT's monitoring and verification framework.

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3. Security and Diplomatic Implications of a Stalled Treaty

The incomplete ratification of the CTBT has created both a legal and political paradox in the global non-proliferation and disarmament landscape. On one hand, a de facto global moratorium on nuclear testing has been maintained for over two decades, with the Democratic People's Republic of Korea as the primary exception in the 21st century. This moratorium demonstrates a shared international norm against nuclear testing, contributing to relative stability and predictability among nuclear-armed states. On the other hand, because the CTBT has not formally entered into force, there is no legally binding prohibition

preventing the resumption of nuclear tests. Some states have maintained nuclear test sites and related infrastructure in a state of readiness, preserving the theoretical option to conduct future tests if strategic calculations change. This ambiguity creates uncertainty that can undermine mutual trust between nuclear-armed states and complicate negotiations on other arms control agreements.

From a diplomatic perspective, the CTBT functions as a key indicator of states' commitment to nuclear disarmament, as outlined in Article VI of the Treaty on the Non-proliferation of Nuclear Weapons (NPT). The inability to bring the CTBT into force is often cited by non-nuclear-weapon states as evidence that nuclear-armed states are not fully meeting their disarmament obligations, which can weaken the perceived legitimacy of the NPT framework. This erosion of trust has broader implications, potentially affecting negotiations on related arms control initiatives, such as fissile material cut-off treaties, strategic arms reductions, and multilateral disarmament dialogues. In this way, the CTBT's incomplete ratification not only limits the enforceability of a crucial disarmament but also influences the overall coherence and credibility of the global non-proliferation and security architecture.

4. The path forward: Opportunities and Challenges

The incomplete ratification of the Comprehensive Nuclear-Test-Ban Treaty reflects a complex intersection of historical, political, and strategic factors that have shaped the global nuclear landscape. Although the treaty has been signed by nearly all United Nations member states, several key nuclear-capable countries have not ratified it, preventing the CTBT from entering into force. This situation stems for longstanding geopolitical rivalries, regional security tensions, and domestic political considerations in these states. In particular, nuclear-armed states have historically viewed testing as an integral to maintaining credible deterrence, developing advanced weapons systems, and verifying the reliability of their arsenals. As a result, the presence of dormant or maintained nuclear test sites underscores the continuing strategic importance of testing infrastructure, even in the absence of active explosions.

The broader international context also highlights the CTBT's significance and the challenges surrounding its enforcement. The treaty is closely linked to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and global disarmament obligations, serving as a benchmark for states' commitment to Article VI, which requires nuclear-armed states to pursue disarmament. Delays in ratification, therefore, have implications beyond testing itself, affecting perceptions of compliance and contributing to tensions in other arms control and non-proliferation negotiations. Historically, the lack of universal entry into force has created a legal gray area: while a de facto moratorium on nuclear testing has been observed for decades, it exists without the full binding authority of international law, leaving room for ambiguity regarding enforcement and accountability.

The issue is further compounded by regional dynamics and historical experience. Countries in South Asia, the Middle East, and East Asia often consider nuclear testing within the context of security rivalries and perceived threats, linking their stance on the cTBT to broader strategic concerns. Similarly, some states maintain that the absence of comprehensive verification or equitable guarantees affects their willingness to fully commit. These historical and strategic factors collectively illustrate why the CTBT, despite widespread support, remains unenforced and why the treaty occupies a central position in debates over global nuclear norms, trust among states, and the long-term credibility of the international non-proliferation regime.

V. Important Events & Chronology

Date (Day/Month/Year)	Event
August 1945	The United States dropped atomic bombs on Hiroshima (6 August) and Nagasaki (9 August) in Japan, marking them the first and only use of nuclear weapons in war. These bombings cause massive civilian casualties, devastation, and long-term radiation effects. The events trigger global awareness and concern over the destructive potential of nuclear weapons and lay the groundwork for post-war arms control efforts (*Hiroshima, 80 Years on: 'Real Change' Needed to End Existential Nuclear Threat*, 2025).
05/08/1963	The Partial Test Ban Treaty (PTBT) is signed by the United States, the United Kingdom, and the Soviet Union, prohibiting nuclear weapons tests in the atmosphere, outer space, and underwater. This treaty aims to reduce environmental contamination from radioactive fallout, though it still allows underground nuclear testing. It represents an early step toward international nuclear arms control (*UNTC*, n.d.).
10/09/1996	The Comprehensive Nuclear-Test-Ban Treaty (CTBT) is adopted by the United Nations General Assembly. The treaty bans all nuclear explosions for both civilian and military purposes. It opens for signature and receives broad international support, though it requires ratification by specific nuclear-capable states to enter into force. The treaty

	also establishes the framework for a global verification regime (*Comprehensive Nuclear-Test-Ban Treaty | United Nations Office for Disarmament Affairs*, n.d.).
November 1996	The Treaty of Pelindaba is signed by African states, establishing the continent as a nuclear-weapon-free zone. The treaty supports the CTBT's objectives by prohibiting the development, testing, and acquisition of nuclear weapons in Africa and promoting peaceful nuclear cooperation among member states (International Atomic Energy Agency (IAEA), n.d.).
June 2000	The Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) begins building the international Monitoring System (IMS) to detect nuclear tests worldwide. The IMS includes seismic, hydroacoustic, infrasound, and radionuclide stations, with several stations located in Africa, ensuring effective monitoring and early detection of nuclear explosions (*Facility Agreements*, n.d.).
09/10/2006	North Korea conducts its first nuclear test, causing global alarm and intensifying calls for the CTBT's entry into force (*2006 DPRK Announced Nuclear Test*, n.d.).
15/07/2009	The Treaty of Pelindaba officially enters into force, reinforcing Africa's commitment to a nuclear-free future (*Treaty of Pelindaba | United Nations Platform for Nuclear-Weapon-Free Zones*, n.d.).
February 2012	The African Commission on Nuclear Energy (AFOCNE) becomes operational, coordinating African states' implementation of nuclear disarmament agreements (AFCONE, 2023)

06/01/2016	North Korea's fourth nuclear test renews global pressure for the CTBT's ratification and activation (*North Korea's Fourth Nuclear Test: A Wake up Call | Arms Control Association*, 2016).
May 2025	49 African states have ratified the CTBT, and several have established IMS stations, showing strong continental leadership in disarmament.

VI. Past Resolutions and Treaties

The Comprehensive Nuclear-Test-Ban Treaty (CTBT), adopted by the United Nations General Assembly in Resolution A/RES/50/245 on 10 September 1996, is the central international agreement prohibiting all nuclear explosions for both civilian and military purposes. The resolution opened the Treaty for signature and urged all states, particularly those listed in Annex 2, to sign and ratify it promptly. Annex 2 states, identified as possessing nuclear reactors or research reactors at the time of negotiations are essential for the treaty's entry into force, and their ratification has been the primary focus of diplomatic engagement since the treaty's adoption.

The CTBT was built upon decades of earlier international agreements aimed at limiting nuclear testing and mitigating the risks associated with nuclear weapons. The 1963 Partial Test Ban Treaty (PTBT) was the first multilateral step to restrict nuclear explosions, prohibiting tests in the atmosphere, outer space, and underwater while allowing underground tests to continue. This treaty successfully reduced radioactive fallout from nuclear testing but left significant gaps that allowed continued weapons development. The 1968 Treaty on the Non-proliferation of Nuclear Weapons (NPT) did not ban testing outright but established a comprehensive framework for nuclear disarmament, non-proliferation, and peaceful nuclear use. Article VI of the NPT explicitly obliges nuclear-armed states to pursue negotiations for disarmament, including measures such as a comprehensive test ban, thereby laying the foundation for the CTBT.

Further progress came with bilateral agreements during the Cold War. The 1974 Threshold Test Ban Treaty (TTBT), signed by the United States and the Soviet Union, limited underground nuclear tests to yields not exceeding 150 kilotons. While limited in scope and enforceable only between the two superpowers, the TTBT established precedents for monitoring and verification protocols that would later inform CTBT mechanisms.

Multilateral reinforcement of the CTBT continued through subsequent UN resolutions. United Nations Security Council Resolution 2310, adopted in 2026, reaffirmed the international community's support for the Treaty, urged remaining Annex 2 states to ratify, and underscored that any nuclear tests would undermine the treaty's objectives. Regional and global disarmament forums, including the NPT review conferences and

the conference on Disarmament, have consistently emphasized the importance of universal ratification, demonstrating a sustained diplomatic effort to consolidate the treaty's authority and strengthen its normative impact.

Despite these treaties and resolutions, the CTBT has not yet entered into force. Of the 44 Annex 2 states, eight—China, Egypt, India, Iran, Israel, Pakistan, the Democratic People's Republic of Korea, and the United States have not ratified the treaty. Previous agreements and UN resolutions have been partially effective in reducing nuclear testing, contributing to a de facto global moratorium, but they have not produced a legally binding worldwide prohibition. This reflects both the successes and limitations of historical efforts: while global norms against testing have been established and largely adhered to, the treaty's full legal authority remains unrealized due to persistent political, strategic, and security considerations in key states.

VII. Failed Solution Attempts

Efforts to expand the ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) have faced numerous obstacles and limited success over the past decades. One of the earliest approaches was diplomatic outreach, where the UN and treaty advocates engaged in negotiations and conferences to encourage Annex 2 states to ratify the treaty. While this included high-profile meetings, such as the Article XIV conferences on Facilitating the Entry into Force of the CTBT, progress was slow, as states cited security concerns, regional rivalries, and domestic political opposition as reasons to delay ratification. For instance, the United States signed the CTBT in 1996 but the Senate rejected ratification in 1999, citing concerns about the treaty's verification mechanisms and potential constraints on maintaining a credible nuclear deterrent.

Image 8: An Assessment of Russia's Withdrawal from the Comprehensive Test Ban Treaty

Bilateral diplomacy between nuclear-armed states, such as efforts to persuade China, India, and Pakistan to ratify, has also produced limited results; although talks sometimes built mutual understanding, entrenched security doctrines in South Asia and East Asia prevented formal commitment.

Technical measures, including the establishment of the International Monitoring System (IMS) to detect nuclear tests worldwide, were intended to reassure holdout states about verification capabilities, but these demonstrations alone could not overcome political skepticism. Attempts to link ratification to broader arms control negotiations or regional security frameworks often faltered due to inconsistent political will, domestic opposition, or lack of reciprocal commitments. Additionally, economic and scientific incentives offered to non-ratifying states, such as access to peaceful nuclear technology or participation in scientific cooperation programs, have often been insufficient to outweigh strategic concerns of perceived disadvantages. Even public diplomacy campaigns and civil society advocacy have struggled to shift the policy priorities of key holdout states, particularly those where internal security considerations dominate foreign policy decisions.

These combined failures underscore the complex interplay between technical verification, political trust, security concerns, and domestic politics, highlighting that expanding CTBT ratification requires more than symbolic diplomacy; it demands tailored, multi-faceted strategies that directly address the specific concerns of each remaining non-ratifying state while providing credible security and political incentives.

VIII. Possible Solutions

Expanding ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) requires a comprehensive strategy that addresses both the technical and political concerns of non-ratifying states, while reinforcing the global norm against nuclear testing.

Image 9: Timor-Leste Ratifies CTBT, Unversalising Treaty in South-East Asia.

One key approach is to provide Annex 2 states with tailored diplomatic guarantees that reduce perceived strategic risks, such as arms control reciprocity, confidence-building measures, and formalized crisis communication channels. These guarantees could include multilateral security assurances that ratifying states will not face coercion or imbalance in regional security dynamics, and could be complemented by dialogues on potential nuclear doctrines to reduce fears of disadvantage.

Another important solution is verification demonstrations and enhanced transparency: the International Monitoring System (IMS) could expand joint exercises and technical demonstrations involving scientists from non-ratifying countries, allowing them to see firsthand the treaty's ability to detect nuclear

tests. These exercises could also include data-sharing agreements or collaborative analysis workshops to build confidence in the treaty's enforceability.

Linking CTBT ratification to broader arms control frameworks represents another promising strategy. By integrating CTBT commitments into ongoing or future negotiations on nuclear arms reduction, regional security agreements, or even conventional military confidence-building arrangements, states may perceive ratification as part of a package of tangible security gains rather than a unilateral concession. A phased ratification roadmap could encourage step-by-step progress, with clear milestones for political commitments, technical inspections, and regional consultations, allowing hesitant states to ratify incrementally while monitoring compliance from others. Offering global diplomatic and economic incentives can further bolster support, including access to peaceful nuclear technology under the Non-Proliferation Treaty (NPT) framework, scientific cooperation programs, technology transfers, or preferential trade arrangements for ratifying states.

Finally, civil society engagement and public advocacy play a crucial role: NGO's, academic institutions, and international media campaigns can raise the political cost of non-ratification, generate domestic public pressure, and highlight the reputational benefits of joining the global norm against nuclear testing. Coordinating these strategies in a sustained, multilateral effort could significantly increase CTBT ratification, strengthen the verification mechanisms, and reinforce the global commitment to a nuclear-test-free world.

IX. Useful Links

- The Comprehensive Nuclear-Test-Ban Treaty (CTBT) | CTBTO
- Increasing pressure on the nine CTBT hold-outs at the United Nations | CTBTO
- National Dialogue on Ratifying the Comprehensive Nuclear-Test-Ban Treaty (CTBT) – Nepal - Office for Disarmament Affairs
- China's Signature on Comprehensive Nuclear Test Ban Treaty
- Comprehensive Test Ban Treaty at a Glance | Arms Control Association
- Position Statement on Nuclear Test Ban Treaty - AGU
- The logic for US ratification of the Comprehensive Nuclear Test Ban Treaty - Bulletin of the Atomic Scientists
- Central African Republic signs Comprehensive Nuclear-Test-Ban Treaty | CTBTO
- Comprehensive Nuclear Test Ban Treaty Organisation (CTBTO) Projects - Council for Geoscience

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