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# The role of Brazil in multilateral disarmament efforts

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#### **Abstract**

This article examines Brazil's motivations, objectives, and action in international instances related to nuclear disarmament, non-proliferation, and arms control, particularly the Treaty of Tlatelolco and the Treaty on the Non-proliferation of Nuclear Weapons (NPT). The paper describes the evolution of Brazilian attitudes and decisions and discusses prospects for nuclear disarmament opened by the proposal of a treaty prohibiting nuclear weapons.

**Keywords:** Nuclear disarmament; multilateral institutions; Brazilian foreign policy; non-proliferation of nuclear weapons

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## Introduction Brazil in the world

former colony of a Southern European metropolis, Brazil  $oldsymbol{1}$ achieved independence with comparatively little strife. It has a large landmass and a diversified population with a culture based on Western European values and indigenous, African, and Asian elements. Brazil thinks of itself as a significant world player whose influence in international affairs has not been commensurate with its size and resources. Located in an area of the world which is relatively undisturbed by the main geopolitical interests and rivalries of the major powers, the external action of Brazil seeks to ensure that the activities of states are governed by the prevalence of international norms and institutions rather than by the economic and political clout of those powers. Thus, the Brazilian view of global security privileges multilateral rules over unilateral action. Lasting peace is to be achieved through investment in institutions that will promote peace and the rule of law. For Brazil, the United Nations is the primary organization in charge of global security

issues. The Brazilian 1988 Constitution enshrines principles such as respect for human rights, non-intervention, sovereign equality of states, peaceful settlement of disputes, and rejection of terrorism and racism.

Brazilian immediate security interests are defined as related to its geographical vicinity in South America and the South Atlantic Ocean, including the west coast of Africa<sup>1</sup>. It participates actively in multilateral and bilateral organizations that deal with questions of regional interest as well as with global issues. No immediate direct threats to its security, territorial integrity, and sovereignty are perceived by Brazil. The behavior of states and the erosion of multilateral institutions are seen as a matter of security concern. Accordingly, Brazilian national defense strategy and policies seek to promote national development objectives and identifies the need for national autonomy in space, cyber, and nuclear technology<sup>2</sup>.

Brazil maintains friendly relations with all countries and has sought to expand its international role and influence mainly through multilateral global organizations such as the League of Nations and the United Nations (UN), as well as regional ones such as the Organization of American States (OAS), the Union of South American Nations (UNASUR), and the Community of Latin American and Caribbean States (CELAC). Partnerships such as BRICS<sup>3</sup> and IBSA Dialogue Forum<sup>4</sup> are also major instruments of Brazilian action. Operational contributions to peacekeeping and peaceful conflict resolution under Chapter VI of the UN Charter, and support to regional organizations in settling disputes as well as action aimed at strengthening of the United Nations through direct and substantive participation in normative debates and negotiations, are significant elements of Brazilian external action. Promotion of rules-based economic and commercial relations and international norm-setting activities in other areas are also important for Brazil. Recent specific examples of Brazilian involvement in world affairs are the attempt at contributing to the solution of the nuclear impasse with Iran<sup>5</sup> and the introduction of the concept of "Responsibility while protecting" as a complement to that of "Responsibility to Protect", as well the promotion of international internet governance. Brazilian activity within the field of disarmament and non-proliferation, which is the subject of this article, consistently aims at the development of universal, consensual understandings and agreements that can provide the basis for strong and lasting treaty commitments.

<sup>1</sup> With the support of Argentina and other States in the region Brazil promoted in 1986 at the United Nations the concept of a Zone of Peace and Cooperation in the South Atlantic (ZOPACAS in the Portuguese acronym). Resolution 41/11 of October 26 1986 declared the region of the Atlantic Ocean situated between Africa and South America as a zone of peace and cooperation.

<sup>2 &</sup>quot;Brazil is a peaceful country, by tradition and conviction. [...] The national strategy of defense is inseparable from the national strategy of development. The latter drives the former" (Brasil 2008).

<sup>3</sup> Brazil, Russia, India, China and South Africa.

<sup>4</sup> India, Brazil, South Africa.

<sup>5 &</sup>quot;There was one important motivation [for the Joint Iran, Turkey and Brazil Declaration on Nuclear Fuel] which is to project Brazil's political capacity in the world. [...] Brazil believes it can play an important role, as a representative of emerging countries, in delivering some solutions that do not depend on the use of force or on the threat of the use of force." (Ramalho 2010).

<sup>6 &</sup>quot;Much is said about the responsibility to protect; yet we hear little about responsibility in protecting. These are concepts that we must develop together" (UN 2011).

#### International efforts in the field of disarmament

On March 30, 1987, the British Prime Minister Margaret Thatcher stated at an official dinner at the Kremlin in Moscow that, "The fact is that nuclear weapons exist and the knowledge of how to make them cannot be erased" (Thatcher 1987. Indeed, the knowledge and technology needed to build and detonate nuclear explosive devices, once the exclusive property of highly developed countries, is now available to anyone, even online. The problem for any nation or individual looking for a nuclear capability is how to procure and process the necessary raw materials and build facilities to produce enough fissionable material, as well as developing a miniaturized bomb and detonator that can be fitted into the warhead of a missile capable of flying over large distances and delivering its explosive potential on a chosen target.

Human ingenuity has not yet found a way to undo all its wrongs, but if in fact the knowledge necessary to build weapons of mass destruction cannot be erased, it is also true that they can be prohibited and eliminated under proper verification techniques. Bacteriological (biological) and chemical weapons have already been banned, and arsenals of the latter are being successfully destroyed. In a 1999 essay, the Italian physicist Francesco Calogero, former Secretary-general of Pugwash Conferences for Science and World Affairs, wrote that nuclear weapons cannot be disinvented, but they can be outlawed (Calogero *et al.* 1999, 57). As many authoritative voices have observed, nuclear disarmament is a matter of political will<sup>7</sup>.

Most states have shown such political will and decided not to acquire nuclear weapons. The Treaty on the Non-proliferation of Nuclear Weapons (NPT) and regional instruments establishing nuclear weapon-free zones (NWFZs) enshrined such decisions into international law. The 1997 Comprehensive Test-Ban Treaty (CTBT) extended the prohibition to test nuclear weapons to all environments in the atmosphere contained in the 1963 Partial Test-Ban Treaty (PTBT), thus reinforcing non-proliferation commitments<sup>8</sup>. Non-nuclear parties to the NPT are subject to a strict system of verification of compliance with such obligations under safeguards agreements concluded with the International Atomic Energy Agency. A voluntary Additional Protocol to such safeguards agreements applies to states that accepted it. The International Monitoring System (IMS) operated by the CTBT Organization is intended to apply to all parties of this instrument. Although the CTBT has not yet come formally into force, the IMS can effectively detect explosive events anywhere in the world and distinguish them from natural seismic movements.

Exactly 188 countries, including Brazil, are party to the NPT, which entered into force in 1970. This treaty is now near-universal – only four countries do not belong to it<sup>9</sup>. It recognizes five states that had developed nuclear weapons before January 1, 1967<sup>10</sup> and are defined in the

<sup>7 &</sup>quot;The barriers to getting to a world without nuclear weapons are not technical, scientific or economic. The barrier is one of political will" (Blair 2016).

<sup>8</sup> Although not yet formally into force, the CTBT has established a strong standard of international behavior against the carrying out of nuclear tests. Since 1992 all NWS States have observed a voluntary moratorium on such tests, with the exception of the DPRK.

<sup>9</sup> Democratic People's Republic of Korea, Israel, India and Pakistan.

<sup>10</sup> China, France, Russia, United Kingdom and United States.

treaty as "nuclear-weapon states" (NWS). These countries enjoy the privilege of temporarily retaining their nuclear arsenals but are committed to pursue disarmament negotiations. All other 183 parties have undertaken

not to receive the transfer from any transferor or whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices (IAEA 1970).

## Under the terms of the NPT, these are called "non-nuclear weapon states" (NNWS).

So far, none of the latter has violated that commitment by acquiring a nuclear military capability or building a nuclear explosive device. Iraq, Iran, and Libya have been accused of intending to produce nuclear weapons, but these situations were resolved by military or diplomatic means. South Africa decided to destroy the small arsenal it had amassed, while Kazakhstan, Belarus, and Ukraine returned the nuclear weapons stationed in their territories after the dissolution of the Soviet Union, of which these three countries were part. All four joined the NPT as non-nuclear countries.

Although the NPT certainly plays a role in curbing proliferation, it did not prevent the list of five possessor states mentioned in the treaty to expand to the current nine. The Democratic People's Republic of Korea (DPRK) withdrew from the treaty before carrying out its first nuclear test explosion. Israel<sup>11</sup>, India, and Pakistan also acquired atomic weapons. As non-parties to the NPT they are not subject to its provisions.

In 1967, about one year and a half before the opening of the NPT to the signature of states, the Latin American countries concluded the Treaty of Tlatelolco, by which they are committed to use the nuclear material and facilities under their jurisdiction exclusively for peaceful purposes, and to prohibit and prevent the testing, use, manufacture, production or acquisition by any means whatsoever of any nuclear weapons in their respective territories. This treaty was soon extended to cover the Caribbean region. Later, four other inhabited regions of the world negotiated and adopted similar instruments according to their own regional characteristics<sup>12</sup>. There are now 113 countries where nuclear weapons are prohibited in five nuclear weapon free zones, besides Mongolia, whose nuclear-free status was recognized by the General Assembly of the United Nations in 2016. It is interesting to note that the Treaty of Tlatelolco also contains a blanket prohibition of nuclear weapon tests, almost 30 years before the Comprehensive Test Ban Treaty (CTBT)<sup>13</sup> was concluded.

<sup>11</sup> Israel is widely believed to possess a nuclear arsenal of about 100 to 150 warheads, but does not officially confirm or deny possession.

<sup>12</sup> South Pacific (Treaty of Rarotonga, 1986); Southeast Asia (Treaty of Bangkok, 1997); Africa (Treaty of Pelindaba, 2009); and Central Asia (Treaty of Semipalatinsk, 2009).

<sup>13</sup> The CTBT is not yet formally into force; for this purpose, eight States must sign and/or ratify it: DPRK, China, Egypt, India, Iran, Israel, Pakistan and United States.

The Antarctic Treaty and its related agreements, known as the Antarctic Treaty System, which entered into force in 1961 provides for the use of the land and ice shelves in the area exclusively for peaceful purposes besides forbidding military activity, including test explosions, in the area. In 1967, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space entered into force. It prohibited the placement of nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or to station them in outer space in any other manner. The 1972 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil thereof, simply known as the Sea-bed Treaty, added those areas to the list of uninhabited locations free of nuclear weapons. Brazil is a party to those three instruments.

Strictly speaking, none of the treaties mentioned above can be considered "disarmament" instruments, but rather constitute treaties on arms control, "non-armament" or non-proliferation, since they deal with the non-introduction of nuclear weapons in spaces where they do not exist. However, the ensemble of relevant international legal instruments currently in force establish a clear rejection of nuclear weapons and raise the expectation that they will finally be eliminated. The preambles of these instruments clearly point to the achievement of the goal of nuclear disarmament. Article VI of the NPT commits all its parties, including those recognized as nuclear-weapon states, to "pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control." So far, no such negotiations have been undertaken under the NPT.

Since the advent of the United Nations (1946), the international community has endeavored to arrive at a comprehensive solution. Resolution no. 1, adopted at the very first Session of the General Assembly on January 24, 1946, established a Commission "to deal with the problems raised by the discovery of atomic energy and other related matters" and make specific proposals, "for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction" (UN 1946). Seventy one years later the international community can celebrate the existence of treaties that prohibit two of the three categories of weapons of mass destruction, bacteriological (biological) and chemical weapons, and mandated the elimination of stocks of the latter. Nevertheless, an estimated 16,000 nuclear weapons still exist in the arsenals of the nine possessors, which devote technological and financial resources to increase the range, accuracy, and destructive power of such weapons or simply to keep them ready for action. At multilateral forums, these states diligently reject any explicit, legally binding commitment to nuclear disarmament.

#### Brazil's action in international affairs

Since its emancipation as an independent nation in 1822, Brazil has sought recognition as a significant player in the world because of its physical dimension and the size of its economy and population and established early diplomatic ties with its neighbors and several other countries. At the Hague Peace Conference in 1907, the fledging Republic made a substantive contribution

to the organization of international affairs by advocating the principle of the sovereign equality of nations (Cunha 1977) and later participated in the League of Nations. Brazil worked actively in the elaboration of the Charter of the United Nations and the Charter of the Organization of American States as an original founding member of both entities. During World War II, the Brazilian Navy and Air Force played a role in the Battle of the Atlantic after mid-1942 and the Army contributed a 25,000-plus expeditionary force that entered combat on the Italian front in 1944. In 1948, Brazil supported the establishment of a continental collective security pact through the Inter-American Treaty of Reciprocal Assistance, signed in Rio de Janeiro in 1948. The common Iberian heritage of all Latin American countries, and a strong attachment to a tradition of friendly and constructive relations, explain the relative absence of strife among these nations and between any of them and Brazil in particular. The last armed conflict between Brazil and any country in the Americas was fought over one hundred and fifty years ago in a political context fundamentally different from the conditions that developed since. All borders of Brazil with its ten contiguous neighbors have been set by negotiation and/or independent arbitration. In the multilateral field, Brazil enjoys friendly relations with all states

In dealing with questions of nuclear non-proliferation and disarmament in the bilateral, regional, and multilateral dimensions, the positions taken by Brazil can be described as deriving from a conception of national security that includes access to advanced technology as a matter of national development and survival and an essential requirement for effective participation in the international system.

## Brazilian positions on disarmament and non-proliferation issues

## Non-proliferation in Latin America

The genesis and the success of the negotiation of the Treaty of Ttalelolco owe much to the diplomatic tradition, peaceful coexistence, and cooperation of Latin American countries, as well as their faith in international law and in negotiating mechanisms to deal with security issues of interest to the region.

In 1961, the United Nations General Assembly adopted the Resolution 1652 (XVI)<sup>14</sup> on the denuclearization of Africa as a result of the conduct of French nuclear tests in the Sahara Desert. In November of that year, the Brazilian representative to the United Nations General Assembly Afonso Arinos de Melo Franco proposed for the first time the establishment of a zone free of nuclear weapons in the Latin American space<sup>15</sup>. The idea was received with some skepticism by the major

<sup>14</sup> It is interesting to note that among the Latin-American countries only Brazil and Cuba voted for this resolution.

<sup>15 &</sup>quot;Brazil also favors, in principle, the establishment of denuclearized zones in the world [...]. Latin America might form such a zone." Statement by Afonso Arinos de Melo Franco, Head of the Brazilian Delegation to the XVII Regular Session of the United Nations General Assembly, New York, September 20 1962, in Corrêa (2013).

powers. The use of the term "denuclearization" <sup>16</sup> in the declaration raised some eyebrows as it could have given the impression that the intention was a complete rejection of nuclear technology, to the detriment of prospects for the nascent nuclear industry in some countries. A few weeks later, however, the international crisis resulting from the placement of Soviet missiles in Cuba contributed decisively to general support for the idea.

The crisis was resolved directly by Kennedy and Khrushchev, although then secretary-general of the United Nations U Thant has been credited with successful mediation efforts (Sandy 2011). Despite initial doubts, the United States saw in the Brazilian proposal a useful way to establish some control over Cuban nuclear activities. At the 17<sup>th</sup> Session of the General Assembly in 1962, Bolivia, Chile, and Ecuador, together with Brazil, introduced a draft resolution (A/C.1/L.312/Rev.2) proposing the creation of the zone (UN 1962). Consideration was postponed to the 18th Session. In the following year, the presidents of these four countries, plus Mexico, formally announced their decision to negotiate and sign an international instrument to bring about the "denuclearization" of the Latin American continent. The draft resolution was reintroduced (A/C.1/L.329) under the sponsorship of Bolivia, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Haiti, Mexico, Panama, and Uruguay (UN 1963). Supported by the United States and the Western bloc, the draft was adopted at the 18th Session of the General Assembly on November 29, 1963 as Resolution 1911 (XVIII) with 95 votes in favor, none against and 15 abstentions, - mostly from the Eastern European bloc (UN 1963). The latter wished to show support for Cuba but could not risk antagonizing the proponents. The resolution recognized the danger of an increase in the number of states possessing nuclear weapons, mentioned the Declaration of the five presidents, and expressed satisfaction for the initiative, together with the hope that the Latin-American states would take the necessary steps to realize the objectives of that Declaration.

Negotiations started in 1964 in Mexico City and concluded in 1967 with the signature of the Treaty, which entered in full force for its Latin American and Caribbean parties in 2002. Divergences of approach arose during the elaboration of the text of the Treaty. The distinction between the peaceful and non-peaceful aspects of a nuclear weapon free zone in Latin America constituted the main concern from the Argentine point of view and was also important for Brazil, especially after the establishment of the military government on March 31, 1964. Both countries wished to explicitly preserve the right to the development and utilization of all aspects of nuclear energy, including with regards to the sensitive question of nuclear explosions for peaceful purposes, while Mexico and others advocated the prompt adoption of a wider prohibition that would not contemplate the possibility of development of the explosive technology. A prohibition of peaceful nuclear explosions amounted, for Brazil and Argentina, to undue interference in their sovereign rights, since it would close their access to an important aspect of nuclear technology.

This question was resolved with the inclusion of a definition of "nuclear weapon" intended to differentiate it from an explosive device in the Treaty, as well as detailed conditions necessary

<sup>16</sup> At the time, some concepts were not yet clearly defined. In fact, "denuclearization" is a very broad term that could be interpreted as encompassing all nuclear activities, whether peaceful or otherwise.

for the carrying out of explosions for peaceful purposes<sup>17</sup>. The mechanism for the entry into force of the Treaty also gave rise to heated debate. Agreement was reached on an unprecedented formula in international arrangements, according to which the Treaty would be in force only when certain conditions were met, but signatories could waive those conditions. Brazil signed the Tlatelolco Treaty in 1967 but only waived the conditions in 1994, after similar action by Argentina and Chile.

Besides the able conduct of the negotiations, which required important concessions from some of the participants, the success of the negotiation of the Treaty of Tlatelolco can be explained by the region's legalist tradition that favored multilateral arrangements; the existence of a collective security pact with the United States (Treaty of Rio de Janeiro 1947); and the relative absence of inter-regional tensions and frictions. As noted above, the Treaty of Tlatelolco preceded the NPT by about eighteen months. As noted above, 29 years before the conclusion of negotiations in 1996 of the Comprehensive Nuclear Test Ban Treaty (CTBT), a broad prohibition on testing nuclear weapons was already included in the Treaty of Tlatelolco.

#### Brazil and the NPT

Support for the negotiation of a treaty to curb the proliferation of nuclear weapons increased at the United Nations in the first half of the 1960's, spurred by a series of resolutions promoted by Ireland since 1959. At its 20<sup>th</sup> Session, the General Assembly adopted Resolution 2028 (XX) calling upon the Conference of the Eighteen-Nation Disarmament Committee (ENDC)<sup>18</sup> to "give urgent consideration" to the negotiation of an international treaty to prevent the proliferation of nuclear weapons. According to that resolution, the treaty should embody "an acceptable balance of mutual responsibilities and obligations of the nuclear and non-nuclear Powers", as well as constitute "a step towards the achievement of general and complete disarmament and, more particularly, nuclear disarmament", among other requirements (UN 1965).

The two co-Chairs of the ENDC, the representatives of the Soviet Union, and the United States, in 1965 introduced separate drafts of a treaty on non-proliferation and in the next year presented a joint draft which was discussed at the Committee. The ENDC was composed of five countries from the North Atlantic Treaty Organization (NATO), five from the Warsaw Pact and eight others that did not belong to either of the two military alliances, including Brazil.

<sup>17</sup> These provisions are contained in Articles 5 and 18 of the Treaty of Tlatelolco. It is interesting to recall that in order to meet the concerns of developing countries about the use of nuclear explosives for large civilian engineering works the proponents of the NPT included Article 5 on the provision of explosive services. Interest in such explosions waned since.

<sup>18</sup> At a meeting in Berlin in 1959 the representatives of France, the Soviet Union, the United Kingdom and the United States decided to resume disarmament talks and created the Ten-Nation Committee Disarmament through an agreement with the United Nations. It was composed of five members of the North Atlantic Treaty Organization (NATO) and five from the Warsaw Pact. In 1961, General Assembly resolution 1722 (XVI) reorganized the TNDC as the Eighteen-Nation Disarmament Committee (ENDC) by adding eight members not belonging to either alliance, among them Brazil. It was enlarged in 1969 as Conference of the Committee on Disarmament and in 1979 the I Special Session of the General Assembly on Disarmament established it as "the sole negotiating body" on matters of disarmament. It has been enlarged since and now has 65 members.

The latter became known as the "Group of Eight"<sup>19</sup>. The logic of the Cold War to a large extent determined the policies adopted by states with regard to the Soviet-American draft. The allies of each superpower usually endorsed the respective views of Moscow or Washington. Most members of the Group of Eight, for their part, proposed changes to bring the text of the draft more in line with their interests regarding nuclear disarmament and peaceful uses of atomic energy.

During the discussion of the Soviet-American draft, the countries from the Group of Eight argued for stronger provisions on nuclear disarmament, particularly on the obligation of the possessors of nuclear weapons to disarm in exchange for the renunciation of nuclear weapons by the non-possessors. Several changes were proposed, some of which were taken in by the proponents, who presented revised versions of the draft. Brazil was especially concerned with what it regarded as a discriminatory aspect of the draft – the division of the world into two immutable categories of nations<sup>20</sup> – and with the curtailment of the possibility of nuclear technological advancement of developing countries, particularly nuclear explosive devices for peaceful purposes<sup>21</sup>. At the time, it was believed that such explosions could play a significant role in major engineering projects, such as digging canals or extracting oil from shale<sup>22</sup>. A number of amendments to the draft tabled by Brazil and other members of the Group of Eight were not accepted by the two proponents<sup>23</sup>

Realizing that there would be no agreement in the ENDC on the draft Treaty, the two co-Chairs decided on their own authority to send it to the General Assembly to be endorsed, thus bypassing the consensus rule contained in the Rules of Procedure of the Committee. On the 12<sup>th</sup> of June, 1968, the General Assembly adopted resolution 2373 (XXII), by which it commended the Treaty on the Non-Proliferation of Nuclear Weapons and requested that it be opened for signature and ratification at the earliest possible date<sup>24</sup> (UN 1968). The NPT entered into force on March 5, 1970, upon the deposit of the 40<sup>th</sup> instrument of ratification, in accordance with its Article IX.3.

## Brazil and Argentina in the context of the NPT

Government postures and the media in the two main nuclear weapon states and their allies sought to picture the criticism by Brazil and Argentina to the draft NPT as an indication of a

<sup>19</sup> Brazil, Burma (present-day Myanmar), Ethiopia, India, Mexico, Nigeria, Sweden and UAR (United Arab Republic).

<sup>20</sup> The late Minister of External Relations of Brazil, João Augusto de Araújo Castro, used to describe the composition of the United Nations Security Council with five permanent members having veto power and the NPT with the same five nations enjoying recognition of their exclusive possession of nuclear weapons as "the freezing of world power".

<sup>21 &</sup>quot;We must develop and utilize [nuclear energy] in every form, including the explosives that make possible not only great civil engineering projects but also an ever-increasing variety of applications that may prove essential to speed up the progress of our peoples. To accept the self-limitation requested from us in order to secure the monopoly of the present nuclear-weapon powers would amount to renouncing in advance boundless prospects in the field of peaceful activities". Statement by Ambassador Sergio Corrêa da Costa to the ENDC, May 18, 1967. (Conference of the Eighteen-Nation Committee on Disarmament 1967a)

<sup>22</sup> In recent years oil has been recovered by injecting water into shale deposits, a technique known as "fracking".

<sup>23</sup> Amendments proposed by Brazil included, among others, the creation of a development fund from financial resources freed by nuclear disarmament; a legally binding commitment by the NWS to sign a treaty to end the nuclear arms race and eliminate their nuclear arsenals; and the recognition of the right to conduct peaceful nuclear explosions.

<sup>24</sup> The Resolution received 95 votes in favor, 4 against and 21 abstentions (including Brazil).

drive by these two nations to acquire nuclear weapons because of a supposedly irreconcilable rivalry, as if the major countries in each region were inescapably doomed to emulate the mistrust and animosity existing between the two superpowers. In fact, Brazil and some other developing countries that possessed relatively advanced nuclear industries felt that it was in their best interest to preserve their options in a world divided at the time between two rival camps. Although some sectors of opinion in Argentina have misgivings about the Brazilian economic expansion during the 1970's, both Buenos Aires and Brasilia understood that joint resistance against the pressure imposed by the NPT regime was more important than stimulating those fears and recognized the value of bilateral understanding. Instead of an all-out competition for obtaining nuclear weapons, there was a gradual convergence of positions and increased cooperation. Both countries sought a similar objective, that is, the recognition and practical implementation of their right to develop and maintain national nuclear programs intended mainly to attain the mastery of the nuclear fuel cycle. With Argentine support, Brazil succeeded in winning approval for the recognition, in the Treaty of Tlatelolco, of the right of the parties to conduct nuclear explosions for peaceful purposes. During the discussion of the draft NPT at the ENDC, Brazil considered proposing the inclusion of a definition of nuclear weapons aiming at establishing a clear differentiation between a "weapon" and a "peaceful device" similar to the provision contained in Article 5 of the Treaty of Tlatelolco<sup>25</sup>, while India suggested controls on the carrying out of peaceful explosions<sup>26</sup>. The NPT does not contain a definition of a nuclear weapon.

It is fair to state that Brazil and Argentina never were engaged in a race to acquire nuclear weapons in order to achieve regional supremacy<sup>27</sup>. Recent studies based on declassified official documents from the 1970's and 1980's generally corroborate that view (Mallea et al. 2015). In a July 20, 2015, article in the online journal "The Conversation", Nicholas J. Wheeler and Matias Spektor summarized: "There were several moments when one side appeared to be on the cusp of securing a major technological edge that could have triggered a competitive spiral of nuclear competition. This did not happen because at those crucial junctures, Argentine and Brazilian leaders chose to trust rather than distrust." (Wheeler and Spektor 2015).

Potentially more dangerous than a supposed nuclear rivalry was the contentious episode about the use of the waters of rivers flowing from Brazil into Argentina. Once it was solved, the bilateral relationship entered into an extremely constructive phase that made possible the 1991 agreement to

<sup>25</sup> Article 5 of the Treaty of Tlatelolco reads: "For the purposes of this Treaty, a nuclear weapon is any device which is capable of releasing nuclear energy in an uncontrolled manner and which has a group of characteristics that are appropriate for use for warlike purposes. An instrument that may be used for the transport or propulsion of the device is not included in this definition if it is separable from the device and not an indivisible part thereof. Article 18 details the conditions under which peaceful explosions can be carried out (UN [n.d.]).

At the 303<sup>rd</sup> meeting of the ENDC, on June 8, the Ambassador of India, Mr. V. C. Trivedi, said: "We, in fact, have suggested complete regulation, complete control over the process, which is not at the moment something which the nuclear-weapon Powers want for their own nuclear weapons. We do not want any proliferation. We want to regulate. We do not want a stockpiling of nuclear devices. We want peaceful nuclear devices controlled, regulated -- before manufacture, during manufacture and after manufacture. Their use should be controlled and a proper system should be devised which would ensure that a particular peaceful nuclear explosive device is used for peaceful explosive purposes. That is where the difference lies." (Conference of the Eighteen-Nation Committee on Disarmament 1967b)

<sup>27</sup> See, for instance, Kassenova (2014, 22) and Wrobel (1991, 346-7).

create the Argentine-Brazilian Agency for Account and Control of nuclear materials (ABACC) and the customs union on which MERCOSUL is based. After the understandings reached by civilian Presidents José Sarney and Raúl Alfonsín, both countries stepped up measures aimed at preparing economic integration and particularly initiatives to strengthen mutual confidence through visits and meetings of representatives of the agencies in charge of the respective nuclear programs and armed forces to discuss questions related to cooperation in the development of atomic industry and defense issues. In no other field cooperation was more deeply debated and attained a higher degree of progress than in the nuclear domain. With a difference of less than two years, Argentina and Brazil reached the autonomous mastery of the fuel cycle and exchanged information at the highest level about these feats before they were publicly announced. Cooperation, rather than competition, in the nuclear field became the means to circumvent the barriers imposed by the non-proliferation regime and was the most powerful symbol of the rejection of those obstacles.

## **Evolution of Brazilian postures**

In 1995, Argentina acceded to the NPT while Brazil only did the same in 1998. Both countries regularly consulted each other informally on their respective intentions regarding the treaty, but in Brazil there were lingering doubts about joining an instrument widely regarded as unfair and discriminatory. A number of developments in the multilateral arena finally convinced the highest Brazilian authorities that in order to discredit die-hard suspicions about the country's intentions, it would be better to try to defend the need of full implementation of Article VI of the Treaty and improve its own non-proliferation credentials from within, rather than from without. Other arguments in favor of a revision of the posture taken since the mid 1960's were; the absence of perceived direct threats to Brazilian territorial integrity and sovereignty that could be countered with a nuclear military capability; the fact that by the first half of the 1990's a large majority of the international community had already adhered to the NPT; and the indefinite extension of the NPT in 1995, in exchange for the adoption of a new review process and a set of Principles and Objectives, as well as a decision to convene a Conference on weapons of mass destruction in the Middle East<sup>28</sup>. The maintenance of a strong attitude of opposition to the Treaty after its indefinite extension risked to deepen the marginalization of the country in the mainstream of the continuing debate on nuclear disarmament and hinder its action in the broader international sphere. Moreover, growing obstacles to the provision of crucial industrial materials could hamper the development of critical aspects of the economy. The decision to join the MCTR, the NSG, and the CTBT prepared the way for the final push on the internal front. On September 18, 1998, the Minister of External Affairs of Brazil, Luiz Felipe Lampreia, signed the NPT at the State

<sup>28</sup> Lack of results from this decision was to a large extent responsible for the failure of the 2005 NPT Review Conference. At the 2010 NPT Review an understanding was reached that the Secretary-General of the United Nations and the co-sponsors of the 1995 Resolution, in consultation with the States of the region, would convene of a conference in 2012, to be attended by all States of the Middle East (UN 2010, 30). This did not happen and the next NPT Review Conference, in 2015, also failed to adopt a Final Document.

Department in Washington. On the occasion, the Minister stated: "Brazil strongly rejects the notion that nuclear weapons can bring security to any nation. On the contrary, they breed only tension and instability and constitute a major roadblock to international peace and security" (US 1998. The Legislative Decree 65 of July 2, 1998 (Brasil 1998), on the ratification of the NPT, made clear that "Brazil's accession to the NPT is made on the understanding that, in accordance with Article VI of the Treaty, effective measures will be taken with a view to the cessation of nuclear arms race at an early date and the total elimination of nuclear weapons".

Soon after, Brazil joined Egypt, Ireland, Mexico, New Zealand, South Africa, Slovenia<sup>29</sup>, and Sweden to form the New Agenda Coalition (NAC). In a joint declaration at the official launching of the NAC in June 1998, the members of this group stated: "We can no longer remain complacent at the reluctance of the nuclear-weapons states and the three nuclear-weapons-capable states to take that fundamental and requisite step, namely, a clear commitment to the speedy, final and total elimination of their nuclear weapons and nuclear weapons capability and we urge them to take that step now." (Canadian Coalitionfor Nuclear Responsibility 1998)

### Action and initiatives in the domestic and external fields

Since the beginning of efforts to develop a viable domestic nuclear industry, Brazilian authorities have looked for ways to reduce dependence on foreign sources of technology and at the same time to keep the country's options open by not accepting restrictions on the use of nuclear energy, including achieving the autonomous mastery of the full fuel cycle and the possibility of carrying out explosions. This trend precedes the 1964 establishment of a military government and was reinforced during the 21 following years.

As early as 1947, Admiral Alvaro Alberto, the representative of Brazil at the Atomic Energy Commission, created by the United Nations under General Assembly Resolution 1 (UN 1946), presented the first proposal on nuclear development to the National Security Council. The deep involvement of Admiral Alberto in Brazil's early nuclear activities in part explain the subsequent interest of the Navy in sponsoring the technical training of its officers and its leading role in the planning and management of national nuclear programs. Since the 1950's, Brazil had sought agreements for the export of uranium and thorium, of which it possesses significant reserves, in exchange for access to and transfer of nuclear technologies. Under the American program "Atoms for Peace", Brazil obtained its first nuclear reactor, and a few years later, succeeded in building another one with a large percentage of national technological resources. However, periods of domestic political instability and financial hardship, besides the need to deal with other priorities, retarded the advancement of the program until 1967, when the second of the military presidents approved a plan for the full development of nuclear energy, including the nuclear fuel cycle. In 1971, a nuclear power plant purchased from the American corporation Westinghouse was

<sup>29</sup> Slovenia later left the group, which continues to be active in multilateral disarmament forums.

installed on the coast south of Rio de Janeiro and became known as Angra 1<sup>30</sup>. In the mid 1970's, an ambitious agreement was signed with the Federal Republic of Germany for the construction of eight nuclear plants to produce electric power and assistance to provide enrichment technology. However, opposition from the United States, particularly during the Carter administration<sup>31</sup>, as well as persistent internal financial problems, caused delays in the construction of the first two power plants under the agreement with Germany. A reevaluation of the civilian program and budgetary constraints postponed several projects, and a decision was made to establish a "parallel" or autonomous project to be implemented by the three branches of the Armed Forces.

Besides proposing research on all phases of energy production, this project envisaged the construction of a reactor for naval propulsion and the development of national enrichment technology and facilities. Not being a member of the Treaty on the Non-proliferation of Nuclear Weapons, Brazil felt free to pursue its plans in spite of objections from the possessors of nuclear weapons and their allies. As indicated elsewhere in the present text, cooperation between Brazil and Argentina both on the political multilateral front and in technical aspects of the two countries' respective nuclear programs increased during this period and particularly after the end of the military regimes in the two countries<sup>32</sup>.

In 1987, the results of the "parallel" program were disclosed by the first civilian president, José Sarney: Brazil had mastered the key technologies for conversion of yellow cake into uranium hexafluoride (UF<sub>6</sub>) and the indigenous development of ultracentrifuges. The first popularly elected president in 21 years, Collor de Melo, announced in 1990 that Brazil would not pursue research into nuclear explosives. New economic difficulties again slowed the nuclear program and resulted in the closure of the experimental UF<sub>6</sub> plant and suspension of the construction of the two power plants. In 2002, Angra 2 was finally inaugurated and work started on Angra 3, which is set to be completed in 2021. A commercial industrial enrichment plant intended to supply low-enriched uranium to fuel those plants and several others under the Brazil 2030 project started operations in 2006 at Resende, in the state of Rio de Janeiro. The Navy resumed its nuclear submarine project and in 2011 a special shipyard was opened for the final phase of the construction of the first Brazilian nuclear-powered submarine built with indigenous and transferred technology under an agreement with France.

In multilateral disarmament forums, the action of Brazil during the 1970's and part of the 80's was mainly directed to deflecting criticism about its decision not to join the NPT and trying to allay suspicions about its alleged intention to develop nuclear explosives. At the same time, Brazil advocated concrete measures of nuclear disarmament. The slow increase of membership in the NPT for some time afforded Brazil a relatively comfortable position within an international context dominated by the rivalry between the two superpowers and their respective military

<sup>30</sup> This plant started commercial operation in January 1985.

<sup>31</sup> In a secret communication to President Ernesto Geisel. Foreign Minister Azeredo da Silveira observed that "although only ten days have elapsed since the inauguration of the Carter administration, it is possible to identify some of the main lines of its efforts to curb the implementation of the treaty on nuclear cooperation between Brazil and the FRG" (Silveira 1977).

<sup>32</sup> In a 1995 article, Argentine Ambassador Julio C. Carasales wrote: "The Argentine-Brazilian nuclear rapprochement began around 1980 but it did not gain adequate momentum until around 1985, when this process developed in earnest" (Carasales 1995).

alliances. Following the I Special Session of the General Assembly on Disarmament (SSOD I), in 1979, Brazil upgraded its representation at the Conference on Disarmament (CD) in Geneva by establishing a permanent mission headed by Ambassador Celso Antonio de Souza e Silva as Special Representative for Disarmament Affairs responsible for representing the country at all forums dealing with disarmament issues, including the First Committee of the General Assembly and the United Nations Disarmament Commission. Brazilian delegations to the CD also devoted their efforts to the ongoing negotiation of draft articles for a future Chemical Weapons Convention and to supporting the efforts to establish a negotiating structure on the comprehensive prohibition of nuclear weapon tests. Brazil consistently demanded the establishment of an *ad hoc* group on nuclear disarmament at the CD.

By the beginning of the 1990's, the international context had experienced major changes with the collapse of the Soviet Union and the expectation of an era of lowering of tensions and increased international cooperation based on the Western democratic ideology and neo-liberal economic theories. The large majority of the international community had adhered to the NPT, increasing the pressure on Brazil to join the instrument. At the time of Brazil's adherence, only four other states were not party to the instrument: the DPRK, India, Israel, and Pakistan. All four acquired nuclear weapons. Despite its principled positions regarding the discriminatory character of the instrument, the continued shunning of the instrument by Brazil was seen at the highest level to have become a liability in terms of the full credibility of its stated peaceful intentions and of the supply of much needed technology and materials for strategic projects. Argentina had already become a party three years before, and Brazil risked isolation in the international disarmament and security debate.

The creation in 1991 of the Argentine-Brazilian Agency for Accounting and Control of Nuclear Materials (ABACC) and the Quadripartite Agreement with the IAEA (1994) were important elements in the evolution of Brazil's posture regarding non-proliferation. The continuing success of these pioneer agreements contributes to the enhancement of confidence and to the maintenance of peace and security in the region, and in the world at large, and elicited interest from other parts of the world as an example of how similar situations can be constructively managed and overcome. It must be stressed, however, that the relationship between Brazil and Argentina, as any other relationship between neighboring countries, is unique and solutions to common problems cannot be easily transplanted to different realities and regional contexts.

The high level of cooperation and confidence between Brazil and Argentina was crucial for solving a difficult question regarding the Nuclear Suppliers Group guidelines for the transfer of sensitive materials. The debate involved the stance of the two countries regarding the Additional Protocol to the safeguards of Article II of the NPT. After a long discussion, in June 2011 the NSG agreed that

[...] suppliers should authorize transfers, pursuant to this paragraph, only when the recipient has brought into force a Comprehensive Safeguards Agreement, and an Additional Protocol based on the Model Additional Protocol (AP) or, pending this, is implementing

appropriate safeguards agreements in cooperation with the IAEA [International Atomic Energy Agency], including a regional accounting and control arrangement for nuclear materials, as approved by the IAEA Board of Governors (IAEA 2016).

For Brazil and Argentina this language does not constitute a requirement for the two countries to eventually conclude Additional Protocols, while some analysts believe that the expression "pending this" implies an expectation that Brazil and Argentina should sign the AP. Whatever the interpretation, the adopted text amounts to a significant acknowledgement of ABACC (Kassenova 2016). The Brazilian National Defense Strategy adopted on December, 18 2008, states that "Brazil will not subscribe to any additions to the Nuclear Weapon Nonproliferation Treaty intended to broaden restrictions established by the Treaty without the nuclear powers having made any progress on the central premise of the Treaty: its own nuclear disarmament." (Brasil 2008).

## Recent multilateral action on nuclear disarmament

After its accession to the NPT in 1998, Brazil became a very active player in the context of that instrument, particularly through the New Agenda Coalition (NAC). Already at the 2000 NPT Review Conference, Brazil played a leading role in the drafting and adoption of the NAC proposal for the "13 Practical Steps for the systematic and progressive efforts to implement Article VI of the NPT" (United Nations Office for Disarmament Affairs 2000. In 2005, Brazil accepted the suggestion to present itself as a candidate to the Presidency of the 2005 Review Conference. The candidature was unanimously endorsed by the III Session of the Preparatory Committee (United Nations Office for Disarmament Affairs 2004) and by the Conference itself. NAC again participated actively at the 2010 NPT Review Conference and submitted a working paper containing 22 recommendations (UN 2015a).

At the 2010 Conference, the participating governments unanimously expressed their "deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons" and reaffirmed "the need for all States at all times to comply with applicable international law, including international humanitarian law." This sparked an international movement supported by several states and civil society organizations that led to the convening of three international conferences on the consequences of the use of nuclear weapons in 2013 and 2014 attended by 158 governments and also by numerous scientists and members of civil society organizations. At the close of the third Conference, Austria pledged "to identify and pursue effective measures to fill the legal gap for the prohibition and elimination of nuclear weapons". These developments generated renewed interest in pursuing multilateral measures for nuclear disarmament.

At the 2015 NPT Review Conference, which also ended without the adoption of a Final Document<sup>33</sup>, Austria re-issued its pledge, committing itself to work to "fill the legal gap for

<sup>33</sup> Five out of the nine NPT Review Conferences held since the entry into force of the NPT were also unable to adopt a Final Document, showing deeply entrenched disagreement among its parties. Nevertheless, the Treaty is considered the cornerstone of the non-proliferation regime.

the prohibition and elimination of nuclear weapons" and further pledged "to cooperate with all stakeholders to achieve this goal" (Viena 2014). One hundred twenty-eight States endorsed this pledge at the Conference and others joined afterwards<sup>34</sup>. On that occasion, the Brazilian representative stated: "Brazil believes that the positive momentum stemming from the Oslo, Nayarit, and Vienna Conferences will have an impact on nuclear disarmament both at this Conference and in multilateral fora dealing with disarmament (UN 2015b)

On December 15, 2015, the General Assembly adopted Resolution 70/33 (UN 2015c) by 138 votes (including Brazil), with 12 abstentions and 34 against, entitled "Taking forward multilateral nuclear disarmament negotiations" establishing an Open-ended Working Group (OEWG) "to substantively address concrete effective legal measures, legal provisions and norms that will need to be concluded to attain and maintain a world without nuclear weapons" (UN 2015). The Working Group recommended the convening of a conference by the General Assembly in 2017, open to all states, with the participation and contribution of international organizations and civil society, to negotiate a legally-binding instrument to prohibit nuclear weapons, leading towards their total elimination. Its report was adopted by 68 votes for (including Brazil), 22 against, and 12 abstentions.

Brazil made its views known during the debate in the Working Group and issued a working paper (UN 2016) that examined several options aimed at taking forward multilateral disarmament negotiations in recent years and proposed a specific course of action, which is explained in the following paragraphs of the paper: "The most viable option for immediate action seems to be the negotiation of a treaty prohibiting nuclear weapons, establishing general interdictions and obligations, and an unambiguous political commitment to completely eliminate nuclear weapons. Such a treaty should benefit from further developments. It could be complemented by protocols on national declarations, national implementation, verification and phases of destruction, assistance and technical cooperation, and the non-discriminatory verification regime to be implemented after the dismantlement of all nuclear weapons. Such a perspective would provide a framework for the progressive inclusion of all states initially resistant to join in, thus reflecting the inclusiveness afforded by the framework approach. The completion of such a process would provide for the same effectiveness of a nuclear weapons convention, in fact establishing a comprehensive system for the achievement and maintenance of a world free of nuclear weapons. The main difference between the two approaches is that the hybrid option would avoid preconditions which could stall the beginning of negotiations indefinitely".

In December 2016, on the initiative of Austria, Brazil, Ireland, Nigeria, Mexico, and South Africa, and with the support of a wide majority the General Assembly, the United Nations adopted a resolution (UN 2016) mandating the start of negotiations on a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination. Work on that instrument commenced in March 2017 in New York. The nine possessors of nuclear weapons and most of their

<sup>34</sup> Latin American and Caribbean States declared their support to the Pledge through the Special Declaration of the Community of Latin American and Caribbean States (CELAC) on the "Urgent Need for a Nuclear Weapon-Free World", which resulted from the Third Summit of CELAC, held in Belén, Costa Rica, on January 28 and 29, 2015. (Community of Latin American and Caribbean States 2015)

allies chose not to join the negotiations. Several reasons were given for this attitude. In general, opponents considered the initiative "premature" and "naïve" as well as potentially harmful to the existing multilateral disarmament structure, particularly the NPT. Demarches were made with allies to convince them not to attend the Conference. Nevertheless, the Netherlands and Japan, pressed by civil society movements, decided to participate in the negotiations.

According to generally coincident views expressed in the first part of the Conference (March 27–31), this new treaty should not affect obligations assumed under other instruments already in place such as the NPT, the CTBT and the ones establishing nuclear weapon free zones. It should aim basically at prohibiting the use, development, stockpiling, and transfer of nuclear weapons and could also make the stationing of such weapons in territories of third countries and other practices illegal under international law. Several participants, including Brazil, favored a simple general prohibition to be followed later by other instruments containing specific prohibitions while others proposed the inclusion of provisions of a humanitarian nature. A number of points will need to be further discussed during the second part of the Conference (June 17–July 7). The advocates of this instrument hope that the emergence and significance of a treaty establishing the illegality of nuclear weapons will increase moral pressure from world public opinion and constrain the states that rely on their allies' nuclear weapons for their security – and at some point, even the nine possessors themselves – to abandon military doctrines and policies based on the possession and threat of use of such weapons.

## Conclusion

## Brazil and the prospects for progress in nuclear disarmament

Through its international action, Brazil has contributed to the strengthening of peace and security in the world and has good reason to believe that its non-proliferation credentials and its tradition of peaceful relations with all other countries, particularly within the Latin America community, entitles it to look actively for opportunities to continue to act substantively in this field. Domestic political stresses and financial difficulties may occasionally hamper its capacity to act in the multilateral scenario, but it is undeniable that faith in multilateralism and dedication to the rule of law in international affairs are recognized trademarks of Brazil's action in the global arena. As described above, after having remained somewhat distant from the mainstream of the more active countries dedicated to achieve progress toward nuclear disarmament, in the past few years Brazil has been fully engaged, together with several other members of the international community and civil society organizations, in the effort to revitalize the movement to proceed with multilateral nuclear disarmament negotiations.

At the time of the drafting of this article, the future of the current negotiations under the mandate given by General Assembly Resolution 71/258 is unpredictable (UN 2017). The deadline for the submission of the final text of this article is May 30 and work in New York on a draft treaty

to ban nuclear weapons will not resume until June 15. A consensual draft text of the treaty will probably be finalized by the Conference on July 7, but much ground remains to be covered until the process can be assessed and its promoters, including Brazil, can decide whether the results were worth the effort. At present, the nuclear armed states and their allies remain unconvinced of the merits of a prohibition and continue to advocate the continuation of what came to be known as the "step-by-step" method as the only way to achieve progress. On the other side of the spectrum, the majority of non-nuclear weapon states seem to have come to the conclusion that a new bold approach, such as the one embodied in a ban treaty, is the best option to engage in a meaningful way with the possessors of nuclear weapons and are willing, if necessary, to proceed at first without their necessary involvement, in fact paving the way for their future change of mind.

The preparation cycle for the forthcoming 2020 NPT Review Conference has just started, and of course it is not possible at this time to predict the impact of a ban treaty on the existing non-proliferation regime. The first NPT Review Preparatory Conference ended on May 12, 2017, with significant disagreement, – a recurrent feature of such Conferences. It is to be hoped that all parties to the NPT will work together to strengthen the commitments adopted below international law. For its part, the ban treaty must be crafted with patience and wisdom with a view to its feasibility, inclusiveness, and potential universality. It must complement, not challenge or supersede, the NPT. If the negotiators of the ban treaty are successful in the first stage of their work, subsequent efforts must be devoted to ensure the participation of the nuclear weapon states at a second moment through the increased political, moral, and diplomatic pressure that a balanced, realistic prohibition can generate.

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