

**Proposal for a Framework Agreement Structure of  
a Treaty on Fissile Material for Nuclear Weapons  
or Other Nuclear Explosive Devices**

Marcelo Câmara  
Disarmament and Sensitive Technologies Division  
Ministry of Foreign Affairs, Brazil

and

Zia Mian  
Program on Science and Global Security  
Princeton University, Princeton NJ, USA

Presentation at  
Informal Consultative Meeting on the work of the High Level Expert Preparatory Group  
on a treaty banning the production of fissile material for nuclear weapons  
or other nuclear explosive devices (pursuant to A/RES/71/259)

United Nations Headquarters, New York  
February 15, 2018

## Marcelo Câmara

In June 2010 the Brazilian delegation to the Conference on Disarmament (CD) presented document CD/1888 on a possible structure for a treaty on fissile material for nuclear weapons or other nuclear explosive devices.<sup>1</sup> The purpose was to break the protracted impasse at the CD.

As widely known, for more than two decades the Conference on Disarmament has been unable to reach consensus on a program of work mostly on the grounds of the nature of the treaty on fissile materials. Depending on the views on the scope that it might cover, it has been referred to either as a Fissile Material Treaty (FMT) or a Fissile Materials Cutoff Treaty (FMCT).

The idea of tabling a short conceptual paper was nurtured against the backdrop of the mandate contained in resolution A/RES/48/75, approved unanimously in December 1993, whereby the UN General Assembly called for “a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices”.<sup>2</sup> It is noteworthy that this mandate did not spell out any particular structure for the treaty.

In light of the recent surge in nuclear disarmament talks, including in the context of the current Group of Government Experts (GGE) on a FMT/FMCT, I thought that it might be useful to revisit the proposal of a framework agreement, as presented by Brazil in 2010.

The main motivation behind this initiative is to contribute somehow to overcoming the obstacles that still impede the negotiations on fissile materials, by putting forward a possible structure for a treaty.

I am persuaded that the framework agreement model, whose main tenets will be elaborated shortly by Zia Mian from Princeton University, can help the main actors to display more flexibility, as it takes into consideration different concerns that have been voiced both in the CD and in the first GGE session.

To put it simply, the framework agreement model proposes a very broad, simple and general structure that would preserve each and every delegation’s position on this issue. It is also worth noting that it does not detract from the Shannon report (CD 1299), of 1995, and the mandate contained therein.<sup>3</sup>

I shall observe, in passing, that it is my personal view that today’s international environment is remarkably different from that of 1995, but the assessment of the Shannon report remains valid in reference to the essential divergence of views, including the scope of such a treaty.

The framework agreement model is limited to the architecture of the treaty because we cannot, at this stage, go beyond that. In fact, the challenge before us is to give assurance that the treaty will

---

<sup>1</sup> Brazil Working Paper “Proposal On The Structure Of A Treaty On Fissile Material For Nuclear Weapons Or Other Nuclear Explosive Devices”, Conference on Disarmament, 10 June 2010, <http://undocs.org/CD/1888>.

<sup>2</sup> United Nations General Assembly Resolution A/RES/48/75, General And Complete Disarmament; Section L: Prohibition Of The Production Of Fissile Material For Nuclear Weapons Or Other Nuclear Explosive Devices, 81st Plenary Meeting, 16 December 1993, <http://www.un.org/documents/ga/res/48/a48r075.htm>.

<sup>3</sup> Report Of Ambassador Gerald E. Shannon Of Canada On Consultations On The Most Appropriate Arrangement To Negotiate A Treaty Banning The Production Of Fissile Material For Nuclear Weapons Or Other Nuclear Explosive Devices, Conference on Disarmament, 24 March 1995, <https://undocs.org/CD/1299>.

actually correspond to the general aspiration of a legal instrument that is "non-discriminatory, multilateral and internationally and effectively verifiable".

At the same time, irrespective on how member States envisage future non-proliferation and nuclear disarmament efforts either by the gradual or the prohibition approach and how a treaty on fissile material will be inserted in those efforts, it is generally understood that the treaty must adequately fulfill the interrelated goals of nuclear non-proliferation and nuclear disarmament.

In this respect, the clear advantage of the framework agreement is that member States will be assured, right from the beginning, that the structure of the treaty will focus on both goals – nuclear non-proliferation and nuclear disarmament – by addressing in different stages the future and pre-existing stocks of fissile materials, each one with its own verification mechanisms.

Let me share my view on why this framework agreement model offers a plausible path forward.

Firstly, it gives considerable room for flexibility by means of accommodating different and apparently clashing views of treaty scope.

Secondly, it sets out from its inception a two-step framework agreement model for the negotiations whereby all the main tenets will be clear to all parties even if all these tenets are not realized at the same time.

Thirdly, it provides predictability on the way forward.

The success of this model can be seen in the progress on creating a legal instrument to regulate green house gases and climate change. This model used the concept of "common but differentiated responsibilities" among states and a dynamic, evolving treaty structure.

We have built on the foundation created by the 1992 United Nations Framework Convention on Climate Change through an agreed gradual step by step negotiating process that established protocols under the Convention.<sup>4</sup> There are now 197 Parties to the Convention and 192 Parties to the Kyoto Protocol of 1997 and so far 174 states have ratified the Paris Agreement of December 2015.<sup>5</sup>

---

<sup>4</sup> United Nations Framework Convention on Climate Change, 1992, [http://unfccc.int/essential\\_background/convention/items/6036.php](http://unfccc.int/essential_background/convention/items/6036.php).

<sup>5</sup> Ratifications of the Framework Convention, the Kyoto Protocol and the Paris Agreement as of February 2018 are available respectively at [http://unfccc.int/essential\\_background/convention/status\\_of\\_ratification/items/2631.php](http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php), [http://unfccc.int/kyoto\\_protocol/status\\_of\\_ratification/items/2613.php](http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php) and [http://unfccc.int/paris\\_agreement/items/9485.php](http://unfccc.int/paris_agreement/items/9485.php).

## Zia Mian

The framework agreement model comprises of a framework or umbrella treaty and two or more protocols.<sup>6</sup>

The umbrella treaty would contain provisions on objectives, definitions and the usual final clauses, such as entry into force, depositary, amendments as well as modalities for participation of States.

The treaty would provide an agreed mechanism to develop the two protocols in a systematic manner through a scheduled negotiating process involving states parties.

It also would include a regular review, reporting, and implementation assessment procedure involving all the parties to the agreement.

Under the review and reporting provision, states would report regularly on their fissile material policies and measures, including issues governed by the FM(C)T, and submit an annual inventory of their fissile material stocks.

This could be backdated to begin when states ended their production of fissile material for weapons.

The declarations of national stockpiles and the protocols to the treaty would reflect the fact there are five broad categories of fissile material:

- material for nuclear weapon purposes
- material for military non-weapon purposes
- material declared as excess for military purposes
- material that is civilian
- material that has been disposed of

The protocol structure would require states to separate fissile material for weapon purposes from all other fissile material.

The first protocol would prohibit future production of fissile material for nuclear weapons or nuclear explosive devices and place under safeguards all future fissile material production.

It also would require states to identify and place under safeguards military fissile stocks that have been declared excess and civilian fissile material.

Through this protocol, all fissile material production and all material in stockpiles not for weapons purposes would be treated equally in each state and in all states.

This prohibition would be subject to a specific verification mechanism. This mechanism would be analogous to current IAEA safeguards on fissile materials or simply be an extension of existing safeguards. It would be unnecessarily complicated to keep separate unsafeguarded pre-existing civilian fissile material and safeguarded post-treaty civilian fissile material.

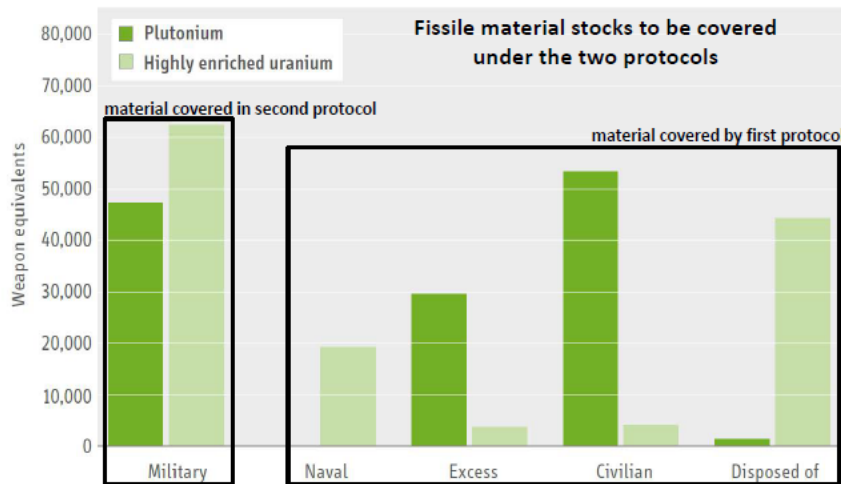
---

<sup>6</sup> This section draws on a suggestion made by Zia Mian in "A Proposal For An International Framework Convention On Fissile Materials," April 2000, <https://www.princeton.edu/sgs/faculty-staff/zia-mian/fissile-material-convention.pdf> and reports by the International Panel on Fissile Materials, especially Global Fissile Material Report 2008: Scope And Verification Of A Fissile Material (Cutoff) Treaty, International Panel on Fissile Materials, October 2008, <http://ipfmlibrary.org/gfmr08.pdf>.

About half of all fissile material (in terms of weapon equivalents) would be brought under safeguards along with all future production.

This protocol also could cover the verification of the disablement, decommissioning and dismantlement of former military production facilities or their use only for peaceful or military non-explosive purposes.

This protocol would serve the purpose of the clearly demarcating and setting aside material already in weapons or weapon components, and material assigned to weapons or weapon programs to be treated under a follow-on protocol.



**Fissile material stocks by category in weapon-equivalents to be covered by the two protocols under a framework FM(C)T.** The global stockpiles of plutonium and highly enriched uranium are sufficient for more than 200,000 nuclear weapons, assuming 3 kg of weapon-grade plutonium, 5 kg of reactor-grade plutonium, and 15 kg of highly enriched uranium per weapon-equivalent. The material currently reserved for weapons purposes today is equivalent to more than 100,000 nuclear weapons. The remaining material is sufficient for almost 100,000 warheads.(source: IPFM, 2015)

The second protocol would deal with pre-existing fissile material for nuclear weapons or nuclear explosive devices.

This would require states to declare the status of fissile material from dismantled warheads and from warheads awaiting dismantlement, and commit to declare this material as excess and place it under safeguards. Excess materials resulting from future unilateral, bilateral, or multilateral nuclear disarmament measures would be declared excess and placed under safeguards.

This would serve to reduce the stockpiles of HEU and plutonium for weapons to match what is actually required to sustain current nuclear arsenals and would serve to make arsenal reductions more credible and more irreversible.

The verification mechanism concerning this second protocol would be necessarily different from the one devised in the first protocol.

Under this protocol, states would have to conclude “managed access” arrangements to protect sensitive national information while allowing inspectors to satisfy themselves that material from dismantled warheads is not diverted while the fissile material remains in classified form. Standard safeguards should be applied as soon as the fissile material is converted into unclassified form.