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# Negotiation of a Ban on the Production of Fissile Material

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## Background

(i) At the initiative of Canada, the United Nations General Assembly resolved on 3 December 2012 to ask the United Nations Secretary-General to establish a group of governmental experts on fissile material for nuclear weapons or other nuclear explosive devices. The relevant resolution secured the support of 166 member states, with only 1 against (Pakistan) and 20 abstaining (including China, Iran (Islamic Republic of), Israel, and mainly Middle Eastern states).<sup>1</sup>

(ii) The precise remit of the group of governmental experts (GGE) is to “make recommendations on possible aspects that could contribute to but not negotiate a treaty banning the production of fissile material for nuclear weapons ... on the basis of document CD/1299” (the “Shannon Mandate”, discussed below). The GGE will be comprised of 25 states chosen by the Secretary-General on the basis of equitable geographical representation. It will meet in Geneva for two sessions of two weeks in 2014 and 2015.

(iii) The group will operate on the basis of consensus. In making its recommendations it is required to take into account a report containing the views of Member States solicited by the Secretary-General. This is an opportunity for states not represented on the GGE to contribute to the process. The Secretary-General’s paper will be tabled at the forthcoming (sixty-eighth) session of the General Assembly, that is, in advance of the first meeting of the group.

(iv) Should the GGE reach consensus, the report containing its recommendations will be delivered to the seventieth session of the General Assembly and to the Conference on Disarmament (CD). If, however, the CD reaches agreement in the meantime to negotiate a fissile material ban, the GGE will cease to be and will submit its work to the Secretary-General for transmission to that Conference.

(v) The establishment of the GGE is a result of a prolonged paralysis in the CD. Although some Member States including those possessing a nuclear arsenal are reluctant to see the fissile material issue removed from the Conference even temporarily. Some of them, along with other members, are also concerned at the absence of progress on this topic in the CD. This is reflected in the wording of the remit (quoted above). Underlying that language is a fundamental concern on the part of nuclear-weapon states to ensure that decision-making is by consensus only (as in the CD) rather than by two-thirds majority (as in the General Assembly of which the GGE is a subsidiary body).

(vi) At the time of writing, the selection of the 25 members of the GGE was ongoing. This was also the case for the Secretary-General’s compilation of views of Member States on a treaty banning the production of fissile material for nuclear weapons.

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<sup>1</sup> General Assembly, *Treaty Banning the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices*, UN document A/RES/67/53, 4 January 2013.

(vii) This paper provides brief insights into the issues that will arise when negotiations on a fissile material production ban begin in earnest. It begins by tracing efforts in the CD to initiate such negotiations. The unavailing nature of those efforts to date, as will be seen, is a result of political considerations that extend beyond the complexities of negotiating a fissile material prohibition, encompassing concerns on the part of many non-nuclear-weapon states about the rate of progress towards the elimination of nuclear arsenals.

## **Fissile material: history**

### **2.1. The Cold War**

1. Fissile material is those elements that “can sustain an explosive fission chain reaction” and “are essential in all nuclear explosives”, the most common being highly enriched uranium (HEU) and plutonium.<sup>2</sup> Since the early days of the Cold War, a prohibition on the production of fissile material for nuclear devices has been a primary goal for advocates of nuclear disarmament and non-proliferation. As early as 1953 US President Eisenhower called for their elimination in his “Atoms for Peace” speech at the United Nations. Shortly after the Cold War US President Clinton renewed this appeal. In a statement to the United Nations General Assembly in September 1993, President Clinton said that these materials were “raising the danger of nuclear terrorism in all nations”. He called for the negotiation of an international agreement to halt their production

2. In December 1993 the General Assembly passed resolution 48/75L entitled “Prohibition of the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices”. This resolution recommended that an appropriate international body negotiate a “non-discriminatory multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices”. The CD, fulfilling the mandate conferred on it by the General Assembly in 1978 as “a single multilateral disarmament negotiating forum”,<sup>3</sup> was seen as the appropriate body for those negotiations.

### **2.2. The Shannon Mandate**

3. In 1994 the CD appointed Ambassador Shannon of Canada as Special Coordinator to determine the views of CD members on the prospective scope of a treaty banning the production of fissile material for use in nuclear weapons. Such a treaty is sometimes referred to as a fissile material cut-off treaty (FMCT), fissile material treaty (FMT) or fissban. It needs to be noted, however, that use of the word “cut-off” (that is, preventing future production) raises the question as to whether a treaty would also cover existing stocks of fissile material. Indeed, the primary debate that surfaced during the Shannon discussions centred on the inclusion of rules that would cover both existing stockpiles and future production.

4. Nuclear-weapon-possessing states were not united in their approaches to a ban on fissile material. The five Treaty on the Non-Proliferation of Nuclear Weapons (NPT) nuclear-weapon states<sup>4</sup> and India took the view that existing stockpiles would fall outside the purview of a ban. By contrast, many delegations, including Pakistan, felt that an effective treaty had to be broad in scope, verifiably banning future production, while at the same time mandating the declaration of existing stockpiles of fissile material held by states. These delegations

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2 *Global Fissile Material Report 2009*, International Panel of Fissile Materials, 2009, p. 124.

3 See paragraph 120 of the Final Document of the Tenth Special Session of the UN General Assembly, also known as SSOD I.

4 China, France, Russian Federation, United Kingdom, and United States of America.

asserted that a treaty regime would be a meaningful disarmament measure only if it applied to both current stockpiles and future production. Given Israel's ambiguous nuclear-weapon status, Egypt and various other states in the region insisted that all stocks of weapon-usable fissile material would have to be declared and be subject to inspection and inventory under international supervision and control.

5. On 24 March 1995 Shannon produced CD document 1299, commonly known as the Shannon Mandate. The Mandate set two primary objectives:

- the establishment of an Ad Hoc Committee in the CD on a “ban on the production of fissile material for nuclear weapons or other nuclear explosive devices”; and
- the negotiation of a treaty to that end that, in the words of resolution 48/75L, would be “non-discriminatory, multilateral and internationally and effectively verifiable”.<sup>5</sup>

The latter goal was intended to ensure that the outcome was one that applied the same rules to both nuclear-weapon states and non-nuclear-weapon states (in contrast, for example, to the NPT).

6. The Mandate did not explicitly describe the scope of the negotiations in relation to stocks of fissile material (that is, whether an agreement would apply only to future production or would include existing stocks as well). Shannon noted that, in the course of his consultations, “many delegations expressed concerns about a variety of issues relating to fissile material, including the appropriate scope of the [eventual fissile material treaty]”. The Mandate left the issue of scope to be discussed, stating, “It has been agreed by delegations that the mandate for the establishment of the Ad Hoc Committee does not preclude any delegation from raising for consideration in the Ad Hoc Committee any of the [these] issues”.<sup>6</sup>

7. After the Shannon Mandate was issued in 1995, discussions on forming the Ad Hoc Committee stalled. States of the Non-Aligned Group, composed primarily of non-nuclear- weapons states, insisted that progress towards the negotiation of a treaty be linked to real progress towards the elimination of nuclear weapons. Dissatisfied with the pace of nuclear disarmament under the NPT, these states called for a specific timetable for nuclear disarmament. However, the five NPT nuclear-weapon states refused to agree to this linkage.<sup>7</sup>

8. In 1998, after nuclear tests by India and Pakistan, a breakthrough was achieved. On 11 August 1998, towards the end of its session for that year, the CD formally established in CD/1547 an Ad Hoc Committee to negotiate a treaty in accordance with the Shannon Mandate. The Committee met in negotiations for the three remaining weeks of the session, under the chairmanship of Canadian Ambassador Moher.

(It should be noted, given the linkages that were subsequently made in the development of the CD's annual work programme, that another Ad Hoc Committee was established in 1998, with the mandate to negotiate “effective international arrangements to assure non-nuclear-weapon states against the use or threat of use of nuclear weapons”, that is, negative security assurances. That Committee began work on 19 May, holding nine meetings in all.)

### 2.3. Problems in the CD: programme of work

9. The breakthrough in 1998 was short-lived. The Ad Hoc Committee did not reconvene during the 1999 session because consensus could not be reached on renewing the CD's annual programme of work, as required by the Rules of Procedure.<sup>8</sup> Moreover, the CD would not reach consensus on any programme of work for the next 10 years. When in May 2009 the Conference did adopt a programme of work (CD/1864), that breakthrough was even more short-lived. Consensus eluded all efforts to implement the agreed programme. The Ad Hoc Committee on fissile material thus could not be convened, and the CD began a period of paralysis that has extended to the time at which this paper was written (May 2013). Annex A contains detailed insights into efforts to resolve the issues over the programme of work that have stifled the work of the CD since 1999.

5 Conference on Disarmament, *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*, document CD/1299, 24 March 1995.

6 Ibid.

7 F. Barnaby, *The FMCT Handbook: A Guide to a Fissile Material Cut-off Treaty*, Oxford Research Group, 2003, p. 13.

8 Rule 28 requires the CD to establish its programme of work annually on the basis of its agenda, which is also agreed annually.

2 Those insights are offered to provide a fuller context to the chronic inability of the Conference to commence negotiation on a fissile material ban or indeed to undertake substantive work on any of the issues on its agenda.

### 2.4. The current situation in the CD

10. Following the adoption of CD/1864, the appointment of chairs of the Working Groups and a timetable for their activities were blocked and implementation of the programme of work was thus frustrated. Efforts to revive or amend CD/1864 in 2010 and since have similarly failed to achieve consensus. It is unfortunate that decisions to implement CD/1864 were treated as though they were of the same level of importance as the programme of work itself, and that they were not simply left to the President's prerogative; confidence in the efficacy of the application of the consensus rule has accordingly been eroded. It was clear that for at least one member (Pakistan) serious misgivings had arisen about the original decision and frustrated the adoption of a programme of work, a situation that has persisted to the present time.

11. Pakistan has made very clear why it is not prepared to countenance the beginning of negotiations on a fissile material ban until the groundwork has been properly laid in a programme of work. In a statement to the CD on 18 February 2010 Pakistan outlined its approach as follows: "A contention has been made that it is illogical to expect issues relating to the FMCT to be clarified before start of negotiations and that these issues should be addressed during the negotiations. To us this argument is an invitation to go down a blind [alley] in total darkness. The only result can be a fatal [collision]. In our view it is imperative that we have a-priori knowledge of what we are seeking to negotiate—a FMCT which is a non-proliferation measure or a FMT which is a disarmament initiative. Once this is clear, then it will be possible to identify positions on relevant issues of definition, scope, stocks, verification and entry into force".<sup>9</sup>

12. It should be noted that Canada, through its annual United Nations General Assembly resolution on a treaty banning the production of fissile material, strives to keep the Shannon Mandate alive and relevant. Its latest effort, as mentioned at the beginning of this paper, was opposed by Pakistan alone. But Pakistan's formal explanation of vote in the General Assembly offers an interesting perspective on both the deadlock in the CD and Pakistan's national situation. As to the latter, Pakistan, alluding to India and the United States without naming them, said that "discriminatory nuclear cooperation agreements concluded by some of the major nuclear weapon states as well as some prominent advocates of the NPT have increased the asymmetry in fissile material stocks. As a result of these agreements, these states have ... undermined the prospects of the proposed FMCT. Since these agreements undermine Pakistan's security, Pakistan cannot therefore be a party to such a resolution".<sup>10</sup>

13. On the situation in the CD, Pakistan told the General Assembly that it shared the frustration expressed in the resolution "with years of stalemate in the CD". The proposed measure, however, failed in Pakistan's view to acknowledge the "inconvenient fact" that this stalemate has continued not because of FMCT alone. Pakistan continued: "In the interest of objectivity, it would have been in order if reasons for decades of CD deadlock on nuclear disarmament, [non-state actors] and [prevention of an arms race in outer space] would have also been acknowledged. It is evident that there are states in the CD that are opposed to commence negotiations on these three agenda items. In fact, negotiations on nuclear disarmament, the *raison d'être* of the CD, have been prevented for over three decades".<sup>11</sup> The states to which Pakistan is referring are several, though probably not all, of the five NPT nuclear-weapon states, China being the likely exception.

14. Security concerns have long been Pakistan's primary rationale in the CD for not being able to accept a series of compromise proposals in the CD on the programme of work including CD/1889 in 2010, CD/1933/Rev.1 in 2012, and CD/1948 in 2013 (discussed in annex A). The Global Security Newswire, in a recent article on an interview with a former Pakistani ambassador to the United States, reportedly stated that Pakistan wishes to produce enough fissile material so that it can be assured of a warhead arsenal large enough

9 A transcript of this statement is available at [www.unog.ch/80256EDD006B8954/\(httpAssets\)/7D3DAE2293155A1DC12576CE004A0443/\\$file/1170\\_Pakistan.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/7D3DAE2293155A1DC12576CE004A0443/$file/1170_Pakistan.pdf).

10 See [www.reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com12/eov/L41\\_Pakistan.pdf](http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com12/eov/L41_Pakistan.pdf).

11 Ibid.



to “absorb any Indian first strike and still be capable of nuclear retaliation”.<sup>12</sup> Given Pakistan’s continuing opposition to progress on fissile material in the CD, and in the absence of an unexpected concession on the part of nuclear-weapon states on the issue of covering existing stocks in the negotiations, deadlock in the CD seems certain to persist. How long this impasse will last is impossible to say, but it can perhaps be implied from the interview just mentioned that Pakistan is unlikely to support any attempt to deal with fissile material in the GGE or the CD until it believes that its investment in its own fissile material production has been sufficiently realized for its nuclear arsenal build-up.

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<sup>12</sup> E.M. Grossman, “Pakistan calls for fissile-material ban talks to address existing stocks”, *Global Security Newswire*, 9 April 2013, [www.nti.org/gsn/article/pakistan-calls-fissile-material-ban-talks-address-existing-stocks/](http://www.nti.org/gsn/article/pakistan-calls-fissile-material-ban-talks-address-existing-stocks/).

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## **Key issues in considering a ban of fissile material for use in nuclear weapons**

15. The following sections briefly summarize central issues that are likely to arise in the GGE in 2014 and 2015, as well as in any negotiations that are eventually undertaken in the CD or elsewhere. Readers may find it useful to refer to key resource materials listed in annex B.

### **3.1. Objectives**

16. Perspectives that will affect the ultimate outcome on a fissile material ban are as follows:

- Banning the production of fissile material for nuclear weapons will serve several ends. It will limit the pool of material available for manufacturing such weapons, thereby benefiting the causes of horizontal and vertical non-proliferation, as well as lowering the risk of diversion to terrorists.<sup>13</sup>
- There exists a widespread expectation that an outcome of negotiations would be the formalization of the longstanding moratoriums on fissile material production declared unilaterally by France, the Russia Federation, the United Kingdom, and the United States, extended to cover the other fissile material producers that possess, or are thought to possess or to be in the process of acquiring, nuclear weapons.
- A fissile material treaty would also aid the cause of nuclear disarmament by making reductions in nuclear arsenals irreversible. This would be achieved through the manner in which the treaty ensures that fissile material declared excess to weapons needs is prevented from any future use in nuclear weapons. Such an outcome would serve two purposes. It would improve the climate of trust among the nuclear-weapon-possessing states, and at the same time it would help build confidence among non-nuclear-weapon states that real steps towards nuclear disarmament were being taken, provided that this excess fissile material is placed under international safeguards.
- From the emphasis attached to the formulation in the Shannon Mandate on the requirement for a “non-discriminatory” regime, it is clear that the final outcome would need to satisfy non-nuclear-weapon states that a fissile material treaty would not discriminate in favour of the nuclear-weapon states. This factor reflects the view among non-nuclear-weapon states that the bargain underpinning their agreement to the NPT is not being honoured by the nuclear-weapon states.

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<sup>13</sup> Since 1998, when the CD last set up a Working Group on fissile materials, the question of scope has been complicated by concerns about terrorism, giving rise to the question of the wisdom of confining a prohibition merely to the production of HEU for explosive purposes.

- It would greatly boost the causes of both nuclear disarmament and non-proliferation if a treaty covered existing stocks of fissile materials as well as future production. Even if agreement on existing stocks eludes negotiators, parallel measures outside of a treaty could enhance transparency and facilitate irreversibility.

### 3.2 Elements of a treaty: coverage

#### Scope: existing and/or future stocks

17. The final elements of a fissile material agreement will depend, of course, on where the negotiators find the point of convergence that allows the final draft to be adopted by consensus. For instance, a treaty covering existing fissile material stocks as well as future stocks will affect the range of verification mechanisms needed to ensure compliance with the terms of the instrument. The success of the eventual treaty will be measured not only by the number of states that formally adhere to it but also by the clarity and effectiveness of the mechanisms through which compliance with its obligations is verifiably ensured. Moreover, some elements—especially, as already discussed, the question of which stocks to cover—will be settled only in conjunction with reaching agreement on definition of terms. In this regard, delegates will be able to draw on work conducted already, especially that of the International Atomic Energy Agency (IAEA) and the International Panel on Fissile Materials (see paragraph 28 below).

18. Clearly, the degree of concordance among the negotiators will determine to what extent a draft treaty can be considered a non-proliferation measure or one which addresses both non-proliferation and nuclear disarmament. The greater degree to which a treaty covers the categories of fissile material identified in the following paragraph, the more the final product could be regarded as being both a non-proliferation and nuclear disarmament measure.

19. Fissile material can be classified as follows:

#### a) Non-explosive:

- (i) fissile material produced for civilian purposes (energy production, medicine, maritime propulsion, and other uses in non-military facilities or vessels); and
- (ii) fissile material produced for non-explosive military purposes (energy production, medicine, maritime propulsion, and other such uses in military facilities or vessels).

#### b) Explosive:

- (i) fissile material produced for explosive purposes and which is already in use in existing nuclear weapons or which is weapon-grade or weapon-usable,<sup>14</sup> and has been stockpiled awaiting use in weapons;
- (ii) fissile material declared in excess of weapons needs (that is, weapon-grade or weapon-usable fissile material that is no longer required for nuclear weapons or that has been extracted from weapons retired from nuclear arsenals); and
- (iii) future production of fissile material for explosive purposes. “Future” means from the date of entry into force of a treaty or such other date as may be determined by it.

#### Current situation on production activities

20. CD draft mandates and Canada’s annual General Assembly resolution on fissile material habitually envisage the negotiation of a treaty to ban “the production of fissile material for nuclear weapons or other nuclear explosive devices”. Bearing in mind that four of the five NPT nuclear-weapon states have unilaterally declared moratoriums on the production of such fissile material and that some have engaged in down-blending excess stocks, there is already some movement towards this objective.

21. It is equally clear that fissile material that is produced for civilian (that is, non-military, non-explosive) purposes is not intended to be covered by any prohibition. Fissile material produced for civilian and military

<sup>14</sup> “Weapons-grade” and “weapons-usable” indicate fissile material that is currently, or capable of being, in use in a nuclear weapon.

non-explosive purposes would be covered by the future treaty to the extent that it would be necessary to provide that both types of material are subject to a regime under which they can be safeguarded, that is, subject to measures that verify the materials will not be:

- diverted by a state for conversion within that state (for example through enrichment) for use in nuclear weapons or other nuclear explosive devices; or
- transferred to another state other than through proper, safeguarded channels.

22. Materials already being used in weapons or stockpiled for future explosive use raise a complex and divisive set of considerations in terms of coverage by a treaty. Isolating or identifying fissile material in weapons and stockpiles in existence when a treaty enters into force is a highly sensitive issue in political and practical terms. It would be difficult to reach consensus on a verification regime that was not seen by nuclear-weapon-possessing states as overly intrusive. The question that negotiators will face, therefore, is whether fissile material already in use in nuclear weapons, or being held in stock for future weapons use (in the case of states not bound by the NPT—the Democratic People’s Republic of Korea, India, Israel, and Pakistan), should be the subject of agreements other than an FMT. In any event, while the future production of fissile material for explosive purposes would clearly be banned by a treaty, the question of how to deal with existing materials will be the central challenge of the negotiations.

### Managing excess

23. There would need to be the means to verify that excess weapon-grade fissile material was not being reused in nuclear weapons or being stockpiled for such use. Inventories of what is excess to weapons needs would have to be established in order to provide a baseline against which to measure progress in the proper disposal of excess stocks. Accurate accounting of these stocks would help ensure that they have not diverted for illicit ends (such as terrorism). The means of accounting would be through (unilateral) declarations or other reporting mechanisms. Existing models for reporting stocks such as IAEA’s INFCIRC/549<sup>15</sup> can serve to assist delegations in developing approaches to increasing transparency.

24. The question of managing excess weapon-grade fissile material is of fundamental importance given the NPT’s obligations on the nuclear-weapon states and the moral and political pressures on other possessors (that is, those that are not party to the treaty). In light of the obligations imposed by article VI of the NPT, the international community is entitled to expect a constant flow of declarations of excess fissile material resulting from steady processes to decommission nuclear weapons. If future arms reductions could be accompanied, for instance, by declarations that the material in these weapons will be placed under international safeguards, the global stock of fissile material would be lowered in an irreversible and transparent manner.<sup>16</sup>

### Future production and entry into force

25. Leaving aside the question of coverage of existing stocks in the negotiations of a fissile material ban, a prohibition of all future production of fissile material for explosive purposes will take legal effect from the moment a treaty enters into force (formalizing existing voluntary moratoriums). It will be a question for negotiation as to whether entry into force will be triggered only when all fissile material producers have become party to the agreement. The rules that a treaty establishes to govern the manner and time of its entry into force are sometimes crucial to its ultimate success. As the Comprehensive Nuclear-Test-Ban Treaty (CTBT) has shown, setting the threshold for the number and types of parties that must adhere to the agreement in order to bring it into force as a legally binding international instrument is a complex and politically sensitive calculation. With an FMT, that calculation will involve reaching agreement that the instrument will enter into force once a specified number of states in general have ratified or acceded to it—the orthodox approach—or once a specified number of states in particular have ratified or acceded to it—the unorthodox approach.

<sup>15</sup> Since 1997, Belgium, China, France, Germany, Japan, the Russian Federation, Switzerland, the United Kingdom, and the United States have been declaring publicly their stocks of civilian plutonium annually to the IAEA. These declarations (INFCIRC/549) are publicly available on the IAEA website. Some states now add civilian HEU to their declarations. All the INFCIRC/549 declarations detail the fissile material stocks at reprocessing plants, fuel fabrication plants, reactors, and elsewhere, divided into non-irradiated forms and irradiated fuel.

<sup>16</sup> See for instance US President Eisenhower’s “Atoms for Peace” proposal at [www.iaea.org/About/atomsforpeace\\_speech.html](http://www.iaea.org/About/atomsforpeace_speech.html).

26. An agreement that imposes a production ban will have maximum effect if all producers bind themselves to impose the ban. This does not necessarily mean that the article on entry into force need stipulate that all producers must have adhered to the treaty before it can enter into force. On the other hand, the number of states that are regarded as producers might help inform the decision on the appropriate entry into force threshold. For example, if there are a total of 40 states that produce fissile materials for civilian or military explosive purposes, it would increase the effectiveness of the treaty if entry into force would not occur until 25 or 30 of those states were party to it.

### Stockpiles

27. As already noted, strong resistance has been voiced by nuclear-weapon states to the inclusion of existing weapon-grade fissile material (in warheads, stockpiled as reserves, or excess) within a future treaty. If this resistance is sustained and if delegations are unable to agree that a treaty should encompass existing stocks of weapon-grade fissile material, the manner of addressing existing fissile material will need to be rethought. That is not to say that addressing such material in some manner must be abandoned entirely. A middle ground may be achieved via a “phased” approach, as will be discussed below.

### Definitions

28. A fundamental issue is which materials should be covered by an FMT—or more precisely, at which scientific threshold should materials be considered within the scope of a treaty and therefore subject to a ban on their production. A subset of this issue is whether the production of certain materials could continue under international verification to ensure peaceful use. The main purpose of articles dealing with definitions will be to specify the fissile material that will be banned and that which will not be banned, distinguishing between fissile material that has a strictly civilian application and that which is capable of being used in nuclear weapons. Article XX<sup>17</sup> of the IAEA statute stipulates that plutonium-239, uranium-233, and uranium enriched in the isotopes 235 or 233 are within the scope of “fissile material for nuclear weapons”. Interpretations and background information on the IAEA definition can be found on the website of the IPFM.<sup>18</sup>

<sup>17</sup> IAEA statute, article XX definitions:

“As used in this Statute:

1. The term “special fissionable material” means plutonium-239; uranium- 233; uranium enriched in the isotopes 235 or 233; any material containing one or more of the foregoing; and such other fissionable material as the Board of Governors shall from time to time determine; but the term “special fissionable material” does not include source material.
2. The term “uranium enriched in the isotopes 235 or 233” means uranium containing the isotopes 235 or 233 or both in an amount such that the abundance ratio of the sum of these isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 occurring in nature.
3. The term “source material” means uranium containing the mixture of isotopes occurring in nature; uranium depleted in the isotope 235; thorium; any of the foregoing in the form of metal, alloy, chemical compound, or concentrate; any other material containing one or more of the foregoing in such concentration as the Board of Governors shall from time to time determine; and such other material as the Board of Governors shall from time to time determine.”

<sup>18</sup> IPFM, “Materials: overview”, [www.fissilematerials.org/ipfm/pages\\_us\\_en/fissile/fissile/fissile.php](http://www.fissilematerials.org/ipfm/pages_us_en/fissile/fissile/fissile.php).

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## Possible negotiating scenarios

29. In the absence of an FMT that addresses the question of existing military stocks, relevant states might seek to address this issue in a separate manner following the conclusion of negotiations confined to banning future stocks only. These possessor states might be required to:

- implement state accounting practices under which weapon-grade material would be controlled; and
- make unilateral declarations accounting for such stocks (and, consistent with the NPT, progressive reductions of them), as discussed more fully below (paragraphs 38 and 39).

30. The IPFM envisages that initial declarations would simply state total holdings of HEU and plutonium. Ideally, declarations would specify the total quantities of HEU and plutonium in five categories:

- warheads, warhead components, and associated working stocks in the warhead- production complexes overall and at individual sites;
- material that has been determined excess to military purposes but is still in weapons or weapon components;
- reserves for naval and other military reactor use and in the naval fuel cycle (not including in spent fuel), divided into quantities in classified and unclassified forms;
- spent military reactor fuel; and
- civilian stocks, divided into unirradiated and minimally irradiated forms (including in critical assemblies and pulsed reactor cores), and irradiated material in reactor cores and spent fuel.<sup>22</sup>

31. In the absence of mandatory declarations of such categories of existing stocks, other approaches that could be pursued include:

- urging nuclear-weapon states that have not already done so to declare their total stockpiles of weapon-grade fissile material;
- encouraging the conclusion of agreements to limit the number of national fissile material production facilities for civil applications (enrichment and reprocessing plants) through “multinational nuclear approaches”, incorporating the joint operation of such facilities in a regional context; and
- advocating the near total elimination of the use of HEU as a civilian reactor fuel, and rapid reduction of current civilian plutonium stockpiles through the recycling of mixed-oxide fuel (MOX) in nuclear power plants.

32. The complex nature of the subject matter and the interdependencies among the key issues present a real challenge to the negotiation of an FMT. There is a triangular relationship between definitions, scope, and verification, and it has been observed that these issues will need to be “fine-tuned neatly to each other in parallel throughout the negotiations”.<sup>19</sup> That remark arose from a concern to avoid focusing initially on definitions without having first explored the issues of scope and verification. Using the word “scope” in the broadest sense, clearly the way forward will be determined by gauging the parameters of the negotiations in the initial, general phase of negotiations. Definitions in treaties are normally a means to an end, that is, they are included in order to assist with interpreting matters of substance. They are of course substantive in their own right but they are generally not ends in themselves. The remark also alludes to the linkage that exists between the scope of the production ban and verification. As mentioned earlier, the actual extent of a ban agreed by negotiators will determine the verification measures required to provide the level of effectiveness of the regime.

33. The negotiators of the CTBT confronted a similar challenge, grappling on three fronts with:

- definitions, including that of nuclear explosions (the zero-yield issue);
- scope, in terms of setting a threshold for the yield of tests and deciding whether to cover peaceful nuclear explosions; and
- the relationship between scope and verification, and the resulting intrusiveness of verification.

In the case of the CTBT, monitoring of the obligation not to carry out any nuclear explosion is clearly more effectively achieved than would have been the monitoring of nuclear explosions that were permitted so long as they did not exceed a specified yield.

34. Several considerations arise from the question of where and how to begin the negotiations. First, there is the practical matter of how to stage the negotiations. There is the option of the triangular approach just mentioned, in which the negotiations on definitions, scope, and verification are carried out in a manner that recognizes their interrelatedness. At one level, this entails that the debate must identify, then resolve, any divergences that emerge. On the one hand, it will be important not to let the debate go round in circles among the three issues. On the other hand, it will be important that the negotiations are conducted in such a way as to avoid fixations, especially on definitions and scope. Clearly verification mechanisms can only sensibly be discussed when the scope of the proposed treaty becomes clearer. Avoiding these pitfalls will require close coordination and cooperation among those chairing the respective negotiations.

35. At another level, it will be necessary to identify and chart the main options at issue. For instance, once the debate has matured to a point where all initial negotiating positions have been tabled, it may be useful for the chair of the negotiations to produce a compilation that identifies the relationships among scope, definitions, and verification for each of the major divergent positions of the delegations. The purpose would be to clarify things for the next round of the negotiations. The chair will from time to time need to pull together the interconnecting threads of these three areas, refining them as negotiations intensify.

36. Another major matter for consideration by negotiators is whether, and if so at what point, to designate “Friends of the Chair” or set up subgroups on key issues. At issue is whether parallel negotiations on scope, definitions, and verification—a division of effort comparable to that used in the CTBT negotiations—will reduce or heighten the risk of duplication of effort or wasted effort. In any event, negotiations will have to be staged in a way that avoids small delegations being spread too thin.

37. The need for technical and scientific input through the work of a group of experts has been raised by a number of CD members during past discussions on fissile material. Such a device was viewed as helpful in laying foundations in the case of the CTBT negotiations. Expert input to the CTBT through a Group of Scientific Experts formally mandated by the CD occurred over a number of years prior to the actual negotiation of that treaty and were focused on verification mechanisms. Whether a similar level of work will be required for an FMT, given the experience embodied in the IAEA, will depend on the extent to which there is agreement

<sup>19</sup> Ambassador Brasack (Germany), 2 July 2009, to the CD, see [www.unog.ch/80256EDD006B8954/\(httpAssets\)/3AB4598F0FD5D9BAC12575E7004E33CB/\\$file/1146\\_Germany.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/3AB4598F0FD5D9BAC12575E7004E33CB/$file/1146_Germany.pdf).

over the adoption of IAEA verification expertise in the fissile material regime. In any event, delegations would presumably wish to provide any such group of experts with a clear mandate and ideally a time frame for the completion of its input.

38. If consensus cannot be reached on the application of legally binding obligations to existing stocks of fissile material, the negotiations will have reached a crossroads. While it will be clear in a treaty that the ban will prevent future production of fissile material for explosive purposes after entry into force, a major loophole would exist if the prescribed verification regime were unable to differentiate between stocks held at the date of entry into force and stocks produced illegally after that date. What are the options?

39. These options range from a legally binding duty contained within a treaty obliging nuclear-weapon-possessing states to declare their existing stocks and have these declarations subject to verification, to an outcome based only on trust. Or, there might be an initial political declaration by nuclear-weapon-possessing states of a moratorium on the production of fissile material or, in the case of a state that already observes a moratorium, a declaration that the moratorium will become legally binding. Realistically, the compromise will fall somewhere between the extremes, perhaps utilizing declarations based on state accounting and control that would establish inventories in which, as a minimum, fissile material deemed to be excess to weapons needs would come under international safeguards.

40. Such a compromise entails what has been described as a phased<sup>20</sup> approach. The significance of considering a phased approach to the negotiations lies in the potential for improving the prospects of consensus. Such an approach is one in which the eventual product of the CD is complemented by the parallel action of individual states. (Agreement to initiate preparatory work on fissile materials through a group of experts before the negotiations begin is another example of a phased approach.)

41. The outcome would be a framework treaty setting out general principles and basic norms of the new regime, together with provisions for transparency measures and possibly other mandatory or voluntary steps to be undertaken in a parallel or further phase of the process. That (final) phase might include implementation protocols covering verification and any aspect of scope not negotiated in detail for the framework treaty, perhaps including specific issues such as the use of fissile material for naval propulsion.<sup>21</sup>

42. Another way of approaching the negotiations is to adopt a functional perspective. This would entail looking at the kinds of ban that delegations might wish to pursue. In doing so, it would provide a ready focus for the negotiations, facilitating the ability to rise above potential deadlock on the issue of existing versus future stocks. This approach would concentrate on developing bans on activities that result in:

- the “reversion”, or recommissioning, of production facilities that were once used for nuclear weapon purposes;
- the reversion of production facilities that were originally used for nuclear weapon purposes but that had subsequently been converted to non-nuclear-weapon purposes;
- the recycling for weapon use of fissile material that was once used for nuclear weapons but which had been declared excess (It would be necessary, however, to permit recycling of plutonium removed from weapons as long as this did not involve the production of new fissile material for weapon use);
- the diversion of fissile material from non-weapon use to weapon use; and
- the transfer of fissile material having potential for weapon use (Given the possibility that civilian-grade fissile material could be enriched for weapon use, it would be necessary to ban transfers to non-state parties not already bound under the NPT not to produce fissile material for nuclear weapons or nuclear explosive purposes).

20 See P. Meyer, “A fissile material (cut-off) treaty: some observations on scope and verification”, *Disarmament Diplomacy*, no. 91, 2009.

21 See Germany, *Creating a New Momentum for a Fissile Material Cut-Off Treaty (FMCT)*, document NPT/ CONF.2010/PC.II/WP.21, 30 April 2008.



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## Conclusion

43. While the negotiation of an FMT will clearly not be straightforward, its successful conclusion will have significant international benefits. By limiting the pool of material available for manufacturing nuclear weapons and by helping to make reductions in nuclear arsenals irreversible, a treaty would be a major boost to the causes of non-proliferation and nuclear disarmament. A non-discriminatory treaty also has the potential to strengthen the NPT, notably in the manner in which the nuclear-weapon states might be brought more formally into the IAEA safeguards system and in which nuclear-weapon-possessing states outside the NPT might be brought into closer cooperation with NPT states parties.

44. More broadly, an FMT would be a welcome, if belated, addition to the measures governing disarmament, non-proliferation, and arms control, making a crucial contribution to improving the climate of trust at a time of high concern about the international security environment. Clearly the remit of the GGE to make recommendations to the United Nations General Assembly of a kind that could contribute to an FMT is a modest one. Moreover, these recommendations will not emerge until the Group concludes its work in 2015, unless in the meantime the CD adopts a programme of work that includes the negotiation of a ban treaty.

45. At the time of writing, there was little likelihood of a breakthrough in the CD. Through the intertwining of mandates in the Conference, the fate of a mandate for dealing with a fissile material ban is currently inextricably linked to the fate of the mandates on the three other core issues on the CD's agenda. Those mandates can be agreed under a single work programme as in 2009 or they can be separated out and dealt with individually as was initially the case with fissile material in the 1990s. For the moment, the Conference remains preoccupied with the former approach.

## **Conference on Disarmament: tracing the development of a mandate for the negotiation of a ban on the production of fissile material for use in a nuclear weapon or other explosive devices**

### **1. Introduction**

a) In the first two chapters, this paper outlined efforts in the Conference of Disarmament (CD) to launch a negotiation of a prohibition on production of fissile material for weapons purposes. This annex provides more detail on the political dynamics behind those efforts. The intention is to help explain why it is that since the original, short-lived adoption of the Shannon Mandate, the issue of initiating fissile material negotiations has always been linked with other issues. That is, the necessary mandate to negotiate has not been the subject of its own decision (as was the case with the Shannon version) but has been absorbed inextricably into a broader mandate covering three other substantive or “core” matters of the CD’s agenda. These are the general issue of nuclear disarmament, the prevention of an arms race in outer space (PAROS), and negative security assurances (NSAs).

b) Factors leading to the inability to reach consensus extend beyond differences over whether a fissile material treaty (FMT) should cover existing stockpiles. Moves from 1999 by the representatives of the Non-Aligned Movement in the CD to link the successful conclusion of an FMT to a time-bound schedule for nuclear disarmament complicated the task of establishing the CD’s annual programme of work. Over time, additional linkages arose. United States policy in favour of a national missile defence programme served to increase the urgency felt among some members of the CD for pursuing negotiations on the issue of PAROS.<sup>22</sup> China, the primary advocate of making progress on fissile material contingent on progress on PAROS, soon gained the backing of the Russian Federation, but the United States resolutely opposed the negotiation of a treaty on PAROS. With these dynamics of the various linkages among the issues to be covered by a programme of work, negotiation of a mandate for a fissile material ban—a complex task in itself—became even more complicated.<sup>23</sup>

c) The reality is that the inclusion of mandates on all four issues in the CD’s annual programme of work has ensured that under the consensus rule it takes only one member objecting to a mandate to prevent any substantive work taking place on any of them. All of the programmes of work tabled since the Shannon Mandate have been supported by an overwhelming number of member states, but to no avail (and, as already noted, CD/1864 was actually adopted but soon undermined). As will become clear in the following paragraphs, this overloading of the programme of work has been constant since 1999 even though there have been some changes to the respective mandates, including that on fissile material.

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22 J. Rissanen, “Time for a fissban—or farewell?”, *Disarmament Diplomacy*, no. 83, 2006.

23 International Panel on Fissile Materials, *Banning the Production of Fissile Materials for Nuclear Weapons: Country Perspectives on the Challenges to a Fissile Material (Cutoff) Treaty*, 2008, p. 9.

## 2. Dealing with linkages among items on the programme of work

1. In 2000, CD President Ambassador Amorim of Brazil impressed on the Conference the need to establish a programme of work that “organized differences” in a manner that did not impede progress on other important goals. Amorim proposed a programme of work in CD/1624 that called for the establishment of four separate Ad Hoc Committees within the CD, each with a separate mandate to take up the “important goals of disarmament”. One such committee would be established to negotiate an FMT. This group would be mandated to negotiate, on the basis of the Shannon Mandate, an agreement to ban the production of fissile material for nuclear weapons or other nuclear explosive devices.<sup>24</sup> Another committee would be established to “exchange information and views” to move towards the goal of nuclear disarmament, another to “examine and identify specific topics or proposals” pertaining to PAROS, and another to “negotiate with a view to reaching agreement” on NSAs.<sup>25</sup> In an accompanying “Presidential Declaration”, Amorim would make it clear upon adoption of the programme of work that no matter how each mandate was actually worded (that is, as a negotiation, an exchange of views, or an examination) the CD was in reality a negotiating body. This explanation was designed to accommodate members for whom anything less concrete than a negotiation, resulting in a binding outcome, was unacceptable.

2. The Amorim proposal’s establishment of four Ad Hoc Committees and the accompanying Presidential Declaration was to become a kind of prototype for future programme of work proposals. Such an approach sought to provide assurances to members that the CD would actively deal with all four core issues, thus enabling the CD to move forward with negotiations on an FMT within the framework of the Shannon Mandate by mitigating concerns that the other core issues might become ignored over time. But the differences among the four mandates proved to be an obstacle, in that these differences raised the question of whether or not the mandate for a particular core issue would culminate in a legally binding outcome (that is, a treaty).

## 3. Negotiation versus discussion

3. In 2003 a programme of work proposal was tabled, CD/1693 (later CD/1693 Rev. 1), accompanied by a Presidential Declaration. This effort was dubbed the “A5” proposal (for “five Ambassadors”, the former CD presidents responsible for the proposal<sup>26</sup>). CD/1693 Rev.1 addressed the four core issues through the establishment of Ad Hoc Committees, one with the mandate to negotiate an FMT on the basis of the Shannon Mandate, one with the mandate to negotiate with a view to reaching agreement on NSAs, one with the mandate to exchange information and views on practical steps for progressive and systematic efforts towards nuclear disarmament, and one with the mandate to identify and examine, without limitation, any specific topics or proposals on PAROS.

4. The A5 proposal was similar, but not identical, to Amorim’s, but there was a subtle difference in the accompanying Presidential Declaration. In terms of divergent views on whether the treatment of a particular issue should—through “negotiations”—result in a treaty, the Declaration stated that the products of the Ad Hoc Committees could lead “in time, to international instruments acceptable to all”.

5. Nonetheless, the CD remained unable to reach consensus. While China was willing to accept the terms of the proposal regarding PAROS, the US administration under President Bush began in 2002 a two-year review of its policy regarding an FMT, preventing the CD from reaching consensus on a programme of work throughout that period. In July 2004, following that review, the United States announced that it could support the negotiation of a legally binding ban on the production of fissile material for explosive purposes. Two years later, however, it concluded that it could not support a treaty under the parameters of the Shannon Mandate, claiming that such a treaty could not be effectively verified. In May 2006 the United States tabled a treaty proposal<sup>27</sup> together with a draft mandate<sup>28</sup> that did not include verification, a significant departure from

<sup>24</sup> Conference on Disarmament, *Proposal by the President on the Programme of Work for the 2000 Session of the Conference on Disarmament*, document CD/1624, 24 August 2000.

<sup>25</sup> Ibid.

<sup>26</sup> Algeria (Dembri), Belgium (Lint), Chile (Vega), Colombia (Reyes), and Sweden (Salander).

<sup>27</sup> United States, *Draft Mandate for an Ad Hoc Committee on a “Ban on the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices”*, CD document CD/1776, 19 May 2006.

<sup>28</sup> United States, *Draft Treaty on the Cessation of Production of Fissile Material for Use in Nuclear Weapons or Other Nuclear Explosive Devices*, CD document CD/1777, 19 May 2006.

**A** the Shannon Mandate. The US position effectively prevented further progress in the CD under the Shannon Mandate during the following years.

#### 4. Coordinators instead of Working Groups

6. In March 2007 the six presidents of the Conference, continuing a practice begun the previous year of working together to provide cohesion and continuity, tabled CD/2007/L.1. This document proposed the appointment of coordinators—rather than subsidiary bodies (such as Working Groups or Ad Hoc Committees)—to chair informal sessions of the CD on each of the core issues, and called for continuing work on the three remaining substantive items on the CD’s agenda—items 5, 6 and 7.<sup>29</sup> The approach of appointing coordinators instead of establishing subsidiary bodies was an attempt to overcome sensitivities among those few members who were reluctant for mandates to be carried out through Working Groups or Ad Hoc Committees.

7. The coordinator for fissile material would be given the following mandate by CD/2007/L.1: “to preside over negotiations, without any preconditions, on a non-discriminatory and multilateral treaty banning the production of fissile material for nuclear weapons or other explosive devices”. The coordinators for the other core issues were mandated to preside over “substantive discussions” rather than “negotiations”.<sup>30</sup>

#### 5. Outcomes: treaties or lesser instruments?

8. A “Complementary Presidential Statement” (CD/2007/CRP.6) was devised to accompany the proposed draft decision by the Conference, offering assurance that CD/2007/L.1 did not prejudice any past, present, or future issue, nor did it set preconditions, or prescribe or preclude any outcome.<sup>31</sup> Once again, the complementary statement was intended to make the proposed work programme acceptable to those who sought legally binding outcomes on the remaining core issues (thus overcoming the linkages problem), as well as keeping options open for addressing contentious issues, most notably the issue of scope. However, consensus on the programme of work still remained out of reach—this proposal, like the Amorim and A5 proposals, was not submitted to the CD for a formal decision. In each case, it was the judgment of the president, based on extensive consultations, that although very widely supported, none of the proposals would have attracted the necessary consensus to be adopted.

9. In 2008 the six presidents for that year introduced in CD/1840 a further refinement aimed at improving the prospects for consensus on a programme of work. This document followed the comprehensive approach used in the previous drafts and proposals. It would appoint a coordinator to preside over “negotiations” on an FMT, and all delegations would have “the opportunity to actively pursue their respective positions and priorities, and to submit proposals on any issue they deem relevant in the course of the negotiations”. This proposal sought to meet the needs of members such as Pakistan that would not accept a mandate on fissile material without mention of verification, and of the United States, which would not accept a mandate on fissile material with mention of verification.

10. CD/1840 also would appoint individual coordinators to preside over “substantive discussions” on the three other core issues (disarmament, PAROS, and NSAs). Moreover, in the cases of those other issues, CD/1840 kept the assurance of CD/2007/CRP.6 that the decision would not proscribe or preclude any outcome of the substantive discussions.<sup>32</sup> Again, due to lack of support the proposal was not submitted to the CD for decision.

#### 6. Short-lived breakthrough

11. In 29 May 2009, CD/1863, tabled by the presidency as a “draft decision for the establishment of a programme of work for the 2009 session”, was submitted to the CD for decision by Algerian Ambassador

<sup>29</sup> Item 5 is “new types of weapons of mass destruction and new systems of such weapons; radiological weapons”; item 6 is “comprehensive programme of disarmament”; and item 7 is “transparency in armaments”.

<sup>30</sup> Conference on Disarmament, *Presidential Draft Decision*, document CD/2007/L.1, 29 June 2007.

<sup>31</sup> Conference on Disarmament, *Draft Decision by the Conference*, document CD/2007/CRP.6, 30 August 2007.

<sup>32</sup> Conference on Disarmament, *Draft Decision by the Presidents of the 2008 Session of the Conference of Disarmament*, document CD/1840, 13 March 2008.

Jazairy on his final day as president, and, drawing no objections, was adopted by consensus and became CD/1864. Instead of Ad Hoc Committees or coordinators, the agreed programme of work established four Working Groups with the following mandates:

- to “negotiate a treaty banning the production of fissile material ... on the basis of [the Shannon Mandate]”;
- “to exchange views and information on practical steps for [nuclear disarmament], including on approaches toward potential future work of multilateral character”;
- “to discuss substantively, without limitation, all issues related to the prevention of an arms race in outer space”; and
- “to discuss substantively, without limitation, with a view to elaborating recommendations dealing with all aspects of [NSAs], not excluding those related to an internationally legally binding instrument”.<sup>33</sup>

12. All four mandates included the stipulation that each Working Group would “take into consideration all relevant views and proposals, past, present and future”. Each Working Group was also required to report to the CD on the progress of its work before the conclusion of the 2009 session. Given the linkages referred to earlier, it should be noted that consensus on this programme of work was made possible through compromises made over time in relation to non-insistence on a negotiating mandate for PAROS (China, Russian Federation), non-insistence on a negotiating mandate on NSAs<sup>34</sup> by a number of Non-Aligned Group members, and revised instructions on fissile material verification (United States) following the election of US President Obama.

## 7. Return to the Shannon Mandate

13. On the fissile material issue, the CD had with CD/1864 returned to the Shannon Mandate, albeit as one of a number of other highly substantive and complex items on its programme of work for 2009. Whereas in 1998 the CD had two separate negotiating mandates to pursue, the decision in 2009 entailed only one negotiation but three other substantive undertakings and a further three issues to explore for further possible treatment. However, the CD failed to implement its 2009 decision, and its success proved to be as short-lived as CD/1547.

14. Since the brief breakthrough in 2009, there has been further evolution of the programme of work, as well as some inconclusive discussion in the CD on the substance of the four core issues covered by the programme of work. But brokering compromise on the actual mandates for the core issues continued to be a function primarily of successive presidents conducted behind the scenes. There were also discussions in a series of seminars initiated by partnerships between Australia and Japan, and Germany and the Netherlands.<sup>35</sup> These events, conducted outside the CD, have served to rehearse the kinds of arguments that will be asserted in earnest if and when negotiations actually begin.

15. Three new programmes of work emerged between 2010 and the time this paper was written. None of them attracted consensus, with Pakistan continuing to take the position that negotiation of a ban on the production of fissile material for weapons use would be prejudicial to its national security interests.

- CD/1889 introduced on 6 July 2010 by CD President Macedo Soares of Brazil sought in a slightly more overt manner than CD/1864 to broaden the scope of fissile material negotiations through the insertion in the mandate of the phrase “taking into consideration all other matters relating to fissile material” alongside mention of the Shannon Mandate.
- CD/1933/Rev.1 tabled on 14 March 2010 by Ambassador Badr of Egypt also tried to accommodate Pakistan but in a rather more radical way. The proposal substituted the long-held notion of negotiating

33 Conference on Disarmament, *Decision for the Establishment of a Programme of Work for the 2009 Session*, document CD/1864, 29 May 2009.

34 See Conference on Disarmament, *Proposal by the President on the Programme of Work for the 2000 Session of the Conference on Disarmament*, document CD/1624, 24 August 2000, para. 4; and Conference on Disarmament, *Initiative of the Ambassadors Dembri, Lint, Reyes, Salander and Vega*, document CD/1693/Rev.1, 5 September 2003, para. 1.

35 See CD documents CD/1906, 1909, 1917, 1919, 1935, and 1943.

a fissile material production ban with that of “deal[ing] with elements” of a multilateral treaty banning production.

- Most recently, CD President Ambassador Dekany of Hungary put forward CD/1948 on 11 February 2013, a proposal that reduced from four to three the number of mandates to be included in the programme of work but proved as equally unsuccessful as its two immediate predecessors. His idea of launching a Working Group to “begin substantive work towards a treaty banning the production of fissile material for nuclear weapons” as part of a mandate that would have included consideration of proposals to “take forward nuclear disarmament negotiations” drew Pakistan’s opposition once more.

16. Pakistan’s main arguments in resisting these efforts to facilitate agreement bear repetition here, especially in relation to CD/1948. For Pakistan, the “merger of nuclear disarmament and FMCT into one Working Group ... relegates nuclear disarmament in terms of its work and priority”. More generally, Pakistan explained its position as follows:

Your draft [programme of work], in order to achieve balance and be acceptable to all, needs to clearly reflect that it would not lead to direct, indirect or even pre-negotiations on FMCT. Our concerns in this regard are substantiated by the fact that the same language is not used with regard to the other three core issues since some countries are not willing to “negotiate” on Nuclear Disarmament, NSAs or PAROS.

The essence of our security concerns is that there continues to be asymmetry in fissile material stocks in our region and commencement of any negotiations on this issue that does not take into account reduction of existing stocks would pose a serious challenge to our security. This situation has further deteriorated in recent years.

Similarly, our concerns with regard to Shannon Mandate are well known. The ambiguity in the Shannon Mandate may have served a specific purpose when it was negotiated in 1995 but the developments of the past years in our security environment makes it impossible for us to accept the so-called “constructive ambiguity” of the Shannon Mandate.<sup>36</sup>

17. As implied in this paper, Pakistan is unlikely to support any attempt to deal with fissile material in the Group of Governmental Experts or the CD until it believes that its investment in its own fissile material production has been sufficiently realized for its nuclear arsenal. If that conclusion is correct, it remains to be seen whether further attempts will be made in the CD to refine the mandate for negotiating a ban on fissile material production.

<sup>36</sup> See Statement by Ambassador Zamir Akram, Permanent Representative of Pakistan to the United Nations at the CD Plenary, 12 February 2013, [www.reachingcriticalwill.org/images/documents/Disarmament-fora/cd/2013/Statements/12Feb\\_Pakistan.pdf](http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/cd/2013/Statements/12Feb_Pakistan.pdf).

## annex b

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### **Significant reference materials from the past three years**

#### **UNIDIR**

Fissile Material Negotiations in the Conference on Disarmament, ver. 2, 2011, [www.unidir.org/files/publications/pdfs/fissile-material-negotiations-in-the-conference-on-disarmament-version-2-updated-february-2011-357.pdf](http://www.unidir.org/files/publications/pdfs/fissile-material-negotiations-in-the-conference-on-disarmament-version-2-updated-february-2011-357.pdf).

A Fissile Material Cut-Off Treaty: Understanding the Critical Issues, 2010, [www.unidir.org/files/publications/pdfs/a-fissile-material-cut-off-treaty-understanding-the-critical-issues-139.pdf](http://www.unidir.org/files/publications/pdfs/a-fissile-material-cut-off-treaty-understanding-the-critical-issues-139.pdf).

H.A. Feiveson, Treatment of Pre-existing Fissile Material Stocks in an FM(C)T, 2010, [www.unidir.org/files/publications/pdfs/treatment-of-pre-existing-fissile-material-stocks-in-an-fm-c-t-392.pdf](http://www.unidir.org/files/publications/pdfs/treatment-of-pre-existing-fissile-material-stocks-in-an-fm-c-t-392.pdf).

A. Schaper, A Treaty on Fissile Materials: Just a Cut-off or More?, 2010, [www.unidir.org/files/publications/pdfs/a-treaty-on-fissile-materials-just-a-cut-off-or-more-391.pdf](http://www.unidir.org/files/publications/pdfs/a-treaty-on-fissile-materials-just-a-cut-off-or-more-391.pdf).

#### **Conference on Disarmament**

A full list of relevant documents can be found at [www.unog.ch/80256EE600585943/\(httpPages\)/5A258C12510075B2C12575DF003E478B?OpenDocument](http://www.unog.ch/80256EE600585943/(httpPages)/5A258C12510075B2C12575DF003E478B?OpenDocument).

1. “Thematic” discussions in the Conference on Disarmament: for recent debates see in particular statements made on 12 March 2013.<sup>37</sup> As at the time of writing, no procès verbal (PV) is available for the 2012 session during which relevant debates took place on 31 May and 26 June. For 2011 some PVs remain to be completed, e.g., those for relevant debates on 1, 3, and 24 February. See however CD/PV.1213 of 3 March 2011. The debates in 2010 were informal and thus not recorded.

2. Relevant recent papers and proposals tabled in the CD since 2010, including reference to reports of scientific, technical, and other side-events on fissile material:

CD/1935, 26 June 2012, entitled “Letter dated 25 June 2012 from the Permanent Representatives of Germany and the Netherlands to the Conference on Disarmament addressed to the Secretary-General of the Conference transmitting the report of the meeting of scientific experts on technical issues related to a fissile material cut-off treaty (FMCT), held in Geneva on 29 and 30 May 2012”.

CD/1943, 13 September 2012, entitled “Letter dated 11 September 2012 from the Permanent Representatives of the Netherlands and Germany to the Conference on Disarmament addressed to the Secretary-General of

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<sup>37</sup> See [www.unog.ch/\\_80256ee600585943.nsf/\(httpPages\)/bdf63df0419d84b7c125798e00329168?OpenDocument&ExpandSection=10%2C11#\\_Section10](http://www.unog.ch/_80256ee600585943.nsf/(httpPages)/bdf63df0419d84b7c125798e00329168?OpenDocument&ExpandSection=10%2C11#_Section10).

**B** the Conference transmitting the report of the second meeting of scientific experts on technical issues related to a treaty banning the production of fissile material for nuclear weapons and other nuclear explosive devices based on resolution 66/44 of the General Assembly of the United Nations, held in Geneva on 28 and 29 August 2012”.

In accordance with the schedule of activities contained in document CD/WP.571/Rev.1, two plenary meetings on agenda item 1 entitled “Cessation of the nuclear arms race and nuclear disarmament” and item 2 entitled “Prevention of nuclear war, including all related matters” with a general focus on the prohibition of the production of fissile material for nuclear weapons and other nuclear explosive devices were held on 31 May and 26 June 2012. There was a lengthy discussion on this issue where delegations reaffirmed their respective positions, which are duly recorded in the plenary records of the sessions (CD/PV.1259 and CD/PV.1264).

CD/1904, 2 February 2011, entitled “Letter dated 1 February 2011 from the Permanent Representative of Pakistan addressed to the President of the Conference on Disarmament transmitting the text of the press statement issued by Pakistan’s National Command Authority dated 14 December 2010”.

CD/1906, 14 March 2011, entitled “Note verbale dated 9 March 2011 from the Permanent Mission of Australia to the Conference on Disarmament addressed to the Secretary-General of the Conference transmitting the Chair’s report of the Australia- Japan experts side event on FMCT definitions, held at the Palais des Nations in Geneva on 14–16 February 2011”.

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## United Nations General Assembly

Canada's resolutions since 2010:

A/RES/67/53, 4 January 2013, Treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

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## Miscellaneous

### International Panel on Fissile Materials

The International Panel on Fissile Materials (IPFM) was founded in January 2006 and is an independent group of arms-control and non-proliferation experts from both nuclear-weapon and non-nuclear weapon states. The mission of the IPFM is to analyse the technical basis for practical and achievable policy initiatives to secure, consolidate, and reduce stockpiles of highly enriched uranium and plutonium. See <http://fissilematerials.org>.

### IPFM recent publications

Increasing Transparency of Nuclear-warhead and Fissile-material Stocks as a Step Toward Disarmament, May 2012.

Global Fissile Material Report 2011: Nuclear Weapon and Fissile Material Stockpiles and Production, January 2012.

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A. Glaser and Z. Mian, "Appendix 7A. Global stocks and production of fissile materials, 2010", in SIPRI Yearbook 2011, 2011.

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**B Reaching Critical Will**

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**Arms Control Association**

“Fissile material cut-off treaty (FMCT) at a glance”, [www.armscontrol.org/factsheets/fmct](http://www.armscontrol.org/factsheets/fmct).

**Nuclear Threat Initiative (NTI)**

“Pakistan Calls for Fissile-Material Ban Talks to Address Existing Stocks”, 9 April 2013, [www.nti.org/gsn/article/pakistan-calls-fissile-material-ban-talks-address-existing-stocks](http://www.nti.org/gsn/article/pakistan-calls-fissile-material-ban-talks-address-existing-stocks).

**Center for Arms Control and Non-Proliferation**

“Fact Sheet on the Fissile Material Cutoff Treaty (FMCT)”, 11 February 2013, [http://armscontrolcenter.org/issues/nonproliferation/071509\\_factsheet\\_fmct](http://armscontrolcenter.org/issues/nonproliferation/071509_factsheet_fmct).

**Acronym Institute for Disarmament Diplomacy**

“Nuclear Security & Fissile Materials”, [www.acronym.org.uk/directory/building-security/nuclear-security-fissile-materials](http://www.acronym.org.uk/directory/building-security/nuclear-security-fissile-materials).

**Ploughshares Fund**

“Ploughshares Blog: Fissile Material”, [www.ploughshares.org/blog/topic/fissile-material](http://www.ploughshares.org/blog/topic/fissile-material).

**Physicians for Social Responsibility**

“Fissile Material Cut-off Treaty”, [www.psr.org/nuclear-weapons/fissile-material.html](http://www.psr.org/nuclear-weapons/fissile-material.html).





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