

**Arms Control Association  
and Women's International League  
for Peace and Freedom**



# **Major Proposals to Strengthen the Nuclear Nonproliferation Treaty**

A RESOURCE GUIDE

April 2005

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Claire Applegarth and Rhianna Tyson



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## About the Authors

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## Note on Sources

The majority of research for this project was conducted using official documents of NPT Preparatory Committees and Review Conferences, the Conference on Disarmament, and the United Nations General Assembly First Committee on Disarmament and International Security. These documents are available at [www.reachingcriticalwill.org](http://www.reachingcriticalwill.org) as well as via the UN disarmament homepage, <http://disarmament.un.org>. Proposals and state positions listed in the report are based on the most recently available documents.

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## ACRONYMS

<b>A5 Proposal</b>	Five Ambassadors' Initiative (proposed agenda at the Conference on Disarmament)
<b>ABM Treaty</b>	Anti-Ballistic Missile Treaty
<b>CD</b>	Conference on Disarmament
<b>CTBT</b>	Comprehensive Test Ban Treaty
<b>CTBTO</b>	Comprehensive Test Ban Treaty Organization
<b>CTR</b>	Cooperative Threat Reduction
<b>EoV</b>	Explanation of Vote
<b>FMCT</b>	Fissile material cutoff treaty
<b>FMT</b>	Fissile material treaty
<b>G-8</b>	Group of Eight (industrialized countries)
<b>GTRI</b>	Global Threat Reduction Initiative
<b>HEU</b>	Highly enriched uranium
<b>IAEA</b>	International Atomic Energy Agency
<b>IMS</b>	International Monitoring System of the CTBTO
<b>NGO</b>	Nongovernmental organization
<b>NPT</b>	Nuclear Nonproliferation Treaty
<b>NSA</b>	Negative security assurance
<b>NSG</b>	Nuclear Suppliers Group
<b>NWFZ</b>	Nuclear-weapon-free zone:
<b>MENWFZ</b>	Middle Eastern NWFZ
<b>SEANWFZ</b>	Southeast Asian NWFZ
<b>PAROS</b>	Prevention of an arms race in outer space
<b>PrepCom</b>	Preparatory Committee of the NPT
<b>PSI</b>	Proliferation Security Initiative
<b>SORT</b>	Strategic Offensive Reductions Treaty (also known as the Moscow Treaty)
<b>START I, II, III</b>	Strategic Arms Reduction Treaties (United States and Russia)
<b>UNDDA</b>	United Nations Department for Disarmament Affairs
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNIDIR</b>	United Nations Institute for Disarmament Research
<b>WMD</b>	Weapons of mass destruction

# Meeting the Challenges to the NPT

Thirty-five years ago, the nuclear Nonproliferation Treaty (NPT) set into place one of the most important international security bargains of all time: states without nuclear weapons pledged not to acquire them, while nuclear-armed states committed to eventually give them up. At the same time, the NPT allowed for the peaceful use of nuclear technology by non-nuclear-weapon states under strict and verifiable control.

The NPT is a good deal that must be honored and strengthened.

Since its inception, the NPT has helped to limit the number of nuclear-weapon states to the five with nuclear weapons at the time of its entry into force (China, France, Russia, the United Kingdom, and the United States) and the three other known nuclear-weapon states (India, Israel, and Pakistan), which have refused to join the treaty. Dozens of other states might have the bomb today if not for the NPT and associated measures. Over the years, the NPT security framework, combined with effective diplomacy, has led several states to abandon their nuclear weapons ambitions (including Argentina, Brazil, Sweden, and Libya). It has led four states that once had nuclear weapons to give them up (South Africa, Belarus, Kazakhstan, and Ukraine).

The NPT also makes it far more difficult for other non-nuclear-weapon states to acquire the material and technology needed to build such weapons and, if they do, to do so without detection. Intrusive international inspections and safeguards against diversion of nuclear technology and material for weapons purposes are now standard practice.

The NPT process and sustained nongovernmental pressure have encouraged the United States and Russia to take action on several nuclear arms control and arms reduction initiatives, from strategic nuclear weapons reductions to a halt on nuclear weapons testing and the negotiation of the 1996 Comprehensive Test Ban Treaty (CTBT). These arms control agreements have reduced U.S.-Russian nuclear arms competition and increased transparency, thereby establishing greater stability and predictability.

The NPT has also led the nuclear-weapon states to issue negative security assurances—pledges not to use nuclear weapons against non-nuclear-weapon NPT members—thereby reducing incentives for others to seek nuclear arms for prestige or defense.

Leaders from across the globe have also worked to create regional nuclear-weapon-free zones that further reinforce the norm against nuclear weapons possession and use. These include the Treaty of Tlatelolco, which covers Latin America; the Treaty of Rarotonga governing the South Pacific; the Pelindaba Treaty, which establishes an African nuclear-weapon-free zone; and the Bangkok Treaty on a Southeast Asian nuclear-weapon-free zone.

## Today's Challenges

Despite these very significant accomplishments, the NPT and the broader nuclear nonproliferation system are under great stress. As the May 2005 NPT Review Conference nears, it is evident that global security and proliferation challenges are as politically and technically complex as they were in the 1960s when the NPT was conceived and created.

In the past few years, we have seen new and more deadly forms of terrorism, wars, and nuclear black markets and instances in which states cheat on and even announce their withdrawal from the NPT. Each of these challenges poses a serious threat to the integrity of the NPT.

In 2003, North Korea announced its withdrawal from the NPT and now claims to have manufactured

a handful of nuclear weapons. Three states in dangerous regions remain outside the NPT: although it will not admit it, Israel possesses nuclear weapons; and regional rivals India and Pakistan possess and continue to improve their nuclear arsenals. Pakistan's nuclear establishment has spawned a black market nuclear supply network that has aided the nuclear programs of Libya, Iran, North Korea, and perhaps others.

Additional countries could acquire the capacity to produce fissile material for weapons purposes under the guise of "peaceful" nuclear endeavors. Even if more states grant the International Atomic Energy Agency greater authority to monitor and verify compliance through the 1997 Model Additional Protocol, countries can acquire technologies that bring them to the very brink of nuclear-weapon capability without explicitly violating the agreement and can then leave the treaty without automatic penalties. If ongoing European diplomatic efforts to indefinitely freeze Iran's once-secret nuclear program are not successful, that country may soon have the capacity to enrich large quantities of uranium, which could be used to produce highly enriched uranium for weapons.

The existing global stockpiles of highly enriched uranium and plutonium pose another significant threat to global peace and security. Worldwide there are approximately 1,855 metric tons of plutonium and 1,900 metric tons of highly enriched uranium in civilian and military stockpiles. These materials have become more accessible to terrorists as a result of inadequate security and accounting at nuclear facilities throughout the former Soviet republics and in dozens of other countries. Although U.S.-Russian nuclear threat reduction programs have been working to secure and lock down these stockpiles, there is much more left to be done in the former Soviet republics and elsewhere. Funding for these efforts, although significant, is not enough to accelerate the program as rapidly as the threat should dictate.

Compounding these challenges, the majority of countries also feel that the five original nuclear-weapon states do not intend to fulfill their NPT pledge to eliminate nuclear weapons. The United States and Russia each deploy more than 5,000 strategic nuclear warheads, most of which are far more destructive than the bombs that destroyed Hiroshima and Nagasaki 60 years ago. Planned reductions are not irreversible or sufficiently verifiable. The United States

and Russia maintain thousands more reserve strategic and sub-strategic nuclear warheads. China, France, and the United Kingdom also maintain hundreds of nuclear warheads.

The continuing possession of nuclear weapons by these states—reinforced by lackluster progress on disarmament in the last five years—erodes the willingness of certain states in the non-nuclear-weapon majority to fulfill their treaty obligations, much less to agree to strengthen the regime. Particularly damaging is the United States' opposition to the CTBT and to the initiation of negotiations on an effectively verifiable global ban on the production of fissile material for weapons purposes. Some U.S. officials have even suggested that its 2000 NPT Review Conference commitments on specific disarmament measures are no longer relevant, a dangerous invitation to other states to ignore important political commitments made at previous review conferences.

Many states are also frustrated with the constraints of the NPT review process itself, which is limited in its ability to measure progress on treaty goals and objectives and to advance dialogue and negotiation between the five-year review conferences. The only international forum for negotiations on arms control and disarmament—the 65-member Conference on Disarmament—is deadlocked over competing negotiating priorities.

## Proposals for Progress

In light of the numerous strategic, political, and institutional challenges facing the NPT and the broader nuclear nonproliferation system, a number of constructive ideas and proposals have been advanced by governments and nongovernmental organizations. This *Resource Guide* is intended to bring to the surface these issues and problems and the key proposals designed to address them, as well as to provide information about the views of key governments on ideas to strengthen implementation and compliance with the NPT.

Our hope is that the *Resource Guide* will serve as a starting point for those who are trying to learn more about the nuclear weapons dilemma, a quick-guide to reporters and researchers covering the topic, as well as a practical tool for those diplomats and policymakers charged with helping to advance the cause of nuclear nonproliferation, disarmament, and global security.

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# Verification

Effective verification measures supply the tools through which compliance with the principles and provisions of the nuclear Nonproliferation Treaty (NPT) is monitored. Verification arrangements generate trust between states by providing the scientific and technical information necessary for states to judge whether others of the NPT system are fulfilling their disarmament and nonproliferation commitments. Effective verification not only provides higher confidence that cheating will be detected, but helps deter would-be cheaters and provides the basis for collective action against violators. Compliance with the NPT is monitored and verified through the activities of the International Atomic Energy Agency (IAEA) as mandated by safeguards agreements with individual states, while other bilateral and multilateral nuclear arms control and nonproliferation agreements, such as the Comprehensive Test Ban Treaty (CTBT), are monitored and verified through separate mechanisms and national technical means.

The discovery of the clandestine Iraqi nuclear program in the aftermath of the 1991 Persian Gulf War led NPT states-parties to expand the scope of traditional comprehensive safeguards agreements through the 1997 IAEA Model Additional Protocol (INFCIRC/540). This voluntary protocol, when brought into force by individual states, grants the IAEA authority to inspect undeclared nuclear facilities, conduct more short-notice inspections, carry out more environmental sampling over broader areas, and require additional reporting by states to the IAEA on their nuclear activities. Recent revelations about the clandestine nuclear programs of North Korea, Iran, and Libya, as well as previously unreported nuclear experiments in South Korea and Egypt, have focused attention on the value of the Model Additional Protocol. The IAEA's ongoing investigation of Iran's nuclear program is being conducted under the terms of the Additional Protocol.

## Background

- Under Article III, paragraph 1 of the NPT, each non-nuclear-weapon state “undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency...for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty.”
- Comprehensive safeguards agreements with the IAEA, as called for under Article III of the NPT, are laid out in the IAEA's 1972 Information Circular (INFCIRC/153). This document establishes a framework for the implementation of safeguards agreements, including detailed guidelines governing the IAEA inspections process.
- As of March 1, 2005, 166 countries had brought into force a comprehensive safeguards agreement with the IAEA as mandated under Article III. Only

65 states had brought into force the Additional Protocol, and 25 more had signed it.

- A 1996 General Assembly document (A/51/182 G) compiled a list of general verification principles relevant to all arms control agreements as adopted by the Disarmament Commission since its inception in 1978. These maintain, among other recommendations, that:
  - “Adequate and effective verification is an essential element of all arms limitation and disarmament agreements.
  - Verification is not an aim in itself, but an essential element in the process of achieving arms limitation and disarmament agreements.
  - Verification in the arms limitation and disarmament process will benefit from greater openness.
  - Arms limitation and disarmament agreements should include explicit provisions whereby each party undertakes not to interfere with the agreed methods, procedures and techniques of verification, when these are operating in a manner consistent with the provisions of the agreement and generally recognized principles of international law.
  - Arms limitation and disarmament agreements should include explicit provisions whereby each party undertakes not to use deliberate concealment measures which impede verification of compliance with the agreement.
  - To assess the continuing adequacy and effectiveness of the verification system, an arms limitation and disarmament agreement should provide for procedures and mechanisms for review and evaluation. Where possible, time-frames for such reviews should be agreed in order to facilitate this assessment.
  - To be adequate and effective, a verification regime for an agreement must cover all relevant weapons, facilities, locations, installations and activities.”
- The Final Document of the 2000 Review Conference reaffirms that implementing the Additional Protocol in combination with comprehensive safeguards provides “a credible assurance of the non-diversion of nuclear material from declared activities and of the absence of undeclared nuclear material and activities.” It suggests that the IAEA and states consider ways to facilitate agreements and promote the universalization of the Additional Protocol. It also reaffirms the role of the IAEA as the competent authority for verification measures and requests

that states provide “their full and continuing support to the IAEA safeguards system.”

- Step 13 of the 2000 Review Conference’s “13 Practical Steps on Nonproliferation and Disarmament” (see Appendix 2) relating to Article VI, commonly referred to as the “13 Steps,” calls on states-parties to work toward “the further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements.”
- The United Kingdom is developing verification mechanisms for warhead detection and authentication, which could be useful for effectively implementing future nuclear reductions agreements between nuclear-weapon states. It announced at the 2000 Review Conference the launch of a study on technologies used to verify the elimination of nuclear weapons stockpiles and tabled working papers in the 2002 and 2004 Preparatory Committee meetings (PrepComs)<sup>1</sup> presenting its work. The United States, although not advertising as overtly its contributions to verification through the NPT forum, may conduct as much as 90 percent of the scientific and technical verification work worldwide.<sup>2</sup>
- The United States and the Russian Federation currently monitor and report compliance with the 1987 Intermediate-Range Nuclear Forces Treaty and the 1991 Strategic Arms Reduction Treaty (START I) through bilateral verification mechanisms. The 2002 Strategic Offensive Reductions Treaty (SORT) contains no additional verification mechanisms, and compliance will be monitored through the verification system established by START, which expires in 2009.
- The 59th session of the UN First Committee in 2004 adopted without a vote a resolution entitled “Verification in all its aspects” (A/RES/59/60). This resolution, sponsored by Canada, proposes the establishment in 2006 of a panel of governmental experts “to explore the question of verification in all its aspects, including the role of the United Nations in the field of verification, and to transmit the report of the panel of experts to the General Assembly for consideration at its sixty-first session.”

## Key Proposals and State Positions

A variety of proposals aimed at verifying and enforcing higher standards of compliance with the NPT have been recently put forward, ranging

from more ambitious ideas to curb states' access to nuclear fuel and fissile material to political calls for recognition of the Additional Protocol and comprehensive safeguards agreements as the new treaty standard.

In a February 11, 2004, address to the National Defense University,<sup>3</sup> the key points of which were later reiterated in a statement to the 2004 PrepCom by Under Secretary of State for International Security and Arms Control John Bolton,<sup>4</sup> **U.S. President George W. Bush** urged states in the voluntary, then 40-member Nuclear Suppliers Group (NSG) (see Export Controls and Interdiction section) to consider making the Additional Protocol a mandatory condition of supply of NSG-controlled dual-use nuclear items to states seeking nuclear technology for peaceful purposes. The proposal has garnered increasing support. Bush also recommended creating a special committee charged with handling safeguards and verification mechanisms within the IAEA.

**Canada**, in a statement to the 2004 PrepCom,<sup>5</sup> went even further than the U.S. proposal in suggesting that the Additional Protocol be made a mandatory component of Article III of the NPT, which currently only requires non-nuclear-weapon states to accept IAEA comprehensive safeguards. Canada sees the framework of the NPT as the most effective context for strengthening adherence to the Additional Protocol, rather than within the NSG.

**Germany** backed the idea of making mandatory the Additional Protocol for NSG exports in its working paper on "compliance" to the 2004 PrepCom.<sup>6</sup> **New Zealand**, at the 2000 Review Conference, also suggested that "[c]onsideration should be given to the acceptance of the Additional Protocol as a condition for the supply of nuclear material, as soon as the adherence of a larger number of States was achieved."<sup>7</sup> **Belgium**, the **Netherlands** and **Norway** submitted a working paper to the 2004 PrepCom<sup>8</sup> that also supports this proposal, as do **Luxembourg's**<sup>9</sup> and **Austria's**<sup>10</sup> 2004 PrepCom reports on implementation of the NPT. The **United Kingdom**<sup>11</sup> and **Australia**<sup>12</sup> both expressed their support for making mandatory the Additional Protocol within the NSG during the General Debate of the 2004 PrepCom, and **Turkey**<sup>13</sup> approved of the proposal at the 59th session of the First Committee in 2004.

The **European Union**, in a statement to the 2004 PrepCom,<sup>14</sup> said that EU member states were "working towards making the Additional Protocol a condition of supply for nuclear exports." **Japan** too, in a working paper to the 2004 PrepCom,<sup>15</sup> endorsed the idea of making mandatory the ratification of the Additional Protocol for states seeking nuclear fuel imports, noting that "its ratification should be required as a condition" as signing would not suffice.

Prime opponents to mandating the Additional Protocol as a condition of nuclear supply within the NSG export system include **Argentina** and **Brazil**,<sup>16</sup> importers of nuclear materials that have not yet ratified the Additional Protocol, and **France** and **Russia**,<sup>17</sup> that both manufacture and export civilian nuclear reactors. According to the position of the Russian government, the Additional Protocol should only be made a condition for NSG exports of enrichment and reprocessing technologies.

Many states support calls for universalization of the Additional Protocol. **Japan**, in particular, leads efforts to enhance wider adherence, as seen in working papers submitted to the 2002 and 2003 PrepComs.<sup>18</sup> In the discussion of safeguards issues at the 2004 PrepCom, an appeal for universal acceptance of the Additional Protocol also came from the **New Agenda Coalition**, **France**, **Russia**, **South Korea**, and many others. **IAEA Director-General Mohamed ElBaradei** has also called for universal adherence to the Additional Protocol in successive statements to the IAEA General Conference.

**Japan** proposed a Plan of Action for strengthening IAEA safeguards at the IAEA Forty-Fourth General Conference in 2000. This plan was updated by the IAEA in 2003. Japan also hosted the International Conference on Wider Adherence to Strengthened IAEA Safeguards in December 2002 (with the IAEA), at which states pressured nuclear-weapon states and EU states to ratify the Additional Protocol as soon as possible and agreed to establish the informal group, "Friends of the Additional Protocol."

In December 2004, the United Nations released the final report of the **Secretary-General's High-Level Panel on Threats, Challenges and Change**,<sup>19</sup> a study requested by the secretary-general in late 2003 to examine the major security threats and challenges currently faced by the global community. The report, "A More Secure World: Our Shared Responsibility," recommends that "the IAEA Board of Governors... recognize the Model Additional Protocol as today's standard for IAEA safeguards" and asserts that "the Security Council should be prepared to act in cases of serious concern over non-compliance with non-proliferation and safeguards standards."

Another UN report, released in March 2005 by UN **Secretary-General Kofi Annan** in anticipation of a September 2005 world summit reviewing progress toward the goals of the Millennium Declaration,<sup>20</sup> cites the Additional Protocol as a key nonproliferation measure. The report, entitled "In Larger Freedom: Towards Development, Security and Human Rights for All," says that "the verification authority of the...[IAEA] must be strengthened through universal adoption of the Model Additional Protocol" but does not outline a specific approach to achieving the Additional Protocol's universality.

An Action Plan on Nonproliferation adopted by the **Group of Eight (G-8)** at a summit meeting in June 2004 similarly pledged to work toward universalization of the Additional Protocol. It stressed that “[t]he Additional Protocol must become an essential new standard in the field of nuclear supply arrangements” and further vowed “to strengthen NSG guidelines accordingly” by the end of 2005, though did not elaborate on what such supply arrangements could be.

While expressing support for the Additional Protocol and comprehensive safeguards, some states caution against overemphasizing verification at the risk of restricting the development of peaceful

nuclear energy programs by non-nuclear-weapon states. The **Nonaligned Movement** stated in a 2002 PrepCom working paper,<sup>21</sup> “We do not desire to see international efforts towards achieving universality of comprehensive safeguards wither in favor of pursuing additional measures and restrictions on non-nuclear weapons states...which have renounced the nuclear weapons option.” **China** also echoed this concern in a 2003 working paper,<sup>22</sup> saying that “[u]ndue emphasis must not be placed on the Agency’s safeguards functions at the expense of its work to promote international cooperation in the peaceful uses of nuclear energy.”

# Nuclear Fuel Cycle

The right to use nuclear energy for civil purposes constitutes one of the fundamental provisions of the NPT. For many non-nuclear-weapon states, many of them developing nations, the option to pursue nuclear energy is considered crucial to the achievement of energy independence and economic subsistence. At the same time, certain nuclear fuel cycle activities, such as uranium enrichment and plutonium reprocessing, can not only be used to fuel nuclear reactors for energy production, but to produce the fissile material necessary to make nuclear bombs. Presently, there is no provision in the NPT that bars a state from withdrawing from the treaty and using its “peaceful” nuclear facilities for military purposes. Several states have acquired nuclear weapons or the nuclear material to make them using technologies obtained under the guise of civil uses, including India, Pakistan, Israel, and North Korea.

Thus, although many states believe that access to dual-use technologies should be further restricted and more closely monitored, others caution that excessive controls on access to the full nuclear fuel cycle may unfairly deprive developing countries of technologies related to “peaceful” nuclear energy production. (Also see Export Controls and Interdiction section.)

## Background

- Currently, 15 nations have or are suspected of having a complete fuel cycle, meaning uranium-enrichment or plutonium reprocessing facilities, which could enable them to produce fissile material for nuclear weapons.<sup>23</sup> According to ElBaradei in September 2004, some 40 states have the know-how to produce nuclear weapons and could do so if they have fissile material or the capability to produce fissile material.<sup>24</sup>
- Article IV, paragraph 1 of the NPT guarantees “the inalienable right of all the Parties to the Treaty to develop research, production, and use of nuclear energy for peaceful purposes without

discrimination and in conformity with Articles I and II of this Treaty.” Paragraph 2 of Article IV further underscores that each NPT state-party “undertake[s] to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.”

- In a televised address in early February 2004, Pakistani scientist Abdul Qadeer Khan admitted to having secretly supplied designs and/or parts for equipment necessary to manufacture nuclear bombs to Iran, Libya, and North Korea. Further investigation has begun to unravel the clandestine supply network of A. Q. Khan, but the disclosure highlights the difficulty of containing sensitive aspects of the nuclear fuel cycle.
- ElBaradei announced in June 2004 that he was appointing a group of experts, chaired by former head of IAEA safeguards Bruno Pellaud, to assess and report back on the possibilities for multinational control of the international fuel

cycle (see below). The final report of this group of experts was released in late February 2005 and will be circulated at the 2005 NPT Review Conference.

### Key Proposals and State Positions

In his address to the National Defense University in February 2004, **President Bush** proposed that the NSG (see Export Controls and Interdiction section), which currently has 44 member nations, agree only to sell nuclear technology and equipment that can be used to enrich uranium and reprocess plutonium to countries already possessing such facilities. Bush argued the case for this proposed measure, saying that “[p]roliferators must not be allowed to cynically manipulate the NPT to acquire the material and infrastructure necessary for manufacturing illegal weapons.” According to Bush, states seeking such technology could instead purchase nuclear fuel “at reasonable cost.”

Currently, under the G-8 Action Plan on Nonproliferation, announced on June 9, 2004, G-8 leaders have agreed to a one-year moratorium on new transfers of uranium-enrichment and reprocessing technology to states that do not already possess such capabilities. This hold on new transfers was described as an interim step while the G-8 discusses further control measures.

Many states are skeptical of the U.S. proposal to ban sales of enrichment and reprocessing technology to states that do not currently possess such full-scale facilities. In a related but less ambitious counter-proposal, the **United Kingdom**<sup>25</sup> has suggested that states in violation of their NPT safeguards agreements should have their right to nuclear energy technology revoked. These countries would be allowed to continue running their civilian nuclear power plants, but would have to import nuclear fuel from countries that have fulfilled their safeguards obligations and are allowed to produce such fuel. The United Kingdom’s proposal was supported by the report of the **Secretary-General’s High Level Panel on Threats, Challenges and Change**, released in 2004, and reportedly by France.

**France** has further argued that nations seeking to import enrichment and reprocessing technologies should have to demonstrate valid economic justification for pursuing such peaceful nuclear programs. This idea is part of a larger approach to the fuel cycle dilemma that holds that the international community should judge a state’s need for such technologies through applying a rigorous set of criteria.

**ElBaradei** in May 2004 remarks to the Council on Foreign Relations<sup>26</sup> questioned the viability of the Bush administration’s proposed denial of enrichment and reprocessing technologies to states currently not in possession of such technologies, given that the

NPT guarantees non-nuclear-weapon states access to nuclear technology for peaceful purposes. In a February 2, 2005 op-ed in the *Financial Times*,<sup>27</sup> which reiterates various earlier proposals, ElBaradei proposed a five-year moratorium on building new uranium-enrichment and plutonium-separation facilities while other solutions to the fuel cycle dilemma are assessed. He said such a hold must be accompanied by a commitment on the part of “the countries that already have the facilities to guarantee an economic supply of nuclear fuel for bona fide uses.”

Some states are wary of the ElBaradei-proposed five-year hold on new enrichment and reprocessing facilities. They suggest it could give rise to monopolies on the supply of nuclear fuel by countries that currently possess these technologies and are concerned that it would curtail the ability of non-nuclear-weapon states to pursue peaceful nuclear power programs should such a moratorium become permanent. **Iran**, which is seeking to build its own uranium-enrichment capability, shares some of these fears. Other states, including **Australia, Brazil, Canada, and Japan**,<sup>28</sup> which either supply or are seeking to build nuclear fuel facilities, oppose a moratorium for other reasons. The **United States**<sup>29</sup> does not support the ElBaradei proposal for a five-year moratorium, in part because it would prohibit new enrichment facilities in the United States as well as abroad.

**ElBaradei** has also repeatedly espoused the idea of “multilateralizing” the nuclear fuel cycle, which would entail placing existing or new nuclear facilities, such as enrichment and reprocessing plants, under multilateral rather than national control. First explored in the late 1970s and early 1980s, ElBaradei revisited the idea in the fall of 2003 at the IAEA General Conference<sup>30</sup> and has since reiterated his proposals to the 59th Session of the UN General Assembly<sup>31</sup> and in numerous other statements. The concept has yet to be thoroughly debated in the NPT context.

The ElBaradei-commissioned **Expert Group Report on “Multilateral Approaches to the Nuclear Fuel Cycle,”**<sup>32</sup> released February 22, 2005, cites five approaches to strengthening international controls over sensitive dual-use nuclear technologies. These include reinforcing existing commercial mechanisms on a case-by-case basis; using the IAEA or other authority as a guarantor for international supply; pursuing the voluntary conversion of existing nuclear facilities to multilateral approaches as confidence-building measures within the NPT; encouraging multilateral approaches for new nuclear facilities; and, should the spread of nuclear technologies call for such measures, developing a nuclear fuel cycle under multilateral control, by region or continent, and involving the IAEA and international community.

States may comment on the proposals of the report at the 2005 Review Conference.

In his March 2005 report highlighting the most pressing global issues to be addressed at a 2005 summit by world leaders to review progress since the Millennium Declaration, **Kofi Annan** echoes some of the IAEA's recommendations to control the nuclear fuel cycle. The secretary-general contends that the

emphasis should be “on creating incentives for States to voluntarily forgo the development of domestic uranium-enrichment and plutonium-separation capacities, while guaranteeing their supply of the fuel necessary to develop peaceful uses” and recognizes that one solution could involve the IAEA as a guarantor for the supply of fissile material.

# Export Controls and Interdiction

Effective export control systems governing the transfer of nuclear materials and equipment that could be used in the manufacture of nuclear weapons are a key means of preventing weapons proliferation. Although the NPT allows only the transfer of nuclear technology to states with IAEA safeguards agreements in place, the international nonproliferation regime still struggles to coordinate differing national export policies. NPT states-parties have different priorities. Some emphasize the careful control of exported goods, while others seek to preserve supply and access to these technologies for “peaceful” purposes. Where export controls fail, interdiction measures, though more controversial for some states, also provide a means to halt the further spread of sensitive nuclear weapons-related goods. (Also see Nuclear Fuel Cycle section.)

## Background

- Article III, paragraph 2 of the NPT regulates the international supply of nuclear material for peaceful purposes. Under Article III, paragraph 2, “[e]ach State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article.” Safeguards as outlined under Article III, paragraph 1 govern activities inside states while Article III, paragraph 2 regulates transfers of relevant goods between states.
- The 35-member Zangger Committee, sometimes called the “NPT Exporters Committee,” evolved out of informal meetings among nuclear supplier states between 1971 and 1974 that were aimed at interpreting the language of NPT Article III, paragraph 2. This committee manages a “Trigger List” of nuclear export items that mandate the Article III safeguards requirement and identifies three conditions under which Article III of the NPT allows exports to non-nuclear-weapon states. Exports are to be used for peaceful purposes only, an IAEA safeguards agreement must be in place in the recipient state, and the receiving state must agree to apply the same conditions to retransfers of materials to other states.
- The NSG, established in 1975 as supplemental to the NPT regime, seeks to coordinate the export policies of 44 nuclear supplier member countries. NSG Guidelines, which are not legally binding for member states, detail which nuclear materials, technologies, and equipment are subject to export controls. A “Trigger List” is contained in Part 1 of the NSG Guidelines, and Part 2 governs the supply of dual-use goods, which are not managed by the Zangger Committee. The 1997 IAEA Model Additional Protocol (see Verification section) mandates state declarations regarding all exports and imports of NSG Trigger List items.
- The Final Document of the 2000 NPT Review Conference reaffirms certain fundamental NPT principles relating to nuclear exports. It urges states



to develop the appropriate national laws governing exports, not to transfer nuclear items to states not party to the NPT, and to increase transparency in export controls to build confidence among states. It also recommends that lists of items triggering IAEA safeguards be periodically reviewed and updated according to technological advances and again reaffirms that export restrictions should not hamper the development of peaceful nuclear energy.

- The Proliferation Security Initiative (PSI), announced by Bush on May 31, 2003, is a U.S.-led effort to better coordinate the interdiction of illicit shipments of nuclear, biological, and chemical weapons; their delivery systems; and related materials. The PSI depends on the willingness of a core group of countries that contribute legal, diplomatic, economic, and military resources to interdiction activities.
- UN Security Council Resolution 1540 on “Nonproliferation of weapons of mass destruction” (SC/RES/1540), proposed by the United States in September 2003 and unanimously adopted in April 2004, calls upon states to criminalize proliferation in their national legislation, enact stricter export controls, refrain from nuclear cooperation with nonstate actors, and secure sensitive nuclear materials within their borders. As of late March 2005, 105 nations had submitted reports to the Security Council detailing their implementation of the resolution.

## Key Proposals and State Positions

Many states envisage an eventual global nuclear export control system based on the current principles of the Zangger Committee. **France** presented this idea in a working paper to the 2004 PrepCom,<sup>33</sup> suggesting that “[c]onsideration should be given to universal control norms based on Zangger Committee Understandings.”

**ElBaradei**, in May 2004 remarks to the Council on Foreign Relations in New York, acknowledged that current export controls for nuclear items “are completely busted right now.” He then called for the IAEA to be given the legal authority to enforce export controls, suggesting that a global, legally binding export control regime, ideally treaty-based, would be beneficial. He also expressed the need for the regime to be more inclusive, as states such as India, Israel, Malaysia, and Pakistan that have the ability to export nuclear items are currently not members of either the NSG or Zangger Committee.

**Germany** submitted a working paper to the 2004 PrepCom on export controls<sup>34</sup> in which it requested that the IAEA define a certain minimum standard for

nuclear export controls addressing nuclear and non-nuclear or dual-use items. Germany also suggested that the IAEA dispatch teams of experts on nuclear export issues to countries requesting or perceived as needing export control assistance, the goal of which would be to report confidentially on the country’s export control system to the IAEA and recommend improvements.

The **Secretary-General’s High-Level Panel on Threats, Challenges and Change** recommends in its final report that “[h]igh priority...be accorded to consolidating, securing, and when possible eliminating potentially hazardous materials, and implementing effective export controls” and that “(t)he Security Council, acting under its resolution 1540 (2004), can offer States model legislation for security, tracking, criminalization and export controls, and by 2006 develop minimum standards for United Nations Member State implementation.”

A February 2005 report by nuclear experts of the **Carnegie Endowment for International Peace**, entitled “Universal Compliance: A Strategy for Nuclear Security,”<sup>35</sup> supports many key proposals on export controls, among them expanding the membership of existing export control regimes, mandating the Additional Protocol for receipt of nuclear goods (see Verification section), and supporting and expanding the PSI to cover shipments through international waters and airspace. The report also recommends the “reform [of] existing export control regime operations by requiring notices of all sensitive exports, moving away from consensus rule making, establishing cooperative reviews of export control implementation, and considering penalties within export control systems for noncompliance.”

Non-NPT states **India** and **Pakistan** have expressed less favorable views on export controls. In a statement to the 59th session of the First Committee in 2004,<sup>36</sup> **India** warned that “[m]easures aimed at expanding or perpetuating the existing regimes of export controls and technology denials will hinder peaceful applications of nuclear technologies and reinforce the existing divide between the nuclear and non-nuclear States by creating a new class of haves and have-nots.”

**Pakistan**, in a statement to the Security Council on the adoption of Resolution 1540 in April 2004,<sup>37</sup> reminded that the resolution “did not seek to prescribe specific legislation which was left to national action by States.” Pakistan adopted an “Export Control Act” after the discovery of the Khan network engendered intense scrutiny of the country’s proliferation activities in early 2004, but the nation has still failed to grant concerned governments direct access to Khan.

Non-NPT state **Israel** also made a statement on export controls to the Conference on Disarmament

(CD) in 2004.<sup>38</sup> While acknowledging that it was not a member of any export control regimes, Israel pledged its commitment to strong national export controls over weapons-related technology and materials and claimed that its legislation put it “on an equal footing with the countries leading the struggle against proliferation and international terrorism.”

Concerning interdiction measures, the 2003 Statement of Interdiction Principles of the U.S.-led PSI has garnered support from 60 states. In a speech delivered February 11, 2004, **Bush** proposed strengthening the PSI by expanding its scope. Previously focused solely on interdicting shipments of nuclear, biological, and chemical weapons, delivery systems, and related materials, the United States proposed cooperation among PSI countries on the law enforcement front,

using existing mechanisms such as Interpol to catch proliferators and deter their activities.

Despite its growing acceptance, some states are wary of the U.S.-led PSI. **Cuba** issued a forceful denunciation of the PSI in a working paper to the 2004 PrepCom,<sup>39</sup> in which it held that “the PSI is a serious threat to multilateralism, cooperation and control in the area of non-proliferation of weapons of mass destruction” and expressed its fear that “[t]here would be no guarantee at all, that the prerogatives self-granted by the participants in the PSI may not be manipulated, particularly by States with greater military power, to act abusively against vessels and aircrafts of other States for different reasons.” **China** has also expressed concerns in the past over the legality of some PSI measures.

# Disarmament

The responsibility of nuclear-weapon states to work toward disarmament constitutes one of the most fundamental elements of the nonproliferation regime. In what is often referred to as the “core bargain” of the NPT, non-nuclear-weapon states surrender the option of pursuing nuclear weapons in exchange for the commitment by the five NPT-recognized nuclear-weapon states to pursue the complete elimination of nuclear weapons. The text of the NPT, however, is not specific about how this obligation is to be fulfilled, making it difficult to assess progress toward the implementation of disarmament obligations. As a result, states have sought to update how disarmament principles and objectives should be defined at review conferences, specifically through agreement on further political commitments at the 1995 and 2000 Review and Extension Conferences. Non-nuclear-weapon states criticize the reluctance of nuclear-weapon states to undertake disarmament measures while nuclear-weapon states maintain that the overall cuts made since the height of the Cold War demonstrate their dedication to these disarmament obligations.

## Background

- Years after the NPT’s entry into force, each of the five nuclear-weapon states continues to possess both strategic and tactical nuclear weapons. The arsenals of China, France, and the United Kingdom number in the hundreds, while Russia and the United States each maintain arsenals of around 5,000 or more strategic warheads, numerous operational tactical warheads, and thousands of additional stockpiled strategic and tactical warheads. (See Appendix 4.)
- Article VI of the NPT commits states-parties 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.”
- At the 1995 Review and Extension Conference, states-parties reaffirmed, in paragraph 4(c) of the Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament,” the importance of “[t]he determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goals of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control.”
- Paragraphs 4(a) and 4(b) of the 1995 Review and Extension Conference’s Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament” also state that full realization and implementation of Article VI include an “effectively verifiable Comprehensive Nuclear Test Ban Treaty” and a “convention banning the

production of fissile material for nuclear weapons.” (See Nuclear Testing section.)

- At the 2000 NPT Review Conference, all states-parties unanimously adopted “13 Practical Steps on Nonproliferation and Disarmament” outlining further areas for progress on nuclear-weapon state disarmament. In Step 6 of the 13 Steps, the nuclear-weapon states committed to “an unequivocal undertaking...to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.”
- Step 9 of the 13 Steps outlines a variety of approaches to disarmament, including unilateral reductions, increased transparency in reductions, further reduction of nonstrategic nuclear weapons, reduced operational status of nuclear weapons systems, a diminished role for nuclear weapons in security policies, and intra-nuclear-weapon state engagement in negotiations on the total elimination of nuclear weapons.
- Step 4 of the 13 Steps agreed to at the 2000 Review Conference suggests “establishing in the [Conference on Disarmament (CD)] an appropriate subsidiary body with a mandate to deal with nuclear disarmament.”
- SORT, signed in 2002 by the United States and Russia, commits the two nations to reduce their operationally deployed strategic nuclear warheads, or those warheads that are mated to delivery vehicles and ready for launch, to between 1,700 and 2,200 by 2012 and reaffirms that both countries are “mindful of their obligations under Article VI.” SORT does not, however, require the dismantlement of these nuclear warheads and does not ensure that such reductions are irreversible, meaning it leaves open the option of redeployment of such weapons after SORT expires on December 31, 2012.
- The 59th session of the UN First Committee in 2004 adopted six resolutions by varying vote counts speaking explicitly to Article VI disarmament commitments (discussed further below).
- The only agreements covering tactical nuclear weapons are the 1991/1992 Presidential Nuclear Initiatives, declared by U.S. President George H. W. Bush on September 27, 1991, Soviet President Mikhail Gorbachev on October 5, 1991, and Russian President Boris Yeltsin in 1992. These “reciprocal unilateral commitments” led to the

withdrawal of substantial numbers of forward-deployed nuclear weapons.

- Successive First Committee resolutions on the “reduction of non-strategic nuclear weapons,” the most recent of which was sponsored by the New Agenda Coalition in 2003 (A/RES/58/50), call for enhanced tactical nuclear weapons disarmament measures, such as the solidifying of unilateral commitments in legally binding instruments.

## Key Proposals and State Positions

While the majority of non-nuclear-weapon states demand accelerated progress on nuclear disarmament by nuclear-weapon states and a recommitment to the goal of the eventual elimination of nuclear weapons, nuclear-weapon states continue to claim that they are doing enough. Furthermore, **France**, the **United Kingdom**, and **China** maintain that further cuts from the larger arsenals of the **United States** and **Russia** must be undertaken before reductions in their arsenals will take place.

The **United States** cites the need for stricter compliance with the NPT by non-nuclear-weapon states as a prerequisite for further nuclear-weapon state disarmament measures. The United States, along with **France**, has also questioned the validity of the political commitments to nuclear disarmament established at the 2000 Review Conference. Under Secretary of State for International Security and Arms Control John Bolton told the third PrepCom on April 27, 2004 that “[w]e cannot divert attention from the violations we face by focusing on [disarmament] issues that do not exist.”<sup>40</sup> Also at the 2004 PrepCom, the United States blocked consensus on an agenda for the 2005 Review Conference by insisting that the 2000 disarmament commitments should not be formally referenced.

Many non-nuclear-weapon states note that the NPT was indefinitely extended on the basis of the commitment of nuclear-weapon states to fulfill their Article VI disarmament obligations and have expressed frustration with the pace of progress on nuclear disarmament by these nuclear-armed states. The **foreign ministers of the New Agenda Coalition** states have warned that, “if the nuclear-weapon states continue to treat nuclear weapons as a security enhancer, there is a real danger that other states will ponder [whether] they should do the same.”<sup>41</sup>

Non-nuclear-weapon states have also been joined by **China** and **Russia** in publicly denouncing ongoing U.S. research on new and modified nuclear weapons. China’s ambassador told the 2004 PrepCom that “research and development of new types of easy-to-use nuclear weapons...not only run counter to international trends, but also do harm

to international nonproliferation efforts.”<sup>42</sup> U.S. Assistant Secretary of State for Arms Control Stephen Rademaker acknowledged to the same PrepCom meeting that the United States was engaged in such research, but said that it is “not developing any new nuclear weapons” and that “looking at options says nothing about what we will do.”<sup>43</sup> Although Article VI of the NPT calls for “effective measures relating to cessation of the nuclear arms race,” the Bush administration insists that nothing in the NPT prohibits the United States from carrying out nuclear weapons exploratory research or from developing and fielding new or modified nuclear warheads.

The disarmament principles asserted in the 13 Steps of the Final Document of the 2000 Review Conference are supported by three consecutive working papers submitted to the PrepComs by the **New Agenda Coalition**<sup>44</sup> and by a New Agenda Coalition resolution to the 2004 session of the First Committee entitled “Accelerating the implementation of nuclear disarmament commitments” (A/RES/59/75). In the General Assembly, this resolution garnered 151 votes in favor, 6 against, and 24 abstentions. Of the nuclear-weapon states, **China** voted in favor, **Russia** abstained, and **France**, the **United Kingdom**, and the **United States** voted against.

In accordance with Step 4 of the 13 Steps, many states support establishing a subsidiary body or ad hoc committee in the CD to deal with nuclear disarmament. Movement on this proposal, however, remains blocked in the CD absent a program of work on which all states can agree. Should the CD adopt the “Five Ambassadors’ Initiative,” or the A5 Proposal set forth by the **ambassadors of Algeria, Belgium, Chile, Colombia, and Sweden**,<sup>45</sup> an ad hoc committee on nuclear disarmament would be created along with committees on three other contentious CD issues. Nuclear-weapon states are generally noncommittal regarding the establishment of a subsidiary body on disarmament in the CD.

Many states, most notably those of the **Nonaligned Movement**, emphasize the need for specific articulations by nuclear-weapon states of the time-frame needed for the complete elimination of their nuclear arsenals, possibly in the form of a Nuclear Weapons Convention. At the 2004 PrepCom,<sup>46</sup> the Nonaligned Movement called for the convening of a conference to conclude a timeline for the phased elimination of nuclear weapons by nuclear-weapon states, a call that was supported by many other states. The Nonaligned Movement has also submitted successive resolutions on “Nuclear disarmament” (A/RES/59/77) reiterating the 13 Steps and requesting nuclear-weapon states to engage in “plurilateral negotiations among themselves at an appropriate stage on further deep reductions of nuclear weapons.” The resolution has for the past two

years reaped more than 40 votes against it, mainly by allies of nuclear-weapon states and NATO states that see time-bound disarmament commitments as unrealistic.<sup>47</sup>

**India** sponsors an annual resolution entitled “Reducing nuclear danger” (A/RES/59/79), which highlights the threat posed by nuclear weapons on hair-trigger alert and stresses that the ultimate objective is the elimination of nuclear weapons. The resolution also recalls that the use or threat of use of nuclear weapons constitutes a violation of the Charter of the United Nations and that nuclear-weapon states should “adopt measures that assure non-nuclear-weapon States against the use or threat of use of nuclear weapons,” thereby reaffirming negative security assurances (NSAs) as a further key in the disarmament process. The 59th General Assembly adopted this resolution in 2004 by a vote of 116 to 46, with 18 abstentions. **China** and **Russia** abstained, while **France**, the **United Kingdom** and the **United States** voted against it.

**Japan** sponsors an annual First Committee resolution entitled “A path to the total elimination of nuclear weapons” (A/RES/59/76). The most recent version of the resolution calls on nuclear-weapon states to take further steps to unilaterally reduce their arsenals of strategic and nonstrategic weapons, reduce the operational status of nuclear weapons systems, increase transparency, diminish the role of nuclear weapons in policy, support the CTBT and a fissile material cutoff treaty (FMCT), and engage “in the process leading to the total elimination of their nuclear weapons.” The sole votes against this resolution in the General Assembly came from the **United States, India, and Palau**, although India’s negative vote was based on its reluctance to accede to the NPT, which is called for in the resolution.

The **United States** and **Russia** typically approach disarmament through a bilateral framework. Accordingly, the two countries sponsored “Bilateral strategic nuclear arms reductions and the new strategic framework” (A/RES/59/94) in the 57th and 59th First Committees in 2002 and 2004, which heralds SORT as the cornerstone to the two countries’ approaches to disarmament and recognizes reductions to date, the disposition of fissile material by both countries, and the 1991 and 1992 presidential initiatives concerning tactical nuclear reductions. It makes no further declaration, however, of future reductions to take place. The resolution was adopted by consensus.

Many states, among them those of the **Nonaligned Movement** and **New Agenda Coalition**, view SORT as a welcome but insufficient step toward fulfillment of Article VI obligations. Contrary to some of the principles of disarmament outlined in the 13 Steps, SORT includes no provisions for verification or

irreversibility, meaning that alleged reductions in deployed strategic warheads cannot be validated and are not required to be maintained after the treaty's reduction deadline of 2012. Many also note that SORT does not include provisions for reductions in tactical nuclear weapons.

**Austria, Mexico, and Sweden** jointly submitted a working paper to the 2003 PrepCom<sup>48</sup> on tactical nuclear weapons reductions, in which they proposed that the presidential directives of the early 1990s be formalized into a legally binding framework. They also suggested prohibiting certain types of nonstrategic weapons. Many of the same points were reiterated in a working paper submitted by **Austria,**

**Sweden, and Ukraine** in 2004<sup>49</sup> and in a statement by **Germany** to the 2002 PrepCom session.<sup>50</sup>

Many of the above disarmament measures were reiterated in **Kofi Annan's** March 2005 report, entitled "In Larger Freedom: Towards Development, Security, and Human Rights for All," which claims that nuclear-weapon states "must do more." The secretary-general calls for further reductions in nonstrategic nuclear weapons, for arms control agreements "that entail not just disamentlement but irreversibility," and for related disarmament measures such as the commitment by nuclear-weapon states to NSAs, the conclusion of an FMCT, and the entry into force of the CTBT.

# Fissile Material

The production and stockpiling of fissile material, which can be used to produce nuclear weapons, poses one of the greatest challenges to the nonproliferation regime. These materials, consisting of highly enriched uranium (HEU) and plutonium, have both military and civil uses and continue to fuel many nuclear reactors worldwide. Although four of the five NPT-recognized nuclear-weapon states currently observe unilateral moratoria on the production of fissile material for weapons purposes, more non-nuclear-weapon states are developing the technology necessary to produce fissile material for nonmilitary applications. Furthermore, much of the existing stockpile of fissile material remains inadequately safeguarded and vulnerable to theft, thereby contributing to the risk of horizontal proliferation and terrorist acquisition of nuclear weapons materials.

## Background

- As of 2003, stocks of fissile materials were present in nearly 60 countries worldwide, amounting to a total of more than 3,700 metric tons of plutonium and HEU.<sup>51</sup> Russia and the United States maintain the largest military stocks of both materials, although the remaining nuclear-weapon states each possess significant amounts of plutonium and HEU for military and civil purposes. Gaps in data on existing fissile material holdings complicate estimates, and only a few states report regularly to the IAEA on their stockpiles.
- Article IV of the NPT affirms “the inalienable right of all Parties to the Treaty to develop, research, production and use of nuclear energy for peaceful purposes without discrimination” and states that “[a]ll the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.”
- Article III of the NPT requires that each non-nuclear-weapon state “accept safeguards” under the IAEA for the purposes of “preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices.” Each state-party is also prohibited from transferring nuclear technology “unless the source or special fissionable material shall be subject to the safeguards required by this Article.”
- In response to its failure to discover Iraq’s clandestine nuclear program in the early 1990s, the IAEA drafted the 1997 Model Additional Protocol (also see Verification section), to be signed and ratified by all NPT member states in addition to the safeguards agreement already required under Article III.
- In 1995, informal consultations among governments in the CD produced the Shannon Mandate,<sup>52</sup> a report by Canadian Ambassador Gerald E. Shannon that calls for an ad hoc committee to negotiate a nondiscriminatory, multilateral, and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. A “non-discriminatory and

universally applicable convention banning the production of fissile material for nuclear weapons” was also cited as an important disarmament measure in Decision 2 of the 1995 Review and Extension Conference.

- In Step 3 of the 13 Steps included in the Final Document of the 2000 Review Conference, all states affirmed “the necessity of negotiations” in the CD on a multilateral and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices and called for “the immediate commencement of negotiations in the Conference on Disarmament on such a treaty with a view to their conclusion within five years.” Step 10 also calls for “arrangements by all nuclear-weapon states to place as soon as practicable, fissile materials designated by each of them as no longer required for military purposes under IAEA [inspection]... for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programs.”
- Under the 1996 Trilateral Initiative among the United States, Russia, and the IAEA, excess U.S. and Russian fissile materials are placed under IAEA verification to ensure their peaceful disposition. A number of bilateral initiatives between the United States and Russia also oversee excess fissile material disposition.
- The Cooperative Threat Reduction (CTR) program between the United States and Russia, created through 1991 legislation sponsored by U.S. Senators Sam Nunn (D-Ga.) and Richard Lugar (R-Ind.), directs resources to safeguard, secure, and dispose of fissile material and other materials used in nuclear, chemical, and biological weapons in the former Soviet Union. In 2004 the U.S. Congress allocated \$409 million for the CTR program. The program was expanded in 2002 under the newly created G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, whose member states pledged to spend a total of \$20 billion over a period of 10 years on threat reduction efforts.
- On May 26, 2004, U.S. Secretary of Energy Spencer Abraham announced the launch of the Global Threat Reduction Initiative (GTRI), an initiative of the United States, with the cooperation of Russia and the IAEA, that aims to repatriate Russian- and U.S.-origin fissile materials from more than 40 countries around the world and eliminate the use of HEU in civilian nuclear programs. The United States plans to dedicate more than \$450 million to

the GTRI, but the funds are essentially drawn out of existing Department of Energy programs.

- Other U.S. programs that target fissile material production or stockpiles have met with considerable obstacles in recent years. In particular, bilateral programs aimed at disposing of excess plutonium in Russia and the United States have been delayed as the two countries have been unable to negotiate a mutually acceptable liability arrangement for U.S. contractors working in Russian facilities. A U.S. program to shut down Russia’s remaining plutonium production reactors is finally underway, with a tentative completion date of 2011.
- Four of the five nuclear-weapon states recognized under the NPT have observed moratoria on the production of fissile material for weapons purposes: the United States since 1991, Russia since 1994, the United Kingdom since 1995, and France since 1996. India and Pakistan continue to produce fissile material, while Israel’s production status is unclear.

### Key Proposals and State Positions

Viewed as a key instrument in the achievement of both disarmament and nonproliferation objectives, many states are eager to begin negotiations in the CD on a nondiscriminatory, multilateral, and internationally and effectively verifiable FMCT that would end the production of fissile material for weapons purposes. An FMCT, proponents argue, would effectively cap the size of nuclear weapons arsenals of the five recognized nuclear-weapon states and the three outside the treaty: India, Israel, and Pakistan. Some states would prefer a fissile material treaty (FMT) that would also address existing stockpiles. The linkage of other CD issues to the FMCT or FMT question, however, has for years stalled progress toward the negotiation of such a treaty. New complications in the start of FMCT talks caused by the **United States’** new policy will likely make it a focal point of discussion at the 2005 Review Conference.

In August 2004, **China** dropped its long-standing insistence that any CD work program must include agreement on negotiations on a treaty on the prevention of an arms race in outer space (PAROS). But in July 2004, the U.S. representative to the CD, Jackie Sanders, announced the **United States’** opposition to FMCT talks at the CD if the goal of such talks was to conclude an effectively verifiable treaty. She declared to the CD in the July statement that “[t]he U.S. Policy Review...raised serious concerns that realistic, effective verification of an FMCT is not achievable.”<sup>53</sup>



Many other states, however, voiced support for FMCT negotiations in the CD during its 2004 session. **Australia, Bangladesh, Canada, Japan, Norway, Poland, Slovakia, Sri Lanka, and Turkey** all stated their backing for a verifiable FMCT as described in the Shannon Mandate (see above) at that session.<sup>54</sup>

Some states, such as **Bangladesh**<sup>55</sup> and **Egypt** in 2004; **Algeria, Egypt, Iran, and Pakistan** during the negotiation of the Shannon Mandate in 1995<sup>56</sup>; and **Mexico, Norway**, and others in intervening years, have further contended that such a treaty should be extended to address existing stockpiles of fissile material in addition to halting future production. They espouse the idea of an FMT and not simply a cutoff treaty.

The necessity of FMCT negotiations was also addressed at the 59th session of the UN First Committee in 2004, where **Canada** submitted a draft resolution calling for negotiations of an FMCT in accordance with the Shannon Mandate. The resolution (A/RES/59/81) was supported overwhelmingly in the 59th session of the General Assembly, with only the **United States** and **Palau** voting against and **Israel** and the **United Kingdom** abstaining.

**Israel** also voiced doubt over FMCT efficacy, saying that an FMCT would not address issues of NPT compliance or fuel cycle reform and arguing instead that “an overall priority in non-proliferation should be assigned to developing a new effective non-proliferation arrangement pertaining to the nuclear fuel cycle.”<sup>57</sup>

The **United Kingdom**, which had abstained on the Canadian FMCT resolution in 2004, cited concerns that, “as currently worded, the resolution

divides the international community.”<sup>58</sup> Still, the United Kingdom reassured the CD that it remained committed to an effectively verifiable FMCT.

The final report of the UN **Secretary-General’s High-Level Panel on Threats, Challenges, and Change** also urges the CD to “move without further delay to negotiate a verifiable” FMCT. But the panel goes further than the CD mandate for FMCT negotiations in proposing a ban on all production of HEU “for non-weapon as well as weapons purposes.” In a similarly expansive proposal, the **Carnegie Endowment for International Peace**, in its final report, “Universal Compliance: A Strategy for Nuclear Security,” suggests ending the production of all HEU, not merely capping such production as would the proposed FMCT, and implementing a “pause” in the separation of plutonium.

The UN panel report also suggests accelerating the timeline for the GTRI’s work, specifically for projects to convert reactors running on HEU and to reduce HEU stockpiles, from 10 years to five years. Similar calls for speedier action on threat reduction efforts, among them GTRI activities, reverberate from within governments and from numerous nongovernmental sources.

**Germany**, in a working paper to the 2002 PrepCom,<sup>59</sup> proposed the creation of a global inventory of military fissile material usable in nuclear weapons, saying that currently more than 3,000 metric tons of fissile material remained in weapons stockpiles. In a complementary proposal, the GTRI calls for a comprehensive database of research reactors and an assessment of “materials and sites relative to vulnerability to sabotage, theft, or terrorist attack.”

# Nuclear Testing

For decades, a global prohibition on nuclear testing has been recognized as one of the most important contributions to the nuclear disarmament and nonproliferation regime. Most states support the 1996 CTBT and consider it to be a reinforcing measure for the NPT. Supporters of the CTBT have used the NPT forum, as well as the UN First Committee and the CD, to push for the additional ratifications necessary to achieve CTBT entry into force. Many states also note that the indefinite extension of the NPT at the 1995 Review and Extension Conference was premised on an agreement between states to conclude and bring into force as quickly as possible the CTBT. To date, the CTBT still requires ratification by 11 of the key 44 nuclear-capable states before it can enter into force.<sup>60</sup>

## Background

- The Preamble of the NPT underscores the need “to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end.”
- Under the CTBT, concluded and opened for signature in 1996, each state will undertake “not to carry out any nuclear weapon test explosion or any other nuclear explosion and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control.” Article XIV of the CTBT holds that the treaty will only enter into force after all 44 states deemed nuclear-capable, listed in Annex II of the treaty, have ratified it.
- The Comprehensive Test Ban Treaty Organization (CTBTO) Preparatory Commission was established in 1997 by signatories to the treaty. Its goals are to facilitate the entry into force of the CTBT and establish and maintain the International Monitoring System (IMS) and the rules and procedures for on-site inspections to verify compliance with the treaty.
- Paragraph 4(a) of the 1995 Review and Extension Conference Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament” calls for “completion by the Conference on Disarmament of the negotiations on a universal and internationally and effectively verifiable Comprehensive Nuclear-Test-Ban Treaty no later than 1996.” It also urges states to “exercise utmost restraint” pending the entry into force of the CTBT.
- Nuclear test explosions in India and Pakistan in May 1998 were widely condemned by the international community. In response, the UN Security Council passed a resolution (S/RES/1172) deploring the tests and reaffirming the importance of the NPT and CTBT.
- The Final Document of the 2000 Review Conference, in its section addressing Article VI of the NPT, “reaffirms that the cessation of all nuclear-weapon-test explosions or any other nuclear explosions will contribute to the non-proliferation of nuclear weapons in all its aspects.”
- The first step of the 13 Steps agreed to at the 2000 Review Conference notes “[t]he importance and urgency of signatures and ratifications, without delay and without conditions and in accordance

with constitutional processes” of the CTBT. Step 2 calls for a continued moratorium on nuclear testing pending entry into force of the CTBT.

- A joint ministerial statement reaffirming support for the CTBT was sponsored by the governments of Australia, Japan, and the Netherlands in September 2002 and signed by the foreign ministers of 50 states. A second joint ministerial statement sponsored by Australia, Finland, Japan, and the Netherlands was released in 2004 and signed by the ministers of 42 countries.
- Three Conferences on Facilitating the Entry into Force of the CTBT, also known as Article XIV Conferences, have been held. The goal of these conferences, which are open to both signatory and nonsignatory states to the CTBT, has been to urge ratification by states not party to the treaty and reaffirm current moratoria on nuclear testing.
- The 59th session of the General Assembly overwhelmingly passed a First Committee resolution on the CTBT in 2004 (A/RES /59/109) by 177 votes in favor to 2 against (the United States and Palau), with 4 abstentions. This is the most recent of multiple resolutions on the CTBT, all of which have met with close to unanimous support. Many additional First Committee resolutions on disarmament reference the CTBT.

## Key Proposals and State Positions

A vast majority of states propose and support early entry into force of the CTBT, linking a prohibition of nuclear test explosions to successful disarmament measures and the eventual achievement of a nuclear-weapon-free world. The testing and CTBT issue achieved firm declarations of support throughout all three PrepCom sessions leading up to the 2005 NPT Review Conference.

Although U.S. President Bill Clinton was the first to sign the CTBT in September 1996, the **United States** is now one of the few states that has not yet ratified the treaty. In fact, the U.S. Senate became the first and only legislature to reject ratification of the treaty on October 13, 1999. Following the Senate vote, U.S. Secretary of State Madeleine Albright announced that the United States would continue to respect its obligations as a signatory to the CTBT. Since taking office, the Bush administration has said it does not support the CTBT but does not have plans to resume U.S. nuclear testing and has vowed to continue the U.S. 1992 unilateral moratorium on testing.

The U.S. Nuclear Posture Review released in early 2002 asserted that the United States could not

guarantee an indefinite and legally binding ban on testing, for “[i]ncreasingly, objective judgments about capability in a non-testing environment will become far more difficult.” During the 58th session of the UN First Committee in 2003, the United States stated in its Explanation of Vote (EoV) on a draft resolution on the CTBT that, “as we have made clear before, the United States does not support [the CTBT]...and will not become a party to that treaty.”<sup>61</sup> This was followed, however, by a firm reaffirmation of support for the voluntary moratorium on testing.

Despite reassurances that a moratorium will be observed, however, U.S. research on new and modified types of nuclear weapons that could require testing, as well as U.S. efforts to increase preparedness at the Nevada Test Site to reduce the time necessary to resume nuclear testing, have led many states to question the U.S. commitment to the continuation of the test moratorium.

The only other NPT-recognized nuclear-weapon state not yet party to the CTBT is **China**. Chinese representatives have nevertheless consistently expressed support for the treaty<sup>62</sup> and claimed to be near ratification. At a CTBT conference in 2003, the Chinese delegate reported that China’s top legislature was “performing its due ratification formalities”<sup>63</sup> in hopes of ratifying the treaty at an early date. Still, this position is widely believed to mean that China is awaiting ratification by the United States.

The **United Kingdom** and **France**, which both ratified the CTBT in 1998, have maintained their support for CTBT entry into force. France has taken the additional step of mothballing its former nuclear test sites in the South Pacific. **Russia** ratified the CTBT in 2000 and has utilized its status as a CTBT and NPT member state to openly criticize the U.S. position toward the CTBT. Russia’s representative asserted in a 2002 PrepCom statement<sup>64</sup> that, should the United States not reverse its position on the treaty, “[a]n alternative to that can become not only a crisis of the said Treaty, but also of the whole regime based on the CTBT.”

Other key countries that have consistently backed the CTBT at NPT meetings and elsewhere include **Australia**,<sup>65</sup> **Canada**,<sup>66</sup> and **Japan**.<sup>67</sup> **Australia**, **Mexico**, and **New Zealand** were the co-sponsors of the First Committee resolution on the CTBT in 2003 and 2004.

Some states argue that “a special responsibility in this endeavor lies on the nuclear-weapon States,” as stated by **Belgium**, the **Netherlands**, and **Norway** in 2003.<sup>68</sup>

Other states are more forceful in their criticism of states blocking CTBT entry into force. **Brazil**, which prides itself on having been one of the first states to sign and ratify the CTBT, issued a statement in 2003<sup>69</sup> noting that “there are no favorable prospects” for

the treaty's entry into force. Brazil drew attention to the fact that non-nuclear-weapon states are already committed to the principle of not testing by their mere status as non-nuclear-weapon states, while nuclear-weapon states currently have no such binding commitment and are the only states with the possibility to test. Such a situation, according to Brazil, "goes against the idea behind a universal and comprehensive test ban treaty" and "unduly reproduces the imbalances already contained in the NPT."

The **Nonaligned Movement** similarly denounced the U.S. position on the CTBT at the September 2003 Conference on Facilitating the Entry into Force of the CTBT. Malaysia, speaking on behalf of the Nonaligned Movement, read a statement expressing disappointment at the U.S. Senate's decision not to ratify the treaty and declaring that nuclear-weapon states should lead by example on the CTBT issue.<sup>70</sup>

Some CTBT Annex II states, on whose ratification the treaty depends for entry into force, have expressed their willingness to achieve ratification of the treaty in their national legislatures. **Vietnam**,<sup>71</sup> speaking to the 59th session of the First Committee in 2004, said it was "completing necessary procedures" for ratification, and **Colombia**<sup>72</sup> remarked on its constitutional and legal obstacles hampering ratification.

Support for the CTBT's IMS, the treaty's verification mechanism, has also been voiced during the lead-up to the 2005 Review Conference by states that see effective verification as essential for the treaty's credibility. **Israel**, however, was not so supportive. In its EoV on the 2004 CTBT resolution in the First Committee,<sup>73</sup> Israel conditioned its acceptance of the CTBT on the development of an IMS that, although effective in detecting noncompliance, should also "be immune to abuse and allow every State Signatory to protect its national security interests."

Non-NPT states have also communicated their stances on nuclear testing. **Pakistan** voted in favor of the 59th UN First Committee resolution supporting the entry into force of the CTBT and commented in its EoV that "[a]cceptance of the CTBT obligations on a regional basis in South Asia will also facilitate its entry-into-force."<sup>74</sup> **India** abstained on this resolution, but has declared in the past that it will not block the CTBT's entry into force and reaffirms that it continues to observe a testing moratorium.<sup>75</sup> **North Korea**, for its part, was absent for the votes on the First Committee resolution on the CTBT and has not taken a firm stance on the treaty, but has voted positively on resolutions that, among other things, call for the treaty's early entry into force.

# Negative Security Assurances

Negative security assurances, which have been a perennial issue under the NPT ever since the treaty's inception, are commitments that nuclear weapons will not be used against a non-nuclear-weapon state. Widely viewed both as an incentive for states not to seek nuclear weapons as well as a concrete step toward disarmament, NSAs create an advantageous climate of trust between NPT states-parties that have forgone nuclear weapons and the NPT-recognized nuclear-armed states. Nevertheless, although non-nuclear-weapon states press for stronger NSAs, nuclear-weapon states remain for the most part opposed to codifying these commitments, maintaining that existing, nonbinding declarations are sufficient.

## Background

- In early April 1995, all five nuclear-weapon states made statements to the CD offering voluntary NSAs to non-nuclear-weapon states party to the NPT.<sup>76</sup> These statements represent only politically binding commitments, however, and in some cases include important caveats allowing for the use of nuclear weapons under certain circumstances.
- On April 11, 1995, just a few weeks prior to the 1995 Review and Extension Conference, the UN Security Council passed Resolution 984 taking note of the voluntary security assurances nuclear-weapon states had previously offered and recognizing “the legitimate interests” of non-nuclear-weapon states to receive NSAs from nuclear-weapon states in the context of the NPT. The resolution does not mandate such assurances.
- Paragraph 8 of the 1995 Review and Extension Conference’s Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament” states that “further steps should be considered to assure non-nuclear-weapon States party to the Treaty against the use or threat of use of nuclear weapons.” It was suggested that “[t]hese steps could take the form of an internationally legally binding instrument.”
- The International Court of Justice in July 1996, at the request of the UN General Assembly, handed down its advisory opinion on the “Legality of the Threat or Use of Nuclear Weapons.” The court concluded that, barring in extreme circumstances of self-defense, the use or threat of use of nuclear weapons is “generally contrary” to international law.
- The Final Document of the 2000 Review Conference notes that “the total elimination of nuclear weapons is the only absolute guarantee against the use or threat of use...[and] that legally binding security assurances by the five nuclear-weapon states to the non-nuclear-weapon states... strengthen the nuclear non-proliferation regime.” The conference then requested “the Preparatory Committee to make recommendations to the 2005 Review Conference on the issue.”
- Among the resolutions adopted at the 59th session of the UN First Committee in 2004 addressing NSAs (discussed below) is the

resolution “Conclusion of effective international arrangements to assure non-nuclear weapon States against the use or threat of use of nuclear weapons” (A/RES/59/64), passed in the General Assembly by a vote of 118 to 0, with 63 abstentions. The resolution “recommends that the Conference on Disarmament actively continue intensive negotiations with a view to reaching early agreement and concluding effective international arrangements to assure the non-nuclear-weapon States against the use or threat of use of nuclear weapons, taking into account the widespread support for the conclusion of an international convention and giving consideration to any other proposals designed to secure the same objective.”

- NSAs have also been extended through some treaty-based nuclear-weapon-free zones (NWFZs). The treaties establishing many NWFZs contain protocols that encode NSAs as an extra source of security for the non-nuclear-weapon states party to these zones. (See Nuclear-Weapon-Free-Zone section.)

### Key Proposals and State Positions

Many non-nuclear-weapon states are eager to transcend the mere political assurances currently offered by the nuclear-weapon states by commencing negotiations on international and legally binding NSAs. Such negotiations could take place at the CD, which would include non-NPT members India, Pakistan and Israel, or within the context of the NPT, which would allow only the officially recognized nuclear-weapon states to grant assurances and only non-nuclear-weapon states to receive them. Expressing the desire shared by many non-nuclear-weapon states, **Norway’s** representative said to the CD on June 24, 2004, “It is our hope and belief that the nuclear weapon states will take the concerns of the non-nuclear weapon states seriously into account when NSAs are dealt with in the future, whether it is in the context of the CD or the nuclear Non-Proliferation Treaty.”<sup>77</sup>

The **New Agenda Coalition** submitted a working paper in 2003<sup>78</sup> calling for NSAs to be negotiated in the context of the NPT. The paper includes exemptions for those states which “are members of security arrangements/alliances that rely on the nuclear capability of nuclear-weapon States as an integral part of their defence strategy.” The New Agenda Coalition paper also calls for provisions for Security Council action if an NSA beneficiary is threatened or attacked with nuclear weapons and includes a draft agreement that serves as a foundation for future negotiations on codified NSAs.

A 2003 statement by the **Nonaligned Movement heads of state** reaffirms the need for “a universal, unconditional, and legally binding instrument on security assurances [which] should be pursued as a matter of urgency.” The statement also affirms “that legally binding security assurances to non-nuclear-weapon states parties to the NPT would strengthen the regime.”<sup>79</sup>

A handful of **Nonaligned Movement** states<sup>80</sup> were also the primary co-sponsors of the First Committee’s 2004 resolution on the “Conclusion of effective international arrangements to assure non-nuclear weapon States against the use or threat of use of nuclear weapons” (A/RES/59/64) (see above). Several other 2004 First Committee resolutions call for some form of NSAs, among them the **Nonaligned Movement’s** “Nuclear disarmament” (A/RES/59/77), adopted in the General Assembly by a vote of 117 to 43 with 21 abstentions, and two **India**-sponsored resolutions: “Convention on the Prohibition of the Use of Nuclear Weapons” (A/RES/59/102), adopted by a vote of 125 to 48 with 12 abstentions, and “Reducing nuclear danger” (A/RES/59/79), passed with 116 votes in favor, 46 against, and 18 abstentions. The first of these Indian resolutions (A/RES/59/102) suggests that NSAs should be negotiated in the Conference on Disarmament, while the Nonaligned Movement resolution does not specify a preferred context for such an instrument.

**North Korea** issued a statement to the CD on February 12, 2004, in which it emphasized that NSAs, in the context of the NPT, would strengthen the treaty’s appeal and bestow on it a greater degree of balance. North Korea’s representative commented that “[u]nconditional security assurance against the use of nuclear weapons to Non-Nuclear States becomes a vital issue for nuclear disarmament and in the context of the purpose of the Nuclear Non-Proliferation Treaty.”<sup>81</sup>

**Iran** submitted a working paper to the 2002 PrepCom<sup>82</sup> that cites the United States’ early 2002 Nuclear Posture Review (see below) as justification for codified NSAs and calls for NSAs to be negotiated in the CD, without any conditions.

With the exception of **China**, **most nuclear-weapon states** continue to believe that the political assurances provided by their 1995 statements to the CD (and subsequently recognized under Security Council Resolution 984) remain sufficient, thereby viewing as unnecessary any mechanism that would mandate or encode NSAs in a legally binding manner.

**China** is the only nuclear-weapon states to offer unconditional NSAs and has a long-standing no-first-use policy. In a 2004 PrepCom working paper,<sup>83</sup> China reaffirmed that nuclear-weapon states “should undertake...not to use or threaten to use nuclear weapons” against non-nuclear-weapon

states or NWFZ states “at any time or under any circumstances” and called for “an international convention on the no-first-use of nuclear weapons and international legal instrument on no use or threat to use nuclear weapons” against non-nuclear-weapon states or NWFZs to be “concluded as soon as possible.” China’s working paper also called for the establishment of an ad hoc committee on NSAs at the CD to discuss the NSA issue.

**Russia** recognized that many NSAs given by nuclear-weapon states had already taken on a legally binding nature under the protocols to existent NWFZ treaties. At the 2004 PrepCom session,<sup>84</sup> Russia expressed a preference for the CD as a context for an agreement on NSAs and further stated that it would support “a global negative security assurances agreement at the Conference on Disarmament, provided it contains reservations concerning cases in which nuclear weapons may be used.”

The **United Kingdom**, also in a statement to the 2004 PrepCom,<sup>85</sup> said that “the way forward” on NSAs would be through NWFZs, “which will provide, on a credible, regional basis, the internationally binding legal instruments on NSAs that many are looking for.” The United Kingdom confirmed that, although it would not object to including NSAs as a subject in the CD’s program of work, “[a] general assurance to Non Nuclear Weapon States Party to the NPT has already been given, and there is no need to repeat or elaborate it.”

At the 2000 Review Conference, the **United States** delegation asserted that, although “[m]any continue to press for the negotiation of a global treaty to provide negative security assurances or to make Security Council assistance automatic... the fact is that there is no consensus that would allow such ideas to be accepted.”<sup>86</sup> The United States said it continued to endorse its 1995 political commitment to NSAs and its assurances as offered through treaty-based NWFZs.

In January 2002, the **United States** released its most recent Nuclear Posture Review, a Department of Defense report evaluating U.S. nuclear force requirements and missions. While maintaining respect for Security Council Resolution 984, the NPR identifies “contingencies for which the United States must be prepared” to respond with nuclear-strike capabilities, among them states such as North Korea, Iran, Iraq, Libya, and Syria.

Less than a year after the release of its Nuclear Posture Review, the **United States** unveiled its *National Strategy to Combat Weapons of Mass Destruction* and Bush signed National Security Directive (NSPD) 17. The strategy states that the United States “reserves the right to respond with overwhelming force—including through resort to all of our options—to the use of weapons of mass destruction (WMD) against the United States, our forces abroad, and friends and allies.” The reference to “overwhelming force” is widely understood to include nuclear weapons. While previously the United States had only hinted at the possible use of nuclear weapons in response to any form of WMD attack, the new National Strategy solidifies this option as official U.S. policy and calls into question the United States’ willingness to strictly abide by its stated negative nuclear security assurances.

The 2004 final report of the **UN Secretary-General’s High-Level Panel on Threats, Challenges and Change** recommends that “[t]he nuclear-weapon States... should reaffirm their previous commitments not to use nuclear weapons against non-nuclear-weapon States,” but does not call for formal codification of these assurances. In the case of the threat or use of nuclear weapons against a non-nuclear-weapon state, the 16-member panel recommends that the Security Council should “take collective action in response.”

# Nuclear-Weapon-Free Zones

The establishment of NWFZs advances regional and global security outside of the NPT context by solidifying the peaceful nuclear-weapon-free status of a certain group of countries. The question of how to effectively promote such zones, however, has proven to be controversial. Building on the momentum created in 1995, discussion of NWFZs at the 2005 Review Conference is expected to focus on the prospects for a nuclear-free Middle East, with many states calling on Israel to accede to the NPT as a non-nuclear-weapon state and others placing the priority on regional treaty compliance and the Middle East peace process. The 2005 discussion of NWFZs may also reference South and Central Asia and Central Europe, where states have proposed or initiated NWFZ treaty negotiations.

## Background

- There are currently five treaty-based NWFZs worldwide that provide model frameworks for the negotiation of new NWFZs. These govern the regions of Africa, Antarctica, Latin America and the Caribbean, Southeast Asia, and the South Pacific, although signatures and ratifications in the African NWFZ are still necessary for its entry into force. Mongolia has also declared itself nuclear-weapon-free, though its status has not been formalized in a treaty regime.
- Article VII of the NPT allows for the negotiation of NWFZs. It states that “[n]othing in this treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.”
- The 1995 NPT Review and Extension Conference produced a Resolution on the Middle East, co-sponsored by Russia, the United Kingdom, and the United States, calling on Middle Eastern states to “take practical steps in appropriate forums aimed at making progress towards...the establishment of an effectively verifiable Middle East zone free of weapons of mass destruction” and inviting all other states to act in support of this goal.
- The Final Document of the 2000 Review Conference reaffirms the importance of NWFZs and notes that all states in the Middle East are party to the NPT except Israel. It also requests that all states in the region conclude comprehensive safeguards agreements with the IAEA and encourages all states, particularly nuclear-weapon states, to report prior to 2005 on steps taken toward promoting a NWFZ in the Middle East.
- Egypt has sponsored a UN First Committee resolution on establishing an NWFZ in the Middle East every year since 1974 (the 59th session version of this resolution is A/RES/59/63). It has been adopted by consensus every year since 1980.
- The UN Disarmament Commission adopted in 1999 a document (A/54/42) outlining a series of principles to guide the negotiation of NWFZ treaties and to facilitate interaction between states party to such treaties and states from outside the region. Among these guidelines are requests that NWFZs be negotiated in conformity with international law and that states concluding such a zone consult with nuclear-weapon states during the negotiation process.
- Brazil put forward a First Committee resolution in 2003 entitled “Nuclear-weapon-free southern



hemisphere and adjacent area” (A/RES/58/49), in which it suggests convening an international conference for signatories and states-parties to NWFZs. Mexico sponsored this resolution (A/RES/59/85) in 2004 and has since announced that it intends to host a first-ever conference of signatories and states-parties to NWFZ treaties April 26–28, 2005.

- Five Central Asian nations met in September 2002 to draft a treaty establishing a Central Asian Nuclear-Weapon-Free Zone, which was welcomed by a First Committee resolution the following month (A/RES/57/69) and discussed in a working paper<sup>87</sup> submitted to the 2004 PrepCom by these nations. The treaty has not yet been opened for signature.

### Key Proposals and State Positions

All states commenting on the issue of NWFZs express support and encouragement for the creation of new nuclear-weapon-free or WMD-free zones. Yet not all states in existing nuclear-weapon-free regions have ratified the appropriate NWFZ treaty, and not all nuclear-weapon states have ratified the protocols to these NWFZs. Conflicts of interest between states are also apparent in the differing proposals set forth for how to properly promote an NWFZ, or what some states prefer to call a zone free of WMD, in the Middle East and, to a lesser extent, South Asia.

Of the five existing NWFZs, only the Treaty of Pelindaba covering the **African continent** has not yet entered into force, as it awaits ratification by nine additional states. Many NWFZ treaties also contain protocols concerning NSAs and nuclear testing issues that are to be ratified by the nuclear-weapon states. The **Association of Southeast Asian Nations** took the lead in pushing for ratification of the Southeast Asia NWFZ (SEANWFZ) protocol on NSAs in 2004 when it submitted to the third PrepCom a working paper<sup>88</sup> on the subject, but the SEANWFZ treaty has not yet acquired any nuclear-weapon state ratifications on its protocol. Of the remaining four treaties, only **France**, **China**, and the **United Kingdom** have ratified all applicable protocols.

Concerning a Middle East NWFZ (MENWFZ), most states believe that the primary obstacle to its achievement is the undeclared yet long-assumed nuclear capability of **Israel**, a nonparty to the NPT. Many maintain that Israel’s accession to the NPT would pave the way to a nuclear-weapon-free Middle East. Among those states most prominent in calling on Israel to join the NPT as a non-nuclear-weapon state are **Australia**, **Canada**, **China**, **Egypt**, other states of the **Arab League**, and the members of the **New Agenda Coalition**. **Iran** is particularly adamant on this point, stating in a 2004 PrepCom report<sup>89</sup>

that “unconditional adherence of Israel to the NPT... would, undoubtedly, lead to the early realization of the NWFZ in the Middle East.”

But some states, notably the **United States**, prefer to pursue a “Zone Free of Weapons of Mass Destruction” in the Middle East rather than a “Nuclear-Weapon-Free Zone” so as to avoid exclusive focus on the threat of nuclear weapons in the region and to address the problem of suspected biological and chemical weapons programs in some states of the region. **Israel**, which did not oppose earlier calls for a MENWFZ in the Middle East, noted at the CD in 2003 that it wished to establish a “mutually verifiable zone free of ballistic missiles and of biological, chemical, and nuclear weapons.”<sup>90</sup>

Although it officially supports a zone free of WMD in the Middle East, the **United States** focuses on the issue of NPT compliance as the primary impediment to progress toward that goal. This is clear in a U.S. document submitted to the 2004 PrepCom,<sup>91</sup> which states that “the continued effort by Iran to pursue a nuclear weapons capability represents...a major roadblock to prospects for a WMD-free zone in the Middle East.” This statement prompted **Iran** to respond that “Israel’s unsafeguarded facilities and nuclear arsenal is the only obstacle to the establishment of a nuclear weapon free zone in the Middle East.”<sup>92</sup> The United States, among other countries, also argues that pursuing a peace process in the Middle East region will create the environment necessary for promoting a WMD-free zone.

**Canada** and other states also feel that the conclusion of comprehensive safeguards agreements with the IAEA by the Middle Eastern states that have not yet done so (Bahrain, Oman, Qatar, and Saudi Arabia), would greatly enhance the possibility of a nuclear-weapon-free Middle East.

**Mexico’s** 2004 resolution on a nuclear-weapon-free southern hemisphere and adjacent area calls on states to “consider all relevant proposals” on establishing NWFZs in the Middle East and South Asia. That resolution was adopted at the 59th session of the General Assembly by a vote of 171 to 4 with 8 abstentions. Although the **United States**, the **United Kingdom**, and **France** all voted against the resolution, the only EoV came from India,<sup>93</sup> whose abstention was premised on objection to the reference made to a possible NWFZ in South Asia. India argued that a South Asian NWFZ “logically, has no more validity than NWFZs in East Asia, Western Europe, or North America.”

Disagreement between those states pushing for accession to the NPT by the three current nonparties and those wishing to ensure regional NPT compliance as the precursor to new WMD- or nuclear-weapon-free zones is likely to dominate discussion of NWFZs at the 2005 Conference.

# Missile Defense

The 2002 withdrawal of the United States from the 1972 Anti-Ballistic Missile (ABM) Treaty, followed by the U.S. announcement of its development of a national and international missile defense system, rekindled debate on missile defense in the larger nonproliferation forum. Linked explicitly to the disarmament obligations of the nuclear-weapon states by the 13 Steps, to which states committed themselves in the Final Document of the 2000 Review Conference, missile defenses are seen by many states as detrimental to the NPT regime in that they detract from long-term disarmament goals, stymie efforts to prevent an arms race in outer space, and contribute to an atmosphere of mistrust. Still, the issue is unlikely to become a sticking point for any particular delegation at the 2005 Review Conference as states have little means of reopening consideration of the ABM Treaty by its two parties.

## Background

- The 1972 ABM Treaty, negotiated as part of the Strategic Arms Limitation Talks (SALT) between the United States and Russia, prohibited both nations from deploying national missile defense systems against strategic ballistic missiles. Both parties agreed in the treaty's preamble that limitations on missile defenses would help curb the strategic offensive arms race.
- In the 13 Steps agreed to at the 2000 Review Conference, Step 7 addresses the early entry into force of the STARTs and calls for "preserving and strengthening the ABM Treaty as a cornerstone of strategic stability."
- The United States announced its withdrawal from the ABM Treaty in December 2001, effective June 2002, citing the need to develop a national missile defense system to protect the American citizenry from potential nuclear, chemical or biological attack from a terrorist entity or "rogue" state. The U.S. move nullified the ABM Treaty.

- Since the mid-1980s, proposals have been forwarded at the CD on the possibility of negotiating a treaty on PAROS. A 2004 First Committee resolution on PAROS (A/RES/59/65), like many similar past resolutions, called on states to use outer space only for peaceful means and to resume negotiating multilateral agreements related to PAROS in the CD, where debate of the issue has been long stalled. The resolution was adopted in the General Assembly by a vote of 178 to 0, with 4 abstentions.

## Key Proposals and State Positions

Many states both quietly and publicly condemned the U.S. move to withdraw from the ABM Treaty, maintaining that the treaty was the "cornerstone of strategic stability." States further cautioned that a national missile defense system could stall progress on disarmament and instigate an arms race either on earth or in outer space.

**China** has been particularly forceful in denouncing missile defenses, and its sharp criticisms of the U.S.

withdrawal from the ABM Treaty and development of missile defense capabilities have spilled over into the NPT forum. In a working paper to the 2003 PrepCom,<sup>94</sup> China commented that “the maintenance of global strategic stability...is crucial for nuclear disarmament” and that “[m]issile defence programmes should not upset global strategic balance and stability, nor undermine international and regional peace and stability.”

**Russia** has also spoken out against U.S. missile defense activity, affirming in a statement to the 2002 PrepCom that “[a]ll are very well familiar with the fact that Russia qualified the unilateral U.S. decision to withdraw from the ABM Treaty as a wrong step.”<sup>95</sup> But Russia also was “convinced that in the resulting situation it is necessary to reflect an interconnection between strategic offensive and defensive armaments in a new arrangement,” citing a July 2001 meeting between Russian President Vladimir Putin and Bush in which Bush offered to discuss further strategic offensive arms reductions alongside discussion of a possible national missile defense system.

The **Nonaligned Movement**, in a working paper to the 2003 PrepCom,<sup>96</sup> was “concerned that the implementation of a national missile defence system could trigger an arms race(s) and the further development of advanced missile systems and an increase in the number of nuclear weapons.” This reflected similar comments at the 2002 PrepCom.<sup>97</sup>

The **New Agenda Coalition** commented to the 2003 PrepCom<sup>98</sup> that the abrogation of the ABM Treaty “has impacted negatively on strategic stability as an important factor contributing to and facilitating nuclear disarmament,” a position voiced also by **Cuba**.<sup>99</sup> At the 2002 PrepCom, **Egypt** said that the withdrawal by “one of the State parties” to the ABM Treaty caused an “additional element of uncertainty” with negative consequences for disarmament.<sup>100</sup> **Iran**, during the same session, noted “with sorrow” that nuclear-weapon states were developing national missile defense systems,<sup>101</sup> as did **China**.<sup>102</sup>

The missile defense systems currently under development by the **United States** rely on satellites for tracking and communications purposes. The Bush administration initially had plans to deploy up to five space-based interceptors for testing purposes by 2008,

but has shelved that plan for now as it concentrates on more near-term, terrestrial-based systems. If the United States resumes its pursuit of space-based interceptors, some states believe this could lead to an arms race in outer space.

**China** commented in a statement to the 2004 First Committee<sup>103</sup> that weapons in space “would result in a series of grave fallouts: breaking strategic balance, undermining international and national security, damaging existing arms control treaties...and triggering an arms race.” **Russia** has also, like China, expressed strong objections to the deployment of weapons in space. It announced at the 2004 First Committee that Russia would not be the first to deploy weapons in outer space and called on other states to adopt similar policies.

Acting on these concerns, many states press for a treaty prohibiting the development, deployment, or use of any weapon in space. **China** and **Russia** jointly submitted two nonpapers to the CD in 2004 concluding that existing outer space treaties were insufficient to prevent the weaponization of space<sup>104</sup> and detailing possible verification mechanisms for a new international legal instrument prohibiting an arms race in outer space.<sup>105</sup> Other nations, notably **Canada**, voiced support for the Chinese and Russian approaches. The **European Union** took a more neutral approach, opposing weapons in space yet suggesting only the commencement of negotiations on the topic. Many have requested that an ad hoc committee be established within the CD to examine the PAROS issue, as proposed in the A5 agenda.

Despite general condemnation of the ABM Treaty's abrogation, anxiety over the U.S. development of national missile defense, and the potential for an arms race in outer space as a result of an ambitious missile defense posture, the missile defense topic was virtually dropped from NPT discussions by the 2004 PrepCom except for passing reference to the 13 Steps. A return to the issue may depend on states' ability to generate new and innovative proposals for reinforcing strategic stability in the absence of a formal regime prohibiting missile defense systems and their willingness to resume negotiations on a treaty on the prevention of an arms race in outer space in the CD.

# NPT Withdrawal

As the NPT is currently observed, a state may withdraw from the treaty regime if its supreme national interests are in jeopardy. Unless the UN Security Council takes action, a state may escape responsibility for any prior violations committed while party to the treaty and retain access to controlled nuclear materials and equipment, which could be used for weapons purposes. The January 2003 announcement by North Korea, or the Democratic People's Republic of Korea, of its intention to withdraw from the NPT marked the first and only instance of withdrawal in the treaty's 35-year history. Although states-parties have not agreed to any single interpretation of North Korea's current status under the NPT, its assertion elicited immediate condemnation from the international community and has since incited vibrant discussion over how to avoid and respond to any future declarations of NPT withdrawal.

## Background

- Article X of the NPT allows a state to withdraw "if it decides that extraordinary events...have jeopardized the supreme interests of its country." The NPT requires that the state wishing to withdraw give three months' advance notice.
- North Korea's NPT withdrawal, announced January 10, 2003, in a statement by the news agency KCNA in Pyongyang, declared "an automatic and immediate effectuation of its withdrawal from the NPT." It asserted that it would now be "totally free from the binding force of the Safeguards Accord with the IAEA." The action was justified "[u]nder the grave situation where our state's supreme interests are most seriously threatened."
- The IAEA Board of Governors passed a resolution on February 12, 2003, in response to North Korea's withdrawal, deciding to report North Korea to the Security Council as having violated its treaty safeguard obligations. The Security Council did not take action against North Korea.

- The Chairman's Working Paper of the 2004 PrepCom<sup>106</sup> notes the request of states-parties that "the 2005 Review Conference consider the further strengthening of the NPT against withdrawal and non-compliance, including through the establishment of procedures and mechanisms towards that end."

## Key Proposals and State Positions

The relative ease with which North Korea withdrew from the NPT, coupled with the mounting evidence of its nuclear weapons programs, raised serious concerns among states-parties for the stability of the treaty regime as a whole. Although many states independently contend that North Korea should continue to be held accountable for violations committed while party to the treaty, no mechanisms exist for enforcing such an interpretation of the treaty's principles, a perceived shortcoming that has sparked review and analysis of the NPT framework itself.

One of the most comprehensive series of proposals set forth to deal with the issue of NPT withdrawal

comes from **Germany**, in a working paper submitted to the 2004 PrepCom.<sup>107</sup> This working paper presents both proposals for reforming the process of withdrawal and for guiding state reactions to declarations of withdrawal.

Concerning the process of withdrawal, Germany recommends (1) requiring states contemplating withdrawal to submit to other NPT states “written information setting out the concerns that led it to contemplate withdrawing”; (2) requiring states “to conduct prior consultations with NPT-state parties before exercising its right” to withdrawal; (3) developing a possible list of criteria defining the “extraordinary event” that would allow a state to withdraw; and (4) determining that withdrawal cannot be exercised when a state is judged in noncompliance with the treaty.

Regarding states’ responses to withdrawal, Germany suggests (1) encouraging countries supplying nuclear fuel or other materials and equipment to stipulate in their delivery agreements that the items supplied remain under IAEA safeguards if a state withdraws; (2) reaffirming the understanding that “nuclear equipment, technology, and know-how” obtained under Article IV of the NPT remain restricted to peaceful uses only and subject to safeguards; (3) encouraging supplier countries and the IAEA to consider establishing the right to reconstitute supplied nuclear items from a state withdrawing; (4) enacting a provision calling for the shutdown of nuclear facilities in states that withdraw; and (5) deciding that “a state withdrawing from the NPT is still accountable for breaches or acts of non-compliance committed while still being a party to the NPT.”

**France** also contends that states withdrawing from the NPT should remain responsible for violations committed while party to the treaty and stated in a working paper to the 2004 PrepCom<sup>108</sup> that the Security Council is the “relevant international framework for taking decisions in such a context.” France further proposes that states withdrawing should no longer be allowed to use nuclear materials, facilities, equipment, or technologies acquired from a third party before withdrawal and that such items “should be returned to the supplying State, frozen or dismantled under international verification.” Lastly, France argues that intergovernmental agreements on the transfer of nuclear items should forbid the use of these transferred nuclear items, and other items produced from such materials, in the case of withdrawal.

**ElBaradei** proposed in May 2004 the creation of a UN Security Council “response mechanism”

to deal with countries that withdraw from the NPT, suggesting automatic sanctions as only one example. He then stated in a February 12, 2004, op-ed published in the *New York Times* that the goal was to prevent any country from withdrawing from the treaty. ElBaradei suggested that, “[a]t a minimum, notice of NPT withdrawal should prompt an automatic review by the Security Council.”<sup>109</sup> The need for a swift and decisive Security Council reaction to a state’s declaration of NPT withdrawal was reiterated in the director-general’s February 2, 2005, op-ed in the *Financial Times*.<sup>110</sup>

The 2004 report of the **UN Secretary-General’s High-Level Panel on Threats, Challenges and Change** recommends that “[a] State’s notice of withdrawal from the (NPT) should prompt immediate verification of its compliance with the Treaty, if necessary mandated by the Security Council.” It further contends that “[t]he IAEA Board of Governors should resolve that, in the event of violations, all assistance provided by [the] IAEA should be withdrawn.”

Also within the framework of Security Council action to prevent or respond to state withdrawal from the NPT, the **Carnegie Endowment for International Peace’s** February 2005 report, “Universal Compliance: A Strategy for Nuclear Security,” suggests that the Security Council pass a resolution enshrining the principle that a state withdrawing from the NPT remains responsible for violations committed while party to the treaty. According to the Carnegie report, this resolution should also specify that any nuclear facilities, equipment, or materials acquired while party to the treaty must be dismantled or returned to the supplier state.

The **United States** has expressed reservations regarding the formalization of a series of automatic punishments for a state declaring its withdrawal from the NPT. In a speech by U.S. Principal Deputy Assistant Secretary of State for Nuclear Nonproliferation Andrew K. Semmel in December 2004 entitled “How Should the Regime Be Adjusted in a World Where Nine States Possess Nuclear Weapons?”<sup>111</sup> Semmel cautioned against “prescriptive approaches to this issue,” including any proposal that would require amending the NPT or would create new institutions that could detract from the authority of the Security Council and IAEA Board of Governors. Aside from such measures, however, the United States supports “notional principles” concerning withdrawal, such as the idea that states wishing to withdraw remain responsible for past treaty violations.

# Reporting

Reporting is viewed by many states as a key confidence-building measure that increases transparency and accountability in the international disarmament and nonproliferation regime. Currently, states are obligated to submit regular reports to the PrepComs and/or the review conferences on the implementation of Article VI. Some states, however, are not supportive of mandated reporting requirements, citing redundancy of efforts and other bureaucratic problems. Other critics view reporting as a “feel-good” measure that fails to significantly contribute to disarmament.<sup>112</sup>

## Background

- At the 1995 Review and Extension Conference, Decision 1 on “Strengthening the Review Process for the Treaty” suggests that future review conferences “evaluate the results of the period they are reviewing, including the implementation of undertakings of the States parties under the Treaty.” This decision laid the groundwork for greater state reporting.
- Under the 13 Steps included in the Final Document of the 2000 Review Conference, all NPT states-parties agreed to submit “[r]egular reports, within the framework of the NPT strengthened review process...on the implementation of Article VI and paragraph 4(c) of the 1995 Decision on ‘Principles and Objectives for Nuclear Non-Proliferation and Disarmament.’”
- At the 2002 PrepCom meeting, a debate over whether to include the issue of reporting on the agenda nearly brought the PrepCom to an early close. A working paper submitted by the New Agenda Coalition<sup>113</sup> facilitated an agreement by which all states-parties decided to include “agreements, conclusions and commitments” on the meeting’s agenda, which incorporated the issue of reporting.
- In the three PrepComs since the 2000 Review Conference, a growing number of states have

submitted reports on their NPT-related activities, albeit with varying content and format. At the 2003 PrepCom, 60 reports were submitted, up from 52 in 2002. At the 2004 PrepCom, 61 states reported either through submission of formal, written reports (36) or through general statements (25).

## Key Proposals and State Positions

Despite reaching agreement in 2000 that regular reporting would become an integral and important part of the NPT review process, some states object to the inclusion of reporting in special time set aside for disarmament matters in the NPT PrepComs, thinking it tedious and unnecessary. Nevertheless, many states continue to make some form of formal or informal declaration of their activities related to the NPT.

Canada’s working paper to the 2003 PrepCom<sup>114</sup> proposes the submission of “a comprehensive report that also addresses the implementation of the Treaty as a whole.” The Canadian paper suggests that “information in reports...be specific, not declaratory,” such as “legislative and regulatory activity; description of policy changes or other actions; diplomatic activity...the transfer or acquisition of nuclear materials; holdings of fissile material; reductions; dismantlements; de-alerting and deployment steps; nuclear facilities; holdings and production of nuclear weapons (including the numbers, types and yields of warheads, numbers and types of delivery vehicles);

operational status of weapons held; nuclear weapons doctrine and policies.”

Two **Canadian NGOs**, in conjunction with the Canadian government, held a roundtable discussion in June 2003 to evaluate trends in state reporting and recommend future steps to reinforce a “culture of accountability” for the NPT. The participants generally concluded that a broad approach to reporting should be adopted, in which reporting should be encouraged on all aspects of the treaty rather than on specific issues. Still, the roundtable emphasized that reporting on “national nuclear holdings and doctrines; descriptions of disarmament policies, initiatives, and programs; identification of advocacy and diplomatic priorities; and information on agreements reached and commitments undertaken” was the most useful.

Brazilian ambassador-at-large for disarmament affairs and **president of the 2005 Review Conference, Sergio de Queiroz Duarte**, stressed the importance of state-party reporting at future NPT PrepComs in an interview with *Arms Control Today* in December 2004.<sup>115</sup> He commented that reporting on Article VI should not only include details on disarmament accomplishments to date, but should indicate intended disarmament measures in the future.

The **United States** and **France** argue strongly against the inclusion of reporting in special time set aside for disarmament matters in the NPT PrepComs. They hold that “regular” is too ambiguous of a word and claimed in 2002 that they were not bound to submit reports to that year’s PrepCom. Furthermore, they reason, nuclear-weapon states already report through a variety of other means, and to require states to submit reports to the PrepCom during special time on disarmament would be useless and redundant. Some non-nuclear-weapon states, such as **Germany** in

2003, also cite redundancy in reporting as justification for their failure to submit formal reports. They feel that they have little to report that has not already been covered in past years’ submissions.

Although it opposes mandated reporting, the **United States** has submitted reports each year without officially referring to them as such. The U.S. delegation generally presents a summary of Article VI implementation through statements in the General Debate and alludes to disarmament progress in statements during cluster debates on disarmament; in 2003, the United States submitted an “Information Paper” with the same information.

**France**, another opponent to mandated reporting, has never submitted formal reports, but did “report” on Article VI progress in statements during both the General Debate and special time on Article VI in all three PrepCom meetings.

**China** only “reported” during its general statements in 2002, 2003, and 2004, as well as its Cluster I statement on disarmament in 2004.

**Russia** did not submit formal reports to the PrepComs, but spoke to the fulfillment of its Article VI obligations in 2002, 2003, and 2004 through statements to the General Debate and Cluster I on disarmament.

The **United Kingdom**, in line with the reporting habits of other nuclear-weapon states, “reported” all three years via general statements and statements during special time on Article VI or Cluster I debate on disarmament.

Some non-nuclear-weapon states have notably impeccable records on reporting. **Canada**, for instance, has reported on every salient issue under the NPT,<sup>116</sup> while countries such as **Brazil**, **Norway**, **Ireland**, and **New Zealand** also maintain good records on reporting.

# Disarmament and Nonproliferation Education

Education and training on the principles of nonproliferation and disarmament are an effective means through which to strengthen international security over the longer term. Educational measures could include academic courses, media events, or outreach activities, and may target the general public, policymakers, diplomats, or specific interest groups. State support for such measures often enhances their viability and thus contributes to their efficacy. Although a more recent issue on the NPT agenda, the urgency of disarmament and nonproliferation education was recognized in the UN General Assembly during the Cold War era, and support for further education efforts is on the rise in many disarmament fora today.

## Background

- The Final Document of the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Congress on Disarmament Education in 1980, building on references to the topic in the 1978 First Special Session on Disarmament in the UN General Assembly, was one of the earliest recognitions of disarmament and nonproliferation education. It stressed a holistic approach in which “disarmament education should be related to the lives and concerns of the learners and to the political realities within which disarmament is sought and should provide insights into the political, economic and social factors on which the security of peoples could be based.”
- A UN General Assembly resolution, adopted without a vote in November 2000 (55/33 E), requested the secretary-general to prepare a study on existing mechanisms for disarmament and nonproliferation education. The study was prepared over two years by a group of 10 governmental experts from Egypt, Hungary, India, Japan, Mexico, New Zealand, Peru, Poland, Senegal, and Sweden, who were joined by representatives from civil society, the UN Secretary-General’s Advisory Board on Disarmament Matters, and international organizations such as the CTBTO, IAEA, Organization for the Prohibition of Chemical Weapons, UNESCO, United Nations Children’s Fund, United Nations Institute for Disarmament Research, United Nations Development Fund for Women, and the United Nations University.
- The report of the group of experts, entitled “United Nations Study on Disarmament and Non-Proliferation Education” (A/57/124), was introduced by a UN First Committee resolution adopted by consensus in November 2002 (A/RES/57/60). The resolution calls on states, NGOs, international organizations and other entities to implement the report’s recommendations and suggests that the secretary-general report on their activities.
- Following the release of the above study, the secretary-general circulated a report at the 59th session of the UN First Committee in 2004 (A/59/178) summarizing the activities of states, NGOs, and international organizations relevant to the recommendations presented in the UN study.



## Key Proposals and State Positions

The secretary-general's "United Nations Study on Disarmament and Nonproliferation Education" contains 34 recommendations for enhancing the scope and effectiveness of disarmament education. These recommendations not only address actions to be taken by states, but by regional groups, international organizations, NGOs, media, religious organizations, and academic institutions. They speak of improving the dissemination of information, encouraging more disarmament-related academic curricula, organizing training and awareness programs, enhancing disarmament libraries and bibliographies, reaching out to the media, increasing interaction between international organizations and educators, utilizing electronic sources to engage and educate the public, and many other means of promoting disarmament and nonproliferation education.

The secretary-general's follow-up document in 2004 summarizing activities taken in accordance with the UN study's recommendations by states, NGOs, and international organizations included implementation reports of only a few countries. Those states that had reported to the secretary-general on their disarmament and nonproliferation education efforts by the time of the report's release were **Hungary, Mexico, New Zealand, Russia, Sweden, and Venezuela**. An addendum to this report included the activities of **Japan**.

The issue of disarmament and nonproliferation education was first raised and negotiated in the NPT context at the 2003 NPT PrepCom. A working paper

jointly submitted to this PrepCom by **Egypt, Hungary, Japan, Mexico, New Zealand, Peru, Poland, and Sweden** introduced the topic, calling such education an "underutilized tool."<sup>117</sup> A more detailed follow-up working paper was then circulated by these same states at the 2004 PrepCom,<sup>118</sup> which encourages state activities on disarmament education, such as training sessions and the development of specific curricula. The working paper also urges a greater exchange of relevant information, welcomes the creation of an interagency group in the UN Department for Disarmament Affairs (UNDDA) on disarmament and nonproliferation education, and asks states to give greater attention to the UN study on disarmament education at the 2005 Review Conference.

Some states have taken a more active lead than others in supporting nongovernmental or other efforts for disarmament and nonproliferation education. **Japan**, for one, initiated the submission of working papers at the 2003 PrepCom and reported on its own efforts related to education in a working paper to the 2004 PrepCom.<sup>119</sup>

**New Zealand** announced to the First Committee in 2004 that it had set aside annual funding to assist NGOs in implementing the recommendations of the "UN Study on Disarmament and Nonproliferation Education." New Zealand also commissioned the UN study.

At a meeting convened by UNIDIR and the UNDDA, several states informally discussed their efforts undertaken in accordance with the recommendations of the UN expert group's study.

# NGO Participation

**N**GOs and civil society groups provide a key avenue through which to gain the public's attention on disarmament and nonproliferation issues, exert pressure on government officials, and increase transparency around official proceedings. NGOs focused on disarmament and nonproliferation have historically been granted only limited access to the NPT review process, but their participation is on the rise as an increasing number of governments recognize the utility and efficacy of NGO input in the NPT forum. Dozens and sometimes hundreds of NGOs register at the PrepComs and review conferences to monitor and disseminate reports on the NPT process and to educate delegates, UN staffers, and the media through parallel events held at the UN complex.

## Background

- Rule 44, paragraph 4 of the Rules of Procedure for NPT Review Conferences, developed at the 1995 Review and Extension Conference, provides for NGO access to the plenary, where all states attend and many deliver their prepared remarks, and the Main Committees, which address more specific NPT articles or issues. NGOs have the ability to address delegates directly at NPT PrepComs and review conferences by delivering statements to the plenary meetings. In practice, however, NGOs have been shut out of cluster discussions at the PrepCom meetings, where NPT states debate individual NPT issues, even though the clusters fall under the Main Committees.
- At the 2004 PrepCom session, South Africa requested a point of order that clarified the erroneous interpretation of rule 44.4 in the Rules of Procedure, thereby ensuring NGO access to the cluster debates for the first time. Despite the efforts of Mexico, Canada, Chile, and other states that openly defend the value of NGO participation, states-parties failed to mention this precedent in the final report of the 2004 PrepCom.
- At the UN Disarmament Commission, NGOs have access only to the general statements.
- At the CD, NGOs have access to the weekly open meetings on Thursdays. NGOs are able to deliver statements to the CD only on International Women's Day, although the statements must be read on their behalf by the secretary-general of the CD. In early 2004, the CD adopted a draft decision codifying this access.
- The Secretary-General's Panel of Eminent Persons on United Nations-Civil Society Relations released a report on its findings (known as the Cardoso report) in June 2004,<sup>120</sup> which calls for greater civil society participation in and access to UN affairs. The Cardoso report's plea for greater NGO participation has some bearing upon the NPT review process, although NPT review remains largely a treaty-based procedure between states. The secretary-general's response to the Cardoso report asserted that "[m]ore effective engagement with NGOs...increases the likelihood that United Nations decisions will be better understood and supported by a broad and diverse public." But the

Cardoso report also noted that “[g]overnments do not always welcome sharing what has traditionally been their preserve.”

## Key Proposals and State Positions

**Canada** submitted a working paper on NGO participation to the 2003 PrepCom that “reviews and affirms the contribution of NGOs to global public policy making and implementation..., examines the variety of modes of NGO participation in formal multilateral events and processes..., reviews proposals for enhancing NGO participation in the multilateral system..., reviews NGO participation in the NPT Review Process..., and explores options for enhanced NGO participation in the NPT Review Process.”<sup>121</sup>

Among its proposals to enhance NGO participation, Canada suggested that the 2005 Review Conference make the NGO oral statements “a permanent feature of the review process” as well as invite “NGO interventions in the plenary and cluster sessions.” The working paper also recommends that “more sessions and meetings of the Review Conference and its Preparatory Committees, including its plenary and cluster meetings, be open to NGO participation.” It also proposes joint sponsorship among the Secretariat, states-parties and NGOs of consultations, dialogues, panels, and briefings. The working paper further supports existing practices, such as allowing NGOs access to official documentation, granting NGOs proper seating in the conference hall, and designating

NGO meeting rooms at all review conferences and PrepComs.

The **New Agenda Coalition**, at the 2004 PrepCom, stated that “the ever increasing presence of civil society in all aspects of international life is evident. Disarmament and nonproliferation cannot and should not be the exception. We welcome the valuable contributions made by the nongovernmental organizations (NGOs) to the review process, and remain convinced of the need to increase their participation in the NPT process.”<sup>122</sup>

At the 59th session of the First Committee in 2004, **Croatia** was one of many states that “consistently recognize the growing beneficial role that civil society plays in the field of disarmament...[because] their committed and insightful coverage of our deliberations in the international fora, including the First Committee, may give additional impetus to initiatives to break the deadlock and finally move the multilateral disarmament agenda forward.”<sup>123</sup>

Also at the 2004 session of the First Committee, **New Zealand** thanked “the tireless and often unpaid work being done by Non-Government Organisations in keeping information and debate flowing about these issues, and for keeping up the pressure on governments to take practical steps toward disarmament.”<sup>124</sup>

Some states, including **Canada, Germany, Japan, Norway, South Korea, the United Kingdom**, and others, invite NGO representatives on their national delegations in order to enhance transparency of the proceedings and facilitate greater NGO participation.

# Universality

A frequently cited strength of the NPT is its status as the most universally adhered-to treaty in the arms control arena. Still, three notable exceptions to the treaty's universality hamper the effectiveness of the regime as a whole: the three non-NPT nuclear-weapon possessors India, Israel, and Pakistan. Although states-parties to the NPT realize that the adherence of these three nations to the treaty is necessary to effectively control proliferation and reduce the nuclear threat, few states have put forward ideas for encouraging the three current nonsignatory states to accede. The subject will continue to generate speculation and interest at the 2005 Review Conference as states search for a solution acceptable to all parties.

## Background

- Article I of the NPT prohibits nuclear-weapon states from transferring nuclear weapons or nuclear explosive devices "to any recipient whatsoever," thus barring transfers to nonparty states, and from assisting or encouraging any non-nuclear-weapon states to "manufacture or otherwise acquire" nuclear weapons.
- Under Article IX of the NPT, any state may join the treaty after its entry into force, but must accede as a non-nuclear-weapon state if it has not "manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967." India, Israel, and Pakistan do not meet these criteria and would thus have to join the NPT regime as non-nuclear-weapon states unless the treaty language were amended.
- The Final Document of the 2000 Review Conference reaffirms that "States not currently States parties may accede to the Treaty only as non-nuclear-weapon States" and calls upon the then-four states<sup>125</sup> not yet party to accede to the treaty and to sign safeguards agreements and the Model Additional Protocol with the IAEA. It requests that the conference president formally convey the views of NPT states to nonparty states and then report back on the responses.
- The 2000 Final Document also calls on all states-parties to the treaty "not to cooperate or give assistance in the nuclear or nuclear-related field to States not party to the treaty in a manner which assists them in manufacturing nuclear weapons or other nuclear explosive devices."
- UN Security Council Resolution 1172 on international peace and security, adopted in June 1998 following the Indian and Pakistani nuclear tests in May of that year, urges all states not yet party to the NPT to accede to it as soon as possible.
- Several recurring UN First Committee resolutions in recent years have included calls for the three nonparty states to accede to the NPT as non-nuclear-weapon states, but as yet no resolution has been explicitly focused on the universality issue.

## Key Proposals and State Positions

Most states continue to call on India, Israel, and Pakistan to sign the NPT at the earliest possible date and to place their nuclear facilities under IAEA

safeguards. Most also reaffirm, as did the **United States** in a document to the 2004 PrepCom,<sup>126</sup> that states may only join under Article IX as non-nuclear-weapon states.

No state has suggested allowing the current three states not party to the NPT to accede as nuclear-weapon states, for such an accession would be unacceptable to most non-nuclear-weapon states and would involve amending the NPT, an action requiring consensus among states-parties. Yet, states are divided over the existing options for encouraging the remaining outlier states to join the NPT. In general, states fall into two camps: those that would accord the nonparty states “some form of recognition in return for their adopting and fulfilling their obligations that apply to the declared nuclear-weapon states under the NPT” and those that fear legitimizing their nuclear-weapon status and “demand instead that the international community must continue to push them to get rid of their nuclear weapons and join the NPT as non-nuclear weapon states.”<sup>127</sup>

**Japan**, in a working paper submitted to the 2003 PrepCom,<sup>128</sup> commented that the 1998 nuclear tests by India and Pakistan had “challenged from outside” the nonproliferation regime and that, in the 2000 Review Conference, states had “made clear that these countries [India and Pakistan] would not receive new nuclear-weapon State status or any special status whatsoever.” This position is adhered to by many others.

A working paper submitted to the 2003 PrepCom by **Belgium**, the **Netherlands**, and **Norway**<sup>129</sup> called universal adherence to the NPT a “core objective” and reiterated the 2000 Final Document’s request for a formal conveyance of this view to states not party to the NPT.

**Iran**, in a report to the 2004 PrepCom,<sup>130</sup> declared that states party to the NPT should prohibit “the

transfer or sharing of any nuclear related equipment, information, materials, facilities, resources or devices or extension of scientific and technological assistance in the nuclear field” to states not party to the NPT. Although Iran’s declaration was specifically aimed at cutting off nuclear cooperation with Israel, this view is shared by many states and is generally seen as extending the interpretation of Article I to specify the kinds of nuclear assistance forbidden.

NGOs have been more ambitious in their proposed means of including current nonparty states in the NPT regime. The **Carnegie Endowment for International Peace** February 2005 report “Universal Compliance: A Strategy for Nuclear Security” recommends that the United States and other states adopt a diplomatic strategy for universal compliance focused on encouraging the three nonparty states to accept the same nonproliferation obligations accepted by the nuclear-weapon states, including adopting the same standards with respect to nuclear exports, nuclear security, nuclear testing, and the role of nuclear weapons in foreign policy. In exchange, these three states would receive greater cooperation in nuclear security and safety measures, but would not gain access to nuclear trade.

Other nongovernmental analysts comment that even informal bilateral or unilateral declarations of support for the principles of the NPT by the three nonparty states may also be beneficial.

**India’s** minister of external affairs, in a 2000 statement to the Indian Parliament, signaled India’s potential willingness to recognize certain nonproliferation commitments outside of the NPT framework, affirming that, “[t]hough not a party to the NPT, India’s policies have been consistent with the key provisions of the NPT that apply to nuclear weapon states.”<sup>131</sup>

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# Glossary of Terms

**Ad hoc committee:** A temporary working group in the Conference on Disarmament (CD) charged with discussing and negotiating a specific disarmament issue or treaty. The committees are established by consensus within the CD.

**Anti-Ballistic Missile (ABM) Treaty:** A treaty signed and entered into force in 1972 that barred the United States and Russia from deploying nationwide defenses against strategic ballistic missiles. The treaty, which originally permitted each country to deploy only two fixed, ground-based defenses of 100 missile interceptors each, was terminated when the United States withdrew on June 13, 2002.

**Comprehensive Test Ban Treaty (CTBT):** A treaty opened for signature in 1996 that prohibits all nuclear test explosions at any place and at any yield. The treaty will enter into force after being ratified by a specified list of 44 states that are considered nuclear-capable.

**Comprehensive Test Ban Treaty Organization (CTBTO):** The organization responsible for implementing all aspects of the CTBT once it enters into force, including the International Monitoring System, on-site inspections, and other confidence-building measures.

**Conference on Disarmament (CD):** The 65-member, multilateral, disarmament treaty negotiating body of the United Nations. The CD is based in Geneva and meets during three regular sessions each year.

**Cooperative Threat Reduction (CTR) program (or Nunn-Lugar):** A Department of Defense program, created through 1991 legislation sponsored by U.S. Senators Sam Nunn (D-Ga.) and Richard Lugar (R-Ind.), that provides assistance designed to safeguard, secure, and dispose of nuclear, biological, and chemical weapons and related materials and infrastructure in Russia and the former Soviet Union.

**Disarmament Commission:** A subsidiary body of the United Nations with a mandate to consider and

make recommendations on disarmament issues to the General Assembly through annual reports. The Disarmament Commission is comprised of all UN member states and meets once each year.

**Dual-use technology:** Technologies that have both civilian and military applications.

**Explanation of Vote (EoV):** A statement (and corresponding document) delivered by a state in explanation of its vote on a UN First Committee resolution.

**Final Document:** A document highlighting key points of agreement and compromise at an NPT Review Conference or Preparatory Committee meeting. NPT member states were unable to achieve a Final Document in the NPT Review Conferences of 1980, 1990, and 1995.

**First Committee:** The annual forum of the UN General Assembly that debates disarmament and international security matters.

**Fissile material:** Nuclear material that can undergo atomic fission when struck by neutrons, thus setting off a nuclear chain reaction. Examples are uranium-235 and plutonium-239.

**Fissile material cutoff treaty (FMCT):** A proposed treaty, to be negotiated within the Conference on Disarmament, to prohibit new production of weapons-grade fissile material for nuclear weapons. Negotiations on such a treaty have yet to begin.

**Five Ambassadors Initiative (or A5 Proposal):** Proposal submitted July 31, 2002, by ambassadors from Algeria, Belgium, Chile, Colombia, and Sweden suggesting the adoption of a Program of Work in the Conference on Disarmament that would establish ad hoc committees on nuclear disarmament, negative security assurances, prevention of an arms race in outer space, and a fissile material cutoff treaty.

**General Assembly:** The primary deliberative body of the United Nations, composed of all UN member states, that meets in a regular session once a year.

**Global Partnership Against the Spread of Weapons and Materials of Mass Destruction:** An initiative launched in June 2002 by the Group of Eight (G-8) industrialized countries to secure \$20 billion in threat reduction funding for Russia over 10 years. Ten billion dollars is to come from the United States.

**Global Threat Reduction Initiative (GTRI):** An initiative of the United States, with the cooperation of Russia and the IAEA, that aims to repatriate Russian- and U.S.-origin fissile materials from more than 40 countries worldwide and eliminate the use of highly enriched uranium in civilian nuclear programs.

**Group of Eight (G-8):** The world's eight richest and most powerful industrialized countries, comprised of Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States.

**Highly enriched uranium (HEU):** Specialized uranium extracted from nuclear power reactors and usable in a nuclear weapon. HEU is a high concentration of the naturally occurring but less plentiful uranium-235 isotope. HEU must contain approximately 90 percent concentration of uranium-235 to be usable for weapons.

**Horizontal proliferation:** The spread of nuclear weapons to a previously non-nuclear-weapon state.

**International Atomic Energy Agency (IAEA):** The UN agency charged with ensuring the safe, secure, and peaceful use of nuclear technology and with promoting nuclear cooperation. The IAEA is responsible for verifying compliance with the NPT through its safeguards and inspections regimes.

**International Monitoring System (IMS):** The CTBTO's instrument to monitor compliance with the CTBT by detecting nuclear weapons test explosions through the use of various technologies. It consists of more than 300 monitoring stations worldwide delivering data based on four technologies to the International Data Center at CTBTO headquarters in Vienna, Austria.

**Model Additional Protocol:** A voluntary agreement aimed at strengthening and expanding the existing IAEA safeguards regime by mandating more intrusive and short-notice inspections, thereby enhancing the IAEA's ability to detect clandestine nuclear programs.

**Negative security assurances (NSAs):** Assurances that nuclear weapons will not be used or threatened to be used against a non-nuclear-weapon state-party to the NPT.

**New Agenda Coalition:** A coalition formed in 1998 and composed of Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa, and Sweden. These states typically call for enhanced nuclear-weapon-state commitments to practical and stepwise disarmament measures.

**No-first-use:** A pledge by nuclear-weapon states not to be the first to use nuclear weapons in a conflict.

**Nonaligned Movement:** A collection of 115 states that have since the late 1950s agreed to formulate their respective policies independently of "great power conflicts" and that represent the interests and priorities of developing countries. These "neutral" countries operate through consensus without a formal constitution and generally endorse nuclear disarmament efforts.

**Non-nuclear-weapon states:** Defined by the nuclear Nonproliferation Treaty as states that had not manufactured and exploded a nuclear weapon prior to January 1, 1967.

**NPT Review Conference:** A meeting of the states-parties to the NPT that occurs every five years to assess the status of the treaty's implementation and outline recommendations for its success. The 1995 NPT Review Conference decided to indefinitely extend the treaty.

**Nuclear Nonproliferation Treaty (NPT):** A treaty opened for signature July 1, 1968, which entered into force March 5, 1970, that aims to prevent the proliferation of nuclear weapons and promote nuclear disarmament. The treaty, extended indefinitely in 1995, currently has 189 states-parties.

**Nuclear Posture Review (NPR):** A classified report mandated by Congress to clarify U.S. "nuclear deterrence policy and strategy...for the next 5 to 10 years," which outlines the Bush administration's nuclear strategy. The report points to the need for greater flexibility in the U.S. nuclear arsenal and lists seven countries as potential targets for nuclear use, including Iran, North Korea, and China.

**Nuclear Suppliers Group (NSG):** A group currently comprised of 44 nuclear supplier states, including China, Russia, and the United States, that have voluntarily agreed to coordinate their export controls governing transfers of civilian nuclear material and nuclear-related equipment and technology to non-nuclear-weapon states.

**Nuclear "threshold" state:** A state that is capable of rapidly achieving nuclear weapons through converting its civilian nuclear energy program or by some other means.

**Nuclear-weapon-free zone (NWFZ):** A specified region in which countries commit themselves not to manufacture, acquire, test, or possess nuclear weapons.

**Nuclear-weapon states:** Defined by the nuclear Nonproliferation Treaty as states which have “manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.” The five recognized nuclear-weapon states are China, France, Russia, the United Kingdom, and the United States.

**Operationally deployed:** Warheads mated to their delivery vehicles and ready for launch. A complete nuclear arsenal may include additional weapons other than those that are operationally deployed, such as warheads in storage.

**Plutonium:** A manmade element produced as a byproduct when uranium is irradiated in a reactor. It can be used to build a nuclear weapon. The Plutonium-239 isotope is the most practical for use in a nuclear weapon.

**Preparatory Committee (PrepCom):** A conference that meets for two weeks during each of the three years leading up to an NPT review conference to prepare for the review conference. The PrepComs produce nonbinding statements, working papers, and recommendations that are used as tools to guide debate during the review conference.

**Positive security assurances:** Pledges made by nuclear-weapon states to assist non-nuclear-weapon states that are targets of nuclear threats or attacks.

**Proliferation Security Initiative (PSI):** A U.S.-led effort announced by President George W. Bush on May 31, 2003, that aims to improve cooperation among participating states in the interdiction of illicit shipments of nuclear, biological, and chemical weapons, their delivery systems, and related materials.

**Security Council:** The principal body of the United Nations responsible for maintaining international peace and security. The council consists of 15 members, including five permanent members each with veto power.

**Shannon Mandate:** A March 23, 1995, resolution adopted by the Conference on Disarmament, named for Ambassador Gerald E. Shannon of

Canada, that calls for an effectively verifiable fissile material cutoff treaty.

**Strategic nuclear weapons:** Warheads placed on long-range missile delivery systems, submarine-launched ballistic missiles, or long-range bombers.

**Strategic Arms Limitation Talks (SALT):** Negotiations between the United States and the Soviet Union through the 1970s to establish limits on strategic nuclear offensive systems and missile defense systems. The SALT I agreement of 1972 led to the ABM Treaty and an interim agreement on strategic offensive weapons, but the 1979 SALT II agreement was never ratified.

**Strategic Arms Reduction Treaties (START) I and II:** Agreements between the United States and Russia to limit and reduce the number of strategic offensive nuclear weapons. The first treaty was signed in 1991 and entered into force in December 1994, and the second, which called for deeper reductions, was signed in 1993 but never entered into force.

**Strategic Offensive Reductions (or Moscow) Treaty (SORT):** An agreement signed in May 2002 by the United States and Russia committing the two nations to reduce their operationally deployed strategic nuclear warheads to between 1,700 and 2,200 by the end of 2012. The treaty does not require the dismantlement of nuclear delivery systems or nuclear warheads, nor does it provide additional means of verification.

**Tactical nuclear weapons:** Nuclear weapons designed for battlefield operations and deployment in bombs, artillery shells, or short-range missiles. Although their precise classification is a point of contention, they are distinct from strategic nuclear weapons intended for long-range delivery.

**Thirteen Practical Steps:** Steps adopted at the 2000 NPT Review Conference that outline further actions to be taken by states-parties to the NPT to implement their Article VI disarmament commitments. (See Appendix 2.)

**Vertical proliferation:** Increases in the quantity, quality, or type of a nuclear-weapon state’s nuclear arsenal.

**Weapons of mass destruction:** Nuclear, biological, or chemical weapons.

# The 13 Practical Steps

## A SUMMARY

At the 2000 nuclear Nonproliferation Treaty (NPT) Review Conference, states-parties agreed to take 13 “practical steps” to meet their commitments under Article VI of the NPT.

1. The early entry into force of the Comprehensive Test Ban Treaty (CTBT).
2. A nuclear testing moratorium pending entry into force of the CTBT.
3. The immediate commencement of negotiations in the Conference on Disarmament (CD) on a nondiscriminatory, multilateral, and effectively verifiable fissile material cutoff treaty. The negotiations should aim to be concluded within five years.
4. The establishment in the CD of a subsidiary body to deal with nuclear disarmament.
5. The principle of irreversibility to apply to all nuclear disarmament and reduction measures.
6. An unequivocal undertaking by nuclear-weapon states to eliminate their nuclear arsenals.
7. The early entry into force and implementation of START II, the conclusion of START III, and the preservation and strengthening of the Anti-Ballistic Missile Treaty.
8. The completion and implementation of the Trilateral Initiative among the United States, the Russian Federation, and the International Atomic Energy Agency (IAEA).
9. Steps by all nuclear-weapon states toward disarmament including unilateral nuclear reductions; transparency on weapons capabilities and Article VI-related agreements; reductions in nonstrategic nuclear weapons; measures to reduce the operational status of nuclear weapons; a diminishing role for nuclear weapons in security policies; and the engagement of nuclear-weapon states as soon as appropriate in a process leading to complete disarmament.
10. The placement of excess military fissile materials under IAEA or other international verification and the disposition of such material for peaceful purposes.
11. Reaffirmation of the objective of general and complete disarmament under effective international control.
12. Regular state reporting in the NPT review process on the implementation of Article VI obligations.
13. The development of verification capabilities necessary to ensuring compliance with nuclear disarmament agreements.

# Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

The States concluding this Treaty, hereinafter referred to as the Parties to the Treaty,

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States,

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in co-operation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the co-operation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapons tests in the atmosphere, in outer space

and under water in its Preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Have agreed as follows:

## Article I

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

## Article II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor 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.

### Article III

1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Procedures for the safeguards required by this Article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. The safeguards required by this Article shall be applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere.
2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article.
3. The safeguards required by this Article shall be implemented in a manner designed to comply with Article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international co-operation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this Article and the principle of safeguarding set forth in the Preamble of the Treaty.
4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this Article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation

of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

### Article IV

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty.
2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

### Article V

Each Party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a non-discriminatory basis and that the charge to such Parties for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear-weapon States Party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear-weapon States. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

## Article VI

Each of the Parties to the Treaty undertakes 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.

## Article VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

## Article VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.
2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.
3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realised. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain,

by submitting a proposal to this effect to the Depositary Governments, the convening of further conferences with the same objective of reviewing the operation of the Treaty.

## Article IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics and the United States of America, which are hereby designated the Depositary Governments.
3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositaries of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.
6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

## Article X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all

other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

2. Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.

## Article XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate, at the cities of London, Moscow and Washington, the first day of July, one thousand nine hundred and sixty-eight.



# Nuclear Weapons

WHO HAS WHAT AT A GLANCE

APRIL 2004

At the dawn of the nuclear age, the United States hoped to maintain a monopoly on its new weapon, but the secrets for making nuclear weapons soon spread. Four years after the United States dropped atomic bombs on Japan in August 1945, the Soviet Union detonated its first nuclear device. The United Kingdom (1952), France (1960), and China (1964) followed. Seeking to prevent the nuclear-weapon ranks from expanding further, the United States and other like-minded states negotiated the nuclear Nonproliferation Treaty (NPT) in 1968. In the decades since, several states have abandoned nuclear weapons programs, but others have defied the NPT. India, Israel, and Pakistan have never signed the treaty and possess nuclear arsenals. Iraq began a secret nuclear program under Saddam Hussein before the 1991 Persian Gulf War. North Korea claims to have nuclear weapons and announced its withdrawal from the NPT in January 2003. Iran and Libya have pursued secret nuclear activities in violation of the treaty's terms. Still, nuclear nonproliferation successes outnumber failures and dire forecasts decades ago that the world would be home to dozens of states armed with nuclear weapons have not come to pass.

## Nuclear-Weapon States

The nuclear-weapon states are the five states—China, France, Russia, the United Kingdom, and the United States—officially recognized as possessing nuclear weapons by the NPT. Although the treaty legitimizes these states' nuclear arsenals, it also establishes that they are not supposed to build and maintain such weapons in perpetuity. Article VI of the treaty holds that each state-party is 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.” In 2000 the five nuclear-weapon states committed themselves to an “unequivocal undertaking...to accomplish the total elimination of their nuclear arsenals.” But for now, the five continue to retain the bulk of their nuclear forces. Because of the secretive nature with which most governments treat information about their nuclear arsenals, the figures below are best estimates of each nuclear-weapon state's nuclear holdings, including both strategic warheads and lower-yield devices referred to as tactical weapons:

**China:** More than 100 nuclear warheads, according to 2001 Pentagon estimates.

**France:** Approximately 350 strategic warheads.

**Russia:** 4,978 strategic warheads,<sup>1</sup> approximately 3,500 operational tactical warheads, and more than 11,000 stockpiled strategic and tactical warheads.

**United Kingdom:** Less than 200 strategic warheads.

**United States:** 5,968 strategic warheads,<sup>1</sup> more than 1,000 operational tactical weapons, and approximately 3,000 reserve strategic and tactical warheads.

## De Facto Nuclear-Weapon States

Three states—India, Israel, and Pakistan—never joined the NPT and are known to possess nuclear weapons. Claiming its nuclear program was for peaceful purposes, India first tested a nuclear explosive device in 1974. India and Pakistan both publicly demonstrated their nuclear-weapon capabilities with a round of tit-for-tat nuclear tests in May 1998. Israel has not publicly conducted a nuclear test, does not admit to or deny having nuclear weapons, and states it will not be the first to introduce nuclear weapons in the Middle East. Nevertheless, Israel is universally believed to possess nuclear arms. The following arsenal estimates are based on the amount of fissile material—highly enriched uranium and plutonium—that each of the states is estimated to

have produced. Fissile material is the key element for making nuclear weapons. India and Israel are believed to use plutonium in their weapons, while Pakistan is thought to use highly enriched uranium.

**India:** 45 to 95 nuclear warheads. The Pentagon projects that New Delhi has a relatively small stockpile of nuclear weapons components that could be assembled and deployed “within a few days to a week.”

**Israel:** Between 75 and 200 nuclear warheads.

**Pakistan:** 30 to 50 nuclear warheads. The Pentagon believes Islamabad stores its weapons in component form and could assemble weapons “fairly quickly.”

### States of Immediate Proliferation Concern

Questions over the nature of Iran’s nuclear program persist. The United States suspects Iran of developing nuclear weapons, while Iran repeatedly insists that its program is strictly for peaceful purposes. In contrast, North Korea has the material to produce nuclear weapons, announced its withdrawal from the NPT, and declared itself a nuclear power. Yet, North Korea has never conducted a nuclear test and uncertainty persists about whether it possesses actual nuclear weapons.

**Iran:** No known weapons or sufficient fissile material stockpiles to build weapons. However, the International Atomic Energy Agency (IAEA), the UN body charged with verifying that states are not illicitly building nuclear weapons, concluded in 2003 that Iran had undertaken covert nuclear activities to establish the capacity to indigenously produce fissile material. The IAEA is continuing its investigation and oversight of Tehran’s nuclear program.

**North Korea:** One to two nuclear weapons, according to CIA estimates. Pyongyang also possesses enough spent nuclear fuel that could be reprocessed into fissile material for as many as six nuclear weapons per year.

### States That Had Nuclear Weapons or Nuclear Weapons Programs at One Time

Belarus, Kazakhstan, and Ukraine inherited nuclear weapons following the Soviet Union’s 1991 collapse, but returned them to Russia and joined the NPT as non-nuclear-weapon states. South Africa secretly developed and dismantled a small number of nuclear warheads and also joined the NPT in 1991. Iraq had an active nuclear weapons program prior to the 1991 Persian Gulf War, but was forced to verifiably dismantle it under the supervision of UN inspectors. The U.S.-led March 2003 invasion of Iraq and subsequent capture of Iraqi leader Saddam Hussein definitively ended his regime’s pursuit of nuclear weapons. Libya voluntarily renounced its secret nuclear weapons efforts in December 2003. Argentina, Brazil, South Korea, and Taiwan also shelved nuclear weapons programs.

#### NOTE

1. START I limits the United States and Russia to 6,000 “accountable” strategic warheads each. Figures are based on START counting rules, as negotiated between Washington and Moscow and specified in the treaty text. Thus, numbers do not necessarily reflect those weapons systems that are operationally deployed. These warhead totals were what the two states reported as of January 31, 2004.

*Sources: Arms Control Association, Carnegie Endowment for International Peace, Central Intelligence Agency, Congressional Research Service, U.S. Department of Defense, Institute for Science and International Security, International Atomic Energy Agency, and Natural Resources Defense Council.*

The **Arms Control Association** (ACA), founded in 1971, is a national nonpartisan membership organization dedicated to promoting public understanding of and support for effective arms control policies. Through its public education and media programs and its magazine, *Arms Control Today* (ACT), ACA provides policy-makers, the press and the interested public with authoritative information, analysis and commentary on arms control proposals, negotiations and agreements, and related national security issues. In addition to the regular press briefings ACA holds on major arms control developments, the Association's staff provides commentary and analysis on a broad spectrum of issues for journalists and scholars both in the United States and abroad.

The **Women's International League for Peace and Freedom** (WILPF), a nonprofit international peace organization founded by women in 1915, created the **Reaching Critical Will** (RCW) project in 1999 to encourage non-governmental organizations and concerned citizens to act on and contribute to a variety of international disarmament fora. Reaching Critical Will collects, packages and often translates disarmament related information into terms ordinary people can understand through its monitoring and reporting on all major international disarmament fora, including the General Assembly First Committee, the Conference on Disarmament, the UN Disarmament Commission, and NPT meetings. [ReachingCriticalWill.org](http://ReachingCriticalWill.org) is the largest, most comprehensive source for primary documents from UN disarmament proceedings, including working papers, reports, final documents, statements, resolutions, and treaties.

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