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# **A Nuclear Nonproliferation Strategy for the 21st Century**

working paper #1



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**About “Building Global Alliances for the 21st Century”**

Initiated by leaders from the United States and Europe, “Building Global Alliances for the 21st Century” seeks to ensure security and prosperity for people around the world by developing and promoting progressive solutions to transnational challenges through global cooperation. The Alliance will draw on and include the experience and ideas of progressive leaders and thinkers from Europe, the United States, and around the world to shape policy by developing and communicating innovative proposals that address global economic, security and sustainable development concerns. In the longer term, the Alliance will address the institutional reforms required to manage our increasingly interdependent world. The Alliance benefits from the direction of a prominent Steering Committee comprised of: Madeleine Albright, Robin Cook, António Manuel de Oliveira Guterres, Morton H. Halperin, Lee H. Hamilton, John Monks, John Podesta, Poul Nyrup Rasmussen, Maria João Rodrigues and John Sweeney.

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## A Nuclear Nonproliferation Strategy for the 21st Century

For more than five decades, the world has sought to control the spread of weapons of mass destruction (WMD) and their component materials and technology by relying on international legal norms, international institutions and other global tools. This nonproliferation regime, with the Nuclear Nonproliferation Treaty (NPT) at its core, has been a triumph of carefully crafted global cooperation; predictions made in the 1960s of a world with dozens of states armed with weapons of mass destruction never materialized.

But now the regime is beginning to show its age. The global consensus over how to prevent the spread of nuclear weapons is in danger of unraveling. There is a rising chorus of discontent over the fairness and the wisdom of the so-called NPT “grand bargain,” the fundamental agreement between nuclear and non-nuclear states to manage the spread of nuclear weapons and technologies. The materials and expertise needed to build deadly nuclear, chemical and biological weapons are spread across the globe and there is growing pessimism about stopping this trend. And the regime was never designed to deal with the challenge posed by non-state actors.

The progressive leaders from the United States and Europe who have come together to form “Building Global Alliances for the 21st Century” believe that there is an immediate need for a comprehensive, concrete effort to revitalize the world’s nonproliferation efforts.<sup>1</sup> As the leaders of the G8 gather for their annual summit, we urge a greater international focus on – and a stronger commitment to – addressing nuclear proliferation. We are deeply concerned that the rhetoric of international leaders about the spread of nuclear weapons and materials has not been matched by enough concrete action. Here we present a blueprint for action, based on our cumulative experience in national security, diplomacy and international politics. We will consider how to combat the spread of other weapons of mass destruction in subsequent papers.

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<sup>1</sup> Global Alliances seeks to ensure security and prosperity around the world by developing and promoting progressive solutions to transnational challenges through global cooperation. Global Alliances is directed by a Steering Committee comprised of Madeleine K. Albright, Robin Cook, Antonio Guterres, Morton H. Halperin, Lee Hamilton, John Monks, John D. Podesta, Poul Nyrup Rasmussen, Maria João Rodriguez and John Sweeney. The initiative also benefits from the participation of leaders from Latin America, Africa, and other parts of the world. This Strategy represents a strong consensus among participants in Global Alliances, though participants may not necessarily agree on every finding or detail of the Strategy.

To curb the spread of nuclear weapons and materials, we need a comprehensive, integrated approach. *Ad hoc* solutions are inadequate. Just as the fight against terrorism calls for the marshalling of all elements of our military, political and economic arsenals, so does the fight against nuclear proliferation demand cooperation between the United States, Europe and beyond. It also requires nuclear-weapon states to demonstrate their commitment to strengthening nonproliferation norms – if they want the cooperation of key non-nuclear weapon states.

**To advance global peace and security, we need to fashion a global nuclear nonproliferation net that captures nuclear weapons, materials, and technology, and strengthens the grand bargain which underlies the current nuclear nonproliferation regime.** The net should be based on these four principles:

- Nations must recognize that nonproliferation is a two-way street;
- Progress can only be achieved by a truly global coalition;
- Nonproliferation requires actions to curb both the supply of, and demand for, nuclear weapons, materials, and technology; and
- Leading nations must maximize the resources available to get the job done.

To begin to weave this net, we recommend that G8 countries:

- Develop a strategy and accelerate the timetable for achieving the \$20 billion goal for pledges to the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (G8 Global Partnership);
- Expand the scale and scope of the G8 Global Partnership beyond the former Soviet Union to secure within the next four to five years nuclear fissile materials around the world;
- Target pledge money, incentives and sanctions to maximize security benefits;
- Work toward narrowing the fuel cycle loophole that allows nations to produce weapons-usable fissile materials under the cover of programs to produce nuclear energy;
- Eliminate incentives for states to enrich uranium and reprocess plutonium;
- Commit their nations to develop, maintain and monitor a global net linking intelligence and export control efforts with border, port and airport security;

- Improve coordination among G8 nations' domestic export control authorities and assist non-G8 countries to improve their controls; and
- Commit themselves to active, personal diplomacy that can help reduce regional tensions that could lead to use of nuclear weapons.

**The nuclear-weapon states must take steps to fulfill their end of the grand bargain to gain wider support for efforts to strengthen the global nuclear nonproliferation regime.**

We further recommend that the five NPT nuclear-weapon states take these critical steps to fulfill their end of the grand bargain and as a prerequisite for strengthening the global nonproliferation regime:

- Cease research and development of new nuclear weapons, such as the so-called “bunker buster” under development in the U.S.;
- Negotiate a Fissile Materials Cut-Off Treaty and ratify the Comprehensive Test Ban Treaty;
- Enlist support beyond the G8 for nuclear nonproliferation efforts, especially closing the fuel-cycle loophole in the NPT.

**These recommendations would substantially improve the safety of the world from the threat of nuclear proliferation.** They would also improve the ability of the G8 to play a strong leadership role in nuclear nonproliferation, engage the much-needed help of countries around the world in weaving the nonproliferation net, and lay the groundwork for a strengthened NPT grand bargain.

## Context: The NPT and Nonproliferation Strategy

The nuclear nonproliferation regime originally distinguished states on the basis of whether or not they were legally recognized as nuclear-weapon states under the NPT. The NPT, which entered into force in 1970, recognizes five states as nuclear-weapon states—the United States, Russia, the United Kingdom, France and China. In the NPT, these states agreed to gradually disarm and share peaceful nuclear technology with the world. In exchange, all other states commit to forgo nuclear weapons development and accept International Atomic Energy Agency (IAEA) safeguards over all of their nuclear activities. Under this bargain, the nuclear-weapon states are not legally obligated to put their nuclear facilities under IAEA safeguards.

The NPT has a serious loophole, however. Countries may legally acquire the ability to produce weapons-usable nuclear materials under the guise of a peaceful nuclear research or energy program. Once the production facilities are functioning, the NPT member can declare that its national security requires it to withdraw from the treaty. It is therefore possible to become a virtual nuclear-weapon state within the very treaty framework that exists to prevent that possibility. This is the path that Saddam Hussein's Iraq started out on in the 1970s. Many are convinced that Iran is contemplating this path today.

To help prevent states from exploiting this loophole, suppliers of nuclear technology have sought to regulate closely the export of sensitive nuclear technology. As a result, the original distinction within the NPT between nuclear and non-nuclear weapon states has evolved into one of nuclear technology “haves” versus nuclear technology “have nots.” Some nations have regularly accused the nuclear suppliers of failing to fulfill their commitment to share the nuclear technology that is promised to them under the NPT.

While there is an emerging consensus that the fuel-cycle loophole must be narrowed, few concrete proposals have emerged. Recently U.S. President George W. Bush proposed that the Nuclear Suppliers Group, an informal grouping of 40 nuclear suppliers which issues guidelines on the export of sensitive nuclear technology, should refuse to sell uranium enrichment and plutonium reprocessing equipment and technology to states which do not already have this capability. President Bush also proposed that the right to import equipment and technology for civilian nuclear programs be limited to those countries which have signed the IAEA's Additional Protocol, which gives the IAEA heightened authority to inspect suspicious nuclear facilities.

President Bush is correct to identify the fuel-cycle loophole as a serious gap in the global nuclear nonproliferation regime. He is also correct to suggest that the export of fuel-cycle equipment be conditioned upon a country's accession to the IAEA Additional Protocol. But his proposal to stop exporting fuel-cycle equipment to states that do not already have it will be seen by many countries, fairly or unfairly, as altering the NPT grand bargain while failing to offer any incentive for other countries to cooperate. Ultimately, President Bush's proposals are unlikely to succeed, and would further erode support for the global nuclear nonproliferation regime.

We believe that the path forward lies in strengthening, not abandoning, the grand bargain. With nuclear weapons materials, technology and know-how spread across the globe, the only realistic way we can eliminate the threat posed by nuclear proliferation is by reaching beyond a few countries to enlist global support for nonproliferation principles. We must convince all nations that closing the fuel-cycle loophole is in their national interests, not just those of the United States and Europe. In addition, efforts to prevent the spread of nuclear weapons should focus as much on narrowing states' nuclear weapons ambitions as thwarting them.

Our nuclear nonproliferation strategy is based on these four principles:

**Nations must recognize that nonproliferation is a two-way street.** Under the NPT, the nuclear-weapon states have the right to keep their nuclear weapons arsenals, and duties to gradually reduce those arsenals and share the benefits of peaceful nuclear technology with non-nuclear weapon states. Non-nuclear weapon states, in turn, have rights to use nuclear energy for peaceful purposes and receive assistance in that endeavor, and a duty to forswear development of nuclear weapons. We believe that unilateral attempts to disturb the rights and duties of the NPT bargain cause other non-nuclear nations to rethink their commitment to the

### **Brazil: Support is eroding for nuclear nonproliferation norms**

From the 1970s through the early 1990s, Brazil operated facilities to enrich nuclear fuel without safeguards and is suspected of attempting to develop nuclear weapons during that time. Brazil formally renounced nuclear weapons in 1997, when it signed the NPT. It also established a bilateral nuclear inspection and verification agency with neighboring Argentina.

In April 2004, however, Brazil refused to allow IAEA inspectors to examine a uranium enrichment facility under construction. Brazil insisted the facility will produce low-enriched uranium only, which is legal under the NPT so long as it is safeguarded. Brazil also refused to fully cooperate with the IAEA's investigation into the nuclear black market operated by Pakistani scientist A.Q. Kahn.

Despite these signs, there is limited evidence that Brazil's intransigence is linked to a desire for nuclear weapons today.<sup>2</sup> Instead, Brazil appears to be rebelling against what it perceives to be a double-standard in the global nuclear nonproliferation regime. It views President Bush's proposals, which would significantly curtail the sharing of potentially peaceful nuclear technology, as a radical departure from the standards agreed to under the NPT.

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<sup>2</sup> Brazilian President Luiz Inácio Lula da Silva implied during his election campaign that Brazil ought to pursue nuclear weapons, but he subsequently clarified his meaning and denied any such ambitions.

**Brazil, continued**

Brazil will not be convinced to uphold nonproliferation norms or support new ones as long as it perceives them to be unfair or not in its national interest. The nuclear-weapon states must make nonproliferation principles, including our goal of eliminating the fuel-cycle loophole, in all countries' interests. If we fail to convince Brazil and others, we will create dangerous gaps in the nonproliferation regime.

**Iran: The importance of U.S. and European cooperation**

Iran, a signatory of the NPT, is believed to have an active program to develop nuclear weapons, centering on attempts to build a nuclear fuel cycle that could ensure a steady supply of weapons-usable fissile materials.

Operating such a fuel cycle is not illegal *per se*. But reports by the IAEA on Iran indicate that the country has repeatedly failed to adequately report and account for nuclear fissile materials. Traces of highly-enriched uranium, which is used to fuel nuclear weapons and has no civilian purpose, have been found at some of Iran's nuclear facilities. Reports also indicate repeated failures to report on the development, testing and operation of uranium enrichment technologies, including decisions not to disclose the existence of a secret uranium enrichment facility and a heavy water production facility. Iran has also acknowledged military involvement in its civilian nuclear energy programs but has offered no explanations.

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bargain. Strengthening the grand bargain and modernizing the global nonproliferation regime requires action by all parties. [See "Brazil," previous page.]

**Progress can only be achieved by a truly global coalition.**

With nuclear weapons materials and technology spread across the globe, there is no way any single country—or even a small group of countries—can hope to adequately combat proliferation on its own. [See "Iran," at left.]

A global nonproliferation net should be woven that snares nuclear weapons, materials, and technology but does not impede legitimate, peaceful commerce. There should be a mix of incentives and penalties, involving domestic export control laws, interdiction principles, global threat reduction initiatives, keystone treaties and institutions, and strong verification and enforcement provisions. The net should link our intelligence and export control efforts with our border, port and airport security systems to detect the movement of nuclear materials and technology.

Some important strides have been made recently, such as the Proliferation Security Initiative, which establishes principles for interdicting shipments of weapons of mass destruction. The Global Threat Reduction Initiative recently announced by the Bush Administration is an additional step. This is the kind of multilateral action that can help ensure worldwide cooperation in the fight to curb proliferation.

**Nonproliferation requires actions to curb both the supply of and demand for nuclear weapons, materials, and technology.**

Nonproliferation efforts must go beyond controlling the supply of nuclear materials and know-how to make fundamental efforts to ease the tensions between states that believe nuclear weapons are the answer to their security problems. This requires that we cast aside ideological preconceptions and past practices and tailor approaches to specific national and regional circumstances. Realistic efforts based on the rationale behind nations' pursuit of nuclear weapons can move us past the rhetorical posturing that

plagues much of today's nonproliferation policy. Our goal should be pragmatic, tough nonproliferation policies adapted to current risks and threats. [See "North Korea," at right.]

**Leading nations must maximize the resources available to get the job done.** We cannot hope to protect ourselves from a nuclear weapon attack if we do not devote adequate resources to nonproliferation efforts. A global alliance to prevent the spread of nuclear weapons materials and technology is far less expensive and much more effective at combating nuclear proliferation than unilateral preventive war or managing the terrible consequences of nuclear terrorism or a nuclear exchange.

## G8 Steps To Combat Nuclear Proliferation

The G8 should use its June summit to lay the groundwork for a revitalized nuclear nonproliferation regime that seeks to strengthen, not undermine, the NPT grand bargain.<sup>3</sup> At the summit, the G8 should commit to concrete improvements in existing nuclear nonproliferation efforts, specifically the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (G8 Global Partnership).

The goal of the G8 Global Partnership is to raise \$20 billion from the G8 and other countries over ten years for cooperative threat reduction work in the former Soviet Union. An important component of this work – which is modeled on the U.S. Nunn-Lugar program – is to help Russia dismantle, secure and safely dispose of its excess nuclear weapons and materials. Experience with the U.S. Nunn-Lugar threat reduction program demonstrates that these kinds of efforts are a highly successful, cost-effective

### Iran, continued

Joint U.S.-European action helped pressure Iran to sign the IAEA Additional Protocol in December 2003, improving the ability of the IAEA to monitor Iran's nuclear activities. Faced with continuing concerns, in April 2004 Iran showed some signs of reversing course. It claimed to have stopped both its enrichment activities and the construction of related equipment and facilities. Iran and the IAEA also agreed to an inspections and disclosure schedule, although Iran's cooperation with the IAEA has been uneven and the relationship sometimes hostile.

Even after release of a new IAEA report this month, our knowledge of Iran's nuclear program will remain limited. Unfortunately, there are signs that Iran will not fully disclose its activities.

### North Korea: Toward a realistic, tough nonproliferation policy

North Korea's ambitions to develop nuclear weapons and its record of selling nuclear technology to other nations have been well documented, with recent reports indicating that Pyongyang has developed between two and eight bombs. As long as North Korea – which was named by President Bush as one of three nations belonging to the "Axis of Evil" – continues to believe that the United States poses a mortal threat to its existence, it is unlikely to

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<sup>3</sup> The G8 consists of Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States. The European Union is also a formal participant in G8 proceedings.

**Iran, continued**

abandon its pursuit of nuclear weapons.

From North Korea's perspective, nuclear weapons enable it to dramatically raise the stakes of an American invasion by threatening a nuclear attack against American troops or the densely populated cities of Seoul or Tokyo.

Unfortunately, the Bush Administration's approach to North Korea – including its delayed endorsement of the so-called “six party talks” – has given Kim Jong-Il the opportunity to accelerate its nuclear programs and more time to build nuclear weapons. It has sent conflicting signals to Pyongyang and others in the region about America's commitment to nonproliferation and a nuclear-free Korean peninsula. And North Korea's continuing pursuit of nuclear weapons continues to penalize its citizens, who face ongoing food shortages and stagnant living standards as enormous sums are spent on weapons development.

An approach based exclusively on isolation and containment of North Korea cannot prevent Kim Jong-Il from peddling nuclear weapons materials and technology or increasing his own stockpile of weapons. Negotiation is the best way to address North Korea's nuclear ambitions. Properly sequenced and framed, these negotiations could help stall North Korea's nuclear program and curb its long-term ambitions by drawing on the full range of carrots and sticks that a global approach to the problem would bring.

way to help block access to existing sources of nuclear weapons and fissile materials for would-be proliferators. These programs also help safeguard us against environmental catastrophes associated with Russia's crumbling nuclear infrastructure.

The nuclear-weapon states in attendance at the G8 meeting— France, Russia, the United Kingdom and the United States— should also take the following steps to help re-establish their global leadership and credibility in nuclear nonproliferation:

**Develop and implement a strategy and timetable for achieving the \$20 billion goal for pledges to the G8 Global Partnership.**

The G8 is still more than \$3 billion short of its \$20 billion goal, and the political and diplomatic will to achieve this goal is waning. The G8 must redouble its political and diplomatic efforts to achieve the \$20 billion goal and the United States, as holder of the G8's rotating Presidency, should ensure that the Summit produces a strategy and timetable for reaching the goal. The G8 countries should agree that if they do not achieve the \$20 billion goal by the end of this year, they will make up the shortfall.

**Expand the scale and accelerate the timetable for securing nuclear fissile materials and technology outside the former Soviet Union.** The G8 Global Partnership's work is limited to the Soviet Union's nuclear weapons legacy. There are unsecured nuclear fissile materials in civilian and military installations across the globe that must be secured as well.

Moreover, even if the entire \$20 billion pledged to the Global Partnership were devoted to securing fissile materials — which it is not — we would still fall approximately \$10 billion short of accomplishing that task in Russia, let alone elsewhere in the world. G8 countries should demonstrate a revitalized financial commitment to the Global Partnership by increasing their commitments to cooperative threat reduction work, not decreasing them as the Bush Administration proposed in the FY 2005 budget.

We are pleased by the recent announcement by the Bush Administration that the United States and Russia will cooperate closely to secure, remove or dispose of vulnerable nuclear fissile materials in other nations around the globe. Nonproliferation experts have called for an initiative like this for years. But the program's 10-year timetable gives terrorists and other potential proliferators too much time to strike. We believe that if world leaders committed to deal with this problem, the job could be done in as little as four to five years.

**Target pledge money, incentives and sanctions to maximize the security benefits.** The United States and Russia should join together to ensure that cooperative threat reduction money is spent efficiently while protecting the secrecy of weapons facilities. Pledge money should be earmarked, for example, to rapid security upgrades on the more than 300 metric tons of weapons-usable nuclear fissile materials that have not yet received them.

**Improve coordination among domestic export control authorities.** The G8 are among the key players in the Nuclear Suppliers Group and its sister export control regime, the Zangger Committee. While many of these export control rules are adequate, they are currently weakened by uneven enforcement and a failure to share information on suspicious export license requests.

The G8 should agree to establish clear and constant lines of communications among the domestic regulatory authorities responsible for regulating the sale and export of nuclear weapons technology, especially fuel cycle technology. This would help us spot tell-tale patterns of proliferation and put an end to them. G8 nations must also actively enforce export control rules, and do a far better job at sharing information about licenses granted and denied. Finally, they must adopt new provisions to require countries to prevent the export of materials or technology they believe will be used to develop or build nuclear weapons.

**Cooperate with and assist non-G8 countries in improving their domestic export controls.** The cooperation and active support of non-G8 countries is essential to making export control regimes work, and nuclear nonproliferation efforts more broadly. In addition to building channels of communication with all countries that have nuclear technology, the G8 should provide technical and, where appropriate, financial assistance to countries seeking to modernize export control laws.

### Disarmament by nuclear weapons states

Over the past 30 years, the United States and Russia have limited the types of nuclear weapons they develop and deploy. In the last 15 years alone, they have reduced the size of their arsenals by over half, with further reductions planned over the next decade. The United States and Europe have also been doing important work to help Russia dismantle and dispose of its excess nuclear weapons capability. These efforts have made substantial inroads into reducing Russia's nuclear arsenal and access to poorly guarded nuclear materials.

The United Kingdom undertook a comprehensive review of its nuclear weapons posture in 1998 and made substantial reductions in its nuclear arsenal. France has also taken important steps toward disarmament in the 1990s, such as ceasing its production of fissile materials for weapons purposes and dismantling its land-based ballistic missile system. Both the U.K. and France also signed the IAEA Additional Protocol, which gives the IAEA additional authority to inspect nuclear sites.

There is no compelling need for countries to research and build new nuclear weapons, such as the “bunker buster” being developed by the United States. Gradual nuclear disarmament remains our long-term goal, and the nuclear weapons states should continue to take steps in that direction.

## Steps to Strengthen the Grand Bargain

We also recommend that four nuclear-weapon states in attendance — France, Russia, the United Kingdom and the United States — announce the following steps to lay the groundwork for strengthening the NPT grand bargain:

**Cease research and development of new nuclear weapons, including the so-called bunker buster.** The nuclear-weapon states cannot simultaneously advocate more stringent controls on the export of nuclear weapons materials and technology, especially fuel-cycle technology, while continuing to develop new nuclear weapons. [See “Disarmament by nuclear weapons states,” at left.] The United States’ research into “bunker buster” nuclear weapons and its opposition to the Comprehensive Test Ban Treaty (CTBT) are especially corrosive. The United States should stop this research and development, and — like France, Russia and the United Kingdom — ratify the CTBT. China has indicated that if the United States ratified the CTBT, it would work to ratify as well.

**Negotiate a verified Fissile Materials Cut-Off Treaty.** This treaty would outlaw the further production of nuclear fissile materials for weapons purposes and help fulfill the nuclear-weapon states’ commitment to gradual nuclear disarmament. Current supplies of nuclear fissile materials are more than sufficient for maintaining nuclear-weapon states’ nuclear arsenals. The treaty should be accompanied by a strong verification regime to ensure compliance. All states that have nuclear weapons should voluntarily cease production immediately. In addition, the United States and

Russia, which have both signed the IAEA's Additional Protocol, which gives the IAEA additional authority to inspect nuclear sites, should follow China, France and the United Kingdom and ratify it.

**Enlist support beyond the G8 for nuclear nonproliferation efforts, especially narrowing the fuel-cycle loophole in the NPT.** G8 leadership is essential to creating the global nuclear nonproliferation “net,” and the steps we recommend here would help restore their leadership. But nuclear nonproliferation is not just a G8 issue.

Closing the fuel-cycle loophole, for example, requires more than regulating the export of nuclear materials and technology from our countries. We must provide the incentives that can encourage other nations with nuclear ambitions or nuclear energy programs to join with us. We must also eliminate any legitimate incentives there are for states to produce fuel on their own, on terms that are transparent, sustainable and fair to all parties.

