The agreement announced on July 18, 2005 by President George Bush and Prime Minister Manmohan Singh regarding the establishment of a “global partnership” aims to profoundly alter long-standing US non-proliferation laws and policies and dramatically increase nuclear commerce with India. Based on discussions with both US and Indian government officials, the agreement was negotiated quickly with little analysis of the implications for international nonproliferation measures that the United States historically has helped develop and strengthen, including the Nuclear Non-Proliferation Treaty (NPT), US and international export control policies, and International Atomic Energy Agency (IAEA) safeguards.

This agreement could pose serious risks to the security of the United States. If fully implemented, it could catapult India into a position as a major supplier of both nuclear and nuclear-related materials, equipment, and technology. With a weak and poorly enforced export control system, Indian companies could become major suppliers to the nuclear weapon programs of adversaries of the United States, in some cases possibly using technology which the United States originally provided. The United States may have already signaled to supplier nations previously constrained by US leadership that nuclear trade with their “friends” is permissible. This agreement may lead other major suppliers, such as Russia and China, to seek their own exceptions to long-standing non-proliferation rules. In addition, this agreement has diminished the value of the NPT and sent dangerous signals to Iran and North Korea.

Congress should conduct a thorough, public assessment of the costs and benefits of this agreement before modifying any US non-proliferation laws. It should also carefully monitor the actions of other supplier nations that may view this agreement as a long desired green light to weaken their own controls on the transfer of nuclear and nuclear-related equipment, materials, and technology to India and other nations, some of which are hostile to the United States.

At the heart of this agreement is an Indian commitment to separate its civil and military nuclear programs. The implication is that after such a separation, international civil nuclear commerce could proceed with India and would be prevented from spreading to the military sector. However, attempts to separate military and civil nuclear programs in the five internationally acknowledged nuclear weapon states, as defined by the NPT, have
been fraught with difficulty. In practice, the effective separation of military and civil nuclear programs has required additional steps that are largely absent from the US/India agreement.

Based on experiences in other states, several conditions currently absent from the agreement are needed to ensure that a real barrier exists between military and civil nuclear programs. Without these measures, it will be difficult to have confidence that the agreement will not cause serious damage to nonproliferation.

**Unilaterally Ending Production of Fissile Material for Nuclear Weapons**

India should end its production of fissile material for nuclear weapons or nuclear explosive purposes, as has been done voluntarily and unilaterally by the five official nuclear weapon states. This step has been announced by the United States, United Kingdom, Russia, and France, and is understood to have been taken by China. India already has enough fissile material for its defense needs and does not need to produce more. A cap on production would help convince the United States and other countries that India has indeed adapted the global standards of the international non-proliferation regime.

To make this step more politically appealing, India should then call upon Pakistan to halt such production and negotiate a bilateral, verifiable halt to production. The current commitment by India to work toward a universal FMCT is not sufficient as it is unlikely to be completed on a schedule consistent with the announced implementation goal for the US-India deal. Without India halting production of fissile material for its nuclear weapons programs, nuclear assistance, particularly any in the areas involving the fuel cycle, would likely spill over to India’s nuclear weapons programs.

**Implementing an Adequate Export Control System**

Nuclear assistance to India should be predicated upon India developing an adequate national export control system fully consistent with the international export control system and mature national export control systems. Although India is developing export control laws and regulations, its current system lacks adequate enforcement and cannot stop the leakage of dangerous nuclear and nuclear-related items. Leakage could become an even greater problem if expanded international nuclear commerce allowed Indian companies to develop and sell more sophisticated and dangerous items.

If India receives more nuclear and dual-use items, it can be expected, based on past experience, to increase its ability to sell similar items to others. It may inadvertently become a valuable source for proliferant states seeking nuclear weapons. Several countries, including Iran, North Korea, and perhaps Pakistan, would be expected to seek such items illicitly in India with its weakly enforced export control laws. As was learned following the revelations about the Khan network, newer nuclear suppliers group (NSG) members supposedly in good standing were no match for determined proliferators. Helping ramp up India’s ability to import and export nuclear dual-use items without an
adequate nationals export control system is not in the interests of the United States or the non-proliferation regime.

Compounding the development of effective export controls, India has a long history of illicitly acquiring items for its own unsafeguarded nuclear facilities. Many of India’s nuclear programs have depended on extensive foreign procurement for materials, equipment, and technology. Indian nuclear organizations use a system that hires domestic or foreign non-nuclear companies to acquire items for these nuclear organizations. Such procurement appears to continue for its secret gas centrifuge enrichment plant near Mysore. In an attempt to hide its true purpose from suppliers and others when it started this project in the 1980s, India called the facility the Rare Materials Plant (RMP) and placed it under Indian Rare Earths (IRE) Ltd, an Indian Department of Atomic Energy company focused on mining and refining of minerals. Since the mid-1980s, IRE has served as a management company for RMP and appears to be the declared end-user of its procurements of centrifuge-related equipment and materials.

India’s illicit efforts are not as extensive as Pakistan’s efforts, which involve well-coordinated national organizations aimed at acquiring a wide range of items while systematically disguising the true end use of the items. Nonetheless, Indian nuclear programs seek a variety of nuclear dual-use items from overseas suppliers without revealing fully and honestly that the end users are unsafeguarded nuclear facilities. In essence, India has created a system giving suppliers plausible deniability. If the supplier does not actively work to determine the end-user, then it would not know that the item was going to a nuclear facility or program.

For India to become a responsible member of the international community, it must stop any illegal or questionable overseas procurement. The Indian government also needs to commit to instill a more responsible culture within the nuclear establishment and associated industries to reduce the chance of illicit nuclear trade.

Safeguarding India’s Civil Nuclear Facilities

US and Indian officials have stated that all civil nuclear facilities would be safeguarded by the IAEA. A reasonable expectation is that India would also commit not to use these facilities for nuclear weapons or nuclear explosive purposes. The agreement, however, does not contain such an explicit commitment. Congress should insist upon such a commitment from India.

India may want similar considerations as the five nuclear weapon states. These states accept IAEA safeguards voluntarily, but in general offer no commitments not to use such facilities for nuclear weapons purposes. Granting India the same safeguards conditions as the nuclear weapon states would make this agreement worthless.

In addition, the United States should insist that IAEA safeguards applied in India are consistent with the application and intention of safeguards in non-nuclear weapon states. The safeguards should not only verify an Indian commitment not to use these facilities
and contained items for nuclear weapons purposes, but they should not undercut or weaken the effectiveness of safeguards in non-nuclear weapon states.

Toward this goal, the US should insist that the RMP, India’s main uranium enrichment plant, should be placed under safeguards and committed to non-nuclear explosive purposes. Based on open sources, this facility appears to be dedicated mainly to producing highly enriched uranium for naval reactors, including a prototype land reactor and planned submarine reactors. Exempting the RMP facility from safeguards could undermine efforts to safeguard such facilities in non-nuclear weapon states. Brazil accepted safeguards on its enrichment plants at Aramar dedicated to the production of naval reactor fuel. Safeguards applied in India should be consistent with the IAEA’s approach in Brazil.

Because India has a large nuclear program and many facilities not designed for the application of safeguards, applying safeguards in India would require extensive IAEA resources. The IAEA should not have to fund safeguards in India from its normal safeguards budget, which is already stretched too thin. India should provide the extra funding necessary to safeguard its civil facilities.

As a cost-saving measure, the focus of safeguards should be Indian reprocessing and uranium enrichment facilities, the main facilities able to produce weapons-useable nuclear material. In addition to the RMP enrichment plant, India has at least two reprocessing facilities that would be expected to be listed as civil sites, one at Tarapur and the other at Kalpakkam.

**Policing the Barrier Separating Civil and Military Nuclear Programs**

India’s extensive military and civil nuclear programs are often connected, sharing personnel and infrastructure. In addition, some facilities currently have both a military and civilian purpose.

Even in the best of circumstances, the barrier between a military and civilian program can be porous. With increased nuclear assistance, India’s military nuclear facilities could more easily acquire dual-use items through reverse engineering of items received at civil facilities or through other types of manipulation of export control laws. Expertise gained in a more advanced civil program could be easily transferred to a weapons program.

To combat such transfers, India needs to create domestic legislation banning the transfer of materials, equipment, and technology from its civil to military programs.

**Limiting Dual-Use Exports to India**

Because India will continue to operate a nuclear weapons program, the United States and other major suppliers will need to continue prohibiting exports to certain Indian facilities. It would be irresponsible to provide Indian nuclear weapons facilities with dual-use items that enable India to make more sophisticated nuclear weapons. As a result, members of
the NSG will need India to provide assurances that it will not try to obtain items for its nuclear weapons facilities from abroad. In addition, these suppliers will need a complete list of facilities involved in India’s nuclear weapons program.

Conclusion

Unfortunately, the remedies discussed above and by others may not be sufficient to provide the United States a net benefit from the nuclear-related portions of this agreement. Congress needs to answer the many troubling questions raised by this deal before it considers changing long-standing non-proliferation laws. At least, Congress should slow down any attempt by the administration to seek changes in law quickly or without proper Congressional and public oversight.

In addition, Congress may need to start worrying about the long term damage already done to the nuclear non-proliferation regime since this agreement was announced. It should carefully monitor the actions of other supplier nations that may view this agreement as signaling a US acceptance of weakened controls on the transfer of nuclear and nuclear-related equipment, materials, and technology to India and other nations, some of which are hostile to the United States.