### Indo-US civilian nuclear agreement

### From Wikipedia, the free encyclopedia

The **Indo-U.S. civilian nuclear agreement** is the name commonly attributed to a <u>bilateral</u> agreement on nuclear cooperation between the <u>United States of America</u> and the <u>Republic of India</u>. The framework for this agreement was a joint statement by <u>Indian Prime Minister Manmohan Singh</u> and <u>U.S. President</u> <u>George W. Bush</u>, under which India agreed to separate its civil and military nuclear facilities and place civil facilities under <u>International Atomic Energy Agency</u> (IAEA) safeguards and, in exchange, the United States agreed to work toward full civil nuclear cooperation with India.<sup>[11]</sup>

On August 1, 2008, the IAEA approved the safeguards agreement with India,<sup>[2]</sup> after which the United States approached the <u>Nuclear Suppliers Group</u> (NSG) to grant a waiver to India to commence civilian nuclear trade.<sup>[3]</sup> The 45-nation NSG granted the waiver to India on September 6, 2008 allowing it to access civilian nuclear technology and fuel from other countries.<sup>[4]</sup> The implementation of this waiver makes India the only known country with <u>nuclear weapons</u> which is not a party to the <u>Non Proliferation</u> <u>Treaty</u> (NPT) but is still allowed to carry out nuclear commerce with the rest of the world.<sup>[5]</sup>

The <u>US House of Representatives</u> passed the bill on 28 September 2008.<sup>[6]</sup> Two days later, India and France inked a similar nuclear pact making France the first country to have such an agreement with India.<sup>[7]</sup> On October 1, 2008 the <u>US Senate</u> also approved the civilian nuclear agreement allowing India to purchase nuclear fuel and technology from the United States.<sup>[8][9]</sup> U.S. President, George W. Bush, signed the legislation on the Indo-US nuclear deal, approved by the <u>U.S. Congress</u>, into law, now called the **United States-India Nuclear Cooperation Approval and Non-proliferation Enhancement Act**, on October 8, 2008.

# President George W. Bush's Remarks on Signing the Act

#### October 8, 2008

Thank you for coming. Welcome to the White House...

Even though the United States and India are separated by half the globe, we are natural partners as we head into the 21st century. Both our nations emerged from a colonial past to establish vibrant democracies. We have welcomed investment and private enterprise to become leaders in the global economy. We have stood against the dangers posed by extremists, who have carried out attacks in both our countries. We have demonstrated that we cherish liberty, honor human dignity, and respect the rule of law.

Despite these common interests and values, it was not long ago that relations between the United States and India were strained. In recent years, we've worked to transform our relationship into a strong strategic partnership. One area where we saw tremendous potential for cooperation is energy. As our economies have grown, our demands for energy have grown as well. It's become increasingly clear that we need to generate that energy in ways that are safe and clean and secure.

One energy source that can generate large amounts of electricity with zero emissions of air pollution or greenhouse gases is nuclear power. So 3 years ago, Prime Minister Singh-who I consider a dear friendand I resolved to work together on a landmark agreement paving the way for our nations to cooperate on nuclear power. By undertaking new cooperation on civil nuclear energy, India will be able to count on a reliable fuel supply for its civilian reactors, meet the energy demands of its people, and reduce its independence [dependence] \* on fossil fuels.

For our part, the United States will gain access to a growing market for civilian nuclear technologies and materials, that will help American businesses create more jobs for our people here at home.

Our agreement will also strengthen global nonproliferation efforts. India has committed to operate its civil nuclear energy program under the safeguards of the International Atomic Energy Agency and other international guidelines. India will continue to build on its strong record of responsibility in operating its nuclear facilities. And India and the United States will cooperate more closely to keep the world's most dangerous weapons out of the hands of extremists and terrorists.

The bill I sign today approves the 123 Agreement I submitted to Congress and establishes the legal framework for that agreement to come into effect. The bill makes clear that our agreement with India is consistent with the Atomic Energy Act and other elements of U.S. law. By passing this legislation, my administration and Congress demonstrate our common view that nuclear cooperation is in the interests of both the United States and India.

The legislation makes no changes to the terms of the 123 Agreement I submitted to Congress. It enables me to bring that agreement into force and to accept on behalf of the United States all the obligations that are part of the agreement. This legislation does not change the fuel assurance commitments that the United States Government has made to the Government of India, as recorded in the 123 Agreement. The agreement also grants India advance consent to reprocessing, which will be brought into effect upon the conclusion of arrangements and procedures for a dedicated reprocessing facility under IAEA safeguards.

This agreement sends a signal to the world: Nations that follow the path of democracy and responsible behavior will find a friend in the United States of America. The American people are proud of our strong relationship with India. And I am confident that the friendship between our two nations will grow even closer in the years ahead.

# Senate OKs U.S.-India nuclear deal

### Foster Klug, Associated Press, as appearing in the St. Louis Post-Dispatch 10-02-2008

WASHINGTON - The Senate voted Wednesday to overturn a three- decade ban on atomic trade with India, giving final congressional approval to a landmark U.S.-India nuclear cooperation accord and handing President George W. Bush a rare foreign policy victory in his final months in office.

The accord, which the Senate passed 86-13, will allow American businesses to begin selling nuclear fuel, technology and reactors to India in exchange for safeguards and U.N. inspections at India's civilian, but not military, nuclear plants. The pact, which the House approved Saturday, marks a major shift in U.S. policy toward nuclear-armed India after decades of mutual wariness.

It now goes to Bush for his signature.

Congressional approval caps an aggressive three-year diplomatic and political push by the Bush administration, which portrays the pact as the cornerstone of new ties with a democratic Asian power that long has maintained what administration officials consider a responsible nuclear program. Administration officials also have championed the opportunities for U.S. companies to do business in India's multibillion-dollar nuclear market.

Sen. Richard Lugar, R-Ind., said the pact protected U.S. national security and nonproliferation efforts while building "a strategic partnership with a nation that shares our democratic values and will exert increasing influence on the world stage."

"With a well-educated middle class that is larger than the entire U.S. population, India can be an anchor of stability in Asia and an engine of global economic growth," Lugar said.

Opponents say lawmakers, eager to leave Washington to campaign for the November elections, rushed consideration of a complicated deal that they said could spark a nuclear arms race in Asia. The extra fuel the measure provides, they say, could boost India's nuclear bomb stockpile by freeing up its domestic fuel for weapons.

Sen. Byron Dorgan, D-N.D., said the accord "will almost certainly expand the production of nuclear weapons by India" and help dismantle the architecture of the Nuclear Non-Proliferation Treaty, the global

agreement that provides civilian nuclear trade in exchange for a pledge from nations not to pursue nuclear weapons.

India refuses to sign the treaty. It has faced a nuclear trade ban since its first atomic test in 1974; its most recent test was in 1998.

Dorgan said the U.S. was telling the world that, like India, "You can misuse American nuclear technology and secretly develop nuclear weapons; you can test those weapons; you can build a nuclear arsenal in defiance of the United Nations resolutions, and you will be welcomed as someone exhibiting good behavior with an agreement with the United States of America."

### How India's New Nuke Deal Might Set Off an Arms Race

#### Kushner, Adam B, Newsweek International 10-20-2008

When Congress finally approved the U.S.-India nuclear deal this month, it sailed through the body with scarcely a peep. Most analysts in Washington and New Delhi hailed the move. But some observers worry the United States has just helped spark a new arms race.

The agreement admits India into one of the world's most exclusive clubs: states that openly hold nuclear weapons. Proponents say it will boost cooperation between two of the world's largest democracies, allow U.S. business to cash in on the lucrative Indian nuclear-energy market and bring New Delhi into the fight against proliferation. But there's a hitch. India has spurned the nuclear Non-Proliferation Treaty (NPT), under which states promise never to build bombs in exchange for access to civilian technology. "By recognizing India's nuclear status anyway, Washington has undermined the treaty at a moment when it is confronting nuclear crises in North Korea and Iran," says Peter Scoblic, author of "U.S. vs. Them," a history of American nuclear strategy. "And for what? To curry favor with a country that is already a friend of the United States."

Some now fear the reaction of Pakistan and Israel, the two other nuclear powers that aren't part of the NPT regime. Pakistan says it has behaved no differently than India and deserves the same perks. Though Pakistan's proliferation record has been worse, both countries tested nuclear devices. (In India's case, it resulted in decades of sanctions and nuclear isolation.)

There are signs an arms race has already started. In 2007, Pakistan's president declared his state would increase its deterrent capacity to match India's offensive capacity. It also opened a new reactor to manufacture weapons-grade plutonium and threatened to penetrate any Indian missile-defense shield.

Israel, meanwhile, has a better arms-control record than India and would love to open a civilian nuclear program. So after the Washington-Delhi agreement, it petitioned the international nuclear suppliers' group to ask if it could get similar terms. No, it was told. But Avner Cohen, the author of "Israel and the Bomb," speculates that Israel might someday be compensated-perhaps with a civilian program or recognition of its own weapons program-for good behavior like not attacking Iran.

How did a pact with so many potential consequences make it so far? "The French want to sell nuclear power plants. The Russians want to sell nuclear power plants. Canada wants to sell uranium," says Zia Mian, a nuclear researcher at Princeton. As Marx said, follow the money.

### '06 Blueprint Leak Intensifies Concerns Over U.S.-India Deal

### Joby Warrick, Washington Post Staff Writer, The Washington Post 09-18-2008

In January 2006, an Indian government agency purchased newspaper ads seeking help in building an obscure piece of metal machinery. The details of the project, available to bidders, were laid out in a series of drawings that jolted nuclear weapons experts who discovered them that spring.

The blueprints depicted the inner workings of a centrifuge, a machine used to enrich uranium for nuclear bombs. In most Western countries, such drawings would be considered secret, but the Indian diagrams were available for a nominal bidding fee, said David Albright, a former U.N. weapons inspector. He said he acquired the drawings to prove a point.

"We got them for about \$10," said Albright, who called the incident a "serious leak of sensitive nuclear information."

India has since tightened its bidding procedures, but the incident has fueled concerns among opponents of a U.S.-Indian civilian nuclear deal that Congress is expected to consider in the coming weeks.

The accord, first announced in 2005 by the Bush administration, would lift a decades-old moratorium on nuclear trade with India, allowing U.S. companies

to share sensitive technology despite that country's refusal to ban nuclear testing or sign the nuclear Non-Proliferation Treaty. Backers of the deal say it will cement U.S. ties with India and reward a country that has been a responsible steward of nuclear technology since it first joined the nuclear weapons club in 1974.

But opponents say India's record on nonproliferation is not as unblemished as is claimed by the White House, which regards the nuclear pact as one of the foreign-policy highlights of the Bush administration's second term. Critics, including former U.S. diplomats, military officers and arms-control officials, accuse the White House of rushing the agreement through Congress without considering the long-term implications.

"This deal significantly weakens U.S. and international security," said retired Army Lt. Gen. Robert G. Gard Jr., chairman of the Washington-based Center for Arms Control and Non-Proliferation. Yesterday, a group of 34 arms-control advocates and former government officials urged Congress to reject the deal in its current form.

Administration officials have repeatedly lauded India's efforts to prevent the spread of nuclear technology, contrasting its behavior with that of Pakistan, the home base of Abdul Qadeer Khan, the acknowledged nuclear smuggler who delivered weapons secrets to Libya, Iran and North Korea.

R. Nicholas Burns, the former undersecretary of state for political affairs and a chief supporter of the landmark accord, said in a recent forum that India was "playing by the rules of the [nuclear] club but not allowed to join the club." Burns said the agreement "strengthened the international nonproliferation regime because it resolves an inherent contradiction in the regime."

Likewise, India's government says it deserves the trust of the world's nuclear gatekeepers. "India has an impeccable nonproliferation record," External Affairs Minister Pranab Mukherjee said last week. "We have in place an effective and comprehensive system of national export controls."

Opponents point to what they call decades of deceptive practices India has used to acquire nuclear materials from foreign governments. A draft report by Albright and his Institute for Science and International Security, a Washington-based nonprofit that monitors the spread of weapons technology, cites recent incidents in which it says India engaged in "illicit nuclear trade."

In an instance alleged by ISIS, India used an array of trading companies to secretly acquire tons of tributyl phosphate, a chemical used to separate plutonium from spent nuclear fuel. China, a longtime supplier of TBP to India, halted shipments of the chemical in 2003 after U.S. criticism. India turned to independent trading firms that acquired TBP from German and Russian companies without revealing the true destination, the report said.

The ISIS report, due for release today, included photocopies of some of the centrifuge drawings obtained by Albright, although the group removed key specifications. Albright said he shared his findings with State Department officials but was turned away.

"It didn't fit with their talking points," Albright said. "At the highest level, they were dismissive of our concerns."

A State Department spokesman declined to comment on Albright's report, saying it had not been reviewed, and said the agreement was in the U.S. interest.

Other opponents have cited transfers of sensitive weapons technology by individual Indian scientists. In 2004, the State Department slapped sanctions on two Indian nuclear scientists alleged to have passed

heavy-water technology to Iran. At least four Indian companies have been sanctioned over sales of missile technology to Tehran.

Such incidents underscore concerns about the possible transfer of India's expanded nuclear know-how by rogue scientists and businessmen, said Henry Sokolski, the Defense Department's top nonproliferation official in the George H.W. Bush administration.

As trade grows between India and Iran, so does the risk of "transfers of technology that could be useful for Iran's purported weapons of mass destruction," Sokolski said.

# World News: Pakistan Secures China's Help to Build 2 Nuclear Reactors

### Matthew Rosenberg, The Wall Street Journal 10-20-2008

Pakistan has secured China's help to build two new nuclear-power reactors in a deal being touted as a counterweight to rival India's recently concluded nuclear pact with the U.S.

But in his first official visit to Beijing last week, new Pakistan President Asif Ali Zardari apparently failed to nail down a firm Chinese commitment for another urgent need -- money to help replenish the country's sharply dwindling foreign reserves. With reserves at a six-year low, a Pakistani finance official said Saturday that Islamabad might seek assistance from the International Monetary Fund "as a last resort" to shore them up if it can't raise enough funds from other sources.

The nuclear deal with China would give Pakistan an additional 680 megawatts of power a year, or just over a quarter of the country's estimated current electricity shortfall.

China's leaders "do recognize Pakistan's need" for more energy, Foreign Minister Shah Mahmood Qureshi told reporters in Islamabad on Saturday.

But more importantly, Mr. Qureshi suggested, the deal would help restore the balance of power in South Asia following a much more comprehensive nuclear pact between India and the U.S., which gives New Delhi access to international atomic fuel and technology markets. In exchange, India has agreed to open its civilian reactors -- but not its military nuclear program -- to international inspections.

"China is one country that at international forums has clearly spoken against the discriminatory nature of that understanding" between Washington and New Delhi, Mr. Qureshi said, according to the Associated Press.

With ties between Washington and Islamabad strained over the faltering battle against Islamic militants along Pakistan's border with Afghanistan, Pakistan is increasingly turning to its long-time ally China for everything from help with propping up its teetering economy to boosting its woefully inadequate energy supplies.

Critics of the India-U.S. nuclear deal have argued that it could spark an arms race in South Asia by freeing up India's relatively small domestic atomic fuel supplies for use in the country's weapons program, a charge New Delhi denies.

Pakistani officials have pushed for a similar nuclear arrangement with the U.S. But Washington has repeatedly refused to discuss nuclear-energy cooperation with Pakistan, pointing to Islamabad's past record of clandestinely spreading atomic-weapons technology to countries such as Libya, Iran and North Korea through a smuggling ring run by scientist Abdul Qadeer Khan, the now-disgraced father of Pakistan's nuclear-arms program.

While Mr. Qureshi offered few details of the latest China-Pakistan nuclear deal, Chinese officials had previously said any agreement would be for peaceful energy purposes and would be supervised by the International Atomic Energy Agency, the United Nations' nuclear watchdog. The two new reactors are being added to the Chinese-built nuclear power plant in Chasma, a town in central Pakistan.

Despite the deep friendship, Mr. Zardari didn't appear to get an immediate pledge of help from China on the financial front.

Pakistan is seeking at least \$5 billion to \$6 billion from donors to shore up its dwindling foreign-exchange reserves -- down to about \$7.75 billion from nearly \$16.4 billion almost a year ago -- and to revive its ailing economy by boosting foreign investors' confidence.

Mr. Zardari is believed by diplomatic analysts to have asked China for \$1 billion to \$2 billion in a loan to Pakistan's central bank. Neither side has said whether any deal was struck, but Mr. Qureshi said Saturday that China would attend a so-called Friends of Pakistan donor conference next month in Abu Dhabi. He also said that China would invest \$1 billion in various projects until June and that various Chinese organizations would invest in Pakistan's banking, mineral and industrial sectors.

Shaukat Tareen, an adviser to the prime minister, said that the country may seek the assistance of the International Monetary Fund if it fails to get the funds it needs. "We need \$3 billion in the next few months, and efforts have been made to raise funds on time and we have received ample commitment from multilateral donor agencies and countries," Mr. Tareen said. "The next 30 to 45 days are crucial.... We will seek assistance from the IMF as last resort."

While Pakistani authorities put the financing gap at \$3 billion, the IMF believes it is \$4 billion to \$4.5 billion. Foreign-exchange reserves slipped to a six-year low of \$7.749 billion in the week ended Oct. 11 as oil imports rose and the central bank sold dollars to prevent a sharp slide in the Pakistani rupee.

Mr. Tareen said the World Bank and the Asian Development Bank had agreed to give \$1.5 billion each in the form of front-loaded concessional financing, with the money expected by June 30. In addition, the Islamic Development Bank and U.K.'s Department for International Development had agreed to double their assistance to \$1 billion and GBP 600 million (\$1.04 billion), respectively.

# **India's Government Wins Parliament Confidence Vote**

### Rama Lakshmi and Emily Wax, Washington Post Foreign Service, July 23, 2008, p. A12

NEW DELHI, July 22 -- The Indian government survived a crucial vote of confidence Tuesday, clearing the way for the contentious nuclear energy deal with the United States, after a debate peppered with dramatic allegations of backroom lobbying and bribery.

The vote concluded a bitter, nine-month battle in support of the deal by the now-beleaguered coalition government of Prime Minister <u>Manmohan Singh</u>. The agreement, which would give <u>India</u> access to the world market for nuclear fuel and technology, must be approved by the <u>International Atomic Energy</u> <u>Agency</u> and the Nuclear Suppliers Group, which governs the trade of nuclear materials. The <u>U.S.</u> <u>Congress</u> would then vote on the accord.

"This vote gives a clear message to the world that India's head and heart are sound and India is prepared to take its rightful place in the comity of nations," said a beaming Singh, whose supporters set off firecrackers and beat celebratory drums in the streets of New Delhi. "I have always said the deal was important, and now we know it."

But the victory was not without cost for Singh. On a day of intense political drama in Parliament, he faced a chorus of calls for his resignation after opposition members carried two duffel bags full of cash into the assembly building, alleging that the prime minister's allies had used the money to try to buy votes.

When Singh rose to address the members, he was shouted down by opponents chanting, "Be ashamed, be ashamed," and, "Thief." The prime minister, in his trademark blue turban, sat nonplussed, shuffling through files. His government secured 275 votes in the 541-member lower chamber of Parliament; his opponents secured 256 votes; 10 members abstained.

In the intensely fought battle, Singh's allies won by wooing support from smaller, regional parties and independent lawmakers and by encouraging either abstentions or defections. Political parties went so far as to arrange for legislators who had been jailed to be temporarily released so they could cast votes. A couple of others were pushed into Parliament in wheelchairs despite their medical ailments and hospital treatments.

For Singh, a member of the Congress party who has never won a direct election, the vote was one of the biggest victories of his political career. His ruling coalition was forced to call the vote of confidence after a group of communist allies withdrew their support. The parties argued that the U.S. nuclear deal tied India's foreign policy too closely to American interests. The <u>Bharatiya Janata Party</u> (BJP), the main opposition party, demanded that the deal be renegotiated so New Delhi would not be "a junior partner" and would maintain the right to conduct nuclear tests.

Under the historic deal, India would open 14 of its civilian atomic reactors to international inspections. In return, it would be able to develop its civilian nuclear program without having to sign the nuclear Non-Proliferation Treaty.

"The irony is that for India, this is the best deal since sliced bread. It's hard to imagine a deal that could have been sweeter," Sharon Squassoni, a senior associate in the nonproliferation program at the <u>Carnegie</u> <u>Endowment for International Peace</u> in Washington, said in a telephone interview. "India has been given all the benefits without any of the responsibilities of moving toward nuclear disarmament."

But in a country with a long history of suspicion toward Washington, there are remnants of knee-jerk anti-Americanism. Singh was labeled a U.S. stooge, and critics feared the deal would force India to sever its historical ties with <u>Iran</u>.

The prime minister's allies, however, argued that the deal was crucial to India's quest for superpower status.

"We have to start thinking like a big and powerful country. Let us not worry about how the world is going to impact us, but think of how India can impact the world," <u>Rahul Gandhi</u>, the ruling Congress party's heir apparent, said during Tuesday's debate. "We must never take our decision based on the fear of the unknown."

At one point during the debate Tuesday, three members of the BJP rushed to the well of the chamber and waved the wads of cash, shouting that Singh's allies had tried to buy their support for the deal.

"This is a shameful day for Indian democracy -- all for the sake of this nuclear deal," said Brinda Karat, a member of the <u>Communist Party of India</u> (Marxist). "How low can this government fall in their desperation to please America?"

With the government's survival, the negotiations on the historic agreement will next be taken up Aug. 1 at the International Atomic Energy Agency.

"We have wasted a lot of time and political energy in building consensus for the nuclear deal in India. Now there is very little time left to complete the international procedures," said retired Gen. Ved Prakash Malik, president of the Institute of Security Studies. "Even the Parliament debate became a political show. Members raised issues of price rise, loan waiver for farmers and murky deals. The real issue, that is the nuclear agreement, got diluted somewhere."

Many political observers said the vote strengthened Singh's political stature. At the same time, though, the corruption charges against his allies sullied his clean image.

"He may have won the vote in Parliament, but Manmohan Singh has suffered a moral defeat," said Shahnawaz Hussain, a lawmaker with the opposition BJP. "This government has bent every rule, engaged in highly immoral acts to push the nuclear deal, and Prime Minister Manmohan Singh's hands are dirty."

### Selections on India from the CIA World Factbook

#### **Background:**

Nonviolent resistance to British colonialism led by Mohandas GANDHI and Jawaharlal NEHRU brought independence in 1947. The subcontinent was divided into the secular state of India and the smaller Muslim state of Pakistan. A third war between the two countries in 1971 resulted in East Pakistan becoming the separate nation of Bangladesh. India's nuclear weapons testing in 1998 caused Pakistan to conduct its own tests that same year. The dispute between the countries over the state of Kashmir is

ongoing, but discussions and confidence-building measures have led to decreased tensions since 2002. Despite impressive gains in economic investment and output, India faces pressing problems such as significant overpopulation, environmental degradation, extensive poverty, and ethnic and religious strife.

#### **Economy - overview:**

India's diverse economy encompasses traditional village farming, modern agriculture, handicrafts, a wide range of modern industries, and a multitude of services. Services are the major source of economic growth, accounting for more than half of India's output with less than one third of its labor force. About three-fifths of the work force is in agriculture, leading the United Progressive Alliance (UPA) government to articulate an economic reform program that includes developing basic infrastructure to improve the lives of the rural poor and boost economic performance.

The government has reduced controls on foreign trade and investment. Higher limits on foreign direct investment were permitted in a few key sectors, such as telecommunications. However, tariff spikes in sensitive categories, including agriculture, and incremental progress on economic reforms still hinder foreign access to India's vast and growing market.

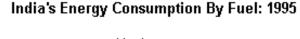
Privatization of government-owned industries remains stalled and continues to generate political debate; populist pressure from within the UPA government and from its Left Front allies continues to restrain needed initiatives. The economy has posted an average growth rate of more than 7% in the decade since 1997, reducing poverty by about 10 percentage points although per-capita purchasing power parity remains at \$2,600 (2007 est.). India achieved 8.5% GDP growth in 2006, and again in 2007, significantly expanding production of manufactures. India is capitalizing on its large numbers of well-educated people skilled in the English language to become a major exporter of software services and software workers.

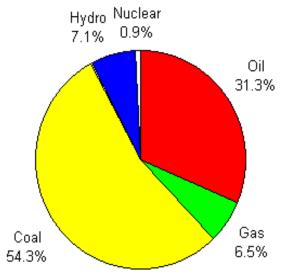
Economic expansion has helped New Delhi continue to make progress in reducing its federal fiscal deficit. However, strong growth combined with easy consumer credit and a real estate boom fueled inflation concerns in 2006 and 2007, leading to a series of central bank interest rate hikes that have slowed credit growth and eased inflation concerns. The huge and growing population is the fundamental social, economic, and environmental problem.

#### NUCLEAR POWER IN INDIA

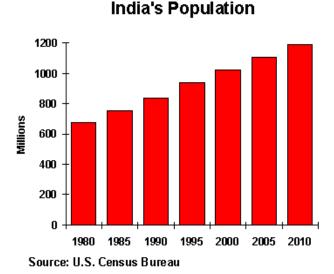
India has 14 reactors in commercial operation and nine under construction Nuclear power supplies about 3% of India's electricity By 2050, nuclear power is expected to provide 25% of the country's electricity India has limited coal and uranium reserves

Its huge thorium reserves - about 25% of the world's total are expected to fuel its nuclear power programme long-term *Source: Uranium Information Center* 

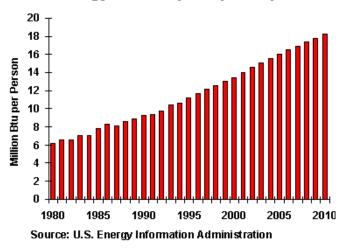




(Total Consumption = 10.5 Quadrillion Btu) Source: U.S. Energy Information Administration



**Energy Consumption per Capita** 



# **Nuclear Non-Proliferation Treaty**

### From Wikipedia, the free encyclopedia

The **Treaty on the Non-Proliferation of Nuclear Weapons**, also **Nuclear Non-Proliferation Treaty** (**NPT** or **NNPT**) is a <u>treaty</u> to limit the spread of <u>nuclear weapons</u>, opened for signature on July 1, 1968. There are currently <u>189 countries</u> party to the treaty, <u>five of which</u> have nuclear weapons: the <u>United</u> <u>States</u>, the <u>United Kingdom</u>, <u>France</u>, <u>Russia</u>, and the <u>People's Republic of China</u> (the permanent members of the UN Security Council).

Only four recognized sovereign states are not parties to the treaty: <u>India</u>, <u>Israel</u>, <u>Pakistan</u> and <u>North Korea</u>. India, Pakistan and North Korea have openly tested and are presumed to possess nuclear weapons. Israel has had a policy of <u>opacity</u> regarding <u>its own nuclear weapons program</u>. <u>North Korea</u> acceded to the treaty, violated it, and later withdrew.

### First pillar: non-proliferation

Five states are recognized by the NPT as nuclear weapon states (NWS): <u>France</u> (signed 1992), the <u>People's Republic of China</u> (1992), the <u>Soviet Union</u> (1968; obligations and rights now assumed by <u>Russia</u>), the <u>United Kingdom</u> (1968), and the <u>United States</u> (1968) (The U.S., UK, and Soviet Union were the only <u>states</u> openly possessing such weapons among the original <u>ratifiers</u> of the treaty, which entered into force in 1970). These five nations are also the five permanent members of the <u>United Nations</u> <u>Security Council</u>. These five NWS agree not to transfer "nuclear weapons or other <u>nuclear explosive</u> devices" and "not in any way to assist, encourage, or induce" a non-nuclear weapon state (NNWS) to acquire nuclear weapons or to "seek or receive any assistance in the manufacture of nuclear weapons" (Article II). NNWS parties also agree to accept safeguards by the International Atomic Energy Agency (IAEA) to verify that they are not diverting nuclear energy from peaceful uses to nuclear weapons or other <u>nuclear explosive</u> devices (Article III).

#### Second pillar: disarmament

The NPT's preamble contains language affirming the desire of treaty signatories to ease international tension and strengthen international trust so as to create someday the conditions for a halt to the production of nuclear weapons, and treaty on general and complete disarmament that liquidates, in particular, nuclear weapons and their delivery vehicles from national arsenals.

The wording of the NPT's Article VI arguably imposes only a vague obligation on all NPT signatories to move in the general direction of nuclear and total disarmament, saying, "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."<sup>[6]</sup> Under this interpretation, Article VI does not strictly require all signatories to actually conclude a disarmament treaty. Rather, it only requires them "to negotiate in good faith."<sup>[7]</sup>

On the other hand, some governments, especially non-nuclear-weapon states belonging to the <u>Non-Aligned Movement</u>, have interpreted Article VI's language as being anything but vague. In their view, Article VI constitutes a formal and specific obligation on the NPT-recognized nuclear-weapon states to disarm themselves of nuclear weapons, and argue that these states have failed to meet their obligation.

#### Third pillar: peaceful use of nuclear energy

The third pillar allows for and agrees upon the transfer of nuclear technology and materials to NPT signatory countries for the development of civilian nuclear energy programs in those countries, as long as they can demonstrate that their nuclear programs are not being used for the development of nuclear weapons.

Since very few of the nuclear weapons states and states <u>using nuclear reactors for energy generation</u> are willing to completely abandon possession of nuclear fuel, the third pillar of the NPT under Article IV provides other states with the possibility to do the same, but under conditions intended to make it difficult to develop nuclear weapons.

The treaty recognizes the inalienable right of sovereign states to use nuclear energy for peaceful purposes, but restricts this right for NPT parties to be exercised "in conformity with Articles I and II" (the basic nonproliferation obligations that constitute the "first pillar" of the Treaty). As the commercially popular light water reactor nuclear power station uses enriched uranium fuel, it follows that states must be able either to enrich uranium or purchase it on an international market. Mohamed ElBaradei, Director General of the International Atomic Energy Agency, has called the spread of enrichment and reprocessing capabilities the "Achilles' heel" of the nuclear nonproliferation regime. As of 2007 13 states have an enrichment capability.<sup>[10]</sup> Because the availability of fissile material has long been considered the principal obstacle to, and "pacing element" for, a country's nuclear weapons development effort, it was declared a major emphasis of U.S. policy in 2004 to prevent the further spread of uranium enrichment and plutonium reprocessing (a.k.a. "ENR") technology. <sup>[11]</sup> Countries possessing ENR capabilities, it is feared, have what is in effect the option of using this capability to produce fissile material for weapons use on demand, thus giving them what has been termed a "virtual" nuclear weapons program. The degree to which NPT members have a "right" to ENR technology notwithstanding its potentially grave proliferation implications, therefore, is at the cutting edge of policy and legal debates surrounding the meaning of Article IV and its relation to Articles I, II, and III of the Treaty.

Countries that have signed the treaty as Non-Nuclear Weapons States and maintained that status have an unbroken record of not building nuclear weapons. However, <u>Iraq</u> was cited by the IAEA and sanctioned by the UN Security Council for violating its NPT safeguards obligations; <u>North Korea</u> never came into compliance with its NPT safeguards agreement and was cited repeatedly for these violations,<sup>[12]</sup> and later withdrew from the NPT and tested a nuclear device; <u>Iran</u> was found in non-compliance with its NPT safeguards obligations in an unusual non-consensus decision because it "failed in a number of instances over an extended period of time" to report aspects of its enrichment program;<sup>[13][14]</sup> and <u>Libya</u> pursued a clandestine nuclear weapons program before abandoning it in December 2003. In 1991 Romania reported previously undeclared nuclear activities by the former regime and the IAEA reported this non-compliance to the Security Council for information only. In some regions, the fact that all neighbors are verifiably free of nuclear weapons reduces any pressure individual states might feel to build those weapons themselves, even if neighbors are known to have peaceful nuclear energy programs that might otherwise be suspicious. In this, the treaty works as designed.

<u>Mohamed ElBaradei</u>, Director General of the <u>International Atomic Energy Agency</u> (IAEA), has said that by some estimates thirty-five to forty states could have the knowledge to acquire nuclear weapons.<sup>[15]</sup>