

Indo-US Civil Nuclear Agreement: An Examination from a Historical Angle

Sonika Kadian

Research Scholar, Department of Political Science, Baba Mastnath University Rohtak,
Haryana, India

Abstract

The 123 Agreement signed between the United States of America and the Republic of India known as the U.S.–India Civil Nuclear Agreement or Indo-US nuclear deal. The framework for this agreement was a July 18, 2005, joint statement by then Indian Prime Minister Manmohan Singh and then US President George W. Bush, under which India agreed to separate its civil and military nuclear facilities and to place all its civil nuclear facilities under International Atomic Energy Agency (IAEA) safeguards and, in exchange, the United States agreed to work toward *full* civil nuclear cooperation with India.

Keywords: civil deal, IAEA, NSG, Hyde act, 123 agreement.

Introduction

The end of world war-2 marked a revolution in world affairs - the recasting of nations and relations between nations in the cold-war era, as well as, the emergence of nuclear technology that had phenomenal destructive power. This technology also had the immense potential for myriad peaceful applications, including generation of electricity.

India's indigenous efforts in nuclear science and technology were established remarkably early. The first step was taken by Homi Jahangir Bhabha in March 1944 when he submitted a proposal to the Sir Dorab Tata Trust to found a nuclear research institute, leading to the creation of the Tata Institute of Fundamental Research (TIFR) on 19 December 1945 with Bhabha as its first director.' In 1947, when India emerged as a free country, among the earliest initiatives taken by Jawaharlal Nehru, was the development of science and inculcation of the scientific spirit. Political leadership had the foresight to recognise tremendous potential of nuclear technology for economic development. This thinking was reflected in the enactment of the Atomic Energy Act of 1948. Since then, rapid progress has been made in the field of nuclear energy, by way of substantial funding support in the nuclear research and development, setting up of Atomic Energy Commission and Atomic Energy



Interdisciplinary Journal of Information, Knowledge, and Management

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Vol. : 20, Issue 2, 2025
ISSN: (E) 1555-1237

Establishment, Trombay - later rechristened as Bhabha Atomic Research Centre (BARC) - as well as creation of Department of Atomic Energy (DAE) with Bhabha as its secretary.

The fission nuclear and fusion reactions hold the promise of providing mankind with a vast source of energy thereby reducing our dependence on fossil fuels for our energy requirements. Nuclear energy programme has also placed at our hands on weapons of enormous destructive power. It left to us the use of nuclear energy either for peaceful purposes or destructive purposes. It is to be remembered that solar energy which supports life processes on this earth, is derived from nuclear fusion reaction.

As mentioned above, Indian efforts to develop this energy from the fission reaction began soon after its independence by passing the Atomic Energy Act in 1948 and by the establishment of Atomic Energy Commission the same year. The Department of Atomic Energy (DAE) was established in the year 1954. DAE has ever since been engaged in the development of nuclear power technology. Application of radiation technologies in the various other fields such as agriculture, medicine, industry and basic research have been its other major achievements. India was an early beneficiary of the U.S. sponsored 'Atoms for Peace' Programme as launched in 1953. This programme was intended to stem the proliferation of nuclear weapons by offering access to civil uses of nuclear technology in exchange for pledges not to apply the technology to weapons purpose. Based on this prevailing atmosphere of trust in the early Atoms for Peace years, Canada in 1955 supplied the CIRUS1 40 Mwt Heavy Water Modulated Research Reactor. In the year 1956, the Research Reactor APSARA12 at Trombay became critical. Thus, India became the first country in Asia outside Soviet Union to possess nuclear capability.

The early years of 1960's saw the inauguration of Atomic Energy Establishment at Trombay, which subsequently was renamed as Bhabha Atomic Research Centre (BARC) and the Parliament enacted a new Atomic Energy Act in 1962 replacing the 1948 Atomic Energy Act. The following year India concluded an Agreement with U.S. for uranium supply to Tarapur Reactor ("123 Agreement") and the same year it concluded Agreements with a few other states for co-operation in peaceful uses of Nuclear Energy including Canada, Denmark and Poland. The Indian representative to the NPT negotiations in Geneva insisted on balanced obligations between nuclear weapons states and non-nuclear weapons states." This speech underlined the Indian shift from seeking nuclear guarantees to the desire for the elimination of nuclear weapons. Later, the Indian representative to the Eighteen Nation



Interdisciplinary Journal of Information, Knowledge, and Management

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Vol. : 20, Issue 2, 2025
ISSN: (E) 1555-1237

Disarmament Committee (ENDC) suggested that the development of Peaceful Nuclear Explosions (PNE's) be permitted for developing countries under international observation and inspection. In response to this, in February 1967, US President Lyndon Johnson sent a message to the ENDC in which he expressed the necessity of nuclear non-proliferation and equated PNE'S with nuclear weapons . As a caveat to those states wishing to utilize PNE's for development projects, he stated that the United States would be ready to provide PNE services to other nations, under the proper controls and at a reasonable cost. In October of the same year, India announced before the UN General Assembly that it would not sign the NPT because:

Certain Non-nuclear countries could have produced nuclear weapons several years ago, had they desired but have refrained from doing so. It can scarcely be argued that this policy of restraint and self-discipline should result in their being deprived of the benefits of the development of peaceful nuclear technology while the Government of India continues to be in favour of the non-proliferation of nuclear weapons. It is equally strongly in favour of the proliferation of nuclear technology for peaceful purposes, as an essential means by which the developing countries can benefit from the best advances of science and technology in this field.

Indo-US Nuclear Cooperation Agreement, 1963

After India-China war of 1962 and in accordance with the Atoms for Peace Programme India entered into a "123 Agreement" with the U.S. although bilateral cooperation began in the mid-50's after the Eisenhower administration launched its Atoms for Peace Policy. This Agreement titled as Agreement of Cooperation between the Government of United States of America and the Government of India concerning the Civil Uses of Atomic Energy", entered into force on 25th October 1963. The conclusion of this Agreement was in such a period when the international community headed by the US was deliberating on the establishment of a non-proliferation regime. The intention behind the U.S.'s entering into such an agreement was to persuade India to be a party to the IAEA safeguards apart from ensuring the bilateral cooperation amidst the growing cold war scenario. This agreement was not carried on in its entirety and lapsed in the year 1993 and this is what beacons us to enter in to yet another one such agreement cautiously.

Though, before this in the early Atoms for Peace time India had entered in a contractual agreement with US in 1956 which was for a period of three months for the supply



of heavy water and was duly complied with by the U.S. government, The 1963 Agreement was the first such agreement that India had entered with the U.S. in relation to civil uses of nuclear energy. The US had under this agreement agreed to supply uranium ore and the technology related therewith for the Tarapur nuclear power plant. After India's 1974 nuclear detonation this legal severe strain. U.S. legal framework, however came under interpretations of the Agreement changed gradually as international non proliferation system was overhauled to incorporate a new stringent exports regime based on the concept of technology denial under their domestic legislation.

Salient Features of the 1963 Agreement

The agreement stipulated that the US would sell "all requirements of the Government of India for enriched uranium" for the two nuclear power reactors. It also specified that when any spent fuel requires reprocessing, "such reprocessing may be performed in Indian facilities upon a joint determination by the parties" (India and the US). Such "joint determination" (Article II E) was required only for confirmation that the facilities in which the spent fuel was being reprocessed could be safeguarded by the IAEA." Under the agreement, which in international law had the sanctity of a treaty, the US pledged to supply enriched uranium for the power until 1993 as per the article X of the Agreement.

According to the terms of this agreement, the U.S. would supply two 200MW reactors, to be housed in one building at Tarapur. In exchange, India agreed to only use enriched uranium fuel provided by the U.S. (Article II A) and to allow the International Atomic Energy Agency (IAEA) to verify that the fuel at this facility is not diverted from peaceful uses. The U.S. further stipulated that any subsequent separation of plutonium during spent fuel reprocessing must be approved by the US government. The agreement clearly spells out that any material received by India must not be used "for atomic weapons or for research on or Agreement is dependent upon the subject matter of entering into tri lateral accord which includes IAEA as the third party.

The Nuclear Supplier Group

The Nuclear Suppliers Group is a group of States supplying nuclear material to States. It seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear related exports. The NSG first met in November 1975 in London, and is thus popularly referred to as the "London Club" ("Club de Londres"). This group of States was formed informally.



Interdisciplinary Journal of Information, Knowledge, and Management

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Vol. : 20, Issue 2, 2025
ISSN: (E) 1555-1237

The NSG was created following the explosion in 1974 of a nuclear device by NNWS ie. India, which demonstrated that nuclear technology transferred for peaceful purposes could be misused. It is an informal voluntary grouping that aims to harmonise implementation of controls on export of sensitive nuclear and dual use equipment, materials and technologies to prevent diversion to non-peaceful use and to strengthen the arrangements of the Zangger Committee.

The NSG has developed "Guidelines for Nuclear Transfer". The NSG Guidelines are broader in scope than the Zangger List in terms of export conditions and in that NSG Guidelines also cover dual use items. The NSG periodically reviews its guidelines and control lists to ensure they reflect technological advances.

The aim of the NSG, which currently has 45 Participating Governments, and the European Commission as a permanent observer, is to prevent the proliferation of nuclear weapons through the implementation on a national basis of export controls of nuclear and nuclear-related material, equipment, software and technology, without hindering international cooperation on peaceful uses of nuclear energy.

As there is no formal criterion leading to the formation of this Group as it is an informal gathering of states having concern with the proliferation, so no question of formal criteria for membership arises for such an informal Association. So is also no such formal criterion for the subsequent addition in the membership. To this date 45 States are the members consisting of this Group. Apart from this European Commission has been designated the status of Permanent observer. The informal criterion that is followed for providing the membership of this Group is as follows:

1. The ability to supply items (including items in transit) covered by the annexes to Parts 1 and 2 of the NSG Guidelines;
2. Adherence to the Guidelines and action in accordance with them;
3. Enforcement of a legally based domestic export control system which gives effect to the commitment to act in accordance with the Guidelines;
4. Full compliance with the obligations of one or more of the following: the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Treaties of Pelindaba, Rarotonga, Tlatelolco, Bangkok, or an equivalent international nuclear non-proliferation agreement.
5. Support of international efforts towards non-proliferation of weapons of mass destruction and of their delivery vehicles.



Aims of NSG

NSG members pursue the aims of the NSG through adherence to NSG Guidelines that are adopted by consensus, and through an exchange of information, notably on developments of nuclear proliferation concern. The first set of NSG Guidelines governs the export of items that are especially designed or prepared for nuclear use. These include:

- (1) Nuclear material;
- (2) Nuclear reactors and equipments for them;
- (3) Non-nuclear material for reactors;
- (4) Plant and equipment for the reprocessing, enrichment, and conversion of nuclear material and for fuel fabrication and heavy water production; and
- (5) Technology associated with each of the above items. The second set of NSG Guidelines governs the export of nuclear related dual use items and technologies (items that have both nuclear and non nuclear applications), which could make a significant contribution to an unsafeguarded nuclear fuel cycle or nuclear explosive activity.

The NSG Guidelines are consistent with, and complement, the various international, legally binding instruments in the field of nuclear non-proliferation. These include the:

- (1) Non-proliferation Treaty,
- (2) Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco),
The South Pacific Nuclear Weapons-Free Zone Treaty (Treaty of Rarotonga),
- (3) African Nuclear-Weapons-Free Zone Treaty (Treaty of Pelindaba) and (
- (4) Treaty on the Southeast Asia Nuclear-Weapons-Free Zone.

Nuclear Deal and the NSG

Joint Statement issued on the 18 July mentions that "ensuring that the necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and Nuclear Suppliers Group (NSG) guidelines."



Interdisciplinary Journal of Information, Knowledge, and Management

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Vol. : 20, Issue 2, 2025
ISSN: (E) 1555-1237

All 45 members of the Nuclear Suppliers Group are required to approve the US-India Civilian Nuclear Cooperation Agreement. The NSG requires full scope safeguards as a condition of civil nuclear cooperation with a NNWS as defined by the NPT. Presently India has agreed to voluntary safeguards over "civilian" facilities of its choosing, preventing the diversion of any part of India's existing fissile materials stockpile for weapons purposes. Nearly every non-nuclear weapon state has remained true to the core NPT bargain, forsworn nuclear weapons, and accepted full-scope safeguards. Why should India get everything it wants at the expense of the non-proliferation regime? This question is raised by experts. There is enormous political pressure to go forward with this India deal. However, Bush administration in the Joint Statement has appreciated India as a "responsible State with advanced nuclear technology". India has very real energy needs and there is competition to fill them. It is predicted that several players, selling nuclear and technological materials to India, will use this deal to advance their own agenda if the deal is successful. It is also believed that, it would be politically impractical to stubbornly oppose the deal; nevertheless, there are overriding interests in the safety of our entire solar system which Nuclear Energy may affect both ways constructively and destructively.

The process for lifting the existing legal bars on nuclear cooperation with India has already commenced in the US. After clearance by the US House of Representatives International Relations Committee on 27 June 2006, the House passed the Bill on 27 June 2006. The Senate Foreign Relations Committee passed its version of the Bill on 29 June 2006. The US Senate is now expected to vote on this Bill sometime in September 2006. Since the two Bills are somewhat different in content., according to US practice, they will need to be reconciled to produce a single piece of legislation. After adoption by both the House and the Senate, this would become law when the US President accords his approval. Only after this, the law would stand amended to allow nuclear cooperation with India.

With the negotiation of the 123 agreement in 2007, the main obstacles to the deal's consummation in Washington had been overcome. Most significantly, US law had been altered to enable nuclear commerce with India. Between major delays to the deal in late 2007 and 2008 stemmed purely from domestic political opposition in India. The safeguards agreement finally concluded in July 2008 after a trust vote in the Indian parliament, unanimous NSG approval remained the most significant hurdle for the deal's enactment.



Interdisciplinary Journal of Information, Knowledge, and Management

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Vol. : 20, Issue 2, 2025
ISSN: (E) 1555-1237

Thus, the culmination of nuclear agreement two countries brought host of benefits for both the countries through this deal, India got access to Nuclear Fissile Material and Technology and this will enable opening up certain key high-tech industries such as pharma, IT, space and defence. With this deal recognized India as an emerging power with a stable democratic system, growing market economy and business appcal. 35 By getting access to advanced nuclear technology, India could now pursue an environmentally sustainable economic growth. While for US the deal was an indication of its ability to dominate the NSG despite the opposition of some countries. It also brought immense opportunities for US nuclear industry and found in India a big consumer market. The deal has taken the Indo-US relations to a new high with diversified bases of interaction. This step may be more perpetuating and long lasting for their bilateral relations encompassing areas other than commercial and defence. India and US, with their common ideas, complimentary strength and shared commitment could work for a new world order. Hence, the Indo-US nuclear cooperation agreement is a highly acclaimed commitment to a global strategic partnership.



References

1. O.P.Sabherwal, India's Tryst with the Atom, UBS, New Delhi, 2004.
2. Ibid.
3. "Indo- US Civilian Nuclear Deal", <http://www.ukesays.com>, 24 March, 2012
4. P.R.Chari, (ed.), Indo-US Nuclear Deal: Seeking Synergy in Bilateralism, Routledge, New Delhi, 2012
5. G.G.Mirchandani, India's Nuclear Dilemma, Popular book services, New Delhi, 1968.
6. Chari.
7. M.Emdadul Haq, "Indo-US Nuclear Agreement : Regional Concerns," Biss Journal, vol.27, no.2, April 2006
8. Chari, n.4
9. Bhabani Mishra, "India -US Relations: A Paradigm Shift", Strategic Analysis, vol.29, no.1, January-March 2005
10. Rajiv Nayan, "India-US Economic Cooperation", World Focus, vol.21, no.6-7, July 2000
11. Badya Nayan Basu, "US Sanction and India", Strategic Analysis, vol.xxii, no.10, January 1999
12. Ibid.
13. O.P.Sabherwal, "The Politics and Economics of Sanctions", World Focus, vol.20, no.6-7, July 1999
14. Ibid
15. C.Raja Mohan, "Nuclear Diplomacy : The art of the Deal", World Focus, vol.20, no.6-7, July 1999