
India and Nuclear Non-Proliferation Regime

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An Overview:

Nuclear weapons are weapons of mass destruction and they indiscriminately incinerate people and contaminate air, soil, and water across national boundaries and across generations. That's why the world agreed to work to eliminate nuclear weapons decades ago. Today, nearly two decades after the Cold War ended, there are still more about 23,000 nuclear warheads in the world. They are held by just nine countries like the US, Russia, the UK, France, China, Israel, India, Pakistan and North Korea. Worryingly more than 2,000 of them are still on hair-trigger alert and ready to launch at short notice, 24 hours a day, seven days a week. And these weapons are far more powerful than those that wreaked havoc in Hiroshima and Nagasaki.

Together with the world's other nuclear weapons states, Britain pledged to get rid of its nuclear weapons in 1970 by signing the Nuclear Non-Proliferation Treaty (NPT). They reaffirmed this pledge in 2000. In exchange, non-nuclear weapons states agreed that they would not pursue their own nuclear weapons. 40 years on many non-nuclear countries are understandably feeling a bit nervous and are fed up that the nuclear states have not kept up their end of the bargain to disarm. Inevitably this has led to some of them trying to develop their own bombs, with greater or lesser success. And the nuclear states' refusal to talk about anything other than preventing other countries gaining nuclear weapons at NPT meetings has left the process close to collapse. So much so that at the major NPT conference in 2005 delegates spent much of the time failing to even agree an agenda. Former UN Chief Weapons Inspector Hans Blix warns: "So long as any state has nuclear weapons, others will want them. So long as any such weapons remain, there is a risk that they will one day be used, by design or accident. And any such use would be catastrophic." (Lisa:2010:9)

Right now the UK's Trident submarines carrying nuclear armed missiles are on constant patrol 24 hours a day, 365 days a year. Each submarine carries up to 48 nuclear warheads. Every single one is eight times more powerful than the bomb that destroyed Hiroshima. Robert McNamara, Former US Secretary of Defence has rightly said that The weapons which nearly led to nuclear war in the Cuba crisis are still there and the potential for misjudgement is still there, and the only way to avoid that in the long term is to eliminate nuclear weapons, that should be our objective, in a very real sense it's the lesson of the cold war.

One of the enduring nightmares of the post-Cold War world has been that terrorists might obtain a nuclear weapon, or the materials to craft one. The attacks on New York and Washington of September 11, 2001, added a new level of reality to the threat that terrorists might acquire a nuclear weapon and explode it in a populated area and merciless enough to carry out such an assault. So the global nuclear non-proliferation regime is facing some serious challenges. Other non-proliferation concerns include a number of regional focal points. North Korea's claim that it possesses nuclear weapons and is pursuing more has led to a diplomatic crisis. In the Middle East, Iran's nuclear weapons development remains a threat. Libya's voluntary revelation of its covert nuclear weapons program reinforced the fear that nations may develop weapons

without being discovered. The continuing confrontation between India and Pakistan is made more dangerous by their possession of nuclear explosives. There is concern about Chinese and Russian activities that may encourage proliferation in the other regions.

While attention may have been redirected to the terrorist threat, other concerns about the proliferation of nuclear weapons have not been diminished. The United States has long been a leader of worldwide efforts to prevent the spread of nuclear weapons to additional nations, as well as to nongovernmental entities. Since the 1950s these non-proliferation efforts have built up a broad international structure, including treaties, international organizations with inspection mechanisms, and other agreements, complemented by wide-ranging domestic legislation.

The centrepiece of this structure is the Nuclear Non-proliferation Treaty (NPT). Under the terms of the NPT, the five declared nuclear weapons states the United States, the United Kingdom, Russia, France and China agreed “not in any way to assist” any non-weapons state to acquire nuclear weapons. They also agreed to reduce and eventually eliminate their own nuclear arsenals. Non-weapons states agreed not to develop nuclear weapons and to allow the International Atomic Energy Agency to inspect their nuclear facilities and materials to ensure that peaceful nuclear technology is not diverted to military purposes. The NPT also guarantees non-weapons states access to peaceful nuclear technology. Since the end of the Cold War, participation in the NPT has been almost universal. Except for India and Pakistan, whose pursuit of nuclear weapons capabilities and 1998 tests of nuclear explosives are a principal non-proliferation concern, only Israel has not signed the NPT. (Kelsey, Marcus:2013:56)

India as a responsible country has been acting carefully in this field of nuclear non-proliferation. India’s first nuclear test in 1974 led to establishment of the Nuclear Suppliers Group (NSG). Though India conducted a nuclear test in 1974, the Indian nuclear weapons program was more or less shut down for the next decade and half. Though some developmental work continued at a low level, the decision to build nuclear weapons was taken only around 1988-1989. The Indian decision to go nuclear appears to have been taken reluctantly, Indian intelligence had been warning for about a decade that Pakistan was making steady progress on its nuclear weapons program, and both the international community in general, and the non-proliferation regime more specifically seemed unable or unwilling to stop Pakistan’s nuclear pursuit. In addition, there were clear indications that China was aiding Pakistan’s efforts. These conditions appear to have left Indian decision makers believing that they had little choice but to restart the Indian nuclear program.

India has always had an uneasy relationship with the global nuclear non-proliferation regime. On the one hand, it has seen the non-proliferation regime as a discriminatory order that unfairly targeted NNWS while allowing the NWS to maintain their nuclear arsenals. On the other hand, India has always seen the spread of nuclear weapons as a danger and has been careful about ensuring that its own nuclear technology has not spread to other NNWS.

India and NPT:

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has suffered a lot of dents of late from its signatories: North Korea and Iran are just some examples. But the long standing refusal of India, Pakistan, and Israel, all possessors of nuclear weapons to accede doesn’t help either. However, India has recently made overtures that it wishes to join the NPT as a nuclear weapon state (NWS). This poses hurdles for the treaty as the US, and four other NWSs might not want another member in the club, according to professors David P. Fidler and Sumit Ganguly. India’s nuclear arsenal is mainly a deterrent and the country has not made any attempts to proliferate nuclear weapons, unlike China or Pakistan. Indeed, the authors argue that excluding India from the treaty because of an arbitrary date of possession of nuclear weapons

seems pedantic. But bringing India into the fold poses problems. The Obama Administration's Security Council Resolution 1887 calls on all parties not signatories of the NPT to accede as non-nuclear weapons states an action India would surely not take. And there is also the issue of whether other NWSs like China or Russia would accept India into the NPT. In the end, if India were to join the NPT, this wouldn't stop nuclear weapon proliferation, but it could bring the world closer to a system in which everyone is a member, which is a start. (Ved:2011: 34)

Continued disturbing revelations about Iran's nuclear programs escalate the dangers the world faces from nuclear proliferation. The mounting peril threatens to overwhelm former US President Obama's quest for a world free of nuclear weapons, a quest he tried to pursue at a summit on nuclear security in April 2010 and at a meeting in May to review the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). While NPT membership is nearly universal, the refusal of India, Pakistan, and Israel to join, North Korea's proliferation and withdrawal from, and Iran's violations of, the treaty have placed severe stress on the non-proliferation regime.

Into this environment comes an unexpected development. On November 29, 2009, Manmohan Singh, India's former Prime Minister, stated on that India wants to join the NPT as a nuclear-weapons state (NWS) and become the sixth NPT-recognized nuclear power. Although Indian diplomats have raised this idea in private in years past, Singh's statement represents the first public announcement by a high-ranking official that India wants to be a NWS within the NPT. Indian press reports indicate that Singh is serious about this proposal, despite opposition within India. (Bidwai, Vainik: 1999: 78-79)

Not only does this statement depart from India's historic NPT opposition, but it also could agitate nuclear diplomacy in 2010. India's willingness to join the NPT contains the potential to strengthen the NPT, which places a premium on how existing NPT members respond to India's policy shift. Bringing India within the NPT as a NWS would be controversial, but to exclude a nuclear-armed but non-proliferating India when it is now willing to join would not strengthen efforts against nuclear proliferation.

India has long criticized the treaty and maintained it would not join because the NPT discriminated against states not possessing nuclear weapons on January 1, 1967; it increased the difficulties for states wishing to develop nuclear energy; and it did not contain serious disarmament obligations for existing nuclear powers. India presented its position as one of principle, but it had security interests in having nuclear weapons to deter perceived threats from China. India again caused consternation in 2008 when it concluded an accord with the US under which India could access nuclear technologies and materials in return for placing its civilian nuclear facilities under International Atomic Energy Agency (IAEA) safeguards. Critics complained that the accord rewarded India's NPT defiance and weakened efforts to strengthen non-proliferation.

By switching course, India forces the non-proliferation community to confront India's criticisms of the treaty, which overlap with worries about the NPT's weaknesses. By all accounts, India has been a responsible nuclear power. Its exclusion from the NPT would be a function of an arbitrary date rather than its behaviour. India has not fostered proliferation, unlike China and Pakistan. It has a small nuclear arsenal for deterrence, unlike some recognized NWS that have massive stockpiles despite NPT obligations to engage in disarmament. Through the US-Indian nuclear accord, India has accepted IAEA oversight of its civilian nuclear facilities, and India has performed better in this regard than Libya, Iran, Iraq, North Korea, and Syria, which joined the treaty as non-nuclear weapon states but violated, or are suspected of violating, the NPT.

In short, India is not undermining the non-proliferation system, rather, the NPT system has been undermined by its own flaws and the countries that agreed to abide by, but flouted, its rules. India is now willing to join

the NPT and bring its legitimacy as a democratic nuclear power and its growing influence to bear on shoring up the NPT's objectives. All that is required is an amendment to the treaty's cut off date for recognition as a NWS. Existing NPT members can accept India's desire to help strengthen the NPT, or they can reject India's interest, which does not improve the NPT's prospects. (Huntley, Kurosawa, Mizumoto:2005: 89-90)

If NPT members follow the UN Security Council, they will reject India's overture. As part of former US President Obama's effort to advance the cause of a nuclear-free world, the Security Council unanimously adopted Resolution 1887 on September 24, 2009, which calls upon all States that are not Parties to the NPT to accede as non-nuclear weapon States. NPT members could hide behind this resolution and avoid addressing India's new position. However, such a response simply avoids a policy question that deserves attention on its merits. (Sethi:2009:47)

The key states will be the NPT's existing NWS, especially China, Russia, and the US because all NWS must approve the amendment needed to permit India to join as a NWS. Neither China nor Russia faces additional strategic risks from allowing India to join the NPT because India is already a nuclear-armed power, and supporting Indian accession could be a way to improve relations with the country as its regional and global influence grows.

The US has caught between recognizing India as a democratic, responsible nuclear power (e.g., the US-India nuclear accord) and the policy of the Obama administration that non-parties to the NPT should join only as non-nuclear-weapons states. Given India's NPT shift, the US cannot reconcile these positions, meaning it must make a choice that contains no room for dissembling. The US choice will likely determine how European nations and Japan respond, as happened with the US-India nuclear accord.

Importantly, opposing India's desire to join the NPT as a NWS on the basis of Resolution 1887 or narrow national interests will do nothing to strengthen the NPT. If a more robust NPT is vital for making progress towards a nuclear-free world, then bringing India into the treaty, especially when it is emerging as a great power, makes more sense than believing that India will disarm unilaterally simply to join the NPT. Indian participation in the NPT will not, by itself, eliminate the problems the NPT now confronts, especially those caused by North Korea, Iran, and the potential of nuclear terrorism. But, with India supporting the regime, the world would finally have all nuclear-armed great powers committed to the same rules an unprecedented convergence that could reinvigorate non-proliferation politics in a manner more meaningful than the distant vision of a world without nuclear weapons.

India's NPT move adds complexity to the nuclear diplomacy that will unfold in 2010, and, shrewdly, it elevates Indian interests, influence, and ideas. Whether India succeeds or fails, its manoeuvre highlights problems with the NPT, creates challenges for India's allies and rivals, and forces non-proliferation advocates to re-think how to strengthen their efforts. (Behrens:2006:91)

So there are only three countries outside the NPT - India, Pakistan and Israel. India and Pakistan have declared themselves nuclear weapon states while Israel, though a possessor of nuclear weapons even before the NPT was signed, has chosen to adopt an ambiguous stand of neither declaring nor denying its possession of nuclear weapons. Israel's stand is that it will neither be the first to introduce nuclear weapons nor will it be the second. The world, however, accepts Israel as a nuclear weapon state. India has reacted to the resolution by saying that there is no question of India joining the NPT as a non-nuclear weapon state as nuclear weapons are an integral part of India's security. The NPT only recognises five nuclear weapon powers and other countries can be a party to the NPT only as a non-nuclear weapon state. Therefore the question of India joining the treaty does not arise.

Countries like USA, Russia talk about of a world without nuclear weapons. But the NPT was not intended to lead towards a world without nuclear weapons. Initially when it was drafted, it was meant as a bargain between the nuclear weapon powers and non-nuclear weapon states for 25 years. The nuclear weapon powers were meant to not expand their arsenals and had to negotiate in good faith for nuclear disarmament while the non-nuclear weapon states were meant to not acquire nuclear weapons. The nuclear weapon states did not keep their side of the bargain. Then, in 1995 at the end of 25-year period, they got the NPT extended indefinitely and unconditionally thereby legitimising the nuclear weapons in the hands of the five nuclear powers. If the nuclear weapons were legitimate for five powers, they would also be for all other powers who have not bound themselves not to acquire them. India, Israel and Pakistan did not break any international law when they acquired nuclear weapons. The supporters of the NPT do not seem to appreciate that the NPT is the main hurdle in advancing towards nuclear disarmament. The term non-proliferation implies that there will be some possessors of weapons and it is meant to stop the new states from acquiring the weapons. It is essentially a discriminatory treaty. Over and above this discrimination, the weapons have been legitimised.

No weapon considered legitimate is ever going to be eliminated. India cannot sign a discriminatory treaty which legitimises nuclear weapons. India has proposed steps to delegitimise the nuclear weapons. It has called for the nuclear weapon powers to adopt 'no first use' policy as a first step towards delegitimization as happened in the case of chemical weapons in the Geneva Protocol of 1925. That led to the treaty to eliminate chemical weapons in 1993. The nuclear weapons have been used only once against a country which was negotiating its surrender terms. President Ronald Reagan and Soviet General Mikhail Secretary Gorbachev had jointly declared that a nuclear war could not be won. The delegitimation path is more likely to lead towards disarmament, as the precedence of the chemical weapons shows rather than the non-proliferation path which surrounds the nuclear weapons with a mystique and endows them legitimacy. India has been a consistent advocate of nuclear disarmament since the inception of the United Nations. India became a reluctant nuclear weapon state faced with two nuclear neighbours with an ongoing proliferation relationship going back to 1976, with one of them declaring its nuclear arsenal as India-specific. At the time the NPT was under discussion, Indira Gandhi sent Indian emissary L.K. Jha and Dr Vikram Sarabhai to Moscow, Paris, London and Washington to seek nuclear security assurances for India if it were to sign the NPT. Those assurances were denied and therefore India did not sign the NPT faced with a Maoist China which proclaimed that all peace-loving nations had a right to nuclear weapons. (Schaffer, Rohlfing:2011:65-66)

In Chinese view at that time Pakistan was a peace-loving nation and India was not. In 1971 when the Bangladesh massacre involved a million casualties and 10 million refugees pushed into India, Delhi found it facing a Pakistan-China-US axis. Therefore India conducted the Pokhran-I nuclear test, but did not follow that up with a weaponisation programme.

In 1976 Z A Bhutto concluded an agreement for nuclear weapon development cooperation with China. The recent revelations from Dr A Q Khan's letter written in December 2003 when he was detained and facing interrogation give some details of the Chinese proliferation to Pakistan in the eighties which included weapon grade-enriched uranium and nuclear weapon design. In turn, Pakistan helped China to set up an ultra-centrifuge plant with European technology purloined by Dr A Q Khan from Almelo centrifuge facility in Holland where he worked earlier.

The Pakistanis conveyed nuclear threats to India during Operation Brasstacks (a military exercise undertaken by the Indian Army during November 1986 and March 1987) and at the beginning of Kashmir insurgency in February 1990. These are recorded in the report of the Kargil Review Committee. Rajiv Gandhi came

up with his comprehensive and phased disarmament plan before the UN Special Session on Disarmament in June 1988. He offered that India would not go nuclear if his plan was accepted. When that plan was ignored by the Non-Proliferation Community, he had no choice but to order assembly of weapons in India to catch up with Pakistan, which according to Dr Khan had attained weapon capability in mid-eighties. While China may have adopted a 'no first use' policy its surrogate Pakistan, which it had equipped with nuclear weapons and missiles, asserts its nuclear policy is India-specific and it has a policy of first use of nuclear weapons under certain circumstances. In 1998 Pakistan tested its Ghauri missile. Under those circumstances, India was compelled to test and declare itself a nuclear weapon state. (Miller:2012:88)

India found a compromise between its commitment to nuclear disarmament and its security imperatives faced with two nuclear adversaries in the strategy of 'no first use'. The world has recognised the Indian record of restrained and responsible behaviour and consequently granted India waiver from the Nuclear Suppliers Group guidelines. The call for non-nuclear states to join the NPT is a ritual meant to satisfy other non-weapon states and there is no reason for India to be unduly perturbed by it.

India's stance regarding the signing of CTBT:

About India's denial to sign the Comprehensive Nuclear Test Ban Treaty (CTBT), that is essentially a legal mandate designed to globally forbid nuclear tests. Envisioned by the US President John F Kennedy, the international ban on nuclear tests finally became a reality in 1996 when the CTBT was internationally declared open. However, as per the notions of the UN-Director General at Palais Des Nations in Geneva, Vladimir Petrovsky (Russia), the concept of nuclear test ban program was first conceived by Jawaharlal Nehru in 1954. The main functions of the CTBT are:

- Preventing and strongly discouraging research and development of nuclear weapon potentiality for states that do not have the background or capacity to enhance their nuclear weapons developments
- Block permanently the states that have authorized considerable nuclear weapon arsenals from affirming elevated nuclear weapon designs that has not seen successful tests
- To bridle the arms race, that seems to go on unmitigated. This especially applies for the Asian countries that have developed a propensity to stockpile their nuclear arsenals

The net result of the CTBT is this that, countries engaged in serious pursuit of nuclear armament programs or in the process of amplifying the capacities of their existing nuclear weapons will either have to swallow the fact that the advanced nuclear weapons will perform as per predictions or conduct actual tests to reaffirm the capacities of these weapons. Undoubtedly, if latter is the case, after the introduction of CTBT, the country will have to face the consequences in the form of severe global retaliation which may even result in a global denouncement.

India, one of the eight countries, (five countries with declared nuclear powers and three 'threshold' countries) had firmly denied being a signatory of the CTBT. Even the nuclear power officials' effort of ratification of the treaty before it is actually implemented was also turned down by India. As per the statement of India's erstwhile Foreign Minister, I K Gujral, "The treaty as it has been drafted is a charade. If we want to rid the world of these weapons, then it is the five powers which have the weapons that have to do something". (Pant, Joshi:2018:91) The logic provided by India was simple. India declared that it would not be a part of CTBT and all the states with declared nuclear power should first undertake a program of complete disarmament of their nuclear arsenal in the coming decade. The logic is irrefutable, as, if the international nuclear power officials want a world without a threat of nuclear weapons then a complete

disarmament of all the existing nuclear weapons is the only solution. The CTBT is 'just a charade' as mentioned by the Indian then Foreign Minister, I K Gujral.

The negotiations and the participation procedure ended on 28th of June 2013. India neither participated nor approved the CTBT. However, the formal closure of the treaty is not going to close the opportunity of being a part of it forever (as per diplomatic sources). The treaty will obviously be opened for a willing country agreeing to the terms of CTBT. The Partial Test Ban Treaty signed by India prohibits our country from testing nuclear weapons in the air. Since then, all such tests have been carried out mostly under the desert adhering to the norms of 'peaceful nuclear explosion'. The US State Department is under the apprehension that India may conduct another nuclear test sometime this year. As far as the nuclear arsenal of India is concerned, our country follows the ingenious method of keeping the several components of a nuclear weapon separately, which can be assembled at a short notice in case of the necessity of a nuclear strike.

Any weapon needs to be tested from time to time and nuclear weapons are no exceptions either. The fission and fusion materials also need to be checked periodically to ensure that they are functional. However, India has almost eradicated the need for actual nuclear tests by enhancing its computer simulation program to a great extent. Former Indian Army officer and a research fellow at the Royal United Services Institute in London, Pravin Sawhney stated that India could build 'boosted-fission' devices with a test. These devices are particularly nuclear fission bombs with a yield up to 500 kilotons similar to the first British H-Bombs. He further mentioned in the institute's journal that, "The Indian Government has invested heavily in super computing and related software." (Mistry:2011: 86-87) In spite of such advanced computer simulation techniques, there is no replacement of the actual testing of a nuclear device, although the computer simulation has considerably marginalized the need.

Currently Japan's Prime Minister Shinzo Abe has visited to India as the chief guest at the 65th Republic Day. In the meeting with his India's counterpart the two Premiers said they support the strengthening of international cooperation to address the challenges of nuclear proliferation and nuclear terrorism. India and Japan both emphasized their commitment to the total elimination of nuclear weapons. Both the countries agree to strengthen civil nuclear cooperation, challenge nuclear terrorism and also recognized that nuclear safety is a priority for both countries. They also noted that substantial progress has been made since their last meeting in negotiations on an Agreement for Cooperation in the Peaceful Uses of Nuclear Energy and have directed their officials to exert further efforts towards an early conclusion of the Agreement. The two countries reaffirmed their shared commitment to the total elimination of nuclear weapons. Prime Minister Abe stressed the importance of bringing into force the Comprehensive Nuclear-Test-Ban Treaty (CTBT) at an early date while Prime Minister Singh reiterated India's commitment to its unilateral and voluntary moratorium on nuclear explosive testing. (Kumar:2014:114)

India's nuclear policy

India looks at nuclear weapons as a strategic deterrence to prevent others from use of nuclear weapons. That is why it has enunciated a policy of No First Use (NFU). This has following components, credible minimum deterrence, renunciation of nuclear testing, no nuclear fighting and in case others use, response will be massive retaliation. It is because of above policy India is looked upon as a responsible nuclear power and has been made member of groups like MTCR and Wassenaar. Its membership of NSG although overwhelmingly supported by majority of nation states has been blocked by China at the behest of Pakistan.

The protagonist and the think tank behind the nuclear policy were K. Subramaniam and Brijesh Chandra Mishra. Post Pokhran II (1998), when a structured refurbished NP took place. After which India pronounced itself a Nuclear Power State.

India was never a dominant force in Asia (As of China and Pakistan) keeping in mind the Nuclear context hence In order to have an effective deterrence against both China and Pakistan, India declared itself a nuclear state. Moreover in the past India has got threatened with nuclear muscle stretch thrice, twice during Pakistan and once by USA during the 1971 war with Pakistan by 'USS Enterprise' Aircraft carrier at BOB.(Gupta:2009: 145-146)

Some of the major components of NP of India since 2003 are as follows

- a) No first use of Nuclear weapons: India will not strike first with nuclear weapons; it will use nukes only if attacked by nuclear weapons (or other weapons of mass destruction).
- b) If any country uses Nuclear arsenal towards India, India will revert back disproportionately or with punitive retaliation
- c) No use of nuclear weapons to non nuclear state
- d) Credible minimum deterrence: Credible Minimum Deterrence (CMD): India will maintain a minimum amount of nuclear stockpile only to keep it's enemies at bay. We are not in the MAD nuclear arms race. Ironically Mutually Assured Destruction (MAD) is a doctrine for increasing nuclear stockpiles. You can notice from the image below, the quantity of stockpiles India has compared with its neighbourhood or with superpowers.
- e) India might come up with the option of retaliating with nuclear weapons if any major attack against India would be conducted by biological or chemical weaponry.
- f) The retaliation of the attacks can only be conducted by the political leadership through the Nuclear Command Authority.

India-US Civil Nuclear Deal

The deal is seen as a watershed in India-USA relations and introduces a new aspect to international non-proliferation efforts. Since July 18, 2005, the deal lifts a three-decade U.S. moratorium on nuclear trade with India. It provides U.S. assistance to India's civilian nuclear energy program and expands India-USA cooperation in energy and satellite technology. An approval by the Nuclear Suppliers Group lifting the ban on India has also cleared the way for other countries to make nuclear fuel and technology sales to India. India would be eligible to buy U.S. dual-use nuclear technology, including materials and equipment that could be used to enrich uranium or reprocess plutonium, potentially creating the material for nuclear bombs. It would also receive imported fuel for its nuclear reactors.(Gupta, Prakash, ed:2009:114-115)

The India-US Nuclear deal was historic given that India is not a signatory to the NPT and CTBT and was signing such deal also marked maturity if bilateral relations of both countries. However, a decade has passed since then and many circumstances have changed round the world like:

- a) Toshiba-Westinghouse who carried the baton of this deal and would construct six nuclear power stations in India ran into financial troubles and projects were postponed

- b) The world community including India has become apprehensive of nuclear power after the Fukushima disaster and is passively trying to reduce dependence on it
- c) India though has declared target of establishing a capacity of 175 GW renewable energy projects by 2022 under Paris Climate accords but it doesn't involve nuclear power plants
- d) The new leadership in the US has abstained from providing necessary funds to India singling it out as a major polluter (India is the third largest GHG emitter in the world) and is pushing its oil and coal exports instead

But, nuclear energy is important for sustainable growth and battling climate change as nuclear fuel is not only about three million times energy equivalent of coal but also will reduce the GHG emissions from the 'energy starved' India and hence the following steps have to be undertaken:

- a) Technology and fissile material import from countries like Canada, Australia etc along with pushing for nuclear energy along with oil and gas with the US
- b) Reviving its ties with old friend Russia for enhancing the pace of projects which will inspire the US to pursue the same
- c) Exploiting the Asia-Africa route to negotiate the Pelindaba treaty in order to procure material from African nations
- d) Establish nuclear power as a primary source of energy and not as a backup for others, thus increasing the charm for foreign companies to trade with India

US unilaterally pulled out of the Iran Nuclear deal: The Joint Comprehensive Plan of Action, commonly known as the Iran deal, was signed on July 14, 2015 between Iran, the U.S., China, France, Russia, the U.K., Germany and the European Union. (Ravi:2018: 117)

Under this deal, Iran agreed not to build any more heavy water facilities, eliminate its stockpile of medium-enriched uranium, cut its stockpile of low-enriched uranium, and reduce the number of its gas centrifuges. Other nuclear facilities in Iran would have to be converted into non-nuclear facilities. And in return, Iran will recover assets worth \$100 billion frozen in overseas banks, and sanctions on the country by the U.S., the U.N. and the E.U. will be lifted.

President Donald Trump recently decided to unilaterally pull the U.S. out of the Iran nuclear deal and to re-imposing nuclear sanctions against that country.

It is a huge setback to multilateral diplomacy and the rules-based international order. The re-imposed sanctions will target critical sectors of Iran's economy, such as its energy, petrochemical, and financial sectors

Former United States President Barack Obama criticised the decision made on Tuesday by President Donald Trump to pull the United States out of the 2015 Iran nuclear deal, calling the move a "serious mistake". (Chari:2009: 126)

Iran's Reaction:

Iranian President Hassan Rouhani said that if the U.S. quits the nuclear deal between Tehran and world powers then Washington would regret it "like never before".