

International Nuclear Order: New Framework for Cooperation

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Introduction

Creation of various international nuclear management regimes, on which international order rests, is a laudable effort, but not a success story of the international community. The purpose of creating international nuclear order was to safeguard mankind from the disastrous effects of the nuclear weapons by restricting proliferation of these weapons and ensuring their non-use, but not deny use of nuclear energy for peaceful purposes. Existing nuclear order approaches are therefore, designed to serve two purposes, first allow global access to facilitate nuclear energy for peaceful uses, and second to limit the dual use of technology for making weapons and its up-gradation.¹

Formulation of international nuclear order was mainly determined by contemporary politics and the world global order prevalent at the time of its creation. During the Cold War rivalry between the Western and Soviet bloc led to what is commonly termed as the first nuclear order. It was fashioned by the experience of two superpowers during the Cuban missile crisis. US and Soviet Union for the first time realized the sensitivity of the weapon management issue when confronted with this crisis and came up with a number of bilateral agreements to minimize the possibility of mismanagement, and unintended damage of both sides. Possibilities of nuclear proliferation too, for the first time, were realized as a major threat to world peace then. In the aftermath of Cuban missile crisis John F. Kennedy, US President drew attention to the issue of nuclear proliferation in future. He said that, "I see the possibility in the 1970's of the President of the United States having to face a world in which 15 or 20 or 25 nations may have these weapons."² Kennedy's assessment of nuclear proliferation was true to some extent and was also an eye opener for the nuclear powers of that time. Subsequently, ground breaking agreements were initiated between US and USSR to deal with the emerging security situation. A hotline between Washington and Moscow was activated; a unilateral moratorium on nuclear testing and ban on nuclearization of outer space was also accepted by both sides in early nineties. Besides the two super powers the international community also came up with various proposals to restrict spread of nuclear weapons. These efforts resulted in the formulation of Nuclear Nonproliferation Treaty (NPT).

Evolution of the Structure

Advent of nuclear weapons had fundamentally transformed global security requirements round the world. It was feared that other nations too would desire to possess these weapons as time passed. Restricting proliferation of these weapons thus also served the security needs of the states which possessed these weapons. First efforts to curtail the proliferation of nuclear weapons had begun almost immediately after the first use of nuclear weapons by US against Japan, in 1945. The effort continued after that and nuclear order evolved in two broad phases. Each phase reflects the contemporary politics of that time. Paul Bracken has divided the nuclear age in two categories. He has argued that the first nuclear age, and its contours were defined by balance of power between the two super powers and second age was the end of Cold War, which is marked by the transfer of nuclear technology to the third world countries due to the threat perceived by them.³ These states apprehended that nuclear order would be controlled by great powers and place them in a permanently disadvantageous position with regard to their security if they failed to master nuclear technology.

For a long period of time NPT was considered a milestone in international nuclear order. Besides the issue of nuclear nonproliferation, NPT also addressed issues related to disarmament and supply of nuclear technology for peaceful uses of nuclear energy. But NPT was a consensus document finalized after prolonged negotiations between nuclear weapon and non-proliferation weapons states and not a perfect nonproliferation agreement. NPT reflected the international military and political structure of the period in which it was negotiated and signed. NPT however, was unsuccessful in achieving its stated objectives. The main reason for its failure can be found in the very structure of international political order which created it. This order was discriminatory and heavily biased towards powerful nuclear states. Discriminatory nature of world political order is and continues to be the greatest challenge to international nuclear order. It has also created a gulf between nuclear 'haves' and 'have nots.' Horizontal proliferation took place as the nuclear order had failed to take into account the dynamic nature of geopolitical and security situation in different parts of the world. Besides horizontal proliferation, advanced nuclear powers continued to add to their arsenals more sophisticated nuclear weapons and delivery systems. These new weapons posed increased threats to world peace. International nuclear order could not effectively deal with this issue as well.

First Nuclear age

Tracing the history of nuclear order's development is important for understanding the issue. As noted before nuclear order in theory aims at achieving apparently mutually exclusive objectives of promoting global access to nuclear technology for peaceful purposes and at the same time limit nuclear proliferation. First nuclear age extended

from the end of World War II to the 1990s and is marked by the following developments in the nuclear field.

- During this period international nuclear order was confronted with the challenge of dual-use nuclear technology. In this regard efforts were made in the form of Acheson-Lilienthal Report in 1946, and subsequently Baruch Plan, and in 1953 Eisenhower's "Atom for Peace Program".
- Establishment of the International Atomic Energy Agency (IAEA), 1957 and its development of nuclear safeguards.
- Gradual expansion of nuclear club to five nuclear weapon states (US, Britain, France, Russia and China)
- Conclusion of the Nonproliferation Treaty (NPT) in 1968. The NPT went into force in 1970 and subsequently ABM Treaty was signed in 1972.
- India-Iraq Nuclear cooperation: Saddam Hussein flew to India in 1974 specifically to sign a nuclear cooperation treaty with Indira Gandhi, then Prime Minister of India. The little known treaty involved the exchange of scientists, training, and technology.⁴
- South Pacific Nuclear Free Zone Treaty, whose common name is Rarotonga Treaty. It came into force in 1985.
- During 1990's declaration was signed in South America between Brazil and Argentina to curtail the use of nuclear technology for military purposes which led to the creation of Brazilian-Argentine Agency in 1991. It later resulted into the 1994 Treaty of Tlatelolco and created the Latin American Nuclear Weapons Free Zone. It is the first agreement of its kind. It is a regional agreement between two rivals which facilitated peaceful settlement of the dispute and establishment of NWFZ in the world.
- Entry into force of the US and Soviet Union moratorium, 1990's.⁵
- Acceptance of NPT as universal norm by all states and accession of France, China Argentina and Brazil to the NPT in 1992.

- The signing of Lisbon Protocol, 1992. It's an accession of Commonwealth of Independent States (CIS states)¹ as non-nuclear weapon states.
- Strategic Arms Reduction Treaty (STARTII) was signed between US and Russia in 1993.⁶
- Joint Declaration between North and South Korea. The two Koreas also established the South-North Joint Nuclear Control Commission (JNCC) as an implementing mechanism of the Joint Denuclearization Declaration (JDD) in March 1992. The JNCC did not mature into an agreement on the reciprocal inspection regime and has been stalled since 1993.
- The Southeast Asian [Nuclear-Weapon-Free Zone](#) Treaty also called as Bangkok Treaty was initiated in 1995 and came into force in 1997. It is a nuclear moratorium between ten Southeast Asian countries.
- The African Nuclear Free Zone Treaty called as Pelindaba Treaty was signed in 1996 and came into effect in 2009.

First nuclear age is also marked by several initiatives to curtail export of nuclear technology and regulate trade of nuclear material. Measures were taken, after the 1974 Indian nuclear test that ranged from policy restrictions on dissemination and use of enrichment and reprocessing technology; to tightening of controls over the nuclear export to other countries⁷ In this regard nuclear export cartels were established. Nuclear Suppliers Group, London Group and the Zangger Committee were established in 1974. Besides IAEA standard regime was expanded from a facility-based approach (INFCIRC/66) to full-scope safeguards (INFCIRC/153).

Second Nuclear Phase

The nuclear order was almost consolidated at the end of the first nuclear phase. Efforts were then mainly directed at minimizing the role of nuclear weapons in politics and security system of nuclear weapon states and ensuring nuclear nonproliferation. To limit nuclear weapons certain steps were taken by both the Cold War rivals and their allies keeping in view their respective country's security requirements. The first nuclear phase OVERLAPPED with the second in the 1990's.

But in this age nuclear order was dented by nuclear tests conducted by two more states, India, and Pakistan. Though these countries have declared themselves as nuclear weapon states but their status has not yet been legitimized by the international

¹ Belarus, Kazakhstan and Ukraine are CIS states which signed NPT as non-nuclear states

community. During this age progress was also made for further consolidation of nuclear order.

- Negotiations on Comprehensive Test Ban Treaty (CTBT) were started in 1994, and adopted by UNGA on 10 September 1996. But it has not yet entered into force due to non-ratification by all the nine nuclear weapon states.
- Improved IAEA Safeguards arrangements were implemented in 1996 and 'Model Additional Protocol' was adopted for the application of Additional Protocol (INFCIRC/540) in June 1995⁸
- In 1993 UNGA adopted resolution 48/75L calling for the negotiation on banning the production of fissile material for nuclear weapons and other nuclear explosive devices. Later on Conference on Disarmament (CD) established a committee to negotiate a treaty on banning of fissile material which is known as Fissile Material Cutoff Treaty (FMCT).
- Non-settlement of 1994 Agreed Framework between US and DPRK followed by North Korean unilateral withdrawal from NPT under Article VII of NPT.
- The formation of Middle East working group on Arms Control and Regional Security (ACRS)⁹
- Non-acceptance of Pakistan's proposal for establishment of South Asian Nuclear Free Zone (SANWFZ) by India.

Though a number of measures have been taken to strengthen the international nuclear regimes but the increasing divide between the 'haves' and 'have nots' has brought to the fore the intrinsic weakness of the nuclear order. A static nuclear order proved inadequate to meet the challenges of ever changing and dynamic security situation in different world regions. A number of developments took place that weakened the effectiveness of international nuclear order. Those briefly are:

- Failure of US-Russian security treaties, which resulted in the deployment of US missiles defense in Central Asia. American Anti-Ballistic Missile System is six decades old, which was renamed as National Missile Defence System (NMDS) in 2002. After withdrawal from ABM treaty in 2001, President Bush announced national policy on ballistic missile defense to and proceeded to deploy missile defense system in 2004 in Central Asia.

- Ballistic missile tests by Iran and North Korea.
- Development of Iranian nuclear program which is declared by Tehran as peaceful nuclear program but not recognized as such by the international community.
- Libyan nuclear program was discovered and subsequently dismantled.
- North Korea also allegedly got nuclear technology through clandestine means.
- Global war on terror and issue of nuclear terrorism emerged as a threat to the existing order.
- Indo-US strategic relations in 2005 which led to the Indo-US nuclear deal in 2007-08. Momentum which was built for the last six decades for strengthening of nonproliferation regime and stabilization of nuclear order has been permanently damaged by this deal.

Contours of existing nuclear order:

As noted before, global effort to curtail the spread of nuclear technology had started with the advent of nuclear weapons as several states had desired to acquire nuclear technology. This resulted in the creation of the non-proliferation regimes and a number of restrictive measures designed to prevent the transfer of nuclear technology and nuclear related materials to potential nuclear states, such as the Nuclear Nonproliferation Treaty (NPT), Comprehensive Test Ban Treaty (CTBT), and Fissile Material Cut-off Treaty (FMCT). These regimes define international nuclear order in theory. But the nuclear reality is different. The existing nuclear order denies nuclear weapon status to all other state except P-5 (US, Russia, China, UK and France), but the system was not strong enough to stop emergence of other nuclear states. It had many loopholes which were used by Israel, India, Pakistan and North Korea to develop nuclear weapons. Iran too is allegedly developing these weapons. The nuclear reality is that there are in all nine *de-facto* nuclear states. Five existed at the time of NPT enforcement and four states which acquired this capability subsequently.

Challenges and Weaknesses of Existing Nuclear Order

New dimensions have been added to the international security system. International security threat is no more confined to state to state relationship, particularly after 9/11. Frontiers of security have been transformed after the emergence of non-state actors which are considered to be as big or greater threat to world security. Such developments impact international nuclear order and the role of nuclear weapons in world security.

International nuclear order, as mentioned before, was created to achieve three objectives of non-proliferation, nuclear disarmament, facilitating peaceful uses of nuclear energy, and preventing spread of nuclear weapons. Focus of attention of the international community has been on non-proliferation since the beginning of first nuclear age and the record of international community for achieving other two aims has not been very impressive. Changing geopolitical and world economic situation, as states in Asia and Latin America become militarily and economically stronger in the twenty first century, have placed current nuclear order under additional stress. The new nuclear order will have to be so designed that it protects the security interests of greater number of states in future.

Disarmament efforts have not produced any notable results yet. P-5 states have not taken any meaningful steps for elimination of nuclear weapons as they are obliged to do under Article VI of NPT. On the contrary these states have taken a step back from their earlier position on disarmament. As observed by George Perkovich, France and the US “essentially disavowed in preparatory meeting for 2005 NPT Review Conference, the pledges they had made in 2000 Review Conference.”¹⁰

International regimes constructed to stop nuclear proliferation too were not entirely successful in achieving their aim. These regimes had sufficient gaps which were cleverly used by prospective proliferators like India, Pakistan, Israel and North Korea. These states however, were considered outliers to the nuclear order but the principle on which the order was created remained unaffected by the addition of new nuclear states. Only minor adjustments were made in the nuclear order by making stricter export control laws by states to forestall future attempts at proliferation. The order continued to exist without any major changes. US-India civil nuclear deal of 2005 and subsequent moves by US to get India NSG membership without it signing NPT or agreeing to FMCT negotiations has in essence changed the principle on which nuclear order stood. If successful, these moves will remove the differentiation between NPT signatory and non-signatory states in the context of nuclear order.

Several analysts have pointed out non-compliance of NPT Article VI by nuclear weapon states as a challenge to the nuclear order. Enough attention has, however, not been focused on the fact that there are nine and not five nuclear weapon states in the world now. Five, which are generally referred to as P-5, have signed NPT and by virtue of agreeing to NPT provisions are bound to take steps for nuclear disarmament. The other four nuclear states are not bound by any bilateral or multilateral agreement to do so as these states have not been formally inducted in the nuclear order.

Nuclear order as it exists now was created to safeguard interests of major powers in a bipolar world. There was less temptation in a world dominated by two superpowers to acquire nuclear weapons by developing countries as they could turn to either superpower for their security. There is now growing realization of the dangers to

world peace in a uni-polar world as evident from US actions in Iraq and Afghanistan. Several world leaders have pleaded the advantages of more than one power centers for world peace. George Perkovich has drawn our attention to this phenomenon. "Russia and China led arguments that uni-polarity was dangerous and multi-polarity would be better. Some European leaders such as Dominique de Villepin and Jacques Chirac supported this view, as did some in India. Iranians, South Africans, Brazilians and others in large developing countries also began coalesce in soft-balancing against US hegemony." ¹¹

Russia has already begun asserting itself at the international level. China has taken steps in recent years that would increase its influence in parts of Asia and Africa. Indian economy and military power is growing. India and South Africa have been making efforts to be recognized as major players at the world stage. They have desired to be made permanent members of UN Security Council. As UN Security Council permanent members are nuclear weapon states there may be pressure on South Africa too to acquire these weapons again.

Economic growth is picking up momentum in countries of Asia and Africa. As poverty decreases demand for energy in these countries is also likely to increase. Human development Index has shown existence of a positive co-relation between per capita energy consumption and poverty reduction. Even the developed countries need additional energy for sustaining growth. IAEA has estimated that world energy demand would double by 2050 and 15-20 *per cent* of this demand would be met by nuclear energy. With the expansion in nuclear power generation industry many states would also develop the capability for uranium enrichment and plutonium separation from nuclear fuel used in reactors. Once states have acquired this technology they would also have mastered the essential elements of making a nuclear weapon. South Africa, South Korea and Iran already have this capability. They would only need a political decision to develop nuclear weapons. Iran's nuclear programme is suspect in the eyes of western powers. Demand for developing nuclear deterrent was also forcefully voiced by influential opinion makers in South Korea in the wake of North Korean nuclear explosion in February, 2013.

Some Suggestion for strengthening Nuclear Order

With few exceptions, temptation for acquiring nuclear weapons emanate from security concerns of the states. Disputes with other states, particularly neighboring states, are usually at the centre of their security concerns. An effective mechanism for peaceful resolutions of disputes between the states may reduce the temptation for many states to go nuclear. There was much hope, in the initial years of its establishment, that United Nations will play a proactive role in international dispute resolution. According to Article 39 of Chapter VII of UN Charter, "Security Council shall determine the existence of any threat to the peace, breach of the peace..."¹² Unfortunately UN failed to live up to those expectations and disputes between states were allowed to linger on

with the result that many states decided that acquisition of nuclear weapons provided the only hope for their survival. UN Security Council has been entrusted with the responsibility for maintenance of peace in the world. It should have played a more proactive role in dispute resolution than what it has done in the past. It should evolve such mechanisms that functions in an impartial and just manner for resolution of disputes between states and help reducing states' dependence on the nuclear weapons for security.

A number of other measures have been adopted by international community to bring nonproliferation and disarmament efforts to success. NPT is not an adequate instrument for dealing with all issues relating to nuclear proliferation, disarmament and export of nuclear technology. Different treaties and arrangements which deal with broad issues concerning nuclear proliferation are mentioned here but progress on negotiations on CTBT and FMCT has not been satisfactory. In order to further reduce chances of nuclear proliferation these instruments need to be negotiated and adopted without much delay as they complement the NPT:

- Nuclear Export Control Regime NSG guidelines criteria aim at preventing the illegal supply and transfer of nuclear equipments, materials and technology.
- Law enforcement on coordination of national activities through Proliferation Security Initiative (PSI). The PSI should be reconstituted under UN system to assess funding activities and make generic decisions concerning the interdiction of nuclear materials being supplied to or from the countries suspected of engaged in proliferation.¹³

All these arrangements are to strengthen the existing nuclear order. Discriminatory steps taken by NSG to give one country waiver have weakened the order. NSG should continue to pursue criteria-based approach for membership which should be equally applicable to all states desirous of becoming NSG members.

P-5 nuclear weapon states are obliged to take necessary steps for disarmament under Article VI of NPT. Their reluctance or unwillingness to deliver on their NPT obligations has placed international nuclear order under considerable tension and has impaired NPT's effectiveness as a non-proliferation instrument. Renewed efforts need to be directed towards achieving this aim. President Barak Obama in his 2009 Prague speech had committed to "security of the world without nuclear weapons" and later in his speech at Berlin reiterated his vision of reducing the role and number of nuclear weapons and promised to work for ratification of CTBT. These statements of the American president had raised

hopes that movement for nuclear disarmament may gain some momentum after a hiatus of many years. But not much has happened. There is a need for the international community to take necessary steps in this regard and NPT nuclear weapon states must begin taking visible actions towards disarmament and save the nuclear order from possible collapse.

Besides the P-5 there are three other nuclear states i.e. Israel, India and Pakistan. Since these states are not signatory to NPT they are not obliged to carry out disarmament. There is also the case of North Korea which was a NPT signatory but withdrew from the treaty under Article X in 2004. Reality of their status as *de facto* nuclear states should be recognized and they should be made part of the nuclear order. When they have been given the same status as the other nuclear states, it would become easier to persuade them to pursue disarmament goals. They would then also be entitled to enjoy the same privileges as NPT nuclear weapon states. Other than these corrections international community should also work on the following proposals which already exist but unfortunately have not been implemented:

- All states must negotiate and bring to an early conclusion a non-discriminatory, multilateral, internationally and effectively verifiable and irreversible Fissile Material Cut-off Treaty, banning the production of fissile material for nuclear weapons or other nuclear explosive devices.
- Progress must be made for implementation of 13 points suggested in NPT review conference 2000 regarding nuclear proliferation and disarmament. They mainly pertain to issues of nonproliferation, disarmament, early enforcement of CTBT, consensus on FMCT and progress of CD. These steps would help to strengthen global nuclear order.¹⁴
- Strengthening IAEA verification, compliance and enforcement measures by enhancing IAEA Safeguards system (Additional Protocol and beyond) and reforming the IAEA culture and structure so as to apply it effectively.¹⁵
- States should seriously consider the proposal made by former US secretaries Shultz, Henry Kissinger, William Perry and Senator Sam Nunn, calling for reduction in the size of nuclear forces and changes in the Cold War postures of deployed nuclear weapons to reduce the risk of an accidental or unauthorized use and campaign for Global Zero.

- Acceptance of IAEA additional protocol by all NPT nuclear and non-nuclear weapon states to strengthen the regime. “The Model Additional Protocol encompasses additional safeguards measures aimed at strengthening the Agency's safeguards system and improving the Agency's ability to detect undeclared nuclear activity in States.”¹⁶ The six non-nuclear weapon states party to NPT and Iran a suspected nuclear weapon state which adopted it on provisional basis are required to accept the contemporary standard for NPT safeguards.¹⁷
- Encouragement of more regional and bilateral agreements on establishment of nuclear weapons free zones in the world.

Conclusion

Since its inception international nuclear order has faced moral and security paradox. One of the major paradoxes of the order is that it had legitimized the possession of nuclear weapons by five nuclear powers (P-5) but had denied the same right to other states. This discrimination complicated its functioning and increased threat perception of non-nuclear states. Widening gap between nuclear ‘haves’ and ‘have nots’, encouraged other states to possess nuclear weapons to ensure their security.

Existing international nuclear order is facing new challenges in the twenty first century due to emerging trends in the global security environment. These challenges emanate from issues related to nuclear safety and security, nuclear renaissance due to rising need of nuclear energy across the world, acquisition of nuclear weapon technology by non-NPT states, and withdrawal of a NPT signatory state from the regime. North Korea after withdrawing from NPT embarked on nuclear weapon programme and declared itself a nuclear weapon state Iran is still a party to the NPT but its nuclear program is suspected to be weapon oriented by the international community. A major challenge to the nuclear order is the failure to make serious efforts by NWS towards disarmament which they had promised under Article VI of NPT.

Several proposals have been made to strengthen existing nuclear order. Implementation of these proposals is faced with a complex set of difficulties due to difference in the perceptions of threat and security by states. States also have their own priorities with regard to their security, nuclear postures and policies. World community needs to focus its efforts for development of a holistic international nuclear order that may also address the security concerns of non-nuclear states, besides inclusion of all nine nuclear states in the order.

Endnotes

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¹ Belarus, Kazakhstan and Ukraine are CIS states which signed NPT as non-nuclear states.

¹ START II was a bilateral treaty between the [United States of America](#) and [Russia](#) on the Reduction and Limitation of Strategic Offensive Arms. It was signed by [President George H. W. Bush](#) [President Boris Yeltsin](#) on 3 January 1993, banning the use of [multiple independently targetable reentry vehicles](#) (MIRVs) on [intercontinental ballistic missiles](#) (ICBMs). It is not currently in effect because on 14 June 2002, Russia withdrew from the treaty in response to US withdrawal from the [ABM Treaty](#).

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¹ In the 1990s some of the inherent weaknesses of traditional safeguards system were revealed first in Iraq and then in North Korea. Therefore, the member states of the IAEA decided to give the Agency additional legal authority in order to make its control system more effective as well as more efficient than before. This was accomplished by the approval of the Model Additional Protocol (INFCIRC/540) in 1997.

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http://www.ifri.org/files/Securite_defense/Perkovich_Reforming_Nuclear_Order.pdf

¹ Ibid.

¹ Article 39 of UN Charter; The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security,

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