

NUCLEAR SUPPLIERS GROUP (NSG) MEMBERSHIP: A CASE OF NON-NPT NUCLEAR WEAPON STATES

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Abstract

The argument of paper revolves around the significance to set a principle for the inclusion of the non-NPT Nuclear Weapon States (NWS) in the Nuclear Suppliers Group (NSG). The global security requires a balanced approach and cooperation so as to achieve the mutual objectives of the international community. The requirement of global security is to adopt mutually negotiated rules that could assist in attaining the goals of global non-proliferation. Moreover, rules based on a criterion would stabilize the system and norms to secure the support of the majority of the countries. We can argue that NPT is not a universal treaty because India, Pakistan, and Israel had never signed it; therefore, they are not liable to follow the norms or rules of the non-proliferation. Nonetheless, leaving these states out of the arrangements of non-proliferation would also not be a right approach because rules that are not mutually negotiated or that do not provide a stable social order, are not durable or authoritative.

Keywords: NPT, NSG, Technologies, Materials, Nuclear Weapons, India, Pakistan, Israel, NWS, Non-Nuclear Weapon States (NNWS).

Introduction

This paper will explore the possibility of taking on-board the non-NPT NWS in the Nuclear Suppliers Group (NSG). Although most states have their national export control mechanisms to regulate the trade of nuclear-related materials/ technologies, there is only one formal treaty, available in this context - that is the Nuclear Non-proliferation Treaty (NPT). Unfortunately, the three non-NPT states - India, Pakistan, and Israel (North Korea left the treaty in 2003) are not members of the treaty. Nonetheless, some informal arrangements are in place and these states are participating in these forums as observers, but they are not under any formal legal commitment except the United Nations Security Council Resolution (UNSCR) 1540 of 2004, which obliges the states to establish domestic measures to prevent access to nuclear, chemical and biological weapons (and their means of use) to the non-state actors. The UNSCR 1540 discusses and outlines some mandated steps to be taken by states domestically; however, an international framework where these states are legally bound to adhere the export of nuclear materials, is *missing*. For many years, the supporters of non-

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proliferation have been suspended between the *unrealistic* hope that these countries will reverse their nuclear status; but the result does not progress from either side.¹ India and Pakistan are now declared NWS and Israel is a nuclear state by assumption, as Tel Aviv has adopted a policy of opacity and officially has not conducted any nuclear test, yet all the secondary data indicates that Israel is an NWS (North Korea is the only declared nuclear state that conducted a series of nuclear test after withdrawing from the NPT).² Therefore, legally these states (except North Korea) are not in violation of any the NPT norms/rules, as they were/are not part of the treaty. In fact, they had acquired nuclear weapons due to their national security compulsions. Nonetheless, these states should share the responsibility of not to proliferate this critical technology. This makes the case of their inclusion in the mainstream non-proliferation regimes, primarily the NPT, more logical and compelling so as to plug the loopholes of the nuclear non-proliferation regime. In this context, their inclusion in NSG can be a step toward this journey.

The NSG is part of the Multilateral Export Control Regimes (MECRs), the Wassenaar Arrangement (WA), the Australia Group (AG), and the Missile Technology Control Regime (MTCR). All these export control measures are placed as key fences against the proliferation of critical dual-use and military-related technologies. Albeit, these arrangements share the different history and members, the paper will focus on the NSG. Its main goal is to exclusively combat the proliferation of WMD, and the membership criteria for the states having the potential to export critical dual-use technologies, equipment or materials. The 'Trigger List' under the Zangger Committee (ZAC) is a detailed list of the dual-use items, and it provides a comprehensive guideline relating to materials and equipment (Zangger Committee, 2017).³ The NSG cartel sets the norms and principles under the guidelines that are adopted by states through a consensus-based approach. NSG supports relevant international treaties such as the NPT, Comprehensive Test Ban Treaty (CTBT), and the International Atomic Energy Agency (IAEA) safeguard regimes, and it was established by the like-minded supplier states, particularly the United States (US) and its partners.⁴ Now, 48 states, including Russia and China, are its members and all adhere to the objectives of the non-proliferation norms, yet, the states under study are still out of these arrangements. The paper observes that the preeminent way to monitor all the states; having the nuclear weapons-related technology, in the ring to prevent further proliferation of nuclear technology and at the same time, without hampering or overlooking their basic peaceful civil nuclear needs. The role of international institutions is very crucial as these institutions can provide information to the states that could assist them to realize the common interests and gains.⁵

Why the international community should be concerned to take them on board? It's due to a variety of factors such as the threat of export of nuclear weapons-related technologies falling into the wrong hands, the rogue states with ambitions to further proliferate; and the improvement of the nuclear safety and security measures and tackling other relevant issues. Global terrorism and the fear of nuclear accidents such as the March 2011 meltdown of Fukushima Daiichi nuclear power plant in Japan, and the revelation of AQ Khan nuclear network raised pertinent questions relating to

nuclear safety and security. The vision of the nuclear weapons-free world, or 'Global Zero,' was overshadowed due to an emphasis on nuclear safety and security issues. Thus, the debate about bringing nuclear *outliers* under the umbrella of NPT commenced. There is a closer relationship between the nuclear regulatory authorities and technical assistance to maintain a foolproof safety and security, to keep the command, and to control structures on vibrant trajectories. This is significant to ensure international peace and stability. These requirements turned the debate to consider more policy options to monitor the role of the states and to look for how to bring them into the mainstream apparatus where they are bound to adopt the required mechanisms to deal with the nuclear safety and security threats, and to join hands with the international community against proliferation trends. Historical institutionalists argue that the policymakers evaluate the possible gains and cost of new strategies related to the certainty of the existing institutional landscape. The decision to reform institutions is a reaction to a particular constellation of beliefs about how and why institutions should structure, monitor and enforce interactions within that issue area.⁶

The Nuclear Suppliers Group (NSG)

The IAEA was established in 1957, but, the additional informal safeguards were introduced by NSG along with technologically advanced countries with likeminded approach/perspectives on these issues. This debate was triggered in the aftermath of India's nuclear test in 1974, and in 1975, NSG cartel was formalized to plug the non-proliferation gaps and to ensure that other states do not follow on India's footsteps. The NSG evolved its guidelines to regulate nuclear transfers and to ensure its non-diversion or unsafeguarded nuclear weapons-related technologies and materials to other states. In 1978, IAEA published (Information Circular) INFCIRC/254 outlining comprehensive guidelines relating to the export of nuclear materials, equipment and technologies, which, in 1992, was amended and appended Guidelines in the shape of Part-2 to the INFCIRC/254. It introduced stringent checks on the dual-use-related exports and denial mechanisms for future transfers to Non-Nuclear Weapon States (NNWS). This had truly transformed the NSG. In true sense, stringent measures were introduced between 1975 to 1992, and for the first time, it was made effective with the inclusion of almost all technologically advanced countries. Thus, all the countries that acquired nuclear weapons technology prior to India's nuclear test could *evade* the curbs that NSG had now introduced. A brief account of the mechanism that constitutes global security architecture to enforce NPT clauses and to monitor implementation is explained below. It evolved a methodology to regulate trade-related to nuclear and other sensitive dual-use technologies by introducing comprehensive guidelines for countries possessing such technologies. The decisions to share such technologies with countries outside the NSG are to be taken by consensus. However, it shares technology between the member states.⁷

The NPT and NSG have a goal of preventing nuclear proliferation by regulating the transfers of nuclear-related technologies. Yet, relations tips these two arrangements have different legal characters, rules, coverage, and memberships. This diversity has hampered the effectiveness of efforts to prevent the spread of nuclear weapons. Many

NPT members that do not participate in the NSG have criticized the arrangement as being at odds with the basic quid pro quo of the NPT (figure-1). The NPT promises unrestricted access to nuclear technology and cooperation for peaceful employment in return for acceptance of controls to ensure that such technology is not misused or diverted toward military objectives. Critics hold that NSG, which constrains nuclear trade, is an attempt by the nuclear technology holding states to preserve their economic advantages. They point out that decisions taken by NSG members and discussions on export control guidelines are not transparent, and that there is no recourse against technology denials. In essence, they see NSG and other export control arrangements as cartels of technology holders. On the other hand, some analysts are of the view that there is a margin of improvement, as more members will join, the procedures and Guidelines will become more comprehensive. The members can play a more constructive role by mainstreaming all the states having nuclear weapons in the fold of NSG (figure-1). For this purpose, the participating governments should set-up revised criteria for the NSG membership.

Figure-1: Nuclear Suppliers Group (NSG)

Basic Principles of NPT	Basic Principles of NSG
Formal International Treaty	Supportive of NPT, CTBT, IAEA
Counter nuclear proliferation threat	Counter nuclear proliferation threat
Monitor exports related to WMD Proliferation under Article II-III (Supportive to NSG)	Monitor fissile material, nuclear technology, dual-use materials and technologies, nuclear power plant equipment (relates Article II-III of NPT)
Avoid hindrance in legal civilian trade	Grant of export licenses to qualified end-users/under certain conditions

The NPT and its Impact on NSG

The NPT is considered to be a cornerstone of international agreements aimed at achieving complete nuclear disarmament and non-proliferation. It consists of a preamble and eleven articles. It is sometimes interpreted as a *three-pillar system*, with an implicit balance between them: non-proliferation, disarmament, and the right to peaceful use of nuclear technology. In essence, NPT is an unequal treaty as it perpetually divides 190 states into NWS and NNWS categories. An NWS is defined a category which had 'manufactured and exploded a nuclear weapon or another nuclear device prior to January 1, 1967. Thus, as per NPT definition, only five nations: US, Russia, China, France, and the United Kingdom (UK) are called P-5 and recognized as *de jure* NWS while remaining all are NNWS. In Article I of the treaty, P-5 have given a commitment not to transfer any nuclear weapons-related technologies and to maintain control over such weapons or explosive devices they have, directly, or indirectly; and not to assist them in any way, encourage, or induce any NNWS to manufacture or acquire nuclear weapons. Under Article II, an NNWS party to the treaty accepts the

fundamental obligation 'not to manufacture or acquire nuclear weapons or other nuclear explosive devices.' Fulfillment of this obligation must be verified through state's commitment to accept safeguards, as set forth in an agreement to be concluded by states with IAEA to prevent diversion of nuclear energy from peaceful purposes to nuclear weapons or for other banned nuclear activities or manufacturing of explosive devices.⁸

As per Article III of the treaty, each NNWS party undertakes to conclude an agreement with the IAEA for the application of safeguards over all its nuclear activities/materials and to prevent diversion of such materials, technologies to manufacture nuclear weapons, or for any other nuclear explosive devices. However, this view - if limited to textual analysis, does not fully deal with the problem as safeguards under the article are applicable only to nuclear materials and equipment provided 'for peaceful purposes'⁹. Therefore, under the treaty, as it stands, there seems to be *no legal obstacle* for the non-NPT NWS to commence a nuclear weapons program.

The Article IV-V of the treaty encourages the member states to cooperate and share the potential benefits of the peaceful use of nuclear explosion under appropriate international observation or other international procedures/agreements. It grants inalienable rights to all the parties to the treaty to undertake research and production with the right to participate in the maximum possible exchange of equipment, materials, scientific and technological information; and the use of nuclear energy for peaceful purposes without discrimination; but it has to be in conformity with Articles I and II.

The Article VI of the NPT provides an essential foundation for the realization of a world free of nuclear weapons. This article as a whole has a symbolic significance and neither has it established specific nor concrete legal rights nor obligations.¹⁰ Other states perceive it as 'a disproportionate prioritization of non-proliferation principles and an unwarranted under-prioritization of non-proliferation principles and an unwarranted under-prioritization of peaceful use'¹¹. In this context, the International Court of Justice (ICJ) in 1996 stated that Article VI:

...goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result - nuclear disarmament in all its aspects - by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith.¹²

Since the inception of the treaty to its unconditional and indefinite extension in 1995, the NWS has failed to honor their undertaking given to the NNWS to take steps and to realize the goal of nuclear disarmament. This was also later on re-emphasized by the ICJ in its rulings.

Arthur Goldberg, the former US Ambassador to the General Assembly, writes that the Article VI contained three goals, which he said constituted provisions to cease nuclear arms race at the earliest; realize the goal of nuclear disarmament; and finally to achieve general and complete nuclear disarmament under an effective international

control as the ultimate goal.¹³ The NPT provides a right to each state-party under Article X to withdraw from the treaty by exercising its national security and sovereignty compulsions. After every five years interval, a Review Conference of the states-party to the NPT is held in order to review the operation of the treaty and to assure that its purpose and provisions are being realized. This leads to a twofold conclusion: 1) the non-proliferation obligations under the NPT are far from watertight and; 2) the Article I and Article II of the treaty establishes a vivid discrimination between the NWS and NNWS, which in the perspective of Jaswant Singh; the former Senior Adviser of Defense and Foreign Affairs the Indian Prime Minister, a 'nuclear apartheid' that instituted to 'ratify the nuclear status quo,' which is 'an international currency of force and power'.¹⁴ This distinction between the two categories of states parties' is problematic and unfair due to a variety of factors.¹⁵

However, it is contrary to the preservation of sovereign equality of states under the principles of Public International Law¹⁶ and Article II of the UN Charter. Sovereign equality does not rule out the acceptance of agreements distinguishing different groups of states; 'sovereignty is not infringed if (a state) freely agrees to unfavorable terms'.¹⁷

Indeed, within the NPT differential treatment of NWS and the NNWS is compensated by two sets of treaty provisions and political arrangements attached to the regime as a whole.¹⁸ It is a discriminatory treaty that perpetually created two blocs of states. But three states (India, Pakistan, and Israel) under discussion had not signed the treaty - that institutionalized a 'nuclear apartheid.' New Zealand pointed out that the NPT is a club used by the powerful states, especially the US, to keep down the weak states. The non-NPT NWS due to their distinct security concerns had decided to stay away from the treaty, and later on developed nuclear capabilities. This would provide impetus and a rationale to other NNWS states to follow suit. However, the contention on the alleged involvement of Iran in building a nuclear weapons-related program has created a new dilemma for the volatile geopolitics of Middle East. Albeit, Obama administration, and other P5+1 countries had reached a nuclear deal with Iran, but its future under President Donald Trump administration appears to be quite bleak, as during the election campaign, he had termed it the worst deal. Incidentally, on January 27, 2018, US Secretary of State Rex Tillerson stated that working groups comprised of its European signatory to the deal, are studying ways and means to fix the alleged 'flaws' in the deal. However, in the case of North Korea, its multiple nuclear and Intercontinental Ballistic Missiles (ICBMs) tests have firmly led to the institution of an ambitious nuclear weapons/missiles program, which is posing a grave challenge to the non-proliferation regimes/norms.¹⁹

In effect, non-implementation of Article VI of the NPT by the NWS - to realize the goal of a world without nuclear weapons is a source of serious concern for the international community, primarily for the NNWS. This Article is the hallmark of the treaty and focuses on all previous NPT Review Conferences. NNWS persistently criticized the NWS for not taking adequate steps to achieve the goal of total nuclear disarmament as they had committed and re-committed, especially during the NPT Review Conference in 2000. Furthermore, the P-5 countries also did not implement the

proposed 'thirteen steps' of the 2000 NPT Review Conference.²⁰ Incidentally, in 2010 NPT Review Conference, many NNWS bemoaned the granting of India-specific NSG waiver that later on led to the lifting of nuclear trade sanctions, and they demanded full-scope safeguards agreements in this context. However, many states, including France and the US, opposed granting a similar concession to Pakistan or Israel. On the contrary, the conference referred to 1995 document that urges NPT states 'to make use of multilaterally negotiated and agreed guidelines and understandings in developing their own national export controls' and 'to consider whether a recipient State has brought into force IAEA safeguards obligations in making nuclear export decisions.' Rather, 'the selective lifting of nuclear trade restrictions on India,' writes Meier, has 'not helped to find a solution to the important problem of bringing' non-NPT NWS effectively under the non-proliferation regime.²¹

The NPT suffers from inherent institutional 'deficit' and anomalies that permits country like North Korea to withdraw from the treaty. Now it keeps the international community guessing as to when Iran may decide to exercise its option available under the NPT's Article X, to withdraw, if it is stretched beyond certain limits. Incidentally, after P5+ 1 agreement (in 2015) with Iran, the issue was considered to be addressed, but its future is not certain under Trump administration. Although both states are not the focus of this study, yet, this debate has raised questions about the global non-proliferation efforts. The case of North Korea is also becoming more complex with the passage of time because of its continuous missile and nuclear tests and defiant attitude toward the international non-proliferation norms and regimes. Some analysts are of the view that Pyongyang had not withdrawn with proper procedure. The case of N. Korean withdrawal is not the focus of this study. However, in the case of India, Pakistan and Israel are considered responsible nuclear states that adhere to the non-proliferation norms. Nevertheless, in the case of India, right from the day one it had rejected the treaty on various rationales and maintained that NWS status is not by virtue of 'conferment' rather it's 'an objective reality' that India had exercised in 1998.²² In fact, India's non-NPT diplomacy since 1968 has been guided by its 'nationalist interest;' and the 1998 tests, writes Singh, had 'resulted from earlier decisions and were possible only because those decisions had been taken correctly'.²³ In the perspective of another independent writer, even during 1967 negotiations on NPT, India's then representative at the Geneva Eighteen Nations Disarmament Committee argued that the: 'civil nuclear Powers can tolerate a nuclear weapons apartheid, but not an atomic apartheid in their economic and peaceful development'.²⁴

IAEA Additional Protocol

In 1993, IAEA commenced efforts to effectively constrain the ability of the NPT states to use nuclear technology under strict safeguard architecture including for peaceful purposes.²⁵ After the North Korean nuclear test and Iran's apparent breaches of the NPT, it invigorated IAEA's efforts to impose more stringent safeguard procedures and regimes, including the imposition of the Additional Protocol (AP). The AP allows the IAEA to visit the NPT states' nuclear facilities for inspection on short notices. However, the AP is not completely implemented, particularly in the case of P-5 states,²⁶

as they have accepted AP conditionally and these exceptions are challenging its *credibility* and raising questions about its universal approach. It is a legal document that grants increased inspection authority to the IAEA, to enforce safeguards.²⁷ India ratified AP in 2006, that with certain exceptions too.²⁸ Like other states, it had picked and chosen certain provisions of the AP. The model chosen by India resembled with the model of China and Russia. India after signing the AP was considered for the NSG waiver, and eventually, it paved way for the Indo-US nuclear deal.²⁹ In the aftermath of the US-India deal, New Delhi was exempted from nuclear trade guidelines. In addition to the IAEA Board of Governors approved India-specific safeguard architecture to undertake separation of its civil and military nuclear facilities. Articles 25, 95 and 96 of this plan, enable India to utilize 'safeguarded and unsafeguarded materials' simultaneously, which would contribute to its 'unsafeguarded program,' and facilitate its 'strategic' nuclear program.³⁰ US amended its export control legislation to grant India the benefits of the deal. The Indian policymakers consider this as an implicit recognition of its nuclear status.³¹ In essence, such a selective approach undermines the legitimacy and credibility of the nuclear non-proliferation regime. Furthermore, India still did not subscribe to the NPT; rather it considered treaty a discriminatory despite receiving an India-specific waiver from the NSG in 2008. Ostensibly, US seems to be moving toward according India 'same benefits and advantages as the US'³², for instance, to trade in nuclear technology. IAEA Director General ElBaradei remarked that engagement with all the non-NPT states of India, Pakistan, and Israel should be based on the principles of 'nuclear partners rather than pariahs.' This enunciation still needs to be critically explored to recognize the reality of non-NPT NWS status into the larger non-proliferation regimes.

The India-specific waiver by the NSG is in vivid contravention of the non-proliferation norms and regimes that had eventually enabled India to sign fifteen civil nuclear cooperation agreements with eleven countries.³³ China and Pakistan contemplate the deal as detrimental to their security interests. No doubt, the Indo-US deal will have a far-reaching impact on the regional and global security as well.³⁴ In strategic and military fields, it would facilitate India to weave in with the regional countries in a variety of ways together with an extensive series of military exercises.³⁵ Basically, all the NPT states and some non-NPT NWS, especially India, are entombed in a 'complex economic interdependency' in parallel to pursuing their economic and industrial interests.³⁶ It is believed that despite differences on various accounts, states are cooperating with one another, not by their own choice, but slightly due to their commercial interests and strategic compulsions, even at the cost of cooperating and giving concessions to each other on certain security issues; for example, US and India. As India is economically and geopolitically rising and is assuming a key role in the US strategic calculus in its 'active denial' strategy to sustain status quo and to raise the military cost for any Chinese military adventure or aggression in the Asia Pacific.³⁷ Presently, the contours of international politics are being intertwined by imperatives of geo-economics – that is, 'GDP now matters more than force'.³⁸ The US and India are intrinsically linked with China in trade and commerce cycle despite being adversaries for attaining primacy in critical Asia-Pacific region, which is expected to largely

determine the future course of history. India has pursued a sophisticated foreign security by projecting its image as a forward-looking country with a cooperative security outlook. Through the US-India nuclear deal, which has included the NSG waiver, the MTCR and the WA memberships, and also discussions for its inclusion in the AG are underway? This perspective entails a sharing of each other's security concerns through social interaction within the international institutions, resulting in a willingness to approach security problems in a cooperative spirit. At the domestic level, states tend to regulate the safety and security architecture of their nuclear and critical dual use technologies in harmony with standardized good practices.

UNSCR 1540 and NSG

In April 2004, United Nations Security Council Resolution (UNSCR) 1540 was adopted in the aftermath of A Q Khan incident. It is considered to be a milestone that addresses and mitigates the prospects of WMD proliferation. The Resolution obligates the member countries to strengthen their existing treaties by evolving comprehensive domestic legislation through extending the obligations and penalties to individuals and companies - thereby addressing the threat of NSAs' or 'rogue states' involvement in nuclear proliferation activities.³⁹

The UNSCR 1540 made it mandatory for all the states to introduce 'appropriate, effective national export and trans-shipment controls' i.e. necessary to prevent the proliferation of nuclear, chemical, or biological weapons and their means of delivery' (Meier, 2006). Initially, it was considered to be controversial partly because the Security Council was seen to be legislating on behalf of the entire international community to implement UNSCR 1540, and in many cases, incorporating implementation into their own program of work.⁴⁰ This to some extent addressed the future threat of emergence of A Q Khan-type network and other issues at domestic levels. Yet, the need to address the WMD proliferation threat was required to be evolved through mainstreaming all the nuclear-capable states under one umbrella. The NSG membership could be one such step to secure international security. Furthermore, NSG membership of these states: India, Pakistan, and Israel can complement the principles of UNSCR 1540 and the international community may ask (these states) to adopt more stringent measures to regulate their export controls to mitigate horizontal proliferation risks.

The Non-NPT NWS

Realism emphasizes that all states act within the anarchic international system on the basis of power.⁴¹ Hedley Bull assumes that states exist in an anarchical environment and must be self-reliant in order to survive.⁴² In essence, states require power to protect themselves from other states. The absence of central government or authority is the basis of 'enduring and continuing propensity for conflict between states'.⁴³ The anarchic system is characterized by the belief in the threat of force to compel certain actions of states.⁴⁴ The states acquire nuclear weapons due to security considerations, or for other domestic and prestige-related motivations. Every state interprets threat in the way which suits its national interests. Charles Glaser's concept of security seeking state is quite relevant in this regard, which argues that:

Cooperation is less risky when a state believes its adversary is more likely to be a security seeker, which reduces the severity of the security dilemma and makes cooperative policies designed to reduce military vulnerabilities and signal its benign motives more desirable.⁴⁵

NSG membership for the non-NPT NWS - through a criteria-based approach, would play a constructive part in minimizing the prospects of nuclear proliferation and universalizing the nuclear ECRS. It would enhance the credibility of NSG in a broader perspective as an effective and realistic cooperation approach based on a regularized criterion which could yield constructive outcomes. There is a requirement to bring the nuclear-capable states like India, Pakistan, and Israel under some collaborative mechanism with a view to streamline the monitoring system and to broaden the scope of cooperation. Nonetheless, cooperation and commitments require guarantees as well. The corporation needs to be addressed on the basis that all states with nuclear technology, especially three non-NPT NWS, should be taken on board to counter the nuclear proliferation challenges. All the state parties need to have strong commitments and mutual trust to confront these challenges. Cooperation principles need to be evolved and to conform to 'rules and procedures which reduce the fear of the states of being cheated by their partners and consenting to focus on the benefits'.⁴⁶ For instance, if one state is involved in cheating it will trigger a domino effect, especially in the absence of universal enforcement body.

Conclusion

The non-proliferation issues are very complex and require considerable cooperation and engagement from the international community to craft standardized procedures and to evolve common grounds to prevent the spread of nuclear and other dual-use sensitive technologies. In spite of enormous economic growth and technological innovation, the significance of geo-economics and international trade has enhanced globally. This notion has furthermore complicated the risks of transferring military technology, equipment, and knowledge, which could enlarge the proliferation hazards, especially by criminal organizations and the transnational terrorist activities. In order to counter these threats, NPT states should join hands with the non-NPT NWS, as this will add strength to their efforts. On the other hand, the non-NPT NWS so as to contribute for smoothing their image as responsible nuclear-capable states and with intention to gain legal access to civilian technology, would tend to adhere to the norms and rules of nuclear ECRs, which would essentially enhance non-proliferation rules, procedures, norms, and improve the security architectures of nuclear ECRs.

NOTES

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