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# Regional-Global Nexus in Multilateral Non-Proliferation Measures in Asia

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## Introduction: Multilateral Non-Proliferation and Disarmament Instruments and Regional Security

Establishing effective nuclear governance architecture in the world has become a daunting task for the international community. It would be important in two ways. First, it is necessary to cope with immediate threats of proliferation activities by both state and non-state actors and nuclear terrorism. Second, sound nuclear governance architecture is a requisite for pursuing a world without nuclear weapons.

In particular, for an enduring world without nuclear weapon, once it would be achieved, it should be vital to have effective technical and policy instruments to prevent nuclear materials and sensitive technology from being fell into wrong hands. Policy instruments to prevent the proliferation of weapons and weapon-usable materials and technology, and to reduce threats of nuclear terrorism also constitute the foundation for the process of pursuit of a world free of nuclear weapons.

The current international nuclear order with the Nuclear Non-Proliferation Treaty (NPT), along with safeguards of the International Atomic Energy Agency (IAEA), as the cornerstone, is the amalgamation of various multilateral, regional, bilateral arrangements and unilateral policy instruments including the Comprehensive Nuclear Test Ban Treaty (CTBT), Nuclear Suppliers Group (NSG) and other export control regimes, Missile Technology Control Regime (MTCR) and the Hague Code of Conduct, Proliferation Security Initiative, United Nations Security Council Resolution 1540, the amended Convention on the Physical Protection of Nuclear Material, Nuclear Security Summit and so on. In order to address various types of risks associated nuclear technology and activities including proliferation, nuclear terrorism, and accidents, various multilateral legal and political instruments were formulated.

For most multilateral instruments of non-proliferation, achieving the universalization of membership and/or ensuring the effectiveness are common challenges that they face. In order to address these challenges, it is important to explore their causes. For many countries, decisions to join multilateral nonproliferation and disarmament arrangements should be made based on their political, security and economic benefits.

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The universalization of multilateral arrangements and enhancing regional security are mutually reinforcing. Positive development on one hand could induce positive development in another. However, the other side of coin is that once regional security environment cannot be improved, it is difficult, if not impossible, to expect 'effective' participation in and continued compliance with multilateral regimes. The existence of concerns of deterioration of regional security environment would limit states' willingness to comply with norms and rules provided by multilateral arrangements.

This paper addresses a question of if Asia where strong nationalism and state-centric security dynamics persists could improve its commitment to multilateral non-proliferation regimes while improving regional security environment.

### Commitments by Asian Countries to Multilateral Disarmament and Non-proliferation Arrangements

Trends of non-proliferation in Asia including the Middle East (or West Asia) are largely shaped by three major factors, namely, 1) high nuclear density, 2) rapidly growing economies, and 3) relatively unstable political and security environment.

Increasing energy needs, coupled with regional rivalry mentality, greed for nuclear energy and technology is also rising. Asia is a home of 6 nuclear armed states (including self-declared one), namely, China, North Korea, Russia, India, Pakistan, and Israel. Given its substantial commitment to Asian security, the United States could be counted as the 7<sup>th</sup> one. This fact means that nuclear weapons remain in playing an important role in shaping the regional security dynamics. Countries in the region, regardless of their nuclear status, are heavily affected by the logic of nuclear deterrence (probably except Southeast Asia where the Bangkok Treaty for nuclear weapon free zone is in place).

Asia is also a growth center of nuclear power. It is currently experiencing the fastest growing energy consumption. In order to meet such energy demand, Asian countries are introducing nuclear power plants. Japan, South Korea, China, Chinese Taipei, India, Pakistan, and Iran have already use nuclear power. And there are several nuclear energy aspirants in the region. (see Fig. 1 and 2.)

This data on growing nuclear energy in Asia, combined with the existence of nuclear armed states, suggests that needs for strengthening nuclear non-proliferation and nuclear security are rising.

*Fig. 1: Nuclear Reactors in Asia*

COUNTRY	REACTORS OPERABLE	REACTORS UNDER CONSTRUCTION	REACTORS PLANNED	REACTORS PROPOSED
Bangladesh	0	0	2	0
China	23	26	64	123
India	21	6	22	35
Indonesia	0	0	1	4
Japan	48	3	9	3
Kazakhstan	0	0	2	2
Korea DPR (North)	0	0	0	1
Korea RO (South)	23	5	8	0
Malaysia	0	0	0	2
Pakistan	3	2	0	2
Thailand	0	0	0	5
Vietnam	0	0	4	6

*Fig. 2: Nuclear Reactors in the Middle East*

COUNTRY	REACTORS OPERABLE	REACTORS UNDER CONSTRUCTION	REACTORS PLANNED	REACTORS PROPOSED
Egypt	0	0	2	2
Iran	1	0	2	7
Israel	0	0	0	1
Jordan	0	0	2	
Saudi Arabia	0	0	0	16
Turkey	0	0	4	4
UAE	0	3	1	10

Source: World Nuclear Association Home Page

Then what is the current situation of Asian commitments to disarmament, non-proliferation and nuclear security arrangements?

Figures below show commitments by Asian states to WMD non-proliferation and nuclear security arrangements. In East Asia, except North Korea, other countries are relatively royal to multilateral disarmament and non-proliferation regimes. Although figure 1 does not show, there is a Southeast Asia nuclear weapon free zone, to which all ASEAN countries are committed, and NPT nuclear weapon states also signed the protocol. However, export control regimes have not gained wider memberships, which suggests that the weakness in non-proliferation exist in this area in East Asia. In South Asia and Middle East, the level of commitments to multilateral regimes is relatively lower than East Asia. In particular, the existence of three non-NPT nuclear armed states overshadows others' commitments to the regimes.

*Fig. 1: Commitments by East Asian States to Non-proliferation Arrangements*

	NPT	IAEA SG	IAEA AP	CTBT	CWC	BWC	NSG	ZC	WA	AG	MTCR	HCOC	PSI
Japan	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
China	Y	Y	Y	N	Y	Y	Y	Y	N	N	N	N	N
ROK	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
DPRK	Y	N	N	N	N	N	N	N	N	N	N	N	N
Indonesia	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N
Malaysia	Y	Y	N	Y	Y	Y	N	N	N	N	N	N	Y
Thailand	Y	Y	N	Y	Y	Y	N	N	N	N	N	N	Y
Vietnam	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	Y

*Fig. 2: Commitments by South Asian and Middle East States to Non-proliferation Arrangements*

	NPT	IAEA SG	IAEA AP	CTBT	CWC	BWC	NSG	ZC	WA	AG	MTCR	HCOC	PSI
India	N	Y	N	N	Y	Y	N	N	N	N	Y	Y	N
Pakistan	N	Y	N	N	Y	Y	N	N	N	N	N	N	N
KSA	Y	Y	N	N	Y	Y	N	N	N	N	N	N	Y
Iran	Y	Y	N	N	N	Y	N	N	N	N	N	N	N
UAE	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	Y
Jordan	Y	Y	N	Y	Y	Y	N	N	N	N	N	N	Y
Egypt	Y	Y	N	N	N	N	N	N	N	N	N	N	N
Israel	N	Y	N	N	N	Y	N	N	N	N	N	N	Y

SG: Safeguards Agreement  
 NSG: Nuclear Suppliers Group  
 WA: Wassenaar Arrangement  
 HCOC: Hague Code of Conduct

AP: Additional Protocol  
 ZC: Zangger Committee  
 MTCR: Missile Technology Control Regime

As far as nuclear security is concerned, the Nuclear Security Summit (NSS) process has played a significant role. Increasing the awareness and sense of urgency in improving domestic measures to prevent nuclear terrorism. Major countries in Asia (except Iran) participated in NSS, and delivered their commitment at each meeting. Through this process, participating states are engaged in developing domestic policy/legal frameworks and building national capacity in implementing these frameworks.

*Fig. 3: Commitments by East Asian States to Nuclear Security Arrangements*

	CPPNM A	GICNT	NSS	NTC
Japan	Y	Y	Y	Y
China	Y	Y	Y	N
ROK	Y	Y	Y	Y
DPRK	N	N	N	N
Indonesia	Y	N	Y	Y
Malaysia	N	Y	Y	Y
Thailand	N	Y	Y	Y
Vietnam	Y	Y	Y	N

*Fig. 4: Commitments by South Asian and Middle East States to Nuclear Security Arrangements*

	CPPNM A	GICNT	NSS	NTC
India	Y	Y	Y	Y
Pakistan	Y	Y	Y	N
KSA	Y	Y	Y	Y
Iran	N	N	N	N
UAE	Y	Y	Y	Y
Jordan	Y	Y	Y	Y
Egypt	N	N	Y	N
Israel	Y	Y	Y	N

CPPNM A: Amendment to the Convention on the Physical Protection of Nuclear Material  
GICNT: Global Initiative to Combat Nuclear Terrorism  
NSS: Nuclear Security Summit  
NTC: International Convention for the Suppression of Acts of Nuclear Terrorism

## Universalization of Regimes: Would Regional Security Rhetoric Matter?

### *(1) Divide in NPT*

NPT has gained the second largest number of membership as an international treaty after the United Nations Charter. It provides the fundamental norm structure of the international nuclear order with the three pillars of nuclear disarmament, non-proliferation and peaceful use of nuclear energy, which exist in a mutually reinforcing manner.

NPT has achieved the nearly universal membership while some key nuclear armed states such as India, Pakistan, and Israel do not join, and North Korea had declared the withdrawal. In a sense, with the fact that the number of nuclear armed states today is much smaller than President John F. Kennedy predicted in the early 1960s before the NPT was in place, it is fair to say that the NPT regime has made a success in limiting the number of nuclear armed states.

In the meantime, the prospect for furthering the objective of a world free of nuclear weapon is not so forthcoming. The 2015 NPT Review Conference was not able to reach a consensus for a final document, due to a disagreement on how to deal with the resolution on the Middle East Zone Free of Weapons of Mass Destruction. Further, through discussion during the conference, the divide over the humanitarian issue of nuclear weapons had become quite evident. Behind such a trouble, there are differences in prioritizing among three pillars. Some argue that non-proliferation is the fundamental purpose of the treaty while other claim that the fulfillment of the disarmament obligation of nuclear weapons states is unmet yet, comparing to non-proliferation obligations. The latter group of states, the humanitarian initiative group, is now seeking to move forward nuclear disarmament through another nuclear disarmament platforms such as the campaign to commence the negotiation on a nuclear weapon ban treaty.

Another differences is in the perception on the role of nuclear weapons in security. The so-called 'humanitarian initiative' group argues that the very existence of nuclear weapons would pose threats to the entire humanity, for risks of misuse, unintended explosion, environmental impact, and so on. They say that nuclear weapons are the

threat to human security, and urge the legal ban of nuclear weapons from a viewpoint of global security.

Nuclear weapon states (NWSs) argue that strategic stability is an important element of their security, which is provided by nuclear weapons. Non-nuclear weapon states (NNWSs) under U.S. extended deterrence, view the nuclear element of extended deterrence as an important element of their security vis-à-vis nuclear armed states that pose threats to their security. They see this issue from a viewpoint of conventional national security.

To understand this perception gap, it may be useful to compare their security environments and the role of nuclear weapons in such security environments.

### *(2) Politics or Security Benefit?: CTBT*

The delay in entry-into-force of the Comprehensive Nuclear Test Ban Treaty (CTBT) was also affected by security concerns. The CTBT was open for signature in 1996. But after 30 years, it has not been entered into force as key eight countries (so-called Annex II states) whose ratification is the requisite for entry-into-force of the treaty have not ratified while a test-ban norm has been kept since 1998 except one country North Korea. Out of eight Annex II states, seven are located in Asia and the Middle East; China, North Korea, India, Pakistan, Iran, Egypt, and Israel.

In the Middle East, there are good signs. Israel now shows the willingness to sign and ratify the treaty. Although there is no specific timeline, some say that it is not a question of 'whether or not' but 'when.' Iran, after the conclusion of the Joint Comprehensive Plan of Action (JCPOA), is also viewed as approaching to signing the CTBT although it would be necessary to wait until Iran's society starts to sense the tangible economic benefit of JCPOA to allow the government to start the domestic political process for ratification.

Contrary to them, Egypt still maintains its conventional position that Israel's joining NPT would be a condition for it to sign the CTBT, and Israel's signing the CTBT might not be a sufficient condition for Egypt's accession. Israel's non-membership of NPT was an important reason for Egypt not to sign IAEA additional protocol, and other Weapons of Mass Destruction (WMD) related multilateral regimes as well. But for Egypt, at least in the foreseeable future, there will be no possibility or capability of pursuing nuclear option which would require nuclear test. For Egypt, its non-commitment to multilateral non-proliferation regimes is a political/diplomatic strategy toward the region.

### *(3) Politics over Effectiveness: Export Controls*

On non-proliferation front, after learning lessons from cases of Iraq and North Korea in the early 1990s, additional protocol to IAEA's safeguards agreement was introduced. It provides the IAEA with authority for more intrusiveness and thoroughness in safeguards and inspection activities on nuclear materials and facilities. But it remains as a voluntary measure for each state to decide whether or not to conclude with the IAEA. Some states still insist on not signing it as it could harm the national sovereign right.

The situation of export control regimes is more complicated. With the absence of any legally-binding multilateral instrument, Nuclear Suppliers Group (NSG) and Wassenaar Arrangement are groups of selected states who share the objectives of export controls of these arrangements and capable of dealing (exporting) with technology concerned. NSG has only 48 participating states and is now discussing on a potential 49<sup>th</sup> member, India (as of June 18, 2016). The exclusiveness of the membership and secrecy are important modalities of the arrangement for ensuring commitments by participating states, which help the regime maintain the effectiveness. But because of these natures, export control regimes inevitably face challenges in the universalization in the era of globalization of supply chains and trade network.

The exclusiveness is also a cause of criticism by some developing states that such a discriminatory nature undermines the right of peaceful use of nuclear technology by limiting opportunities to exchange international cooperation on nuclear technology. While export control regimes makes it easier for participating states to trade nuclear technology and dual-use items among themselves, their guidelines clearly set higher barrier for nuclear or dual-use trades with non-members. In the meantime, strengthening export controls by including more states becomes critical for ensuring the prevention of proliferation when the economy grows and supply chains stretch globally, more and more countries are involved in the trade of dual-use commodities and technology.

India and Pakistan are currently applying for the membership of NSG. Would it effectively strengthen export controls?

India and Pakistan are not members of the NPT. Therefore, based on the existing NSG rules, it is arguable if they have the legitimate eligibility. Some participating countries argue that there should be no problem with India as its domestic export control policy are stringent enough, and India's membership would strengthen the effectiveness of export control regime. Since the Indian economy is growing, keeping India out of export control regimes could be more harmful for the objective of stronger non-proliferation.

Others say that India's implementation of domestic non-proliferation policy schemes is not stringent enough to be a member of NSG, and is hardly seen as an effective one. Furthermore, acknowledging India's membership in NSG would undermine NNWSs commitment to non-proliferation obligations of NPT.

Then a question is how to treat Pakistan. A decision of 2008 to treat India as an exception in NSG guidelines raised concerns on the side of Pakistan, and China and Pakistan requested to employ a 'grandfather clause' of guidelines for China's nuclear cooperation with Pakistan, which is also not considered as eligible to be a recipient of nuclear supply under the existing NSG guidelines.

### Capacity and Awareness in Export Controls as Keys to Non-proliferation

Asia is the center of global economic growth. China and India are among the fastest growing economies in the entire world. Other than China and India, for example, ASEAN GDP has grown by 300 percent between 2001 and 2013. Economic growth naturally comes with technological expansion and sophistication as well as the increasing trade volume, including transaction of high-tech, dual use parts and products.

Economic growth also makes Asia-Pacific develop as a major transit and transshipment hub for maritime cargo. Out of the world's ten busiest seaports, six are in China, one in Singapore, and another in South Korea. In addition, seaports in UAE, Vietnam, India, Japan, Malaysia, Indonesia, Thailand, India, Sri Lanka and Taiwan are among the world's top 50 in terms of container traffic.

This situation suggests that enforcing effective export controls in Asia (both in legal instruments as well as enforcement capabilities) is a key to the prevention of proliferation of WMD and sensitive technology.

At this moment, the awareness among Asian governments is growing. Japan, along with Australia and the United States conducts outreach and capacity building activities for Asian countries in the areas of non-proliferation and export controls. Some ASEAN countries either introduced or are introducing a strategic trade management system for controlling export of dual-use commodities. For example, Malaysia has introduced strategic management in 2010, following Singapore in 2007. The Philippines also adopted the Strategic Trade Management Act in 2015. Thailand is also moving toward the introduction of a similar scheme. However, following the formal establishment of ASEAN Economic Community in 2015, with which ASEAN is forging towards deepening its economic integration, facilitating flow of goods, the region may face of risk to be used as a hub for the illicit trade, transfers or diversion of dual-use commodities for fabricating WMD. Governments of Southeast Asian

countries, as an entire region, need to consider to fulfill two requirements, namely, strategic trade management and trade facilitation while at the same time strengthening supply chain security. As far as export controls are concerned, some states may not consider the political and economic costs, which could be incurred by participating multilateral non-proliferation and export control arrangements, as worthwhile bearing. They would not desire to invest their political and administrative capitals in prevention of proliferation, but rather prefer to focus on economic development. Therefore, it would be critical to increase the awareness of proliferation risks and their consequences on economic development, and of the importance of implementing stringent strategic trade management.

## Conclusion

Asia holds difficulties with regard to universalization of various multilateral non-proliferation and disarmament regimes. It is stemming from the interface between regional political and security dynamics and WMD proliferation. In Asia, there remains some instabilities and strong state rivalries, which involves some military elements. With nuclear weapons, such instabilities are often seen as posing existential threats to those countries concerned and their neighbors.

For most of the countries staying outside non-proliferation and disarmament arrangements, their threat perceptions and security interests are formulated in the context of security in the region where these countries sit. It is important that a favorable political and security environment should be kept as they would disincentivise potential nuclear aspirants from attempting to materialize their nuclear aspiration. Therefore, in order for the international community to pursue the universalization and to improve effectiveness of multilateral arrangements, it is relevant to examine the relationship between decisions to join multilateral arrangements and regional security dynamics, and to address nuclear dangers in the regional security context.

In some cases, the improvement in non-proliferation does not necessarily contribute to the improvement of regional security environment. The Joint Comprehensive Plan of Action (JCPOA), which was concluded between Iran and P5+1, certainly reduced proliferation threats from Iran, at least for the period when JCPOA is effective. At the same time, it raised security concerns in Saudi Arabia, as Iran may increase its influence in regional politics as well as in the international economy, which could change regional geopolitical dynamics.

In general, however, the improvement of regional security environment will contribute to the universalization of multilateral arrangements. And political

campaign for the universalization of multilateral arrangements could enhance dialogue on regional security, which could lead to the stability of the region. Multilateral non-proliferation arrangements could serve as facilitators of regional security as well as benchmark for achievement of nonproliferation efforts by states. Through outreach activities, multilateral arrangements could encourage the willingness of states to cooperate in addressing nuclear dangers.

If an appropriate strategy is introduced, there will be synergetic effects between effectuating multilateral non-proliferation measures and the improvement of regional security environment.