



VISION

VISIONARY INSIGHTS INTO THE STRATEGIC INQUESTS OF NATIONS

SVI FORESIGHT

VOLUME 2, NUMBER 12
DECEMBER 2016

Compiled & Edited by:
S. Sadia Kazmi

Strategic Vision Institute
Islamabad

SVI FORESIGHT

VOLUME 2, NUMBER 12
DECEMBER 2016

Compiled & Edited by:
S. Sadia Kazmi



Strategic Vision Institute (SVI)

Disclaimer: The views and opinions expressed in this edition are those of the authors and do not necessarily reflect the official policy or position of Strategic Vision Institute.

Strategic Vision Institute (SVI)

Strategic Vision Institute (SVI) is an autonomous, multidisciplinary and non-partisan institution, established in January 2013. It is a non-governmental and non-commercial organization, administered by a Board of Governors (General Body) supervised under a Chairperson and administered by a Management Committee headed by a President/Executive Director.

SVI aims to project strategic foresight on issues of national and international import through dispassionate, impartial and independent research, analyses and studies. The current spotlight of the SVI is on the national security, regional and international peace and stability, strategic studies, nuclear non- proliferation, arms control, and strategic stability, nuclear safety and security and energy studies.

SVI Foresight

SVI Foresight is a monthly electronic journal. It has a multi-disciplinary perspective highlighting on the contemporary strategic and security studies. The Journal is envisioned to be a collection of policy-oriented articles written by its Research Associates, Visiting Faculty and professional experts. The objective is to provide the readership with a concise all-round and real-time policy oriented discourse on contemporary strategic regional and international developments, highlighting their relevance to Pakistan.

Contents

Editor's Note	1
Nuclear Suppliers Group: Candidacy, Criteria and South Asian Calculus	
Maimuna Ashraf.....	3
India's Proliferation Credentials	
Beenish Altaf	5
South Asian Security Paradigm and Indo-Pak Nexus	
Nauman Hassan	8
CPEC: Domestic Challenges and Growing Opportunities	
Babar Khan Bozdar	10
Nuclear Terrorism: Reality vs. Perceptions	
Asma Khalid.....	12
Climate Change As A Threat to National Security: The Way Forward	
Shahzadi Tooba	14
A Contemporary Debate: Could India be the Member of NSG	
Aqib Shoukat Paracha	16
Pakistan's Nuclear Security Regime and International Standards	
Saima Ali.....	18
New Dimensions of India's NSG Politics	
Saima Ali.....	21
Contemporary NSG Politics in South Asia	
Babar Khan Bozdar	23
India and the NSG Quest: Beyond the Commitments and Standings	
Nauman Hassan	25
Ignored Dimensions of India's MTCR's Membership	
Beenish Altaf	27
Grossi's Proposed Criteria for NSG as a Setback to Non-Proliferation	
Asma Khalid.....	29
Pakistan and Nuclear Security	
Sadia Kazmi	31

CPEC: A Force to be Reckoned With

Sadia Kazmi 33

Grossi's Proposal, NSG Candidacy and the Politics

Maimuna Ashraf..... 35

Politics of NSG and Ballistic Missile Tests

Shahzadi Tooba 37

Editor's Note

Since the December issue of SVI Foresight comes around the dawn of the New Year, the SVI Foresight Team would like to wish its readers a very Happy and Prosperous New Year. This volume is particularly important as it covers some critical national, regional and international security and strategic issues in which Pakistan is not only playing a significant role but they also carry direct implications for the country. One can also find a rich debate and a roundup of the whole year in this volume. December has been a happening month with regards to the national, regional and global strategic developments. The most significant incident has been India's bid for inclusion into NSG which continued to garner global attention throughout the year and evoked timely and effective response from Pakistan.

Despite Pakistan's efforts at highlighting the discriminatory and preferential treatment extended to India specifically by the US, the year end saw Amb. Grossi proposing new criteria "apparently" setting a standard for the states' inclusion into NSG but clearly aims at facilitating India's case only. This proposal has been critically evaluated in most of the articles included in this issue. Not only the analyses are successfully unfolding India's demerits for NSG membership but also put forward a strong case for Pakistan. The fact that it is second time this year that the NSG meeting has ended without reaching a consensus on the agenda, Pakistan feels encouraged by the increasing number of states supporting a neutral and universal formula. It is hoped that NSG states would develop criteria for all non-NPT states in future. However, if India alone gains NSG membership, with exemption from nonproliferation obligations, it will not only infuriate Pakistan to expand its nuclear capacity, leaving no inducement to maintain its international engagements in line with nonproliferation norms, but also call into question international efforts to curb proliferation.

Another debate included in this issue aptly highlights weaknesses in India's non-proliferation credentials. The procurement of nuclear dual-use equipment keeping discretion about its end user is a knowingly illicit move by India. Even the European Intelligence "early

warning” assessment views India as one of the six proliferators in the world. These and others such loopholes have been critically analyzed and evaluated in the articles.

It is hoped that the issue will help readers in staying updated with the current political environment and will find the analyses useful. The SVI Foresight team invites and highly encourages the contributions from the security and strategic community in form of opinion based short commentaries on contemporary political, security and strategic issues. Any suggestions for further improvement are welcome at our [contact address](#). Please see [here](#) the copy of SVI Foresight electronic journal. You can find us on [Face book](#) and can also access the SVI [website](#).

Senior Research Associate
Syedah Sadia Kazmi

Nuclear Suppliers Group: Candidacy, Criteria and South Asian Calculus

Maimuna Ashraf

"Last month's Vienna plenary session that was held to discuss rules for non-Nuclear Nonproliferation Treaty (NPT) states' inclusion into the elite nuclear cartel is largely being viewed as a setback for India's Nuclear Suppliers Group (NSG) bid. Ahead of this meeting, India was hopeful of whittling away the opposition to make way for its entry into the group. However, as the country's newspaper headlines had indicated in June, this move turned out to be two steps forward, one step backward. Apart from China, Russia, Turkey, Austria, Switzerland and Ireland, all of which maintained their earlier position from the June plenary meeting to deny India's appeal, a serious blow was the stance of Brazil and New Zealand, which had indicated they would support India's candidature. Italy, Belarus, Kazakhstan, and Belgium also called for a criteria-based approach. Thus, notwithstanding U.S. efforts for India's exceptional and unconditional entry, an impasse still exists on offering exclusive treatment to India. Nevertheless, this special meeting, convened for two days, conveyed India's diligence and resilience with respect to its NSG candidature.

At the theoretical level, the commercial aspect and not India's commitment to the nonproliferation regime, is broadly viewed as the main reason behind the United States' preferential treatment to India. The Indo-U.S. nuclear agreement identified selling of at least eight new 1,000 megawatt power reactors to India, capable of recycling at least \$25 billion dollars and providing 15 to 18,000 in direct or indirect jobs for the United States, some estimates indicate. Later, President Obama called for India's membership in the United Nations Security Council, followed by an announcement of trade deals with India worth \$10 billion, which would support 54,000 jobs in the United States. The trends of policy convergence and cooperation between the two countries can be seen in recent times also, prominently including U.S.-India civil space and technology cooperation and the Logistics Exchange Memorandum of Agreement (LEMOA), which allows both states to use the other's military facilities for refueling and repair. Though, practically, both states are reaping less commercial benefit than perceived, and their bilateral trade indicators since 2008 are not impressive. Thus, India's partnership with the United States and its aspiration to join NSG is deemed by analysts more a symbolic gesture aimed at improving its status as a powerful nuclear state, rather than to gain technological advantages that would accumulate from joining NSG. United States' Pivot to Asia policy and India's Act East policy show a convergence of interests between the two states. Thus, the two countries seem to be pursuing their geostrategic and geoeconomic interests rather than complying with nonproliferation obligations.

Conversely, Pakistan desires NSG membership because it anticipates acquiring nuclear equipment and technology for the safety of its nuclear power plants. Pakistan did not contest vehemently for NSG membership before, but lately it has launched reinvigorated efforts for NSG

candidacy, exercising political heft and interacting with leaders and representatives of NSG members to brief them about its credentials. Besides this, it seeks to dispel the impression that the exceptional NSG waiver granted to India in 2008 can be a justification for India's NSG membership. It believes that a misstep should not become precedent for the future. Moreover, due to the possibility that India being in the NSG could permanently block Pakistan's entry into the group, Pakistan has intensified efforts to ensure nondiscriminatory membership criteria for all non-NPT states instead of a merit-based approach. Pakistan forcefully opposes the United States push for India's exclusive entry into the nuclear mainstream, because it has reservations about India's proliferation credentials and this special treatment exacerbates Pakistan's security dilemma. Pragmatically, the exceptionalism for India will permanently close ways for Pakistan's nuclear mainstreaming, a concern that validates Pakistan's uneasiness, while universal criteria for all non-NPT states can strengthen the nonproliferation regime."

"By and large, it is presumed that Pakistan's move to apply for NSG at the last moment was a diplomatic maneuver backed by China to spoil the Indian case. However, Pakistan's foreign office negates this argument, claiming that Pakistan was pursuing its course to join export control regimes, particularly NSG, long before India applied for NSG membership. They further argue that Pakistan passed the Export Control Act on Goods, Technologies, Materials and Equipments related to nuclear and biological weapons and delivery systems in 2004, and announced its lists of goods and technologies subject to regulatory control in 2005 followed by review in 2011, ensuring its compliance with the NSG lists. Due to these steps taken over a long period of time, Pakistan was able to apply for NSG membership within a week of the Indian application.

Ideally, Pakistan and India should have been asked in 2008 to adhere to strong nonproliferation commitments in order to join the nuclear cartel. This would have put nuclear restraints in South Asia. Now, a decade later, India has accessed enough nuclear technology to survive without NSG membership. Thus, meeting a new criterion, for instance joining multilateral NPT or signing a bilateral arrangement on non-testing of nuclear weapons, will not be easy for India. But what cost India is ready to bear for prestige is yet to be seen.

Although it is the second time this year that the NSG meeting has ended without reaching a consensus on the agenda, Pakistan feels encouraged by the increasing number of states supporting a neutral and universal formula. It is hoped that NSG states would develop criteria for all non-NPT states in future. However, if India alone gains NSG membership, with exemption from nonproliferation obligations, it will not only infuriate Pakistan to expand its nuclear capacity, leaving no inducement to maintain its international engagements in line with nonproliferation norms, but also call into question international efforts to curb proliferation."

<https://southasianvoices.org/nuclear-suppliers-group-candidacy-criteria-south-asian-calculus/>

India's Proliferation Credentials

Beenish Altaf

India is a big aspirant for inclusion in the Nuclear Suppliers Group (NSG) for legalising its nuclear related trade with rest of the world. For this purpose the international community is continually portraying India's nuclear track record as an A grade thing that is on the beam. This could be to achieve their (big powers) self-centred goals by posing India so. After the US, many other countries have followed suit by engaging India into similar kind of uranium deals (Indo-US Nuclear Deal) for a dual purpose. Consequently, it has bad and diverse implications for the South Asian nuclear region.

While many of the Indian officials have argued that India's non-proliferation record is impeccable but the study of Indian proliferation record shows that it is factually incorrect. About India's first nuclear test it has been written a lot in post-nuclear suppliers group's debate that it was actually a device derived from Canadian and US exports designated purely for peaceful purposes. That test spurred the United States and several other countries to create the Nuclear Suppliers Group to more severely restrict global nuclear trade.

Then, India's nuclear program requires a steady stream of heavy water. During the 1980s, India arranged secret shipments of Chinese, Soviet and Norwegian heavy water to help start the Madras and Dhruva reactors through a West German nuclear materials broker named Alfred Hempel. Between 1983 and 1989, India received at least 80 tons of Soviet heavy water under the table, and 26.5 tons of Norwegian heavy water through diversions.

More so "Indian nuclear entities and companies have procured nuclear dual-use material and equipment without revealing to the supplier that the end user is an un-safeguarded uranium enrichment plant. The Institute of Science and International Security (ISIS) released two reports in 2006, which give details of India's proliferation activities. The ISIS reports reveal that India has a tendering process for acquiring equipment for its gas centrifuge programme. The Department of Atomic Energy's (DAE) sub-entity Indian Rare Earths (IRE) uses websites and newspapers to invite companies for supply or manufacture of equipment without specifying that the end user is a gas centrifuge program under the DAE. According to the ISIS report, this process has been going on for years with hundreds of advertisements for tenders."

My March 10, 2006 article "India's Gas Centrifuge Program: Stopping Illicit Procurement and the Leakage of Technical Centrifuge Know-How," discussed several weaknesses in India's non-proliferation credentials. First, Indian nuclear entities and trading companies have procured nuclear dual-use equipment and material overseas without specifying that the end-user is an un-safeguarded uranium enrichment plant. In so doing, India has conducted illicit procurement for its nuclear programs. According to European intelligence "early warning" assessment, India is one of six proliferate countries that require European companies to exercise special care to prevent illegal exports. Second, India's procurement system for its gas centrifuge program leaks sensitive gas centrifuge information through its

bidding or “tendering” process. Third, Indian export controls are poorly implemented and the possibility of onward proliferation, such as where imported items are re-exported, remain a serious concern.

The IAEA conducted a review of India’s regulatory framework of safety of nuclear power plants (NPPs) in a period of 12 days in March 2015. It concluded that Indian nuclear regulator, the Atomic Energy Regulatory Board (AERB), is not independent and lacks internal emergency arrangements and urged India to take further action for nuclear regulation. Indian export controls also lack proper implementation.

Similarly, in March 2016 Indian media reported that large quantities of thorium were being illegally exported from Tamil Nadu to China and Europe via Sri Lanka. Earlier in 2012, similar kind of news surfaced that private companies have been allowed to export millions of tons of monazite, and that India has lost large quantities of thorium, worth several millions. The thorium allegations made the following claims: (a) A private company VV Minerals is exporting thorium-rich sand illegally (b) Between 2002 and 2012, some 2.1 million tons of monazite have gone missing, which amounts to approximately 235,000 tons of thorium (c) the monazite has not been returned by the private company to the DAE after mining for other minerals.

Furthermore, India has recently confirmed to recover approximately 31 tons of beryl — prescribed substance — from unidentified persons involved in the illegal export of mineral from Rajasthan. Nevertheless, incidents of theft and illegal export of such material are not new in India. This has been a common practice in the past also.

It is also clear that India has a poor nuclear materials safety record. According to the NTI (Nuclear Materials Security Index), which assesses the security of nuclear materials around the world, India scores below Pakistan, and is ranked only above North Korea and Iran. Thus, assessing all of together, the picture depicts not only the poor state of export controls in the country but further shows the intricate associated concerns of nuclear proliferation and misuse, which are generally not picked by the western media.

Paradoxically, India’s recently submitted application for the Nuclear Suppliers Group (NSG) membership is said to be on the basis of its better non-proliferation commitments that is not more than a bluff. It would be pertinent to mention here the recent hearing of the Senate Foreign Relations Committee on US-India Relations, held on 24 May 2016, in which the US Senator Ed Markey questioned the Administration’s policy of supporting India’s membership for NSG as an exception. “He asked Assistant Secretary of State Nisha Biswal if the US had decided to set aside the factors for membership of NSG or was it planning to have the factors revised to ensure India’s entry into NSG. Sen. Markey pointed out that US had provided a nuclear deal to India without seeking full scope safeguards and that India had continued to accumulate fissile material for nuclear weapons since then. He called the Administration’s policy as dangerous as it would lead to destabilising impact in the region.” India is neither party to the NPT nor it has accepted full scope safeguards ever on its nuclear trade, so there should not be any chance of including India into the hub of civil trade.

Last but not the least, India if it wants recognition as a nuclear weapons state, it should be required to meet NSG's standards, including opening negotiations with Pakistan and China on curbing nuclear weapons and halting the production of nuclear fuel for bombs.

<http://dailytimes.com.pk/opinion/15-Dec-16/indias-proliferation-credentials>

South Asian Security Paradigm and Indo-Pak Nexus

Nauman Hassan

In contemporary South Asia, the possibility of a shift in realist oriented policies cannot be ratified in absolute terms as anarchic arena of International Affairs. The region conceals to be in transition from realist orientation to cooperation and integration despite the tremendous economic integration initiated by China. Based on Immanuel Kant's tripod of democracy, economic interdependence and institution, it is debatable that liberal peace has been taken its root in South Asia as the level of mistrust and relative power maximization are predominant.

Historically, the regional powers have been following principles of real-politick in their foreign policy framework towards their regional counterparts. The major regional powers – India and Pakistan – are frequently disrupting peace process through engagement in balance of power and arms race, continuous violation of cease fire agreement, full-fledged and proxy wars and diplomatic stand offs in almost every aspects of international affairs. The sphere of optimism goes shrinking by consideration recent incidents alike accusing Islamabad for backing Uri Attack by New Delhi and detection of Indian Spies at Indian embassy in Pakistan which significantly indicates that the regional structure is predominantly realist oriented. Region's democratization, economic landscape and institutionalization seems to be failing actors that ensures regional integration and a shift towards liberalist security paradigm.

Since Mr. Nawaz Sharif assumed power in 2013, he showed appetite to improve ties towards economic interdependence and negotiated settlement of all outstanding issues mainly Kashmir. However, Narendra Modi did not respond prospectively towards diplomatic overtures of Islamabad. Grounded at Chanakya's doctrine, New Delhi's priority is to keep Pakistan in diplomatic isolation and malign it at international level for intensified hostility. Modi's irrational stance virtually collapsing composite dialogue and in the consequences, border skirmishes and LOC violations continuously taking place. Owing to changing regional dynamics, India was forced by international community to normalize the relations with Pakistan. Under these circumstances, both sides are talking for the talks but seem futile. It makes difficult to analyze the terms to any possibility of a shift in realist oriented policies of South Asian major actors.

Narendra Modi's surprise visit to Pakistan in December last year was perceived by Islamabad as a good-will visit and both sides decided to understand each other's reservations to restart the comprehensive dialogue. The visit of Indian PM followed by participation of Indian Minister for External Affairs, Sushma Swaraj in Heart of Asia conference to signify other approaches towards security relations. Similarly, New Delhi also consider it as a positive step for regional peace and economic prosperity. Aside with that the key development in region over the past few years has been the adoption of economic liberalization, industrialization and market reform policies in various forms and implications for the political economy of this region. Categorically, such initiatives by Indian authorities are taken as rational attitude of Modi Sarkar.

The China Pakistan Economic Corridor (CPEC) is being considered to be a game changer in South Asian region. China is promoting liberal values and liberalist led trade cooperation among South Asian states. These states can mutually led towards a cooperative regional environment through engaging them in economic dependence. In short, the initiatives have the capacity to converge the interest of regional and extra-regional actors. Shanghai Cooperation Organization (SCO) could be very imperative and this can facilitate Pakistan with an opportunity to play its cards smartly. While considering the CPEC, SCO, BCIM and other trade and cooperation projects, there could be a possible shift in South Asian security paradigm. Such initiatives have the potential to promote liberal values and develop a concept of complex interdependence profound by the Robert Keohane and Joseph Nye.

South Asian Association for Regional Cooperation (SAARC), a group of eight countries, took first initiative to economically integrate of member states. Since 1985, the organization formed different agreements between regional states to expand the sphere of economic integration including the tariff rate, establishing SAARC standers organization, phasing out sensitive list and signing an agreement on trade in services. However, the forum is prohibited to address any bilateral contentious issue between member states, the setback to regional cooperation.

The contemporary security environment reveals the other side of the picture as well. The element of mistrust and acrimony still stands high between the two which gives rise to an uncontrolled and alarming sings of arms race in the region. By undermining strategic culture of both states, it can be maintained that the policies of one actor are considered to be as reactionary. NSG quest, New Delhi's ten years standing defense agreement with US, civil nuclear deal US and Japan, one of the largest arms imports of the world and its heavy presence in Afghanistan resulting more worries for Islamabad. Furthermore, Indian other counterpart, China is modernizing its military and in return India is furthering its nuclear ambitions which forcing region on maintaining realist oriented security landscape. Similarly, on the other hand, the rapidly growing nuclear arsenals of Pakistan, especially its strategic nuclear weapons are worrisome for New Delhi. In addition, Indian accusation of Pakistan as sponsoring terrorism inside its territory adds fuel.

More significantly, though all the South Asian states now have democratically elected governments yet the mistrust and chaos is dominating. This is arguably one of the most significant and outweighing factor that indicates a persistent realist oriented security paradigm. Therefore without any exaggeration, it seems obvious that the regional security landscape does not allow the major actors to shift their realist inspired security policies in this persistent environment of uncertainty and ambiguity.

<http://foreignpolicynews.org/2016/12/14/south-asian-security-paradigm-indo-pak-nexus/>

CPEC: Domestic Challenges and Growing Opportunities

Babar Khan Bozdar

Pak-China friendship is higher than Himalaya and deeper than the ocean. This economic corridor is the fruit of that friendship. The corridor will further enhance the friendship and strengthen brotherhood. The plan for corridor stretching from China to Pakistan into deep water ports on the Arabian sea dates back to 1950. Construction of Gwadar port was also in consideration but the project was ceased due to political instability in Pakistan, the fall of Musharaff regime and subsequent conflict between the Pakistani state and Baluch militants.

Though the project was proposed by General Musharaff, it was postponed because of political instability in the state; however, it was again initiated by the then president Asif Ali Zardari following his visits to China when he was invited along with all political party leaders to a luncheon in the honor of Chinese premier “Li Keqiang” in the President House on 22 May 2013. Both leaders agreed to enhance mutual cooperation and develop long-term plans in the form of China-Pakistan economic corridor.

CPEC megaproject includes:

1. Chinese finance projects
2. Energy projects includes wind, thermal and hydro projects
3. Infrastructure projects include Peshawar-Karachi motorway, Havelian dry port, and two other projects
4. Gwadar includes the establishment of international airport, hospital, and some other projects
5. Other Projects includes cross-border optical fiber cable and digital terrestrial multimedia broadcast

There are some public sector developments projects (PSDP) as well. The three routes have been proposed for within the corridor project: Western route, Eastern route and the Central route. The Western route will cover 2674 km-long distance. Future central route consists of a network of roads entering Gwadar via cities of Basima, Khuzdar, Sukkur, Rajanpur, Layyah, Muzaffargarh and will terminate in Dera Ismail Khan. In fact, the Eastern route is not part of the corridor, but a project of National Highway authority. NHA chairman claimed that Eastern route is not part of CPEC, while it is a part of NHA projects to overcome the traffic burden to the corridor.

There is a saying that “who has a trade may go anywhere”. Similarly, economic corridor unites both countries in a new era of cooperation and access to the major part of the world. In fact, the economic corridor will diffuse tension and promote regional cooperation, harmony, and integration. The economic corridor through road and sea links connects several nations into one transnational entity. Strong economic and human connectivity is a major source of trade and exchange of goods and services to generate revenue.

Though Pakistan is facing rampant official corruption, militancy, separatism and political instability, these core issues might hijack the corridor. China is also unhappy because Baloch insurgents are opposing development of Gwadar port and are creating hurdles. Baluchistan factor is going to complicate things. Baloch insurgents who oppose the development of Gwadar have blown up numerous gas pipelines and have attacked Chinese engineers and it might be a troublesome situation for Chinese workers here in Baluchistan. Insurgents don't want to see development in Gwadar and Baluchistan unless it becomes an independent state. They fear that if Baluchistan is developed and Gwadar becomes operational, outsiders will move in and the demography of province will be disturbed and native people will become minority.

Various separatist leaders of Baluchistan are opposing CPEC and development of Gwadar Port. In this regard, Barhamdaghi Bugti, the leader of Baluch Republican Party (BRP) criticized the corridor and called for UN resolution. China has been significantly troubled by East-Turkestan movement which was responsible for the death of hundreds of Chinese in the last two years. China is also worried about ethnic violence from Uighur rebels in its mostly Muslim northwestern Xinjiang province.

PTI-led government in North-West Frontier Province is also opposing corridor, because they are not satisfied with the route and resources distribution. The reason behind this opposition is a change in original route and diverted economic gains which are beneficial to Punjab only. Thus, there is huge resentment and hatred in other provinces against CPEC.

Security concerns have been the most critical challenge to the corridor. China and Pakistan are trying to meet them. A group of militant organizations like BLA, ETIM, TTP and some other terrorist groups from Afghanistan might be the bone of contention. CIA, Mossad, and RAW are continuously assisting, supervising and supporting these terrorist organizations to destabilize Pakistan but "Iron brothers" should be aware of their intention to make corridor successful and secure it from their impious intentions.

<http://foreignpolicynews.org/2016/12/16/cpec-domestic-challenges-growing-opportunities/>

Nuclear Terrorism: Reality vs. Perceptions

Asma Khalid

It is perceived that increasing dependence on nuclear energy for security, commercial and domestic purpose has enhanced the possibility of nuclear terrorism because weapon-related material, technology and infrastructure could be misused. Presently, a new wave of terrorism in Europe especially increasing the threat of Islamic State (ISIS) has added the risk to global peace and security. It is projected that due to inadequate security measures the nuclear programs for the peaceful purpose are equally vulnerable to terrorists. On the basis of these scenarios, a specific international lobby presents such an imaginative approach that increasing threat of terrorist groups and influence of non-state actors has destabilized the global safety and security arrangements regarding the nuclear security.

Number of the conspiracy theories has been developed by international community such as nuclear terrorism is a viable and most challenging threats to world peace. On the bases of such theories, the issue of nuclear terrorism has received the particular attention of international community during the International Conference of IAEA on Nuclear Security: Commitment and Actions such as during the conference, IAEA chief Yukiya Amano stated that: "Terrorists and criminals will try to exploit any vulnerability in the global nuclear security system. Any country, in any part of the world, could find itself used as a transit point. And any country could become the target of an attack." This statement illustrates the apprehensions regarding nuclear security and threats. Whereas, while discussing the nuclear terrorism it is significant to explore whether the threat of nuclear terrorism is credible or not?

Generally, nuclear terrorism is characterized by numerous techniques in which terrorist groups could use nuclear material and infrastructure. In this regard four significant scenarios have been identified by IAEA regarding the nuclear terrorism: including stealing or buying of the nuclear arsenal by terrorist groups from the black market, Attack on nuclear facilities to achieve political objectives, manufacturing of nuclear weapon or Radiological Dispersal Device. Analysis of these scenarios presents that threat of nuclear terrorism is not practical and theories regarding nuclear terrorism are highly imaginative. Because to manufacture nuclear weapon, acquiring the fissile material is the most complicated task. Though, it is possible for terrorist groups to develop a dirty bomb or Radiological Dispersal Device (RDD) but terrorist groups are not much organized and absence of technical, financial and scientific assistance has made it cumbersome task to get hold of a sufficient amount of nuclear

material to manufacture dirty bomb or (RDD). Most importantly it is imperative to note that, since the introduction of nuclear weapon no single incident of nuclear terrorism has took place in the world.

So, nuclear weapon in the hands of terrorists is an improbable scenario. Study of phenomena reveals that nuclear terrorism is just a myth as it is impossible for terrorist group to steal or fabricate nuclear weapon and it would be tough, however, to gain workable nuclear weapons by either of these means. This is actually because both the weapons themselves and materials needed are very difficult to make. Even if somehow terrorists are successful to steal a considerable quantity of nuclear material, they still need scientist's assistance, technology and time to put the material into an effective explosive and without cooperation, it is impossible.

Therefore, threat of nuclear attack is not reality as many doomsayers are projecting it. So, instead of inculcating a sense of helplessness and fear in the public, nuclear experts and scientist should be work to identify those areas in which the possibility is real.

Climate Change As A Threat to National Security: The Way Forward

Shahzadi Tooba

During past, power Structures, terrorism, economic instability, poverty, reduced natural resources, food insecurity, and health problems were the most significant set of threats; giving rise to crisis and conflicts among nations. But now, the world has been confronted with the non-traditional security threats as well, and climate change is most continuous threat to world stability and security. It has threatened the Human security and considered as one of the biggest non-traditional security threats to national security. Climate change risk has numerous ways to impact the human security. It can cause food insecurity, water scarcity, floods, internal migrations or displacements, livelihood depletions, over flooding, increased land sliding and enhanced the glacier outfall, etc.

Climate change has severe implications for Pakistan as well. Pakistan is very high on vulnerability scale and recent events have proven that Pakistan is vulnerable to all these threats, for example, frequent floods, killer heat waves in Karachi, earthquakes, freak tornado in Peshawar showed that climate change is the most potent threat to Pakistan's security. In 2015, severe heat wave has killed almost 1500 peoples in Karachi, 49 were killed and million has lost property and lives due to sever tornado in Peshawar. Climate change is negatively affecting the health sector as well, as it is playing an important role in nourishing the Dengue virus. Furthermore, due to increase in global warming and speedy melt of glaciers, Pakistan has faced years of floods which has drastically hit the economy of rural areas. Change in weather patterns and frequent floods are affecting the productivity of agriculture sector, especially negatively impacting crops and inflicting heavy losses to the state's economy and posing wide-ranging impact on the food security situation. Food security and agriculture situation were already worse and climate change is making the situation more worse.

Pakistan's vulnerability and costs of climate change are real and rising. There are numbers of factors such as geographic location, growing population, economic volatility, unstable infrastructure and bad governance has made Pakistan a vulnerable state to climate change. So it cannot afford to take the issue for granted. Response of national institutions to climate change is inconsistent and patchy with the climate change challenges. In past, government's steps on climate change: such as Task force and Climate change core committee (2006-13) were considered effective to deal with issue, but unfortunately now these steps are inactive. Though the creation of climate change ministry and environment friendly parliament solar program is right step in right dimension, but working of ministry needs to be improved by funding, capacity building and research.

It is fact that climate change is a real national security threat but there exists no proper research and policy implementation framework. Though, a number of institutions are working on the subject, but none of these have taken any practical action into account Pakistan. So, a comprehensive policy

framework on adaptation to climate change should be devised. Few recommendations are being mentioned below which need to be seriously considered.

To pursue constant economic development by addressing the challenges of climate change properly.

To integrate interrelated policies with climate change policy to achieve positive outcomes.

To adapt early prevention strategies to counter emerging climate change challenges. Strategic forecasting and adaptation strategies can help in diminishing the adverse effects of climate change.

Climate change adaptation is all about risk management. Government should take measures to anticipate risks posed by the climate change.

Climate change policy and National DRR policy 2012 are government's initiatives to deal with the challenges of climate change. Effective implementation of strategies and policies of both projects will help reduce the loss in future disasters.

Strengthening of weather forecasting capability would help to reduce vulnerabilities.

To ensure food security, water security and energy security of the country in the face of threats posed by climate change.

There is a need to raise awareness, promote education, institutional capacity and skills development of relevant stakeholders against climate change risks.

Failure to cope the risks associated with climate change, will pose serious challenges to human development and security, which is integral part of national security. Policy makers should formulate climate smart and development smart strategies, and implement them in a way that challenges of climate change turns into opportunity. It is right time to reduce communities' vulnerability through strengthening their capacity to counter the environmental challenges. Policy implementation is inevitable and global partnership is the way forward.

<http://foreignpolicynews.org/2016/12/25/climate-change-threat-national-security-way-forward/>

A Contemporary Debate: Could India be the Member of NSG

Aqib Shoukat Paracha

Yes, it was India to convince the Global community that nuclear technology just can't have peaceful uses. Henceforth, the concerned states joined heads to bar prospective future possibilities of agitated nuclear transfers. That's all, the tale of 1974. Based on self-styled norms, on September 6, 2008 the exclusive Nuclear Club agreed to bypass the founding NSG guidelines and decided to issue a clean waiver to India for Civil Nuclear trade. Since then, India is trying to have a ceremonial sitting in NSG. After India's formal application of May 12th to the participating governments of NSG, a debate heightened among participating governments' relevant to the criteria for non- NPT states to be indulged into this elite group. From May 12th onwards India claims itself as most insightful state for non Proliferation norms, masking aside its 1974 case.

India and Pakistan being non NPT states primarily not scores for NSG membership, but burgeoning India-United States relations has too much extent blemished the spirit of NSG. India's unwarranted desire for this group and its possible implications for Non Proliferation regime is matter of concern for non proliferation activist's states. In recent months, India tried hard enough to bulldoze NSG participating states to her posture, but the severity of India's nuclear ambitions disheartens the non proliferation activists' states. In his recent article Daryl G. Kimball who is the Executive Director at Arms Control Association has masterfully analyzed the flat substructure framed to accredit India for NSG membership. This substructure was designed by Ambassador Rafael Mariano Grossi, the former chair of Nuclear Suppliers Group.

This Pro-Indian content has once again brought up the discourse focusing on Indian efforts of undermining Non Proliferation regime. Theoretically, if India is inducted into the Nuclear Cartel, in addition to the collapse of Non Proliferation Regime it will leave serious setbacks for forums relating to arms control. Adequately these forums have worked for non proliferation norms, but all in one inducting any state, a non signatory of NPT will hamper the progress made in decades. Specifically in case of India's inclusion into NSG, the legitimacy of this cartel will come to question. Because the pre requisite criterion for NSG obligates every participating state not to be in nuclear trade relation with any non NPT state. Considering 2008 India's exemption of NSG and India's so called diplomatic massive movement for NSG, the one who suffer will be the cause for strengthening non proliferation regime. It will also birth a speculation about partisan applicability of NSG pre requisites.

Being a party among NSG states requires assurance that the imported nuclear related material will not further proliferate nuclear weapons. Interestingly, in South Asia India precedents the arms race, that erode strategic stability paradox. South Asian region is in consideration of dominant states for their strategic objectives of future, that's why any single NSG assurance will consequently left a rough tough strategic scenario for players. Also there exists a concern among stake holders that if India is guaranteed the NSG privileges, it can in future initiate serious concerns for future aspirants of NSG, especially for the non NPT states. India's membership of NSG will likewise leave serious repercussions for Comprehensive

Test Ban Treaty; it will be a step further toward reestablishment of non proliferation and arms control related treaties and agreements. This will certainly make more vulnerable the globe to weapons that nests upon it.

Prime Minister Modi's exercise for NSG could have done better subjected to India's pre assessment of its decade long stances toward treaties banning Nuclear weapons. Now Modi's visit has done better on hierarchical level but ceremonial agreement would need mandate from working groups of NSG for whom a convoluted agenda is architected. India still has some nuclear facilities out of IAEA safeguards, Is the community rest assured that India has no plans to divert material from these plants for military use? India's such arduous engagements complicates strategic environment of South Asia, that therefore compel Islamabad to follow the suite. Islamabad has debated agendas for maintaining a conducive environment among both states, but in pretext of ongoing unfolding, what other reason remains to question Pakistan's nuclear program?

Pakistan and India both states have sizeable nuclear programs, added with their antagonistic attitudes toward each other; also ostensibly NSG don't have criteria for inclusion of non NPT states. If NSG can let in a state whose intentions created the safe club then there remains no reason to let behind the state with prospering safe nuclear program. There exists the bench mark argument whether NSG is ready to include a new criteria base approach or it will go with non NPT (but Okay), non CTBT (but Okay) and Proliferate (but Okay) approach. NSG is on verge of certifying its perception of the wealthy cartel. The case of Pakistan and India for NSG is persuasive but the perception being developed regarding India's membership criteria raise concerns on major agreed non proliferation commitments. Matter of debate must not be "a wealthy state will left behind", instead it should be "incorporating the non NPT's" into the major nuclear club.

<http://foreignpolicynews.org/2016/12/27/contemporary-debate-india-member-nsg/>

Pakistan's Nuclear Security Regime and International Standards

Saima Ali

The International Atomic Energy Agency (IAEA) describes nuclear security as prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities. Pakistan has always been vigorously participating and contributing in the IAEA efforts to promote nuclear, radiation, transport and waste safety and security. As a member of various IAEA safety standard committees, commissions and other related forums/networks, Pakistan Nuclear Regulatory Authority (PNRA) is working to endorse nuclear safety and security.

Pakistan has to ensure the security of nuclear material, other radioactive material, associated facilities and activities under its jurisdiction. A comprehensive nuclear security regime is therefore, much more than the physical aspects of nuclear security. Pakistan's national nuclear security is built on following three pillars: Legislative and regulatory framework and administrative systems and measures governing the security of nuclear material, other radioactive material, associated facilities and activities. Institutions and organizations within the State responsible for ensuring the implementation of the legislative and regulatory framework and administrative systems of nuclear security. Nuclear security systems and measures meant for the prevention, detection and response to nuclear security events.

Additionally, Pakistan contributes in the activities of International Nuclear Event Scale (INES) and International Reporting System (IRS). Pakistan voluntarily adheres to IAEA's "Code of Conduct on Safety and Security of Sealed Radioactive Sources." Pakistan also takes part in combined international projects with IAEA, United Nations Scientific Committee on Effects of Atomic Radiation (UNSCEAR), and International System of Occupational Exposure (ISOE) to improve the national infrastructure for radiation protection. It also take part in IAEA programs for bringing up to date Basic Safety Standards and radiation protection practices. Pakistan is member of several IAEA's committees on safety and security including Advisory Group on Nuclear Security (AdSec) and Nuclear Security Guidance Committee (NSGC).

Earlier this month Pakistan Foreign office stated that it had created a broad and effective national nuclear security regime which was at par with the latest international standards and guidelines. The Foreign Office in a statement on evening of the second Ministerial Nuclear Security Conference of the International Atomic Energy Agency (IAEA), being held in Vienna on December 5-6, said the regime was based on an extensive legislative and regulatory framework governing the security of nuclear material, radioactive substances, associated facilities and activities. This is backed by strong institutions and organizations with the indispensable authorities, resources and trained manpower for effective implementation.

According to the statement, "Pakistan keeps its nuclear security systems and measures under constant review and continues to invest in relevant technologies and human resources," Pakistan had established an independent nuclear regulatory authority with wide-ranging regulatory and inspection

mandate. Pakistan's nuclear security arrangements were being recognized at the international level by several high ranking officials and experts.

Pakistan has been an active participant in the Nuclear Security Summit (NSS) process aimed at creating awareness at the leadership level about the need to strengthen global nuclear security efforts. Also Pakistan joined GICNT Global Initiative to Combat Nuclear Terrorism program in 2007 and has been proactively participating in its various activities for sharing and learning of international best practices. Pakistan voluntarily participates in IAEA's ITDB and continues to support its objectives.

The IAEA director general, Yukiya Amano, conveyed his gratitude for Pakistan Centre of Excellence on Nuclear Security (PCENS), during inaugural address at the IAEA Nuclear Security Conference in Vienna on December 5, 2016. IAEA — the UN nuclear supervisory body said a week before, that more than 100 countries will have to meet higher standards on the protection of nuclear facilities and materials from now onwards. For doing so, of course one has to coerce themselves with certain sets of obligations that could be in form of treaties, international bindings, either legal or self imposed. As a responsible nuclear weapon state, Pakistan has taken exhaustive measures for enhancing its nuclear security. Through sheer hard work and diligent efforts, Pakistan has established a comprehensive and robust nuclear security regime. Pakistan is confident of its ability to counter all kinds of nuclear security threats but is not complacent.

The International Atomic Energy Agency (IAEA) describes nuclear security as prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities. Pakistan has always been vigorously participating and contributing in the IAEA efforts to promote nuclear, radiation, transport and waste safety and security. As a member of various IAEA safety standard committees, commissions and other related forums/networks, Pakistan Nuclear Regulatory Authority (PNRA) is working to endorse nuclear safety and security.

Pakistan has to ensure the security of nuclear material, other radioactive material, associated facilities and activities under its jurisdiction. A comprehensive nuclear security regime is therefore, much more than the physical aspects of nuclear security. Pakistan's national nuclear security is built on following three pillars: Legislative and regulatory framework and administrative systems and measures governing the security of nuclear material, other radioactive material, associated facilities and activities Institutions and organizations within the State responsible for ensuring the implementation of the legislative and regulatory framework and administrative systems of nuclear security Nuclear security systems and measures meant for the prevention, detection and response to nuclear security events

Additionally, Pakistan contributes in the activities of International Nuclear Event Scale (INES) and International Reporting System (IRS). Pakistan voluntarily adheres to IAEA's "Code of Conduct on Safety and Security of Sealed Radioactive Sources." Pakistan also takes part in combined international projects with IAEA, United Nations Scientific Committee on Effects of Atomic Radiation (UNSCEAR), and International System of Occupational Exposure (ISOE) to improve the national infrastructure for radiation protection. It also take part in IAEA programs for bringing up to date Basic Safety Standards

and radiation protection practices. Pakistan is member of several IAEA's committees on safety and security including Advisory Group on Nuclear Security (AdSec) and Nuclear Security Guidance Committee (NSGC).

Earlier this month Pakistan Foreign office stated that it had created a broad and effective national nuclear security regime which was at par with the latest international standards and guidelines. The Foreign Office in a statement on evening of the second Ministerial Nuclear Security Conference of the International Atomic Energy Agency (IAEA), being held in Vienna on December 5-6, said the regime was based on an extensive legislative and regulatory framework governing the security of nuclear material, radioactive substances, associated facilities and activities. This is backed by strong institutions and organizations with the indispensable authorities, resources and trained manpower for effective implementation.

According to the statement, "Pakistan keeps its nuclear security systems and measures under constant review and continues to invest in relevant technologies and human resources," Pakistan had established an independent nuclear regulatory authority with wide-ranging regulatory and inspection mandate. Pakistan's nuclear security arrangements were being recognized at the international level by several high ranking officials and experts.

Pakistan has been an active participant in the Nuclear Security Summit (NSS) process aimed at creating awareness at the leadership level about the need to strengthen global nuclear security efforts. Also Pakistan joined GICNT Global Initiative to Combat Nuclear Terrorism program in 2007 and has been proactively participating in its various activities for sharing and learning of international best practices. Pakistan voluntarily participates in IAEA's ITDB and continues to support its objectives.

The IAEA director general, Yukiya Amano, conveyed his gratitude for Pakistan Centre of Excellence on Nuclear Security (PCENS), during inaugural address at the IAEA Nuclear Security Conference in Vienna on December 5, 2016. IAEA — the UN nuclear supervisory body said a week before that more than 100 countries will have to meet higher standards on the protection of nuclear facilities and materials from now onwards. For doing so, of course one has to coerce themselves with certain sets of obligations that could be in form of treaties, international bindings, either legal or self imposed. As a responsible nuclear weapon state, Pakistan has taken exhaustive measures for enhancing its nuclear security. Through sheer hard work and diligent efforts, Pakistan has established a comprehensive and robust nuclear security regime. Pakistan is confident of its ability to counter all kinds of nuclear security threats but is not complacent.

<http://foreignpolicynews.org/2016/12/27/pakistans-nuclear-security-regime-international-standards/>

New Dimensions of India's NSG Politics

Saima Ali

It has roughly been a decade that membership of NSG has become much contested, especially because of India and Pakistan concern into NSG. Last Plenary meeting in Vienna for NSG concluded without achieving any agreement on the issue of NSG candidature for non-NPT states. India always took NSG as a political game and was continuously giving the impression that it has succeeded the support of majority of the countries including Mexico, Switzerland, Brazil, Russia and New Zealand. But the fact is that New Zealand doesn't place a chance against the US pressure. Likewise the countries in Latin America have different interests. Nevertheless three major countries Ireland, China and Austria have not shown any change in their posture against the Indian membership.

The creation of this particular nuclear lobby known as the 'London Club', a voluntary cartel in response to India's so called Peaceful Nuclear Explosion in 1975. Its focal point was to hinder its members from assisting India in producing nuclear weapons, which used plutonium, produced with nuclear technology from Canada and the United States. India's application is being considered and deliberations are yet to take place whether to include her in the cartel or not. Instead of supporting a complete and an effective implementation of the Non-proliferation treaty (NPT) has been using its 2008 waiver given by NSG for justifying its application.

Despite the fact, India wants to send the message out that NSG issue is still animate and India is meticulously working for the membership. The NSG politics by India has recently entered a new dimension currently as that Ambassador Grossi, in a new-fangled attempt to acquire India's entrance into the NSG and break the blockage in this regard, has proposed a prescription for dealing with India and Pakistan's applications. A so called new framework of conditions approving India would be formulated and the NSG chair would write to the two non-NPT applicants to convey to them the grounds on which they feel they are eligible for NSG membership. This would enable him to show to the NSG members that India met the conditions laid down under the formula. But the rubric does not have the approval of the entire membership.

The formula outlined in Grossi's draft note sets an extremely low bar on NSG membership and its wording is vague and open to wide interpretation. Nevertheless it would serve to show India's greater eligibility in a contrived postulate. For example, the proposed criteria for membership would simply require that India or Pakistan describe their plan for separating civilian and military nuclear facilities, which is a step that does not necessarily guarantee civil nuclear technology transfers will not benefit the military sector, and it is a step India has already taken.

It is no wonder that responsible NSG states have lodged comments and objections to both the substance of the proposed membership criteria and the process for trying to forge a meaningful consensus on the criteria for membership for non-NPT states. Mr. Rafael Grossi is looking for the US

support and that's why he is all out to settle the Americans for which he is trying to propose criteria which would go with India. Countries like New Zealand, Austria, Switzerland and Ireland want more strict measure and are unwilling to accept Grossi's paper. On the other side there are countries like China which believe that Rafael Grossi doesn't have a mandate so it is reluctant to accept procedures presented by Rafael Grossi.

The US' support for Indian bid is driven by its strategic and political interests in South Asia. Despite lack of any progress towards support of member states, India has pressed NSG members for a second meeting just to keep the issue alive and burning. India's unaccompanied entry into NSG would push back Pakistan's efforts for developing its infrastructure and industry by decades. Significantly, Pakistan must be cautious of this progress. It has also posed a serious challenge for the NSG members who are trying to increase the membership of the NSG since 1970s. In fact in order to stop the NSG chairperson Mr. Rafael Grossi, from acting brazenly in favour of India, Pakistan could simply take certain steps to improve its eligibility for membership. It has already signed and ratified the Convention on Physical Protection of Nuclear Material (CPPNM) and its Amendment. It could also consider signing an additional protocol with the IAEA and perhaps announce a separation of its civil and military nuclear programmes. These steps are doable, will not affect our core position on nuclear matters and could considerably improve our eligibility for NSG membership. If the NSG opens its door for India, it should be obliged to do it for Pakistan as well.

<http://foreignpolicynews.org/2016/12/27/new-dimensions-indian-nsg-politics/>

Contemporary NSG Politics in South Asia

Babar Khan Bozdar

Recently an article entitled as “NSG membership proposal would undermine non-proliferation” written by Daryl G. Kimball, the Executive Director of Arms Control Association passed from eyes. In his article, he proposed nine points for membership of India and other non-NPT countries. I will not go in much detail but this article will revolve around the separation of current and future civilian and non-civilian nuclear facilities of India. Though, India fails to stand in meeting with that criterion but Obama administration wants to see India as the part of NSG. Daryl G Kimball wrote an article on June 23, 2013 under title “Indian membership in NSG? A bad idea whose time has not come” in which he criticized Indian efforts for civil-nuclear trade.

Despite the fact that, Kimball’s proposed conditions wouldn’t oblige India to take extra restraint endeavors which it submitted in 2008 in front of NSG member states for Civil-Nuclear trade. In this regard, India just describes its plan for separating Civil and Nuclear facilities and enjoys full benefits of civil nuclear technology; which it did earlier. In fact, it is not guaranteed that that civil nuclear technology will not benefit the military sector. Moreover, if Civilian nuclear technology benefited its military sector by nuclear explosive test or detonating a nuclear device of any type, India will not be subject to any punitive measure except NSG member’s consultation and their decision and if possible there will be a suspension of all transfer and termination of membership but these are not legally binding. Such weakness will not only damage the credibility of NSG but also put a dark shadow over president Obama’s nuclear non-proliferation disarmament legacy.

A confidential letter entitled as “food for thought” paper was written to NSG member states on May 20, 2011 on the behalf of Richard Stratford, Director nuclear energy, safety and security affairs US, for revising current criteria for Indian membership in the club or propose new criteria, which Kimball mention in his recent article published on December 21st, 2016.

Neither India nor Pakistan is party to NPT and in this situation; both states don’t meet all requirements to be an individual from NSG and beneficiary of nuclear material and innovation from the Group. This rule, however, was avoided in 2008 to oblige India. The NSG member states made a correction in the exchange laws of the Group and allowed a special waiver to India. The extraordinary treatment of India will undermine the credibility of the Group. India’s application for the NSG enrollment and the United States request to regard it as an uncommon case was limitlessly discussed in the worldwide media before the gathering meeting on June 9, 2016, in Vienna, Austria.

The level headed discussion affirms that Priority to one state and discriminatory approach against the others would be hazardous for NSG in particular and Nuclear Non-proliferation in general. Pakistan has a similar potential to joining the club and it would be better that Pakistan and India should be treated on the same ground instead of granting special treatment to one state and avoiding other states. It will not only undermine the Credibility of Club but arms control and disarmament and non-proliferation efforts will be useless. Indian membership in club also provides a reason to non NPT

members for joining club in future especially North Korea, Israel then what will be criteria for membership?

Summing up, it is very strange that, NSG was created in 1974 in the response of Indian peaceful nuclear tests but India violates its commitment from peaceful to military purpose. Today it is same group setting de minimus criteria only for India! The future of NSG is not looking much better and inclusion of India into London club is not more than a joke with disarmament and non-proliferation efforts.

<http://pakobserver.net/contemporary-nsg-politics-in-s-asia/>

India and the NSG Quest: Beyond the Commitments and Standings

Nauman Hassan

With lucrative objective of global peaceful proliferation, the Nuclear Supplier Group (NSG) was created in 1975 to make sure the peaceful transfer of nuclear technology and to cut the threat of misuse. The 48-states club established in the response of India's first nuclear explosion in 1974 with the ultimate aim the limit the spread of nuclear weapons. Over the time, the association experiences some discrepancies which ultimately affected its charm. Brazil and France secure membership without signing Non-Proliferation Treaty (NPT), the core clause of NSG, and provided room for other proliferators to become a part of NSG. Whether it's according to the norms of NSG or not, the New Delhi approached Washington for diplomatic support in favor of India's membership of NSG without signing NPT. Obama administration influenced its ally states to vote in the favor of India's membership remain unsuccessful as of particularly China Turkey and Azerbaijan factors.

Beside deliberate and impressive support of White House, the core hurdle to New Delhi is to fulfill criteria-based approach. The essentials of proposed criteria clearly restricting India to join the sphere of nuclear technology control organization to enjoy the nuclear technology transfer. In view of that the main elements are the signatory of Non-Proliferation Treaty (NPT), clear description of current and future intentions and strict implementation of IAEA safeguards. In case of India, the non-signatory has issued revised form of its fourteen point agenda but the existing wavier by US making it a complex situation particularly on the issue of Indian insurance about its commitments and standings. As a case of implementation of IAEA safeguards, India committed to put 14 out of its existing 22 nuclear power plants under safeguards and for civilian purposes but still the safeguarded 14 plants are under debate of commitments and standing as the reactors still waiting to work in legal way as they described. Additionally, the reprocessing stations are under IAEA observations but with a clause that they will be supervised while processing imported material and when it will come to domestic reprocessing, IAEA will get a side. Logically, how the NSG, US and Japan will guarantee the dangerous nuclear program and its commitments in the near future and beyond.

The debate becomes more critical after the Grossi's December 6 draft that proposed more idealistic 9 points. As the first four points focused at clear and strict separation of all nuclear facilities between civilian and non-civilian programs and IAEA safeguards implementation. The proposed point for non-NPT members already got enough critic in international community particularly in the case of India; possessing one of the unsafeguarded nuclear program in the world. Its designated 14 nuclear facilities as for civilian use and under IAEA safeguards are still under debate as not under controls and safeguards. The issue also questioning the exemptions availed under Indo-US civil nuclear deal on 2007. More significantly, the origin of Indian nuclear technology used in its 1974 test was US and Canada and it was assured to the suppliers that the technology will be used to civilian purposes but the consequences was

the clear misuse. Even though the IAEA provides and maintain the separate identification yet the future intentions can't be assured.

By considering the Additional Protocol of IAEA that will identify civilian nuclear facilities with clear safeguards agreement to ensure that the safeguarded material will be used only for peaceful purposes sounds as not to be implemented on the reprocessing units in the case of reprocessing domestic material that is making the scenario more complicated as to supervise whether the reprocessed material is domestic or either imported under NSG umbrella. The situation is complex particularly as New Delhi lacking to separate its reprocessing facilities as civilian and non-civilian. The issue get more intensification through Grossi's next proposed point to indicate commitment of not to use transferred radio-active material from NSG Participating States in unsafe-guarded facilities.

The author is also in the favor of proposed no more nuclear test if a state want to reap the benefits of NSG membership. In that regard, any nuclear weapon state that is committed to not to go for another nuclear test should not hesitate to sign Comprehensive Test Ban Treaty (CTBT). Aside the proposal by Islamabad for mutual test ban treaty, New Delhi has not shown willingness for any such initiative. Not only this, India is working to develop second strike capability through nuclear submarine that obviously need a test to ensure credibility. Again, it will be uncertain that India will go for such option and even it signs yet the intentions, plans and policies of New Delhi will not be clear.

Finally, the author's deliberate support for non-proliferation, disarmament and merit-based formula to join the club for non-NPT members is expected to focus at the expanded role of peaceful nuclear technology. Nonetheless, the formula doesn't seem entirely in line with the lucrative goals of global non-proliferation. To facilitate nuclear weapon NSG applicants, creating room for exemption and waivers, ignoring the global peace initiatives alike; NPT and CTBT and proposing weakening formula will expand the sphere of mistrust and anarchy that will defiantly destabilize the South Asian strategic landscape. In net shall, proposing merit-based and not criteria-based could lead towards proliferation.

<http://foreignpolicynews.org/2016/12/29/india-nsg-quest-beyond-commitments-standings/>

Ignored Dimensions of India's MTCR's Membership

Beenish Altaf

India joined the Missile Technology Control Regime (MTCR) on June 9, 2016 prior to the formal plenary held in Busan (South Korea) on October 17-21, 2016 primarily thanks to the assistance of Russia. As such, India immediately decided to benefit from its entry into the group by deciding on to the enhancement of the range of its supersonic cruise missiles beyond their previously known limit.

Despite the fact that India is heading towards the advancement of its missiles after joining the 34 nation group where, MTCR actually work to restrict the proliferation of missiles, complete rocket systems, unmanned air vehicles, and related technology for those systems capable of carrying a 500 kilogram payload at least 300 kilometres, as well as systems intended for the delivery of weapons of mass destruction (WMD).

India and Russia have agreed to extend the range of the BrahMos supersonic cruise missiles beyond the current 300 km. The proposal to increase the range has been under consideration for a long time, but it is now formalized after India became a MTCR member this year. It has also been mentioned in the Indian press that only minor changes will be enough to extend the range of BrahMos missiles up to 372 miles.

BrahMos, is a joint venture between the Russian Federation's NPO Mashinostroyeniya and India's Defence Research and Development Organisation (DRDO) who have together formed BrahMos Aerospace. The name BrahMos is a portmanteau formed from the names of two rivers, the Brahmaputra of India and the Moskva of Russia. It is a short-range ramjet supersonic cruise missile that can be launched from submarines, ships, aircraft or land.

It needs to be taken into account that Russia has very bluntly welcomed India's entry into the MTCR group. Russia itself believes that it is a key anti-proliferating member of the group. The membership for India has definitely eased space and missile collaboration with Russia, which could not supply cryogenic engines and other dual use technology missiles to India, because it was bound by MTCR norms. This is because of the fact that the MTCR guidelines prohibit its members from transfer, sale or joint production of missiles beyond 300-km range to countries outside the group. As such India now has the license to increase the range of its missile jointly with Russia.

This joint step by India and Russia is an offensive move that points towards Pakistan, as it was very difficult for the BrahMos with just a 300 km range to target inside Pakistan. After enhancing the range the missile will be able hit anywhere inside Pakistan, and thus has vast regional implications. Indeed, this could be worrisome not only for Pakistan, but also for China.

An Indian military official stated at some point of discussion, that "our threat perceptions and security concerns are our own, and how we address these by deploying assets on our territory should be no one else's concern." The statement depicts the aggressive and offensive mode of the Indian mind

making. A greater range for the BrahMos would imply that India's power to strike would get an unprecedented fillip.

Last but not the least, it could be taken from the above that as India is doing this right after gaining MTCR membership, one has to wonder what it would do if its dream comes true of obtaining NSG membership. Such membership would, for sure, lead the way for India to enhance its uranium reserves for military usage.

Analytically, China stonewalled India's entry into the NSG at the recent June Plenary as it has an impact on the country being an active member of the group, but it could not stall India's membership to the MTCR seeing that China is not a member. Nevertheless, India is undoubtedly spending more and more in developing its tremendous firepower and strike capabilities. This is alarming for the world in general and the region in particular.

<http://www.eurasiareview.com/30122016-ignored-dimensions-of-indias-mtr-membership/>

Grossi's Proposed Criteria for NSG as a Setback to Non-Proliferation

Asma Khalid

The global community has created a multiplicity of so-called legal tools aimed at preventing nuclear weapons proliferation including legally binding treaties to voluntary agreements and regional committees, including the Nuclear Supplier Group. NSG has two sets of guidelines meticulously enlisting the nuclear materials, equipment, and technologies subject to export controls. These guidelines require the importing party to ensure that their trade shall not in any way contribute to nuclear weapons proliferation. Since the India-Pakistan's application for NSG membership, Politics of NSG has gained massive attention of international community in few months. Aim of this piece of writing is to analyze how NSG is following discriminatory state-centric approach for inclusion of India in the nuclear cartel?

NSG membership of India Pakistan revolves around the major power politics. India has been granted the status of special waiver whereas Pakistan is facing discriminatory attitude of major powers. The most ironic aspect of this issue is that NSG was established in response of India's nuclear explosion to stop nuclear proliferation and now its entry is being strongly supported by major powers of the group. Additionally, on 6 December 2016, Ambassador Rafael Mariano Grossi, the former chair of Nuclear Suppliers Group, presented a proposal consist of nine points for NSG membership; it has been observed by International community that these points are suitable to India but not Pakistan. If Grossi's criteria is adopted then India can claim that it has already taken all measures according to NSG guidelines, while leaving Pakistan on disadvantage.

First point of suggestive criteria is regarding the separation of current and future civilian and nuclear facilities: under 2008 exemption India has already notified a separation plan, whereas Pakistan didn't formally notified its separation plan to IAEA despite of having separate military and civilian's facilities. So currently, in context of proposed NSG criteria, Pakistan is technically ineligible for NSG membership. *Second point* bonds that states must have enforce IAEA's Additional Protocol: this point also suits India as it has already signed the additional protocol with IAEA. Though the nature of India's additional protocol with IAEA is weak but it will help India to full fill the basic criteria. However Pakistan has no hesitation in signing the additional protocol with IAEA but it will take time and in this regard India has advantage over Pakistan. *Another point* is that candidate must committed to not conduct any nuclear explosion in future: Both India and Pakistan full fill this clause but such commitments are more like political commitment and it is not legal binding law and any member states can break their promise as India violated the IAEA safeguards in 1974. *Next point* is not to indulge in any proliferation activity: both India and Pakistan being responsible nuclear weapon states have been already committed to not use any item transferred.

Another salient clause is: “An understanding that due to the unique nature of the non-NPT Party applications, non-NPT applicant would join a consensus of all other Participating Governments on the merits of any non-NPT Party application.” The last clause of proposed criteria was just to project that this criterion is not state-centric and group has maintained its objective by imposing a pre-condition on India that I will not oppose Pakistan’s entry when Pakistan full filled the new criteria which is actually developed for India. But it still have major weakness as India have strong supporters in the group and they can refuse Pakistan’s membership on behalf of India as NSG works on consensus.

The analysis of Grossi’s formula presents that NSG guidelines are influenced by major powers of the groups, especially United States support to India’s membership is deeply rooted in its own geostrategic and geo-economics interests. In this regard India is given benefits and being the Nuclear Non-proliferation member, state-specific conditions are formulated to favor India. Such state-centric discriminatory policies presents that major powers use non-proliferation regimes as a tool to peruse their own interests and such dynamics really undermine the global non-proliferation efforts. Adopting Grossi’s formula and granting membership to India will be a major setback to non-proliferation regime as membership will provide it access to latest nuclear related infrastructure and technology which will enable India to commercialize the manufacturing of nuclear power plants as well as it will permit the India to enhance vertical proliferation and disturb the balance of power and regional stability. In the light of these scenarios, ideally NSG states must address the above mentioned challenges as well as complex proliferation dealings and networks of India that evade multilateral trade controls along with the most pressing issue of discriminatory approach towards Pakistan.

<http://foreignpolicynews.org/2016/12/30/grossis-proposed-criteria-nsg-setback-non-proliferation-efforts/>

Pakistan and Nuclear Security

Sadia Kazmi

The recurring debate about nuclear security held at various international circuits claims to primarily create awareness through reviewing current security efforts, providing guidance and cultivating nuclear security culture. A “noble” cause indeed! However mostly the very framing of the ideals and the general tone of the outcomes of such meetings seem to be governed by intrinsically flawed, baseless and misleading concerns of the West. For instance highlighting time and again about the possibility of nuclear assets going into the hands of “terrorist” is a farfetched idea. These concerns are intentionally emphasized as having a global purpose but essentially target and discriminate against few specific states.

Same holds true for IAEA and its efforts in the form of international conferences on the subject. Nuclear terrorism has been made a top agenda in these meetings. However that has to be the worst eventuality that doesn’t hold a chance to happen. Deliberations are shared and concerns are raised about the growing wave of terrorism in the world. The whole debate, opinions, discussion and outcomes are made to base on a “hypothetical” scenario where the nuclear assets despite having robust security measures in place could be “snatched” by the “rogues”. When in reality there hasn’t been a single incident to date where the IS or Daesh or AlQaeda, being the globally known terrorist organizations, could have an access to the nuclear assets.

They may have captured cities, they may have massacred populations, they may have launched lethal attacks, and they may even have acquired sophisticated means of launching their operations but getting hold of the nuclear technology or developing a nuclear capability of their own is just an implausible idea as it cannot be built with spare parts and will require industrial infrastructure, several gigawatts of energy and billions of dollars. For them there are huge challenges involved in achieving this object and still there is no guarantee that it is going to be a success.

The purpose of such conferences ultimately seems to be just increasing the sense of vulnerability. Obviously there are several “interests” maneuvering such policy orientation of the West. Hence nuclear security is presented as a regulatory system devised to prevent the theft and sabotage of radioactive material and associated facilities.

Unfortunately it is a normal functioning of the Western disinformation and propaganda windmills to choose the nuclear Pakistan as an implicit or explicit target for lack of security of its weapons. However Pakistan is the only nuclear country with zero incident of mishap. All other nuclear states have more than one such incident with US in the worst position of having maximum incidents of nuclear negligence.

So, there is no comparison of any country with Pakistan in this regard. At the same time talking specifically about Pakistan in this context, it is important for the West and IAEA to first understand

Pakistan's strategic culture and how it is evolving. Pakistan's nuclear program being the cornerstone of its safety and security in the regional setting is evolving as per the security imperatives.

Primarily a peaceful program, it has been a guarantor of strategic stability vis a vis India. The key factor in Pakistan's strategic culture remains to be India, while others include historical experiences, the trend of strategic alliances, and domestic conflicts. Collectively all these factors have played a role in the evolution of Pakistan's nuclear program development. Nonetheless the nuclear program remains to be deterrent in nature to meet India's conventional and nuclear capacity. Hence there is no confusion that for Pakistan the safety and security of its nuclear assets is the first and foremost priority and has no other purpose but to ensure protection from existential threat.

Pakistan considers nuclear security as a national responsibility. Therefore it has proactively taken several measures in this regard and doesn't require a reminder to make safe and secure its nuclear assets. It has ensured that nuclear and radioactive materials and all related facilities are secured in all places. All the standards prescribed by IAEA have been met in order to toughen the nuclear security. The multi-layered security of its nuclear program has a vigorous Command and Control system.

The National Command Authority (NCA) is the apex body that exercises command and control function through its Secretariat (Strategic plans Division) headed by the Prime Minister. The trained and skilled force is responsible for the security of nuclear assets. Apart from that, Pakistan also created a Centre of Excellence that conducted courses in nuclear security.

Pakistan is also part of the Convention on Physical Protection of Nuclear Material (CPPNM). Not just that but it's a known and well acknowledged fact that Pakistan is playing a leading role in global nuclear safety and security regime. Pakistan's export control regime is at par with the standards followed by Nuclear Suppliers' Group (NSG), Missile Technology Control Regime (MTCR) and Australia Group. This is also one of the reasons why Pakistan is pursuing its case for NSG membership, being committed to Non-proliferation of nuclear weapons. Pakistan's efforts are appreciable and reflect the sincerity to safeguard the nukes.

The fact that Pakistan's nuclear security paradigm evolved over the years, makes it prudent and responsive against the range of possible threats. Driven by effective nuclear security culture, it is dynamic and regularly reviewed and updated. Hence there is awareness as well as sense of responsibility in the usage and transportation of radioactive material. This makes the basis of the behavior and thought patterns that are stimulating Pakistan's efficacy of nuclear security and its intents of Non-proliferation.

<http://www.voiceofjournalists.com/pakistan-and-nuclear-security/>

CPEC: A Force to be Reckoned With

Sadia Kazmi

China-Pakistan Economic Corridor with all its potentials fast turning into a reality is becoming more viable than ever before. Despite various conspiracies doing the rounds it has proven to cultivate trust, faith and hope for all the stakeholders specifically within Pakistan. The 6th JCC meeting in this regard is a major milestone. Not only the representation from Pakistan was all inclusive but also displayed a great show of unanimity among the federal and provincial ministers. At the same time it is commendable that China is sticking fast to its promise making this project a success story despite the recurring skepticism and ill efforts at politicizing the CPEC. Even though the project is proudly being touted as a “Game Changer” the CPEC is facing numerous internal and external threats. However the political leadership seems to have realized that while the outside elements are indeed a matter of concern, it is the internal challenges, chiefly the friction among themselves that need to be addressed for the much bigger national cause that will benefit not only the country but the whole region. The JCC meeting in Beijing held on 29th December 2016 brings about the hope that there will be continued efforts and a renewed political will by the federal and provincial ministers to keep the spirit of harmony alive.

The fact that Sindh province got three major projects approved in principle with instant support from other ministers is a positive development. The mega projects are the Karachi Circular Railways, Kei Bandar Power Park, and Sea Port and Special Economic Zone (SEZ) in Dhabjei (Thatta). Simultaneously for KPK, the 70 megawatt run of river electricity project, the circular railway track running between Peshawar–Charsadda–Nowshera–Mardan and Swabi, as well as Special Economic Zone along the Motorway has been approved. In another positive development the Diamer-Bhasha Dam has also been made part of the CPEC. Not just that but 9 Industrial parks have been decided to set up across the country. Two will be set up by federal government in Islamabad and Karachi and the remaining would be in Punjab, Baluchistan, KPK, Sindh, Gilgit-Baltistan, Fata and Azad Kashmir. Collectively this has raised the Chinese investment from US \$ 46 billion to approx US \$ 54 billion. Even though at present, the provinces are tasked to complete feasibility reports and provide technical studies soon, it is clear from these developments that the CPEC is catering to the whole country and not just one particular province as is wrongly being assumed. The claims that Punjab is getting lion’s share while other provinces don’t stand to benefit much has proven to be a mere farce. The senseless rumor mongering needs to be stopped, while nurturing increased realization about nationwide political unity refraining to pursue a separate political agenda will reap huge benefits.

For the future it will be productive to have substantial debates on more important issues including pricing, returns on energy mix and investment, interest on loans etc. Based on these discussions a better informed policy can be formulated to address present and future concerns regarding the CPEC. Also the viability of approved projects with more transparency about the spending of loans should be kept in mind regarding the execution of these projects. The habit of desensationalizing the politically motivated objections and removing doubts through consulting authentic information should be adopted. China has no intention to leave the project or Pakistan

midway. The financing and strong political will is there. Nor does China have ambitions to dominate the region. It is well aware that the way to last long is not to dominate but through strengthen linkages through cooperation and reciprocity. It is trying best to keep a balance in its economic and strategic aspirations at both regional and global levels.

Recently both Pakistan and China extended an offer to India to become part of the CPEC. This further proves that neither Pakistan nor China seeks to keep India out of this project nor do they see it is a threat. Since day one CPEC aims to integrate regions through strong economic linkages. India should get rid of its grievances against the project and forego its senseless stance of isolating Pakistan. CPEC is a reality that is here to stay. India will be able to boost its economy and generate more revenues from its exports through this new trade route with China. Its Northern part near Jammu n Kashmir will also receive more economic growth. CPEC is an inclusive project and it is time that more states such as India, Afghanistan, Iran and Central Asia be part of it.

With recently displayed political consensus and hope for a continued commitment to the smooth implementation of the project, the CPEC has become a force to be reckoned with.

<http://foreignpolicynews.org/2016/12/31/cpec-force-reckoned/>

Grossi's Proposal, NSG Candidacy and the Politics

Maimuna Ashraf

At earliest of this month, the Western media buzzed about a circulated draft 'Exchange of Notes' about the non-NPT applicant for NSG candidature by Rafael Mariano Grossi of Argentina, the former chairman of the NSG. Reportedly he said in the cover note, "the purpose of these notes is to provide a basis for the commitments and understandings to augment the applications of the Non-NPT applicants. Since the June plenary, Song Young-wan the current chair of NSG with Grossi, have consulted states on possible criteria for membership for NPT states. The Participating Governments (PG) of NSG have recently started to seriously engage on potential options, but the discussion has not yet reached the point where a consensus decision might be achieved.

The politics of NSG has gained immense significance in the recent few months not only in South Asia but in the international corridors of power as well. The NSG is now confronted with a very critical issue of high politics where all major powers are generating tremendous pressure favoring India's membership into the NSG. The basic purpose of the NSG is to provide a mechanism through which the non-proliferation goal could be achieved, but in the present scenario the group members are unanimously supporting India- a proliferator- to be part of the group. This group is not a formal, institutional or governmental group but a private cartel of 48 members. Notwithstanding the question of its legitimacy, it is an important group since it deals with the dual use of nuclear technology, commercial nuclear activities and nuclear exchanges between the member states.

India was lately giving the impression that it has won the support of majority of the states including Mexico, Switzerland, Brazil, Russia and New Zealand. But the fact is that New Zealand doesn't stand a chance against the US pressure. Similarly the countries in Latin American have different interest. However three major countries Ireland, China and Austria have not shown any change in their stance against the Indian membership. However, India wants to send the message out that NSG issue is still alive and India is diligently working for its membership that is why one after another a new proposal surfaces. It's almost a decade that membership of NSG has become much contested, especially because of India and Pakistan interest into NSG.

It has been lately warned by Daryl G. Kimball of Arms Control Association that 'this formula would not require India to take any additional nonproliferation commitments beyond the steps to which it committed in September 2008 ahead of the NSG's country-specific exemption for India for civil nuclear trade. However he argued that Pakistan still has grounds to object to the formula outlined by Mr Grossi.' According to the nine commitments, a non-NPT applicant would be required to win a separate NSG exemption from the full-scope safeguards requirement in order to engage in civil nuclear trade with NSG states. Thus pragmatically, this will require Pakistan to meet the same criteria for membership as India which will not be possible for Pakistan because decisions in the nuclear cartel are based on consensus. Another commitment in the proposed criteria for membership demands that NSG applicants would describe their plan for separating civilian and military nuclear facilities, which is a step that would again not require India to separate its facilities because the separation plan has already been held however Pakistan would need to describe separation plan despite the fact that its civilian and military

nuclear facilities are already separated. Indian separation plan was in result of Indo-US nuclear deal however Pakistan for not currently been offered for such a civilian nuclear deal would not probably go for this commitment however if agreed criteria demands this commitment Pakistan would not apparently find an issue describing a separation plan and signing an additional IAEA protocol.

Moreover, to prevent India from blocking Pakistan from joining the NPT, Mr Grossi's draft note proposes that "one non-NPT member state should reach an understanding not to block consensus on membership for another non-NPT member state". This gives an impression that proposal seeks India's inclusion first and Pakistan's treatment later. The treatment clearly leaves Pakistan in a different status. The Foreign Office rejected the Grossi formula for 'evaluation of the candidature of non-NPT states for the Nuclear Suppliers Group's membership as discriminatory and unhelpful for advancing global non-proliferation objectives.' Viewing the increasing number of countries supporting universal criteria for non-NPT states, it can be accessed that Indian membership in NSG doesn't seem forthcoming which is ultimately good for Pakistan. However, if Pakistan could not win the membership simultaneously with India, it should still not give up on its ambitions as it needs recognition in the long run. Pakistan can gradually and eventually get there by constant efforts but it should not rush and must keep the pace of responsible nuclear weapon state.

<http://foreignpolicynews.org/2016/12/30/grossi-proposal-nsg-candidacy-politics/>

Politics of NSG and Ballistic Missile Tests

Shahzadi Tooba

India has test fired nuclear capable Agni-V with a range of 5,000 km. The interesting part of the India's accompanying statement is that the missile is test fired after a gap of two years under the self-stated restraint for seeking entry into the 48-country nuclear suppliers group.

Related to India's entry seeking struggle: on 6 December 2016, Ambassador Rafael Mariano Grossi, the former chair of Nuclear Suppliers Group who is a facilitator, on behalf of the NSG chair presented a proposal consist of nine points for NSG membership. It has been observed by International community that these points are suitable to India but not Pakistan. If Grossi's criteria is adopted then India can claim that it has already taken all measures according to NSG guidelines, while leaving Pakistan on disadvantage.

According to these suggestive points by Grossi, a country should:

Implement and have brought into force a clear and strict separation of current and future civilian nuclear facilities from non-civilian nuclear facilities in the non-NPT applicant.

Have provided and maintain a declaration to the IAEA that identifies all current and future civilian nuclear facilities in the non-NPT applicant.

Have in force a safeguards agreement with the IAEA covering all declared civilian facilities in the non-NPT applicant and all future civilian facilities which the IAEA and non-NPT applicant determine are eligible for safeguards.

Have in force with the IAEA an Additional protocol covering the identified civilian nuclear facilities, which together with a safeguards agreement, allows the IAEA to detect the diversion of safeguarded nuclear material and to ensure that safeguarded nuclear material is used exclusively for peaceful purposes.

A commitment not to use any item transferred either directly or indirectly from a NSG Participating Government or any item derived from transferred items in unsafeguarded facilities or activities.

A commitment not to conduct any nuclear explosive test.

A clear description of the non-NPT applicant's intentions plans, and policies in support of the Comprehensive Test Ban Treaty upon becoming a Participating Government.

A commitment to support and strengthen the multilateral non-proliferation and disarmament regime by working towards the total elimination of nuclear weapons and enhancing the peaceful uses of nuclear energy.

An understanding that due to the unique nature of the non-NPT Party applications, non-NPT applicant would join a consensus of all other Participating Governments on the merits of any non-NPT Party application.

These points by Grossi except one point of CTBT, favor India the most suitable candidate to enter into the NSG, while Pakistan will take time to adopt this criteria, and if Pakistan tries to fulfill all the criteria after being India's membership, India won't let Pakistan into the NSG. Adopting Grossi's formula and granting membership to India will be a major setback to non-proliferation regime as membership will provide it access to latest nuclear related infrastructure and technology which will enable India to commercialize the manufacturing of nuclear power plants as well as it will permit the India to enhance vertical proliferation and disturb the balance of power and regional stability. In the light of these scenarios, ideally NSG states must address the above mentioned challenges as well as complex proliferation dealings and networks of India that evade multilateral trade controls along with the most pressing issue of discriminatory approach towards Pakistan.

The linkage and relevance between NSG and Agni V was a part of Indian statement. India made a statement that we had a two year restrained and we don't fire Agni V, irrespective of our non-proliferation regime of which NSG is an important part. Another point of relevance which is expressed by Ms Tanzeela Khalil, a defence analyst, is about India's joining of Hague Code of Conduct, which is considered to be a supplementary arrangement for MTCR. If India becomes a member of the Missile Technology Control Regime, its membership in the group is going to facilitate its missile and space program and could possibly ease its way into the NSG. And if these Missiles are deployed on Indian soil in the range of Pakistani Ballistic Missiles and other such weapons, India will like to have a weapon which is outside to that targeting system. Agni is that type of weapon that can be deployed in the Pacific especially on the eastern side of the Pacific. Agni V that's why becomes very useful weapon for India to be deployed against Pakistan. Agni V is a symbol of great powers and India looks like striving for a great power by all its intentions whether its lobbying to enter into NSG or creating deterrence in the region with these ballistic missile tests and involving all the other major International powers.

<http://foreignpolicynews.org/2016/12/31/politics-nsg-ballistic-missile-tests/>