



Nuclear Security Summits: A Brief Overview

*Dr Stuti Banerjee**

Nuclear security is the detection and prevention of and response to unauthorised removal or sabotage, unauthorised access, illegal transfer or other *malicious* acts involving nuclear material and radioactive materials or their associated facilities. Nuclear security differs from nuclear safety which involves prevention of and protection against accidents involving such material or related facilities that could give rise to radiation risk.¹

The threats of nuclear terrorism came to the forefront after the events of 9/11 and the discovery of the A. Q Khan network. Today, as more and more countries acquire nuclear weapons, the threat of available fissile material reaching the hands of the terrorists has grown considerably. Despite this rise, the international safeguards to protect nuclear material from illicit use remain weak. Black-marketing of nuclear secrets and materials has proliferated and terrorist organisations are determined to buy, steal or build such weapons. There are a large number of laws that greatly help enhance the security of nuclear materials and increase accountability such as, the 2005 amendment to the Convention on the Physical Protection of Nuclear Material. However, these laws are yet to come into force due to insufficient number of States ratifying the amendment, rendering it legally non-binding.

The Nuclear Security Summit (NSS) and the Nuclear Industry Summit (NIS) at The Hague

(March 24-25, 2014) is the third in a series of summits focussed primarily on the issue of preventing nuclear terrorism worldwide. The initiative of the Summit was laid out at Prague in 2009, when President Barak Obama in his speech called nuclear terrorism one of the greatest threats of international security. He stated that, “While the threat of nuclear war has gone down, but the risks of a nuclear attack have gone up”.² The aim of this initiative is to sensitise the world on the issues of terrorism and nuclear security, and to work with countries to secure all fissile material within their territory nationally.

This paper is an attempt to understand the NSS process and the progress that has been made from the first summit held at Washington to the present summit at The Hague.

The Washington Summit 2010

There is a growing awareness among States of the risks of non- State actors and terrorist groups acquiring weapons grade fissile material. It was with an intention to secure nuclear material worldwide, that the initiative of the NSS was started. The first meeting of the NSS was held in Washington D.C. in 2010 to draw the attention of the world leaders to the threat of unauthorised use of nuclear material. Forty-seven countries and three international organisations participated at the Summit. It was the largest gathering of foreign leaders hosted by the US President since the founding of the United Nations (UN). The aim of the Summit was to improve nuclear security by enhancing cooperation and to make concrete agreements aimed at better securing nuclear materials and facilities.³The Summit involved the heads of governments of various States, in an effort to place nuclear terrorism and the security of nuclear materials at the centre of the global non-proliferation agenda. The Summit called upon the participants to think beyond the goals of the Summit and take tangible action in their respective countries to improve security and prevent smuggling.⁴

At the end of the deliberations of the Summit, the Washington Communiqué was released which stated, “In addition to...shared goals of nuclear disarmament, nuclear non-proliferation and peaceful uses of nuclear energy, ... (States) also all share the objective of nuclear security.... (And) Success will require responsible national actions and sustained and effective international cooperation.”⁵The twelve point Communiqué recognised the role of the UN and the International

Atomic Energy Agency (IAEA). It also recognised the need for cooperation among States to effectively prevent acts of nuclear theft and enhancing the capacity for nuclear security. States agreed "...to fully implement all existing nuclear security commitments and work toward acceding to those not yet joined, consistent with national laws, policies and procedures". The Communiqué stressed on the importance of the nuclear industry and the private sector to ensure physical protection, material accountability and the establishment of a security culture. The Communiqué recognised the needs of the States to develop nuclear energy and technology for peaceful and for the international community to support each other in facilitate international security.⁶

In order to support the Communiqué, the Summit also released 'The Work Plan'. The Plan consisted of a number of political commitments by the States to be implemented on a voluntary basis and in accordance with national laws and international obligations in all aspects of the storage, use, transportation and disposal of nuclear materials and in preventing non-state actors from obtaining the information required to use such material for malicious purposes.⁷

The Washington NSS succeeded in establishing a consensus on the issue of nuclear terrorism. It also ensured that by addressing the very high ranking officials of the governments, the issue got more attention and the subsequent efforts would not be marred by bureaucratic tangles. The Summit evoked more than four dozen specific, tangible actions embodied in commitments by individual countries and the work plan. For example, India announced that it would create a nuclear energy centre with a security component.⁸ The limit of the Communiqué was its non-binding nature.

The Seoul Summit 2012

The Seoul Summit was held under the shadow of the March 2011 Fukushima Daiichi accident in Japan. Although it was not a terrorist act, it did bring into focus the need for nuclear safety along with nuclear security.

Six countries- Azerbaijan, Denmark, Gabon, Hungary, Lithuania and Romania and one new international organisation- Interpol were invited by South Korea to join the NSS. The Seoul NSS aimed to strengthen nuclear security commitments made at the 2010 Washington Summit. It expanded the scope of the Summit from fissile material to also include radiological material and the

nuclear safety and security interface at facilities. This was a result of the Fukushima accident. It also made a very minor change in its language; while the first summit had ‘*suggested*’ that the countries join the various international agreements and treaties, the Seoul summit stated that these steps were ‘*necessary*’.⁹

This broader definition also meant that a number of additional action points were formulated and set down in the ‘Seoul Communiqué’. Notable among these were:

- a) Encouraging participating countries to announce specific actions to minimize the use of Highly Enriched Uranium (HEU) by the end of 2013;
- b) Urging participating countries to ratify the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material by 2014;
- c) Recognizing a need to increase synergy between nuclear safety and nuclear security;
- d) Emphasizing the need to improve the security of spent nuclear fuel and radioactive waste; and,
- e) Establishing specific measures to ensure the protection of radioactive sources.¹⁰

The Communiqué called upon States to cooperate with nuclear information by supporting, collaborating and working with international organisations, the nuclear industry and the scientific community. It was to develop and enhance national measures of managing information to build international standards. It stressed on the need for nuclear forensics and developing the capabilities to detect and deter illicit trafficking of nuclear materials. The Communiqué, encouraged “States to: promote a security culture that emphasizes the need to protect nuclear security related information; engage with scientific, industrial and academic communities in the pursuit of common solutions; and support the IAEA in producing and disseminating improved guidance on protecting information.”¹¹

Many countries reported reductions in HEU in their State inventories; however, HEU stockpile reductions in some countries should be understood in the international context of increasing stockpiles in others, as HEU has to be stored securely.¹² Nonetheless, it was an achievement of the Summit. The initiative was initially done by the US and Russia, but many other countries have joined hands.

The Summit also introduced the innovative concept of multilateral joint commitments or ‘Gift Baskets’, in which countries would join together to support specific goals. These were means of combining ambitious visions with tangible results. The goal was to focus attention on developing ideas and measures where consensus is already achieved, and thus concrete action can be taken without delay. For example, Belgium, France, South Korea, and the US announced a joint project to develop high-density low-enriched uranium fuel to replace HEU fuels in high-performance research reactors. If the technology is effective, it could have a profound impact on minimizing HEU usage globally. Another initiative has been to encourage States to take pledges that take a regional approach to nuclear security challenges and governance issues.¹³ This would not only build political consensus, but also allow agreeable frameworks to be built that produce results. The challenge before the NSS continued to be its need to sustain nuclear security initiatives while keeping states accountable to their summit commitments.

The Hague Summit 2014

The Washington Summit was concerned with making political agreements, while the Seoul Summit focused on the progress made on implementing those agreements. The third NSS, at The Hague in 2014, takes stock of the results achieved and the future.¹⁴ A total of fifty eight world leaders participated at this summit with four international organisations. The aim of the Summit is to prevent nuclear terrorism. The Hague Communiqué aims to contain clear agreements to prevent nuclear terrorism by:

- a) Reducing stockpiles of hazardous nuclear material around the world;
- b) Better securing nuclear material;
- c) Intensifying international cooperation.¹⁵

During the ‘opening press conference’, Prime Minister Mark Rutte reiterated that the goal of the NSS at The Hague was to reduce the chance of radioactive material falling into the hands of terrorists. Stating that in 2013, 146 cases of involving nuclear and radioactive material were reported to the IAEA, though a majority of these were temporarily missing material reports, they are examples of the looming threat. He stressed on the need to:

- a) Limit the amount of hazardous nuclear material in the world
- b) To better secure the material already existing and
- c) To enhance international cooperation in this area.¹⁶

The other important issue he stressed on was the fact there are relatively few binding international laws on nuclear security and preventing nuclear terrorism and States can definitely do better.¹⁷ The success of achieving this goal would require some structural changes in the global nuclear governance arrangements. The international legal tools should be more cohesive and universal in scope to effectively address nuclear security challenges. The NSS has raised awareness among the government apparatus as well as the citizens on nuclear security issues and The Hague summit will continue to push this momentum. While States will still produce national statements and standpoints, an informal meeting of the heads of delegation has been planned at the Summit to address the future of the NSS process. There is also a policy discussion to streamline national and international responses to an incident of nuclear terrorism.

The previous Summits have been able to achieve some goals but there are still remain a few gaps that need to be addressed. Adequate fiscal resources are needed by the international nuclear security organisations; with the number of States with nuclear facilities growing, the IAEA needs more funds to conduct inspections and follow up investigations. A roadmap to develop an effective ‘global nuclear materials security system’ involving tracking, accounting, managing and securing all fissile nuclear materials in storage is yet to be framed. The Convention on the Physical Protection of Nuclear Materials (CPPNM), signed in 1980, “is the only international legally binding undertaking in the area of physical protection of nuclear material. It establishes measures related to the prevention, detection and punishment of offenses relating to nuclear material.” A Diplomatic Conference in July 2005 was convened to amend the Convention and strengthen its provisions. The amended Convention makes it legally binding for States Parties to protect nuclear facilities and material in peaceful domestic use, storage as well as transport. It also provides for expanded cooperation between and among the States regarding rapid measures to locate and recover stolen or smuggled nuclear material, mitigate any radiological consequences of sabotage, and prevent and combat related offences.¹⁸ The amendments would take effect after they have been ratified by two-thirds of the States party to the Convention, which has not yet happened.

Further, the CPPNM and other nuclear security-related multilateral instruments including the International Convention on the Suppression of Acts of Nuclear Terrorism¹⁹, and the UN Security Council’s Resolutions (UNSCR) 1373 and 1540²⁰, do not provide concrete mechanisms to

advance international cooperation for eliminating weak links in the global nuclear security regime.²¹ The Nuclear Weapons States have to take the lead and show their commitment to the goals of the NSS.

After the accident at Fukushima, there is recognition that global security architecture is needed to address the issues of nuclear material security and its infrastructure. It is natural that States are cautious about discussing and disclosing their nuclear weapons or facilities as they are national security issues. Thus, transparency needs to be balanced with commitments to international responsibilities. Other States fear that the nuclear security agenda would block their access to nuclear technology for energy use. They view the NSS as the domain of the Nuclear Weapons States and their push to dictate its agenda according to their needs. There is a need to balance nuclear security and the use of nuclear energy. The Hague summit has to dispel this fear of the Non-Nuclear Weapons States and push for a more cooperative environment through sharing of nuclear technology, nuclear forensics, best practises and experiences of enforcement of nuclear safety and information and management of spent fuel. It has to build nuclear security governance when compliance is largely voluntary due to sovereign nature of nuclear security regimes. There is a lack of accountability and monitoring structures with the NSS and its communiqués. It should be the priority of the participants to strengthen the international legal structure so as to better address the threats of nuclear terrorism.

The Hague Communiqué has addressed these issues with the State's "... commitment to shared goals of nuclear disarmament, nuclear non-proliferation and peaceful use of nuclear energy. We (States) also reaffirm(ed) that measures to strengthen nuclear security will not hamper the rights of States to develop and use nuclear energy for peaceful purposes." The Communiqué recognises that nuclear security is fundamentally the responsibility of the State, but the need to strengthen international cooperation was also emphasised. It stressed that, "International cooperation fosters the capacity of States to build and sustain a strong nuclear security culture and effectively combat nuclear terrorism or other criminal threats."²² The IAEA has been assigned the leading role in coordinating the efforts of the international community.

The NSS 2014 Final Communiqué contains new agreements that build on the results of

earlier Summits in Washington and Seoul. Some of the agreements are:

- a) The agreements cover not only nuclear material that can be used for making nuclear weapons (highly enriched uranium and plutonium), but also other radioactive materials, such as low-enriched uranium, cobalt-60, strontium-90 and caesium-137. Many of these materials have useful applications in hospitals, industry and research. But they can also be used with ordinary explosives to make a 'dirty bomb'.
- b) Nuclear forensics is an important tool for tackling criminal misuse of nuclear materials. It can identify the origin of nuclear material and the route it has taken.
- c) The participants have laid the basis for an efficient and sustainable nuclear security architecture, consisting of treaties, guidelines and international organisations. The IAEA plays a pivotal role in this regard. An important new element is the agreements on the steps that countries can take to enhance confidence in one another's nuclear security measures. Greater mutual trust will allow even more efficient cooperation and make it easier to assess whether the nuclear material in the world is well secured.
- d) As regards industrial uses of nuclear materials, government and business must work together closely. The security of nuclear material must be governed by law, without businesses and institutions being hampered by unnecessary rules.²³

The aim of the Summit was to prevent nuclear terrorism. The participating countries have taken it on themselves to try to reduce the amount of nuclear material in the world to achieve this goal. New agreements have been made on:

- a) Reducing the amount of dangerous nuclear material in the world that terrorists could use to make a nuclear weapon (highly enriched uranium and plutonium);
- b) Improving the security of radioactive material (including low-enriched uranium) that can be used to make a 'dirty bomb';
- c) Improving the international exchange of information and international cooperation.²⁴

The Summit has also announced a number of 'gift baskets' such as on 'Forensics in Nuclear Security', 'Nuclear Smuggling' and 'Maritime Supply Chain Security'. It was recognised by the States that progress has been made but continuous efforts are needed to achieve the common goal of strengthening the international nuclear security architecture. This endeavour requires the support and active participation of all States.

India at the NSS

Since the inception of its nuclear programme, India has attached great importance to physical protection of nuclear facilities and materials. Over the years, a multi-layer security system has evolved alongside the complex security threats facing the country. Consequently, an integrated system of physical system of protection for nuclear facilities and materials – during use, storage and transport has been established. Other steps taken by India include developing physical protection measures such as access control (for personnel and nuclear materials); surveillance and detection; and, continuous technical review of physical protection systems.²⁵

India's commitment to nuclear disarmament and non-proliferation has been since before the start of the NSS. India has taken active part in all initiatives of the UN in this direction. The Rajiv Gandhi Action Plan was tabled by India in an effort to make progress to achieve universal global disarmament. India has similarly committed itself to addressing the issue of nuclear terrorism. It has been a participant in all the summits and at The Hague the delegation is being led by Minister for External Affairs, Mr Salman Khurshid.

India has been dealing with the menace of terrorism and the threat of possible nuclear terrorism is a reality that it has been facing for some time now. In his address at the NSS at The Hague, Mr Khurshid stated that, "Nuclear terrorism and clandestine proliferation continue to pose a serious threat to international security. India fully shares the continuing global concern on possible breaches of nuclear security."²⁶ India has both civil and military nuclear facilities and its security and safety records are testimony to its commitments to ensure compliance of international obligations. "Strengthening nuclear security, therefore, assists India's objective of promoting a safe and secure expansion of civil nuclear energy."²⁷ India has joined and fully supports the NSS as it is in India's interest to insure that there is no breach in nuclear security. It has in an unprecedented move also pledge US \$ 1 million to the voluntary funding of the IAEA nuclear security programme. It has regularly published its National Progress Report on nuclear security, stating to the international community the progress it has made both at the national and international level. India is also a member of the Global Initiative to Combat Nuclear Terrorism, a voluntary international organisation committed to addressing the issue of nuclear terrorism.²⁸ "²⁹Since the last Summit India has taken a number of steps, alone and in partnership with others to implement the

commitments we have all agreed at the previous two Summits. To cite one example, Prime Minister laid the foundation stone of India's Global Centre for Nuclear Energy Partnership (GCNEP) in January 2014. While the construction of the five schools at the Centre continues apace, India has already conducted three International Training Courses on Nuclear Security, eleven national courses and two public outreach programmes. This is in addition to India's other longstanding human resource and technology development programmes. International cooperation with the IAEA, USA, France and the Russian Federation is in built into the GCNEP. India continues to expand its technical assistance to developing countries interested in the safe and secure use of nuclear energy and radiological sources. India has offered assistance through the IAEA for search and recovery of orphan radioactive sources."

India is party to all the thirteen anti- terrorism conventions including the International Convention for the Suppression of Acts of Nuclear Terrorism. India has been the party to both the CPPNM and the 2005 amendment and supports the universal application of these instruments. India also supports extension of the UNHRC 1540 as the resolution helps enhance legal commitments to address nuclear terrorism. The resolution moves beyond the Nuclear Non-Proliferation Treaty (NPT) to include weapons of mass destruction and chemical, biological and radiological weapons with nuclear weapons. It also provided States which ask for assistance on how to implement and comply with the rules of the resolution. India hosted a 'Shepra Meeting' before the Seoul Summit to discuss the points of the Communiqué. The Shepra meetings are important events leading up to the NSS. These are preliminary sessions in which the participants discuss the main themes of the conference and the progress made in implementing the work plans and associated measures. These negotiations result in decisions, formulated in the Communiqué, which is then ratified by the world leaders.

At the Summit India stressed on the importance of bridging the gaps in international nuclear security legal framework and emphasize on the need for member countries to be party to its conventions including Suppression of Acts of Nuclear Terrorism. It reiterated its concerns on nuclear terrorism with its emphasis on illegal trafficking of fissile material and greater cooperation in sharing technology and best practises. India believes, "any breach in nuclear security and safety anywhere could undermine public confidence in nuclear energy."³⁰ India took part in the

discussions on building approaches to address nuclear terrorism.

Nuclear security is primarily a national responsibility but it is a global challenge. It is a daunting task where each step improves security measures collectively. India is aware of its regional and international responsibility. It is committed to play its role in building a global response to this threat, through continuous improvement in the legal framework to address emerging threats.

**Dr Stuti Banerjee is a Research Fellow at the Indian Council of World Affairs, New Delhi.*

Disclaimer: Views expressed are of author and do not reflect the views of the Council.

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