

Nuclear Security Summit Process: Future and Impact on Pakistan's Nuclear Security

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Abstract

Terrorism is a global threat, but due to terrorism in Pakistan, most of the western media and distant observers remain apprehensive about the security of Pakistan's nukes. Such perceptions are based on false understanding of the security of Pakistan's nuclear arsenal. Pakistan's unprecedented response to Nuclear Security Summit (NSS)s have been the reflection of maximized standards of nuclear security. Pakistan's nuclear establishment is keen towards beefing up nuclear security in accordance with IAEA rules. The primary objective of this research is to examine the impact of Nuclear Security Summits on Pakistan. It also analyses and compares Pakistan and India's nuclear security procedures by evaluating their respective measures. NSS ably sensitized the world leaders about possible threat of nuclear terrorism and urged them to prevent the theft and illegal use of nuclear technology. Pakistan stepped up to adopt multiple measures for securing its nuclear weapons. International community eventually started acknowledging Pakistan's efforts and expressed satisfaction over it. Pakistan is likely to continue cooperation with IAEA to make its security insurmountable.

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Introduction

In 2009, United States President Barak Obama clearly stated in his speech in Prague that today's most dangerous threat is nuclear terrorism. The International community should not wait to take the necessary action needed in order to minimize this threat. He announced a design to secure loose nuclear material around the world and global Nuclear Security Summit (NSS) to be hosted in the United States of America. Al-Qaeda and other terrorist groups are trying to get nuclear weapons with which they will threaten the world if they obtain them. The threats of theft of vast nuclear stocks and the availability of nuclear material, sensitive technologies and armaments in the black market pose serious threats that terrorists can obtain them for making nuclear weapons.¹

Giving a realistic assessment of the threat of nuclear terrorism, while Naeem Salik acknowledges the serious consequences of any act of nuclear terrorism, he, however, contends that terrorists would face a number of "technical" and "logistic" difficulties that even a highly technical terrorist group like Al Qaeda does not have the required technological knowledge and wherewithal. According to the national security team of the former US President Bush there are a lot of evidences regarding terrorists' interest in acquiring chemical and biological weapons. However, nuclear weapons are extremely complicated weapons and most of them have Permissive Action Links (PALs) which require a code to activate the arsenals. The system only permits a restricted number of attempts after which the arsenals become automatically locked denying any further attempt. If terrorists overcome

¹"Nuclear Posture Review Report," *Department of Defense, US*, April 2010, https://www.defense.gov/Portals/1/features/defenseReviews/NPR/2010_Nuclear_Posture_Review_Report.pdf, (accessed on Aug 9, 2017).

these technicalities, they may dismantle the arsenals. There are no loose nukes and portable nuclear arsenals missing from storage locations and available in black market.²

Pakistani authorities welcomed Obama's nuclear initiative, considering that nuclear security awareness is a global problem. The authorities understood that the issue required the attention of the international community. In 2010, Pakistan claimed that its nuclear security is effective and responsive against the entire range of the dangerous threats. It suggested that international regimes had already initiated numerous steps to deal with nuclear security. According to Pakistan, the summit allowed countries to take a deep look into their nuclear security and to work with international organizations to strengthen their security, thus contributing to the prevention of terrorist acts. For Pakistan, this offers the opportunity to dispel misperceptions about its nuclear safety.

The main purpose of the summit was to exchange expertise and experiences related to nuclear safety and security, and to learn best practices in a non-obligatory manner. From a Pakistani perspective, this was viewed as a necessary step in order to enhance the country's competence in nuclear security. The summit focused on nuclear security rather than disarmament, which had been the topic of discussion in previous and related forums.³ India is an active contributor to the nuclear safety process of the United Nations (UN) following the implementation of 1540 United Nations Security Council Resolution (UNSCR). The Indian minister of external affairs attended The Hague Summit, while the prime minister attended the first two summits.⁴

²Naeem Salik, "Nuclear Terrorism: Assessing the Danger," *Strategic Analysis* 38 March 19, 2014, <https://doi.org/10.1080/09700161.2014.884437>, (accessed on Aug 9, 2017).

³ "Pakistan's National Statement," *Nuclear Security Summit*, 2014, <http://www.pid.gov.pk/?p=3053>, (accessed on Jan 09, 2018).

⁴Arvind Gupta and Rajiv Nayan, "Nuclear Security, The Summit Process and India," *Institute for Defence Studies and Analyses*, 32, No.2, March 29, 2014, https://idsa.in/idsacomments/NuclearSecuritySummit_GuptaNayan_290314, (accessed on December 17, 2018).

Nuclear Security

According to the International Atomic Energy Agency (IAEA), to prevent the theft, illegal trafficking, illegal ownership, sabotage of nuclear and radiological material is nuclear security.⁵ The 9/11 attacks also highlighted that destruction could be on a large scale if the nuclear materials were included in that attack. Since 9/11 the term “nuclear security” became more relevant to the prevention of nuclear terrorism.⁶

The danger is that terrorist, non-state actors and criminal organizations can use nuclear materials against states which pose a threat to international security. It is the responsibility of every state to ensure the security of its nuclear materials by joining hands with the international community to fight against nuclear terrorism.

Jack Boureston and Tanya Ogilvie-White discuss in their working paper entitled “*Seeking Nuclear Security through Greater International Coordination*” that in 2008, Mohamed ElBaradei, former DG of the IAEA described that nuclear terrorism is threat to international security. He also pointed out that terrorist organizations are trying to get nuclear technology and if they would get it ultimately, they would use it. The IAEA reports also revealed that blue prints of nuclear weapons are available in the black market and 15 cases of illicit trafficking of nuclear material had occurred in 2008 alone.⁷

Japanese terror group, AumShinrikyo has made serious efforts to get nuclear material and Al-Qaeda has attempted many times to acquire

⁵“IAEA Nuclear Security Series,” *IAEA.org*, March 18, 2017, :http://www-ns.iaea.org/security/nuclear_security_series.asp?s=5&l=35, (accessed on Aug 9, 2017).

⁶Jack Boureston and Tanya Ogilvie-White, “Seeking Nuclear Security through Greater International Coordination,” *The Council on Foreign Relations*, March 2010, :https://www.cfr.org/sites/default/files/pdf/2010/03/IIGG_WorkingPaper_1_NuclearSecurity.pdf, (accessed on June 13, 2017).

⁷Ibid.

nuclear material.⁸ Most Western observers believe that Pakistan's nuclear weapons can go into the hands of terrorists due to a wave of terrorism and presence of lethal terrorist groups in Pakistan. This perception is based on flawed logic and knowledge because the distant observer cannot measure Pakistan's stringent nuclear security.⁹

The first summit was held in Washington in 2010, second in Seoul in 2012, third in The Hague (2014) and last in Washington DC in 2016, to minimize the threat of nuclear terrorism through cooperation and take national steps to strengthen the safety of nuclear weapons. Bowen, Cottee, Hobbs and Lentini discuss in their "*Nuclear Security Briefing Book*" that Morocco and Lithuania established Centres of Excellence (CoEs) and hosted workshops on nuclear security. Kazakhstan, Japan and Singapore eliminated Highly Enriched Uranium (HEU) and encouraged other states to support HEU mitigation efforts. Since the Washington summit, 530-kilogram HEU has been eliminated by six states and this amount is enough to make 21 nuclear weapons. Belgium and Republic of Korea improved their nuclear safety laws after Fukushima nuclear accident and NSS political pressure. Nuclear security is a national responsibility but NSS has provided a platform to the states and made them realize to share their expertise on the ground of nuclear security with a view to reduce the threat of nuclear terrorism. The objective of the NSS was to secure the nuclear material throughout the world in four years.¹⁰

⁸ Matthew Bunn, Martin B. Malin, Nickolas Roth and William H. Tobey, "Key Steps for Continuing Nuclear Security Progress," *Belfer Center for Science and International Affairs*, December 2016,

https://www.belfercenter.org/sites/default/files/files/publication/%5B3A-1%5D_FUL_574_Bunn.pdf (assessed on Aug 3, 2017).

⁹Rizwan Zeb, "Pakistan's Nuclear Weapons: How Safe Is Safe Enough? Transparency versus Opacity," *Defense and Security Analysis*, p. 30, July 1, 2014, <https://doi.org/10.1080/14751798.2014.925640>.

¹⁰Wyn Q. Bowen et al., "Nuclear Security Briefing Book," *King's College London*, 2014, <https://www.kcl.ac.uk/sspp/departments/warstudies/research/groups/csss/pubs/Nuclear-Security-Briefing-Book-2016-edition/2016NSBB>, (accessed on Aug 3, 2017).

According to the Obama statement, Pakistan's nuclear program is secure, but US government officials expressed great concerns related to Pakistan's nuclear security. According to the apprehensions of Western observers, which are blown out of proportion, there are very possible threats that Pakistan's insiders can help terrorists to get nuclear material. There are several factors which suggest that Pakistan's nuclear weapons are secure as in the recent years Pakistan implemented a more rigorous personal reliability program with PALs development which was not part of its nuclear arsenals years ago. It was first time used in the US nuclear weapons in 1960 when it consisted of 5-digit codes. PALs are the methods of coding which are installed in nuclear weapons to save the system from terrorists, rogue insiders, theft and sabotage. The US nuclear weapons consisted of locking devices until the mid-1960, thus anyone could use them once physical access was achieved. They introduced the presidential control over nuclear weapons to reinforce security. In the case of Pakistan, the most important improvement is that it keeps its nuclear weapons separate from their non-nuclear detonators. By using this method, it may protect against any threat of terrorists and theft.¹¹ Normally, rogue insiders try to leak out the information to the terrorist and non-state actors to gain their personal interests.¹²

Pakistan's Response to NSS

Pakistan welcomed Obama initiatives and made sufficient progress to improve its nuclear weapons security. Pakistan opened Centers of Excellence (CoEs) in 2012 for training. American institutions documented that Pakistan's safety and security measures are on high level. Pakistan's response towards NSS was very positive and followed all summits to

¹¹ Montgomery, Evan B. "Nuclear Terrorism: Assessing the Threat, Developing a Response," *Center for Strategic and Budgetary Assessments*, 2009.

¹² Kevin Beaver and McClure, Stuart, "Straightening out the Hacker's Terminology," *Dummies*, 2009, <http://www.dummies.com/how-to/content/straightening-out-the-hackers>

make sure to the world that it has maximized the safety and security of its nuclear material. Pakistan's Prime Minister offered to operate the Excellence Centers regionally and internationally. The IAEA accepted this offer and these centers are running as a training hub today on a regional level. The IAEA Director General, Yukiya Amano visited the Centre in March 2014 said: "It is very impressive that you organize the training in a very systemic and operational manner." Pakistan is also implementing Nuclear Security Action Plan (NSAP) with the cooperation of IAEA to manage the radioactive sources, detect radiation and prepare for emergency. It also established nuclear emergency management system.¹³

An essential part of Pakistan's nuclear program is to keep nuclear weapons safe. Pakistan has constructed an efficient nuclear safety system. There is a vigorous nuclear security organization in place that reinforces nuclear security. This organization covers nuclear related and radioactive materials. In addition, Pakistan is contributing to the IAEA, in order to promote nuclear related safety. The country is a member of many IAEA security commissions, committees and other relevant networks.

Organizations and Institutions

The Strategic Plans Division (SPD) governs the nuclear security regime on behalf of the National Command Authority (NCA). The NCA was established in 2000 and is the policy making body concerning nukes. It controls development of all nuclear forces and relevant organizations. It deals with arms control and disarmament, export control, safety and security of nuclear materials and installations. It also deals with strategic organization. The SPD manages Pakistan's strategic possessions,

¹³Zafar Nawaz Jaspal, "Pakistan's Nuclear Weapons Safety and Security," *Nation*, February 23, 2013, <http://nation.com.pk/columns/23-Feb-2013/pakistan-s-nuclear-weapons-safety-and-security>.

coordinates its organizations, and controls the administration and economic matters of particular organizations.¹⁴

NCA is a strong nuclear command and control arrangement chaired by the Prime Minister. This is the judgment making body. Multi-layered security is a method to prevent smuggling of nuclear related technology and it takes place via land, air and sea mediums, and also requires an efficient approach to curb it. The office of Nuclear Smuggling Detection and Deterrence (NSDD) works with the partner states and cooperates with the Global Initiative to Combat Nuclear Terrorism(GICNT), the IAEA, the EU commissions and the UN to prevent smuggling on regional and global level.¹⁵

The NSDD arranged nuclear security program globally in 2015. NSDD offers mobile detection system to the partner states with the radiation detection system to counter nuclear materials smuggling. It also provides training workshops to protect nuclear materials and counter the trafficking. Pakistan is the partner state of NSDD.¹⁶

Development on Education and Training Programs

Pakistan ratified the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2016 and established CoEson nuclear security with the cooperation of the IAEA. It also hosted the annual meeting of International Network of Nuclear Support Centres. It established nuclear emergency management system on national level and arranged detection equipment to stop the illicit trafficking of nuclear and radiological materials. India also established national counter smuggling teams to prevent the threats of nuclear materials smuggling through sea, its

¹⁴Naeem Salik and Kenneth Loungo, "Challenges for Pakistan's Nuclear Security," *Arms Control Association*, February 28, 2013, https://www.armscontrol.org/act/2013_03/Challenges-for-Pakistans-Nuclear-Security.

¹⁵Ibid.

¹⁶,"Combating Nuclear Smuggling, Report," *Government Accountability Office*, 2016, <https://www.gao.gov/products/GAO-16-460>.

airports and handling these threats through radiation doorways, and detection instruments.¹⁷

The Pakistan Nuclear Regulatory Authority (PNRA) established a School for Radiation and Nuclear Safety. It offers courses, table top exercises, workshops to train the first responders to handle the radiation accident. It hosted workshops on nuclear culture security. Pakistan Strategic Export Control Division in Ministry of Foreign Affairs revised the export control list with the consultation of other departments. This list is revised on the basis of European Union (EU) which is according to the rules of Nuclear Suppliers Group (NSG), Missile Technology Control Regime (MTCR) and Australia group. Pakistan is also working on UNSCR 1540, and has submitted the reports to a committee which explains measures taken by Pakistan on radiological security and control of sensitive materials, and WMDs transfer.¹⁸ Pakistan is the first country which submitted a report to the UN 1540 Committee that it is fulfilling its responsibilities.¹⁹

Pakistan has upgraded more than a dozen medical centers in order to advance nuclear and radiological safety. It has opened training centers for SPD with courses on nuclear safety. It has established schools for nuclear and radiation safety, and has managed the IAEA programs on nuclear safety culture. The country has managed regional training courses on the safety of radioactive sources. It has also modified its national export and nuclear safety action plan in coordination with the IAEA, and established nuclear emergency management systems.²⁰

¹⁷“Nuclear Security Summit 2016 - Highlights from National Progress Reports” *White House*, April 4, 2016, <https://obamawhitehouse.archives.gov/the-press-office/2016/04/04/nuclear-security-summit-2016-highlights-national-progress-reports>.

¹⁸Ibid.

¹⁹“Pakistan’s Nuclear Weapons Safety and Security.”

²⁰Rizwana Abbasi, “Pakistan and the Nuclear Security Summit,” *Institute of Strategic Studies*, 2016, <http://www.issi.org.pk/pakistan-and-the-nuclear-security-summit/>.

It is hosting IAEA's regional training courses on the protection of radioactive sources. It established an academy of training for the SPD with nuclear security courses. It is offering a specialization course in nuclear security and nuclear engineering and a master in the engineering institute of Pakistan.²¹

Development on Counter Radiological and Nuclear Smuggling

Pakistan is contributing in the IAEA and Incident and Trafficking Data Base (ITDB). India is also contributing in it. According to the IAEA no single incident of illegal trafficking has occurred in Pakistan as compared to different European countries where many such incidents were reported. The report revealed that 827 incidents of nuclear trafficking have occurred from 1993-2005 but none of them was related to Pakistan. "Pakistan has taken stringent measures to secure its nuclear materials and is continuously pursuing to meet international standards in regulating its nuclear activities."²² It improved its action plan of nuclear security with the IAEA to manage radioactive sources and secure the nuclear materials to deter the emergency threats. The cooperation with IAEA is in the process for the advancement of physical protection of nuclear power plant of Karachi.²³

Improvement on Radiological and Nuclear Security

All nuclear medical centers have been upgraded with radioactive sources through the IAEA collaboration. Pakistan has maintained safe and secure nuclear power plants system for 42 years under the IAEA safeguards, and it is interested in sharing its expertise with other states in nuclear power

²¹Michelle, Davenport, and Parker, "The Nuclear Security Summit: Accomplishments of the Process," *Arms Control Association*, 2016, <https://www.armscontrol.org/files/The-Nuclear-Security-Summits-Accomplishments-of-the-Process.pdf>

²²"Pakistan Not on IAEA N-Trafficking Database," *Dawn*, September 8, 2006, <https://www.dawn.com/news/209490>.

²³"Pakistan's National Statement," *Nuclear Security Summit*, 2014, <http://www.pid.gov.pk/?p=3053>

generation expertise under the umbrella of the IAEA. It revised the security and emergency vigilance of power plants to save them from disasters like the Fukushima accident. It is also in a position of becoming part of any nuclear fuel cycle organization. It is strengthening its nuclear export control regime and enhancing its cooperation with other export control organizations. Pakistan's nuclear establishment response towards NSS reflects its seriousness towards nuclear safety and security. These measures certainly pave the way for Pakistan to get smooth entry into the NSG and it is also in a position to become the member of NSG on non-discriminatory basis with India.²⁴

Pakistan welcomed the NSS initiative and Pakistani Prime Minister participated in it which was followed by several regional security workshops recognized by the IAEA in Rawalpindi and Islamabad after the launching of this initiative. These workshops played a very successful role as all nuclear states send their representatives to attend these workshops and all states praised Pakistan for doing a significant job.

India's agenda is different to get the membership of NSG and Pakistan approach is very different. The US is supporter of India despite the fact that India is non-signatory of the Non Proliferation Treaty (NPT) and the Comprehensive Nuclear-Test-Ban Treaty(CTBT)and therefore, it is in direct contravention to proliferation regime. India used nuclear fuels in 1974 from Cyrus reactors acquired from Canada and heavy water from US. It also signed an agreement that it was only for peaceful purpose but it has used Cyrus nuclear fuel for detonating the 1975 devices. Pakistan's nuclear program is more secure than that of India. In Pakistan all nuclear reactors are under safeguards other than military, but in India all civilian reactors are not under safeguards. Those which are under safeguards, they are under India's specific safeguards. A number of initiatives are taken by both India and Pakistan to try to convince the NSG to be able to gain its membership. However, there has been a struggle for the same

²⁴Nuclear Security Summit, "Pakistan's National Statement."

position by both these South Asian rival nuclear weapons states. For example, India (along with some part of international community that are in close alliance with India) blames Pakistan for blocking the proposed Fissile Material Cutoff Treaty (FMCT), the episode of AQ Khan, nuclear technology to North Korea, Iran and Iraq in 2004, and that Pakistan nuclear materials might fall in wrong hands because of the increasing terrorism in Pakistan. On the other hand, Pakistan increasingly justifies its position convincingly that Pakistan has never been involved in such activities as a state actor. Pakistan has a position that it is India that has been increasing its nuclear reactors program and has achieved a greater number of fissile materials that in turn enable India to produce as many nuclear warheads as India would want, though India is not a member of the NPT. It is encouraging to observe that although Pakistan has never been part of the NPT since its creation in 1968, Pakistan has been participating in most of the international non-proliferation regimes to ensure that the world should remain non-discriminatory towards international affairs related to nuclear weapons and their related facilities, but also to make sure that its nuclear weapons program and its related facilities do not fall in the wrong hands. Pakistan ensures that its nuclear weapons program and related materials are under tight security and better command and control. Pakistan has cooperated with the international non-proliferation regime. It has created a stringent export control regime and successfully made the world realize that it is a responsible nuclear weapon state.²⁵

. Pakistan's export control act was the response to UNSCR 1540 in April. It was legislated in September 2004, which was much admired by the international community. Both, India and Pakistan are doing their best for maintaining safety and security of their nuclear material and Pakistan has been very successful in it as no incident of theft has occurred. The reports of the IAEA, Belfer Centre and Arms Control, released in March 2016, authenticate that Pakistan's nuclear security and

²⁵ Dr. Zafar Khan, interviewed by Sonia Naz, September 13, 2017

safety program is much more secure than India²⁶. Recently, IAEA DG, Yukiya "expressed his appreciation" on Pakistan's nuclear safety and security efforts.²⁷ However, both states are very much concerned about nuclear safety and security as well as their nuclear installations.

Basically, there has been no attack on any nuclear facility of Pakistan or even an attempt on its nuclear installations. Kamra is an aeronautical complex which was attacked and termed as a terrorist attack on nuclear installations whereas it was merely a terrorist attack. It has not even got a delivery network of nuclear weapons and is a production facility: consequently, the attacks on Kamra, GHQ and Sargodha were not attacks on nuclear facilities but are just speculations. The 9/11 incident did not mean that it was an attack on the US nuclear weapons; same is the case of Pakistan. The attack on these places does not mean that it was an attack on Pakistan's nuclear installations. In the first nuclear summit in Washington, Pakistan did not make any commitment but in 2012 it expressed its desire to establish CoEs and also offered nuclear fuel services to other states under the safeguards of the IAEA. These things retreated in 2014 and 2016 summits also. India also assured that it would establish CoE and Indian Nuclear Regulatory Authority (INRA) but it failed to attain it. The response from Pakistan's nuclear establishment was very positive towards the NSS. Pakistan's active role has been accepted internationally as it fulfilled its commitments while India merely talked about it.²⁸

Japan, China and South Korea Centres of Excellence are under construction and they are far behind than Pakistan. India has not done much in nuclear safety and security: it just formed a Central Industrial

²⁶ Dr. Zafar Nawaz Jaspal, interviewed by Sonia Naz, September 18, 2017.

²⁷ "Amano Commends Pakistan Nuclear Safety and Security," *World Nuclear News*, March 15, 2018, <http://www.world-nuclear-news.org/RS-Amano-commends-Pakistan-nuclear-safety-and-security-1503187.html>

²⁸ Dr. Naeem Salik, interviewed by Sonia Naz September 20, 2017.

Security Force (CISF) to protect nuclear installations whereas they do not have any special force to defend nuclear material. It has not established CoEs and training academy like Pakistan but Pakistan started its nuclear safety and security since 1998 when after 9/11 Collin Powel (former US Secretary under Bush administration) visited Pakistan as he was aware that in Pakistan there were concerns about nuclear security of Pakistan because of the war on terror and the fear that Taliban could take away nuclear material and could possibly use it in Afghanistan to make nuclear weapons. He offered the training courses to Pakistan in the United States for importing education in the US security measures but Pakistan clarified that they would not take the whole US model but tailor it in the light of their interest. There is also rapid reaction force which can reach anywhere to respond to emergency situations and counter intelligence team that will give early warning to deter any threat. The PNRA established NSSA and technological labs while India could not.²⁹

The biggest threat to Pakistan's nuclear security has been terrorism given the fact fragile internal security situation in the country in the post 9/11 era. However, this threat has been exaggerated by many Western and Indian leaders and scholars. Pakistan fought its case well through NSS process and told the world that nuclear weapons and civilian nuclear installations in the country are in safe hands. Pakistan has been the most improved country on nuclear security index – a fact that international community admits. It has taken a numerous legislative and institutional measures to strengthen nuclear security regime in the country. By all means, it has achieved many milestones in peaceful nuclear energy as well. Pakistan has been very actively participating in all the programs of the International Atomic Energy Agency (IAEA). Undoubtedly, Pakistan has proved that it has the wherewithal for the safe operations of nuclear power plants in the country. The international community should treat

²⁹ Ibid.

India and Pakistan equally with regards to NSG affairs.³⁰ The terrorist activities in Pakistan have created negative concerns about its nuclear security but the US policy makers, its Chairman of Joint Chiefs of Staff (CJCS) and Obama showed confidence that Pakistan's nuclear weapons are safe and its military is equipped to prevent any act of terrorism against its nuclear arsenals. Pakistan's nuclear devices are unassembled and it has a very strong system of monitoring so, the few thousand of Taliban's cannot take over its nuclear weapons.³¹

Conclusion

NSS was not an institution but it was a remarkable initiative of President Obama's to counter nuclear terrorism by securing nuclear material throughout the world and it has ended with the last summit. NSS provided a forum of cooperation to states to strengthen their nuclear security. After Obama, some other Presidents may not carry Obama's legacy effectively as president Donald Trump had ascended to power and he is undoing Obama's initiatives but nuclear security proposal may not come under attack because it aims to secure worldwide nuclear weapons.

NSS impact on Pakistan's nuclear security was very positive because its nuclear establishment response toward the NSS was very constructive. Pakistan was invited in NSS and it played a very active role as it has taken multiple steps to secure its nuclear materials and nuclear installations. Pakistan has been very conscious about nuclear security of its weapons since its inception and has taken numerous steps in this regard. NSS is off the view that every state should secure its nuclear weapons to prevent it from theft, sabotage, illegal use and unauthorized control. NSS played a very important role in making more secure Pakistan's nuclear materials.

³⁰ Mr. Sadiq, interviewed by Sonia Naz, September 21, 2017.

³¹ Ibid.

Pakistan's welcomed NSS and actively participated in every international forum related to the nuclear security. Pakistan established CoEs and hosted nuclear security workshops. It is member of CPPNM and it is also following UNSCR 1540 and the IAEA rules. Pakistan's nuclear establishment is making more advanced its nuclear security system to save it from any accident and nuclear terrorism. According to the secondary and primary data, since the inception of Pakistan's nuclear program, no incident of nuclear material theft has occurred in Pakistan though some cases of nuclear theft were noted in India. Pakistan's nuclear weapons are stored separately and there has not been any attack on its nuclear material and nuclear installation. The western media propagated a lot that Pakistan's nuclear weapons are not secure and they can go in wrong hands but fact is that they have not much idea about its nuclear weapons and their security. According to the nuclear expert's responses and IAEA, NSS progress reports and Arms control association, Pakistan is extremely serious to make its nuclear security system more fortified. Terrorism is a global threat for whole world; not only for Pakistan and its nuclear security system is much secure to defend it from any hazard. The attack on any air base and GHQ does not mean that it is attack on Pakistan's nuclear installations.

Pakistan proved that it has secured nuclear, fissile and radioactive material from misuse and terrorist by its nuclear security efforts. It has strengthened its nuclear export control structure, monitoring system and nuclear regulatory provisions in the form of strict laws and principles. Pakistan advisor of foreign policy said in 2014 that Pakistan's promises to join hands with the international community in the efforts of nuclear security to ensure that the nuclear weapons cannot get into the wrong hands.³²

³²Naeem Salik, "Learning to Live with the Bomb: Pakistan: 1998-2016," *Oxford University Press*, <https://www.amazon.com/Learning-Live-Bomb-Pakistan-1998-2016/dp/0199404569>

Pakistan exists in the most troubled region in the world where it is facing so many challenges. Western media propaganda against Pakistan nuclear security pressurizes Pakistan so there is need of international cooperation to encourage Pakistan because it is very concerned about its nuclear safety and security. Pakistan has taken multiple measures to secure its nuclear material after the broke of NSS as it established COEs, hosted workshops and legislated UNSCR 1540. These measures should not stop even after the ending of the NSS. Pakistan's encouraging response towards NSS improved its nuclear security, placed Pakistan higher than India in NTI ranking and made international community realize that Pakistan's nuclear materials are safe and secure from any theft or misuse.