Pakistan's Nuclear Weapons Programme: Criticism, Propaganda and Response

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Abstract

As a result of constant improvement in its nuclear credentials, Pakistan has emerged as a responsible nuclear weapons state. Pakistan has been pursuing a Credible Minimum Deterrence (CMD) doctrine to deter India's growing conventional and nuclear capabilities. However, time and again, Pakistan has faced criticism and propaganda over nuclear safety and security, and necessary technological advancements in its nuclear weapons complex. From fears of Pakistan making an 'Islamic bomb' to the 'world's fastest growing nuclear weapons complex,' Pakistan has tried to address the valid international concerns and brushed aside propaganda against its nuclear weapons programme. With this background, the purpose of this paper is to analyse post-1998 nuclear test, propaganda against Pakistan's nuclear weapons programme. The paper will address the questions related to the nature and purpose of this propaganda and Pakistan's response to distinguish between facts and propaganda.

Pakistan Nuclear Weapons Programme, Nuclear Safety and **Keywords:** Security, Nuclear Non-Proliferation, Pakistan's Nuclear Credentials.

Introduction

Pakistan, being a responsible nuclear weapons state, developed nuclear weapons capability solely to deter India's hostile intentions. Its Credible Minimum Deterrence (CMD) doctrine is aimed at maintaining a strategic balance in the region. However, its nuclear weapons programme, since its inception, has been facing severe criticism and propaganda over its nature, intention, safety and security. Being criticised as making an "Islamic Bomb" to the world's fastest growing nuclear weapons complex, Pakistan made its every effort to address the apprehensions of the international

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community by strengthening its nuclear credentials. However, despite all the efforts to improve its nuclear credentials and ensuring utmost restraint and responsibility, criticism and the relentless propaganda still continues.

With this background, the aim of this paper is to separate the facts from criticism and propaganda against Pakistan's nuclear weapons programme by analysing Pakistan's response to it. The timeframe identified for this study is post-1998 test phase, when Pakistan embraced its responsibilities of a nuclear weapon state. The purpose of this analysis is to highlight Pakistan's responsible nuclear behaviour over the years. The paper will try to address the following mentioned two research questions:

- i. What is the nature and source of criticism and propaganda against Pakistan's nuclear weapons programme?
- ii. How Pakistan's response could help distinguish the facts from criticism and propaganda?

Since 1998, a great deal of literature has been produced on Pakistan's nuclear weapon development. David Albright, President of the Institute for Science and International Security (ISIS), has been constantly providing the probabilistic estimates of Pakistan's nuclear material. Kathryn Buehler and Holly Higgins have highlighted the fear of the terrorists getting control of Pakistan's nuclear weapons or material. David E Sanger has been constantly Pakistan's proliferation concerns. Furthermore. propagating International Institute for Strategic Studies (IISS), Stimson Centre London, the Federation of Atomic Scientists (FAS) and the Congressional Research Service (CRS) reports, along with other West-originated documents, statements and international media reports are constantly stirring the paranoia and propaganda against Pakistan's nuclear weapons programme. All these pieces of literature have propagated certain concerns at certain time periods. However, consolidated and an in-depth analysis on separating facts from all this propaganda is missing. Therefore, through this paper, an attempt has been made to accomplish this task and to contribute towards the existing literature. It is important to note that due to limited availability of sensitive information, the study focuses on available open-source information. The paper has been divided into two main sections: criticism and propaganda against Pakistan's nuclear weapons programme and Pakistan's response in separating facts from propaganda and criticism followed by the conclusion.

Criticism and Propaganda against Pakistan's Nuclear Weapons Programme

The international media, think tanks, nuclear experts and the key western politicians are raising concerns and carrying out a biased, negative criticism and propaganda against Pakistan's nuclear weapon programme. The nature of this propaganda ranges from exaggerated technical assessments of Pakistan's nuclear weapons development capability to raising doubts over its safety and security; from a dangerous nuclear arms race to nuclear warfighting; from an internal instability of Pakistan to falling off its nuclear weapons to wrong hands including terrorist, militant organisations and non-state actors and nuclear proliferation concerns to other states. Similar to the past practices, the present propaganda seems a renewed attempt to undermine Pakistan's nuclear credentials by utilising a mix of all these variables along with heightened concerns of Pakistan's nuclear weapons programme as the fastest growing one.

After 1998 nuclear tests, criticism and propaganda was marked with assumptions and probabilistic technical assessments. The international community considered Pakistan's nuclear weapons development as an alarming trend leading to the criticism and propaganda against Pakistan's nuclear capability in the western media and think tanks reports. Pakistan was dubbed as a dangerous and an unstable state. These reports were an exaggerated and disproportionate accounts, which were based on the probabilistic estimates about its nuclear weapons development.

International media was afraid that a possible India-Pakistan nuclear confrontation would be devastating for the international security. On May 29, 1998, an op-ed appeared in the *New York Times (NYT)*, stressed on to limit the nuclear ambitions in South Asia. It maintained that India and Pakistan should refrain from building nuclear arsenals and that they should declare a testing moratorium and immediately join Comprehensive Test Ban Treaty (CTBT). In June 1998, experts like Albright and Kevin O'Neill from ISIS, came up with their post-test technical assessment of Pakistan's Weapon-Grade Uranium (WGU) and Weapon-Grade-Plutonium (WGP)

¹ "The Subcontinent Goes Nuclear," *New York Times*, May 29, 1998, http://www.nytimes.com/1998/05/29/opinion/the-subcontinent-goes-nuclear.html.

stocks.² Without providing any solid evidence, these experts assumed that Pakistan's WGU stocks could grow to 600 kg by the end of 1998, enough to produce 30 weapons with an annual growth rate of 110 kg or 5 weapons per year. About WGP, the ISIS estimated that "Pakistan would be able to produce 10 to 15 kg of WGP per year." The ISIS also raised questions about the resumption of full-scale production of Highly-Enriched Uranium (HEU). In January 1999, based on these assumptions, the US State Department, highlighted the chances of an India-Pakistan war and expressed the fears of nuclear proliferation.⁴

In October 1999, Albright revised these estimates and stated that, at the end of 1998, Pakistan's WGU stock was 425-680 kg, with a potential to produce 22-43 nuclear weapons and relatively small WGP stocks.⁵ In October 2000, Albright again revised these estimates and asserted that at the end of 1999, Pakistan's WGU was between 585 to 800 kg, with a potential to develop 30 to 52 weapons and WGP was 1.7 to 13 kg.⁶ In a short period of time, these estimates expose the logical loopholes in the estimates and represent the stark differences on the part of a developing nation with international sanctions. It seemed that it was meant only to give an impression that Pakistan's nuclear weapon complex was growing rapidly. In the meantime, international media started to present the reports about possible nuclear proliferation concerns between Pakistan and North Korea in return of missile technology.⁷

² David Albright and Kevin O'Neill, "ISIS Technical Assessment: Pakistan's Stock of Weapon-Grade Uranium," The Institute for Science and International Security (ISIS), June 1, 1998, http://www.isis-online.org/publications/southasia/ta-pak060198.html.

¹ Ibid.

⁴ "US Department of State Daily Press Briefing #8, 99-01-15," *Hellenic Resource Network*, January 15, 1999, http://www.hri.org/news/usa/std/1999/99-01-15.std.html.

⁵ David Albright, "India and Pakistan's Fissile Material and Nuclear Weapons Inventory, End of 1998," ISIS, October 27, 1999, http://www.isis-online.org/publications/southasia/stocks1099.html.

⁶ David Albright, "India's and Pakistan's Fissile Material and Nuclear Weapons Inventories, End of 1999," ISIS, October 11, 2000, http://www.isis-online.org/publications/southasia/stocks1000.html.

⁷ Gaurav Kampani, "Second Tire Proliferation: The Case of Pakistan and North Korea," *The Non-Proliferation Review*, (Fall-Winter 2002).

After the 9/11 event, to mount the pressure on Pakistan, international media accelerated its criticism and propaganda against Pakistan. Pakistan was accused of expanding its nuclear weapons while drifting towards religious extremism. In September 2001, the ISIS claimed that Pakistan is sympathetic to Taliban and the militants and its nuclear weapons are dangerously vulnerable, which could fall into the hands of the terrorists and militants. The ISIS also came up with a security-threat-assessment scenario of Pakistan's nuclear assets. It identified some of the assistance approaches for the US to increase physical protection of Pakistan's nuclear assets. This threat-assessment scenario included: insider threat; insider/outsider threat; the leakage of sensitive information and the loss of central control of storage facilities. As a result of these assumptions, the US, by raising concerns against Pakistan's nuclear assets, started to reorient its policy towards Pakistan.

Albright, along with Kathryn Buehler and Holly Higgins, in an article "Bin Laden and the Bomb" raised the possibilities of Osama Bin Laden and al-Qaeda network shopping for nuclear weapons. ¹² Experts like Lee Feinstein, James C Clad, Lewis A Dunn and Albright stressed the US to prevent the Weapons of Mass Destruction (WMDs) from falling into the wrong hands and averting the possibility of a nuclear confrontation in South Asia. ¹³ In March 2002, despite the American claims of searching of over 100 sites, the officials could not found any

⁸ Barry Bearak, "Death to Blasphemers: Islam's Grip on Pakistan," *New York Times*, May 12, 2001, http://www.nytimes.com/2001/05/12/world/death-to-blasphemers-islam-s-grip-on-pakistan.html.

⁹ "The First Casualty of the War on Terrorism must not be Pakistan: Pakistan's Nuclear Weapons must not fall into Terrorists' Hands," ISIS, September 18, 2001, http://www.isis-online.org/publications/terrorism/tpakistan.html.

¹⁰ David Albright, Kevin O'Neill and Corey Hinderstein, "Securing Pakistan's Nuclear Arsenal: Principles for Assistance," ISIS, October 4, 2001, http://www.isisonline.org/publications/terrorism/pakassist.html.

¹¹ The US came up with option of providing Pakistan nuclear security related software, hardware and procedures. For further details see, Lee Feinstein, Albright David, James Clad and Lewis Dunn, "A New Equation: US Policy toward India and Pakistan after September 11," Carnegie Endowment for International Peace, May 31, 2002, http://carnegieendowment.org/2002/05/31/new-equation-u.s.-policytoward-india-and-pakistan-after-september-11-pub-993.

¹² David Albright, Kathryn Buehler and Holly Higgins, "Bin Laden and the Bomb," *Bulletin of Atomic Scientists*, February 2002.

¹³ Albright, "A New Equation."

evidence of the nuclear material obtained by al-Qaeda. Albright and his team at ISIS asserted again that the terrorists might have acquired the fissile material and the nuclear know-how from Russia or Pakistan. They also claimed that they might continue to develop the nuclear explosive devices at unknown locations. ¹⁴

The year 2002 was marked with the international concerns of nuclear proliferation from Pakistan to other countries. In October 2002, David E. Sanger and James Dao, citing the US intelligence officials, accused Pakistan for bartering nuclear weapons technology with North Korea for missiles. On August 4, 2003, Douglas Frantz, in his op-ed in the *Los Angeles Times*, accused Pakistan for assisting Iran in its nuclear programme. Albright accused Pakistan of supplying the critical technology to Iran for its nuclear programme. In October 2003, Israeli Prime Minister, Ariel Sharon, alleged that Pakistan was helping the Libyan and Israeli intelligence official. He also charged that Saudi Arabia wanted to acquire nuclear weapons technology from Pakistan.

On January 6, 2004, Patrick E Tyler and Sanger also accused Pakistan of being the source of the centrifuges design technology for Libya. ¹⁸ As a result of these accusations, the International Atomic energy Agency (IAEA), considering Pakistan as the 'tip of an iceberg,' ¹⁹ started to investigate the potential links between Iran and Pakistan. The officials from many western nations started to raise fingers to Pakistan, but there

¹⁴ David Albright, Corey Hinderstein and Holly Higgins, "Does Al Qaeda Have Nuclear Materials? Doubtful, But…," ISIS, March 1, 2002, http://www.isisonline.org/publications/terrorism/doubtful.html.

¹⁵ David E Sanger and James Dao, "A Nuclear North Korea: Intelligence; US Says Pakistan Gave Technology to North Korea," *New York Times*, October 18, 2002, http://www.nytimes.com/2002/10/18/world/nuclear-north-korea-intelligence-us-says-pakistan-gave-technology-north-korea.html.

¹⁶ Douglas Frantz, "Iran Closes-in on Ability to Build a Nuclear Bomb," *Los Angeles Times*, August 4, 2003, http://articles.latimes.com/2003/aug/04/world/fgnuke4.

¹⁷ Daily Times, August 28, 2003.

¹⁸ Patrick E Tyler and David E Sanger, "Pakistan Called Libyan's Source of Atom Design," *New York Times*, January 6, 2004,

http://www.nytimes.com/2004/01/06/world/pakistan-called-libyans-source-of-atom-design.html.

¹⁹ "Pakistani Case is Tip of the Iceberg, says ElBaradei," *Daily Times*, February 6, 2004.

emerged no evidence of involvement of Pakistani government. However, the revelation of a global network of nuclear black market and the role of Dr Abdul Qadeer Khan, in his individual capacity, resulted in an added pressure from the international community, particularly from the US.

The Khan's episode gave credence to the international concerns that Pakistan's nuclear weapons technology might fall into the hands of the terrorist organisations. The US came up with an expression that it has been spending millions of dollars to help Pakistan develop the state-of-art security, including secret authorisation codes for the arsenal with the help of the US Liaison Committee. However, the critics continued to express their fear that Pakistani leadership is so vulnerable that no one can be sure who will end up with those secret nuclear codes.

In the subsequent years, the international media, think tanks, western officials and nuclear experts continued to malign Pakistan over the issue of nuclear black market, safety and security of Pakistan's nuclear assets. They spread the fears that the terrorist might acquire nuclear technology from nuclear black market and propagated the suspicions over the growth of Pakistan's nuclear weapon complex. The US increased its pressure on Pakistan and the then US Secretary of State, Colin Powell, during his visit to Pakistan in March 2004, desired to get full access to information in nuclear black market affair. In April 2004, the European Union (EU) Parliament also criticised Pakistan for its proliferation activities by passing a resolution. In the meanwhile, the rumours also started to appear in international media that due to the international pressure Pakistan might halt and roll back its nuclear weapon programme.

The international community became paranoid of al-Qaeda to the extent of creating a 'Black dawn,' similar to the doomsday scenario through nuclear terrorism. In May 2004, more than 50 officials and experts from 15 countries, in a war gaming organised by the Washington-based Centre for Strategic and International Studies (CSIS), pointed their fingers to Pakistan

²⁰ "US has the Key to Pak Nukes: NBC," *Times of India*, February 8, 204, http://timesofindia.indiatimes.com/world/us/US-has-the-key-to-Pak-nukes-NBC/articleshow/483052.cms.

²¹ "Breakup of Nuclear Proliferation Network 'a Major Achievement,' Says Powell," *Voice of America (VOA)*, March 18, 2004.

²² "EU Asks Pak to Explain '98 Nuke Test," *Times of India*, April 26, 2004.

and urged to secure nuclear material from falling into the hands of terrorists. As a result, the US started to discuss implementing Global Threat Reduction Initiative (GTRI) in South Asia. By October 2004, the ISIS came up with another assessment that Pakistan possesses 50 to 90 nuclear weapons and has 1000 to 1250 kg of HEU. ²³

In 2005, similar propaganda continued against Pakistan. The Khan's network was accused of selling nuclear technology to Saudi Arabia and came under fire for his secret meeting with the Iranian officials in 1987. The CIA in a report stated that use of stolen or purchased nuclear weapons from Pakistan or Russia by the terrorists cannot be ruled out within the next 15 years. The Indian Foreign Minister, Natwar Singh, also accused major international powers of turning a blind eye to Pakistan's nuclear proliferation activities. India's extremist Bhartiya Janta Party (BJP) also jumped into this propaganda campaign and called for a punitive action against Pakistan. In 2005, the Carnegie Endowment for International Peace also came up with its estimates that Pakistan can manufacture 50 to 110 nuclear weapons, followed by the ISIS's claim that Pakistan has built new centrifuges plant with a capacity of 5000 centrifuges.

In July 2006, another ISIS assessment appeared regarding the construction of second heavy-water nuclear reactor near Khushab, which could produce more than 200 kg of weapons-grade plutonium a year enough to make 40 to 50 nuclear weapons a year. ²⁹ In response to these estimates, the Indian officials criticised Pakistan that soon it would be able to strike every city in India. Though the US confirmed, yet, it played down these news reports of Pakistan building a powerful new nuclear reactor. However, it urged Islamabad not to use the facility for military purposes. ³⁰

²³ "N-Arms: 'Pakistan Has 50-90, India 55-115," *Dawn*, October 12, 2004.

²⁴ "Pakistan Denies it Sold N-Tech to Arab States," *Daily Times*, February 8, 2005 and Dafna Linzer, "Investigators Link N-Weapons Offer to Iran in 1987," *Seattle Times*, February 27, 2005, http://www.seattletimes.com/nation-world/investigators-link-n-weapons-offer-to-iran-in-1987/.

²⁵ "Pakistan's N-Arms can be Stolen: CIA," *Dawn*, February 15, 2005.

²⁶ "Natwar Accuses Pakistan of N-Proliferation," *Dawn*, March 29, 2005.

²⁷ "FO Rejects Call for IAEA Action," Dawn, March 24, 2005.

²⁸ "Pakistan could Have 110 N-Bombs by Year End," *Daily Times*, August 19, 2005.

²⁹ "US 'aware' of New N-Plant: Powerful Nuclear Reactor Coming up in Khushab: ISIS Report," *Dawn*, July 25, 2006, http://www.dawn.com/news/203045.

^{30 &}quot;US 'aware' of New N-Plant."

Albright insisted that its findings on the nuclear reactor at Khushab are correct. In the meantime, in August 2006, the FAS came up with a different estimate that Pakistan has between 24 and 48 uranium-based nuclear weapons and perhaps three to five more powerful plutonium-based weapons.³¹ The disagreement prevailed among the American experts over the power level of the second Khushab reactor. However, Albright and Paul Brannan continued to believe that the second reactor is far more powerful.³²

On May 2, 2007 despite the break-up of nuclear black market, the IISS in its strategic dossier by Mark Fitzpatrick, raised the questions and fears that nuclear smuggling network could resume business amid strong demand for atomic technology from the governments and terrorist groups. Shortly after IISS report, Alex Stolar from Stimson Centre raised the fears that "Pakistan's nuclear weapons could be vulnerable to theft, illicit transfer or unintentional use if the army's discipline and command and control structure faltered."

As a result of this renewed criticism, the US lawmakers in the Congressional hearings started to put pressure on Pakistan to provide a direct access to Khan. In June 2007, Albright again came up with a renewed assessment that Pakistan is building a third Plutonium reactor which will increase Pakistan's nuclear weapons inventory significantly.³⁵ Commenting of this development, Bruce Riedel, from the Brooking

³¹ "Pakistan's Nuclear Arsenal Comparable to India's: Report," *Dawn*, August 26, 2006.

³² David Albright and Paul Brannan, "ISIS Update on Khushab Reactor," ISIS, October 4, 2006, http://www.isis-

online.org/publications/southasia/khushabupdate.pdf.

³³ "Nuclear Black Markets: Pakistan, A Q Khan and the Rise of Proliferation Networks - A Net Assessment," May 2, 2007,

https://www.iiss.org/en/publications/strategic%20dossiers/issues/nuclear-black-markets--pakistan--a-q--khan-and-the-rise-of-proliferation-networks---a-net-assessmen-23e1 and David Montero, "Report: Pakistani Scientist A Q Khan Aided Iran," Christian Science Monitor, May 4, 2007,

http://www.csmonitor.com/2007/0504/p07s01-wosc.html.

³⁴ Alex Stolar, "The Implications of Unrest in Pakistan for Nuclear Security," Stimson Centre, May 5, 2007, https://www.stimson.org/content/implications-unrest-pakistan-nuclear-security.

³⁵ Jane Perlez, "US Group Says Pakistan is Building New Reactor," *New York Times*, June 23, 2007,

http://www.nytimes.com/2007/06/23/world/asia/23pakistan.html.

Institute, said that the Bush administration has given a pass to the Pakistani government to accelerate a nuclear arms race in South Asia. In June, the international experts like Albright, Fitzpatrick and Lisa Curtis of the Heritage Foundation in a Congressional hearing once again raised the fears and suspicions over security of Pakistani nuclear assets.³⁶

The media reports also began to emerge over the claims of the US intelligence having full knowledge of the location of Pakistan's nuclear weapons and their security in a post-Musharraf Pakistan.³⁷ It was also reported that the US had made the contingency plans to stop Pakistan's nuclear weapons falling into the wrong hands and has spent almost US\$100 million to secure Pakistani nuclear weapons.³⁸ *Stratfort*, an intelligence based journal, strengthened this claim that Pakistan's nuclear weapons are already under the American control and Washington can destroy it.³⁹

Similarly, an important and a constant source of criticism against Pakistan's nuclear weapon programme is the Congressional Research Service (CRS) reports, which are regularly prepared for the US Congress and the related Congress Committees. Since 2007, Paul Kerr and Mary Beth Nikitin, analysts in Non- proliferation Foreign Affairs, Defence, and Trade Division, have been regularly preparing and updating a report titled "Pakistan's Nuclear Weapons: Proliferation and Security Issues." The said title has been updated for over two dozen times in past 12 years and mainly highlights inventory, changes, developments, and important measures related to Pakistan's nuclear weapons programme. From 2007 to 2016, the reports estimates that the warheads grew from to 110 to 130. However, the report and all its subsequent updates — up till august 2016 — always

³⁶ "US Fears 'N-Armed Mullah' Takeover in Pakistan," *Daily Times*, June 20, 2007.

³⁷ "US Worried about Nukes Post-Musharraf," *Daily Times*, August 11, 2007. ³⁸ "US Develops Plan for Pakistan N-Weapons," *Dawn*, November 11, 2007 and

[&]quot;US Helping Pakistan Protect Its Nukes," *Daily Times*, November 19, 2007.

³⁹ "Pak Nukes Already under US Control: Report," *Times of India*, November 20, 2007.

⁴⁰ For a complete list and updates see, "CRS Reports," https://www.CRSReports.com.

⁴¹ Paul K Kerr and Mary Beth Nikitin, "Pakistan's Nuclear Weapons: Proliferation and Security Issues," Congressional Research Service, November 9, 2007, https://crsreports.com/download?hash=109eab070cbfb1ff9eb67aa4ab1e5229d8fa63 819a006837fd8e7fc38a5decc2 and Paul K Kerr and Mary Beth Nikitin, "Pakistan's Nuclear Weapons," Congressional Research Service, August 1, 2016, https://www.fas.org/sgp/crs/nuke/RL34248.pdf.

expresses dissatisfaction with the words such as 'collapse of Pakistani government and terrorist acquiring Pakistani nuclear weapons,' 'diversion of nuclear material by personnel,' 'instability and the question of durability of reforms' and the concerns about Pakistan's nuclear security.⁴² Much has been changed since then but the analysis of CRS reports still express the same fear and concerns, always puting a question mark on Pakistan's nuclear credentials.

The media reports even revealed the US military's emergency plans to secure Pakistan's nuclear weapons in the face of a crisis situation in Pakistan. Notably, Frederick Kagan, a former West Point military historian, made up a series of scenarios included sending elite British or US troops to secure Pakistan's nuclear weapons and transport them to New Mexico and a US military occupation of the capital Islamabad if asked by Pakistan military. After the assassination of the opposition leader, Benazir Bhutto, propaganda and concern about security of Pakistan's nuclear weapons increased manifold. Even the Director General of the IAEA, Mohammad ElBaradei, in an interview with *Al-Hayat* on January 8, 2008, said that that Pakistan's nuclear weapons could fall into the hands of the Islamist groups.

Like past year, the ISIS continued to raise its concerns against Pakistan's nuclear weapons development. The ISIS, which started its reporting against Pakistan in 1990s increased its reporting frequency against Pakistan from 2009, onwards. Between 2009 to 2016, the ISIS published around more than 26 reports on Pakistan's nuclear and missile technology procurements, updates of the Khushab Plutonium production reactor projects, updates on Pakistan's WGU and WGP inventories and other related projections and case studies. He recent reports, Albright has stated that Pakistan has four reactors dedicated for the production of Plutonium and at least three of them are operational. He estimated that, at the end of

⁴² Kerr and Nikitin, "Pakistan's Nuclear Weapons."

⁴³ "Bush Handed Blueprint to Seize Pakistan's Nukes," *Daily Times*, December 2, 2007.

⁴⁴ "Pakistan Rejects UN Nuclear Fears," BBC, January 9, 2008.

⁴⁵ For complete reports see, Institute for Science and International Security,

[&]quot;Pakistan | ISIS-Reports | Institute for Science and International Security," http://isis-online.org/isis-reports/category/pakistan/#2016.

⁴⁶ David Albright and Serena Kelleher-Vergantini, "Khushab Reactors Operational While New Construction Progresses" ISIS, February 29, 2016, http://isis-

2014, Pakistan had already produced an estimated 185 to 230kg of Plutonium and enough HEU to produce 125 to 170 nuclear weapons. 47

In the meantime criticism also started to appear over Pakistan's increasing production of weapons-grade material. In 2011, Sanger and Eric Schmitt claimed that Pakistan is increasing its production of nuclear weapon material which can put it on a path to overtake Britain as the fifth largest nuclear weapons power. A joint study by the US Council of Foreign Relations (CRF) and the Aspen Institute India highlighted "that Pakistan now produces more fissile material than any other country on the planet." The CFR in its 2014 report again stated that Pakistan has the fastest growing nuclear programme. In a 2015 report by Stimson Centre titled "A Normal Nuclear Pakistan" also suggests Pakistan could have the third-biggest nuclear stockpile within a decade and could end up producing 20 nuclear warheads annually.

Although, safety and security of Pakistan's nuclear weapons has stood the test of time and most of the past propaganda and criticism against Pakistan's nuclear weapons programme has lost it credibility. Yet, propaganda and criticism against Pakistan's nuclear weapon programme is continuing. Despite this unwarranted criticism, Pakistan, being a responsible nuclear state, is prepared to deal with threats and concerns related to its nuclear weapons programme. The following section will analyse Pakistan's objective response to the criticism, raised against its nuclear weapon programme.

online.org/uploads/isis-

 $reports/documents/Three_Khushab_Reactors_Operational_February_29_2016.pdf.$

⁴⁷ David Albright, "Pakistan's Inventory of Weapon-Grade Uranium and Weapon-Grade Plutonium Dedicated to Nuclear Weapons," ISIS, October 19, 2015, http://isis-online.org/uploads/isis-

 $reports/documents/Pakistan_WGU_and_WGPu_inventory_Oct_16_2015_final_1.p. df.$

⁴⁸ David E Sanger and Eric Schmitt, "Pakistani Nuclear Arms Pose Challenge to US Policy," *New York Times*, January 31, 2011,

http://www.nytimes.com/2011/02/01/world/asia/01policy.html?_r=2&scp=1&sq=pakistan%20nuclear&st=cse.

⁴⁹ Toby Dalton and Michael Krepon, "A Normal Nuclear Pakistan," Stimson Center and Carnegie Endowment for International Peace, (2015),

http://carnegieendowment.org/files/NormalNuclearPakistan.pdf.

Pakistan's Response

Nuclear weapon proliferation, nuclear safety and security are major international security concern. Like other nuclear weapons states, Pakistan, without compromising over its national security concerns, took full responsibility and made every effort to address all these challenges. To ensure a responsible nuclear behaviour, Pakistan has been actively strengthening its nuclear command and control structures. It strengthened its national export control laws and regulations took utmost measures to safeguard its nuclear installations and actively cooperated with the international community to support the international nuclear nonproliferation regime. However, despite all its efforts, Pakistan is still being faced with the criticism and propaganda against its nuclear weapons programme. Some international concerns could be valid and justified against its entry into the nuclear weapon states club but, despite a significant improvement in one's nuclear credentials, carrying out a constant biased criticism and propaganda indicates a broader political campaign to malign a responsible nuclear state. Here a counter question arises that are these concerns still valid against a country like Pakistan, which has improved its nuclear credentials in past 19 years and fulfilled its international obligations to address relevant international concerns against its nuclear weapons programme? To find answers to the aforementioned questions, there is a need to analyse Pakistan's response to the above highlighted concerns, criticism and propaganda. Since 1998, Pakistan has tried to alleviate the concerns raised against its nuclear weapons programme by:

- i. Taking policy positions.
- ii. Introducing administrative and legal measures.
- iii. Adopting technical, procedural and physical security measures.
- iv. Participating in the relevant international initiatives.
- v. Proposing several bilateral initiatives.

It is important to note that Pakistan started to improve its nuclear credentials since its independence and accelerated its efforts in a pre-test environment. This includes becoming a part of key international initiatives where it offered many regional and bilateral proposals to stop the spread of nuclear weapon in South Asia. ⁵⁰ However, with reference to present study,

⁵⁰ For a complete list of Pakistan's pre-test record see, Malik Qasim Mustafa, Ghazala Yasmin Jalil and Tahir Mahmood Azad, "Pakistan and India: Non-

the relevant post-test record would be highlighted to support the main argument of this study.

Pakistan believes in normative nuclear restraints and responsibilities. Soon after the tests, Pakistan's declaration of a unilateral moratorium on nuclear testing, proposal of mutually signing of the CTBT and maintaining a principle stance of reduction of all fissile material stocks was an indication to refrain from indulging in a nuclear arms race with India. In fact, it was India whose fissile material stocks were higher as compared to Pakistan. The 1999 Pakistani proposals on the creation of a strategic restraint regime and signing of Memorandum of Understanding (MoU) with India on nuclear confidence building measures were solely aimed at maintaining strategic stability. Irrespective of the external pressures, Pakistan followed unilateral restraint. By establishing its National Command Authority (NCA) in 2000, and Strategic Plan Division (SPD) as its permanent secretariat, Pakistan again proved that safety and security of its nuclear assets is its foremost priority. Pakistan only wanted to pursue a CMD posture.

In the post-test phase, when nuclear safety and security culture was evolving, media reports particularly from ISIS, were complicating Pakistan's position through their criticism and propaganda, specifically with reference to estimates over Pakistan's growing weapons capability and later through claims of Pakistan's nuclear weapons falling into the hands of terrorists. Pakistan started to take additional practical steps to secure and safeguard its nuclear assets as it was already a party to many nuclear-related conventions:

- i. The Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency (CACNARE).
- ii. The Convention on Early Notification of a Nuclear Accident (CENNA).

Proliferation Credentials," Islamabad Papers 2016, Nuclear Paper Series (Islamabad: The Institute of Strategic Studies Islamabad, 2016),

http://issi.org.pk/wp-content/uploads/2016/02/Nuclear-Paper-Series-No.-2.pdf.

⁵¹ "Pakistan Announces Testing Moratorium, Seeks Talks with India," *Chicago Tribune*, June 12, 1998, http://articles.chicagotribune.com/1998-06-

 $[\]frac{12}{\text{news}}/9806120113_1_\text{nuclear-escalation-india-and-pakistan-test-ban}.$

⁵² Ambassador Munir Akram, "Statement in the Conference on Disarmament on CTBT and FMCT Issues," July 30, 1998,

http://www.fas.org/nuke/control/fmct/docs/980730-cd-pak.htm

- iii. The Convention on Nuclear Safety (CNS).
- iv. The Convention on the Physical Protection of Nuclear Material (CPPNM).⁵³

Initially, Pakistan followed a 'bomb-in-the-basement policy,' which was meant to assure that nuclear weapons are kept in disassembled position, separate from their delivery means.⁵⁴

After the 9/11 event, realising the dangers of nuclear terrorism, Pakistan moved its nuclear weapons to at least six secret new locations with a reorganised military oversight.⁵⁵ It also established an independent Pakistan Nuclear Regulatory Authority (PNRA) to secure its civilian programme.⁵⁶ This reflects that Pakistan was already cautious about nuclear safety and security. Pakistan, to become a responsible nuclear state started to enhance nuclear safety and security further by adopting international standards and best practices.

In order to avoid nuclear confrontation with India, Pakistan offered a strategic restrain regime in South Asia. In the meantime, Pakistan became a party to the CPPNM. However, when international propaganda accelerated against Pakistan's nuclear assets falling into the terrorists hands and proliferation of nuclear weapons technology to other states, pressure to roll-back Pakistan's nuclear weapons programme also increased. In 2003, in

⁵³ "Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency (CACNARE), "IAEA,

 $https://www.iaea.org/Publications/Documents/Conventions/cacnare_status.pdf;$

[&]quot;Convention on Early Notification of a Nuclear Accident (CENNA),"IAEA,

http://www.iaea.org/Publications/ Documents/Conventions/cenna_status.pdf; "Convention on Nuclear Security," IAEA, http://www.iaea.org/

Publications/Documents/Conventions/nuclearsafety_status.pdf, and "Convention on the Physical Protection of Nuclear Material (CPPNM)," IAEA,

http://www.iaea.org/Publications/Documents/Conventions/cppnm_status.pdf ⁵⁴ John F Burns, "Pakistan: Nuclear Secrets," *New York Times*, June 27, 2001, http://www.nytimes.com/2001/06/27/world/world-briefing-asia-pakistan-nuclear-secrets.html.

⁵⁵ Molly Moore et al., "Pakistan Moves Nuclear Weapons," *Washington Post*, November 11, 2001,

https://www.washingtonpost.com/archive/politics/2001/11/11/pakistan-moves-nuclear-weapons/f1656801-497f-4ce0-94d9-9283de873584/.

⁵⁶ For complete information on PNRA see, Pakistan Nuclear Regulatory Authority (PNRA), http://www.pnra.org/

response to the propaganda against possible roll-back of Pakistan's nuclear weapons programme, Pakistan repeatedly made it clear that Pakistan is not under any pressure to roll-back its nuclear and missile programme.⁵⁷

Addressing the concerns of rapid growth of its nuclear weapons programme, Pakistan also made it clear that upgrades in Pakistan's nuclear weapon programme are only meant to ensure CMD.⁵⁸ In 2003, Pakistan repeatedly highlighted that India is pursuing a sustained military build-up. Later in September 2003, President Pervaiz Musharraf, in his speech to the United Nations General Assembly (UNGA) stated that such Indian build-up has threatened to destabilise the entire South Asian region, which would erode the strategic deterrence. However, the international community did not respond to this and raised its fingers to Pakistan over the suspicion that it had supplied nuclear technology to Iran, North Korea and Libya and was suspected of providing nuclear weapons to Saudi Arabia.

In order to address nuclear proliferation concerns, the Pakistani officials on several occasions clarified the government's position. In October 2003, Pakistan denied the Israeli charges that Pakistan helped Libya develop nuclear weapons. Musharraf also denied the reports that Islamabad had traded its nuclear know-how for Pyongyang's missile technology. However, Pakistan initiated its investigation to find out the truth and arrested scientists and officials to probe this proliferation. In the initial investigations it appeared that the government was not involved in this. However, the possibility of scientists' involvement, motivated by personal ambition or greed, could not be ruled out.

With reference to Khan's episode in 2004, Pakistan made a strong commitment with the US and the international community that it will stand firm against future leaks of nuclear technology and would share the outcome of its investigation with the international community.⁶⁰ Pakistan also highlighted that it will fulfil its responsibilities of being a nuclear

⁵⁷ "N-Prgramme won't be Frozen: Musarraf," *Daily Times*, September 4, 2003.

o Ibid.

⁵⁹ "Pak Denies N Korea Nuclear Aid," *Reuters*, September 6, 2003.

⁶⁰ "No More N-Leaks, Musharraf Assures US," *Daily Times*, February 9, 2004.

weapon state.⁶¹ However, Pakistan refused to seek any help from the US for the protection and security of its nuclear installations.

Due to Khan's activities, Pakistan's image was badly damaged all over the world, but it took all necessary steps to build trust with the international community. It is on the record that the US praised and the IAEA expressed satisfaction over Pakistan's efforts in probing the nuclear black market. In March 2004, the US Secretary of State, Colin Powell, hailed the break-up of the network. It was deemed as a major achievement on Pakistan's part. ⁶² In March, the US Defence Secretary, Donald Rumsfeld, also stated that there is no reason to suspect Pakistani government of its past involvement in an international nuclear black market. ⁶³ Pakistan made it clear that its doors are open for probing any additional information on nuclear black market. ⁶⁴ Pakistan also dismissed *Washington Post's* report on a secret meeting between the Iranian officials and Khan. Later in June 2004, Pakistan also rejected the reports of Pakistani scientists in North Korea as 'baseless and false.' Pakistan also denied the possibility of selling of nuclear technology or weapons to any state including Saudi Arabia. ⁶⁵

In 2004, to address nuclear proliferation concerns, Pakistan tightened it export control laws and consolidated all previous legal instrument: the Imports and Exports (Control) Act, 1950; Pakistan Nuclear Safety and Radiation Protection (PNSRP) Ordinance, 1984; Pakistan Nuclear Safety & Radiation Protection Regulations (PNSRPR), 1990; Chemical Weapons Convention Implementation Ordinance, 2000; and Pakistan Nuclear Regulatory Authority Ordinance, 2001) into one single act known as "Export Control on Goods, Technologies, Material, and Equipment related to Nuclear and Biological Weapons and their Delivery Means, 2004." 66

⁶¹ "Pak to Further Develop its Nuclear Capability: Musharraf," *Pak Tribune*, February 12, 2004.

^{62 &}quot;Breakup of Nuclear Proliferation Network."

⁶³ "Musharraf Not Involved in N-Leak, Says Rumsfeld," *Daily Times*, March 29, 2004.

 ^{64 &}quot;IAEA Seeks More Access from Pakistan"; "FO Rejects Call for IAEA Action."
65 "Pakistan Denies it Sold N-Tech."

⁶⁶ Government of Pakistan, "The Export Control on Goods, Technologies, Material and Equipment Releted to Nuclear and Biological Weapons and Theri Delivery Systems Act, 2004," Pub. L. No. V of 2004, 812(2004)/Ex. Gaz. 7 (2004), http://www.mofa.gov.pk/secdiv/documents/Doc-1%20Export%20Control%20Act-2004.pdf.

The act extends to the whole of Pakistan with penalties for the offenders, and maintains a control list, which is in harmony with the lists of the Nuclear Suppliers Group (NSG), the Missile Technology Control Regime (MTCR), the Australia Group (AG) and the Wassenaar Arrangement (WA).⁶⁷ This act also led to the creation of a Strategic Export Control Division (SECDIV) in the Ministry of Foreign Affairs. Pakistan issued its control list of goods and technologies subject to regulatory controls (2005), Export Control (Licensing and enforcement) Rules (2009), Internal Compliance Programme (ICP) Guidelines (2014), and a revised control lists in 2015.⁶⁸ These measure not only helped Pakistan secure its nuclear assets but helped fulfil its international obligation to support the international nuclear non-proliferation regime.

Despite criticism and propaganda, Pakistan never deviated from its principle stance of following nuclear restraints. In 2005, Pakistan again stressed for a strategic restraint regime in South Asia, and signed an agreement with India on advance notification of the ballistic missile tests. On the international front, Pakistan kept on highlighting its principle stance on fissile material stocks, particularly at the Conference on Disarmament (CD) in Geneva. On May 16, 2006, Pakistan highlighted that asymmetry in fissile materials at global and regional levels would be a factor of strategic instability and it proposed that the scope of a treaty on fissile materials should include all stocks. However, the international community never paid attention to Pakistani concerns and the US even went with a civilian nuclear deal with India.

⁶⁷ Mustafa, Jalil, and Azad, "Pakistan and India."

⁶⁸ "The Export Control (Licensing and enforcement) Rules 2009,"Ministry of Foreign Affairs, Strategic Export Control Division (SECDEV), May 29, 2009, http://www.mofa.gov.pk/secdiv/documents/Doc-

^{3,}Licensing%20&%20Enforcement%20Rules.pdf, and "Internal Compliance Programme (ICP) Guidelines 2009,"Ministry of Foreign Affairs, Strategic Export Control Division (SECDEV), October 3, 2014, for latest export control list of Pakistan see, "Control List, "S.R.O. 276(I)/2015, Ministry of Foreign Affairs, March 28, 2015, http://www.mofa.gov.pk/secdiv/documents/Control-Lists(S.R.O.%20276%20(I)2015).pdf

⁶⁹ Statement by Ambassador Masood Khan, Permanent Representative of Pakistan to the Conference on Disarmament, October 05, 2005,

http://www.pakun.org/statements/First_Committee/2005/10052005-01.php ⁷⁰ "General Debate: Fissile Material Treaty," Statement by Ambassador Masood Khan, Pakistan's Permanent Representative at the Conference on Disarmament, Geneva, May 16, 2006.

In August 2006, Pakistan dismissed ISIS reports over Khushab reactor as 'grossly exaggerated.'⁷¹ Pakistan denied that the new plant could produce enough WGP to boost Pakistan's production from an estimated two bombs a year to as many as 50. The US National Security Council Spokesman, Frederick Jones, also stated that after assessing the ISIS findings, the US government experts believe that the reactor is expected to be substantially smaller and less capable than reported.⁷² Pakistan also assured that the nuclear reactor is in safe hands and will not spark a nuclear arms race in the region.⁷³ Later in August 2006, Pakistan uncovered the involvement of the western companies in the nuclear black market, but the US and UK took no action against them. By October 2006, Pakistan shared this investigation with Ambassador Ryan C Crocker and assured that the Khan's case would be closed. Ambassador Crocker expressed satisfaction over Pakistan's nonproliferation safeguards and considered it important for the international community to uncover the full extent of the proliferation activities. The US under-Secretary of State, Nicholas Burns, said that we believe Pakistan is doing everything it can do now to help us stem the proliferation of nuclear material in the world.⁷⁴ Later in June 2007, the US State Department even rejected the US Congressmen claims that Khan's network is active. It insisted that the network is out of business and the credit goes to Pakistan.

Along with its efforts to address international propaganda, Pakistan is also fully complying with the 2004 United Nations Security Council (UNSC) Resolution1540. Since its first report submission in 2004, Pakistan has so far submitted its four reports to the UNSCR-1540 committee. To play an active role in nuclear non-proliferation, Pakistan joined the Container Security Inactive (CSI) in 2006, and Global Initiative to Combat Nuclear Terrorism (GICNT) in 2007. It also became

^{71 &}quot;Pakistan Nuclear Report Disputed," BBC, August 7, 2006,

http://news.bbc.co.uk/2/hi/south_asia/5251936.stm.

⁷² William J Broad and David E Sanger, "US Disputes Report on New Pakistan Reactor," *New York Times*, August 3, 2006,

http://query.nytimes.com/gst/fullpage.html.

⁷³ "Pakistan: New Nuclear Reactor 'Safe in Our Hands,'" *Tehran Times*, August 30, 2006.

⁷⁴ "US Won't Take Sides in Indo-Pak War of Words over Mumbai Serial Blasts," *Economic Times*, October 22, 2006, http://www.pressreader.com/.

⁷⁵ For detailed reports see, "Pakistan: National Reports,"1540 Committee, United Nations, http://www.un.org/en/sc/1540/national-implementation/national-reports.shtml

a part of Mega Port Initiative (MPI) by establishing Integrated Cargo Container Control (IC3) in 2007. ⁷⁶

Pakistan has, time and again, made a strong commitment to protect its nuclear assets. In August 2007, Prime Minister Shaukat Aziz, responding to a US intelligence report on information of nuclear weapons location, vowed to protect country's nuclear assets at all costs, and not to let foreign forces interfere inside Pakistan's territory. Pakistan's Foreign Office also dismissed these reports as 'speculative'. It made it clear that Pakistan's nuclear command and control structures were not controlled by any single individual, and had been institutionalised and multi-layered to ensure safety and security at multiple levels since 1998. In response to the US claims of assisting Pakistan with US \$100 million in securing its nuclear weapons, it also clarified that the US had only provided Pakistan with the limited rudimentary technology for the safety of nuclear assets. However, through its practical steps, Pakistan ensured that its nuclear assets are safe and any change in government will not impact it. Even the US expressed satisfaction about the safety of Pakistan's nuclear weapons.

In December 2007, Musharraf also promulgated an ordinance to establish the (NCA to supervise the administration of all strategic organisations. The analysts point out that the timing of this ordinance was meant to help the command and control system during political transitions. Responding to propaganda of the US war games of taking out Pakistan's nuclear assets in an emergency situation and the option to secure Pakistani nuclear assets, Musharraf warned in the first meeting of the NCA, "Pakistan would defend its strategic interests and assets against any 'misadventure."

⁷⁶ Mustafa, Jalil, and Azad, "Pakistan and India." and "Prime Minister Inaugurates IC3 Facility at Port Qasim Today," *AAJ News*, April 30, 2007,

http://aaj.tv/2007/04/prime-minister-inaugurates-ic3-facility-at-port-qasim-today/ "N-Assets to Be Protected at All Costs: Aziz," *Dawn*, August 15, 2007, http://www.dawn.com/news/261354.

⁷⁸ "US Reports on Nuclear Assets Speculative: FO," *Daily Times*, August 14, 2007. "No Problem with Security of Pak's Nuclear Weapons: US," *Times of India*, November 21, 2007.

⁸⁰ "National Command Authority Ordinance Promulgated," *Paktribune*, December 14, 2007, http://paktribune.com/news/National-Command-Authority-Ordinance-promulgated-195510.html.

⁸¹ "NCA Warns Against 'Misadventure', Says N-Assets Secure," *Dawn*, December 15, 2007, http://www.dawn.com/news/280447.

The Chairman of Pakistan's Joint Chiefs of Staff, General Tariq Majid, too vehemently opposed the allegations hurled at Pakistan in these reports, "though no responsible state in the world can contemplate such an impossible operation, yet if someone did create such a scenario Pakistan would meet the challenge strongly." Pakistan Foreign Office also stated that Pakistan's strategic assets are as safe as that of any other nuclear weapon state and these assets are fully safeguarded and secure under the protection of a well-established command and control system. The Indian National Security Advisor, M K Narayanan stated that Pakistan's nuclear weapons are 'pretty safely guarded and it is extremely difficult that it could fall into wrong hands. Especially after the assassination of Bhutto, the US officials also supported this claim and stated that that the US is confident that Pakistan's nuclear arsenals are secure.

In the subsequent years, the Pakistani officials not only enhanced Pakistan's nuclear credentials but they also adopted a strong policy position and convinced the international community that their nuclear assets are safe and secure. In January 2008, according to the official sources, the Director General of SPD, Lieutenant General (Retd.) Khalid Kidwai, gave a detailed briefing to the envoys of European and foreign countries at the SPD regarding the steps taken for safeguarding Pakistan's nuclear assets and the structure of the command and control system in Pakistan. Earlier, he also warned against any foreign intervention over the issue. He said that the security had been tightened around all nuclear facilities amid a surge in militant attacks in the country, adding that no specific threat had been made against the sites. During his visit to Davos, Musharraf stated that there was a 'zero percent chance' of terrorist getting hold of Pakistan's nuclear weapons.

^{82 &}quot;Pakistan Tests Cruise Missile," News, December 12, 2007,

https://www.thenews.com.pk/archive/print/654061-pakistan-tests-cruise-missile.

⁸³ "Pak Nukes Cannot Fall into Wrong Hands: FO," *News*, December 3, 2007, https://www.thenews.com.pk/archive/print/653900-pak-nukes-cannot-fall-into-wrong-hands-fo.

^{84 &}quot;Pak Nukes Safely Guarded: Narayanan," *Daily Times*, December 17, 2007.

⁸⁵ "Foreign Envoys Told Pak Nukes Safe," *Daily Mail*, January 17, 2008, http://www.mohammadsadiq.com/News%20Pages/Foreign_envoys_told_Pak_nuke s safe.htm.

⁸⁶ "Security Tightened around N-Facilities," *Daily Times*, January 27, 2008.

⁸⁷ "Musharraf: We Don't Need US Troops," *Associated Press*, January 25, 2008, http://www.military.com/NewsContent/0,13319,160740,00.html.

In 2008, responding to the remarks of the ElBaradei, Pakistan Foreign Office expressed its disappointment but accepted the IAEA's clarification. Pakistan's Foreign Office also rejected the US intelligence report stating that "Pakistan's nuclear assets are safe and there should be no cause for concern over hypothetical scenarios which have zero probability. In a response to the rising concerns after the terrorists attacks in on General Headquarters (GHQ) Rawalpindi, Punjab Police training centre in Lahore, Pakistan Aeronautical Complex Karma and other related terrorism incidents in October 2009, the US Secretary of State, Hillary Rodham Clinton, during her five day tour to Europe and Russia said in London that we have confidence in the Pakistani government and military's control over nuclear weapons." Later on during her three day visit to Pakistan, by the end of October 2009, she once again expressed high degree of confidence for Pakistan's nuclear weapons safety and security.

By the end of 2009, Pakistan's policy position on nuclear safety and security was already strengthened by several practical measures. That was a time when, the SPD, under all its directorates emerged as a strong custodial organisation of securing and safeguarding Pakistan's nuclear assets. Some of these measures broadly include: ⁹²

- i. A strong force of around 28,000 to safeguard nuclear assets.
- ii. Personal Reliability Programme (PRP) to ensure the credibility of the individuals, scientists and officials.
- iii. Human Reliability Programme (HRP).
- iv. Multilayered system of security of nuclear installations including air defence; systems, no fly zones, fencing of structures, monitoring by state of the art equipment etc.

⁹² Ibid.

⁸⁸ "Pakistan Rejects US Intelligence Report on Nuclear Weapons," *Aaj News*, February 6, 2008, http://aaj.tv/2008/02/pakistan-rejects-us-intelligence-report-on-nuclear-weapons/.

⁸⁹ "US, UK Confident of Pakistan Nuclear Security," *Associated Press*, October 11, 2009.

^{90 &}quot;US Urges Pakistan on Nuclear Security," Gulf Times, October 28, 2009.

⁹¹ Mustafa, "Are Pakistan's Nuclear Weapons Safe?," *Strategic Studies XXIX*, no. 4 (Winter 2009), http://issi.org.pk/wp-

content/uploads/2014/06/1299650081_87535106.pdf.

v. It also includes development of own Permissive Action Links (PAL), system with the electronic codes and a two to three [source] men authentication procedure.

To give the SPD the power to investigate suspicious conduct the NCA Ordinance was superseded by National Command Authority Act 2010. In 2012, Pakistan established Center for Excellence for Nuclear Security (PCENS) and came at par with other international institutions for the training of the personnel to safeguard its nuclear assets. Pakistan also participated in all four Nuclear Security Summits (NSS) Process, which were respectively held in 2010, 2012, 2014 and 2016. This demonstrated the country's strong commitment to nuclear security.

To fulfil its commitment under the NSS Process. Pakistan established:

- i. The National Institute of Safety and Security (NISAS).
- ii. Improved its Nuclear Security Action Plan.
- iii. Nuclear and Radiological Emergency Support Centre (NURESC).
- iv. National Radiation Emergency Coordination Centre (NRECC)
- v. National Detection Architecture.
- vi. Conducted Nuclear Security Cooperation Programme (NSCP) at different nuclear installations. 93

Pakistan also assured the international community that it has streamlined and strengthened its export control regime and enhanced its engagement with multilateral export control regimes. It also urged the international community that Pakistan has strong credentials to become a member of the NSG and other multilateral export control regimes, on non-discriminatory basis. Along with these measures, Pakistan has a strong force of around 28,000 people deployed to secure its nuclear assets. These practical steps

⁹³ Pakistan National Statement at Nuclear Security Summit," Ministry of Foreign Affairs, March 26, 2014, http://www.mofa.gov.pk/zahidan/prdetails.php?prID=1846"National Statement: Pakistan," and The 2016 Nuclear Security Summit, April 1, 2016, http://www.nss2016.org/document-centerdocs/2016/4/1/national-statement-pakistan.

⁹⁴ Ibid

⁹⁵ Recent information suggests that Pakistan has over 28,000 security force personnel safeguarding county's nuclear assets. For earlier estimates see, "25,000-strong force protecting nukes: Dar," *Nation*, June 23, 2013,

along with other subsequent measures enabled Pakistan to move with confidence among international nuclear powers.

This has not only helped Pakistan to brush aside the false propaganda against Pakistan's nuclear weapons programme, but it also helped it to earn international recognition. For instance the NTI in its 2014 report described Pakistan as the 'most improved' country among nine nuclear-armed states in safeguarding its nuclear materials. 96 During his visit to Pakistan in March 2014, Yukiya Amano, IAEA Director General expressed confidence in the steps the country has taken so far to safeguard its nuclear assets. 97 In 2015, the US Secretary of State, John Kerry, welcomed Pakistan's ongoing efforts to harmonise its strategic trade controls with those of the multilateral export control regimes. The US has also expressed full confidence in Pakistan's nuclear security and appreciates its proactive engagement with the international community, particularly its active participation in the NSS process. 98 In January 2016, the latest NTI report, Pakistan, in terms of Theft Ranking of Quantities and Sites, ranked 21, equal with India and Japan. ⁹⁹ In Sabotage Ranking, Pakistan has also achieved tremendous progress in its domestic commitment and capacity and stands at number 25 with 87 points whereas India stands below at number 40 with 47 points. ¹⁰⁰ In 2016, the US Defence Intelligence Agency Director, Lt General Vincent Stewart, appreciated Pakistan's measures to improve the security of its nuclear arsenal. 101 In 2016, another significant commitment which Pakistan has fulfilled was its ratification of 2005 Amendment to the CPPNM.

http://nation.com.pk/islamabad/23-Jun-2013/25-000-strong-force-protecting-nukes-dar

⁹⁶ Talha Ahmad, "2014 Report: Pakistan 'Most Improved' in Nuclear Security, India not so," *Express Tribune*, January 11, 2014,

http://tribune.com.pk/story/657377/2014-report-pakistan-most-improved-in-nuclear-security-beats-india/

⁹⁷ "IAEA Praises N-Power Plant Safety," *Dawn*, March 13, 2014, http://www.dawn.com/news/1092870

⁹⁸ "US-Pakistan Strategic Dialogue Joint Statement," the US State Department, Office of the Spokesperson, Washington, DC, January 13, 2015, http://www.state.gov/r/pa/prs/ps/2015/01/235881.htm

⁹⁹ "Building a Framework for Assurance, Accountability, and Action," Nuclear Threat Initiative (NTI) Nuclear Security Index, Third Edition, January 20, 2016, http://www.ntiindex.org/wp-content/uploads/2013/12/NTI_2016-Index_FINAL.pdf ¹⁰⁰ Ibid.

¹⁰¹"Pakistan Denies Claims of Boosting Nuclear Arsenal," *VOA*, February 12, 2016, http://www.voanews.com/a/pakistan-nuclear/3188731.html.

Past and present propaganda against Pakistan's nuclear weapons programme as fastest growing and soon it will become third largest nuclear weapon state, largely carried out by international media, think tanks and nuclear experts is due to unavailability of information on Pakistani nuclear weapon stockpile. This is mostly based on exaggerated claims and probabilistic estimates because Pakistan strictly follow a policy of ambiguity, and has never disclosed any information about its HEU stocks, WGP stocks or nuclear weapon inventory. In post-test phase, key international think tanks, international media and experts have continuously speculated about these numbers. However, Pakistan has neither confirmed nor denied these guesses and maintained its policy of ambiguity. Since 1998, these estimates ranged in between 30-130 and future projected estimate of next decade or so goes around 250 nuclear weapons. 102 According to the International Panel on Fissile Material (IPFM), as of the end of 2014, Pakistan had an accumulated stockpile estimated as about 190 kg of plutonium and have a stockpile of 3.1 ± 0.4 tons of HEU. 103 Responding to recent propaganda by Stimson Centre, Pakistan's former Foreign Secretary, Aizaz Chaudhry, termed this as a propaganda and disinformation. He said that Pakistan's deterrence capability is for self-defence and it is not status driven. 104 In a recent claim by the Federation of Atomic Scientists (FAS) as of 2017, Pakistani nuclear arsenals estimates are 120-130, whereas, the Indian estimate is 110-120. However, Pakistan is only concerned with maintaining credibility of its full-spectrum deterrence posture and it is neither in any arms race with India and nor it wanted strategic parity with India.

Above arguments clearly highlight that in a post-test environment Pakistan responsibly handled different aspects and issues related to its nuclear weapons programme. Pakistan carefully addressed most of the concerns and propaganda raised against its nuclear weapons programme. After making strong institutional oversight Pakistan has repeatedly

Albright, "ISIS Technical Assessment.", Albright, "India and Pakistan's Fissile Material." and Dalton and Krepon, "A Normal Nuclear Pakistan."

¹⁰³ "International Panel on Fissile Materials," International Panel on Fissile Materials, http://fissilematerials.org/.

^{104 &}quot;Pakistan Denies Claims of Boosting Nuclear Arsenal."

¹⁰⁵ "Status of World Nuclear Forces," accessed February 9, 2017, https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/.

assured that it would not be a source of nuclear proliferation. With its strong commitment and practical measures, Pakistan not only resolved issues regarding safety of its nuclear assets and enhanced its non-proliferation credentials but it has also earned international recognition and appreciation. It is also a fact that Pakistan's nuclear capability is aimed at deterring India and it will maintain its deterrent capability under its full-spectrum deterrence posture. Since Pakistan maintains a policy of ambiguity regarding its nuclear weapons stockpile therefore exaggerated and probabilistic estimate will continue to appear in future. However, Pakistan being a rational nuclear power will ensure credibility of its CMD and will continue to upgrade its nuclear weapons capability.

Conclusion

A careful review and analysis of the criticism and propaganda and concerns in post-1998 phase against Pakistan's nuclear weapon programme show that it gained momentum at a time when the nuclear security culture was evolving in the South Asian region. Due to the inherent dangers associated with the development of the nuclear weapons and its related technology, Pakistan along with the international community considers itself equally responsible to strengthen intentional nuclear non-proliferation regime and the eventual elimination of any likelihood of nuclear proliferation. It will continue to enhance safety and security of its nuclear assets and will actively support a non-discriminatory international non-proliferation regime. However, the realisation of Pakistan's genuine security concerns by the international community and singling it out despite its growing responsible nuclear behaviour could be counterproductive to promoting international nuclear non-proliferation regime.

¹⁰⁶ Pakistan repeatedly denied media reports on selling nuclear technology or weapons to Saudi Arabia, "Pakistan Denies it Sold N-Tech." and "Pakistan Denies Saudi Nuclear Sale," *Express Tribune*, June 5, 2015,

https://tribune.com.pk/story/898183/pakistan-denies-saudi-nuclear-sale/.