PAKISTAN: A RESPONSIBLE NUCLEAR STATE

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Abstract

This paper delves into the multifaceted factors contributing to the concerns expressed by various global stakeholders concerning the security of nuclear materials, facilities, and installations within Pakistan. The study comprehensively explores the tangible, perceived, and propagandistic elements that have collectively contributed to the prevailing global skepticism surrounding Pakistan's nuclear program. Furthermore, this research elucidates the domestic and international measures that Pakistan has undertaken to ensure the secure development, testing, deployment, utilization, and presence of nuclear weapons, employing both human expertise and technological resources. Additionally, the paper briefly highlights Pakistan's contributions to global peace, exemplified by its integral role in the global campaign against terrorism and active participation in United Nations Peacekeeping missions. Moreover, the paper provides insight into Pakistan's adherence to international guidelines, notably those set forth by the International Atomic Energy Agency (IAEA), the Nuclear Non-Proliferation Treaty (NPT), and overarching international protocols concerning arms control and disarmament. By examining these facets, this study provides a comprehensive understanding of Pakistan's nuclear program and its efforts to align with international norms, thereby fostering a more nuanced comprehension of the nation's stance within the global nuclear landscape.

Keywords

Pakistan; Nuclear Pakistan; Nuclear safety and security; Responsible State; Nuclear Weapons

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Introduction

Pakistan became a nuclear power on 28th May 1998. However, Pakistan's nuclear project started when President Eisenhower initiated the *Atoms for Peace* program in 1953 (Maddock,1998). The urgency or necessity to invent nuclear weapons was realized when two major events happened; the fall of East Pakistan and the testing of 'Smiling Budha' by India. 'Smiling Budha' refers to the first successful nuclear bomb test conducted by India in May 1974, which further augmented Pakistan's sense of urgency to work on nuclear power weapons (Reiss, 1995, p. 185). Attributing to the aforementioned events, Pakistan also encountered a security dilemma since it was a nascent state struggling for stability and international alliances at the time (Ahmed,1999).

Pakistan tested its nuclear weapons in 1998. It is a non-signatory to the Nuclear Non-Proliferation Treaty (NPT), which was negotiated in the 1960s, signed on 1st January 1967, and entered into force in 1970. According to the NPT, any nation that developed nuclear weapons after 1967 is a non-nuclear state. India and Pakistan are both non-signatory states of the NPT (Mahmood, 1995).

Beyond Pakistan, South Asia is a region ripe for the collapse of strategic stability. The variables responsible for the potential failure are aggravating, including unresolved territorial disputes, cross-border intervention/terrorism, proxy wars, arms race, and nuclear competition (Jones,2005). Additionally, the status of the disputed areas of Jammu and Kashmir remains unresolved between India and Pakistan, spawning hostilities. In the case of Pakistan, it has been a subject of numerous hostilities and conflicts since 1947 from its neighboring countries as well as other countries around the globe. Unfriendly relationships with India, an unstable Afghanistan, a competing Russia now then the Soviet Union on the verge of collapse, and an irredentist Israel instigated an immediate need to strengthen the country's defences (Shaikh, 2002).

Pakistan and India have fought three major wars within South Asia (Can be classified as mini-wars and proxy wars). Instances of cross-border terrorism have also occurred (e.g., the 2001 Indian Parliament attack, the 2008 Mumbai attack, and interference of India in Baluchistan). Both countries share the same border, further complicating crisis management since ballistic flight times are measured in minutes. Both countries claim to maintain only a credible minimum nuclear deterrent, a highly subjective notion. Even during peacetime, the nations are on a confrontation course in diplomatic circles and engaging in proxy wars in each other's countries and elsewhere in the world.

Also, Afghan soil was used at the disadvantage of Pakistan in the past. Soviet Union's misadventure in the area severely affected Pakistan's interests. The strong diplomatic relationship between India and the USSR developed as a threat to Pakistan's national interests. Hence, a confrontation in Afghanistan occurred between the two countries, increasing regional tensions. The invention of nuclear weapons was necessary for Pakistan to curb the security dilemma and counter its rival—i.e., India's conventional superiority. Pakistan is part of global efforts to curb nuclear terrorism and ensure nuclear safety.

Following the development of nuclear armament by Pakistan, the country has faced various issues and setbacks. Nevertheless, it is noteworthy that the state has exhibited resolute fortitude and resiliency in its endeavor to effectively regulate, govern, and offset the ramifications of these adversities. Pakistan has been on the frontline in almost every global effort to safeguard against nuclear terrorism or

accidents. Pakistan has successfully protected its nuclear program, i.e., stockpile, facilities, and information at par with international standards.

Hypothesis and Methodology

The hypothesis considered in this study emphasizes the notion that Pakistan's status as a responsible nuclear state provides credible deterrence against external threats ensuring territorial integrity crucial for guarding its national security. Pakistan's nuclear strategy has established a balance of power among its two nuclear counterparts in South Asia, which is pivotal in establishing regional stability. On a global scale, adherence to non-proliferation principles elevates Pakistan's diplomatic involvement in matters concerning nuclear disarmament. This, subsequently, has the potential to facilitate the establishment of robust international cooperation mechanisms.

This study seeks to generate meaningful insights supported by gathered data from diverse primary and tertiary sources through a qualitative and analytical approach. These sources include official websites and documents, research publications, peer-reviewed papers, and news articles. The obtained dataset is then subjected to content analysis enabling the exploration of factors fostering global skepticism alongside an assessment of Pakistan's initiatives toward nuclear safety assurance.

Factors Responsible for Skepticism

Myriad factors have deliberately and accidentally created doubts and fueled global apprehensions regarding Pakistan's nuclear program's safety and security. Pakistan occupies a strategically significant geographical location on the global map, which has yielded both advantageous and detrimental outcomes for the nation. On the West of Pakistan is Iran, which has strained relations with the waning superpower USA, a nuclear-capable state. Afghanistan is northwest of Pakistan, a land of instability, chaos, and insurgencies. Afghanistan has been the breeding and sheltering ground for terrorists for the past few decades. Pakistan's geographical proximity to Afghanistan has also been a cause of concern because of the evidence of the presence of active non-state actors (NSAs) in the region. To the northeast is China, a rising power and a competitor of the superpower USA. To the east, Pakistan shares a border with India, its arch-rival with which it fought major wars in 1948, 1965, and 1971. Both states have been through various conflicts and strained relations. Kashmir has been the prime reason for a constant altercation between India and Pakistan.

The attack on the Twin Towers on 11th November 2001 put Pakistan in a challenging situation. President Bush categorically gave Pakistan two options 'Either you are with us or against us.' However, none of the perpetrators were from Pakistan. Pakistan was put in a spot to make quick decisions at the behest of its future relations with the superpower. The incident caused the USA to start the 'Global War on Terror,' in which Pakistan has been the most significant ally of the USA. Instead of bringing stability, the war on terror gave rise to perpetual instability in the region. A war that bred more and more non-state actors instead of limiting them. It also added to the fear of the global community regarding the unimaginable actions of non-state actors. The reservations of the international community of such powerful weapons getting into the hands of rogue actors with hate towards the West heightened their skepticism towards Nuclear Pakistan. Such apprehensions of the global community were further solidified by the statements of internationally recognized terrorists such as Osama bin Laden (OBL). In December 1998, Osama bin Laden communicated the plan, willingness, and resolve of Al-Qaeda in an interview with the senior journalist Hamid Mir as:

"Acquiring weapons [of mass destruction] for the defense of Muslims is a religious duty" (Yousufzai, 1999, n.d.),

Figure 1. Map of Pakistan (World Atlas, 2021)

In an interview with Dawn in November 2001, Osama bin Laden warned the USA of nuclear deterrence in case of using chemical or nuclear weapons against them. He said, "[…] We may retort with chemical or nuclear weapons. We have the weapons as a deterrent." (Mir, 2001) The interview gave a significant reason to the international community to doubt nuclear Pakistan. The global cynicism was furthered by the Western media's constant prejudiced portrayal of Pakistan. The Western and Indian media constantly represent Pakistan as a 'dangerous state' even though Pakistan has been the major ally of the US and NATO against the War on Terror.

In an op-ed for the Washington Post, Columnist Josh Rogin admitted that the mention of Pakistan in the US media on the Afghanistan crisis has been to the extent that "[…] it is mostly indicted for its alleged support of the Taliban over the years." (Hussain, 2021, para 6) In an article titled *What's Next for Pakistan? Terror, Nukes and an Uncertain Future*, Pakistan is characterized as an economically disadvantaged yet possessing nuclear capabilities (Follath et al., 2007). The nation is portrayed as a staunch ally of the United States while concurrently serving as a fertile environment for the proliferation of Islamic violence. This duality presents Pakistan as a locale associated with both the administration of President George W. Bush and the presence

of Osama bin Laden. Such statements without concrete evidence played a crucial role in deteriorating the global image of Pakistan.

Pakistan hasn't only served as a crucial ally to the USA in the global war on terror and the UN Peacekeeping missions. In the article *Peace Characterization of Pakistan: Corroboration from Pakistan's UN Peacekeeping Missions*, the authors dilate that "Pakistan's peace characterization remains obscure in the eyes of the world due to lopsided projection" (Shafi & Hashmi, 2020, p. 1). Pakistan has garnered recognition on several occasions for its dedicated contributions to global peacekeeping endeavors, as acknowledged by notable figures such as UN Secretary-General Ban Ki-Moon (Anka, 2016), Major General Thomas M. Montgomery (Berdal, 1994), the former Deputy Commander of the UN Forces in Somalia, Lakhdar Brahimi (Krishnasamy, 2001), an esteemed Algerian UN diplomat, Zhou Enlai (Garver, 1996), the inaugural Premier of China, and Former UN Transitional Administrator Paul Klein (Krishnasamy, 2002), among other notable individuals.

Pakistan contributed over 25,000 troops to more than 15 UN peacekeeping missions worldwide (Shafi & Hashmi, 2020). UN Secretary-General Ban Ki-Moon applauded Pakistan's role in UN Peacekeeping in the following words ("UN chief hails Pakistan's leading role in peacekeeping operations," 2013):

> "More than 100 countries contribute troops and police for UN peacekeeping missions. Pakistan is Number 1. It is impossible to speak about the history of UN peacekeeping without highlighting the country's contribution."

The affirmation made by Ban Ki-moon underscores Pakistan's role as a responsible nation committed to fostering global harmony and stability. The nation's unwavering dedication to upholding peace within its neighboring countries stands as a commendable and noteworthy contribution to the international community. Trans-state terrorism and support to non-state entities by hostile international actors are also reasons for instability and terrorist activities in the country. Terrorist attacks on sensitive sites such as the General Headquarters of the Pakistan Army in Rawalpindi, Pakistan Aeronautical Complex Kamra, and Pakistan Naval Station (PNS) Mehran further aggravated global skepticism. Political instability is also one of the primary reasons that create room for the state's exploitation, making it vulnerable to hostile factors from within and without.

Another essential contribution to the process has been made by insensitive and under-researched statements by people in key positions. The statements disseminated through various media platforms, whether in the form of broadcasts or publications, hold significant credibility and wield influence over a global audience. Regrettably, some prominent international leaders have propagated opinions that exhibit inadequate research and bias, resulting in a portrayal of Pakistan that neglects the nation's persistent endeavors to combat terrorism and champion worldwide tranquility.

An illustrative instance is a remark by former US Secretary of Defense James N. Mattis, who characterized Pakistan as "the most dangerous country in the world" (Ioanes, 2019, para 2). In his book *Call Sign Chaos: Learning to Lead*, Mattis and West (2019, para 6) also expressed apprehension regarding the potential scenario of "the fastest-growing arsenal in the world falling into the hands of terrorist breeding in the midst".

Although emanating from prominent figures, these statements exhibit a narrow viewpoint that overlooks Pakistan's steadfast determination to counter

terrorism and its sincere dedication to fostering worldwide harmony. Notably, even President Trump, recognized for his acerbic disposition and propensity to exacerbate situations to the verge of rupture, took to Twitter in 2018 to express the following sentiment:

> "The United States has foolishly given Pakistan more than 33 billion dollars in aid over the last 15 years, and they have given us nothing but lies & deceit, thinking of our leaders as fools. They give a safe haven to the terrorists we hunt in Afghanistan with little help. No more! (Riedel, 2018, para 6)

The assertions made by the incumbent president were devoid of merit, as Pakistan had served as a pivotal ally by providing its bases to the United States for Afghanistan operations. It not only facilitated training for troops but also stood resolutely on the frontline throughout the entire duration of the conflict. Despite these substantial contributions, Pakistan continues to grapple with the enduring aftermath of its alliance with the USA during that period. This spans hosting a significant number of refugees to witnessing a decline in socio-economic indicators—both of which have emerged as significant consequences of the War on Terror. Moreover, the aggregate toll, encompassing both monetary and non-monetary losses, surpassed the compensation offered by the United States.

In response to President Trump's tweet, the former Prime Minister of Pakistan, Imran Khan, articulated a compelling perspective. He highlighted the following key points: (i) Pakistan was not implicated in the events of 9/11; nonetheless, it made a conscientious decision to engage in the US-led War on Terror actively, (ii) Pakistan bore a significant toll of 75,000 casualties as a result of its participation in the conflict, accompanied by a staggering economic loss exceeding $123 billion. In contrast, the assistance provided by the United States amounted to a mere $20 billion, (iii) Pakistan continued to extend vital support by granting unhindered access to ground and air communications, as manifested in the provision of Ground Lines of Communications (GLOCs) and Air Lines of Communications (ALOCs), (iv) Imran Khan posed a pointed question, asking whether President Trump could identify another ally that had demonstrated comparable sacrifices. This comprehensive response underscores the depth of Pakistan's contributions and sacrifices, casting a critical light on the disparities between the resources allocated and the sacrifices endured (Sajid, 2018).

Former Prime Minister Khan further demanded the USA to do a 'serious assessment' (Sajid, 2018) instead of making Pakistan a sacrificial victim for its fiascoes that are despite spending $1 trillion on the war in Afghanistan, with 140000 NATO troops plus 250000 Afghan troops on the ground the USA left the Taliban stronger than before.

On 14th October 2022, President Joe Biden addressed the Democratic Congressional Campaign Committee Reception and remarked that Pakistan "may be one of the most dangerous nations in the world: Pakistan. Nuclear weapons without any cohesion" (House, 2022, para 24). This statement was met with discontent in Pakistan, where a secure and meticulously safeguarded nuclear program is in place. Eminent figures in key government positions responded robustly to President Biden's comment.

Prime Minister Shehbaz Sharif contested President Biden's assertion, labeling it as "factually incorrect and misleading". He affirmed that Pakistan maintains a technically proficient and impervious command and control system for its nuclear program, ensuring its safety and reliability (Siddiqui, 2022, para 4).

Foreign Minister Bilawal Bhutto Zardari reiterated Pakistan's status as a responsible nuclear state, asserting its compliance with the stipulations outlined by the International Atomic Energy Agency (IAEA) and the non-proliferation regime. He attributed the misunderstandings to a lack of engagement and alluded to biases within the United States, citing India's recent accidental missile launch into Pakistani territory as indicative of nuclear safety concerns (Siddiqui, 2022).

Maleeha Lodhi characterized President Biden's comment as "completely unwarranted and unjustified," highlighting his purported lack of insight into the safety and security measures pertaining to Pakistan's nuclear arsenal (Dawn, 2022, para. 28). Her condemnation emphasized the need for a more informed perspective on the matter. He was also condemned by other notables such as Nawaz Sharif, Shireen Mazari, Imran Khan, Asad Umar, and several others for his reckless comments. Former Prime Minister Nawaz Sharif assured through a tweet that Pakistan's nuclear programme is in no way a 'threat to any country'. He added that Pakistan, a sovereign and independent state, "reserves the right to protect its autonomy, sovereign statehood, and territorial integrity." (Dawn, 2022, para. 14)

PTI Chief Imran Khan commended Pakistan's Nuclear command & control systems for being "one of the most secure ones" (Dawn, 2022, para. 16) in the world. He asked if they [the US] remember Pakistan showing undue aggression post-nuclearization, whereas the US has been involved in wars worldwide.

Former Human rights minister Shireen Mazari also condemned the statement by the US President. She further labelled the US as an "irresponsible superpower with nukes", reminding it of the human rights violations in Guantanamo, Abu Ghraib, and Bagram. She also cued at the mass killings due to loose licensing laws. Shireen Mazari also reminded the US of its irresponsible behavior in the past, saying: "[The] nuclear US is a threat to the world because you have no control over your nukes. B52 bomber took off with six live nukes in 2007, and no one knows for hours" (Dawn, 2022, para.20).

Pakistan is a region vulnerable to natural disasters. According to a UN estimate, Pakistan contributes less than one percent of global greenhouse gas emissions and is yet 8th on the list of countries most vulnerable to severe weather caused by climate change (APP, 2022). When the last two decades of the region are analyzed, major damages are done by earthquakes, floods, changing rainfall patterns, famines, and crop destruction due to climate change, leading to further socio-economic and socio-political issues.

Internal critics, often categorized as nuclear pessimists, have expressed apprehensions within Pakistan regarding potential calamities from natural disasters affecting nuclear power plants. One such voice is Dr. Pervez Hoodbhoy, a notable Pakistani nuclear physicist, who voiced his reservations during a seminar titled *Impacts of Nuclear Power Projects K-II and K-III along the Coastal Areas*. Dr. Hoodbhoy's skepticism regarding the projects centered on the potential vulnerability of nuclear reactors to operator errors or acts of terrorism, which could result in catastrophic repercussions (Khurshid & Khattak, 2014).

Dr. Hoodbhoy underscored the gravity of the situation, highlighting the potentially dire consequences for numerous lives in case of any mishap. In response to these concerns, the Project Director for K-II and K-III addressed the questions raised during the seminar. He emphasized that the project's development spanned six years, involving exhaustive studies and surveys (Khurshid & Khattak, 2014).

The feasibility report for the projects was cited as a testament to their safety and security, further reinforcing the contention that meticulous planning and comprehensive assessments were integral components of the endeavor. This exchange of viewpoints highlights the multifaceted considerations surrounding nuclear power projects and underscores the significance of thorough evaluation and transparent discourse.

The questions raised are rooted in the historical evidence of such mishaps happening in the past, causing short and long-term grave issues. The misadventures caused loss of human life, damaged infrastructure, and also caused environmental pollution, giving rise to lethal diseases such as cancer. The top five nuclear accidents rated by the History Channel have happened in Britain, Japan, Russia, and the USA (Cohen, 2011), causing loss of life and creating long-term problems. The prominent amongst them is the Chernobyl accident in 1986, where one small human error led to a chain of blasts that claimed the lives of thousands of people; thousands of others suffered severe burns and radiation poisoning and contamination of millions of acres of farms and forests. The radiation that escaped was reportedly several times that of bombs dropped on Hiroshima and Nagasaki (Cohen, 2011). But none of those countries, despite having shown carelessness in handling nuclear operations, have been demanded to shut down their nuclear programs. All of them are running their programs successfully for deterrence, countering security dilemmas, and retaining the balance of power.

The global community has harbored significant concerns, with a central focus on the Abdul Qadeer Khan incident. Dr. Abdul Qadeer Khan was implicated in allegedly transferring nuclear technology to Libya, North Korea, and Iran, a matter that drew substantial international scrutiny. Notably, these transfers purportedly occurred without the awareness of the respective state's civilian or military leadership. During this period, officials within the Pakistani government, including then-President Pervez Musharraf, maintained that Khan's actions were carried out independently, without any endorsement or support from the Pakistani state (Dalton & Krepon, 2015). This stance emphasized that Khan's efforts were not conducted under the auspices of official state policy. The incident surrounding Dr. Khan highlights the intricate dynamics between individual actors and the state, underscoring the complexity of nuclear proliferation issues within the global context.

In the assessment presented by Dalton and Krepon (2015), the Khan episode is a pivotal factor contributing to a discernible discriminatory stance adopted by the international community. This disposition manifests in the Nuclear Suppliers Group (NSG) waiver granted to India and its integration into the global nuclear commerce network. The authors contend that Pakistan's historical record concerning nuclear proliferation, as exemplified by the activities of Dr Khan, has engendered an atmosphere of skepticism and wariness among states on matters of nuclear security. Dalton and Krepon underscore that Pakistan's past actions, unveiled through the dealings involving Dr Khan, complicate the prospects for extending equitable treatment to Pakistan akin to that bestowed upon India. This perspective reflects how historical incidents can significantly shape perceptions and impact diplomatic considerations within the international arena. (p. 14).

Mark Fitzpatrick wrote a book *Overcoming Pakistan's Nuclear Dangers*, saying, "Ten years after Khan's network was shut down, it is fair to ask how long Pakistan must pay the price for that failure" (Fitzpatrick, 2014, p. 161). Moreover, similar unfortunate incidents have also happened (Information on Nuclear Smuggling

Incidents, 2002) with Russia, Germany, France, the USA, India, and several others where the government was kept in the dark, and the material or technology, or information was being smuggled to other states for money or alliance. The latest incident by India occurred in 2021 in Jharkhand, where seven smugglers were arrested for smuggling 6.4kgs of Uranium. This was the second time in less than a month that authorities had captured a large quantity of radioactive material from unauthorized persons. (Akmal, 2021) This event occurred after India was bestowed with a discriminatory NSG waiver in 2008, a clear violation of *Article VI* (United Nations, 2015) of the NPT, which advocates for disarmament. It also violates NSG guidelines such that no state can be a part of it until and unless it is a part of NPT or NWFZ or IAEA safeguards.

Nuclear Safety and Security Measures by Pakistan

The invention of the bomb was a necessity for Pakistan because of its position on the map, the political dynamics, relations with the neighbouring countries, the socio-political conditions of the region, and the invention of the bomb by India. The resolve of Pakistan to counter the security dilemma, maximize its power for survival and retain the balance of power to secure its state sovereignty was inevitably and rightfully intense. Mr. Zulfiqar Ali Bhutto, former Prime Minister, Minister of Energy in 1965, strictly adhered to the policy of nuclear deterrence, and he was the chief advocator of Pakistan's nuclear programme. He said:

> If India builds the bomb, we will eat grass and leaves for a thousand years, even go hungry, but we will get one of our own. The Christians have the bomb, the Jews have the bomb and now the Hindus have the bomb. Why not the Muslims too have the bomb? (Burns & III, 2015, p. 15)

Since the invention of the bomb, Pakistan has taken all the measures and fulfilled every guideline by the international watchdogs to protect its stockpiles and program. Defence Minister Khwaja Asif's statement is proof of it. He said Pakistan has fulfilled all global standards with total commitment, "including those of IAEA (International Atomic Energy Agency) on non-proliferation, safety, and security." He further added, "We have also historically provided military assistance to the very armed forces whose commander in chief erroneously questions our 'cohesion'." (Siddiqui, 2022, Press Release section, para. 12) He made the statement via a tweet after President Biden's tweet expressing concern and suspicion regarding Pakistan being a safe nuclear state.

The state has followed all the national and international obligations in deploying nuclear security systems, and Pakistan has a multi-layered defense system. The state has adopted a 5D approach to respond to and mitigate these threats: 5Ds deter, detect, delay, defend, and destroy (Ministry of Foreign Affairs Government of Pakistan, 2021). The approach is used for physical protection, trafficking, export, import, transport, operations, assembling, and stockpiling according to the need to avoid and manage any accident and mishandling.

Figure 2. 5-D Defence System

Pakistan has established independent regulatory bodies with legal authority to certify assigned responsibility of nuclear security. These include National Command Authority (NCA), Pakistan Atomic Energy Commission (PAEC), Pakistan Nuclear Regulatory Authority (PNRA), and Strategic Export Control Regime (SECDIV). All these work in tandem to ensure the safety and security of the nuclear program. They are responsible for issuing licenses, inspecting facilities, monitoring the proper regulation of all the guidelines, nuclear and radiation safety, and protecting all installations.

The National Command Authority (NCA) is the apex civilian-led command that oversees, commands and controls Pakistan's nuclear arsenals. NCA is responsible for employment, exercises, deployment, research & development, policy formulation, arms control, disarmament, and operation of the state's nuclear arsenal. It oversees the operations of the military, air force, and navy. The unified military command aims to give the Prime Minister and cabinet of Pakistan a credible and unified source of information based on mutual understanding and agreement about traditional and non-traditional threats to find the most viable solution. It also helps them do the cost-benefit analysis of the threats and the strategies to mitigate them to minimize the losses as much as possible.

The Chairman of this command is the civilian-led Prime Minister. Chairman Joint Chiefs of staff committee, Service Chiefs, and DG ISI are the members of NCA, and DG SPD is the ex officio secretary of NCA, with Strategic Plans Division functioning as the National Command Authorities secretariat. They report directly to the Chairman. The NCA has a three-tiered structure with two committees. The Development Control Committee (DCC) and Employment Control Committee (ECC) make the first tier, and the Strategic Plans Division (SPD) makes the second tier.

The third tier is comprised of three services' strategic force commands. All three tiers work in tandem to detect, deter, delay, defend, and destroy any threat to nuclear material and facilities. The Strategic Plans Division is responsible for the routine management of the strategic assets of Pakistan, supervision of the budgetary and administrative aspects, and coordination amongst all these organizations. The prime duty of the SPD is to dissipate and execute technical training(s) and exercise administrative control over the delivery system. However, operational control of the

weapons falls under the authority of the NCA. The state has also established an effective organization National Nuclear Detection Architecture (NNDA) to keep a check on all the imports and exports to regulate them in an authorized manner. It also aims to curb illicit/unlawful/illegitimate trafficking of nuclear and other radioactive material. Furthermore, the Security Division is one of the most important components of the NCA. It comprises trained personnel and multilayered electronic systems of defense systems complemented with electronic sensors and counterintelligence teams to ensure the physical protection of all sensitive nuclear sites.

PNRA not only ensures the safety of nuclear material and stockpile, physical protection, protection from harmful radiations, and their transport but also ensures the regulation of safe disposal of nuclear waste. The organizations also actively cooperate and communicate with international institutions to improve their regulatory functions and enhance human resource competence. They also hold workshops and training to keep the personnel and staff aware and updated on the information and systems regarding operation and safety according to international guidelines.

Pakistan is also a party to the Convention on Nuclear Safety (CNS), which provides the state parties to the Convention with safety rules and guidelines regarding nuclear power plants. CNS is a treaty of the International Atomic Energy Agency. Pakistan is also a party to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. The state has also set us Nuclear Emergency Management System (NEMS) to handle issues needing immediate attention. Technical expertise is provided by Pakistan Atomic Energy Commission (PAEC) and Pakistan Nuclear Regulatory Authority (PNRA) for the purpose. NEMS has various components which enable it to deter, detect, prevent, and combat any attempt at illicit trafficking of nuclear material. It has appropriate systems to curb any accident. They include Radiological Assistance Groups, Hazard Assessment and Advisory Teams, Aerial Survey and Surveillance Teams, and Radiation Medical Assessment Teams to help identify and address any chance of an accident at the earliest to save from any major accident from happening. National Disaster Management Authority (NDMA) provides administrative services for the purpose. The state successfully safeguards all the conditions necessary for the safety and security of nuclear facilities, stockpiles, and information.

Strategic Export Control Division was established in 2007 to formulate and administer export controls to ensure no illicit trafficking of nuclear material domestically or internationally. It also has an Oversight Board to oversee a thorough implementation of the Strategic Export Control Act 2004. According to the Nuclear Suppliers Group, Australia Group, and Missile Technology Control Regime, this division is responsible for monitoring the National Control Lists and their period review and ensuring their consistency with international standards.

Pakistan is a party to the Convention on Physical Protection of Nuclear Material (CPPNM). It has also ratified the amended CPPNM. The Convention lays out obligations for the protection, prevention, and punishment of offenses committed with regard to nuclear materials and facilities. The Convention covers obligations concerning nuclear material for civilian purposes. The original CPPNM laid the obligation of protecting nuclear material in the international setting as a responsibility of states, whereas the amended CPPNM extended it to the domestic arena. Pakistan, being a party to CPPNM, fully ensures the protection and security of nuclear materials and facilities. However, it hasn't ratified the amended CPPNM owing to its reservations

regarding its regulation even in the domestic arena and involvement of ICJ in the dispute settlement as laid out in paragraph 2 of Article 17 of the Amended CPPNM.

The amendment of CPPNM has been devised in a way to add value to the other organs in the anti-nuclear terrorism network, such as Proliferation Security Initiative (PSI), the Global Initiative to Combat Nuclear Terrorism (GICNT), and IAEA Incident and Trafficking Database (ITDB).

Pakistan also supports the full implementation of United Nations Security Council Resolution 1540. UNSCR 1540 obligates all parties to enact legislation to prevent the proliferation of nuclear weapons and their means of delivery. It also compels the parties to safeguard IAEA guidelines, nuclear material security guidelines, and activities. The resolution mainly addresses the issue of non-state actors, which was left unaddressed in the Nuclear Non-proliferation Treaty. Furthermore, Pakistan has, as a responsible state, submitted numerous reports to the UN Committee, which monitors the implementation of Resolution 1540.

Conclusion

It has been confirmed and reiterated by Pakistani government officials and international officials on various occasions that Pakistan has successfully fulfilled the necessary obligations regarding the safety and security of the nuclear stockpile, facilities, and information. US Department of Defense Official Lawrence J. Korb penned an article after he visited Pakistan in 2009, explaining how the world is cynical about its nuclear program of Pakistan. Then he expressed his satisfaction, arguing that "given the strategic location of Pakistan and the fact that it has nuclear weapons, it's easy to see why some might embrace a worst-case scenario. But based on my visit, I don't buy it at this time." (Salik & Luongo, 2013, Security Steps by Pakistan section, para. 6).

Pakistan is also implementing Nuclear Security Action Plan in collaboration with the IAEA. Moreover, Pakistan has established state-of-the-art training institutions for national capacity building and even assisting IAEA. Pakistan is among the states which join the Nuclear Security Summit, which works to ensure the protection of nuclear material. It is among the few who present reviews and reports to The International Atomic Energy Agency, fulfilling international obligations. These measures taken have boosted the confidence of the international community.

Gen. David Petraeus, the CENTCOM commander, Admiral Michael Mullen, the Joint Chiefs of Staff Chairman, and President Obama supported and reinstated Lawrence J. Korb's statement. In his interview with Newsweek, Obama said: "We have confidence that Pakistan's nuclear arsenal is safe; that the Pakistani military is equipped to prevent extremists from taking over those arsenals." (Korb, 2009, Pakistan's Nuclear Weapon section, para. 9).

The national and international safeguards ensured by Pakistan make it eligible to be treated as a responsible state. As Mark Fitzpatrick also reinstated in his book Overcoming Pakistan's Nuclear Dangers, "Pakistan should be treated as a normal nuclear country" (Fitzpatrick, 2014, p. 161); featuring China, Pakistan, and Iran is not only imperative but also viable.

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