

Post 9/11 Pak-U.S. Engagement on Nuclear Weapons Security: Perceptions and Responses



A dissertation submitted in partial fulfilment of the requirement for the

degree of

MASTER OF PHILOSOPHY

in

International Relations

by

Abdul Ghafoor

Registration No: 02131311031

School of Politics and International Relations

Quaid-i- Azam University

2016

SUPERVISOR'S APPROVAL

I hereby declare that the Master of Philosophy (M. Phil) candidate Abdul Ghafoor has completed his thesis titled **“Post 9/11 Pak-U.S. engagement on nuclear weapons security: Perception and Responses”** under my supervision. I recommend it for the degree of Master of Philosophy in International Relations.

Dated: _____

Signature of Supervisor

(Dr. Ahmed Ijaz Malik)

DECLARATION

I, Abdul Ghafoor, Roll No 02131311031, Student of M. Phil 6th semester in the Subject of International Relations, hereby solemnly declare that the matter printed in the Dissertation titled '**Post 9/11 Pak-U.S. Engagement on Nuclear Weapons Security: Perceptions and Responses**' is my own research work and it has not been submitted, published or printed as a research work, dissertation, and publication in any form in any university or research institute or any other place etc. in Pakistan or abroad.

Dated:

Abdul Ghafoor

ABSTRACT

The main objective of this research study is to discover and analyse the main images on which the United States (U.S.) perceptions are based on its post 9/11 engagement with Pakistan on the nuclear weapons security. This study further analyses the perceptions and responses of Pakistan regarding the security of its nuclear weapons in the post 9/11 era. This research study argues that there are three main images that shape the U.S. perceptions in the post 9/11 era about the security of nuclear weapons in Pakistan. In this connection, the first image is the insider threat to the security of Pakistan nuclear weapons. The next image is the induction of Tactical Nuclear Weapons to the strategic forces of Pakistan which increase the chances of theft or its unauthorized use in the time of conflict. In addition to these two images, the third image is the vertical nuclear weapons proliferation in Pakistan that requires more reliable personal. The results of this research work further reveal that Pakistan's current behaviour is the outcome of the changes in the regional power structure which is disturbed by the Indo-US nuclear deal and the adventurous doctrines of India. Pakistan, similar to other rational states, wants to maintain nuclear deterrence with India and therefore, in order to maintain that nuclear deterrence, it is also very important for Pakistan to keep its nuclear weapons while addressing the arguments of the insider threats to nuclear devices and fissile materials in Pakistan. This research also analyzes the behaviour and perceptions of U.S. and Pakistan through the theoretical framework of neo-realism. The neo-realist theoretical tradition argues that the behaviour of states in the international system is driven by the power structure of the international system. Engaging with the propositions of the neo-realists, this study reveals that the behaviour of U.S. and Pakistan in the post 9/11 era is guided by neo-realism aimed to neutralize any threat that has the potential to undermine their interests at international or regional power structure system.

ABBREVIATIONS

| | |
|--------|---|
| AEC | Atomic Energy Council |
| C3I | Command, Control, Communication, and Intelligence |
| CANDU | Canada Deuterium-Uranium |
| CENTO | Central Treaty Organization |
| CFR | Council on Foreign Relations |
| CTBT | Comprehensive Test Ban Treaty |
| FATA | Federally Administered Tribal Area |
| FMCT | Fissile Material Cut-off Treaty |
| HEU | highly enriched uranium |
| IAEA | International Atomic Energy Agency |
| IBGs | Integrated Battle Groups |
| IS | Islamic State |
| KANUPP | Karachi Nuclear Power Plant |
| KRL | Khan Research Laboratories |
| LEU | Low-Enriched Uranium |
| LSG | London Suppliers Group |
| MTCR | Missile Technology Control Regime |
| NCA | National Command Authority |
| NNWS | Non-Nuclear Weapons States |
| NPT | Nuclear Non-proliferation Treaty |
| NSG | Nuclear Suppliers Group |
| NSS | Nuclear Security Summit |
| NTI | Nuclear Threat Initiative |
| PALs | Permissive Access Links |

| | |
|----------|--|
| PAEC | Pakistan Atomic Energy Commission |
| PNRA | Pakistan Nuclear Regulatory Authority |
| PARR | Pakistan Atomic Research Reactor |
| PIEAS | Pakistan Institute of Engineering and Applied Sciences |
| PINSTECH | Pakistan Institute of Nuclear Science and Technology |
| PRP | Personnel Reliability Program |
| R&D | Research and Development |
| SEATO | South East Asia Treaty Organization |
| SPD | Strategic Plans Division |
| SRR | Strategic Restraint Regime |
| TNW | Tactical Nuclear Weapons |
| UK | United Kingdom |
| US | United States |

ACKNOWLEDGEMENT

The only one worthy of all praise is Allah, the omnipotent, the Omniscient, and the omnipresent who endowed me enough strength and courage to complete this research study.

I am highly thankful to my respected supervisor, Dr. Ahmed Ijaz Malik for his benevolent supervision, principled mentorship, and kind attitude toward me in the completion of the thesis. His dedication, sincerity, and professional attitude have been the key that has infused in me the thirst for research in the academic field. His professionalism will always be a source of guidance for me in future. I am highly indebted for his attention and dedication during the research.

I also express my deep respect and gratitude to the faculty members of the School of Politics and International relations, Quaid-i-Azam University who had been wonderful and kind-hearted mentors. Their professionalism and knowledge had been my guide throughout my course. I am also grateful to my parents and family members who had been great sources of strength and courage for me. Their support and blessing have remained my only source of power in times of despair that had steered me out of every hardship and difficulty. I am also thankful to Dr. Fida Bazai and Dr. Zafar Khan for their worthy guidance and support. I am also thankful to the support of my friends Mr. Idrees Kakar, Yousuf Kakar, Farman Kakar, Basharat Hussain, Kanwal Batool, Aamir Bashir, Dr. Fawad Khattak, Dr. Zahidullah, Murad Kasi, Mohib Kakar, Mohammad Ikram Kakar, Najeeb Kakar, Shandana Achakzai and Noorullah Qureshi. They have been always a great source of help and courage to me. They always pushed me hard to complete my research work. I am also thankful to Dr. Zafar Khan for providing me an easy access to the library of National Defence University. I am also very grateful to the library staff of SPIR, DSS, NIPS and American Study Centre, QAU.

Table of Contents

| | |
|---|-----------|
| ABSTRACT..... | iv |
| INTRODUCTION | 1 |
| Statement of the Problem | 10 |
| Literature Review | 12 |
| Research Questions | 17 |
| Hypothesis of the study | 18 |
| Research Methodology..... | 19 |
| Organization of the research | 19 |
| Chapter 1 | |
| THEORETICAL FRAMEWORK..... | 22 |
| 1.1. The purpose of using Neo-Realism as a theoretical framework | 22 |
| 1.2. The main assumptions of Neo-realism..... | 24 |
| 1.3. Structure of international system and anarchy | 25 |
| 1.4. Security Dilemma in the international system | 25 |
| 1.5. Neo-realism, U.S. and Pakistan’s perceptions and responses | 26 |
| 1.6. A brief history of Pakistan nuclear program and U.S.’s perceptions | 28 |
| 1.6.1. First Phase 1954 to 1974..... | 29 |
| 1.6.2. Second Phase from 1974 to 1998..... | 31 |
| Chapter 2 | |
| IMAGES AND PERCEPTIONS OF U.S. | 37 |
| 2.1. The Image of insider threats to Pakistan nuclear weapons | 38 |
| 2.2. The image of vertical nuclear proliferation in Pakistan and U.S.’s perceptions | 46 |
| 2.3. The Image of TNWs and U.S.’s perceptions | 49 |

Chapter 3

| | |
|--|-----------|
| POST 9/11 PAK-US ENGAGEMENT ON NUCLEAR WEAPONS SECURITY: PAKISTAN'S PERSPECTIVE | 53 |
| 3.1. Pakistan perspective on Vertical Nuclear Proliferation..... | 56 |
| 3.2. Pakistan's Perspectives on the image of TNWs | 59 |
| 3.3. Pakistan's Perspective on the Insider Threat | 63 |

Chapter 4

| | |
|--|-----------|
| POST 9/11 PAKISTAN-U.S. ENGAGEMENT ON NUCLEAR WEAPONS SECURITY AND SAFETY: AN ANALYSIS | 67 |
| 4.1. Comparative analysis of Pak-US perceptions and response about nuclear weapons security in the post 9/11 scenario | 68 |
| BIBLIOGRAPHY | 84 |

INTRODUCTION

After independence in 1947, the founding father of Pakistan Quaid-i-Azam Mohammad Ali Jinnah wished to establish a friendly relationship with U.S. in this connection, Liaqat Ali Khan who was the Prime Minister of Pakistan, had visited U.S. in May 1950 for the purpose to establish friendly relations. Thereafter, throughout the Cold War years, Pakistan had remained a key member of various U.S. led security alliance such as Southeast Asia Treaty Organization (SEATO) and Central Treaty Organization (CENTO). Throughout the 1950s and 1960s, Pakistan had been an important and crucial geostrategic partner of U.S. However, when Pakistan opted the nuclear path after the Indian nuclear explosion in 1974, the bilateral relations of U.S. for Pakistan started to experience strains and thereafter, the nuclear factor increasingly remained the main irritant in their relations. U.S. has tried to persuade Pakistan to roll back its nuclear weapons program but it could not succeed because of the limited option available to it during the Cold War tussle in Central and South Asia.

The U.S. perceptions and the subsequent opposition in the 1970s regarding the nuclear program development by Pakistan were overwhelmingly shaped by the steady rise of Zulfikar Ali Bhutto who, through his charismatic personality and statesmanship, inculcated a new spirit of Pan-Islamism and Muslim Ummah Unity into the Islamic world. Furthermore, Bhutto appeared anti-America and more inclined towards Union of Soviet Socialist Republics (USSR). This was evident from his anti-American stance during elections. U.S. was irked by the steady rise of Bhutto to power and his leadership qualities that had given a new idea of 'Unity' to the Muslim world. The Organization of Islamic Countries (OIC) summit in Lahore and the rise of the Kashmir and Palestine question in the United Nations General Assembly furthered increased U.S. opposition against Zulfikar Ali Bhutto and his newly established nuclear program. U.S. Secretary of the State, Henry Kissinger had tried every tactic to

persuade Zulfikar Ali Bhutto to roll back the nuclear program but could not succeed. In addition to these, the oil embargo and the use of oil as weapons against West which the Bhutto had envisioned and practically applied was another factor that contributed to the U.S. opposition against Zulfikar Ali Bhutto and Pakistan's nuclear program.¹ However, despite fierce opposition from U.S. and international community, Pakistan was able to carry out its first nuclear weapons test on 28th May 1998, and the U.S. responded it by severe sanctions affecting the economy of the country dreadfully. In the aftermath of the post-nuclear test sanctions, the Pakistan's foreign reserves reduced to an all-time low level.

After 9/11 attacks, Pakistan joined the U.S. war on terror and since then, it has been at the forefront fighting a war against terror. U.S. removed the sanctions on Pakistan and a new era of cooperation started between the two states against terrorism and Al Qaeda in Afghanistan. Though both states were close allies fighting the war on terror, yet their engagement on nuclear weapons security remained an irritant in their relations since 9/11. The post 9/11 Pakistan and U.S. engagement on nuclear weapons security are characterized by persistent trust deficit, strains, and conflict. The continued suspicion between Pakistan and U.S. on the nuclear weapons had also increasingly influenced their engagement in the war on terror and still continues to do so. If the situation remains unresolved, it may impact the overall bilateral relations between U.S. and Pakistan in the future. Pakistan's ties with U.S. have great economic, strategic and political importance. So far Pakistan has received more than \$ 40 billion in economic aid from U.S. since 1950 U.S., remains an important market for the Pakistan's products that brings lucrative gains to Pakistan. Adding to these, Pakistan receives extensive military equipment and hardware from U.S. which has been very crucial for the Pakistan's defence and its fight against terrorism in the tribal areas. Furthermore, Pakistan

¹ *Prime Minister Zulfikar Ali Bhutto's Speeches and Statesments*, vol. ii (Islamabad Directorate General of Films and Publications, Ministry of information and broadcasting, government of Pakistan, 1976), 168-69.

and U.S. relationship gain more significance because of Pakistan's close strategic proximity with Afghanistan where U.S. has spent billions of dollars to fight Al Qaeda and where the U.S. still makes her presence. The recent rise of Islamic State in Afghanistan, even more, increases the importance of Pakistan and U.S. relations for the regional stability and peace.

In spite of the convergence of interests and common goals in the region, Pakistan and U.S. engagement on nuclear weapons security remains uneasy, mired by numerous controversies and strains. These strains and controversies are the product of misperceptions about the security imperatives and strategic compulsion of each other in their post 9/11 engagement on the nuclear weapons security. The nuclear weapons security in Pakistan is viewed by U.S. completely differently than that of the Pakistan's perspective on it. So resultantly, the difference in approach to see the nuclear weapons security have propped up doubts and trust deficits between Pakistan and U.S. the trust gap is widening with every passing day and it can lead to more strains and enmity which certainly both, U.S. and Pakistan cannot afford in a time where there is greater need for cooperation between them. Therefore, it is very important to understand the perceptions of U.S. and Pakistan about the nuclear weapons security in Pakistan for the purpose to understand the perceptions and security concerns of each other. In order to understand the perceptions, one needs to study the basic images on which these perceptions are based.

A large number of scholars have given different images about the nuclear weapons security in Pakistan which shape the perceptions of U.S. for instance, Daniel S. Markey, a senior fellow at Council on Foreign Relations (CFR), says that the images of earlier ugly proliferation record and the gradual institutional decay in Pakistan worries the U.S. predominantly.² Contrary to the arguments forwarded by Daniel Markey, Pakistan has now better nuclear

² Daniel S Markey, *No Exit from Pakistan: America's Tortured Relationship with Islamabad* (Cambridge University Press, 2013), 17-18.

security index that supersedes many countries, particularly India.³ Moreover, Christiane Fair, the author of *fighting to the end*, says in *'the unworthy ally'* that the image of the close nexus between Pakistan and Jihadi organization worries the U.S. and the growing ties between them can end up Pakistan's nuclear weapons in the hands of terrorists. In complete contrast to the argument presented by Fair⁴, Pakistan has launched a very decisive operation against the terrorist groups to eliminate them eternally and there is a plausible shift in Pakistan's behaviour regarding the use of non-state actors as foreign policy tools.

Adding to the above, Joseph Cirincione argues in *'Bomb Scare'* that the image of extremist groups and their potential to trounce the Pakistan's society is the major concern that constructs the current U.S. behaviour regarding the security and safety of Pakistan nuclear weapons.⁵ The presence of terrorist groups within the Pakistan cannot be denied, however, the argument of the terrorists' potential to overrun the society seems over exaggerated and over-simplified because of the fact that militant groups have minor support in the Pakistan's society. Furthermore, Graham Allison puts forward the claims in *'Nuclear Terrorism'* that the connections of Pakistan army with Taliban and Al Qaeda are the main concerns and the later may end up getting fissile materials which will be used against U.S or its allies in the world.⁶ Graham argument gets weaker when it comes to statics. After 9/11 it was Pakistan that had apprehended most of the high profile terrorists of Al Qaeda and its affiliates. Pakistan is

³ Talha Ahmed, "2014 Report: Pakistan 'Most Improved' in Nuclear Security," *Express Tribune* January 11, 2014. <http://tribune.com.pk/story/657377/2014-report-pakistan-most-improved-in-nuclear-security-beats-india/> accessed on 1-2-2015 also the EIU <http://ntiindex.org/wp-content/uploads/2014/01/2014-NTI-Index-Report.pdf> accessed on 1-2-2015

⁴ C. Christine Fair and Sumit Ganguly, "An Unworthy Ally: Time for Washington to Cut Pakistan Loose," *Foreign Affairs* 94, no. 5 (2015): 160-70 <https://www.foreignaffairs.com/articles/pakistan/2015-08-18/unworthy-ally> accessed on 11-9-2015

⁵ Joseph Cirincione, *Bomb Scare : The History and Future of Nuclear Weapons* (New York: Columbia University Press, 2007), 94.

⁶ Graham T. Allison, *Nuclear Terrorism : The Ultimate Preventable Catastrophe* (New York: Times Books, 2004), 68.

fighting a war against Taliban and its success is well appreciated by U.S. and its results are more evident in the form of declining terrorists' activities within Pakistan.

Moreover, Christopher Clary says that the threat of Pakistan's nuclear weapons is very much exaggerated in the U.S. but he does not answer the question that why the threat has been given such a hyperbolic tone and space in the U.S. media and nuclear security discourse? Furthermore, Clary doesn't explain Pakistan's perspective on its nuclear weapons security in the post 9/11 era.⁷ Adding to the arguments of Christopher, Marks Fitzpatrick in *Overcoming Pakistan's Nuclear Weapons Dangers* says that the nuclear weapons in Pakistan do not have threats from the terrorists and this image is overestimated in the western media. He further argues that the main images that shape the western, particularly U.S. perceptions about the security and safety of Pakistan nuclear weapons are the potential of terrorist groups in igniting a major conflict between Pakistan and India which may result in a nuclear exchange.⁸ The terrorist organizations have both presence and potential to enkindle war and conflict between Pakistan and India, but it is not the only image, rather one of the images that shape U.S. perceptions about the security and safety of Pakistan nuclear weapons security. Fitzpatrick does not explain Pakistan's perspective on its nuclear weapons.

A closer look at the arguments presented so far about the images that construct the U.S. perceptions about the security of Pakistan's nuclear weapons does not give us a complete and comprehensive picture that precisely explain the basis of the U.S. perceptions. Moreover, the continued concerns of U.S. about the nuclear security which is evident from the most recent

⁷ Christopher Clary, Studies Institute for Defence, and Analyses, *Thinking About Pakistan's Nuclear Security in Peacetime, Crisis, and War* (New Delhi: Institute for Defence Studies and Analyses, 2010), 6.

⁸ Mark Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers* (The International Institute for Strategic Studies, 2014), 64.

Congressional Report⁹ which makes it necessary even more to find out the main images that contribute to the making of the U.S. behaviour in the post 9/11 years.

This research study argues that there are three main images that form the perceptions of U.S. about the nuclear weapons security in Pakistan. These three images are the insider threat to nuclear weapons from those who manage and guard it, the vertical nuclear proliferation of the nuclear devices in Pakistan and finally the development and deployment of Tactical Nuclear Weapons (TNWs) to the nuclear forces of Pakistan. Further, this research study also elaborates the Pakistan's perspective on the security of its nuclear weapons. Pakistan claims that U.S. initiatives in the South Asia are the main factors responsible for disturbing the balance of power in the region which resultantly triggered the current behaviour of the Pakistan. Pakistan wants to keep deterrence with India at any cost and therefore, the vertical nuclear proliferation and TNWs are aimed to achieve that ends after the US-Indo nuclear deal and the adaptation of aggressive conventional doctrines by India. This research study analyses the images and behaviour of the U.S. and Pakistan about the security of Pakistan nuclear weapons through the framework of neo-realism in the post 9/11 era. The behaviour of both states is driven by the changes in the international and regional power system.

The first image that considerably frames the perceptions of U.S. about the nuclear weapons security in Pakistan is the insider threat to nuclear weapons. Insiders are the military personnel that guard and manage the nuclear weapons. Many factors contribute to the formation of the image of insider threat. The most highlighted factor is the persistent links of retired Pakistan's army officials with terrorist organizations and militant outfits in a country which evident from the Difa-e-Pakistan Council where two top ex-generals of the army have aligned their selves with religio-political parties aspiring to cut ties with U.S. and India.

⁹ Paul Kerr, Pakistan's Nuclear Weapons, *Congressional Research Service*, January 14, 2016. <https://www.fas.org/sgp/crs/nuke/RL34248.pdf> accessed on 15-1-2016

Secondly, the insider threat gets more possibility when it comes to the growing number of deviation of the lower rank officers from army to the militant organization. The deviation is evident from the statistics which show that almost all the major attacks carried out against the main security installation within the country, carry the blueprints of insider involvement in the attacks. Adding to these, the image of insider threat further receives thoughts from the plausible appeasement of some terrorist organizations that get material support from the Pakistani state. Lastly, the presence of Hizb-ut-Tahir organization in the ranks and files of Pakistan army that provides forces for the protection and management of the nuclear weapons make the image of insider threat more likely in the future.

The second image that shapes the perceptions of U.S to a large extent is the vertical nuclear proliferation in Pakistan. Many factors contribute to the formation of this image. More nuclear weapons require more sites and more men for its protection which is the main concern because of the growing level of radicalization and religious extremism within the country. In addition, more nuclear devices increase the chances of theft or diversion too from safe hands to the unwanted hands which could be in turn used against any state, particularly against U.S. because of the fact of the high level of anti-U.S. sentiments in Pakistan and in the region. In the current scenario, Pakistan faces the dilemma of more nuclear weapons but less reliable men that automatically leads to the formation of the said image.

Adding to the above two mentioned images, the third image that plays its role in the formation of U.S. perceptions about the security and safety of Pakistan's nuclear weapons is the image of TNWs development and its final induction into the nuclear forces of Pakistan. The TNWs are comparatively small and thus, very susceptible to theft or seizure. Furthermore, there is no formidable distinction between the core and the head of the TNWs rather these are compact and all the time ready nuclear devices which increase the chances of its accidental or intentional use or its vulnerability to theft in the environment where terrorist

groups have heavy presence and the potential to ignite conflict between Pakistan and India. The Pathankot incident is one of the examples of the immense potential of these terrorists successfully creating bitter acrimony and conflict between Pakistan and India.

This study further elaborates Pakistan's perceptions about its nuclear weapons security which are regional in nature based on its asymmetrical balance with its immediate neighbour India. Pakistan claims that its nuclear weapons are directed towards India and it wants to keep deterrence with it at any cost. So in order to keep deterrence with India through nuclear weapons, the protection and security of its nuclear weapons are also very important for Pakistan to keep the deterrence maintained and workable. Pakistan has fought three major wars with India respectively in 1948, 1965 and 1971. Moreover, there had been instances where Pakistan's and Indian forces were moved to their respective borders with the intention of fighting a war but because of the nuclear weapons and the concept Mutually Assured Destruction (MAD), the crises were pre-emptively stopped, particularly after the interventions of U.S. and other major powers. One such example is the Pakistan and Indian military stand-off following the 2008 Mumbai attacks in which Pakistan-based terrorist groups had been involved. The crises were averted and the main factor in it was the possession of nuclear weapons by Pakistan and India. Pakistan wants to maintain this deterrence with India and at the same time, it has also started to clean up terrorist organizations that may repeat incidents like that of Mumbai.

Therefore, Pakistan's perspective on the nuclear weapons is solemnly meant to keep deterrence with India. Similar to the importance of nuclear weapons for maintaining deterrence, the security of nuclear weapons are equally important for Pakistan to dissuade India from embarking on any adventurism against Pakistan in future. In order to achieve nuclear deterrence with India, the vertical nuclear proliferation is the only viable and rational option and it is also the direct outcome of the Indo-US nuclear deal that had left Pakistan with

no option other than embracing the path of increasing its nuclear weapons quantitatively. In addition to the quantitative increase, the aggressive conventional posture and doctrines of India have compelled Pakistan to miniaturize its nuclear weapons for the purpose to maintain deterrence at all levels. The miniaturization of the nuclear weapons is meant to stop the advancing tanks and artillery of India during the time of war. It is part of the nuclear deterrence that is aimed to plug in all the gaps in Pakistan's nuclear deterrence with India to prevent it from resorting to conventional war against Pakistan under the nuclear umbrella.

This research work analyses the perception of U.S. and Pakistan through the theoretical framework of neo-realism. The neo-realism says that the behaviour of states is driven by the international system. True to the assumptions of neo-realism, the U.S. behaviour in the post/11 event is driven by the changes in the international system. The 9/11 episode has put question marks on the U.S. military invincibility and made it vulnerable to a large number of threats, including the threats of nuclear weapons. So U.S. started to pre-empt any threat that had the potential to threaten its security and interests in the future. Meanwhile, the news of Pakistan's nuclear scientists' meeting with Al Qaeda leaders and the subsequent detection of the alleged nuclear proliferation network based in Pakistan has turned the complete focus of U.S. and international community towards the nuclear weapons security in Pakistan. Thereafter, further developments in Pakistan had given birth to three main images that overwhelmingly became the basis of U.S. perceptions about the security and safety of Pakistan nuclear weapons.

Similar to the U.S. worldview after 9/11, Pakistan also looks at the world through neo-realist lenses and its behaviour in the post 9/11 is guided by the changes in its regional power structure. As the neo-realists say that any move by one state even if it is for the defensive purposes, automatically creates security dilemma for the other states in the system. The Indo-U.S. nuclear deal and the conventional superiority of India is considered in Pakistan as very

threatening and existential threat to Pakistan. As the neo-realists say that states always rely on their own resources through self-help to lessen the security dilemma. Similarly, Pakistan as a response to these underlying threats from India started to produce more and miniaturized nuclear weapons to maintain full spectrum deterrence with India. The defensive move of Pakistan became a concern and a kind of security dilemma for the U.S.

The introduction of this research work introduces the research topic and elaborates the focus of the research. The first chapter of this research study lays down the theoretical framework for the study followed by a brief historical study of the Pakistan's nuclear program. The second chapter of the study elaborates the images that have a contribution to the making of the current U.S. perceptions about the nuclear weapons security in Pakistan. The third chapter of the study explains Pakistan's perceptions about the nuclear weapons security and the underlying compulsion that Pakistan faces after the changes in the regional power structure following the U.S. initiatives. In addition to the first three chapters, the fourth chapter of the study analyses a comparative study of both the perceptions of U.S. and Pakistan and presents recommendations to abridge the widening gap between Pakistan and U.S. in the realm of nuclear weapons security.

Statement of the Problem

After the independence of Pakistan, the founder of the nation, Quaid-e-Azam Mohammad Ali wanted to establish close relations with America. In this connection, Liaquat Ali Khan paid a visit to U.S. in 1950 to establish diplomatic relations. Thereafter, throughout the Cold War, Pakistan had been a key and important member of various U.S. led security alliances against the former Union of Soviet Socialist Republics (USSR). Pakistan had been an essential and indispensable geostrategic partner of U.S. and in return, it received both military and economic benefits from U.S. However, when Pakistan decided to follow the Indian footprints after the so-called Indian peaceful nuclear explosion in 1974, Pakistan and US relation started

to deteriorate and the nuclear factor increasingly remained the main irritant in their bilateral relations. Pakistan and U.S. relations had seen numerous ups and downs after Pakistan's decision to build nuclear weapons. Moreover, when Pakistan detonated its first nuclear weapons test, U.S. responded it with harsh sanctions. Adding to it, after 9/11 incident, things got worse when the U.S. policy makers started to view the nuclear weapons and fissile material across the world as a major potential threat to their existence and homeland security. They have unleashed their critiques on the security of Pakistan's nuclear weapons and their criticism reached to the highest level when Pakistan-based nuclear proliferation network was detected.

Thereafter, the U.S. policy makers and nuclear experts started to raise doubts over the security and safety of Pakistan nuclear weapons. Pakistan's nuclear weapons, every now and then, were characterized and made as the headline news in the U.S. print and electronic media. As a result, the over criticism of U.S. nuclear experts and policy makers regarding the security and safety of Pakistan nuclear weapons ensued deeper suspicion and mistrust in the Pakistan's nuclear security experts and general public. The widening mistrust gave birth to very contrasting and mutually antagonized perceptions that sporadically, affected the over-all Pakistan and U.S. relations. In spite of Pakistan's alliance with the U.S. led international coalition against the war on the terror, the two states greatly doubted each other and among all other irritants in their relations, the nuclear factor remained the most prominent one. Therefore, it is important very important to study all the images which shape the perceptions of U.S. in the post 9/11 era about the security of Pakistan nuclear weapons and fissile materials. Adding to this, it is also very important to analyse theoretically Pakistan's perceptions and responses to the U.S. perceived images about the nuclear weapons security in Pakistan while keeping in view the regional environ in which Pakistan lies.

Literature Review

Feroz Ahmed Khan in *Eating Grass: The Making of Pakistan's Bomb* argues that Pakistan has instituted the National Command Authority (NCA) and Strategic Plan Division (SPD) to ensure the security and prevent the unauthorized use of the nuclear weapons. The SPD has recruited 10000 men from the armed forces to protect the nuclear weapons from all kind of dangers and the NCA is aimed to centralize the final decision of using nuclear weapons in the hand of the civilian head of the state for the purpose to prevent the unauthorized use of the nuclear weapons during a crisis situation.¹⁰ Apart from these claims, Khan's work remains to be a historical account of Pakistan's nuclear program. It does not explain what exactly forms the U.S. perceptions about the security and safety of Pakistan nuclear weapons.

Michal Krepon in his book *Better Safe Than Sorry: The Ironies of Living With The Bomb* argues that the biggest threat to nuclear weapons security in Pakistan is from the religious zealots that can overhaul the socio-political system by converting it into a theocratic system similar to that of Iran.¹¹ He establishes his arguments on the gatherings of religious groups in the big cities and the presence of these religious groups in the Parliament of Pakistan. However, Michal Krepon does not substantiate his claims with empirical data as the religious parties or groups find very meagre support in the Pakistan's society which is evident from their minor presence in the Parliament.

Nuclear Nightmares: Securing the World before it is too late published in 2013 is the most recent work of Joseph Cirincione. He is currently the president of Ploughshares Fund, an institute working for the cause of nuclear non-proliferation. Joseph Cirincione claims that if U.S. is ever attacked by a nuclear bomb or fissile materials by any rogue non-state actors,

¹⁰ Feroz Khan, *Eating Grass: The Making of the Pakistani Bomb* (Stanford University Press, 2012), 305.

¹¹ Michael Krepon, *Better Safe Than Sorry: The Ironies of Living with the Bomb* (Stanford University Press, 2009), 105.

they would have certainly stolen or taken it from Pakistan.¹² Throughout his book, he establishes claims without providing any empirical evidence. In addition to this, his work does not present a strong theoretical foundation and all his arguments are part of the biased western discourse that is mostly inspired by international politics rather than academic work and genuine threats.

No Exit from Pakistan: America's Tortured Relationship with Islamabad is the latest book published in July 2013 about the Pak-US relations by a renowned scholar Daniel S. Markey. Daniel S. Markey advances two points, due to which U.S. tags Pakistan's nuclear weapons as a potential threat to its national security. Firstly, because of the nuclear proliferation history of Pakistan and secondly, the crippling statecraft and institutions of Pakistan state.¹³ The first argument of Daniel Markey ignores that fact that Pakistan has established NCA and SPD that supervise and manage nuclear weapons in the country. After establishing these institutions, the chances of nuclear proliferation from Pakistan to non-nuclear states are nearly impossible. Secondly, contrary to his argument, the state institutions are getting stronger which is evident from the increasing active role of parliament in decision making and the launching of a decisive operation against the terrorists by the Pakistan Army in Federally Administered Tribal Areas (FATA) and Karachi. Both of these two vital institutions have become more vibrant and strong contrary to the claims that Markey puts forward.

The Genesis of South Asian Nuclear Deterrence: Pakistan's Perspective is authored by Naeem Salik. This is an insider account of Pakistan nuclear establishment as Naeem Salik remained the Director-General (DG) of Arms Control and Disarmament directorate which works under SPD. Therefore, Naeem Salik has the first-hand knowledge of the security and safety issues confronting Pakistan's nuclear weapons. He rejects the western concerns about

¹² Joseph Cirincione, *Nuclear Nightmares: Securing the World before It Is Too Late* (Columbia University Press, 2013), 106.

¹³ Markey, *No Exit from Pakistan: America's Tortured Relationship with Islamabad*, 17.

the security and safety of the nuclear weapons for being very counterfactual and biased. He claims that security and safety of Pakistan nuclear weapons are up to the international standard and because of the same reason, nothing unwanted has happened after Pakistan embarked upon the structuring of a National Command Authority (NCA).¹⁴ At the same time, he argues that Pakistan lacks technological know-how and resources to make its nuclear command and control fool-proof which makes his argument weak and susceptible to academic inquiry.

The Dispensable Nation: American Foreign Policy in Retreat is authored by Vali Nasr and published in 2013 provides another close insight about the thorny relations between Pakistan and U.S. Vali Nasr had been a senior adviser to Richard Holbrooke who served as a special representative of White House for Afghanistan-Pakistan (Af-Pak) region. Vali Nasr argues that U.S. main concerns about the security of Pakistan nuclear weapons stem from the gradual increase of fanaticism and increasing religious extremism within Pakistan after 9/11 that can take the possession of nuclear weapons directly or indirectly. He establishes his argument on the increasing terror attacks within the Pakistan's cities and public places. However, Vali Nasr ignores the point that Pakistan recruited 30000 strategic force that protects nuclear weapons with a multi-layered security program that could not be rendered vulnerable to physical threats from the outsiders.

Deception: Pakistan, The U.S. And The Secret Trade in Nuclear Weapons is authored by Adrian Levy and Catherine Scott-Clark (2007). The book gives a detailed history of Pakistan nuclear program and Abdul Qadeer Khan (AQ Khan) Network. Like Daniel Marky, Adrian and Catherine also consider the AQ Khan Network or any other similar type of network in future as a high threat that is shaping the U.S. perceptions about Pakistan's nuclear weapons

¹⁴ Naeem Salik, *The Genesis of South Asian Nuclear Deterrence : Pakistan's Perspective* (Karachi: Oxford University Press, 2009), 19.

today. Contrary to this claim, AQ Khan Network is no more and after the National Nuclear Action Plan (NNAP), NCA, nuclear regulations, and the export-control rules, the possibility of another AQ Khan type of network is unlikely.

'Pakistan Nuclear Weapons' is another insight by Bhumitra Chakma, published in 2009 by Routledge. Bhumitra Chakma currently teaches as Assistant Professor in School of Politics and International Studies, University of Hull. He argues that Pakistan as a new nuclear weapons state faces innumerable challenges of the nuclear security and ineffectiveness of the command and control system. He maintains that Pakistan has worst economic indicators and poor technical skills which are the essential prerequisites required for every state to make its nuclear security fool proof. Therefore, these resources scarcity and poor skills may cause nuclear weapons accidents or its misuse. As a matter of the fact, Bhumitra does not explain that despite the scarcity of the resources, Pakistan has made a very standard command and control system and its nuclear security remains unquestionable as most of the western experts like Mark Fitzpatrick highly appreciates it.

Confront and Conceal: Obama's Secret Wars and The Surprising Use of American Power by David E. Sanger (2013) pinpoints the mistrusts between Pakistan and U.S. on the issue of nuclear weapons safety and security in Pakistan. He claims that U.S. is highly apprehensive of Pakistan's nuclear weapons security that it may not fall into the hands of terrorists that would directly threaten U.S. homeland security or its vital interests in the region. Although, Sanger reveals many unknown facts but his work is journalistic in nature and lack academic approach.

Nuclear Terrorism: The Ultimate Preventable Catastrophe (2004) authored by nuclear terrorism expert Graham Allison. Graham Allison is currently teaching as a Professor in the Harvard Kennedy School and the director of Belfer Center for Science and International

affairs. Graham Allison highlights the future possible nuclear threats to American homeland that can inflict unmentionable damage to the US national security. He warns that the safety and security of the nuclear weapons of Pakistan are not anymore an internal issues of Pakistan but it equally matters to U.S. too because of the threats of terrorists' seizure of the radioactive materials; therefore, U.S. should speed up its cooperation with Pakistan to bring the nuclear weapons safety and security to the international gold standard. Adding to these, Graham argues that the possible nuclear threat to U.S. from Pakistan is highly possible because of the increasing links between Pakistan army and Taliban.

India, Pakistan, and The Bomb: Debating Nuclear Security In South Asia is a valuable debate about impacts of nuclear weapons on India and Pakistan. The book is authored by Sumit Ganguly serving as a professor at Indiana University and Paul Kapur, affiliated with the Center for international security and cooperation published by Columbia university press (2010). Paul Kapur argues that in the time of war between India and Pakistan, the nuclear arsenals of Pakistan are most possibly be exposed to militant threats undermining the security of all countries. He maintains that nuclear weapons have transformed Pakistan's nuclear posture more aggressively and in future, it will cause a nuclear escalation in South Asia giving a serious blow to international security and U.S. interests around the globe. However, Paul did not mention that Pakistan had even not mated its nuclear core with the missile at the peak of the crisis situation with India in 2001-2 or in 2008.

Deadly Embrace: Pakistan, America, and the Future of the Global Jihad (2011) by Bruce Riedel chronically explain developments in Pakistan that have become pungent threats to U.S. today. Bruce draws hypothetical observations based on the assessment of the current rise of militancy and radicalization and its subsequent threat to the security of nuclear weapons in Pakistan. He contends that a nuclear Pakistan either lenient to terrorists or toppled by terrorists would be the worst case scenario to U.S. homeland security and strategic interests.

In the former case, the terrorists' appeaser or the terrorist themselves might not get the control of Pakistan nuclear arsenals that could be used against U.S. and its immediate allies. While in the latter case, terrorists or Taliban owned nuclear Pakistan would be too threatening to U.S. directly.

The Inheritance: The World Obama Confronts and the Challenges to American Power by David E. Sanger (2011) is another piece that enumerates various policy challenges to the white house in the coming days. Sangers asserts that it is not the Iraq war or the Afghanistan war or the rising china which can pose a serious threat to U.S. and its homeland security but it is nuclear armed Pakistan with crumbling state structure that is making U.S. vulnerable on many counts. Sanger claims that Pakistan is a sanctuary of the most dangerous terrorist groups that operate freely because of the decreasing control of the state's writ. However, Sanger does not present any new analysis on the images about the security of Pakistan nuclear weapons that frames the perceptions of U.S. Along with this, Sanger book is based on hypothetical claims that lack academic vigour.

Research Questions

The main question of this study is that what are the main images that shape U.S. perception about the security and safety of Pakistan nuclear weapons in the post 9/11 era? This main question is also leading to some more researchable questions such as

- What are the Pakistan's perceptions and responses to the U.S. perceptions and responses about the nuclear weapons security in post 9/11 era?
- How far this opposing point of view have influenced Pakistan and U.S. bilateral relations and how can this gap be bridged to catalyse and strengthen Pakistan and U.S. cooperation on nuclear weapons security?

Hypothesis of the study

The hypothesis of this study is that the post 9/11 perceptions of U.S. about the security of Pakistan's nuclear weapons are based on three main images. These images are the insider threats to nuclear weapons from those who protect it, the induction of the TNWs to the strategic forces of Pakistan and the vertical nuclear proliferation of Pakistan's nuclear weapons. This research study further assesses the perceptions and responses of Pakistan regarding its nuclear weapons which are driven by the changes in the regional power structure in South Asia and mostly, are the results of U.S. initiatives in the region. This research study argues further that both U.S. and Pakistan have different security concerns. The United States being a global power is very critical of nuclear weapons and fissile materials in the world which the U.S. claims that it could threaten its national interests or undermine homeland security in future. Therefore, the nuclear weapons and fissile materials in Pakistan are viewed critically by the U.S. security experts and policy makers. This research work analyzes the perceptions and behaviour of U.S. and Pakistan through the neo-realist lenses which say that international power hierarchy guides the behaviour of states in the international system. This research argues that in post 9/11, the perceptions of Pakistan and U.S. are driven by the changes in the international and regional power structure in the system. U.S. after 9/11 has found itself increasingly vulnerable to the threats of nuclear terrorism. In this connection, because of the Pakistan's proliferation history and the meetings of its nuclear scientists with Osama Bin Ladin has turned the focus of U.S. towards the nuclear weapons security in Pakistan. Though the initiatives of Pakistan for strengthening nuclear weapons security has made the future proliferation less likely but the increasing terrorist attacks on Pakistan's nuclear installations where the lower cadre of Pakistan's army was involved, has contributed to the formation of the image of insider threats to the nuclear weapons in

Pakistan. This threat is further compounded by the induction of TNWs to the Pakistan's nuclear forces and the increasing vertical proliferation of Pakistan nuclear weapons.

Research Methodology

The method for the conduct of this research is analytical and explanatory. I have consulted both the primary sources and secondary sources for the conduct of this study. The primary sources are based on the interviews from various academics, experts, and authorities concerned about the study. However, the secondary sources of the study are based on the books, journals and research articles published in the most prestigious research think tanks such as the Carnegie Endowment for International Peace, Council on Foreign Relations (CFR), RAND cooperation, Brookings Institute, Islamabad Policy Research Institute (IPRI), Institute of Strategic Studies Islamabad (ISSI), published autobiographies of the concerned person, and newspapers, Congressional Research Reports, and the Bulletin of Atomic Scientists.

Organization of the research

This research study comprises four chapters along with an Introduction and Conclusion. The Introduction of this study introduces the topic and lays down the whole of the structure of the thesis.

Chapter 1: Theoretical Framework

The first chapter of the study deals with the theoretical framework and a brief historical analysis of the Pakistan's nuclear weapons. The theoretical framework of the study is based on the neo-realism which explains both the perceptions and responses of U.S and Pakistan in the post 9/11 scenario about the security of nuclear weapons in Pakistan. The behaviour of U.S. is driven by the overall power structure of the international system in which United State acts like a global power. Contrary to this, the behaviour of Pakistan is regulated and shaped

by the power structure in the South Asian region where it finds itself highly vulnerable to the huge conventional force of its immediate neighbour India.

Chapter 2: Images and perceptions of U.S.

The second chapter of this research study deals with the main research question that what are the main images about the nuclear security in Pakistan that shape the U.S. perceptions and responses in the post 9/11. Three main images have been highlighted in the study that overwhelmingly frame the American perceptions and behaviour about Pakistan's nuclear weapons. These images are the insider threat to Pakistan nuclear weapons, the induction of tactical nuclear weapons into the Pakistan's nuclear forces and the vertical nuclear proliferation in Pakistan.

Chapter 3: Perceptions and responses of Pakistan

The third chapter of this study gives an account of Pakistan's perceptions and responses to the U.S. main concerns about its nuclear weapons security. Whether the weapons are secure or not? If it is so what the measure that Pakistan has taken over the past thirteen years which ensure the security and safety of its nuclear weapons. Who are the guardians of Pakistan nuclear weapons during peace and conflict? Who are the decision makers of Pakistan nuclear weapons potential use in the future? Is Pakistan abiding by the international legal framework both for the safety and security and non-proliferation of its nuclear program? What are the factors contributing to the current behaviour of vertical nuclear proliferation and the decision of making tactical nuclear weapons?

Chapter 4: Comparative analysis of U.S. and Pakistan's perceptions

The fourth chapter of this research study analyses the perceptions and responses of both U.S. and Pakistan and attempts to suggest and recommend steps and measures that would help

both of the states to better understand each other's concerns and work out a roadmap to minimize the hindrance in their bilateral relations. This chapter also highlights Pakistan's contribution in the strengthening international nuclear non-proliferation at various international forums which the U.S. security analysts have to a greater extent ignored.

Conclusion

The conclusion of the study comprises the sum up of all chapters that have comprehensively answered the research question of this research study.

CHAPTER 1

THEORETICAL FRAMEWORK

The theoretical framework of the study is based on the neo-realism which explains comprehensively the perceptions and responses of both, the U.S. and Pakistan regarding the nuclear weapons security and safety in the post 9/11 world. Neo-realism explains and elaborates that how states are compelled to take a particular path and line of action in the international system to ensure their security, minimize security dilemmas and also preemptively take the necessary measures to thwart any threat which has the potential to influence its interests in the future.

1.1. The purpose of using Neo-Realism as a theoretical framework

Neo-realism explains how external drivers compel states to adopt a peculiar behaviour in the system in order to remain safe and ensure survival. The other theoretical frameworks like classical realism mainly focus on the human nature. The classical realism deems the human nature as inherently power seeking¹. Therefore, the classical realists argue that states which are ultimately run by these power wanting men, always act to maximize their power.² The classical realists relate human idiosyncrasies with the behaviour of the states. They claim that states are in a continuous struggle to maximize their power and strength to dominate its enemies in a similar fashion as human beings do. The classical realism further says that the international system is anarchic and states are the only rational and legitimate actors. In such an anarchic system, states do not rely on others for their protection and security. Through the phenomena of self-help, they try to ensure their survival and existence in the system.³

However, the classical realism does not say anything about how state behaviour is influenced

¹ Jill Steans, *An Introduction to International Relations Theory : Perspectives and Themes* (Abingdon, England; New York: Routledge, 2013), 57.

² Keith L. Shimko, *International Relations : Perspectives, Controversies and Readings* (Boston, MA: Wadsworth, 2013), 39.

³ Charles W. Kegley and Shannon Lindsey Blanton, *World Politics : Trend and Transformation* (Boston, MA: Wadsworth Cengage Learning, 2013), 32.

by the external drivers that compel it to act in a certain way like Pakistan which is compelled to adopt a particular line of action because of the change in the regional structure of the system after the Indo-US nuclear deal.

The other theoretical traditions such as liberalism or neo-liberalism are mainly focussed on the economic and cooperative aspects of international relations. These paradigms are based on some proposed ideals and have economic orientation. Liberalism says that man is not necessarily bad or good but smart enough to realise his interests that are best served by cooperation with other entities. Liberalism within states put emphasis on the democracy, freedoms, free trade and human rights. Similarly, the neo-liberalism promotes the same ideals in the interactions of the states by promoting harmony of interests among international actors.⁴ Further, the Neo-liberal tradition in the liberal paradigm though accepts all the assumption of neo-realism from states as the primary actor to the presence of anarchy but does not explain why states go for wars and confrontations, instead of solving their issues through cooperation. The neo-liberalism proposes that through international institutions like United Nations (UN) the war and conflicts in international can be resolved. The neo-liberals associate the role of leviathan to UN that is responsible for maintaining the order. History is evident that states do not rely on UN or any other institutions for its security and interests.

Adding to the liberal paradigm, the constructivism paradigm mainly focusses on the social aspect of the state and society. The constructivists argue that states behaviour is driven by their identities, norms, ideas values in the system.⁵ The constructivists dispel the concept of anarchy and term it to be socially constructed.⁶ The constructivism does not tell us how

⁴ John Baylis, Steve Smith, and Patricia Owens, *The Globalization of World Politics : An Introduction to International Relations* (Oxford: Oxford University Press, 2014), 105.

⁵ Timothy Dunne, Milja Kurki, and Steve Smith, *International Relations Theories : Discipline and Diversity* (Oxford: Oxford University Press, 2013), 189.

⁶ Alexander Wendt, *Social Theory of International Politics* (Cambridge: Cambridge University Press, 2013), 247.

forces in the system trigger the behaviour of the states to adopt certain behaviours to lessen the level of threats to its interests.

The neo-realism paradigm appropriately explains that the behaviour of the states in the international system is not directed by the human nature or the factors within the states but by the international system itself. The neo-realist theory advocates the outside-in approach to the analysis of the states' behaviour and contends that it is the structure that influences the agency, unlike the classical realists who presume the inside-out analysis or the agency influencing the structure of the international system. The core assumptions of neo-realism are explained one by one in the next paragraphs.

1.2. The main assumptions of Neo-realism

The main proponent of Neo-realism theory is Kenneth Waltz who published his influential work '*Theory Of International Politics*' in 1979 that subsumes some assumptions of classical realism but puts forward a new approach to analysis based on the structure of the international system. The Kenneth Waltz's neorealism broadens the realist perspective from the state-level analysis to the system level analysis. The Waltzian neo-realism enlivened a stagnant debate of how states' behaviour is shaped in the system which was previously reduced to be seen through the lenses of individual and states level analysis.

Waltz argues that international power structure defines the behaviour of the state. He further argues that international system is anarchic in nature and every state in the system tries to maximize its power to survive in the system. In such a system, states do not cooperate with each other, rather a continuous trust deficit, animosity and power struggle characterize their relations. In the absence of global leviathan or enforcer, states are left to fend for their own security out of the resources at their disposal through self-help.

1.3. Structure of international system and anarchy

Kenneth Waltz claims the structure of international system defines the behaviour of the state.⁷ By the structure, Waltz implies that the power structure or power distribution of international system determines the behaviour of the states. Basically, any structure can be divided into two main patterns or ordering principles. Firstly, the politics within a state has the hierarchal structure and the power is distributed from top to the bottom. The domestic politics has proper laws and regulations which are enforced by the authorized entity. In contrast to domestic political structure, the structure of the international system is anarchic in nature and completely different from the domestic politics. The International system lacks such a hierarchal authority that enforces rules and regulations. This lack of an enforcer in the international system is termed by Waltz as anarchy.⁸ So in a system which is characterized by anarchy, the units or the states have to take care of their security through self-help in order to ensure their security and survival in the international system.⁹ The self-help principle is applied to all units of the international system and each of them is in a continuous struggle to ensure their existence. The only thing which makes a difference is the power structure or capabilities of states in the structure. States with great power and capabilities behave differently than the states with less power or low capabilities.

1.4. Security Dilemma in the international system

The proponents of structural realism argue that the international system is anarchic in nature and there is no global power to implement rules and regulations.¹⁰ So in such an anarchic system, states are responsible for their own security and survivability. Therefore, all states take the required necessary measures to strengthen their security and ensure their existence in the system. Any state that enhances its security or takes measures to ensure its existence even

⁷ Dunne, Kurki, and Smith, *International Relations Theories : Discipline and Diversity*, 78.

⁸ Kenneth N. Waltz, *Theory of International Politics* (Boston; London: McGraw-Hill, 2008), 111.

⁹ Andrew K. Hanami, *Perspectives on Structural Realism* (New York, N.Y.: Palgrave Macmillan, 2003), 65.

¹⁰ Paul R. Viotti and Mark V. Kauppi, *International Relations Theory* (Boston: Longman, 2012), 56.

if is for the peaceful purposes automatically renders the other states insecure. The proponents of structural realism call this phenomenon as a security dilemma. The arming of any state generates a security dilemma for the other states that in turn follow suit and thus, an unending competition starts creating security dilemmas for all states in the system. The security dilemma renders states to compete rather cooperate with each other.¹¹

1.5. Neo-realism, U.S. and Pakistan's perceptions and responses

The following paragraphs will explain how the neo-realism explains the perceptions and responses of both the U.S. and Pakistan about the nuclear weapons security. The neo-realist theory says that the behaviour of the states in the international system is determined by the international power hierarchy. The event of 9/11 had immensely undermined the security of U.S. despite being a giant global power, she couldn't prevent it. As a global power in the international system, U.S. announced its policy better known as Bush Doctrine to go after the terrorists through its three Ds strategy of dismantling, disrupting and dismantling terrorists' groups across the world. As a global power in the system, the neo-realists tag the U.S. unilateral approach as the direct consequence of the system. Afterwards, U.S. pronounced war in Afghanistan and Iraq one after another.

Meanwhile, Al Qaeda, the perpetrators of the 9/11 attack, announced its strategy and intentions of getting nuclear weapons and fissile material that will be used against U.S. main territory or its immediate allies. The nuclear threat from seemingly invisible enemy generated the worst kind of security dilemma that caused severe anxiety and panic in the U.S. policy makers and security experts. Afterwards, the U.S. security experts started to see the nuclear weapons and fissile materials of various states with great suspicion and among all nuclear weapons, the U.S. turned its criticism towards Pakistan because of its close proximity with

¹¹ Barry Buzan, Charles A. Jones, and Richard Little, *The Logic of Anarchy : Neorealism to Structural Realism* (New York: Columbia University Press, 1993), 82.

Afghanistan where Al Qaeda terrorists were hiding. Another reason for the criticism was the increasing terrorists' attacks inside Pakistan.

The U.S. perceptions were further cemented by the news of Pakistan's nuclear scientist's meeting with Al Qaeda supremo Osama Bin Ladin in Afghanistan.¹² In addition to this, U.S. criticism reaches its all-time high point when AQ Khan Network was uncovered. The network had proliferated the nuclear know how to various countries. The meeting of Pakistan's nuclear scientists and the detection of Pakistan-based nuclear proliferation attracted the U.S. attention towards Pakistan and Since then, the nuclear weapons in Pakistan have been in the spotlight in the U.S. nuclear security discourse.

In contrast to the U.S. perceptions and responses as the neo-realists claim the structure of international system influences the agency or the units in the system. Similarly, Pakistan's motivation to build nuclear weapons was precipitated and galvanized by the change in the regional power balance. The Indian so-called peaceful nuclear explosion triggered a security dilemma that turned Pakistan into a nuclear state. Pakistan nuclear weapons are India centric and are aimed to maintain regional power balance or deterrence with India. Therefore, Pakistan claims that as it is essential for Pakistan to maintain nuclear deterrence with India, similarly, it is also vital for Pakistan to keep its nuclear weapons safe and secure from all kinds of threats in order to maintain the nuclear deterrence with India.

Additionally, as the neo-realists claim that any move by any state to fortify its defence even for the peaceful purposes can trigger a security dilemma for the other states in the system.¹³ Similar to the neo-realists' contentions, the Indo-US nuclear deal has triggered a new security dilemma for Pakistan leaving it with no other viable option than beeping up its nuclear

¹² Stephen P. Cohen, *The Future of Pakistan* (Washington, D.C.: Brookings Institution Press, 2011), 177.

¹³ Martin Griffiths, *International Relations Theory for the Twenty-First Century : An Introduction* (London: Routledge, 2007), 14.

weapons quantity in intention to equalize the better position of India after the nuclear deal. Similarly, the Indian conventional force superiority compels Pakistan to build tactical nuclear weapons so that to prevent India from resorting to a conventional war against Pakistan.

This research work argues that the perceptions and responses of both U.S. and Pakistan are shaped by the changes in the international and regional system. U.S. as a global power started to view nuclear weapons and fissile materials as a threat to its security after 9/11. Like U.S., Pakistan is also threatened by the changes in the regional balance of power that has created a major security dilemma for it. As to fill that security dilemma, Pakistan started to build more nuclear weapons and later, miniaturized it so that it could maintain nuclear deterrence with India. The miniaturizations and the vertical rise of the nuclear weapons, in turn, became the basis of U.S. perceptions.

1.6. A brief history of Pakistan nuclear program and U.S.'s perceptions

This part of the chapter is an attempt to understand the historical background of Pakistan nuclear program at the various phases of its evolution and its transformation from a civilian nuclear program to military nuclear program. Pakistan nuclear program history can be divided into three distinct periods. The first period started in 1954 with clear civilian purposes after the U.S. President Dwight D. Eisenhower announcement of 'Atom for Peace' program. The second phase of Pakistan nuclear program started right after Indian so-called peaceful nuclear test in 1974 which eventually reached to its final point at 1998 when Pakistan conducted a number of nuclear tests in Chaghi and Kuhlo. The third phase started after the nuclear test at Chaghi. In the post-1998 history of Pakistan nuclear program, Pakistan developed an operational nuclear deterrent and a robust command and control system to effectively meet the deterrent standards. Meanwhile, Pakistan's nuclear authorities

were unable to detect the nuclear proliferation done right under their noses which caused an unprecedented criticism of Pakistan nuclear program by the international community.

1.6.1. First Phase 1954 to 1974

Pakistan was inspired to establish nuclear program after U.S. President Dwight D. Eisenhower program of 'Atom for peace' at United Nation General Assembly (UNGA) in 1953. Atom for peace was meant to provide scientific know-how and the relevant equipment to different research institutes and learning centres across the world for the peaceful and civilian use of nuclear technology. Pakistan late entrance to the use of nuclear energy was because of the problems such as backwardness, lack of scientific know-how, infrastructure and absence of nuclear enthusiasts but things completely changed when in 1954, U.S. committee of atom for peace visited Pakistan and soon after, Pakistan appointed a 12-member atomic energy committee to work out a plan for the peaceful use of nuclear energy in Pakistan.

Meanwhile, Pakistan and U.S. cooperation were also starting to boom as a result of successful diplomacy of Pakistan with U.S. President Richard Nixon during his visit to South Asia. Soon after, U.S. started to pour in military equipment and technical training to Pakistan army. At the same time, Pakistan joined U.S. anti-communism alliances of SEATO and CENTO in 1954 and 1955.¹⁴ As a result of joining the security alliances, Pakistan aligned itself with U.S. and henceforth, it started receiving technical and material support in the realm of nuclear energy.

In March 1956, Pakistan established an atomic energy council consisting of two main bodies such as the governing body consisting of two ministers and two federal secretaries and the atomic energy commission of six scientists. The atomic energy council was headed by Dr.

¹⁴ Lawrence Ziring, *Pakistan at the Crosscurrent of History* (New Delhi: Manas Publications, 2005), 79.

Nazir Ahmed. Pakistan also set up an advisory council comprising 30 scientists. The main objectives of the council were planning and developing of civilian use of atomic energy in Pakistan. However, the council could not succeed due to multiple barriers such as ineffective bureaucratic administrations, lack of specialized training and dilapidated political will of the government that kept lingering the establishment of Pakistan Atomic Energy Commission (PAEC) for years.

Under the atom for the peace initiative, an agreement was also reached between Pakistan and U.S. in 1957. According to the agreement, U.S. pledged to provide a swimming pool research reactor and training necessary for its establishment and operationalization of the said research reactor. The research reactor was exclusively aimed for research purposes.¹⁵ In 1963, American swimming pool research reactor was installed in Pakistan institute of science and technology (PINSTECH) which was eventually functionalized in 1965.

Meanwhile in 1965, PAEC chairman Dr. Nazir Usmani struck a deal with Canada for the procurement of Canadian Deuterium Uranium (CANDU) type of research reactor to be installed in Karachi.¹⁶ The reactor was named as Karachi Nuclear Power Plant (KANUPP) reactor and it went critical in 1971 but was eventually inaugurated in 1972. The plant was put under the safeguards of IAEA through a trilateral agreement between Pakistan, Canada, and IAEA.

So far no serious attempts were made to realise the use of nuclear energy in Pakistan. However, when Zulfikar Ali Bhutto was handed over the charge of fuel, power, and natural resources ministry, Pakistan started earnestly to acquire nuclear technology for the civilian use. Besides him, the appointment of Dr. Usmani as chairman of PAEC was another vital development that immensely contributed to the flourishing of the nuclear program in

¹⁵ Khan, *Eating Grass: The Making of the Pakistani Bomb*, 45.

¹⁶*Ibid.*, 67.

Pakistan. Along with these two figures, Dr. Abdul Salam who was the scientific advisor to the president had an exceptional contribution to the early nuclear program establishment. Dr. Abdul Salam, Dr. Usmani, and the Zulfiqar Ali Bhutto together developed the nuclear program from ashes to an advanced setup capable of producing materials that could be used both for the civilian and military use.

The Fate of Pakistan's nuclear program altogether changed when Zulfiqar Ali Bhutto assumed power as Prime Minister in Pakistan, he created a separate portfolio and made it answerable to him directly. Adding to this development, Zulfiqar Ali Bhutto also pronounced a new talent hunt program to encourage young scientists and academicians to do research in the nuclear field. It was this talent hunt program that brought Munir Ahmed Khan and Dr. AQ Khan to Pakistan who later gave Pakistan a fully established nuclear program.

1.6.2. Second Phase from 1974 to 1998

In 1974 when India carried out its first so-called peaceful nuclear weapons test, Pakistan was convinced that only weapons can guarantee its security against the huge conventional force of India. So afterwards, Pakistan started serious efforts to develop nuclear weapons program of her own. Unfortunately, Pakistan's efforts were highly hindered by the Nuclear Non-Proliferation Treaty (NPT), London Suppliers Group (LSG) which is now Nuclear Suppliers Group (NSG), and Zangger committee. Pakistan could not get the nuclear technology or any material support in establishing a nuclear set up capable of producing nuclear weapons from the west and finally, Pakistan turned towards china to seek technological help and material support for the nuclear weapons program. China had by then already mastered in nuclear technology

In the 1970s, the U.S. perceptions about the security and safety of Pakistan nuclear program and its gradual development were based on the rise of Zulfiqar Ali Bhutto and his policies which were threatening U.S. interests. Zulfiqar Ali Bhutto had taken an anti-American stance

during his election campaign and was more tilted towards the socialist camp that was led by the former USSR. In addition to his socialist inclination, Bhutto had also encouraged the leaders of the Muslim world to unite their resources and work collectively for the promotion of Muslim Ummah interests. In this connection, Zulfikar Ali Bhutto successfully organized the Islamic Summit in Lahore. Bhutto had also envisioned an International Islamic Bank and currency. Bhutto's efforts and diplomacy of uniting the Muslim world were threatening the U.S. interests as Bhutto had successfully highlighted the issue of Palestine and Kashmir on all the international forums including the United Nations. The highlighting of the Palestine issue threatened the state of Israel which was a close ally of the U.S. Furthermore, the use of oil as weapons by the Muslim world against the West had shocked the U.S. and other major powers. The Muslim world divided into many groups and unity had shown complete unity during the oil embargo. Besides leading the Muslim world and using oil as weapons against the West, Bhutto had also started a nuclear program aimed to build nuclear weapons which could provide Pakistan nuclear deterrence against India. Bhutto wanted nuclear weapons for the Muslim Ummah and he was very much determined to get it. The Americans knew that Zulfikar Ali Bhutto through his charismatic personality and statesmanship was threatening the U.S. interests through the unification of the Muslim world and building nuclear weapons. U.S. Secretary of State Henry Kissinger in August 1976 threatened Bhutto to back off from the nuclear program and completely roll back it, but Bhutto was unmoved by the threatening words of Kissinger and continued the development of nuclear under his own watch.

When Zia-ul-Haq had come to power in Pakistan, he too continued the nuclear policy that caused to sever Pakistan's relations with the U.S. Meanwhile, the U.S. had pressured France to withdraw from the agreement of providing a nuclear power plan to Pakistan which it had earlier promised to transfer to Pakistan. France could not resist the U.S. pressure and soon

succumbed to the rising U.S. pressure and offered Pakistan a co-processing plant instead of the reprocessing plant which was turned down by Pakistan.

Meanwhile, Pakistan embarked upon the Uranium enrichment program through buying various components of enrichment plant separately from various European countries. The Uranium enrichment program continued covertly in parallel to the reprocessing plant efforts of Pakistan Atomic energy commission. In April 1979, U.S. concerns reached to its all-time high point that eventually resulted into a freezing of aid to Pakistan. U.S. had the clues that Pakistan is intending to build nuclear weapons and all programs of establishing nuclear reactors are solemnly aimed to make nuclear weapons respond to the Indian nuclear weapons.

In 1979, the former USSR sent its forces to Afghanistan that started to attract all the attention of U.S. and USSR move also brought Pakistan and U.S. closer to each other. In the meanwhile, Pakistan continued its uranium enrichment program through Gas Centrifuge Enrichment Technology. U.S. paid more attention to soviet activities than its non-proliferation objectives in Pakistan. However, some of the congressmen continued to resist U.S. policy towards Pakistan. In June 1983, U.S. state department prepared a paper which had evidence that Pakistan was perusing nuclear weapons development. The paper also claimed that Pakistan has procured gas centrifuge technology through his international procurement agents across the European countries.

In September 1984, owing to the continued pressure congress, US president sent a letter to Zia-ul-Haq, warning him of serious repercussions if he allowed enriching uranium beyond 5%.¹⁷ The congress continued to mount pressure and eventually, US administration passed Pressler Amendment proposed by Senator Larry Pressler. According to the spirit of Pressler Amendment, U.S. president was supposed to certify that Pakistan does not possess nuclear

¹⁷ Ibid., 110.

device and US aid to Pakistan will not hinder in anyway the non-proliferation objectives. Pakistan signed an agreement with China for the establishment of nuclear reactors at Chashma under IAEA safeguards. Chashma Nuclear Power Plant-1 (CHASNUPP-1) was functionalized in 1989 and the Chashma Nuclear Power Plant-2 (CHASHNUPP-2) started to work in 1999.¹⁸ Pakistan and china have signed more agreements for the establishment of two more nuclear reactors which are now under construction.

Meanwhile, Pakistan gained the ability to fabricate the indigenous fuel for its KANUPP reactor. Besides this, the Kehuta project of Uranium enrichment was also in progress. Another positive development was the up gradation of PINSTECH research reactor from five megawatts to ten megawatts. Chinese government under IAEA rules agreed to supply fuel for it.

On May 11, 1998, India exploded three nuclear bombs naming it Shakti I, Shakti II, and Shakti III of different weight for diversified purposes. Soon after, Indian prime minister cheerfully announced India to be a nuclear weapons state. As a response to Indian nuclear weapons explosion, the U.S. administration, under the Nuclear Proliferation Prevention Act (NPPA) 1994 imposed sanctions on India. However, the other western states, especially France and Russia categorically opposed the U.S. sanctions. After Indian explosion, U.S. attention and wrath was directed towards Pakistan. U.S. administration made every effort to dissuade Pakistan from following the suit and to prevent it from conducting a nuclear test. After the Indian nuclear tests, a sort of nuclear security dilemma had been given birth in South Asia which Pakistan had to fill at all cost to neutralize the aggressive response of India. In addition to the newly created nuclear security dilemma, Indian leaders were also issuing aggressive statements against Pakistan. The change in the strategic status quo of South Asia

¹⁸ Zia Mian and A. H. Nayyar, *Pakistan's Chashma Nuclear Power Plant : A Preliminary Study of Some* (Islamabad: Sustainable Development Policy Institute, 1999), 9.

coupled with the threatening behaviour of Indian leaders had left Pakistan with no option other than conducting a nuclear test for Pakistan of its own.

On 28th May 1998, Pakistan conducted five nuclear tests in the mountains of Chaghi successfully. In the aftermath of the nuclear test, international sanctions were unleashed on Pakistan which had badly affected the national economy. The foreign reserves of Pakistan plummeted to the lowest ebb and the debt rose to a threatening level and at the same time, foreign exchange reserves has come to the lowest level of just a billion dollar. In the aftermath of nuclear tests, Pakistan had found itself amidst worst economic indicators. Furthermore, United Nation five permanent members passed United Nation Security Council (UNSC) resolution 1172 reprimanding nuclear testing of both India and Pakistan.¹⁹ Though the sanctions were also imposed on India but the real victim of the sanctions remained Pakistan because of the already shambolic economy and mounting international debt.

In parallel to the Uranium Enrichment Program, Pakistan had also continued its plutonium production which remained in the exclusive domain of PAEC. PAEC had started to embark on the plutonium production as early as 1985 through indigenous efforts at Khushab. The first Plutonium reactor, Khushab I, finally went critical in 1998 by producing 8 to 15 kilogram (kg) Plutonium annually. 10-15kg Plutonium is enough to make 4 to 5 nuclear devices per annum. In addition to the Khusab-I nuclear reactor, Pakistan also started to work on the establishment of another plutonium reactor Khushab II in 2000.²⁰ The Khushab II started production at the end of 2009 or in the early days of 2010. Pakistan has continued to expand its plutonium production reactors at Khushab facility. The construction on Khushab III started in 2006 and similarly, construction on Khushab IV started in 2011. The increasing

¹⁹ UNSC 1172, *security council condemns nuclear tests by India and Pakistan*, (<http://www.un.org/press/en/1998/sc6528.doc.htm> accessed on 9-12-2014)

²⁰ GSN, *Pakistan Builds New Plutonium Production Reactor*, July 24, 2006. (<http://www.nti.org/gsn/article/pakistan-builds-new-plutonium-production-reactor/> (accessed at 9-14-2014))

pace of plutonium production is to expedite Pakistan annual production of explosive devices, especially the number of TNWs to neutralize the CSD which aims to mobilize the Indian forces in quick time and pronounce war on Pakistan to severely punish it by capturing its main cities near to the border areas.

Currently, Pakistan has a well-developed nuclear material production facilities of both Uranium and as well as Plutonium. The Uranium program is run at Kahuta which produces 120kg-180kg enriched Uranium annually. 120kg-180kg of Uranium is sufficient for producing 7-15 nuclear weapon. Apart from the Uranium enrichment program, Pakistan's Plutonium production for nuclear weapons is centered at Khushab under the supervision of PAEC. The Khushab nuclear plant is out of IAEA safeguards and Pakistan is increasingly expanding its reactors for greater plutonium production. Currently, the Khushab III and Khushab IV are under construction through Chinese cooperation. The total sum production of Khushab nuclear plant is 12kg – 24kg which is sufficient for producing 3-5 plutonium bomb annually. Once all the plants at Khushab started to work, Pakistan would be able to produce almost 65kg plutonium enough for producing a dozen nuclear devices annually. Pakistan has directed lavish amount of money to its nuclear program in the current year both to increase the production of fissile materials for military and civilian use.

CHAPTER 2

IMAGES AND PERCEPTIONS OF U.S.

The 9/11 episode has exposed the vulnerabilities in the international system, particularly exposing the gaps in the U.S. homeland security. Moreover, the episode was not only an attack on the economic symbol of international order, the World Trade Centre but also an attack on Pentagon which is the symbol of U.S. global military primacy in the system. After 9/11, U.S. being a global power with unprecedented military strength, all of sudden found itself entrapped and exposed to new kinds of threats, particularly the threats from the nuclear and fissile materials which could be used against U.S. in future to wreak havoc of a larger scale than the 9/11.¹ In the aftermath of the 9/11, U.S. policymakers pronounced war on Afghanistan and Iraq subsequently to go after the perpetrators of 9/11, destroy their sanctuaries and bring them to justice. After these immediate actions, the U.S. policy makers and security experts started to view the nuclear weapons states, particularly the nuclear weapons of Russia and Pakistan as potential loose nukes that could be obtained by the rogues element and could be used against the U.S. homeland, its bases around the world or against its immediate allies in the various part of the world.² The U.S. fear that rogue elements and terrorist groups may get nuclear weapons, was confirmed from the news of the two Pakistan's nuclear scientists' meeting with Osama Bin Ladin.³ U.S. focus on the nuclear weapons security was further converged on the nuclear weapons in Pakistan when AQ Khan nuclear proliferation network was detected which is alleged to have transferred technical know-how to a number of states.⁴ Henceforth, the U.S. security experts and policy makers have become very critical of Pakistan nuclear weapons security and safety. These two incidents have

¹ Allison, *Nuclear Terrorism : The Ultimate Preventable Catastrophe*, 20.

² Marvin L. Astrada, *American Power after 9/11* (New York: Palgrave Macmillan, 2010), 74.

³ Allison Graham, "Tick, Tick, Tick," *The Atlantic Monthly*, Oct 2004 2004, 58.

<http://www.theatlantic.com/magazine/archive/2004/10/tick-tick-tick/303497/> accessed on 15-3-2015

⁴ *Ibid.*, 58.

turned the complete focus of U.S. experts towards the nuclear weapons in Pakistan and later on, further developments in Pakistan gradually became the base of U.S. perceptions about the security of nuclear weapons.

Though in the post 9/11 scenario, Pakistan and U.S. had continued their cooperation on the war on terrorism but their engagement on nuclear weapons security remained uneven and diametrically opposite to each other perspectives. Both Pakistan and U.S. had a different perspective on the Pakistan's nuclear weapons security and safety. Therefore, this chapter is aimed to explore the main images in the post 9/11 scenario that are shaping the U.S. perception and behaviour about Pakistan nuclear weapons security and safety.

This chapter argues that there are three main images which shape U.S. perceptions about Pakistan's nuclear weapons security. These images are the insider threats to nuclear weapons in Pakistan, the induction of TNWs to Pakistan's strategic force and the vertical proliferation of the Pakistan's nuclear stockpiles. These all images are complexly interlinked with each other and the U.S. academics and policy makers believe that because of these factors, the nuclear weapons or fissile materials may go into the hands of unwanted entities or groups which will directly or indirectly threaten the U.S. or its interests and allies in the region. These main images that shape U.S. perceptions about the security and safety of Pakistan nuclear weapons are further discussed in the following paragraphs.

2.1. The Image of insider threats to Pakistan nuclear weapons

The image of insider threat to Pakistan nuclear weapons security and safety remains the topmost factor shaping the U.S. perceptions about the security and safety of Pakistan nuclear weapons. Insiders are the military personnel that manage and protect nuclear weapons or they have substantial information about the locations of nuclear weapons or fissile materials in Pakistan. The U.S. security experts contend that there is a growing rise of extremism and

aggressive tendencies within the armed forces of Pakistan which not only guards the nuclear devices and their sites but also have a greater say in the final use of nuclear weapons against their arch enemy, India.⁵ Therefore, those who are the protectors or guardians of the nuclear weapons, remain the main threat to the security and safety of Pakistan nuclear weapons. The image of insider threats to nuclear weapons remains to be the main factor framing the current U.S. perceptions and behaviour about Pakistan's nuclear weapons.

In the recent years, the image of insider threat has got more credence because Pakistan army has experienced increasing insider threats of extremist forces within the army that had either cooperated or leaked information to the militant groups across the country for attacking the sensitive military installations and armed forces' higher echelons after Pakistan's alignment with the U.S. in its war on the terror. Such attacks were launched against the most fortified and highly guarded places such as General Headquarter (GHQ), Pakistan Naval Station Mehran (PNS Mehran)⁶ and on the top military leader such as ex-army chief of staff, General Pervez Musharraf. In the above all cases, insiders had cooperation with terrorists in one way or the other.

Pakistan has been experiencing the steady rise of extremist ideologies and numerous militant groups in the 21st century. These militant groups are becoming so powerful that some U.S. experts fear that Pakistan can be overflowed with terrorists toppling the state and finally seizing its nuclear weapons.⁷ The insider threat to Pakistan nuclear weapons remains the most potent and pungent in the post 9/11 scenario even though Pakistan has aligned itself with the U.S. in the war on terror. Under National Command Authority (NCA), Pakistan has recruited

⁵ Daniel Markey, "Pakistan's Insider Threat," *The Fletcher Forum of World Affairs* 38, no. 1 (2014): 43-44.

⁶Owais Tohid and Tom Wright, "Pakistan Suspects Insiders in Navy Attack," *Wall Street Journal (Online)*, 2011 May 30 2011. <http://www.wsj.com/articles/SB10001424052702304563104576355631403545182> accessed on 13-2-2015

⁷ Peter Kaminsky Chuck Hagel, *America: Our Next Chapter: Tough Questions, Straight Answers* (Harper Collins books, 2008), 262-63.

10000 soldiers from army, navy and air force to manage, deploy and protect its nuclear arsenals.⁸ So because of the growing extremist wave within the armed forces that provide manpower to the security and safety of Pakistan nuclear weapons, the insider threat to nuclear weapons cannot be denied.

The image of insider threat to the nuclear weapons further gets prominence when it comes to the retired Pakistan's military officers. The U.S experts and security analysts have shown increasing worriedness about the connection of retired Pakistan army generals with the terrorists.⁹ Jihadi tendencies and extremist ideologies have a history in the armed forces which was initially started to gain roots during the General Muhammad Zia-ul-Haq military regime.¹⁰ During Zia-ul-Haq rule, inspired by the Jihad, the Pakistan's army motto was changed to Islam, Piety, and Jihad.¹¹ Henceforth, the indoctrination of army with Jihad started and continued throughout the 1980s and a huge number of officer cadre were inspired from various Jihadi and Islamic organizations. In 1991, as many as 19 ex-generals of Pakistan army registered their presence in Jamat-e-Islami convention at Islamabad.¹² During the 1990s, Pakistan army was actively engaged through its premier secret agency in the Afghan Jihad. A number of retired generals termed the Taliban rule in Afghanistan as the best model and were hankering to have it in Pakistan too. In 1995, Major General Zahirul Islam Abbassi and his liked minded group of officer rank from army made a failed attempt to bring an Islamic coup against army chief General Abdul Waheed Kakar and Benazir Bhutto.¹³ The coup was pre-emptily defused and 36 officers from the army and 20 civilians were arrested for treason.

⁸ Salik, *The Genesis of South Asian Nuclear Deterrence : Pakistan's Perspective*, 237.

⁹ Rolf Mowatt-Larssen, "Nuclear Security in Pakistan: Reducing the Risks of Nuclear Terrorism," *Arms Control Today* 39, no. 6 (2009): 8.

¹⁰ Ayesha Jalal, *The Struggle for Pakistan : A Muslim Homeland and Global Politics* (Cambridge Belknap Press of Harvard Univ. Press, 2014), 224.

¹¹ Ayesha Jalal, *Partisans of Allah : Jihad in South Asia* (Cambridge, Mass.: Harvard University Press, 2008), 275.

¹² Stephen P. Cohen, *The Idea of Pakistan* (Washington, D.C.: Brookings Institution Press, 2006), 112.

¹³ Ziring, *Pakistan at the Crosscurrent of History*, 239-40.

After the attacks of 9/11 and the subsequent alignment of Pakistan with America on the war against Al Qaeda and its affiliates, some of the top rank officers of Pakistan's army were irked by the General Pervez Musharraf's decision of siding with the U.S. He abruptly made changes in the top ranks to avoid any probable rebellion or backlash against him.¹⁴ Soon after, violent series of attacks took place not only against General Musharraf but also on the top military officers considered to be the close aide of Musharraf. The corps commander Karachi, Lieutenant General Salim Hayat narrowly escaped an assassination attack in 2004 which was believed to be carried out through the information leaked from within the army to the terrorists about his location.¹⁵ The army chief General Musharraf also faced a number of assassination attempts involving the insider hands from lower ranks of the army that provided information about his location to terrorists.¹⁶ The growing threat of insider's hands led Musharraf to crack down against the officers having ties with Al Qaeda and Taliban.¹⁷ Musharraf knew it that U-Turn on Taliban policy after 9/11 would cause a severe backlash from the forces within the army.¹⁸ The backlash from the forces sympathetic to the Jihadi organizations within the army proved to be the main factor that gradually strengthened the image of insider threat that eventually, frames the U.S. perceptions about the security and safety of Pakistan nuclear weapons.

¹⁴ Rod Nordland, "A Fine Balance; Pakistani President Pervez Musharraf Is Walking a Tightrope as He Tries to Sideline Fundamentalists," *Newsweek*, 2001 Oct 22 2001.

¹⁵ Masood Salman, "A Top Pakistani General Escapes an Assassination Attempt That Kills 10 People," *New York Times*, 2004 Jun 11 2004. <http://www.nytimes.com/2004/06/11/world/a-top-pakistani-general-escapes-an-assassination-attempt-that-kills-10-people.html> accessed on 2-14-2015

¹⁶ Hussain Zahid and Solomon Jay, "Pakistan's Chief Again Escapes Assassination; New Attack on Musharraf Poses Possible Challenge to Antiterrorism Efforts," *Wall Street Journal*, 2003 Dec 26 2003. <http://www.wsj.com/articles/SB107235085468904400> accessed on 7-12-2014

¹⁷ Monitor Owais Tohid Special to The Christian Science, "Pakistan Gradually Purges Army Extremists," *The Christian Science Monitor*, 2003 Sep 11 2003. <http://www.csmonitor.com/2003/0911/p10s01-wosc.html> accessed on 2-9-2014

¹⁸ Bruce O Riedel, *Avoiding Armageddon: America, India, and Pakistan to the Brink and Back* (Brookings Institution Press, 2013), 145.

The image of insider threat to nuclear weapons in Pakistan slowly and gradually received more attention when increasing a number of insiders from the lower ranks of Pakistan's army collaborated with terrorists in launching very lethal and sophisticated attacks on the main military installation in Pakistan. In 2009, the General Head Quarter of Pakistan army had come under attack¹⁹ and the attack was mastermind by army medical corps officer Dr. Usman.²⁰ GHQ attack was followed by a ferocious attack on Parade Lane mosque killing 37 people including 17 children.²¹ Footprints of insider collaboration with terrorists were traced in this incident too.²² In May 2011, terrorists stormed in at Mehran airbase at Karachi destroying the US supplied P-3C Orion aircraft worth more than 35m \$.²³ The attackers had the prior knowledge of various sites and deployment within the base and Pakistan's authorities arrested several men from the armed forces for having links with terrorist groups.²⁴ The militant group involved in the attack threatened to carry such more attacks if the army did not release their members.²⁵ The attacks on the military installations highlighted the capability of terrorists' strength and their alleged connection within the army. These attacks also showed the disability of Pakistan's authorities for not detecting it priorly. The insider jobs in all these attacks further increased the U.S. fears about the security and safety

¹⁹ Shahid Rao, "Terror Attack on Ghq," *The Nation* October 11, 2009.

Accessed on 23-12-2014 <http://nation.com.pk/politics/11-Oct-2009/Terror-attack-on-GHQ>

²⁰ "Attack on Ghq: Confessions of a Terrorist Mastermind," *Dawn Newspaper* Sep 21, 2011.

Accessed on 25-12-2014 <http://www.dawn.com/news/660572/attack-on-ghq-confessions-of-a-terrorist-mastermind>

²¹ Alex Rodriguez, "The World; Cia Identity Breach Stirs Mistrust with Pakistan; Suspicion That the Isi Was Behind the Leak Is Likely to Hurt Ties as U.S. Is Urging Greater Anti-Terrorism Efforts," *Los Angeles Times*, 2010 Dec 19 2010. <http://articles.latimes.com/2009/dec/05/world/la-fg-pakistan-mosque5-2009dec05> accessed on 8-4-2015

²² Pervez Amirali Hoodbhoy and John Polyani, *Confronting the Bomb Pakistani and Indian Scientists Speak Out* (Karachi: Oxford University Press, 2013), 173.

²³ Anonymous, "Asia: Wishful Thinking; Unsafe Pakistan," *The Economist*, 2011 May 28 2011.

<http://www.economist.com/node/18745560> 9-7-2014

²⁴ Tohid and Wright, "Pakistan Suspects Insiders in Navy Attack."

http://article.wn.com/view/2011/05/30/PNS_Mehran_attack_case_ExPak_Navy_commander_arrested/ accessed on 21, 2015

²⁵ Syed Saleem Shazad. "Al-Qaeda Had Warned of Pakistan Strike." *Asia Times Online*, May 27, 2011.

Accessed January 21, 2015. http://www.atimes.com/atimes/South_Asia/ME27Df06.html

of Pakistan nuclear weapons and the probability of such attack with the help of insiders on the nuclear installations in Pakistan.

After US SEAL Operation at Abbottabad that killed Osama bin Laden in May 2011, Pakistan army once again experienced a backlash from within its officer cadre against the higher authorities. Brigadier General Ali Khan of Pakistan army was arrested for having affiliations with Hizb-ut-Tahrir, a group based in the UK which is struggling to establish an Islamic caliphate, along with many officers.²⁶ Later, a huge number of Hizb-ut-Tahrir members were trailed for sedition against the state.²⁷ Hizb-ut-Tahrir so far is the most known militant organization that has deeply infiltrated the armed forces and the exact number of its member within the armed forces are yet to be ascertained. Hussain Haqqani, Pakistan's previous ambassador to the USA, had emphatically stated at a conference in National Defence University Islamabad that the threat to Pakistan nuclear weapons and national security emanates from the elements within Pakistan.²⁸ Though the Hizb-ut-Tahrir is banned in Pakistan but its sympathizers still remain untouched both in the Pakistan's society and armed forces.

In addition to the above, the image of insider threat gains further strength from numerous instances where soldiers from Pakistan army had joined the militant organization for the purpose of Jihad and their faith against India, US, and its allies. In this connection, Captain Khurram from Pakistan Special Services Group (SSG) had initially joined Kashmiri militant groups and later, he switched his loyalty over to Al Qaeda and was killed in Afghanistan

²⁶ Zahid Hussain, "Pakistan Arrests General Suspected of Radical Ties," *Wall Street Journal (Online)*, 2011 Jun 22 2011.

²⁷ Ashraf Javed, "19 Hizb-Ut-Tahrir Men Booked under Sedition Law, Jailed," *The Nation* April 14, 2012. <http://nation.com.pk/national/14-Apr-2012/19-hizb-ut-tahrir-men-booked-under-sedition-law-jailed> accessed on 21-1-2015

²⁸ Hussain Haqqani is quoted in Fareed Zakaria, "Pakistan's Military Crisis," *The Washington Post*, 2011 Jun 23 2011. <http://www.highbeam.com/doc/1P2-28988184.html> 8-9-2015

fighting against the ISAF forces in 2007.²⁹ Similarly, Major Haroon of Pakistan army joined Lashkar-e-Taiba (LeT) and later, Al Qaeda.³⁰ He was involved in Mumbai 2008 attacks and the death of many Pakistan's soldiers who are fighting a war against the extremists in Tribal areas.³¹ Brigadier Sultan Amir Tarar, better known as Colonel Imam, had trained the Taliban in the 80s and 90s to fight against the former soviet unions in Afghanistan.³² Colonel Imam was later killed by the previous Tehrik-e-Taliban Pakistan (TTP) head Hakimullah Mehsud on the charges of being working for Pakistan and America.³³ The large number of soldiers who either deviated from the army to join the terrorist groups or joined the militant groups later after retirement give more credence to the stereotyping of the image of insider threats to the nuclear weapons which resultantly becomes the basis on which the current perceptions of U.S. are formed.

The image of insider threat to the nuclear weapons was further solidified on September 6, 2014, when Pakistan navy was once again attacked by militants affiliated with Al Qaeda and the target of militants was to hijack a Pakistan Navy frigate PNS Zulfiqar.³⁴ The assault was successfully neutralized and a number of militants were captured. Later, Pakistan defence minister, Khawaja Mohammad Asif publicly claimed on media that it was an insider job.³⁵ The claim of the insider job from top Pakistan's official only strengthens the fear of such insider offensive too in the nuclear establishment, particularly when Pakistan nuclear devices

²⁹ Syed Saleem Shazad, *Inside Al-Qaeda and the Taliban : Beyond 9/11* (South Yarra, Vic.: Palgrave Macmillan, 2011), 84-85.

³⁰ Ibid., 92.

³¹ Amir Mir, "Key Al-Qaeda Operative Set to Walk Free," *The News*, March 22, 2012.

<http://www.thenews.com.pk/Todays-News-6-98894-Key-al-Qaeda-operative-set-to-walk-free> accessed on 12-1-2015

³² Carlotta Gall, *The Wrong Enemy : America in Afghanistan, 2001-2014* (Boston; New York: Houghton Mifflin Harcourt, 2014), 28.

³³ "Hakimullah in Ttp Video of Colonel Imam's Killing," *Dawn*, Feb 19, 2011

<http://www.dawn.com/news/607249/ttp-issues-video-of-colonel-imams-killing>

³⁴ "Terror Attack Thwarted at Karachi Naval Dockyard," *DAWN News* Sep 09, 2014.

Accessed on 23-1-2015 <http://www.dawn.com/news/1130663>

³⁵ Faraz Khan, "Brazen Assault: Pns Dockyard Attackers Had 'inside Support'," *The Express Tribune* September 10, 2014. <http://tribune.com.pk/story/760271/brazen-assault-pns-dockyard-attackers-had-inside-support/> accessed on 22-9-2015

or fissile materials are on the move for shipment from one place to the other. Furthermore, Pakistan does not subscribe to the standardized way of shifting nuclear materials in proper conveyance which increases the possibility and chances of diverting materials to the unwanted hands.

As a result of growing involvement of insiders in the attacks on the sensitive installations of Pakistan army, the U.S. government had embarked on targeted wargaming and exercises to timely secure the nuclear weapons and fissile materials falling into the hands of terrorists or bad actors. These operations were specifically aimed to avert any untoward incident in Pakistan.³⁶ The US nuclear experts believe that the insider threat to nuclear security remains the most the convincing and likely. In such threats, the nuclear weapons or fissile materials could be transferred to terrorist groups without the knowledge or consent of state institutions, particularly the government officials.³⁷ The U.S government is working very close to the nuclear authorities in Pakistan to stave off any such scenario of terrorists securing the nuclear materials.³⁸ US offer of Permissive Access Links (PALs) technology to Pakistan was turned down by the Pakistan's nuclear authorities which would have made the unauthorized use of nuclear devices impossible.³⁹ However, the authorities in Pakistan claim to have its own indigenously prepared PALs for the nuclear devices.

To sum up, the image of insider threat to Pakistan's nuclear weapons security has been the main factor that overwhelmingly shape the perceptions and behaviour of U.S. towards the nuclear weapons security in Pakistan. A large number of historical and empirical evidence are present that substantiate the image of insider threat to the nuclear weapons. In this

³⁶ E. Ricks Thomas, "Calculating the Risks in Pakistan; U.S. War Games Weigh Options for Securing Nuclear Stockpile," *The Washington Post*, Dec 02 2007.

³⁷ Charles D. Ferguson, ed. *The Four Faces of Nuclear Terrorism* (New York; London: Routledge, 2005), 61.

³⁸ *Ibid.*, 96.

³⁹ Henry D. Sokolski, *Pakistan's Nuclear Future : Reining in the Risk* (Carlisle: Strategic Studies Institute, U.S. Army War College, 2009), 2. accessed on 10-3-2015
www.strategicstudiesinstitute.army.mil/pdffiles/pub963.pdf

connection, the links of retired army officers with the terrorist groups has become common knowledge. Adding to this, the image of insider threat further draws strength from the growing number of army officers that have joined terrorist organizations in the post 9/11 era. Moreover, the insider job in the most of the attacks against the high-profile locations like the GHQ and PNS Mehran signifies the image of the insider threat to the nuclear weapons security in Pakistan.

2.2. The image of vertical nuclear proliferation in Pakistan and U.S.'s perceptions

Along with the insider threat, the other image that predominantly shapes the U.S. perceptions about the security and safety of Pakistan nuclear weapons is the gradual rise of the vertical nuclear proliferation of Pakistan's nuclear devices. Pakistan produces the fastest nuclear weapons annually and is well ahead of the nuclear giants like USA and Russia in terms of the annual production of the nuclear weapons.⁴⁰ The current stockpile of Pakistan's nuclear arsenals is about 100-120 nuclear devices and Pakistan stores its nuclear weapons in seven estimated places across the country.⁴¹ The increasing number of nuclear devices, fissile materials, and nuclear sites require a greater number of reliable security personnel to protect and manage it. Pakistan, certainly, faces a colossal dilemma for meeting the standard of finding trustworthy and reliable personnel for the growing nuclear weapons management and protection.⁴² The more Pakistan produces the nuclear devices, the more nuclear sites, and men it needs to guard it against the outsiders that logically increases the chances of nuclear sabotage or diversion of nuclear materials to the unwanted hands which the U.S. ultimately fears. Adding to this, finding reliable men for the protection of nuclear weapons remains a

⁴⁰ Hans Kristensen and Robert Norris, "Pakistan's Nuclear Forces, 2011," *Bulletin of the Atomic Scientists* 67, no. 4 (2011): 91. Accessed on 1-4-2015, Available at www.pircenter.org/media/content/files/9/13511807020.pdf

⁴¹ Hans M. Kristensen and Robert S. Norris, "Worldwide Deployments of Nuclear Weapons, 2014," *ibid.* 70, no. 5 (2014): 105. Available at <http://bos.sagepub.com/cgi/collection/nuclearnotebook>

⁴² Naeem Salik and Kenneth N. Luongo, "Challenges for Pakistan's Nuclear Security," *Arms Control Today* 43, no. 2 (2013): 14. available on http://www.armscontrol.org/act/2013_03/Challenges-for-Pakistans-Nuclear-Security accessed on 8-3-2015

very serious issue across the world in general but it gets particular attention in the case of Pakistan where anti-U.S. feelings are at all-time high. Therefore, the image of vertical nuclear proliferation in Pakistan and the complexities associated with it remains the topmost U.S. concern shaping the current U.S. perceptions and behaviour regarding the nuclear weapons security in Pakistan.

The U.S. analysts say that the increase in the number of nuclear devices and fissile materials directly increases the concerns of nuclear theft, sabotage, disruption or misdirecting of fissile materials to unwanted hands of militants organizations which pose a direct threat to US interests at home and around the world.⁴³ They build their arguments by linking the increasing terrorists' attack with to the presence of high level generalized extremist tendencies in Pakistan's society. Based on these over simplified generalizations, they argue that as the society has a high average of extremist tendencies, so the same society is providing personals who are protecting the nuclear weapons and nuclear installations across the country. Therefore, the increasing number of nuclear weapons also require more men which ultimately increases the level and probability of the threat.

With every passing day, the number of analysts increases who raise the same concerns and connect the express production of nuclear weapons to the increasing probability of insider threats to the fissile materials. According to the WikiLeaks report published in New York Times, the US reservations spiked to the highest level when the US ambassador in Pakistan sent a secret memo to Washington expressing deep concerns over the nuclear security in Pakistan.⁴⁴ Similarly, Seymour M. Hersh quotes U.S. President Obama who had expressed

⁴³ Sanger David E and Schmitt Eric, "Pakistani Arms Pose Challenge to U.S. Policy," *New York Times*, 2011 Feb 01 2011.

<http://www.nytimes.com/2011/02/01/world/asia/01policy.html?pagewanted=all> accessed on 17-6-2015

⁴⁴ David E. Sanger Jane Perlez and Schmitt Eric, "State's Secrets Day 3; Wary Dance with Pakistan in Nuclear World," *ibid.*, 2010 Dec 01 2010. <http://www.nytimes.com/2010/12/01/world/asia/01wikileaks-pakistan.html?pagewanted=all> 1-7-2015 accessed

grave concerns over the mounting extremists' tendencies within the Pakistan society⁴⁵ that at the end of the day provides manpower to the various institutes in Pakistan. The increasing nuclear sites and materials require an increasing number of reliable people to manage and protect it.

In such an environment where the number of nuclear devices and the religious extremism grow simultaneously, the question of nuclear weapons security rises too. Seeing the danger emanating from this duos, U.S. had offered nuclear training and cooperation to Pakistan in order to prevent any untoward incident that has the potential to not only make Pakistan vulnerable but also immensely affect the security of U.S. However, the extent and limit of U.S. and Pakistan cooperation in securing nuclear weapons remains secret and undisclosed.

One of the main technology is Permissive Access Links (PALs) that guarantees the authorized use of nuclear weapons and makes the unauthorized use of nuclear devices nearly impossible. U.S. and the other developed states use it for their nuclear weapons. The U.S. policy makers say that their option of PALs to Pakistan is limited by the U.S. state law of export-control and the treaty of nuclear non-proliferation.⁴⁶ Contrary to the U.S. limitations on transferring this vital technology to Pakistan, the security experts in Pakistan have categorically monished the state to not use U.S. PALs which could make the use of nuclear weapons impotent during the time of crisis.

Owing to the above-mentioned constraints, Pakistan has developed PALs locally prepared to meet the challenges of the unauthorized use of the nuclear weapons. Some Pakistan's experts and as well as some U.S. nuclear experts believe that now, Pakistan is using its own

⁴⁵ Seymour M. Hersh, "Defending the Arsenal," *The New Yorker*, 2009 Nov 16 2009.

<http://www.newyorker.com/magazine/2009/11/16/defending-the-arsenal> accessed on 12-1-215

⁴⁶"Overview of U.S. Export Control System," US State Department

<http://www.state.gov/strategictrade/overview/>. Accessed on 2/3/2015

indigenously manufactured PALs for the security of its nuclear arsenals.⁴⁷ However, some critics like the South Asian security expert, Vipin Narang claims that PALs used by Pakistan is non-reliable and could be easily evaded during the time of war because of certain ambiguities integrated into its system.⁴⁸

The binary growth of increased number of nuclear devices coupled with the steady rise of the religious extremism in Pakistan has given birth to the image of vertical nuclear proliferation phenomena that continues to be one the main driver in the post 9/11 era that is shaping the perceptions of U.S. about the safety and security of Pakistan nuclear weapons security. As the number of nuclear weapons grows, the sites to preserve them and the personnel to protect them also increase respectively which in turn make the chances of nuclear theft more likely in Pakistan. Therefore, the image of vertical nuclear weapons proliferation in Pakistan is stereotyped in U.S. as a threat influencing its perceptions about the nuclear security in Pakistan.

2.3. The Image of TNWs and U.S.'s perceptions

Besides the images of insider threats and vertical proliferation, another image that shapes the perceptions and behaviour of the U.S. is the induction of low yield nuclear weapons or TNWs. TNWs are smaller in size and are comparatively more susceptible to theft or diversion than the normal nuclear weapons. In addition to the size, TNWs have no distinct core and trigger rather they are complete nuclear bombs with all parts joined together making it more prone to unauthorized use or its diversion to the unwanted hands which can eventually threaten every state, particularly U.S. or its interests. Moreover, the image of TNWs framing the U.S. perceptions gain greater primacy when it comes to the decision of

⁴⁷ Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*, 121.

⁴⁸ Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton University Press, 2014), 76.

the final use of tactical nuclear weapons in the battleground which most of the Pakistan's strategic expert claim that it will be in the hand of a low ranking officer from Pakistan.

Moreover, the growing number of the militant groups located near the Indian border where Pakistan will be deploying its TNWs in the time of crises make it more controversial from the U.S. perspective. These non-states militant organizations has the potential to trigger a conflict between Pakistan and India and later, their presence in the areas to border could make them able to acquire these tactical weapons which the U.S, security expert claim that they can be used against India where U.S. have increasing economic interests or it could be used against U.S. itself. Further, the induction of tactical nuclear weapons leads to a mated nuclear weapons both core and the trigger together which makes it deadly and prone to theft.

Tactical nuclear weapons are battlefield weapons that Pakistan has developed to counter the vast conventional force of India. U.S. has been opposing its induction into Pakistan's nuclear deterrence because of the apprehension that terrorist group may not seize it. U.S. claim that the induction of tactical nuclear weapons makes the nuclear deterrence more delegative in nature. Its final use authority delegated to a field officer could cause nuclear war because of the deeply entrenched hatred and animosity in the South Asian soldier among each other. Additionally, the induction of the tactical nuclear weapons also gives rise to the concerns of the intentional use of nuclear weapons against India.⁴⁹ The presence of militant organization around the Pakistan-India border, the mated form of the TNWs and decades-long deeply entrenched antagonism among the soldiers are based on which the U.S. perceptions about the security and safety of Pakistan nuclear weapons are based.

The factors that make the U.S. perceptions about the nuclear weapons security in Pakistan is further exacerbated by the now and then implicit explanation of Pakistan's experts whose

⁴⁹ bruno tertrais, "Pakistan's Nuclear and Wmd Programmes: Status, Evolution and Risks," *EU Non-Proliferation Consortium*, no. No. 19 (July 2012): 1. Accessed on 2-19-2015 and available on <http://www.sipri.org/research/disarmament/eu-consortium/publications/publications>

argument affirm that the authority of using nuclear weapons during the war could be delegated to the field officer, probably lieutenant colonel or colonel.⁵⁰ The introduction of tactical nuclear weapons by Pakistan put a huge question mark on the claimed assertive nuclear deterrence of Pakistan. This pre-delegated deterrence to an officer from lower ranks worries U.S. the most amidst the growing reports of extremism within the armed forces. As Mark Fitzpatrick sums it precisely that the most disquieting issue in South Asia is the intentional use of nuclear weapons.⁵¹

Besides the pre-delegative nuclear deterrence issue, U.S. security experts and policy makers also raise concerns that the tactical nuclear weapons could go to the unwanted hands or terrorist elements which have the potential to spur a crisis situation between Pakistan and India. The analysts also claim that these militant elements have a hefty presence around the borders areas where the nuclear weapons will be either deployed in the time crisis against India. Since their presence is sizeable, so they can easily get the deployed nuclear weapons or fissile material during the conflict. The acquired nuclear weapons later could be used against U.S. or India.

Pakistan claims to have de-mated nuclear devices storing the core and the trigger well away from each other. The nuclear weapons were not mated even at the time of crises with India but the introduction of TNWs raises many questions. However, the U.S.' analysts argue that since the core and the missile are mated in TNWs, so these physically mated forms make them more susceptible to theft or accidental use.⁵² If the unwanted elements or terrorists get their hands on these weapons during the crisis that would enable them to use against anyone

⁵⁰ Feroz Hassan Khan and Ryan W French, "Us-Pakistani Nuclear Relations, a Strategic Survey," (PASC Report Number 2014, 2014), 29. Accessed on 18-10-2014 and available on <http://www.isn.ethz.ch/Digital-Library/Publications/Detail/?id=185938&lng=en>

⁵¹ Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*, 49.

⁵² Charles P Blair, "Fatwas for Fission: Assessing the Terrorist Threat to Pakistan's Nuclear Assets," *Bulletin of the Atomic Scientists* 67, no. 6 (2011): 25. <http://thebulletin.org/fatwas-fission-assessing-terrorist-threat-pakistans-nuclear-assets> accessed on 2-8-2015

as they want. Adding to the pre-delegation of nuclear weapons use to an officer from lower ranks of the army, the vast spread of such pre-delegated nuclear weapons and delivery system across the vast border of Pakistan would make it more vulnerable to terrorist attack and theft.⁵³

Moreover, the physical safety of tactical nuclear weapons at the time of crisis touch off a new debate about the security of the nuclear weapons and give rise to more doubts and concerns. During the crisis, the nuclear weapons would naturally be exposed to a number of threats, especially the threats of extremists groups that can easily access it in the crisis situations. There are many militant organizations and their activities are directed towards India. These militant organizations could be a prime threat to the safety and security of nuclear weapons.

To make it brief, the main factors that ultimately contributes in formulating the U.S. perceptions about the security and safety of Pakistan nuclear weapons, particularly about the TNWs are the pre-delegation of the final use of nuclear weapons to the field officer, the presence of terrorist elements around the border areas who could undermine the physical security of the TNW during a critical situation. Besides these, the TNWs are mated which make them vulnerable and more liable to thief or seizure by the terrorist groups.

⁵³ Ibid.

CHAPTER 3

POST 9/11 PAK-US ENGAGEMENT ON NUCLEAR WEAPONS SECURITY: PAKISTAN'S PERSPECTIVE

As in the previous chapters, it has been explained through the neo-realist security paradigm that the U.S. after 9/11, has started to perceive threats of terrorism and particularly, nuclear terrorism from non-state actors at the international level. So in order to lessen the threats, the U.S. waged wars on various states and non-state actors which it perceived to be a likely danger to its national interests while looking the world through the neo-realist lenses. The proponents of neo-realism say that states cannot compromise on their security and at the same time they argue that states cannot rely on other states to neutralize threats that are currently confronting. In a similar manner, like U.S, Pakistan has also its own set of strategic compulsion and security dilemmas, but regionally in nature that it has to overcome in order to ensure its existence and solidify its security visa vis India. In the post 9/11 environment, Pakistan considers itself vulnerable because of a number of factors which it has to overcome for the purpose to ensure its existence and territorial integrity in the system.

Therefore, this chapter of the study will elaborate the Pakistan's perspective and responses on its nuclear weapons security and it will also present the Pakistan's perspective on the vertical proliferation of nuclear weapons in Pakistan, the induction of the tactical nuclear weapons to the Pakistan's defense, and the insider threats to nuclear weapons which have been raised by the U.S. and its allies in the post 9/11 international politics. The Pakistan's perspective and responses about its nuclear weapons security and rationale are also analyzed under the theoretical assumptions of neo-realism theory.

Pakistan's nuclear weapons are directed at India, against whom, it has fought three major wars since its inception in 1947. From the day one up to now, the bilateral history of Pakistan and India has been characterized by mistrust, antagonism, adventurism and insecurity. In the

1971 war, because of the Indian conventional force superiority, Pakistan has been dismembered into two halves and this conventional edge of India remains a major concern for Pakistan even today. In order to counter this threat, Pakistan has developed nuclear weapons. The nuclear weapons of Pakistan have prevented India from pronouncing a conventional war on Pakistan in the past. However, things started to change in the post 9/11 scenario. India has evolved a very provocative CSD that aims to punish Pakistan through a lightning war. Besides this, strategic calculus of South Asia was further imbalanced by the Indo-US nuclear deal. Moreover, the strategic imbalance was further exasperated by the news of induction of India into the NSG and U.S. transfer of Anti-Ballistic Missile Defense (ABM) system to India.

The main argument of this chapter is that like U.S., Pakistan also sees its regional environment through the neo-realist lenses. The changes in its regional environment like the Indo-US nuclear deal and the Indian CSD has been the main external factors forcing Pakistan to adapt the path that coincidentally remains the main concern of U.S. for example, the Indo-U.S. nuclear deal which has forced Pakistan to increase the pace of its vertical nuclear proliferation as to minimize the Indian better edge after the nuclear deal. Similarly, the Indian CSD has compelled Pakistan's strategic thinkers to develop Tactical Nuclear Weapons in order to neutralize the threat of the doctrine. This chapter also argues that as it is of high significance for Pakistan to keep the nuclear deterrence with India, it is also very important for Pakistan to keep its nuclear weapons safe and secure from all kinds of a threat so that the nuclear deterrence remains intact and practicable vis-a-vis India.

The U.S. concerns entirely miss the point that to whom the Pakistan's nuclear weapons are directed to and how it is imperative and essential for Pakistan itself to keep its own very nuclear devices and arsenals safe in order to maintain the nuclear deterrence with India. In addition to this, it is also imperative for Pakistan to keep building the nuclear weapons and

simultaneously, precipitate its growth vertically to overcome the underlying security dilemma created after the Indo-US nuclear deal and the Indian better position in terms of the quantity of the enriched materials available to it.

The Pakistan's behavior and position are justified and rationalized under the neo-realist theory that regards international system as inherently anarchic in nature and argues that there is no legitimate 'leviathan' that would ensure the security of the international units, of which the international state system is, currently composed up.¹ The lack of enforcer at the global level makes it compulsory for the states in the international system to fend for their own security through self-help and resources available to them at their disposal as to neutralize the maneuvers of their adversaries that threatens its existence directly or indirectly in the international system.

So any move by the opponent state to solidify its defense directly creates security dilemma for its opponent state and threatens its very existence. The US-Indo nuclear deal had created exactly the same level of security dilemma for Pakistan, giving an upper hand to the India in the region in terms of nuclear superiority that could enable it to manipulate the region to its strategic objective while upsetting Pakistan security concerns. In order to fill this security dilemma, created by US-Indo nuclear deal in the region, Pakistan, through self-help, started to respond to the better Indian position with the vertical proliferation of its nuclear arsenals. As a matter of fact, the U.S. initiatives in the South Asia, particularly the US-Indo deal is one of the triggering factors of Pakistan's speedy vertical nuclear proliferation.

¹ Jill Steans, *An Introduction to International Relations Theory : Perspectives and Themes* (Harlow, England; New York: Pearson Longman, 2010), 57.

3.1. Pakistan perspective on Vertical Nuclear Proliferation

The image of the vertical nuclear proliferation of Pakistan's nuclear weapons needs to be seen through regional lenses for the purpose to understand the Pakistan perspective on its nuclear weapons. Since its nuclear tests, Pakistan has maintained a very delicate nuclear balance with India despite her conventional superiority in the region. After the nuclear deal between U.S. and India, this nuclear parity and balance were disturbed while providing India an advantage over Pakistan in the region. According to the deal, India started to receive nuclear fuel, technology and access to the international nuclear markets around the world. The Indian access to nuclear market and agreements to receive nuclear fuel compels Pakistan to increase the level of its nuclear weapons because of the India can any time divert its nuclear fuel to make nuclear weapons whenever it wants to do so. Therefore, the image of vertical nuclear proliferation about Pakistan nuclear weapons is, in essence, the product of U.S. own policies in the South Asian region.

Pakistan and India both are non-signatory to the Nuclear Non-proliferation Treaty (NPT) which is the main component of the international nuclear non-proliferation regime. Indian and Pakistan have its own set of reservation over the legitimacy, legality and universality of the treaty and deems it discriminatory to the Non-NPT nuclear states.² Any state that doesn't sign the NPT is automatically ineligible to be the member of NSG—which is another elite group of states that are signatory to the NPT treaty. NSG member states share and sell nuclear technology to the NPT signatory states for the civilian purposes.³ NSG was instituted by the nuclear power states soon after India detonated its first nuclear test in 1974, originally named as London Supplier Group which later renamed as the NSG.

² Senator Bob Graham, "The Nuclear Non-Proliferation Regime: A Crisis of Confidence," *International Law and Policy Review* 1, no. 2 (2011): 168.

³ <http://www.nuclearsuppliersgroup.org/en/> accessed on 15-6-2015

So India being a non-signatory state to the NPT, was not supposed to be given the privilege of the civilian nuclear deal by the United State that leads the Nuclear Non-proliferation regime to prevent the further proliferation of nuclear technology and technical know-how to the non-nuclear weapons states. However, U.S. President George W. Bush and the Prime Minister of India Manmohan Singh signed a deal on July 18, 2005, the 'US-India Nuclear Cooperation Agreement or "123 agreement to cooperate in the civilian nuclear energy over the next three years."⁴ It is this Indo-US deal that has not only significantly changed the strategic balance in the South Asian region but also remains one of the vivid breaches of the nuclear non-proliferation regimes and norms. Practically, U.S. remains the main factor behind the speedy vertical proliferation of nuclear weapons in South Asia.

According to the aforementioned deal, Indian nuclear installations would be divided into two main categories; the civilian and the military respectively. The civilian installations would be placed under the International Atomic Energy Agency while the military installations were supposed to remain free of any inspections from the IAEA authorities. The Indian nuclear facilities are 22 in number and 14 out of it, were identified by India as civilian installations and were presumed to be placed under the IAEA safeguards.⁵ In December 2006, U.S. passed the Henry J Hyde U.S.-India Peaceful Atomic Energy Cooperation Act that gave a waiver to the Bush administration for formally starting business and transfer of the nuclear-related technology to India.⁶ The United State Congress and NSG group finally gave waiver to India on September 6, 2008, as to lift international nuclear trade barriers for India, allowing the

⁴ Leonard Weiss, "Us-India Nuclear Cooperation: Better Later Than Sooner," *Nonproliferation Review* 14, no. 3 (2007).

⁵ Daniel Horner, "Indian-U.S. Nuclear Trade Still Faces Hurdles," *armscontrolday Arms Control Today* 40, no. 1 (2010).

⁶ "US House Clears N-Deal Hurdle." *The Statesman*, Dec 09, 2006.

main nuclear power states such as France, United Kingdom, Russia, U.S., Canada and Australia to make a nuclear trade with India.⁷

India is interested in getting nuclear fuel and technology from the NSG states to quench the thirst of its booming economy and maintain its economic growth to the upmost level. So far India has signed a nuclear deal with Australia in September 2014 for the supply of nuclear fuel,⁸ with Canada as a civilian nuclear deal in June 2010,⁹ with Russia also as a civilian nuclear deal in 2008 and with the U.S., in connection of transferring nuclear fuel and technology to India. These increasing number of Indian nuclear deals has put India in a comparatively better position in terms of fissile materials and enriched uranium stockpiles. The Uranium resources of India would remain untouched and could be exclusively available for the military use. In addition to this, India can divert the available nuclear fuel from its civilian installations to the military use any time whenever it desires to do so. This better position of India has really upset the South Asian nuclear deterrence while undermining the security concerns in Pakistan. Pakistan had no option other than to respond and increase the pace of its nuclear arsenals' growth in a similar pattern as the neo-realist theorist claim.

The Indo-US nuclear deal changed the strategic calculus altogether in South Asia by upsetting the current balance of the nuclear deterrence between Indian and Pakistan. The said nuclear deal, resultantly, given birth to a new security dilemma for Pakistan along with the other dilemmas of Indian conventional superiority. As the neo-realist say that any move by one state can trigger a similar and equal response from the other state to overcome the underlying security dilemma created by its adversaries. As a response to overcome the

⁷ Wade Boese, "Nsg, Congress Approve Nuclear Trade with India," *Arms Control Today* (2008).

⁸ Niharika Mandhana, Saurabh Chaturvedi, and Rob Taylor, "India Poised to Sign Nuclear Safeguards Agreement with Australia; Would Clear the Way for Australian Uranium Sales," *Wall Street Journal* Sep 02 2014. <http://www.wsj.com/articles/india-poised-to-sign-nuclear-safeguards-agreement-with-australia-1409670468> accessed on 3-7-2015

⁹ "India, Canada Sign Civilian Nuclear Deal," *The Statesman*, Jun 28 2010.

security dilemma created by the Indo-US nuclear deal, Pakistan started to opt a path of speedy vertical nuclear proliferation as to avert the Indian better position.

The Pakistan's strategic thinkers say that India can anytime divert the nuclear fuel that it gets under the nuclear deal for the civilian purpose to military purposes to make nuclear arsenals that would likely to upset the nuclear deterrence between Indian and Pakistan.¹⁰ Besides this, India will get nuclear fuel from the other countries and the local nuclear reservoirs that do not fall under the jurisdiction of the deal, could be used to build more nuclear armaments to outpace Pakistan and destabilize the nuclear deterrence.

U.S. concerns about the vertical proliferation of Pakistan nuclear weapons and the subsequent security concerns of the nuclear devices' safety and security, entirely misses the point that the vertical nuclear proliferation is the strategic compulsion for Pakistan to keep its nuclear deterrence with India to be intact and lively. Pakistan has been put in this awkward situation by the U.S. and its strategic policies in south Asia, particularly the Indo-US civilian nuclear deal that forced Pakistan to increase the number of its nuclear bombs to counter India and its better position. The U.S. policy makers need to understand that Pakistan's option of more nuclear weapons has regional reason and textures. Furthermore, it is also essential for Pakistan to keep the security of its nuclear weapons foolproof in order to maintain the nuclear deterrence with India.

3.2. Pakistan's Perspectives on the image of TNWs

The image of TNWs that shapes the U.S. perceptions about the security and safety of Pakistan nuclear weapons also needs to be seen through the prism of regional security dynamics within the South Asian region. India and Pakistan have been the main players in South Asia and they have a long history of animosity and troubled relations with each other

¹⁰ Wajahat S. Khan, "Indo-US Nuclear Deal: Should Pakistan Be Concerned?," *The News International* January 26, 2015 <http://www.thenews.com.pk/Todays-News-13-35498-Indo-US-nuclear-deal-should-Pakistan-be-concerned> accessed on 29-12-2015

ever since they came into being. India has comparative large conventional strength in comparison with the conventional forces of Pakistan. Furthermore, India has adopted in recent years more aggressive doctrines based on big conventional forces against Pakistan. The most prominent example of such doctrines is the CSD that envisages a war of Integrated Battle Group (IBG) against to decapitate and punish Pakistan. As a response to CSD, based on the conventional asymmetry between Pakistan and India, Pakistan has developed TNWs to neutralize the threats of CSD against its territorial integrity. In turn, the development of TNSs by Pakistan is perceived by U.S. as a threat without bringing the strategic needs and compulsion of Pakistan in the South Asian region.

TNWs also called as battlefield nuclear weapons, are the product of Cold War between U.S. and former USSR when both states had developed and deployed these weapons in Europe to deter each other. The deployment of the TNWs was aimed to prevent the military superiority of the USSR over the European states. Tactical nuclear weapons inflict high damages and destruction at the tactical level upon the military forces of the enemy and paralyse their advance in the battle-field. Therefore, seeing the presumed high destruction and damages of the tactical weapons which would have resulted from the military advance of any of the Cold War power, had practically prevented the war and maintained peace in the Cold War. Similarly, seeing the utility and effectiveness of the tactical nuclear weapons in the Cold War, Pakistan has also developed tactical nuclear weapons, intending to deter the conventional superiority of the India and pressurize it from taking or resorting to the Cold Start sort of the military adventurism in the future.

India's CSD is just an extension and modern version of the Sundarji Doctrine which was envision by the Indian General Sundararajan to increase the concentration of the Indian forces (holding corps) near the border with Pakistan as a bulwark to repel any aggression from the Pakistan. Besides this, the Indian Army had developed three other counter-strike

corps (strike corps) concentrated in the central Indian states that would pronounce a counter attack on Pakistan.¹¹ The Sundarji Doctrine failed to produce the desired ends as envisioned by the Indian strategic experts after the Operation Parakram in 2001.¹² The failure of the Sundarji Doctrine had given birth to the CSD. According to this doctrine, India would use its 'Strike Corps' divided into further eight small units accompanied by intensive artillery, armor, and air support to inflict high harm on Pakistan by striking deep into Pakistan.¹³ Cold Start is an offensive strategy that aims to strike Pakistan below the nuclear threshold through Indian conventional leverage.¹⁴ As to counter the Indian CSD, Pakistan has started to produce low yields nuclear weapons that could be used in the battlefield against the conventional forces of the enemy.

In this regards, at March 20, 2011, Pakistan had carried out its first battlefield ballistic missile Hatf IX (NASR) to fill the gaps for achieving a full spectrum deterrence against India.¹⁵ The short range 60 KM ballistic missile was severely criticized by the western strategic community for fueling an arms race in South Asia and raising the threat of nuclear security in the region. Further tests of Hatf IX were carried out in November 2013¹⁶, and September 2014.¹⁷ In March 2015, Khalid Kidwai, the ex-director general of Strategic Plan Division said at the Carnegie Center Washington conference in March 2015 that Pakistan

¹¹ Tariq M. Ashraf, "Doctrinal Reawakening of the Indian Armed Forces," *Military Review* 84, no. 6 (2004): 54.

¹² Walter C. Ladwig, III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security* 32, no. 3 (2007): 162.

¹³ *Ibid.*, 166.

¹⁴ Kanti P. Bajpai, Saira Basit, and V. Krishnappa, *India's Grand Strategy : History, Theory, Cases* (London: Routledge, Taylor & Francis Group, 2014), 304.

¹⁵ "Pakistan Successfully Test-Fires Nuclear Capable Hatf-9 ", *The Express Tribune* 11 March 2011. <http://tribune.com.pk/story/131079/pakistan-successfully-tests-another-missile/>

¹⁶ "Pakistan Successfully Test Fires Hatf IX: Ispr," *The Express Tribune* November 5, 2013. <http://tribune.com.pk/story/627387/pakistan-successfully-test-fires-hatf-ix-ispr/>

¹⁷ "Pakistan Successfully Test-Fires Hatf-IX," *The Express Tribune* September 26, 2014. <http://tribune.com.pk/story/767512/pakistan-successfully-test-fires-hatf-ix-2/>

needs tactical nuclear weapons to counter the threat of Indian Cold Start Doctrine and its larger conventional force.¹⁸

Pakistan motivation to build tactical nuclear weapons is entirely based on the Indian conception of CSD that aims to pronounce a brisk war over Pakistan in a bid to de-capacitate its ability and limit its response without crossing the nuclear threshold line through integrated command and control system of land and air power. In this connection, India has already deployed its main armed corps alongside the Pakistan's border that regularly conducts such mobilization exercises to make the CSD more practice-able. Though India denounces any such strategy of CSD officially but it is this deterrence gap that Pakistan wants to fill through building defensive forces like tactical nuclear weapons to limit the Indian option of limited war and offensive behavior under the nuclear umbrella.

Since it is very important for Pakistan to maintain the nuclear deterrence with India, similarly, it is also very important for Pakistan to keep its nuclear weapons safe and secure and out of the terrorists' reach so as to keep the deterrence with India intact and practicable. For this purpose, The Pakistan's NCA has clearly reiterated its claims that the security and safety of Pakistan nuclear weapons are foolproof¹⁹ and Pakistan nuclear weapons have an assertive command and control system both in the time of peace and war.²⁰ The US concerns about the security and safety of Pakistan nuclear weapons clearly misses these points.

U.S. needs to understand the compulsion and limitations of Pakistan regarding the TNWs production and its final induction into the nuclear forces of Pakistan. Pakistan perceives the huge Indian military force backed by adventurous doctrines as a vivacious threat to its very

¹⁸ "'Pakistan Needs Short-Range 'Tactical' Nuclear Weapons to Deter India' ", *The Express Tribune* March 24, 2015. <http://tribune.com.pk/story/858106/pakistan-needs-short-range-tactical-nuclear-weapons-to-deter-india/>

¹⁹ Mateen Haider, "Pakistan's Nuclear Arsenal 'Not against Anyone': Pm Nawaz," *Dawn*, September, 09, 2015.

²⁰ https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=488&search=1January accessed on 13-7-2015

existence. As the neo-realism says that states always take measures in the international system to overcome the threats and minimize the level of security dilemma through resources available to them. Exactly true to the propositions of the neo-realists, Pakistan's decision to produce TNWs is based on its rationale of the presumed conventional inferiority in comparison with India.

3.3. Pakistan's Perspective on the Insider Threat

After 9/11, Pakistan has been portrayed in the international media, especially in the U.S. media as a state that sooner or later will be overwhelmed by the Jihadists.²¹ The increasing number of the terrorist attacks in Pakistan were started to link with the nuclear weapons security in the country. In this regard, both the U.S. policy makers and academia were on the same page. Instead of appreciating a number the vital steps taken by Pakistan to fortify the nuclear weapons security and prevent the nuclear proliferation and nuclear proliferation, the western academic and media focused on the counterfactual possibilities. The moves taken by Pakistan are the standardizing and implementing a high export-control list, significant measures to strengthen the security and safety of its nuclear weapons and nuclear installations within the country and a whole-hearted cooperation with international nuclear security and non-proliferation regimes. Ignoring the bright side, U.S. experts continuously disseminated a malicious propaganda of the insider threat to nuclear weapons from within the Pakistan's nuclear establishment. The nuclear security expert, Mark Fitzpatrick also affirms that the insider threat to Pakistan's nuclear weapons is extremely over exaggerated in the western media.²² Since 9/11, there has been no incident reported of such kind and the nuclear threat initiative ranks Pakistan's nuclear security and safety higher than India.²³ The nuclear

²¹ Lisa A Curtis, *Keeping Pakistan's Nuclear Weapons out of the Hands of Terrorists* (Heritage Foundation, 2007), 2.

²² Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*, 118.

²³ <http://ntiindex.org/> accessed on 14-7-2015

security establishment uses various Personal Reliability Program (PRP) to keep a continuous check and prevent every intrusion.

Pakistan's nuclear weapons and fissile materials are protected by SPD through a multilayered security apparatus. To the latest reports, SPD has recruited more 30000 men for the management of nuclear weapons and security.²⁴ Besides high measures for preventing the attacks on nuclear facilities, SPD has adopted a very robust kind of human reliability program to assess the individuals working in the SDP. Ever since its adaptation, no reports of any kind of potential threat has been reported. The SPD routinely assess its personnel behavior and other people related to the nuclear establishment or working within the organization. Along with the well-built PRPs, Pakistan has instituted a comprehensive nuclear export control list to prevent nuclear theft and proliferation. Pakistan has also established an effective export control list in 2004 to regulate the nuclear materials and ensure its presence in the right hands.²⁵ The export list is appreciated by the international community and as well as by the U.S. itself.²⁶ While strictly complying with the international nuclear nonproliferation norms, Pakistan had set up PNRA in 2001 to supervise the fissile materials in the country.²⁷ In the post 9/11 era, Pakistan has been evolving its nuclear weapons and fissile materials security constantly with the changing security challenges. The impeccability of the nuclear weapons security is evident from the statistics which expressly show that so far no accidents or act of sabotage has been reported in Pakistan

Pakistan has been fighting the terrorists since 9/11 alongside the international community. The terrorists' incidents were, expectedly high but in the most recent time, it has launched a

²⁴"Pakistan's Nuclear Arsenal Not against Anyone: Nawaz Sharif ", *The Economic Times* 9 Sep, 2015. <http://economictimes.indiatimes.com/news/defence/pakistans-nuclear-arsenal-not-against-anyone-nawaz-sharif/articleshow/48888186.cms>

²⁵ Kenneth N. Luongo and Naeem Salik, "Building Confidence in Pakistan's Nuclear Security," *Arms Control Today* 37, no. 10 (2007): 15.

²⁶ "Move on Export Control of Sensitive Technologies, Goods Praised by Us," *Dawn* September 17, 2015.

²⁷ "Pakistan Nuclear Regulatory Authority (Pnra)," Nuclear Threat Initiative (NTI).

Accessed on 22-1-2015 <http://www.nti.org/facilities/86/>

grand offensive of Zarb-e-azb in its tribal areas against the terrorists and their infrastructure. As a result of which the graph level of terrorists' attack has declined significantly.²⁸ The dismantling of infrastructure and the decrease in their activities have made the insider threat to nuclear weapons impossible. Furthermore, General Raheel Sharif, the incumbent Chief of Army Staff, is bringing a more moderate cadre of the army to the forefront with a purpose to fight the menace of terrorism efficiently. These developments have made the insider threat unlikely to the nuclear weapons.

The militant groups still have their presence in Pakistan but there has been a change of guard in the GHQ regarding the presence of terrorist organizations in the country. This change had been noticed when army eliminated the members of Hizb-ut-Tahir within the ranks of security forces. The organization is now officially banned. Furthermore, the surfacing of the said group within the army was responded by a very comprehensive purge within the organization against all those aspiring for the Hizb-ut-Tahir manifesto or other like-minded groups active in the country. In addition to it, Pakistan has most recently started to squeeze space for the other militant organizations operating within the country in one way or the other. In this regard, heads of many organizations were apprehended and some others were killed in encounters. Pakistan has also started to press the Indian-centric Jihadi organization that had been pointed out by U.S. as the potential organizations capable of triggering major conflict between India and Pakistan in the future.²⁹ The gradual elimination of terrorist organizations in Pakistan is making the insider threat image less relevant with every passing day.

²⁸ "70% Decline in Terrorist Attacks in Pakistan," *The Express Tribune* September 9, 2015.

<http://tribune.com.pk/story/953303/over-last-9-months-70-decline-in-terrorist-attacks-in-pakistan/>

²⁹ Masood Salman, "Pakistan Arrests Militants Suspected in Attack on Indian Air Base," *New York Times*, Jan 14, 2016. <http://www.nytimes.com/2016/01/14/world/asia/pakistan-india-pathankot-jaish-muhammad.html> accessed on 14-1-2016

In addition to the change of policies and crashing of extremist organizations, Pakistan has been working earnestly to make the physical security of its nuclear weapons invulnerable through a long-range security apparatus deployed around its nuclear weapons. The security apparatus with the multilayered division of security personnel makes any physical assault impossible on the nuclear sites. Moreover, the introduction of various reliability programs, steps taken to eliminate terrorist organizations and the standardized physical security web the insider threat or the insider-outsider collaboration almost irrelevant.

Pakistan had taken efficient steps to minimize the insider threats to the nuclear weapons in the country. Firstly, it had announced a ban on the terrorist's organizations working in the country, no matter of which color and taste these groups were. The move has been evident from the clamping down on numerous terrorist organizations in the recent days. Secondly, it has adopted a very robust kind of export control program that has made the nuclear materials secure and out of the reach of unwanted hand. Lastly, as Pakistan is fighting a war against terrorism, the more moderate generals in the army has been promoted to effectively deal with the scourges of terrorism and eliminate the militant groups once and for all. All these measures indicate that the insider threat is no more an issue as it was portrayed in the western media.

CHAPTER 4

POST 9/11 PAKISTAN-U.S. ENGAGEMENT ON NUCLEAR WEAPONS SECURITY AND SAFETY: AN ANALYSIS

This chapter of the thesis is aimed to analyze both the perceptions of Pakistan and U.S. about the security and safety of Pakistan nuclear weapons. As explained in details in the previous chapters, the perceptions, and responses of both U.S. and Pakistan are based on different threats perceptions and world-view. Therefore, this chapter comparatively analyzes the competing perspectives of both Pakistan and U.S. systemically and elaborates comprehensively that how far these contrasting viewpoints and perceptions have given rise to mutual suspicions and doubts about each other's intentions and behaviors in the post 9/11 engagements on nuclear weapons security while keeping in the mind the strategic compulsions and security imperatives of both states. Moreover, this chapter also attempts to put forward recommendations and suggestions for the purpose of abridging this widening trust gap in order to enhance cooperation in the realm of nuclear weapons security, restore the trust and eliminate all kinds of misperceptions and irritants in the bilateral relations between Pakistan and U.S., particularly in the domain of nuclear weapons security.

Moreover, the chapter also traces down the extent and limits of the cooperation between Pakistan and U.S. for enhancing the safety and security of Pakistan's nuclear weapons. Furthermore, the chapter explicitly elaborates Pakistan's contribution to the strengthening of nuclear non-proliferation and nuclear security regimes. Besides these, the chapter also presents the case of Pakistan that despite the incredible contributions and sincere efforts, how systemically Pakistan is denied entry into international mainstream nuclear order, particularly in the Nuclear Suppliers group?

4.1. Comparative analysis of Pak-US perceptions and response about nuclear weapons security in the post 9/11 scenario

Pakistan and U.S. both have a different set of security concerns and national security imperatives. U.S. after 9/11 found itself increasingly vulnerable to the threats emanating from the non-state actors across the world that had repeatedly showed their intent to acquire nuclear weapons and use it against U.S. Similarly, Pakistan's behavior in the post 9/11 era has been continuously driven by the developments in the South Asian region, particularly the developments and the change of behaviour in its eastern border. Pakistan feels vulnerable in the face of huge conventional Indian force and the threatening Indian doctrines that intend to decapitate it through its CSD. The Pakistan's security concerns, in the post 9/11 scenario, were further fueled when U.S. signed a nuclear deal with India while giving it an upper hand in terms of technology and nuclear fuel in comparison with Pakistan in the region, simultaneously disturbing a very delicate balance of power between India and Pakistan. As a consequence of the mentioned the deal, true to the assumptions of neo-realists, a security dilemma has been triggered and as a response to it, Pakistan started to minimize the threat through producing more nuclear weapons. Pakistan deems it both rational and the only possible option at its disposal by now to equalize the Indian mounting power in the region through more and miniaturized nuclear devices. Unfortunately, this increasing celerity of nuclear weapons productions was once again viewed in the U.S. security community as a threat.

U.S. behavior after 9/11 is elaborately explained through neo-realist lenses in the previous chapters. U.S., soon after 9/11, announced Bush Doctrine that has spelled the future course of actions for U.S. Under the Bush Doctrine, U.S. announced that it would take actions unilaterally against the elements responsible for the 9/11 tragedy and would preempt any threat that has the potential to threaten its interests or homeland security in any way in future.

Thereafter, U.S. pronounced its war on Afghanistan and Iraq subsequently. The next and the most potent threat that U.S. security analysts identified, was the threat of nuclear weapons. A number of nuclear experts expressed these concerns in general but some scholar particularly turned their criticism towards the security of Pakistan's nuclear weapons. Among them, Michael Krepon was the most critical and had an opinion that the religious zealots in Pakistan will take control of nuclear weapons.¹ Similarly, U.S. ex-secretary defense, Robert Gates says in his memoirs that after the 9/11, Bush Team was paranoid from a possible nuclear attack by terrorists in U.S. big cities.²

U.S. administration started to view Pakistan nuclear weapons security simply not enough when the news of a Pakistan's based nuclear proliferation network of Dr. AQ Khan was detected that has allegedly transferred nuclear know-how and nuclear materials to North Korea, Iran, and Libya.³ Pakistan and its nuclear weapons were in the spotlight of international media. Things were further exasperated when the news of Pakistan's nuclear scientists' meeting with Osama Bin Ladin came to surface⁴ that Osama was interested in making nuclear bombs which would be used against the U.S. and its allies. Pakistan was highly criticized both in western media and American media alike.

Pakistan immediately put AQ Khan under house arrest and dismantled his network. AQ Khan Network had been working on its own and a number of Pakistan's security experts claim it. They say that khan had forged a very intricate and vast network in the 1980s and he was spearheading that network without any knowledge or learning of government of Pakistan. State's institutions were unaware of his activities. Soon after the detection, AQ Khan was deposed and Pakistan introduced very effective laws for export control and nuclear

¹ Krepon, *Better Safe Than Sorry: The Ironies of Living with the Bomb*, 105.

² Robert Michael Gates, *Duty : Memoirs of a Secretary at War* (New York: Alfred A. Knopf, 2014), 94.

³ Gordon Corera, *Shopping for Bombs : Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network* (London: Oxford University Press, 2009), 219.

⁴ Cohen, *The Future of Pakistan*, 177.

supervision. Pakistan also established a separate institution Pakistan Nuclear Regulatory Authority (PNRA) with special functions of supervising fissile materials within the country.

However, U.S. doubts regarding the security and safety of Pakistan nuclear weapons did not diminish, rather an upward trend has been witnessed in its stance. The 2009-10 year had been the most violent year in the history of Pakistan when the terrorist attack reached a very high level. Meanwhile, some incidents also occurred when the lower cadre of the army was involved or provided information to the terrorists about the sensitive military based in different areas of Pakistan. This news had been given a very high space in the U.S. media by linking the nuclear weapons security with insider threats without pondering over the complex and very reliable programs that Pakistan had adopted to prevent any such intrusion. As the nuclear security expert, March Fitzpatrick says that insider threat to Pakistan nuclear weapons are very unlikely. Pakistan nuclear weapons have a multi-layered security apparatus that causes any possible attack on sensitive sites almost impossible.

Along with a very robust and an impeccable nuclear security program, Pakistan has currently launched a very decisive operation against terrorist elements in the tribal areas of Pakistan. The operation has broken down the terrorists' network and their activities have been reduced manifold. According to the latest report of Washington Post, there is a phenomenal decline of 70 percent in the terrorism-related violence in the year of 2015.⁵ Pakistan has also launched a parallel operation against terrorist elements in Karachi and almost across Pakistan which has not only eliminated terrorists' network but also spelled the future course of actions of the Pakistan's state for any religious organization operating in the country.

These developments and measures have brought the possibilities of insider threat or any other physical assault on military installations nearly impossible. All factors such as multi-layered

⁵ Tim Craig, "In Pakistan, a Prime Minister and a Country Rebound -- at Least for Now," *The Washington Post*, September 7, 2015.

security apparatus, various personal reliability programs, export-control list, and institutional supervisory and constant check of fissile and radiological materials in the country greatly belie the image of insider threat to Pakistan nuclear weapons. The recent Pakistan's efforts have been well appreciated by the international community, particularly U.S. by itself.

The next image that has been constantly highlighted in the U.S. media and which remains to be the core factor that is increasingly influencing the perceptions of U.S. is the vertical nuclear proliferation of Pakistan nuclear devices. The most recent report circulated in the U.S. media argues that if Pakistan continues the pace of its nuclear weapons production at the same level, it will very soon surpass United Kingdom (U.K.) and France and will become the third largest nuclear weapons possessor.⁶ Adding to this, *The Bulletin of Atom Scientist* claims that if Pakistan maintains the current pace of its nuclear weapons production, it will become the fifth largest nuclear weapons possessor in 2025.⁷ The western security experts claim that the more nuclear weapons mean, the greater are the possibility of theft or possible misuse. They further say the more nuclear weapons means more reliable security men to protect it that is a challenge to Pakistan where the general level of religious extremism is comparatively higher than any other nuclear power state.

As explained in chapter four that factors responsible for Pakistan's vertical nuclear proliferation and speedy productions are the U.S. initiatives in South Asia that have created security dilemma for Pakistan and had left it with no other option than vertical nuclear proliferation after the US-Indo nuclear deal. After the said deal, India is getting nuclear technology and fissile materials from U.S. and other western countries. The acquisition of nuclear technology and fissile materials has severely disturbed the delicate balance of power and nuclear deterrence between Pakistan and India. Pakistan request for a similar deal with

⁶ "Pakistan's Nuclear Arsenal Could Become the World's Third-Biggest" *The Washington Post*, Aug 26, 2015.

⁷ Hans M Kristensen and Robert S Norris, "Pakistani Nuclear Forces, 2015," *Bulletin of the Atomic Scientists* 71, no. 6 (2015).

U.S. was turned down and as the neo-realists presume that states always try to fill or decrease the level of security dilemma through self-reliance. Similarly, through self-help rational, Pakistan also started to produce more nuclear weapons in order to decrease the level of security dilemma because of the better position of India after the Indo-US nuclear deal. As the U.S. perceptions are moved by the international system and the evolving threats to its security at the international level, similarly, Pakistan's perceptions are driven by the regional system where it feels highly threatened by the security dilemma triggered by the Indo-US nuclear deal.

U.S. need to understand this thin line that much of its reservations about Pakistan nuclear weapons are of its own creation. It is the U.S. deal with India that has stimulated Pakistan to produce more nuclear weapons and reduce the Indian preponderance in the region. If U.S. wants to get rid of this catch-22 situation, it would have to offer a similar deal with similar provision to Pakistan that would address its concerns and reduce the threat level for Pakistan in the South Asian region.

Besides the above-mentioned images, the third image that has been increasingly contributing to the formation of U.S. perceptions about the security and safety of Pakistan nuclear weapons is the induction of tactical nuclear weapons in the strategic forces of Pakistan. The U.S. security experts claim that tactical nuclear weapons have given birth to the possibility of a nuclear exchange in South Asia. They also say that tactical nuclear weapons being small and easily portable, could be acquired by the terrorists or even it could be possibly used by the field officer in the time of war against India. However, U.S. experts ignore the fact that why Pakistan has produced tactical weapons in the very first place? Tactical nuclear weapons production is a realistic and appropriate response of Pakistan to the Indian proactive strategy of Cold Start. Pakistan wants to maintain deterrence with India at any cost and the tactical nuclear weapons are the most cost effective tool to get that ends done. The U.S. security

experts ignore the point that as it very important for Pakistan to keep the deterrence with India alive, at the same time it is very essential for Pakistan to keep its nuclear devices safe and secure in order to keep the nuclear deterrence active and intact.

The opposing stances of U.S. and Pakistan coupled with the constant negative portrayal of Pakistan's nuclear weapons security in the U.S. media has given birth to worst suspicions and doubts both in the minds of general Pakistan's public and security establishment. In addition, this, the increasing reports in the U.S. media to apportion resources and men that would secure Pakistan's nuclear weapons⁸ in the case of any nuclear emergency further aggravated the trust deficit level. Pakistan's strategic community started to view U.S. as a more obvious threat to its nuclear weapons than the other conventional threats at home. Pakistan's efforts to strengthen the nuclear nonproliferation and security regimes had been altogether ignored by the U.S. experts. Nuclear security expert, Mark Fitzpatrick correctly points that Pakistan's efforts for securing fissile materials have been ignored by the international community and while counterfactual points have been highlighted.⁹

Pakistan has set up a very vibrant and trustworthy mechanism to supervise fissile materials, ensure the safety and security and safety of the nuclear devices and ascertain the assertive use of its nuclear weapons in the time of conflict. In 2001, Pakistan has set up an autonomous Nuclear Regulatory Authority to supervise fissile materials which have standard equivalent to that of IAEA. PNRA is entrusted to protect and regulate fissile materials in order to safeguard the environment, sites, and materials from going into the unwanted hands. Under PNRA, Pakistan has also instituted National Nuclear Security Action Plan that aims to perform diversified functions ranging from imparting nuclear security and safety center to using equipment for the detection and regulation of fissile materials in the country. Adding to these,

⁸ Jeffrey Goldberg and Marc Ambinder, "The Pentagon's Secret Plans to Secure Pakistan's Nuclear Arsenal," *National Journal*, Nov 04, 2011.

⁹ Fitzpatrick, *Overcoming Pakistan's Nuclear Dangers*, 116.

Pakistan has a very effective body of NCA that takes the final decision regarding nuclear weapons. Adding to these, Pakistan has set SPD that works under the NCA and is responsible for the management of nuclear weapons. According to the recent reports, SPD has more than 30000 men for the management and protection of nuclear weapons and fissile materials across the country.¹⁰ The SPD has adopted its own Personal Reliability Programs (PRPs) that ensures the prevention of any intruder.¹¹ Pakistan has also adopted a very tight export control list which similar to the list adopted by NSG or Australian group or Wassenaar Arrangement.¹² Pakistan being outside the nuclear non-proliferation regime has contributed more than any other states to prevent further nuclear proliferation around the world.

Besides the initiatives at home, Pakistan has been wholeheartedly contributing to the strengthening of international nonproliferation and security regimes. Pakistan has been a regular attendee of Nuclear Security Summit (NSS) and its efforts in strengthening nuclear weapons security has been appreciated at this forum. Moreover, Pakistan has been sincerely collaborating with 1540 committee and is an active member of the different multilateral convention for the protection of nuclear materials.

In spite of immense contributions and efforts for strengthening nuclear security and cooperation with international community in preventing nuclear proliferation, Pakistan could not effectively communicate its concerns and apprehension to international community, particularly to U.S. that how its immediate interests are threatened at the regional level both by the U.S. initiatives in South Asia and the Indian intimidating policies. Pakistan needs to enliven its diplomatic efforts to disseminate its strategic apprehensions and security imperatives at every platform with an intention of convincing the international community,

¹⁰ Mateen Haider, "Pakistan's Nuclear Arsenal 'Not against Anyone'" *Dawn* September 09, 2015.

¹¹ Khan, *Eating Grass: The Making of the Pakistani Bomb*, 340.

¹²Salik and Luongo, "Challenges for Pakistan's Nuclear Security," 16.

particularly U.S. that its schemes are disturbing the deterrence balance in South Asia. As U.S. nuclear deal remains to be one of the causes of Pakistan's nuclear behavior. So it is also U.S. that can prevent the situation from going further worse through offering a similar deal to Pakistan.

If the U.S. offers a civilian nuclear deal to Pakistan similar to the one, it had signed with India, will not only change Pakistan's behavior regarding the vertical nuclear proliferation but will also win Pakistan's cooperation and good will in fighting the war against terror. The deal will bring Pakistan at par with India in terms of nuclear fuel and technology while equalizing the balance of power that was tilted towards India after the Indo-US nuclear deal. Beside the balance of power between Pakistan and India, the deal will earn the good will of Pakistan's and will result into assuaging the grievances that Pakistan has with the U.S. after its alignment in the post 9/11 war on terror coalition. Pakistan's claim of being the victim of U.S. led war against terror and the grievance of being ignored by U.S. as an important ally will be turned into the favor of U.S. with the deal in hand, Pakistan will be able to shift its resources and focus on the fighting war against terrorists in its tribal region where new actors with more brutal and deadly intentions have been emerging. The new challenges that threaten both U.S. and the region, including India will be cooperatively tackled.

In case, if the U.S. continues its policy of preference to India over Pakistan in the field of nuclear cooperation coupled with the now and then critique of the nuclear weapons security in Pakistan, the trust gap and suspicion will make both states not less than the enemies of each other. As the neo-realists say that states always try to minimize the threats and security dilemmas. Similarly, Pakistan will continue to produce more nuclear weapons and it may re-asserts its policy of using proxies to balance the power with India. Competition with India means more nuclear weapons and softer corner for the proxies in the region. Pakistan's competition with India will make Pakistan's nuclear weapons more insecure because of the

large numbers of nuclear devices and even greater number of religiously motivated Jihadi organizations. This, in turn, will also affect the U.S. by making it indirectly vulnerable to many threats and the U.S. perceptions about the nuclear weapons security will get more severe. Pakistan's competition with India will directly influence the U.S. efforts in Afghanistan which simmering since the U.S. attack.

Conclusion

9/11 event has greatly shocked the world, particularly U.S. It has exposed the vulnerabilities of the international system and specifically, the threats emanating from the non-state actors to the security and interests of states. After the incident, U.S. abruptly evolved its strategy which is better known as Bush Doctrine to track down the perpetrators of 9/11 and dismantle their sanctuaries and training camps across the world. In this connection, United State attacked Afghanistan where the presumed masterminds of 9/11 attack were taking refuge. After the neutralizing the immediate threats and safe havens in various parts of the world, U.S. started to focus on the other potential threats which had the possibility of undermining its national interests and homeland security. The next threat according to the nuclear experts and policy practitioners in U.S., was the nuclear weapons in various parts of the world where its security was either loose or there was a heavy presence of terrorist elements that had the capacity to acquire it. In this connection, the policy makers of U.S. had pointed at states such as Russia and Pakistan where, according to them, the nuclear weapons security remained unsubstantial and poor.

Meanwhile, the news and intelligence reports about Al Qaeda's intentions to get nuclear materials and use it against U.S. and its allies started to dominate U.S. media discourse. Coupled with Osama's eagerness in acquiring a nuclear bomb, the news of Pakistan's nuclear scientists meeting with Osama were also reported that finally led to increasing obsession of U.S. experts about the security and safety of Pakistan nuclear weapons. Two of the Pakistan's nuclear scientists had met Osama Bin Ladin and his second in command in Afghanistan. Osama had shown his keen interests in nuclear weapons and wanted to make or get it through any means. Adding to this, the media discourse in U.S. about the nuclear weapons security in Pakistan was further energized when AQ Khan Network was exposed that had allegedly transferred technical know-how and enrichment-related technological devices to the various

countries. A number of states have openly accepted that they have got support and technical know-how about the nuclear weapons making and Uranium enrichment from Pakistan through the said nuclear proliferation network. After the network detection, not only U.S. but also international community turned the barrel of their criticism towards the security of Pakistan's nuclear weapons.

In the post 9/11 era, U.S. and Pakistan behavior has been continuously propelled by the neo-realist world view. True to the presumed assumptions of neo-realism that international system directs the behavior of states, both Pakistan and U.S. found their selves increasingly vulnerable to the changes in the system. U.S., being challenged by the non-state actors and the threat of radiological materials, started to view nuclear weapons states with growing suspicion and doubts. After the episode of AQ Khan, U.S. obsession about the security and safety of Pakistan nuclear weapons has started to rise continuously. At the same time, Pakistan's security community started to smell aggression and intimidating posture from India that has conventional force superiority over Pakistan because of its huge standing army and vast resources. Besides it, the regional security environment was further given a blow when United State signed a civilian nuclear deal with India. Indian the aggressive doctrine coupled with the lucrative nuclear deal with U.S., compelled Pakistan to adopt a more appropriate path through which the Indian aggression and its better position after the nuclear deal both could be checked. Henceforth, Pakistan started to expedite the production of its nuclear arsenals and it also miniaturized the nuclear weapons in order to fill the gaps in its nuclear deterrence vis-à-vis India. Pakistan's behavior is the product of the continuous changes in the regional structure of power in South Asia and as the neo-realists assume that every state in the system constantly tries to ensure its survival and secure its best interest through self-help. However, Pakistan's efforts to strengthen its security against India were detested by U.S.

Various U.S. nuclear security experts and policy makers have raised their concerns about the security of Pakistan nuclear weapons. This research study argued that there are three main images concerning the security and safety of Pakistan's nuclear weapons which have been greatly determining the perceptions of U.S. These images are the insider threat to Pakistan nuclear weapons, the vertical nuclear proliferation of Pakistan's nuclear weapons and the induction of tactical nuclear weapons to Pakistan's nuclear forces. U.S. experts and security establishment started to link the gradually rising number of terrorist attacks in Pakistan to the insider threats to nuclear weapons. The U.S. focus on the nuclear weapons security in Pakistan remains up to the date, most recent example is the 14th January 25, 2016, congressional report that warns the Obama administration of the threats to nuclear weapons from the multiple factors.

This research study argued that the image of the insider threat is based on the growing level of religion extremism and radicalism in the Pakistan's society which increases the likelihood of the insider threats. The religious extremism and conservatism are evident from the presence of a large number of terrorist and militant organization within the Pakistan's society which provides manpower to the army that at the end of the day, is responsible for the protection of nuclear weapons and fissile materials in the country. The rise of religious extremism is also manifested in the growing rise of violence against religious minorities and other liberal section of the Pakistan's society who are bearing the brunt of it. Along with the violence against minorities, there has been a very steady rise of militant groups in Pakistan. These militant groups have sent their members to various organization ranging from Al Qaeda to the most recent terrorist organization of Islam State in Iraq and Syria. The growing rise of religious extremism and ultra-conservatism in the society reaffirms the image of insider threat to the nuclear weapons security in Pakistan.

Furthermore, due to the gradual rise of the religious extremism, a large number of lower rank officers from Pakistan army have joined a different terrorist organization which is involved in the attacks against the Pakistan's state and armed forces. In this regard, the attacks on GHQ, PNS Mehran, and many attacks on General Pervez Musharraf had the blueprints of the insider that had either passed on the crucial information to the terrorists or were directly involved in perpetrating the attacks on these sensitive military installations. These increasing number of deviations of the army men also bolster the image of the insider threats to the nuclear weapons in Pakistan. Pakistan army remains the primary force that has the responsibility to manage and protect nuclear weapons and other fissile materials installations across the country. Extremism within the ranks of the army is a direct threat to not only nuclear weapons but the future of Pakistan if ever any religiously motivated General will take over the country like the previous attempt of Zahir-ul-Islam Abbas which was thwarted preemptively. Albeit, this fact cannot also be ignored that Pakistan has been continuously working to develop a very dynamic and implacable multi-layered security apparatus that is capable enough, for the time being in preventing a physical attack on the nuclear weapons-related sites and installations. In order to prevent the potential intruders, Pakistan is also using its own PRPs through a diversified mechanism of scrutiny and filtration blocking the unwanted entity which can threaten the nuclear weapons security in any way in Pakistan.

In addition to it, the next image that makes U.S. perceptions about nuclear weapons is the growing rise in the number of nuclear devices in Pakistan. US experts say that the increased number of devices require increased number of people to protect it which resultantly increases the risk of insider threats. Pakistan being threatened by the militant organizations based both internally and externally needs not to focus on the rapid productions of nuclear weapons. The vertical proliferation not only consumes its scarce resources but also increases the chances of theft and too high price of secure it.

The next to these two images, another image that shapes the current U.S. perceptions about nuclear weapons security in Pakistan, is the development and induction of tactical nuclear weapons into the nuclear forces of Pakistan. U.S. policy makers and nuclear security expert are of the opinion that tactical nuclear weapons increase the chances of its use during the conflict between Pakistan and India. Tactical nuclear weapons are also prone to theft by the militant groups' activeness around the Pakistan-India border. The presence of a large number of terrorist organizations with a potential to flare up a major conflict between Pakistan and India and the continued miniaturization of the nuclear weapons Pakistan is considered by U.S. as a major foreign policy issue which makes her unable to put an end to in anytime soon. However, the Pakistan's perspective on its nuclear weapons is that the weapons are India centric and intended to maintain strategic stability and deterrence within the region. It claims that current behavior of Pakistan is the result of the U.S. policies in South Asia and the rationale demands that Pakistan should follow the current path to minimize the threats which are currently confronting with.

The differed perspective of Pakistan and U.S. on the nuclear weapons security had been the main factor behind the growing rise of suspicion and trust deficit between them. The mutual trust deficit has kept away both states from cooperating with each other sincerely. Though there was a cooperation but very limited in nature and scope. The strains between Pakistan and U.S. is only beneficial the elements that threaten the interests of both states.

U.S. and Pakistan's perceptions are shaped by different factors and both have different security imperatives and world-view. Both needs to understand the perceptions of each other in order to cooperate in the realm of nuclear security. A better understanding of each other perceptions would result in better collaborating between Pakistan and U.S. It is very important for U.S. that the Pakistan's nuclear weapons should remain safe and secure, and most importantly out of reach of unwanted hands. In this context, realism and pragmatism

demand both states are closely connected through a common security interest in terms of protecting and securing nuclear weapons in Pakistan. Pakistan wants to keep its nuclear weapons to keep the nuclear deterrence with India floating and intact through its nuclear devices. Therefore, ensuring its security and safety to Pakistan is as important as once was its development. So far, Pakistan has done a tremendous job for the nuclear weapons security but it still needs to cope with numerous unfolding security challenges because of the evolving tactics and strategies of the terrorists that are hell bent to get the possession of nuclear weapons.

The most recent example of the terrorists' intention to get nuclear and missile materials the article published in the Islamic State (IS) magazine. The IS and its allies' emergence may threaten the nuclear weapons security in Pakistan because of their sophisticated and highly trained attacks. Seeing these emerging threats, particularly to the security of nuclear weapons, it is highly advisable for U.S. and Pakistan to understand the security concerns of each other and shed their misperceptions regarding each other so as to cooperate in the strengthening of nuclear weapons bringing it at par with the evolving security challenges. Similarly, it is equally important for Pakistan to acquire latest security equipment and know-how which it could get after reaching an understanding level with U.S. there is a win- win for U.S. and Pakistan to cooperate in the realm of nuclear weapons security. The cooperation will make both states safe and secure.

The trust level between Pakistan and U.S. can be further increased through cooperation in the other areas of converging interests, particularly on the peaceful resolution of the Afghan issue which remains a throne in the trilateral relations between U.S., Pakistan and India. Pakistan is doing its effort to nudge Taliban to the negotiating table and find a mutually agreed penance to the decade's long instability in Afghanistan. In turn, U.S. can play its vital role in slaking the security concerns of Pakistan in the South Asian region, especially in the field of

extending civilian nuclear cooperation similar to the one done with India. Besides cooperation on strengthening nuclear weapons security in Pakistan, U.S. can put pressure on India for resolving all outstanding issues in the region. The nuclear deal and the U.S. assurance to Pakistan of no adventurism in its eastern border will greatly affect and change the current Pakistan's behavior.