Strategic Implications of Nuclear Pakistan: A Study on Pakistan’s Nuclear Programme

Introduction

The global nuclear development found a new phase with the catastrophic detonation of the nuclear bombs towards the end of the Second World War. The very distinctive character of the nuclear energy was revealed to the whole world. And this destructive and annihilating feature of the atom bomb charmed a number of nations to nuclear weapon programme. In fact the two events, Hiroshima and Nagasaki, had created a new history of war and peace. The threat of another war with the involvement of nuclear weapon led to urgent and coherent efforts to avert confrontations and install peace. This was because everyone found that another war would be catastrophic to the whole world. However these peace movements went along with rapid arms race, even the proliferation of nuclear weapon. The security considerations shifted with deep security dilemma arising out of the advent of nuclear weapon. This dilemma indeed accelerated arms build up by nation states.

Today, the world is confronting with many significant issues related with the development of nuclear technology and nuclear weapons. Nuclear proliferation or the spread of nuclear weapons is considered to be one of the greatest security challenges in the world. When the Cold War ended, many people came to believe that the threat of nuclear annihilation was a thing of the past. Since nuclear weapons were built to wage the Cold War, the fall of the Soviet Union would lead to the end of the nuclear threat. Tragically, this expectation of the international community did not transform into action. Although the probability of a nuclear war between superpowers has diminished over the years, many issues related to nuclear weapon remains. Some experts are even arguing that the threat of an attack with a nuclear device may be more potent today than during the volatile times of the Cold War. The nuclear tests conducted by India and Pakistan in May 1998 represent one of the most dramatic developments in the field of nuclear non-proliferation after the Cold War. The tests caused shock and disappointment among those interested in the maintenance of the international non-proliferation regime. Globally, there was great concern about what the tests in South Asia might mean for the non-proliferation effort. Regionally, there emerged an acute challenge to preserve and enhance peace and stability causing security dilemma aftermath the nuclear tests. The international community is really sceptic about the security of South Asia, especially, as Pakistan has attained nuclear capability.
Pakistan has a legacy of political instability, military dictatorship and state sponsored terrorism. There have been many views about the nuclear development program by Pakistan. Some have asserted that it was only natural for Pakistan to develop nuclear weapons for the purpose of defending itself. Still some view it as a negotiation card for securing political and economic benefits. Many analysts see Pakistan’s apparent efforts to accelerate its nuclear program as a response to adverse changes in its external environment that had serious internal repercussions for its economy. In the case of Pakistan, the geographical proximity to India, which is a traditional rival and superior in economic and defence spheres, has prompted them to nuclear program. However it is obvious that Pakistan’s nuclear programme is an attempt to answer the security dilemma with nuclear deterrence.

Nations are not ready to compromise their security for which any kind of uncertainty on their security forces them to respond. This response in most of the cases is to strengthen their military force. Security dilemma and arms race have a very close link in this regard. Military builds up are often influenced by security dilemma. Moreover security dilemma and arms build up are complementary. Security dilemma causes arms race and arms race causes security dilemma. Security fear forces a nation to strengthen its arms and this arms-build up cause security dilemma for the other state and forces them to respond. If one state increases its military strength another state might feel that they are taking the safe option by doing the same, which could inadvertently alarm the first state and hence set an arms race in motion (Gilgrist; 2008). Peace or war is the only point that breaks this chain. Peace through co-operation and diplomatic pursuits would stop or reduce this arms race as well as the uncertainties. Security dilemma forces states to co-operations. Nuclear proliferation in a chain reaction placed nations in alarm. The fear of such a chain reaction that compelled most states to back the Nuclear Non-Proliferation Treaty (NPT) (Muller, Fischer and Kotter: 1994). It is the security dilemma that brought super power states in cooperation to reach on arms reduction treaties like SALT, START, ABMT etc. But at the same time security dilemma has brought states in cooperation to form military blocks such as the WARSAW and NATO.

The nuclear weapon capability of both India and Pakistan was indented to reduce the security dilemma. On the contrary it gave birth to security dilemma of new shape and form. Dilemma as a situation where “what one does to enhance one’s own security causes reactions that, in the end, can make one less secure” (Posen: 1993: 104). The dilemma, that nuclear weapon places ahead,
is not potentially equal to that of the conventional weapons. It is important to analyse how dilemmas arise from actions and the dilemmas cause security crises. Interpretation of the intention and capabilities of the other nation forms the first dilemma and the second dilemma matters about responding to the interpreted action of the other nation (Wheeler and Booth; 2008:133). Many have argued that after nuclearization, South Asian region has become highly volatile with issue ranging from low scale war to an all out war. Conversely, others consider that nuclear bomb in South Asia have reduced the security issues and established a kind of peace termed as ‘unstable peace’.

STATEMENT OF THE PROBLEM
The arms race, especially the nuclear program and weaponization had tremendous impact on the Political and economic conditions of the South Asian countries. To a certain extent the security dilemma encountered by these nations, forces them to invest in their military build up and constructing advanced weapons like the atom bomb. But this military build up further leads to security dilemma. In the wake of nuclear test conducted by India and Pakistan, the security threat in South Asia has been doubled. The nuclear programme by Pakistan brought new security dimensions in South Asia. It also has a greater impact on the socio-economic and political life of Pakistan. The Pakistani economy showed negative indications after it had conducted the nuclear test. Pakistani economy is a high profile dependant of foreign assistance. The nuclear test and the ban on the economic sanctions caused adverse impact to the economy of Pakistan. Further, the frequent military coup political instability and the activities of terrorism in Pakistan rises the security threat with socio-economic and political dimensions. As each state is an integrated and indispensable chain of the regional sub system, weak Pakistani state would cause multidimensional security challenges across the borders. This would entrap the other states in the region in security dilemma.

The proposed study is an attempt to analyze the new strategic dimensions of the nuclear Pakistan in context of the theory of security dilemma. The study will identify the nuclear risks in South Asia and the relevant strategies for combating the menace of nuclear politics. It will also investigate the socio-economic impact of Pakistan’s nuclear programme, the reliability of nuclear doctrine and the command control challenges. To put it in precise, the nuclear weapon construction aiming at reducing the security fears and dilemma with basically deterrent strategies
have brought in new area of threat and fears.

**Background of the problem**

In the middle of the twentieth century, when nuclear weapon came in to the international scene as the most powerful and destructive weapon, two important questions raised by the scholars were the security threat and the economic cost of the nuclear weapon. Scholars like Kenneth Watz, with a pro-nuclear weapon perception contained the spread of nuclear weapon as better. To others, the use of the nuclear weapons would be catastrophic to the entire world. At the same time it was also viewed that the economic cost of the nuclear program would not be affordable to the developing countries. But bewildering this group of scholars two developing countries of South Asia, India and Pakistan succeeded in obtaining the nuclear weapon capability. In recent years, experts have closely studied two main aspects of regarding South Asian nuclear issues. First, nuclear modernization in the region continues with the development of longer-range and more reliable delivery systems, as well as qualitative and quantitative increases in fissile material and warheads. Initiatives, such as the Indo-U.S. nuclear deal, have brought renewed focus on this issue due to its potential impact on proliferation in South Asia. Second, the A.Q. Khan network confirmed the entry of non-state actors into the realm of nuclear proliferation. Lingering questions regarding the network's activities suggest that its impact has not yet been fully assessed. There is still considerable demand for nuclear technology, both through horizontal proliferation from aspiring nuclear states such as Iran, and terrorist networks looking to augment their capabilities. Under protracted confrontation between India and Pakistan, these developments would cause security dilemma in the region. This study will analyze these varied developments and investigate proliferation trends in the region.

Proliferation issues in South Asia must be understood in context of vertical and horizontal proliferation. Vertical proliferation takes place as nuclear states modernize their nuclear arsenals with more reliable delivery systems and warheads. Countries including the United States, China, India, and Pakistan are in the process of modernizing their arsenals through actions such as proposals for "a reliable replacement warhead" (as in the case of the United States). In the context of South Asia, nuclear modernization is mainly a function of prevailing threat perceptions arising from security dilemmas. Modernization of arsenals includes the development and testing of longer-range missiles-such as the tests of the Agni-III by India, and the Shaheen-II by Pakistan in the first half of 2007. Horizontal proliferation is the spread of nuclear weapons
technology from nuclear states to other entities, including aspiring nuclear weapon states, as well as non-state actors such as terrorist groups. Horizontal proliferation generally involves a significant role for WMD supply networks that may or may not have a connection to official entities in a nuclear state. In the South Asian context, this variant of proliferation is especially pertinent, given the history of the A.Q. Khan network and its assistance to states such as North Korea and Iran. In addition, horizontal proliferation includes second-tier proliferation, where developing countries trade and barter nuclear technology with each other. While vertical and horizontal proliferations are variants of the proliferation dynamic, it is entirely possible that a nuclear state (such as Pakistan) could make use of non-state networks in the pursuit of nuclear modernization. Especially as it has a legacy of a stolen nuclear programme.

South Asia is one of the most populated regions of the world, with India and Pakistan alone accounting for about 1.35 billion people. Both countries have been bitter rivals since partition of the subcontinent in 1947 that led to the creation of independent Pakistan and independence for India. The two countries have fought two wars over Kashmir (1947, 1965), one over East Pakistan/Bangladesh (1971), one limited war (Kargil, 1999) and the ongoing insurgency in Kashmir (since 1989). The 2001-2002 crisis further highlighted the dangers of terrorist violence provoking a conventional conflict that could lead to a nuclear crisis. Kashmir, which lies at the heart of the dispute, is more than a simple territorial problem. The problem should be looked into from multiple angles of territorial, religious and ideological realms. In perceived self-identities of both these nations Kashmir is an integral part to them.

Since the 2001-2002 crisis, Islamabad and New Delhi have conducted several rounds of peace talks aimed at bringing a lasting settlement to the Kashmir issue. This peace process has involved several confidence-building measures such as strengthening of transport links between the two countries. The two sides also signed a crucial agreement on reducing the risk of nuclear accidents in February 2007. Nevertheless, the key dispute, Kashmir, is nowhere near resolution. This implies that both New Delhi and Islamabad are more inclined toward strengthening existing military capabilities, both conventional and non-conventional, to prevent an unfavourable scenario in a future standoff. Amidst these cooperative movements the fears of nuclear war, nuclear terrorism and accidents still raise security dilemma.
Scope and Significance of the Study

The atomic policy and program have stirred up controversial and contradictory events in the international scene. On the one hand there is a significant role that the atomic energy plays in the advancement of mankind and world economy. On the other hand the devastation caused by atom bombs, like in Hiroshima and Nagasaki, projects the danger could be caused by nuclear energy. Atom has become a highly significant source of energy and expected to replace oil in future. The big powers attempt to maintain their monopoly of nuclear power because nuclear energy would serve them strategic and industrial interest. They are doing their utmost to prevent the developing countries from acquiring nuclear power on the pretext that the nuclear energy will be used for military purposes such as the production of nuclear weapons. Peace and security in South Asia have become the center of attraction after the nuclear tests by India and Pakistan. In the context of Khan Network, the international community is very closely observing the nuclear policy and doctrine of Pakistan. It is also important to note that, while the Pakistani economy faces retardation and the social conditions are pathetic, the military expenditure is steadily increasing. The study is significant in analyzing the changing patterns of security dilemma in South Asia under the nuclear competition. Nuclearization has transformed security dilemma in South Asia bringing in new and different types of fears. This is particularly significant as the theory of security dilemma suggests any move by Pakistan to alter the existing balance of power will be responded by India.

Review of the Literature

A large volume of literature exposes the security dimensions of nuclear South Asia. Tellis, Denmark & Tanner (2013); Chandran (2013) and Shanker (2013) examine the nuclear stability factor in South Asia. Kapur (2011) and Dittmer (2005), deals with complex factors associated with nuclear security in South Asia. The study looks at the political economy of minimal deterrence and the power structure of South Asia several years after the 1998 nuclear explosions there. The work contains the topics such as nuclear crisis stability, nuclear-related programs and aspirations at sea, the Chinese assessment of a rising India after the 1998 nuclear tests, great power involvement in the region, and the causes and consequences of nuclear development in South Asia. A distinct feature and strength of the study lies in its analysis of the relationship
between nuclear development and economic monetization in the subcontinent. The questions of how economic development affects nuclear proliferation and how the acquisition of nuclear weapons affects development are explored. Sagan (2009) and (2004), gives a new insight to the domestic aspects and organizational interest in framing the nuclear policy. Also he connects the security issues with ‘preventive war problems’.

Barsur (2008) analyses particularly Indo-Pakistan nuclear relation in comparison with the cold war period. The work identifies the similarities and dissimilarities existing in nuclear South Asia. The geographical proximity and the role of non state actors are two important aspects of difference, but crucial in South Asia. To him there were basically three crises situations under the nuclear shadow in the sub-region. Further he examines the success and survival of nuclear deterrence in the region. Narang (2009) and Tellis (2008) say that the problem of nuclear security in South Asia represents very complex and difficult cluster of problems. They analyse the different levels and types of stabilities such as deterrence stability, nuclear and conventional stability, crisis stability, arms race stability and technical stability.

There are several scholarly works that gives a very clear profile picture of the state of Pakistan, its nuclear programme and strategies. Malik (2011), Shuja (2006) and Pandey (2005) trace the internal dynamics of Pakistan such as the religious, military ethnic and ideological components of the state. Malik further examines the key political choice taken by the political leaders for the political survival in Pakistan. Shuja argues that the religion has made greater impact on the statecraft, status and minority rights in Pakistan. He relates the security in Pakistan with the religion and militant Islam. To him ‘the conflict over the issue of religion in politics and militant Islam is the main source of insecurity in Pakistan’. Jetly (2009) examines the political developments particularly the period between September 11 2001 and 2008. The book points out how military dominance, Islamic fundamentalism and ethnic conflicts hinder socio-economic and political development in Pakistan. The book also explains the geopolitical and strategic significance of Pakistan regionally as well as globally. Siddiqa (2007) shows Pakistan’s generals possess a predominant place in the state. On average, senior commanders of the Pakistan armed forces retire with legally acquired assets of between $2.5 and 6.9 million, depending on their rank. This shows the dominant status of military personnel in Pakistan. Soofia, Raine & Imran Anwar Ali (2005) address some of the major issues Pakistan is encountering. These include the historiography of partition, ongoing ethnic and sectarian violence and the democratic challenges.
The socio-economic and political lives of the Pakistan state are drawn clearly out by the authors.

The formation of the Pakistani state and the identity factor is discussed by Talbot (2009, 2003 & 1998), Farzana (2009) and Ziring (2005). They analyse the role of Islam in the formation of the state. Also they analyse the socio-economic and political life of Pakistan. Talbot finds that there is the predominance of the army, feudal lords and bureaucrats in the social and political spheres in the state. In his biographical work, *If I am Assassinated*, Ali Bhutto (1979) describes how military regimes overturned democratic and constitutional governments. The work gives a clear picture about the tug of war between the democratic institutions and the army. Kukreja (2003), Burki (2004) examine the role of military and the struggle for democracy in the state. They argue that military hegemony and authoritarianism in the state has been a challenge to democratic and constitutional development in Pakistan. Ahmed (2002) assesses the role of army, the working out of security and ideology and the socio-political life in Pakistan. The book makes both theoretical and practical study on the delusions of nuclear deterrence in Indo-Pak relation. Though the most significant riding factor of nuclear capability of Pakistan is India, he regards the army and Islam did play a great role in the nuclear ambition. The presence of instability and insecurity in Pakistan is highlighted by Hussain (2008), Bahadur(1998). They focus on the crises, conflicts, political and militant violence in the state.

Husain (2004) points out that the Pakistani economy is a developing one and at the same time faces many challenges. He regards that Pakistan was one of the few developing countries that had achieved an average growth rate of over 5 percent over a four-decade period ending 1988-89. Consequently, the incidence of poverty had declined from 40 percent to 18 percent by the end of the 1980s. He analyzes the role of Pakistan in the geostrategic space as an important one in South Asia. ‘Pakistan is the second most populous Muslim-majority country in the world, and within a few decades will be the world’s fifth largest country. It is located at the strategic crossroads of Asia and the Middle East, and is adjacent to the Middle East’s vast oil fields and to some of the globe’s most sensitive sea lanes. It is a key player in the global war against terrorism, and itself a victim of terrorism.’ Khurshid Ahmad (2004) analyses the role of Islamic economics in Pakistan. “As to the Pakistan situation, the concept of Islamic economics is an essential part of the very concept of Pakistan. The Objectives Resolution passed by the Constituent Assembly of Pakistan in 1949 and the Constitution of Pakistan contain essential elements of the vision of Islamic economics. Islamic economics, although rooted in the values,
principles and commands contained in the Quran and Sunnah, is neither a branch of theology nor of law. It represents an approach to the fundamental questions of economics i.e., what is to be produced, how is it to be shared, and what is to be the shape of final consumption in a society?’

Wolfgang and Zingal (2000) point out that a smaller country would enhance its military strength to create parity with other countries, which is stronger in other realms, may be economically. Hence the balance of power may be maintained in such ways. Still, ‘if a smaller country is not aiming at defence parity, it would lose out on economic growth.’

Pattnayik (2003) explains Pakistan’s nuclear strategy in the context of security threat, to create parity with India and to take the issue to the international community. Zulfkar Ali Bhuto said that, “If India developed atom bomb, we too will develop one. It is because there is no conventional alternative to the atomic bomb. Smruti identifies two aspects with this statement-one linkage to India and the other the emphasis on atom bomb as the ultimate weapon”. Scher (2004) analyses the fear factors of nuclear program by Pakistan and the internal dynamics that influences the nuclear strategy. He expresses the fear of poor control mechanism of Pakistan nuclear arsenals in the backdrop of the political instability and insecurity existing in the state.

Subrahmanayam, (1986), analyses the role of foreign assistance in evolution of Pakistan as a nuclear power. He remarks that until the close of 1970’s Pakistan was getting heavy water from United States and fuel rods from Canada. Pakistan nuclear weapon design group known as the 'Wah Group' also gets assistance from China. Pakistan is reported to have received weapons design of Chinese Fourth weapons test.

Albright (2001) views that Pakistan's deteriorating economic situation would make the first-use policy more attractive. He argues that Pakistan had to make huge investment in strengthening its conventional forces so as to compete India. But Nuclear weapon with its massive striking capability require a few and economically viable. So the nuclear weapon was economically advantageous to Pakistan. Also he points out that the financial assistance from the Gulf countries did help Pakistan in its nuclear weapon programme. Wolfgang and Zingal (2000) explain the arms race in South Asia from an economic perception. They explain how the economic cost of military development affects the national economy. This is a comparative analysis of the economic burden on the two South Asian nuclear powers.

Wilson and Robert (2004) observe the two views on the command and control of the nuclear weapons that ‘nuclear weapons are controlled by military organizations and civilian
bureaucracies, not by states or by statesmen. Organization theory, not just deterrence theory, should therefore be used to understand the problem and predict the future of security in the region. The paper also analyzes the nuclear safety measures. There are four requirements for stable nuclear deterrence: prevention of preventive war during periods of transition when one side has a temporary advantage; the development of survivable second-strike forces; the avoidance of accidental nuclear war; and finally the ability to keep nuclear weapons out of the hands of terrorists.

Ali (2007) analyzes the various arguments for and against the possibility nuclear terrorism and other nuclear accidents in Pakistan. He expresses the suspicion raised by the western states about the vulnerability of nuclear weapons to non-state actors. About the command and control of nuclear weapons in Pakistan he says, Pakistan Nuclear Regulating Authority (PNRA) controls regulates and supervises all matters related to nuclear safety. Augustus, Norton and Martin (1979) discuss the possibilities of non-state actors occupying nuclear arsenals. They regard the political conditions of the regimes possessing nuclear weapon as the crucial factor causing nuclear terrorism. Kucibhotla and Mckinzie (2005) view the insecurity and instability in the form of illicit nuclear trade, nuclear terrorism and theft of nuclear weapons. They point out that there is always a possibility for nuclear accidents in South Asia especially for nuclear terrorism.

Sreedhar (2003) assess the role of non state actors in Pakistan. The militant groups challenge the international security, raising the issues like cross borderer terrorism, especially state sponsored. The work explains the agenda of Pakistan in supporting the US after September 11, such as its safety, future economic benefits and the support in Kashmir demand. Also he analyses the attitude of the state towards terrorist and non state actors. Cortright and Lopez (2002) address the issue of nuclear terrorism. The book explores the intentions and capabilities of militant groups particularly Al Quida in acquiring nuclear weapon. Analysing the most vulnerable locations of nuclear terrorism, they consider Pakistan as the most suitable place for Al Quida to attain nuclear weapon. This is because of the overwhelming role of the terrorist in the country and the poor command control of the nuclear materials in the state.

Sreedhar (1986) explains the nuclear weapon development programme of Pakistan in detail. To him Pakistan had to undergo multifaceted problems during the course of it nuclear development. The book reveals the status of Pakistan’s nuclear production and capabilities up to the 1990’s. Jones (2002) gives a detailed study on the Pakistani nuclear porgramme. It exposes
the history of nuclear development in Pakistan. Jones finds that it was the inefficiency of the then nuclear club that actually helped Pakistan to develop the weapon. The work further explores the Pakistan’s nuclear doctrine and its implications for South Asia, especially the functioning of nuclear deterrence in the region. Matinuddin (2004) explores the nuclear weapon programme of Pakistan Mohammad Ayub Khan, Zia Ul Huq, Z. A. Bhutto and other personalities of Pakistan have greatly contributed to the nuclear weapon programme. Barnaby (1993) explains the causes and course of Pakistan’s nuclear programme. He finds that peaceful nuclear programme was diverted to military nuclear programme. The book highlights the secrecy Pakistan maintained in its nuclear weapon production.

A vast array of books and literary sources contain various dimensions of nuclear weapon and strategies; different theories and concepts associated with it. Alagappa (2009) discusses various aspects of nuclear strategies. According to him limited war is likely to take place under the shadow of nuclear umbrella. In his opinion nuclear weapon would provide for strategies like deterrence, compellence and coercive diplomacy. Also he analyses me strategic importance of nuclear weapon in the South Asian under the back drop of India Pakistan conflicts. Sagan and Waltz (2003) discuss the reason for spread of nuclear weapon and its implications Waltz regards the spread of weapon as good from the perception nuclear deterrence. They argue nuclear weapon, particularly due to its massive striking capability, would attract more nations to occupy nuclear weapon. Behera and Joseph (2004) analyse the changes in the strategic environment in the sub-region. The book enquires into the strategic advantage that Pakistan would make. Also the nuclear weapon capability has enhanced the autonomy of decision making despite its economic vulnerability. Cirincione (2007) makes an inquisitive study about the cause and impact of nuclear weapon development. He finds out mainly five drivers and five barriers of nuclear weapon construction. Also how nations states overcome these barriers. Further he describes the motivating factors of Pakistani nuclear weapon production.

Gray (2006) explains the concept of nuclear strategy in the book. The book analyses various nuclear strategies and the nuclear risk involved in each. Also he considers M A D (Mutually Assured Destruction) as the basis of the strategy of deterrence. Alam (2001) exposes various strategic implications of nuclear South Asia in his work. He expects unstable deterrence, regional strategic action against Pakistan and further weakening of non proliferation as the consequences of Pakistan’s nuclear weapon power to follow. Ran N. (2008) sketches out the strategic scene
immediately after the nuclear test in South Asia. Quoting General Parvez Musharaf, he says the nuclear weapon capability has brought Pakistan is an equal basis. We are not talking to India from a weak position”. The book explains the strategic calculus of nuclear Pakistan.

Nilsson (2012) argues that security dilemma and the risk of war is very severe under offense dominant area. The work makes a detailed study on the offence-defence strategies and security dilemma in the contemporary world. Tang (2009) & Tailaferro (2008) provide a fresh insight to the concept of security dilemma. Tang analyses the prospects of the theory of security dilemma in future nuclear world. Taliaferro outlines the cause-course-effect of security dilemma in the background of offence-defence balance. Snyder (1984) traces the reason for security dilemma and how the attempt by nation states put them in vicious cycle of insecurity. Wheeler and Booth (2002) contains that security dilemma is exemplary and core aspect in the theory and practice of international politics. They view security dilemma is comprised of dilemmas of interpretations and response. Posen (1993) and Jervis (1979) explains security dilemma in terms of action and response. To them, the attempt of a state to enhance its security causes reaction from another state and makes both less secure. Morgan (2007) and Wendt (1992) explore the conditions of security dilemma and places anarchic condition of the world as root cause of it. Gilchrist (2008) and Ahmed (2005) relate the concept of security dilemma with Pakistan’s nuclear programme. They regard security dilemma faced by Pakistan is due to Indian nuclear as well as conventional power. The Pakistani perception that by achieving nuclear capability they can enhance their security forced them to construction of nuclear weapon.

**Objectives of the Study**

1) To analyze the impact of nuclear program on the political-economy of Pakistan
2) To study the Indian factor in the nuclear program by Pakistan
3) To analyze the internal and external dynamics of the nuclear program by Pakistan
4) To examine whether poor economic growth compel Pakistan to prolong or abandon its nuclear programme
5) To explore the new threats and fears Pakistani nuclear weapon programme cause
6) To find out the working of nuclear deterrence in South Asia

**Hypotheses**

1) Pakistan’s nuclear program was to respond the Indian nuclear power.
2) Foreign assistance, both capital and technology is essential for Pakistan to run its nuclear programme
3) The internal dynamics of Pakistan induced it to go nuclear
4) Security benefits superseded the economic cost of the nuclear programme of Pakistan.
4) Pakistan’s nuclear weapon programme caused security dilemma of new forms and types.
5) Political instability and lack of transparency in Pakistan’s nuclear doctrine poses serious strategic challenges to the South Asian region, particularly to India.

**Research Questions**

1) How does the nuclear program affect the strategic and security scenarios in South Asia?
2) How do the internal and external dynamics influence Pakistan to go nuclear?
3) What are the characteristics of the subcontinental rivalry that make nuclear proliferation in South Asia such a crucial security issue?
4) How far the nuclear doctrine of Pakistan reliable? What will be the strategic effects of the nuclear weapons developments?
5) How does the foreign assistance influence nuclear program by Pakistan?
6) Is there any possibility of nuclear terrorism emanating from Pakistan?

**Methodology**

The study on the topic is carried out by a historical analysis of the influence of nuclear programme in international relations, the nuclear development program of Pakistan and the economic problems associated with it. Statistical methods and tools are used to study the nuclear technology, capabilities and strategies of Pakistan. An interdisciplinary approach is made to study the economic, social and strategic dimensions of the nuclear crisis. Interviews and discussions with scholars on the topic are carried out. A comparative approach is made to analyse various security threats originating from Pakistan’s nuclear weapons. Various statistical tools are used to analyze the political economy dimensions of the Pakistan nuclear programme. The method of deductive reasoning is applied to study the problem and to draw the inferences.

**Chapter Scheme**

The study is divided into six chapters. The first chapter, *Nuclear Weapon: Theoretical and Conceptual Analysis*, attempts to give a theoretical foundation to the study. The chapter explores
various dimensions of nuclear weapon in the background of different theories and eventually focuses on the theory of security dilemma. The second chapter, *Strategic Dimensions of Nuclear South Asia*, provides the geo-strategical and political sketch of South Asia. The chapter further examines the security predicament, balance of power status and shifts in the security perception after the advent of nuclear weapon in the region. The third chapter, *State Society and Economy of Pakistan – A profile*, is a brief account of state of Pakistan. It analyses the last 69 years of socio-economic and political life of Pakistan. Further, it traces the instability and insecurity factor and internal dynamics particularly the role of military, Islam and ethnic groups in Pakistan. The fourth chapter, *Evolution of Pakistan’s Nuclear Programme*, is an inquisitive study on the cause and course of nuclear Programme of Pakistan. The chapter contains the historical development of the nuclear programme answering two basic questions related to the nuclear programme. – Why Pakistan developed the nuclear weapon? and How it developed the bomb? The Fifth chapter, *Nuclear Policy and Doctrine- the Command, Control Challenges*, principally examines the operational side of the nuclear programme. It makes a detailed study on the nuclear policy, doctrine and command control system that primarily affect the safety and security of the nuclear programme. The sixth and final chapter, *Nuclear Pakistan: Issues and challenges in the New Century* attempts to explore the expected security threat emanating from nuclear Pakistan in the background of the theory of security dilemma. It attempts to answer why Pakistan is considered as major source of security dilemma. It also contains a brief description about the impact the nuclear weapon programme on the economy of Pakistan and how it would affect in the future.

**Conclusion and Findings of the Study**

In Pakistani strategic calculus its nuclear capability in fact provided it with a powerful instrument to support its very survival. Pakistani military and leaders argue that the nuclear weapon power had prevented an all out war with India, which would have been the end of the Pakistani state. It protects Pakistan from not only the born enemy India but also other states, including the powerful United States. Some of them perceive that the nuclear strength of Pakistan averted the military action against Pakistan while the US started combating terrorism. It was very clear that the threat of use of nuclear weapon was raised against not only India but even against the global power USA. Hence Pakistan found a great advantage of the possession of nuclear weapon. Pakistan could also avoid the intervention of the external powers especially in the midst of internal instability and
insecurity it faced. Many scholars believe that the political crisis and domestic turmoil in Pakistan had created a very suitable condition for the intervention by other nations, especially the neighbouring states and global powers.

It is almost everyone presumed a nuclear fallout in South Asia after the Pakistani nuclear test, especially as it was an immediate reaction to the Indian nuclear test. According to the theory of security dilemma this response is quite natural. Nevertheless the threat was over-expected and miscalculated by many. Generally speaking, nuclear war and nuclear terrorism are the two most outrageous threats expressed with greater possibilities. Pakistani nuclear capability was viewed as something different from other nuclear weapon states. And these differences constitute the major threatening features of it nuclear capability. The character of the Pakistani state distinguishes it from other nuclear powers. The Pakistani state as it experiences a very different socio-political conditions generate security dilemma, principally for the countries in the region. The findings of the study could be summarised as follows.

1. Security dilemma led to horizontal and vertical proliferation of nuclear weapon in South Asia.

2. Even amidst the operation of nuclear deterrence, nuclear weapon in South Asia brought about new fears and threats.

3. Economic forces can make only temporary halt of the nuclear programme. Nations shall not compromise their security for economic benefits.

4. Pakistan’s nuclear policy of ‘first use against nuclear weapon state’ primarily targets India.

5. Indian security dilemma could be reduced if Pakistan is successfully forced to give up it ‘first use’ policy.

6. Strategic stability in South Asia could be enhanced if Pakistan abandons it ‘first use’ policy.

7. The success of nuclear deterrence was proved in the Kargil crisis.

8. Among the nuclear weapon states Pakistan is regarded as the state that sets off maximum security dilemma.

9. Nuclear terrorism has not come into a reality only because states have felt its threat and provided adequate security to their nuclear weapons and materials.
10. Politically and economically stable Pakistan is the best condition for reducing security dilemma evolving from Pakistani nuclear forces and thereby to establish strategic stability in the sub-region.

11. Comparatively, there will be a very committed involvement of the big powers to limit the conflict at the lower levels because of the fear of a nuclear war that even smashes up international security.

12. Security dilemma created by Indian conventional and nuclear threat forced Pakistan to produce nuclear weapon and it was clandestinely developed with the stolen technology.

13. Khan net work has proved Pakistan’s involvement in nuclear black marketing and revealed the fragile command control system of its nuclear technology.

Apart from the divergent views on the on the stability and instability paradox of nuclear weapon there is a higher degree of consensus that the advent of nuclear weapon has dramatically changed South Asian security. Nuclear deterrence which in fact meant to reduce security risk in India really led to a high level security dilemma. With the weak and failing conditions prevailing in the state, the nuclear capability of Pakistan unleashes several threats of diverging character. The threat would be divided into threat in action and threat in area. From an angle the nuclear capability affects its own survival, the security of South Asia and eventually global security. On the other angle nuclear proliferation, nuclear war, nuclear accidents and nuclear terrorism are the threats in action. The most inflicted area of the nuclear danger out of the Pakistani nuclear programme would be Pakistan itself. Pakistan would be the most affected victim of the nuclear war, nuclear accidents and nuclear terrorism if any of them occurs out of its nuclear capability. The security dilemma that Pakistan encounters here is how to safeguard its nuclear power and how to respond to the nuclear vulnerability. The security dilemma that India faces due to Pakistan’s nuclear potential is well expressed by Indian Government and its political leaders. The dilemmas of India as expressed by them include nuclear attack from Pakistan, nuclear terrorism and low scale war from Pakistan. India definitely has to respond to these challenges and it becomes the next level of dilemma of how to respond to the challenges. Pakistan's nuclear weapon programme has endangered the international security to a considerable extent due to multiple reasons. Nuclear black marketing, Nexus with rogue states and overwhelming role of terrorist pose very grave threat to nuclear non proliferation
Pakistan is one of nine states to possess nuclear weapons. Pakistan began development of nuclear weapons in January 1972 under Prime Minister Zulfikar Ali Bhutto, who delegated the program to the Chairman of the Pakistan Atomic Energy Commission (PAEC) Munir Ahmad Khan with a commitment to having the bomb ready by the end of 1976. Pakistan’s strategic industries are in a period of growth. Pakistan is continuing to improve its fissile material production facilities; is developing tactical nuclear weapons; and working on enhanced nuclear delivery systems, probably including submarine-based second strike capability. The Institute for Science and International Security has published a number of invaluable reports on Pakistan’s nuclear facilities, often using satellite imagery to locate sites and track their development. The Wisconsin Project on Nuclear Arms Control has provided useful summaries of Pakistan’s missile programmes and some of the entities involved in the country’s missile-related.