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EVOLUTION OF PAKISTAN'S NUCLEAR PROGRAMME: DEBATES IN DECISION-MAKING

DR. ZAFAR NAWAZ JASPAL

Nuclear decision-making in Pakistan is a complex field of inquiry. Since the 2008 general election, resignation and exile of president Pervez Musharraf, the political elite in the country have been locked in a serious contest to ensure primacy of the parliament. The 18th constitutional amendment has augmented the constitutional powers of the prime minister. Simultaneously, after the general election; the armed forces are again dedicated to the role laid down for them in the Constitution.⁽¹⁾ Indeed, aside from other things, these happenings in the national politics have had a direct impact on nuclear decision-making in the country. The composition of the National Command Authority reflects the pluralist approach to the current nuclear decision-making in Pakistan.

Pakistan has not specifically announced its nuclear doctrine to date, though a few important aspects of its nuclear doctrine are well known, and are more or less incontrovertible. Many features, however, are open to debate, and a few of them have attracted inordinate attention in the domestic and external strategic discourse. Indeed, the gradual transformation of both the political system and political culture is conducive to the critical examination of nuclear decision-making in Pakistan. President Asif Ali Zardari's statement on the use of nuclear weapons in a war theatre in his video address to the Hindustan Times Leadership Summit, broadcast live for the conclave in New Delhi on 22 November 2008, did not receive an affirmative response from the nuclear deterrence optimists in the country. President Zardari stated: "I don't feel

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threatened by India and India shouldn't feel threatened by us."⁽²⁾ While maintaining that he did not believe in use of nuclear weapons, he stated: "We will most certainly not use it first. I don't agree...to nuclear weapons. I hope we never get to that position."⁽³⁾ President Zardari's statement on "no first-use" of nuclear weapons marked a shift in the country's nuclear posture,⁽⁴⁾ but it lost force due to New Delhi's mammoth investment in both conventional and nuclear weapons systems.

The "no-threat-from-India" and "no-first-use" statements had surprised the strategic community in Pakistan. It was a deviation from the existing Pakistani nuclear posture, which is premised on the "first-use" option. It has always been maintained that Pakistan's nuclear weapons are India-specific.⁽⁵⁾ Hence, they would deter aggression, whether conventional or nuclear.⁽⁶⁾ In simple terms, Islamabad rejected the "no first-use" idea because its defence policy is hinged on the prospect of use of nuclear weapons to deter New Delhi from exploiting its conventional superiority against Pakistan.⁽⁷⁾

The Mumbai terrorist attacks in November 2008, and the Indian ruling elite's bellicose reaction, though marked by pragmatic restraint, had once again restated the nuclear optimists' manifest rationale about the nuclear weapons capability of Pakistan. New Delhi's military build-up, coupled with its belligerent attitude towards Islamabad, sustains an alarming variable in the strategic calculation of Pakistan, which had deterministic impact on the security perceptions of both the ruling elites and the masses. Significantly, the public in Pakistan is very much India-cum-nuclear sensitive, and is convinced that without credible nuclear deterrence Pakistan will be vulnerable to Indian aggression.⁽⁸⁾ It very closely monitors what is happening in the nuclear realm.⁽⁹⁾ Therefore, neither the previous military regime nor the present elected government has ignored this sensitivity of the common man. The nuclear decision-makers in Islamabad have thus always remained conscious of this sensitivity, which pressurizes them to pursue policies that augment nuclear deterrence vis-à-vis India.

This study is divided into two major sections. The first deals with the conceptual framework. It highlights the influences and strategic thinking in Pakistan. It is followed by a discussion on the evolution of nuclear decision-making in Pakistan. This part is divided into numerous sub-sections, which reveals both individual and institutional predominance in nuclear decision-making during the different evolutionary phases of Pakistan's nuclear programme. The third section deals with the assessment regarding the role of political and military elite in the nuclear decision-making in Pakistan.

Conceptual framework

The events and issues which have a bearing on the subject of nuclear decision-making in Pakistan can only be interpreted and understood with reference to a conceptual framework. It is so because strategies and policies are formulated by human beings on the basis of how they understand the

implications of nuclear weapons; and different people can, and do, disagree as to the best strategy or policy that needs to be pursued.⁽¹⁰⁾ Therefore, one has to explain and resolve the issue by using or mixing different theories and levels of decision-making, at least at the conceptual level. In this context, the writings of Western theorists such as Machiavelli, E. H. Carr, Hans J. Morgenthau, Reinhold Niebuhr, Kenneth Waltz, and the speeches/writings of a few Pakistani heads of state/government such as Zulfikar Ali Bhutto, Zia-ul-Haq, Nawaz Sharif, Pervez Musharraf, assist us in understanding the mindset of the decision-makers in Pakistan, while the writings of Bernard Brodie, Lawrence Freedman, Sir Michael Quinlan, Peter Lavoy, Scot D. Sagan, Rifaat Hussain, Zafar Iqbal Cheema, Feroz Hassan Khan, and Naeem A. Salik assist us in analyzing the officially stated 'minimum deterrence' policy of Pakistan.⁽¹¹⁾ In addition, this literature reveals that Pakistan's strategic elite is greatly influenced by the realist's theoretical tradition. The realist paradigm was a guiding principle for nuclear decision-makers in Pakistan due to their understanding of security in traditional military-political realm. In simple words, for the strategic enclave in Pakistan security was/is the survival of the state. It was when an issue was presented as posing an existential threat to a designated referent object — traditionally, though not necessarily, the state, incorporating government, territory, and society.⁽¹²⁾ More precisely, the decision-makers in Pakistan have been preoccupied with military security, and for them the need to develop, procure, deploy, engage or withdraw military forces remains a primary objective for ensuring sovereign survival of the country. Barry Buzan has opined: "Generally speaking, the military security concerns the two-level interplay of the armed offensive and defensive capabilities of states, and states' perceptions of each other's intentions."⁽¹³⁾ You may have splendid moral goals, argued Machiavelli, but without sufficient power and the willingness to use it, you will accomplish nothing.⁽¹⁴⁾ Therefore, power, rather than morality, is the decisive factor. This understanding of security has been legitimized by the continuity of belligerent strategic relations between India and Pakistan.

The 1971 tragedy always reminds the decision-makers in Pakistan that the balance of power or terror, instead of international alliances or idealistic approach towards the regional security, is a guarantee of its sovereign defence. Zulfikar Ali Bhutto's pro-nuclear posture was motivated by hostility towards India and his belief in the deterrent value of nuclear weapons.⁽¹⁵⁾ Pervez Musharraf argued: "Surely, any state whose chief rival has the bomb would want to do what we did. After all, we knew we could not count on Americans alone."⁽¹⁶⁾ The India-Pakistan strategic relations in the last two decades have further helped strengthen Pakistanis' resolve to maintain their nuclear posture. They believe that the preservation of nuclear power is a natural drive, which could only be neglected at great peril.

The debate for the sake of making a nuclear strategy in Pakistan remained focused on deterring all-out war between India and Pakistan. Bernard Brodie has argued that one cannot fight a war with nuclear weapons, as their sole purpose must be to deter such a war from breaking out. Many Pakistani

strategic analysts share the same understanding about their country's possession of nuclear weapons. Zafar Cheema has pointed out: "Pakistan's security policy entails a posture of credible minimum deterrence which is incrementally in place since the country's overt nuclearization in May 1998."⁽¹⁷⁾ A review of literature produced by most Pakistani strategic analysts on the subject of Pakistan's nuclear capability underscores that they were not arguing in favour of preparing to fight a nuclear war, or the possibility of using nuclear weapons for tactical purposes against India. The belief that nuclear weapons can never be used on the battlefield, and exist only for purpose of deterrence also reflects in the defence policy-making process in Islamabad. An overwhelming proportion of Pakistan's defence budget is consumed in refurbishing and procuring conventional military equipment. It is neither aimed at, nor has it completed, the full integration of nuclear weapons into its armed forces to date.⁽¹⁸⁾ The Indian defence minister, George Fernandes, declared on 5 January 2000 at a seminar organized by the Delhi-based Institute for Defence Studies and Analysis (IDSA) on the "Challenges of Limited War" that Pakistan's possession of nuclear weapons did not rule out the possibility of a limited conventional war.⁽¹⁹⁾ Moreover, the Cold Start Doctrine, announced on 28 April 2004 at the Indian Army Commanders Conference, had not compelled Islamabad to announce or declare the making and deployment of its nuclear weapons.⁽²⁰⁾

Evolution of nuclear decision-making

Pakistan's nuclear programme has gradually evolved during the last six decades. Numerous actors played an important role in its theoretical and practical implementation. During the first two decades the scope of the programme was limited to the acquisition of scientific knowledge for peaceful purposes. The entire activity was under the strict monitoring of the International Atomic Energy Agency (IAEA). Nonetheless, the 1971 tragedy and the then president Zulfikar Ali Bhutto's strategic vision had broadened the horizon of Pakistan's nuclear programme. It encompassed military utilization of nuclear technology and initiated the process which culminated in development of credible nuclear deterrence capability of the country. The following discussion highlights, chronologically, the role of individual leaders, statutory bodies, scientific civil-military bureaucracies and the common man in the nuclear decision-making in Pakistan.

Statutory decision-making bodies:

Defence Committees

There are three different Defence Committees — Defence Committee of the Cabinet, Defence Committee of the National Assembly, and Defence Committee of the Senate — in which the political elite has the privilege to critically examine the nuclear posture of the country. In theory, these Defence Committees are autonomous bodies where nuclear policy debate entailing formation process ought to take place. Previously, the proceedings of these committees were normally kept secret. Nevertheless, on certain occasions the

proceedings were reported in the press. For instance, responding to the pronouncement of the draft Indian nuclear doctrine in August 1999 and terming “offensive, and threatening the regional and global stability,” the Defence Committee of the Cabinet, under prime minister Nawaz Sharif, stated that the future development of Pakistan’s nuclear weapons programme would be “determined solely by the requirement of our minimum deterrent capability, which is now an indispensable part of our security doctrine.”⁽²¹⁾

Significantly, the author has not come across any secondary source which avers that the nuclear weapons policy was debated in any of these defence committees. In February 2000 setting up of the National Command Authority (NCA) was publicly announced. And since then, it has been the primary nuclear decision-making body in Pakistan. The Strategic Plans Division, the Secretariat of the NCA, occasionally shares the NCA decisions with the press and also invites strategic analysts for briefings and discussions.⁽²²⁾ In addition, the ruling elite, especially during crisis, articulates a few aspects of Pakistan’s nuclear policy.

Scientists’ eagerness and ruling elite’s apathy

The foundation of Pakistan’s nuclear programme was laid in the mid-1950s. It was not a weapons-oriented programme in the beginning. Nuclear decision-making in the 1950s and 60s was a low-priority issue for the policymakers in Pakistan. And the armed forces were disinclined to pursue acquisition of nuclear weapons.⁽²³⁾ Consequently, the technical decision-making was left to the specialists or a team of scientists headed by Dr. Nazir Ahmed, a physicist. The then government established a 12-member Atomic Energy Committee, headed by Dr. Nazir Ahmad. The committee’s objective was to prepare blueprints for peaceful uses of atomic energy in order to capitalize on the Atom for Peace Programme, announced by US president Eisenhower in October 1953. It was on the recommendation of the committee that an ‘Atomic Energy Council’ was set up in March 1956, with the task of planning and developing peaceful uses of nuclear technology.⁽²⁴⁾ Nevertheless, nuclear energy was not given high priority by the government and the Pakistan Atomic Energy Commission (PAEC) chairman reported to a relatively junior officer in the Ministry of Industries, and had no direct access to the chief executive.⁽²⁵⁾

Atomic Energy Council

Two Branches	Governing Body	Atomic Energy Commission
Members	Two Central Ministers; two Central Secretaries, and Chairman of the Atomic Energy	Six Scientists

	Commission.	
Responsibilities	Goals identification. Financial support. Supervision	Planning & developing peaceful uses of nuclear energy. Survey, procurement and disposal of radioactive material. Planning and establishment of atomic energy and nuclear research institute, installation of research and power reactors. Negotiations with international atomic energy bodies. Selection and training of personnel. Application of radio-isotopes to agriculture, health, industry, etc

Source: Hasan Askari Rizvi, *Pakistan's Nuclear Programme* (Karachi: Pakistan Association for Peace Research, 1991), pp. 7, 8. Naeem Ahmed Salik, "Pakistan's Nuclear Programme: Technological Dimension," in P. R. Chari, Pervez Iqbal Cheema, Iftekharuzzaman, ed., *Nuclear Non-Proliferation in India and Pakistan* (New Delhi: Manohar, 1996), p.87.

The above table shows that the decision to use nuclear energy for peaceful purposes was made by a governing body having chairman of the Atomic Energy Commission as its member. The entire details of the executing plan were worked out by the Commission. Hence, the scientific bureaucracy enjoyed complete autonomy. Moreover, the acceptance of Dr. Ahmed's recommendations had not only instituted the role of scientists in nuclear decision-making in Pakistan, but had also constituted an influential scientific-bureaucratic group in the country. This group stewarded the nuclear programme in the later years. Since the mid-1950s, the nuclear scientific bureaucracy has had a decisive role in nuclear decision-making. Gradually, this group realized that their relevance would be only acknowledged by the ruling elite if the government decided to use nuclear technology for defence purposes. Actually, the foreign qualified Pakistani scientists learnt that only those states had been greatly investing in the nuclear field which had a nuclear weapons programme. Hence, their significance in Pakistan was very much dependent on the objectives of the country's nuclear programme. Therefore, a few energetic scientists approached the political leadership for broadening the horizon of Pakistan's nuclear programme in the mid-1960s.⁽²⁶⁾ Munir Ahmed Khan, Chairman of Pakistan Atomic Energy Commission (1972-91), stated:

In October 1965, Pakistan's foreign minister, a young man at that time, I call him a young man because he was two years younger than I was,

Mr. Bhutto visited Vienna, where I was working at the IAEA, and I briefed him about what I knew of India's nuclear programme and the facilities that I had seen during a visit to Trombay in 1964, consisting of a plutonium production reactor, a reprocessing plant, and all the associated facilities, which added up to one thing: bomb-making capability. I told him that a nuclear India would further undermine and threaten our security, and for our survival, we needed a nuclear deterrent.⁽²⁷⁾

Munir Ahmed Khan claimed that he met president Ayub on 11 December 1965 at the Dorchester Hotel, where he briefed him on all that he knew about India's nuclear programme and also informed him that there were no restrictions on nuclear technology, which was freely available.⁽²⁸⁾ Subsequent attempts to persuade him and his advisers were made by Dr. Abdus Salam, Dr. Usmani and others. These scientists also approached Ayub's successor, General Yahya Khan.⁽²⁹⁾ Though the scientists were using the security dilemma problem in international relations for convincing the ruling elite, yet the ministries of finance and defence opposed their proposal to purchase a plutonium separation plant that France was willing to sell.⁽³⁰⁾

The scientific bureaucracy had failed to convince the ruling elite into changing and broadening the focus of Pakistan's nuclear programme. There were numerous reasons for limiting Pakistan's nuclear focus, and refraining from starting a nuclear weapons programme, with the major reason being the army background of president Field Marshal Ayub Khan and General Yahya Khan, and their lack of scientific orientation. Therefore, they failed to anticipate the transformation in the South Asian strategic environment due to the nuclearization of India and Pakistan. Secondly, at that time, Pakistan's SEATO and CENTO membership had given a (false) confidence to the Pakistani ruling elite that security alliances were reliable defensive fences against India's conventional superiority.⁽³¹⁾ Thirdly, the 1962 Sino-Indian war and improvement in China-Pakistan relations were also the variables due to which Ayub Khan took the scientists' strategic apprehensions vaguely. Notably, he rejected Munir Ahmed Khan's proposal by claiming that Pakistan was too poor to spend that much money. Moreover, if we ever needed the bomb, we would buy it off the shelf.⁽³²⁾ Fourthly, the military leadership apparently believed that a strong conventional defence capability would suffice for deterrence.⁽³³⁾ Fifthly, the strategic culture of the state was very much ethnocentric and thereby the strategic policies remained influenced by a sense of superiority until the dismemberment of Pakistan in 1971. Sixthly, the civil bureaucracy (planning division and ministry of finance) lacked scientific vision and had apathetic attitude towards scientific bureaucracy.⁽³⁴⁾ Therefore, on numerous occasions in the 50s and the 60s, the PAEC's proposals for setting up nuclear projects like fuel fabrication facility, a heavy water plant and a reprocessing plant were rejected by the relevant government departments. Nevertheless, the scientific bureaucracy did not relinquish the concept and urge of military use of nuclear technology. Dr. Samar Mubarakmand stated:

At this time [1960s], our chairman Dr. Usmani was a man of great vision, and he envisaged that the atomic programme had to be split into two branches, with one branch being devoted to peaceful use of atomic energy... Of course, nobody in the world expected PAEC just to do research in agriculture and medicine and industry; and therefore we had to think about the nuclear weapons programme in parallel with the peaceful programme.⁽³⁵⁾

Bhutto's nuclear-leanings: Scientists' substantiation

The 1971 War with India made Pakistan realize the bitter reality how inadequate its reliance on American, Chinese, CENTO and SEATO support was in ensuring its territorial integrity. The dismemberment of the country multiplied the asymmetry between India and Pakistan that made it necessary for it to arm itself with the latest generation of weapons to compensate for its numerical inferiority as well as to solidify its defences against India. President Zulfikar Ali Bhutto was continuously in contact with the nuclear scientists since the early-1960s,⁽³⁶⁾ who convinced him to go for nuclear weapons technology to restore the strategic imbalance between India and Pakistan. President Bhutto stated on 28 November 1972: "Since 1965, I have been in close touch with you (Chairman PAEC) and we have had many occasions to discuss how atomic energy can help in the development of our country."⁽³⁷⁾ In 1965, as a foreign minister of Pakistan Z. A. Bhutto said: "If India makes an atomic bomb, then we will also do so, even if we have to eat grass... an atom bomb can only be answered by an atom bomb."⁽³⁸⁾ It indicates that Bhutto had taken seriously the Indians reaction to the Chinese nuclear weapon test in 1964.⁽³⁹⁾ He was convinced that soon India would acquire nuclear weapons technology, which would completely transform India-Pakistan strategic relationship to the former's advantage. In his book *The Myth of Independence*, Bhutto claimed: "If Pakistan restricts or suspends her nuclear programme, it would not only enable India to blackmail Pakistan with her nuclear advantage, but it would (also) impose a crippling limitation on the development of Pakistan's science and technology... our problem in its essence is how to obtain such a weapon in time before the crisis begins."⁽⁴⁰⁾ Therefore, he was an ardent supporter of the nuclear weapons programme of Pakistan.

President Zulfikar Ali Bhutto, therefore, soon after assuming charge as head of state, abolished all the inter-ministerial committees dealing with atomic energy and took charge of the programme so that the chairman of PAEC could report directly to him.⁽⁴¹⁾ He convened a meeting of nuclear scientists at Multan on 20 January 1972. Prior to this meeting, he had recalled Munir Ahmed Khan from the International Atomic Energy Agency to prepare a report on the status of Pakistan's nuclear programme, which was submitted to the President before the Multan conference.⁽⁴²⁾ The participants in the Multan conference had included renowned nuclear physicist Professor Abdus Salam and Munir Ahmed Khan. Abdul Sattar argued: "Already convinced of the necessity of acquiring the

weapons option, Bhutto's main purpose was to discuss the expeditious acquisition of fuel cycle facilities. To pursue the plan, he appointed Munir Ahmed Khan as chairman of the PAEC on March 15, 1972, and allocated requisite funds for relevant projects."⁽⁴³⁾ Munir enjoyed the confidence of the president, which gave him a decisive power in the nuclear decision-making in 1972. Munir Ahmed claimed:

Within the two months of that event, [Multan Conference] we submitted a detailed nuclear plan to the President, which envisaged complete control of the nuclear fuel cycle, and building of numerous plants and facilities for the generation and application of nuclear knowhow. And more importantly, that the plan was approved within two hours. I remember, the President turned to the Finance Minister Mubashir Hasan, and said, 'I hereby abolish all the several committees dealing with Atomic Energy in various Ministries. You give him money as he puts in a request.' And we, the PAEC, were supposed to report directly to the Chief Executive. If that thing had not happened, you [PAEC] would have been under a Joint Secretary in the Ministry of Industry or Science and Technology. So there were immediate measures taken to give us the freedom we needed to act and the access we needed to the decision-makers in Pakistan.⁽⁴⁴⁾

In 1973 France and Pakistan signed a reprocessing plant agreement, under which the latter had to build with collaboration of the former a reprocessing plant under IAEA safeguards. The United States managed to get revoked that agreement in June 1978.⁽⁴⁵⁾ In fact, 18 May 1974, India's nuclear explosion changed the direction and speed of Pakistan's nuclear programme. The PAEC correctly anticipated future aid cut-off and sanctions from the nuclear supplier states of fuel cycle facilities, including the French reprocessing plant. Therefore, immediately following India's test, the PAEC initiated research and development studies for uranium enrichment at PINSTECH and by October-November 1974 had chosen the gas centrifuge method for uranium enrichment. Simultaneously, the PAEC also prepared for self-reliance in the front end of fuel cycle.⁽⁴⁶⁾ More precisely, the nuclear scientists anticipated the repercussions of Washington's opposition to Pakistan's nuclear programme; and therefore with the approval of the Prime Minister they embarked on an alternative route for production of fissile material — highly enriched uranium.⁽⁴⁷⁾ Additionally, on the basis of KANUPP knowledge, the PAEC broadened the programme and started building a heavy water plant, a 40-megawatt plutonium production reactor, and other plants for making tubes of different types, zirconium tubes, and other manufacturing facilities, which have contributed to the Chashma power reactor. While building nuclear fuel cycle, the scientists decided to start in parallel the design of a nuclear device, with its trigger mechanism, physics calculations, production of metal-making precision mechanical components, high-speed electronics, diagnostics, and testing facilities.⁽⁴⁸⁾

Zulfikar Ali Bhutto's tenure had demonstrated great enthusiasm in the development of Pakistan's nuclear weapons programme from 1972 to 77, but the military had shown little interest in the nuclear weapons programme. The military, in those years, was more concentrating on overcoming both the psychological and physical hangover of the 1971 war trauma. Nevertheless, the military was assigned some auxiliary roles. The military's interest and role in Pakistan's nuclear weapons programme increased after Gen Zia-ul-Haq toppled prime minister Z.A. Bhutto in a military coup on 4-5 July 1977.⁽⁴⁹⁾

Zia's continuity approach

The military coup and subsequent execution of Prime Minister Zulfikar Ali Bhutto did not affect the progress of Pakistan's nuclear programme. Zia's military junta continued the clandestine nuclear weapons project despite France's refusal to provide the nuclear reprocessing plant. Since 1972, the nuclear decision-making had evolved in a way that the government provided both direction and financial support to the programme. Technical decisions, however, were autonomously taken by the scientific bureaucracy. The trend in nuclear decision-making, which was set up by Prime Minister Bhutto, was continued during the military regime of Zia-ul-Haq. Notably, Prime Minister Z. A. Bhutto was very much autonomous in decision-making and his cabinet members never dared object to his decisions, particularly during his last three years of premiership. Similarly, Gen Zia was independent in his decision-making. He did not bring about any change in the nuclear decision-making process, except for allowing the emergence of two tiers in nuclear-scientific bureaucracy, i.e. the Pakistan Atomic Energy Agency and the Khan Research Laboratories (KRL). In addition, on certain issues General Zia took decisions alone, and did not share the information even with his kitchen cabinet. According to Shahid-ur-Rehman, in 1982 the KRL was commissioned in addition to uranium enrichment to design the bomb, develop trigger mechanism, convert enriched uranium into metal, work on the nitty gritty of the device, and assemble it. He added: "Dr. Khan claimed that he was instructed by President Zia not to mention his new responsibilities to anybody, not even to Finance Minister Ghulam Ishaq Khan, Foreign Minister Sahibzada Yaqub Ali Khan and his Chief of Staff Lt. General K.M. Arif. As regards funds, he was asked to make use of his own budget or write directly to Gen Zia."⁽⁵⁰⁾

This testifies that president Zia unilaterally made nuclear decisions and doubled the efforts to invent a nuclear device. On 11 March 1983, the PAEC successfully conducted its first cold test of a working nuclear device. (A cold test is the actual detonation of a complete nuclear bomb except instead of enriched uranium, in the middle of the bomb, you put natural uranium. So it would not go into fission.) It did not acquire full power, but was a complete bomb in all respects. Munir Ahmed Khan stated, "That evening, I went to Gen Zia with the news that Pakistan was now ready to make a nuclear device."⁽⁵¹⁾ Prior to the cold test, the nuclear weapon testing sites were selected by the PAEC in Chaghi and Kharan in 1976 and both the sites were complete, and the

shafts were all made in 1980-81.”⁽⁵²⁾ The scientific bureaucracy was doing all this in a parallel effort in 1975 and 1976 because they were told that whenever they were ready, they would detonate the bomb. Dr. Samar Mubarakmand stated: “So we were all very enthusiastic. We were running day and night concentrating on our effort. But history has proved, it did not happen at that time. The mandate was withdrawn from us when we were ready.”⁽⁵³⁾ This indicates that after 1983, the autonomy of scientific bureaucracy in nuclear decision-making was curtailed by General Zia-ul-Haq. He did not permit the PAEC to conduct a nuclear explosion or hot-test after the cold test. Dr. Samar Mubarakmand claimed: “We went to the Government and said we are ready and we want to do a hot test. The then President [General Zia-ul-Haq] said, “No, it is not the right time.” and so we had to abide by that decision.”⁽⁵⁴⁾ Nonetheless, despite not receiving permission to conduct hot-test, the PAEC continued its work on improving the device’s design. The theoretical physicist at PAEC designed one sample after the other. After every 18 month or two years or so, (since March 1983 till May 1998) the PAEC had a new design and did a cold test on it.⁽⁵⁵⁾ This reveals the scientific bureaucracy’s independence in the realm of design. Improvement was not curtailed by General Zia-ul-Haq.

Two tiers in nuclear scientific bureaucracy

In November 1974, the PAEC decided to initiate an indigenous uranium enrichment project. Sultan Bashiruddin Mahmood, former director-general (Nuclear Power) PAEC, founding project director, Uranium Enrichment Project, Khushab Nuclear Reactor, stated on 28 April 2007:

In November 1974, he [Munir Ahmad Khan, Chairman of PAEC] called me to his office and asked me to prepare a detailed report on various technologies for uranium enrichment. He was so anxious to get this project started that he wanted the report next day. In this report I discussed laser, diffusion, jet nozzle and centrifuge methods for uranium enrichment. Finally we went for centrifuge technology for uranium enrichment. We were familiar with centrifuge technology since 1967 when a small group was formed by Dr. Naeem Ahmad Khan at Atomic Energy Centre, Lahore, which included Hafeez Qureshi, myself and Dr. Samar Mubarakmand.⁽⁵⁶⁾

This reveals that scientific bureaucracy had decided to employ centrifuge method for uranium enrichment. In the formative years of Pakistan’s nuclear weapons programme, Munir Ahmad Khan greatly influenced the decision-making. Farhatullah Babar pointed out: “If Bhutto [Prime Minister Zulfikar Ali Bhutto] was like Nehru in India in having a nuclear dream, Munir Khan was like Dr. Bhabha, who helped shape the political vision of Nehru for nearly two decades of his stewardship of the Indian Atomic Energy Commission.”⁽⁵⁷⁾ In July 1976 Dr. Abdul Qadeer Khan took over the uranium enrichment project — Kahuta project — from Sultan Bashiruddin Mahmood,

who was the first head of the project. Dr. Khan renamed it Kahuta Research Laboratories (which was latter renamed Dr. A. Q. Khan Research Laboratories in 1981),⁽⁵⁸⁾ and the project was separated from the PAEC in the 1977.

The appointment of Dr. Khan constituted two tiers of decision-making within the nuclear bureaucracy. One was headed by Munir Ahmed Khan at the PAEC and other by Dr. A. Q. Khan at the Kahuta Research Laboratories. The latter was only dealing with the centrifuge-based uranium enrichment process, and it achieved the capability to enrich uranium to the level required for building an explosive device in 1982.⁽⁵⁹⁾ The PAEC was charged with the responsibility for pre- and post-enrichment phases of research. It manufactured the first atomic device in 1983.⁽⁶⁰⁾ Dr. Samar Mubarkmand, the then chairman of the strategic production complex claimed on 30 April 2003:

Pakistan's nuclear capability was confirmed the day in 1983 when the PAEC carried out cold nuclear tests under the guidance and stewardship of late Munir Ahmed Khan. As many as nineteen steps were involved in the making of a nuclear weapon ranging from exploration of uranium to the finished device, and its trigger mechanism. The technological and manpower infrastructure for eighteen out of these nineteen steps were provided by the PAEC under the leadership of Munir Ahmed Khan who led it for nearly two decades, from 1972 to 1991.⁽⁶¹⁾

Controversial transparency

The 1986-87 Brasstacks crisis compelled Pakistan to increase the transparency of its nuclear weapon capability to introduce a nuclear deterrence factor in India-Pakistan strategic relations. Islamabad intensified nuclear signalling campaign to give its nuclear capabilities credibility in Indian eyes. On 24 March 1987 General Zia stated that "Pakistan has the capability of building the Bomb. You can write today that Pakistan can build a bomb whenever it wishes. Once you have acquired the technology, which Pakistan has, you can do whatever you like." Zia added, however, that Islamabad had no intention of building nuclear weapons: "What's the difficulty about building a bomb? We have never said we are incapable of doing this. We have said we have neither the intention nor the desire."⁽⁶²⁾ A few weeks before, on 1 March 1987 Kuldeep Nayar published Dr. A. Q. Khan's interview in which the latter discussed Pakistan's nuclear programme.⁽⁶³⁾ This modification in Pakistan's strategic policy multiplied Dr. Khan's popularity. Gradually, Dr. Khan became a media-savvy figure due to his personal inclination towards media popularity, and tacit approval of the government. Consequently, he was mentioned as 'father of Pakistani nuclear weapons programme' within and outside the country. It is nearly impossible to say with any degree of certainty whether this media popularity increased Dr. Khan's influence in the nuclear decision-making process in the realm of scientific bureaucracy or it was merely a part of Pakistan's nuclear signalling strategy. President Pervez Musharraf pointed out:

“A.Q. Khan was not, in fact, the sole scientist in charge of the entire effort, yet he had a great talent for self-promotion and publicity, and led the public to believe that he was building the bomb almost single-handedly. Furthermore, our political leaders were intentionally ambiguous in public about our capabilities, for strategic reasons.”⁽⁶⁴⁾ Nevertheless, Dr. Khan was the head of Khan Research Laboratories, which was a much smaller organization than PAEC. The PAEC, which had numerous nuclear projects, remained under the chairmanship of Munir Ahmed Khan until 1991 despite a malicious media campaign against him.⁽⁶⁵⁾ The press reports indicate that Dr. Khan desired to be the head of the PAEC,⁽⁶⁶⁾ but until his retirement he did not succeed in winning the prime post of PAEC chairmanship. Thus, the two-tiers of scientific bureaucracy operated autonomously within the broader framework constituted by the ruling elite in Islamabad.

Troika of leaders in 1990s

General Zia’s plane crash on 17 August 1988 and the outcome of subsequent general elections introduced the famous troika of leaders — President, Prime Minister, and Chief of Army Staff (COAS) — a structure in the political system of Pakistan which remained intact until the passage of the 13th Amendment in the 1973 Constitution of Islamic Republic of Pakistan. The scientific maturity of Pakistan’s nuclear weapons programme, and Troika of leaders made the armed forces of Pakistan an inevitable component of nuclear decision-making. Joseph Cirincione pointed out: “Three sets of actors play the dominant roles in nuclear decisions: the scientists, the soldiers, and the state leaders.”⁽⁶⁷⁾ In the aftermath of the 1988 election, president Ghulam Ishaq Khan,⁽⁶⁸⁾ and Army chief General Mirza Aslam Beg emerged as the guarantors of continuity of the Zia era policies, and Prime Minister Benazir Bhutto was viewed as a force of change. President Pervez Musharraf pointed out: “After Zia's death in 1988, Ghulam Ishaq Khan took over as president. Since he was a civilian, he brought the army chief into the loop. From then on the chief of the army staff started managing our nuclear development on behalf of the president.”⁽⁶⁹⁾ President Musharraf added: “This arrangement continued, but the chain lengthened. It ran from the prime minister to the army chief to a major general appointed as director general of combat development... No other government department was involved, nor was anyone else from the army.”⁽⁷⁰⁾

During her first tenure, Prime Minister Benazir Bhutto’s role was limited in the federal government decision-making process. This premise is based on the following factors: the constitutional powers of the president by virtue of the Eighth amendment in the 1973 constitution, extensive experience of civil-bureaucrat turned politician Ghulam Ishaq Khan; nearly a decade of uninterrupted rule of Gen Zia-ul-Haq; and the fragile ruling coalition in the National Assembly.⁽⁷¹⁾ Hence, many analysts concluded that Benazir Bhutto was bypassed by the civil-military establishment in the realm of nuclear decision-making.⁽⁷²⁾ Zafar Iqbal Cheema opined:

On becoming prime minister in December 1988, Benazir Bhutto pledged her opposition to nuclear weapons but refused to sign the NPT. The crucial question, however, was not her willingness to stop pursuing a nuclear weapons programme but her ability to influence nuclear decision-making in Islamabad. She did not control the Nuclear Weapons Programme Coordination Committee, chaired by President Ghulam Ishaq Khan.⁽⁷³⁾

In June 1989 during her state visit to Washington, Prime Minister Benazir Bhutto was given a detailed briefing on Pakistan's nuclear progress by CIA director William H. Webster. In the briefing the impression was given that the extent of the nuclear weapons programme was concealed from Prime Minister Bhutto. Devin T. Hagerty argued:

After 1988, Pakistan was effectively ruled by a troika of leaders, of whom the inexperienced Bhutto was the weakest. The other two centres of power revolved around the president, Ghulam Ishaq Khan (a long-time civil servant and Zia's finance minister), and the chief of the army staff (COAS), General Mirza Aslam Beg. While they were content to let the charismatic Bhutto represent Pakistan on the world stage, she chafed under their continued dominance of vital national security issues like the nuclear programme and the relations with India."⁽⁷⁴⁾

On the contrary, General Beg claimed that Prime Minister Bhutto had received detailed information of nuclear weapons programme within the first two months in office. Importantly, the Western writers also admitted in their writings that the prime minister had met Dr A. Q. Khan soon after taking office in December 1988, when he and Munir Ahmed Khan had given her a short briefing on the nuclear programme.⁽⁷⁵⁾ Nonetheless, later after her ouster from power, Benazir Bhutto maintained in an interview with the ABC television network that she was kept in the dark about the country's nuclear programme.⁽⁷⁶⁾ Moreover, during the 90s no elected government had completed its term of office. The elected leaders and governments political vulnerability had sustained the army's decisive influence over all sensitive areas of policymaking, ranging from Kashmir to the nuclear programme.⁽⁷⁷⁾ Nevertheless, Prime Minister Benazir Bhutto during her first tenure adopted a nuclear restraint policy. Pakistan capped its uranium enrichment programme in 1989.⁽⁷⁸⁾ According to Devin T. Hagerty:

Bhutto also made two secret promises to Washington: first, that Pakistan would stop enriching uranium to weapons grade; and, second, that it would not convert its existing stock of weapons-grade uranium from gas to metal, which could then be machined into bomb cores. Thus, by 1989 Pakistan's

nuclear weapon potential was essentially frozen, with all of the components in place, but as yet unassembled.⁽⁷⁹⁾

Gen Aslam Beg pointed out that the capping decision was taken jointly by the ruling troika comprising the president, the prime minister, and the army chief.⁽⁸⁰⁾ The notable point here is that neither Prime Minister Bhutto nor General Beg spelled out contours of the policy of restraint. But it seems restraint was only theoretical in nature, and was for diplomatic consumption. It is because the policy did not hamper the scientific progress in the PAEC, as the commission continued cold tests of nuclear weapon designs until 1992. Moreover, in 1989, it concluded an agreement with China for the supply of a 300-MW nuclear power reactor at Chashma. Zahid Hussain has argued: “Despite the supposed cap, Pakistan is believed to have continued production of low-enriched uranium at its Kahuta plant. This low-enriched uranium could be transformed into weapons-grade uranium within a matter of months.”⁽⁸¹⁾

The troika, instead of slowing down Pakistan’s nuclear weapons programme, intensified the scientific progress at both PAEC and KRL. The scientific bureaucracy exploited the triangular arrangement of central power, secrecy of the nuclear projects, mounting tension with India in 1990, and, above all, Indian nuclear-missile progress to maximize their autonomy. The investigated accounts of Dr. Khan’s network of illicit gas centrifuge trafficking reveal that during the governance of the troika of leaders, he was able to bypass the government of Pakistan and operated independently. He intelligently used the triangular arrangement against one another to maximize his independence.⁽⁸²⁾ Importantly, during these years the PAEC had similar opportunities, but it was not involved in any illegal export activities. The non-involvement of the PAEC in the illicit nuclear trafficking manifests that transfer of used centrifuges to Iran was not done by the prior approval of the government of Pakistan.⁽⁸³⁾ More precisely, Dr. A. Q. Khan acquired a stature in the nuclear bureaucracy that he was able to make decisions without the prior approval of political ruling elite. He clandestinely bypassed the government rules and regulations to do illicit nuclear trafficking. This would be discussed in detail later.

Nuclear weapon tests: Dynamics of domestic politics

As stated above Zia-ul-Haq, was not in favour of testing a nuclear device in 1983. The scientists had to wait for almost 15 years to demonstrate their achievement. The military dictator and his successor president Ghulam Ishaq Khan preferred ambiguity about Pakistan’s nuclear-weapon capability, realizing perhaps that the cost-benefit ratio was adverse. In his first address to the National Assembly on 7 November 1990, prime minister Nawaz Sharif announced that Pakistan’s nuclear programme was meant for peaceful purposes, but had a built-in security option.⁽⁸⁴⁾ Prime minister Benazir Bhutto reiterated similar stance during her second tenure that Pakistan’s nuclear programme was intended for peaceful purposes, but could be converted to military use if the country’s national security were threatened.⁽⁸⁵⁾

The nuclear tests by India on 11 and 13 May 1998, and popular demand in Pakistan forced prime minister Nawaz Sharif to go ahead with testing on 28 and 30 May 1998. Before the test, he convened a meeting of the Defence Committee of the Cabinet (DCC) on 15 May 1998, to consider the situation resulting from the Indian tests. The meeting remained inconclusive.⁽⁸⁶⁾ On 18 May, however, Nawaz Sharif summoned Dr Ishfaq Ahmad and informed him of the government's decision to carry out the test. Shahid-ur-Rehman pointed out that "a shorter and exclusive DCC meeting convened during 15-18 May had decided to give a matching response to India and assign the task to the PAEC."⁽⁸⁷⁾ Dr. Samar Mubarakmand stated; "The PM had told me, 'Dr. Shahib, please do not fail, we cannot afford to fail. If we fail, we cannot survive. This is an hour of crisis for Pakistan'."⁽⁸⁸⁾ The prime minister stated later on 21 February 2009: "When we decided to conduct nuclear explosions in response to Indian atomic blasts in 1998, the legs of the top brass in a Defence Committee meeting were shivering with fear, but despite that we conducted the blasts."⁽⁸⁹⁾ This claim however lacked substantial evidential proof. Abdul Satar pointed out:

Almost all political parties, political leaders and security analysts, newspaper editors and columnists, the security establishment and public and public opinion became vociferous in demanding a response to the Indian tests, and a demonstration to adventurists in India that Pakistan too possessed the bomb. The chief editor of a respected newspaper chain was said to have even warned the prime minister that an explosion was unavoidable: the choice was between a nuclear test and his government.⁽⁹⁰⁾

Munir Ahmed Khan pointed out: "Meanwhile, the pressure of the public opinion, political parties and defence establishment was growing in direct response to India's increased nuclear belligerency."⁽⁹¹⁾ Besides Abdul Sattar and Munir Ahmed Khan, many writers referred to the defence establishment or the security establishment's pressure on the Nawaz government for nuclear tests. Notably, according to these nuclear myth-makers, nuclear weapons could be used just exactly as one could use a bullet or anything else.⁽²⁹⁾ According to Samina Ahmad:

...the decision to abandon nuclear ambiguity for a declared nuclear weapons posture was ultimately determined by domestic factors, particularly the nature of Pakistan's decision-making apparatus. Policy-making in the realm of security, including the nuclear field, has been the preserve of the Pakistani military with the assistance and willing collaboration of civil bureaucracy, including the nuclear scientific estate.⁽⁹³⁾

The preceding discussion shows that the armed forces of Pakistan were also on board in deciding to conduct nuclear tests in May 1998. Immediately after the May tests, the Nawaz government announced a moratorium on further tests. The prime minister, in his speech at the United Nations General Assembly

in September 1998, had expressed willingness to sign the Comprehensive Test Ban Treaty (CTBT) by September 1999, provided the sanctions were removed.

A.Q. Khan saga: An independent actor?

Dr. Abdul Qadeer Khan and a few of his associates from Pakistani nuclear bureaucracy became a part of underworld nuclear network. The network included suppliers from Switzerland, the United Kingdom, the United Arab Emirates, Turkey, South Africa, Malaysia and elsewhere.⁽⁹⁴⁾ These individuals including different countries' scientific bureaucracies were involved in illicit nuclear trade only for pecuniary benefit.⁽⁹⁵⁾ They managed it uninterrupted for the reason that many of the things they sought were of dual-use, so the real use could be disguised. In the words of Jeremy Bernstein, "In most cases, the sellers did not care."⁽⁹⁶⁾ In 1990, a member of the German parliament commented that the country's export controllers' motto was still "you never hear anything, you never see anything — and, in particular, you never block anything."⁽⁹⁷⁾ For instance, after the bombing of their reactor by Israel on 7 June 1981, the Iraqis decided to enrich their own uranium using Zippe-type centrifuges. They paid one million dollars to a German group for the design.⁽⁹⁸⁾ Degussa, one of the largest chemical companies in Germany which is involved in nuclear weapons material business, sold the Zippe centrifuges to Iran.⁽⁹⁹⁾ Jeremy Bernstein said that: "The Degussa representatives made it clear that they did not care if the Iranians were going to use the material to make weapons. That was fine with them, as long as they paid their bills."⁽¹⁰⁰⁾

The A. Q. Khan network during the late 80s through the 90s transferred sensitive nuclear proliferation related technologies and information to Iran and Libya.⁽¹⁰¹⁾ Moreover, on 20 February 2004, Malaysian police reported that the former head of the KRL, Dr Abdul Qadeer Khan, sent enriched uranium to Libya in 2001 and sold gas centrifuge parts to Iran in the mid-1990s.⁽¹⁰²⁾ After receiving authentic proofs about Khan's involvement in the illicit nuclear trafficking, he was arrested on 31 January 2004 under the Security Act of Pakistan 1952 for allegedly transferring nuclear technology to other countries.⁽¹⁰³⁾ On 7 February 2004, Gen Pervez Musharraf, president of Pakistan, at his press conference stated that one of the country's senior scientists, Dr. Abdul Qadeer Khan, and a few of his associates were guilty of illicit nuclear trade. Dr Khan was convicted and punished.⁽¹⁰⁴⁾ Musharraf claimed in the news conference that the Pakistani civil and military bureaucracy was not a part of this illicit nuclear trafficking. Abdul Sattar pointed out:

However, the Pakistan government itself obtained the relevant information through the interrogation of accused individuals. Investigation confirmed that he and some of his subordinates had indulged in the sale of nuclear technology. The inquiry also concluded that the government had not authorized any transfer, and that the sale was on account of the personal greed of a few persons.⁽¹⁰⁵⁾

It needs to be noted that numerous Western analysts had critically examined Dr Khan's nuclear export and a few of them had disputed the government of Pakistan's claim that it was Dr. Khan's personal decision to transfer gas centrifuge technology to Iran, Libya and North Korea. But it seems that the decision to transfer nuclear technology clandestinely was a personal venture of Dr. Khan. In fact, once his prestige grew exponentially, he began to run the export of gas centrifuge technology as a business. Bruno Tertrais pointed out: "Most knowledgeable observers of the Pakistani scene agree that A.Q. Khan had an important degree of autonomy. If nuclear exports had been a consistent State policy, then it would have been logical that PAEC had a role in it too, which does not seem to have been the case."⁽¹⁰⁶⁾ Jeremy Bernstein's findings also support the assertion that Pakistani nuclear exports were probably, to a significant extent, an individual initiative. He concluded:

He opened an office in Dubai operated by his nephew. They soon produced a kind of menu from which you could order, complete with prices. The Iranians bought centrifuge designs and parts of actual centrifuge for several million dollars, which they should have declared to the International Atomic Energy Agency. The centrifuge that the Iranians claim to have used to enrich is called the P-1, where 'P' stands for 'Pakistan'.⁽¹⁰⁷⁾

NCA: Institutionalizing decision-making

After the nuclear tests in May 1998, Islamabad adopted a transparent nuclear decision-making policy by constituting a powerful and coherent National Command Authority (NCA) to chalk out the nuclear strategy, manage nuclear infrastructure and strategic assets.⁽¹⁰⁸⁾ The then army chief Gen Pervez Musharraf submitted a written plan for NCA, a new secretariat within the government that would take charge of operational, financial, and security controls.⁽¹⁰⁹⁾ Consequently, the NCA became operative in March 1999,⁽¹¹⁰⁾ though the formal announcement in this regard came on 2 February 2000.⁽¹¹¹⁾ Gen Musharraf, who became president ousting prime minister Nawaz Sharif in a military coup, stated:

When I took the helm of the ship of state on October 12, 1999, I was solely in charge of all our strategic programmes. I soon realized that I could not devote as much time to them as they required. I decided to implement the system that I had proposed earlier. In February 2000, our strategic weapons programme came under formalized institutional control and thorough oversight, duly approved by my government.⁽¹¹²⁾

The NCA was a three-tier institutional structure dealing with the country's nuclear weapons. The Employment Control Committee and Development Control Committee, constituted one tier; the Strategic Plans Division (SPD) the second tier; and the three services' strategic forces command

the third tier. The Chairman and Vice Chairman of the NCA were the head of the state (President) and the Head of the Government (Prime Minister), respectively. The Strategic Plans Division was the Secretariat of NCA.

NCA Ordinance, 2007

President Pervez Musharraf promulgated the NCA Ordinance on 13 December 2007.⁽¹¹³⁾ The Ordinance No. LXX of 2007, which came into force at once and extended to the whole of Pakistan, provided de jure status to the constitution and establishment of the National Command Authority. A careful reading of the ordinance shows that it did not contradict or reverse the previous NCA system. It stated: “The National Command Authority already established by the competent authority shall deem to be the Authority established under this Ordinance.”⁽¹¹⁴⁾ The ordinance designated the President of Pakistan as the Chairman of the Authority and the Prime Minister as Vice-Chairman. It listed the following as the other ex-officio members of the NCA: the Minister for Foreign Affairs; Minister for Defence; Minister for Finance; Minister for Interior; Chairman, Joint Chiefs of Staff Committee; Chief of Army Staff; Chief of Naval Staff; Chief of Air Staff; and Director General, Strategic Plans Division. The SPD DG was also named the Secretary of the Authority. An important aspect of the ordinance was that it provided a legal document on the NCA containing details regarding the command and control over research, development, production and use of nuclear and space technologies of Pakistan. It also provided information about the safety and security mechanism that ensured safety and security of all personnel (employees serving and retired), facilities, information, installations or strategic organizations.⁽¹¹⁵⁾

Three Tiers of NCA

First Tier – NCA		Second Tier	Third Tier
Employment Control Committee	Development Control Committee	Strategic Plans Division	Three Services: strategic forces command
Chairman: President Vice-Chairman: Prime Minister Deputy Chairman Foreign Minister Members Minister for Defence Minister for Interior Minister for Finance CJCS COAS/ VCOAS CNS CAS Secretary Director General SPD By invitation as Required	Chairman: President Vice-Chairman: Prime Minister Deputy Chairman CJCS Members COAS/VCOAS CNS CAS Heads of strategic organizations concerned Secretary Director General SPD	Head: Director General Four main Directorates: 1. Operations and planning directorate, 2. CCCCIISR directorate, 3. Strategic Weapons Development directorate, 4. The Arms Control and Disarmament Affairs directorate.	<ul style="list-style-type: none"> • Army strategic force command, • Air Force strategic force command, • Naval strategic force command

*CCCCIISR (Computerized Command, Control, Communications, Information, Intelligence and Surveillance)

The Head of State, the President of Pakistan, chaired the apex Employment Control Committee. As the names suggest the Employment

Control Committee was to deal with what could be defined broadly as “nuclear strategy” including targeting policy and the conduct of nuclear operations. It provided policy directions in peacetime and had the authority to order, control and direct use/employment of tri-services strategic forces during war. On 6 January 2003, the NCA headed by the president, Pervez Musharraf, announced that a “unanimous decision” would be taken for using nuclear weapons. It was made clear that no individual, including the President of Pakistan, was authorized to use nuclear weapons. This arrangement precluded the possibility of any irrational decision by an individual. Hence, the decision-making process was based on the concept of consensus. Secondly, the list of the members of the committee showed overwhelming civilian representation in the Employment Control Committee. Besides the Chairman (head of the state) and vice-chairman (head of the government), the other members of this committee included: Minister of Foreign Affairs (Deputy Chairman), Minister of Defence, Minister of Interior, Chairman of Joint Chiefs of Staff Committee, Services chiefs, Director-General of Strategic Plans Division and, technical advisers and others, as required by the chairman. Presently, the NCA Employment Committee was the real decision-making body Pakistan’s nuclear programme.

The Development Control Committee dealt with the planning and development of nuclear forces. It exercised day-to-day technical, financial and administrative control over the strategic organizations and also oversees the systematic development of strategic weapons programme. Its Chairman was the Head of the State, Vice-Chairman Head of the Government and Deputy Chairman is CJCSC. Other members were: Services chiefs — Army, Air Force and Navy; heads of strategic organizations concerned, i.e. scientists, while the SPD the Director General serves is secretary. The Development Control Committee institutionalized the role of the armed forces in addition to that of the scientific bureaucracy. This arrangement was very important because the scientific bureaucracy needs to be familiar with the detailed texture of the current military requirements.

The Strategic Plans Division was secretariat to the NCA and was entrusted with the task of developing and managing Pakistan’s nuclear capability in all dimensions — operational, planning, weapons development, arms control and disarmament affairs, command and control, storage, safety, budget, etc. Put simply, the SPD, headed by a director general, works on behalf of the NCA, which increased its role in nuclear decision-making. In addition to the SPD, separate strategic forces commands had been raised in all the three services. The services retained training, technical and administrative control over their strategic forces. Though the operational planning and control rested entirely with the NCA, yet the role of the SPD was very decisive in nuclear decision-making.

NCA Act, 2010

The process of strengthening the parliamentary system of government has also an impact on the process of nuclear decision-making in the country. The

18th Amendment to the 1973 Constitution of Pakistan, passed by the National Assembly on 8 April 2010 and by the Senate seven days later, reduced the president's constitutional powers and made the parliament sovereign in real terms. President Zardari relinquished chairmanship of the NCA in favour of the Prime Minister. After Parliament's approval and President's assent, the National Command Authority Act, 2010, came into force on 11 March 2010.⁽¹¹⁶⁾ Article 2, Clause b. of the Act states: "Chairman means the Prime Minister of the Islamic Republic of Pakistan."⁽¹¹⁷⁾ Other members of the Authority shall be the Minister for Foreign Affairs; Minister for Defence; Minister for Finance; Minister for Interior; Chairman, Joint Chiefs of Staff Committee; Chief of Army Staff; Chief of Naval Staff; and Chief of Air Staff. The Director General of the Strategic Plans Division, shall act as the Secretary of the Authority.⁽¹¹⁸⁾

Article 4 of the Act states "All the powers and functions shall rest with the National Command Authority on whose behalf the Chairman will exercise these powers and functions who may in consultation with National Command Authority and subject to such limitations as he may specify, delegate any of these powers and functions to Chairman Joint Chiefs of Staff Committee and Director General Strategic Plans Division, who may further sub-delegate the same to any employee."⁽¹¹⁹⁾ The Strategic Plans Division shall function as the Secretariat of the Authority and shall be headed by a Director-General. The Authority may, if required, invite any head of the Strategic Organization, or any person or an expert etc., to participate in its meetings.⁽¹²⁰⁾ In addition to other functions the Authority is responsible for ensuring security and safety of nuclear establishments, nuclear materials and to safeguard all information and technology relating to the said matters. It also ensures security and safety of establishment and facilities, etc. of the Strategic Organizations and renders security and ensures safety of serving or retired employees.⁽¹²¹⁾ The Strategic Organization means such a body as notified by the Authority to be a Strategic Organization and includes the Pakistan Atomic Energy Commission, Dr. A. Q. Khan Research Laboratories and Space and Upper Atmosphere Research Commission. Since the entry into force of the NCA Act, 2010, Prime Minister Yusuf Raza Gilani has been chairing the NCA meetings.

Conclusion

The preceding discussion seeks to prove that during the evolution of Pakistan's nuclear programme different institutions of the country were involved in the nuclear decision-making. But the national Parliament, even during the era of parliamentary governments in Pakistan, was not involved in the nuclear decision-making. Instead of a Parliamentary Act, for example, the Ordinance provided legal basis to the NCA until the present parliament endorsed it. In 2004, however, for the first time the national parliament was involved in the nuclear decision-making a law passed — Export Control on Goods, Technologies, Material and Equipment related to Nuclear and Biological Weapons and their Delivery Systems Act, 2004 — in September 2004.⁽¹²²⁾ The purpose of this Act was to further strengthen controls on export of sensitive

technologies, particularly those related to nuclear and biological weapons and their means of delivery. Historical trends indicate that the parliament was bypassed on sensitive nuclear decision-making, especially regarding nuclear weapons' quantitative and qualitative improvement, mating the devices with delivery systems, deployment of nuclear weapons, etc.

Secondly, the western literature depicts that Pakistani politicians lack adequate awareness of the country's nuclear capability. Therefore, the military enjoys autonomy in the nuclear decision-making. In reality, however, most politicians do have a high level of awareness of the basic facts and Pakistan's armed forces' role is limited to input at the technical level of strategy, and would obviously be active during the conduct of war. In reality, however, since the retirement, and later resignation, of president Musharraf the armed forces' representation on the employment committee of the NCA is limited to Joint Chiefs of Staffs Committee chairman. All the remaining members are civilians. This composition of the committee reflects overwhelming representation of civilians in the nuclear decision-making process.

Thirdly, the recent and distant military interventions in the political realm minimize the significance of civilians in nuclear decision-making. The history of civil-military relations has generated two competing notions about nuclear decision-making in Pakistan. One school of thought believes that both the formulation and execution of nuclear strategy is in the domain of the Armed Forces of Pakistan, particularly the Army, which has complete control over nuclear decision-making. The second school of thought opines that civil political leadership has the decisive role in nuclear decision-making. Indeed, Pakistan's nuclear weapons programme was started by a civilian prime minister — Zulfikar Ali Bhutto — and the decision to conduct the nuclear weapon tests in May 1998 was made by Nawaz Sharif, another elected civilian head of the government. Moreover, during the second tenure of prime minister Benazir Bhutto, Pakistan's ballistic missiles inventory received a boost. Zia-ul-Haq had only upheld Zulfikar Ali Bhutto government's nuclear policy. Again, Gen Musharraf did not disrupt the evolutionary process of Pakistan's nuclear programme, except for institutionalizing the National Command Authority in February 2000, and introducing the system of nuclear scientists' debriefing, and promulgation of the abovementioned control law in September 2004 passed by the parliament of Pakistan. The rhetorical shift in the realm of nuclear posture, i.e. 'No-First-Use' came after the re-establishment of civilian political setup. Nevertheless, after the maiden attempt to present Pakistan's nuclear posture differently, President Zardari did not comment on this issue. Further, in the 1970s, Zulfikar Ali Bhutto had not only laid the foundation, but also provided real impetus to Pakistan's nuclear weapons programme. Since then, it had gained such a momentum that even after his departure no political or military leader could stop it because it had won overwhelming public support. This public support would remain a decisive factor in nuclear decision-making in Pakistan.

To conclude, political stability ensuring continuity and prosperity of the democratic system in Pakistan is a pre-requisite to end the ambiguities regarding

nuclear decision-making in the country. If the current political situation continues, and the democratic institutions gradually mature, the nuclear decision-making would be more transparent and evident in the domain of the elected civilian government. The military's role would be limited to tactical, operational and theatrical levels of nuclear strategy. The defence committees, those of the Federal Cabinet, Senate and National Assembly, would become more vibrant and efficient in their functions. Consequently, the country's political culture would be transformed, and the people of Pakistan start accepting that the armed forces do not take initiatives in nuclear decision-making and always await authorization from political masters through the National Command Authority.

Notes and References

1. Article 245 of the Constitution of the Islamic Republic of Pakistan spells out the functions of the Armed Forces. Clause 1 of this article (245) states: “The Armed Forces shall, under the directions of the Federal Government, defend Pakistan against external aggression or threat of war, and, subject to law, act in aid of civil power when called upon to do so.”
2. Jawed Naqvi, “Zardari suggests accord to avoid nuclear conflict in S. Asia,” *Dawn*, 23 November 2008. <<http://archives.dawn.com/2008/11/23/top1.htm>>; accessed on 19 February 2012.
3. Ibid.
4. “No first use (NFU)” refers to a pledge or a policy by a nuclear power not to use nuclear weapons as a means of warfare unless first attacked by an adversary with nuclear weapons. Pakistan maintains its “first-use” option, partly because it has no confidence in India’s “no-first-use” declaration and partly because it is perceived by Pakistan as undermining its nuclear deterrence. Islamabad also viewed its nuclear weapons as a conventional force multiplier, or to address the increasing conventional asymmetry between the two neighbours.
5. “Pakistani Nuclear Deterrence And Foreign Policy”, An interview with Pakistani foreign minister on 4 November 2003, <<http://www.pakistanidefence.com/news/Articles&Analysis/InterviewFM,NuclearDetence.html>>.
6. Shamshad Ahmed, foreign secretary of Pakistan, stated in a press conference in Islamabad on 30 May 1998.
7. India brandishes its declaration on no-first-use of nuclear weapons, but reserves for itself the right to use conventional force.
8. The perception that without nuclear deterrence, Pakistan will be vulnerable to Indian aggression is based on historical realities. The inequality in military balance of power, and non-functional security alliances were among a few important factors that resulted in the dismemberment of Pakistan in 1971.
9. Numerous facts unveil India’s aggressive tendencies. For instance, on 4 January 2003 its Cabinet Committee on Security reviewed the operationalization of its nuclear doctrine — “nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory, or on Indian forces anywhere.” The “Indian forces anywhere” indicates that Indian forces would be happened to be on another state’s territory as an occupation force, or even if in an aggressive mode. Dr. Zafar Iqbal Cheema, “Pakistan’s Posture of Credible Minimum Deterrence:

- Current Challenges and Future Efficacy,” *Margalla Papers*, Special Edition — Nuclear Pakistan: Ten Years On, 2008, pp.50-51.
10. The ideas one develops about correct strategy and policy can be termed inferential learning because they involve drawing inferences from the underlying facts. Jeffrey W. Knopf, “The Concept of Nuclear Learning,” paper prepared for the “Decade of Nuclear Learning in South Asia” Conference, Honolulu, Hawaii, 12-13 February 2009.
 11. E. H. Carr, *The Twenty-Year Crisis, 1919-1939* (New York: Harper and Row, 1964). Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, (New York: Alfred A Knopf, 1973, Fifth Edition); Kenneth N. Waltz, *Theory of International Politics*, (California: Addison-Wesley Publishing Company, 1979); Zulfikar Ali Bhutto, *If I am Assassinated* (Lahore: Classic, 1989); Pervez Musharraf, *In the Line of Fire: A Memoir* (New York: Simon & Schuster, 2006).
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 13. Barry Buzan, Ole Waever, Jaap de Wilde, *Security: A New Framework For Analysis* (London: Lynne Rienner Publishers, 1998), p.21.
 14. Ibid, pp.7-8.
 15. Michael G. Roskin. “National Interest: From Abstraction to Strategy,” <http://dde.carlisle.army.mil/ce-slr/roskin.doc> , accessed on 30 December 2004.

16. Samina Ahmed and David Cortright, "Pakistani Public Opinion and Nuclear Weapons Policy," in Samina Ahmed and David Cortright, ed. *Pakistan and the Bomb: Public Opinion and Nuclear Options* (Karachi: Oxford University Press, 2001), pp. 9, 10.
17. Pervez Musharraf, op.cit., (ref.11), pp.283-284.
18. Dr. Z. I. Cheema, "Pakistan's Posture...", op.cit., (ref.9), p.43.
19. Ibid, p.43.
20. Indian defence minister George Fernandes seconded Gen V.P. Malik's argument in the inaugural address, "The Challenges of Limited War: Parameters and Options", New Delhi, January 5, 2000. For more, see General V. P. Malik, *Kargil: From Surprise to Victory* (New Delhi: HarperCollins Publishers, 2006), pp. 363-366.
21. According to the "Cold Start Doctrine," in any future conflict scenario where a "blitzkrieg"-type strategy is going to be followed, joint operations involving the Indian army, Indian air force and Indian navy would be an imperative. Intended to allow India to mobilize quickly and undertake limited retaliatory attacks on its neighbour, without crossing Pakistan's nuclear threshold. The doctrine marks a break with the fundamentally defensive military doctrines that India has employed since gaining independence in 1947. It primarily aims at capturing strategic places of Pakistan through speedy surprise combatant forces offensive operation that minimize Pakistan's reaction time to position its own forces at the front appropriately to confront Indian strike forces. In addition, the rapid military operation also avoids the possibility of third party — the United States and Britain — diplomatic intervention and pressure on India's leadership not to attack Pakistan. Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security*, Vol.32, No.3, Winter 2007-08. Dr Subhash Kapila, "India's new Cold Start war doctrine strategically reviewed," *South Asia Analysis Group*, Paper No. 991, 4 May 2004, <http://www.southasiaanalysis.org/papers10/paper991.html>, accessed on 15 July 2008.
22. Quoted in Dr. Z.I. Cheema, "Pakistan's Posture...", op.cit, (ref.9), p.59; "Pakistan says Indian nuclear plan threatening global stability," *The News*, 26 August 1999.
23. At present reports on the NCA meetings and decisions are posted on the ISPR website. This transparency approach of the SPD contributed constructively to understanding and analyzing the nuclear posture of Pakistan. Besides, the author along with other security observers, was invited by the SPD for occasional short background briefings at headquarter in Rawalpindi, Pakistan.

24. "Siding with the West during the peak of the Cold War, military officials had become the beneficiaries of large-scale Western military and economic assistance, resulting in a constant expansion of the military establishment and consolidation of its political standing vis-à-vis political rivals in the state." Samina Ahmed and Cortright, "Pakistani Public Opinion and Nuclear Weapons Policy," op.cit., (ref.16), p.9.
25. Dr. Nazir Ahmed's tenure as chairman of Pakistan Atomic Energy Commission was 1955-1960. He was succeeded by Dr. I. H. Usmani who remained chairman until 1972. Munir Ahmed Khan replaced Dr. Usmani and worked from 1972-91. S. N Burney, "Munir Ahmed Khan and I," *The News*, Rawalpindi/Islamabad 3 June 1999.
26. Munir Ahmad Khan, "Nuclearisation of South Asia and its Regional and Global Implications," *Regional Studies*, Vol. XVI, No. 4, Autumn 1998, p. 11.
27. Farhatullah Babar, "Bhutto's footprints on nuclear Pakistan," *The News*, 4 April 2006.
28. Speech delivered by Munir Ahmed Khan, on 20 March 1999: Chaghai Medal Award Ceremony, Pinstech, Nilore, Islamabad.
29. Ibid. Munir Ahmad Khan's elder brother Khurshid Ahmad was minister for law in the Ayub cabinet. In addition, Zulfikar Ali Bhutto had an inclination towards nuclear knowhow. These two connections might have facilitated the meeting between the scientist and the president of Pakistan in London.
30. Ibid.
31. Ayub Khan, too, did not favour the idea. Abdul Sattar, *Pakistan's Foreign Policy, 1947-2005: A Concise History* (Karachi: Oxford University Press, 2007), p.145.
32. Feroz Hassan Khan, "Nuclear Proliferation Motivations:," op.cit., (ref.12), p.505.
33. Munir Ahmed Khan, op.cit., (ref.28).
34. Abdul Sattar, *Pakistan's Foreign Policy...*, op.cit., (ref.31), p.145.
35. Dr Salam once asked the deputy chairman, Planning Commission, to consult scientists in the formulation of policies for science-based industries. The deputy chairman arrogantly replied: "Why should I consult the scientists; I do not consult my cook to show me how to run my household? Dr Nazir informed the PAEC Board meeting on 9 March 1959 of his failed attempts to persuade the financial bureaucrats to get a decision in favour of the CP-5 reactor. Shahid-ur-Rehman, *Long Road To Chagai* (Islamabad: Print Wise Publications, September 1999), pp.21-23.

36. "A Science Odyssey: Pakistan's Nuclear Emergence," speech delivered by Dr. Samar Mubarakmand on 30 November 1998 at Khwarzimic Science Society, Government College, Lahore.
37. As minister of minerals and Natural Resources, Zulfikar Ali Bhutto laid the foundation-stone of Pinstech in 1963. Munir Ahmad Khan, "Bhutto and nuclear programme of Pakistan," *The Muslim*, Islamabad, 4 April 1995.
38. *Morning News*, Karachi, 29 November 1972.
39. Abdul Sattar, op.cit., (ref.31),p.144.
40. Soon after the Chinese nuclear test, Dr Homi Bhabba, the head of India's Atomic Energy Commission, lobbied for the development of nuclear weapons capability, claiming that India could develop a bomb in 18 months. Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security*, Vol. 21, No. 3, Winter 1996-97, p. 66.
41. Quoted in Farhatullah Babar, "Bhutto's footprints..." op.cit., (ref.27).
42. *Morning News* op.cit., (ref.38). Munir Ahmad Khan, "Bhutto and..." op.cit., (ref.37).
43. Shahid-ur-Rehman, op.cit., (ref.35), p.16.
44. Abdul Sattar, *Pakistan's Foreign Policy...*, op.cit., (ref.31), pp.145-146.
45. Munir Ahmad Khan, op.cit., (ref.28).
46. Zahid Malik, *Dr. A. Q. Khan and The Islamic Bomb* (Islamabad: Hurmat Publications, 1992), p. 201.
47. On 15 February 1975 Munir Ahmad Khan obtained approval for \$ 450 million nuclear weapons programme from prime minister Bhutto. This plan included: uranium refining and conversion, (UF6), production complex at BC-IR at Dera Ghazi Khan; a centrifuge plant at Kahuta; a nuclear weapon design programme in PAEC. M. H Chaudhry, "Pakistan's Nuclear History: Separating Myth from Reality," *Defence Journal* (Karachi: May 2006).
48. Sultan Bashiruddin Mahmood, "Obituary: A Great Loss for the Nation," *The Nation*, Islamabad, 25 April 1999.
49. Munir Ahmed Khan, op.cit., (ref.28).
50. Zafar Iqbal Cheema, "Pakistan's Nuclear Use Doctrine and Command and Control," in Peter R. Lavoy, Scott D. Sagan , and James J. Waltz, ed. *Planning the Unthinkable: How New Powers Will Use Nuclear, Biological, And Chemical Weapons* (London: Cornell University Press, 2000), p. 162.

51. Shahid-ur-Rehman, *op.cit.*, (ref.35), p.6.
52. The team that conducted the 1983 cold test was the same that carried out the Chaghai tests in May 1998. *Ibid.*
53. Dr. Samar Mubarakmand, *op.cit.*, (ref.36).
54. *Ibid.*
55. *Ibid.*
56. *Ibid.*
57. Speeches delivered at the memorial reference held on 28 April 2007 in Islamabad at the eighth death anniversary of Munir Ahmed Khan. See also *Nawa-i-Waqt*, (Urdu newspaper) Islamabad, 29 April 2007.
58. Farhatullah Babar, "The nuclear sage of Pakistan," *The News*, 22 April 2005. Farhatullah Babar belongs to the Pakistan People's Party, was a member of the Defence Committee of the Senate of Pakistan.
59. Zahid Malik, *Dr. A. Q. Khan...*, *op.cit.*, (ref.46), p.255.
60. Abdul Sattar, *Pakistan's Foreign Policy...*, *op.cit.*, (ref.31), p.147.
61. *Ibid.*, p.148.
62. "Pakistan became a nuclear state in 1983: Dr. Samar," *The Nation*, Islamabad, 2 May 2003.
63. Quoted in Devin T. Hagerty, *The Consequences of Nuclear Proliferation: Lessons From South Asia* (London, The MIT Press, 1998), p.123. Ross H. Munro, "Knocking at the Nuclear Door," *Time Magazine*, 30 March 1987, p.42.
64. Hagerty, *Ibid.*, pp.118-121.
65. Musharraf, *op.cit.*, (ref.11), p.285.
66. Dr. M. S Jilani, "Man of Honor," *The News*, 3 June 1999. Farhatullah Babar, "The nuclear sage...", *op.cit.*, (ref.58).
67. "Khan got to the point, asking Bhutto [Benazir Bhutto, in 1990] to dismiss Munir Ahmad Khan, and give him control of the country's entire nuclear programme. Munir, he argued, was delaying nuclear progress because he was not a good enough scientist or administrator to handle the job." Douglas Frantz and Catherine Collins, *The Nuclear Jihadist* (New York: Hachette Book Group, 2007), pp. 181, 182.
68. Joseph Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons*, (New York: Columbia University Press, 2007), p. 64.
69. Ghulam Ishaq Khan was a long-time civil servant and Zia's finance minister and latter chairman of the Senate. After Zia's fatal plane

accident, he became acting president of Pakistan and after the general elections of 1988 was elected the president of Pakistan.

70. Musharraf, op.cit., (ref.11), p.285.
71. Ibid. Musharraf writes: "I say this about the army with full authority because I became the director general of military operations (DGMO) in 1992, an appointment that involved dealing with all sensitive military planning and operational matters, but I was kept totally out of the nuclear circuit."
72. After the failure of no-confidence motion in the National Assembly against prime minister Benazir Bhutto's government, president Ghulam Ishaq deposed the government and dissolved the National Assembly by exercising his constitutional power, i.e. Article 58, Clause 2b, in August 1990
73. This impression received legitimacy when the US deputy national security chief, Robert Gates, as an envoy of president Bush in summer 1999 met Gen Beg instead of prime minister Bhutto, and president Ishaq Khan to defuse the India-Pakistan 1990 crisis.
74. Z.I. Cheema, op.cit., (ref.50), p.163.
75. Hagerty, op.cit., (ref.63), pp.135-136.
76. Frantz and Collins, op.cit., (ref.67), p.181.
77. Zahid Hussain, "Deliberate Nuclear Ambiguity," in Samina Ahmed and Cortright, ed. *Pakistan and the Bomb* op.cit., p.39.
78. Samina Ahmed and Cortright, op.cit., (ref.16), p.13.
79. Independent verification of the enrichment capping was not possible because the nuclear facility involved was not subject to international nonproliferation safeguards. Zahid Hussain, "Deliberate Nuclear Ambiguity," op.cit., (ref.77), p.30.
80. Hagerty, op.cit., (ref.36), pp.128-129. In her speech before a joint session of Congress in June 1989, prime minister Benazir Bhutto said: "Speaking for Pakistan, I can declare that we do not possess nor do we intend to make a nuclear device. That is our policy." Benazir Bhutto, "The Policies of Pakistan Nuclear Problems and Afghanistan," *Vital Speeches of the Day*, 7 June 1989, p.553.
81. Zahid Hussain, op.cit., (ref.77), p.39. Z.I. Cheema, "Pakistan's Nuclear Use Doctrine...", in Lavoy, Sagan and Waltz, op.cit., (ref.50), p.163.
82. Ibid., p.30.
83. "As the two men sat in Beg's office in Rawalpindi, Khan complained bitterly that Bhutto was hindering the advance of the nuclear programme, explaining that she had restricted his travel and kept an

- incompetent, Munir Khan, at the top of the PAEC to stall the final push to a weapon... Beg agreed that Bhutto was an obstruction and confided to Khan that he, too, wanted to get rid of her, but it was difficult because she remained popular with the public. Nonetheless, a new alliance had been forged.” Frantz and Collins, *The Nuclear Jihadist*, op.cit., (ref.67),p.182.
84. Importantly, the Iranians received centrifuges from A Q Khan in early 1990s. But they were not able to enrich uranium because of the failure of centrifuges until 2004.
 85. Z.I. Cheema, “Pakistan’s Nuclear Use Doctrine...,” op.cit., (ref.50), p.164.
 86. Ibid, p. 164.
 87. Participant of the DCC meeting held at Prime Minister Secretariat in Islamabad were foreign minister Gohar Ayub Khan, foreign secretary Shamshad Ahmad, finance minister Sartaj Aziz, the three services chiefs, Dr. Abdul Qadeer Khan and Dr Samar Mubarakmand. Shahid-ur-Rehman, *Long Road...*, op.cit., (ref.35),pp.9-10.
 88. Shahid-ur-Rehman, *ibid.*, p.11.
 89. Dr. Samar Mubarakmand, op.cit., (ref.36).
 90. Babar Dogar, “Nawaz takes the plunge at last,” *The News*, 22 February 2009.
 91. Abdul Sattar, op.cit., (ref.31), p.202.
 92. Munir Ahmad Khan, “Nuclearisation of South Asia...” op.cit., (ref.26), p.29.
 93. President Dwight-Eisenhower declared at a press conference on 16 March 1955, that nuclear weapons should be “used just exactly as you would use a bullet or anything else.” Quoted in Nina Tannenwald, *The United States and the Non-Use of Nuclear Weapons since 1945* (New York: Cambridge University Press, 2007), p.9.
 94. Samina Ahmed, “Security Dilemmas of Nuclear-Armed Pakistan,” *Third World Quarterly*, Vol. 21, No.5, October 2000, p.783.
 95. William D. Hartung and Frida Berriganp, “Arms and Terrorism: Tracing the Links,” in Sean S. Costigan, & David Gold, ed. *Terronomics*, (England: Ashgate Publishing Limited, 2007), p.95.
 96. The global underworld nuclear bazaar has been working since 1940s. In spite of tightened control regimes, it has prospered far beyond anything anyone had predicted, with buyers and sellers from countries around the globe.

97. Jeremy Bernstein, *Nuclear Weapons: What you need to know*, (New York: Cambridge University Press, 2008), p.266.
98. Quoted in Bruno Tertrais, "Not a 'Wal-Mart', but an 'Imports-Exports Enterprise': Understanding the Nature of the A.Q. Khan Network," *Strategic Insights*, Volume VI, Issue 5, August 2007. Accessed on 3 May 2009.
99. Bernstein, op.cit., (ref.97), p.269.
100. The Zipp centrifuge can produce as many as 90,000 revolutions per minute. One of the innovations was to heat the bottom so as to produce countercurrents. The heavier Uranium-238 is collected in a downward-moving current at the outside while the lighter Uranium-235 moves on an upward current on the inside, where it can be collected. The original centrifuges used aluminum rotors, but aluminum has now been replaced by specialized steels. Bernstein, op.cit., (ref.97), p.263.
101. Bernstein, op.cit., (ref.97), p.263.
102. In November 2003, president Moammar Gadhafi decided to renounce Libya's weapons of mass destruction programme and opened his country's weapons laboratories to international inspection. The Libyan government gave a package of documents to the US officials. Experts from the United States, Britain and the International Atomic Energy Agency analyzed the documents. They concluded that bomb designs and other papers turned over by Libya had yielded evidence of Pakistani-led trading network in transferring nuclear know-how to Libya.
103. "Malaysian police report implicates Dr. A. Q. Khan," *Dawn*, 21 February 2004.
104. "Nuclear Black Markets: Pakistan, A. Q. Khan and the rise of proliferation networks: A net assessment," *On ISS Strategic dossier* (London: The International Institute for Strategic Studies, 2007), pp.96-100.
105. Zafar Nawaz Jaspal, "Pakistan and the Issue of Nuclear Proliferation," *Margalla Papers*, Special Edition, Nuclear Pakistan: Ten Years On, 2008, pp.82, 83. Abdul Satar, op.cit., (ref.31), p.218.
106. Abdul Satar, (ref.31), p.218.
107. Tertrais, op.cit., (ref.98).
108. Bernstein, op.cit., (ref.97), p.267.
109. The succeeding paragraphs on the National Command Authority have been adopted from the author's recently published article the Issue of Nuclear Proliferation," *Margalla Papers*, Special Edition, Nuclear Pakistan: Ten Years On, 2008, pp.92-94.

110. Musharraf, op.cit., (ref.11), p.286.
111. Kenneth N. Luongo and Brig. Gen. (Ret.) Naeem Salik, "Building Confidence in Pakistani Nuclear Security," *Arms Control Today*. December 2007, accessed on 28 March 2012.
112. "National Command Authority formed", *Dawn*, 3 February 2000.
113. Musharraf, op.cit, p.287.
114. *Dawn*, 14 December 2007.
115. The text of Ordinance LXX—2007.
116. *The Gazette of Pakistan Extraordinary*, Published by Authority, Registered No. M-302/L-7646, Islamabad, 11 March 2010.
117. Ibid. p.75.
118. Ibid. p.76.
119. Ibid. pp.76-77.
120. Ibid. p.77.
121. Ibid. p.78.
122. The control list for the act encompasses the lists and scope of export controls maintained by the Nuclear Suppliers Group, the Missile Technology Control Regime, and the Australia Group (for biological agents).

TERRORISM: IMPACT ON PAKISTAN'S SOCIO-POLITICAL AND ECONOMIC SECURITY AND STRATEGIC POLICY

SAJJAD MALIK

Introduction

The United States launched attacks on Afghanistan soon after 9/11 to dismantle the al-Qaeda terror network, which was blamed for New York's twin-tower tragedy. The first phase of the war ended quickly with the toppling of the Taliban regime in Afghanistan. However, it had long-term consequences for Pakistan, which is not only the immediate neighbour of the war-torn country but also had close links with the Taliban, who fled to its tribal areas along with al-Qaeda hardliners to avoid reprisals.

Starting with easy victory, the war against terrorism slowly changed into a bloody struggle between the US-led western forces and the militants affiliated with al-Qaeda and Taliban. Pakistan, which joined the war as a key US ally in the struggle against terrorism, soon found itself in the role of the frontline state in the conflict. That led to a wave of terrorism hitting Pakistan which emerged as the chief victim and its people, political structure and economy as the main losers. Pakistan was forced to commit more material and human resources to contain terrorism, which proved a huge burden, causing social, political, economic and strategic difficulties.

The strategic cost increased due to worsening law and order situation, attacks on security forces and sensitive places like the GHQ. Reports of possible takeover of the country by the extremists raised questions of safety of nuclear

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assets, followed by a barrage of news reports and comments in the western media about Pakistan's vulnerability to the jihadist onslaught. The worries increased due to weaknesses of the national economy and perennial instability of political and democratic institutions. The overall national scenario presented a dismal picture of socio-political and economic security and lack of comprehensive strategic policy and more and more questions were raised about the rationale of the security policy aimed at eliminating terrorism through force as demanded by the western countries, especially the United States.

The prevalent socio-political and economic indicators present a negative picture of the state of Pakistan and its society. It is believed that the country stands at a dangerous precipice, facing issues which can be termed matters of life and death.

Yet, despite the gravity of the situation, little effort has been made by national leaders, individual analysts and academics to understand the issue. The result has been startling absence of research material on the impact of the war on terror on Pakistan's society, politics and economy and its strategic repercussions. The present study is an attempt to fill this gap.

The main objective of the paper is thus to analyse the socio-political, economic and strategic fallout from terrorism in Pakistan since 2001 when it joined the war on terror.

The following questions are addressed:

- What is the magnitude of terrorism?
- What are the socio-political implications of the unrest caused by terrorism?
- What is the economic cost of terrorism for the country?
- What is the strategic fallout of terrorism for Pakistan?

The study is based on both primary and secondary sources. Background interviews with policy-makers, officials and economists have been conducted to get primary information on the subject. Existing material in the form of books, journals, articles, news stories, online sources and unpublished government documents has also been used and the statistics/reports of various ministries consulted.

The study measures the problem of terrorism through acts of violence including bomb blasts, suicide attacks, target killings and sporadic violence, which has killed more than 30,000 civilians and more than 5,000 security personnel in the country. Economic impact is calculated by the disruptions to normal trading activities, higher cost of international trade, slow economic growth, decline in inflow of foreign investment, slowdown in the privatization programme and restricted movement of foreign investors due to travel bans and advisories by western governments. The socio-political unrest is gauged through the social and political problems, lack of development, the increase in poverty

and deterioration in development indicators. Strategic policy matters have been studied through the criticism on the army, safety of nukes issues and overall vulnerability of the state.

This study has theoretical and empirical importance as it seeks to fill the deficiency in the systematic research about the cost of terrorism for Pakistan. Theoretically, it proves instrumental theorising that wars prove disastrous for socio-political and economic structures, and empirically it will help policymakers to think of ways to eliminate the threat of terrorism and try to minimize its ill-effects.

Brief history

The creation of Pakistan in 1947 was accompanied by huge socio-political, economic and security challenges. The country lacked trained manpower, economic and industrial base, and resources to build the society, economy and institutions of national security. The government faced economic disruption caused by partition and struggled to tackle trade problems, loss to agriculture, massive dislocation of people, poor infrastructure, and absence of state machinery. In the formative years the country had to fix the social problems, chalk out a comprehensive programme for long-term economic development and devise a national security strategy. The social and political problems were compounded by the security dilemma due to lurking fears that India might try to swallow back the new state. The security fears were exacerbated by the first Pakistan-India war on the disputed Kashmir region in 1948. It ended in a stalemate but had multiple implications for a new country trying to build everything from scratch.

The initial efforts present modest gains with 3 per cent economic growth from 1947 to 1958. During the 1960s, the average growth rate was 6.2 per cent, mostly due to Ayub Khan's lopsided development policies and massive industrialization. The separation of East Pakistan in 1971 slowed growth rates to 1.2 per cent in 1972, but the government took various steps like rupee devaluation by 131 per cent which boosted exports by more than 150 per cent, and by 1974 growth rate touched 7.5 per cent. Overall the GDP grew at the rate of 3.6 per cent from 1974 to 1977. The 1980s proved fruitful in economic terms — thanks to all-out US-Saudi funding during the Afghan war — and Pakistan's GDP grew by an average of 6.5 per cent during 1980-88.⁽¹⁾ The period of 1990s was not good for development owing to political instability engineered by the establishment and the economy grew at an average 3.8 per cent.

When 9/11 occurred, General Pervez Musharraf, who took over in a military coup in October 1999, was struggling to fix the multiple economic and social problems as envisioned in his seven-point agenda. His decision to join the war on terror opened gates for large-scale western economic aid, helping the economy to grow at an average rate of 6.3 per cent. But the situation deteriorated after 2007 due to a rise in militancy. By the time Musharraf stepped

down in 2008, paving the way for the new government, the economic situation had worsened and growth rates had fallen to around 2.5 per cent.

In terms of socio-political development, the country has not fared well and failed to address deep-rooted social issues like poverty, unemployment, population growth, speedy and inexpensive justice, unequal distribution of wealth, agriculture sector reforms, reasonable health and education infrastructure and above all the transformation of the people into a nation. The issue of political stability, considered vital for social and economic development, also remained a wild goose chase and the army's direct and indirect meddling in the political sphere has been a regular feature, with the military directly ruling the state for almost half of its history. The ten years of war on terror further exacerbated the socio-political and economic difficulties of the country. Political uncertainty is one of the reasons for poor social sector development as successive regimes pursued policies which failed to root out poverty, unemployment, violence, crimes, drugs, sectarianism and militancy from the society.

National security has been the top priority of the state since 1947. Pakistan is situated between India and Afghanistan, with both being a source of trouble from the beginning. India had only grudgingly recognised Pakistan but the western neighbour not only voted against its membership of the United Nations in 1947 but also disputed its western borders which were drawn by the British. Being a new state trying to start from zero, Pakistan had to delicately balance its security needs with socio-economic constraints. It followed a strategy of having closer ties with rich and industrially advanced western countries to build the defence forces and national economy, for which it paid a price. The alliance with Washington and economic support from the United States and other western nations only partly solved strategic issues. The western countries had their own regional interests which often clashed with Pakistan's national security policy and its main concern to develop credible deterrence against archrival India.

The war on terror increased violence in Pakistan, with social, political, economic and strategic implications. The London-based Economist wrote in 2008 that the manager of one of the classier hotels in Pakistan's beautiful Swat valley "sounds wistful on the phone" as his hotel has been closed for months. "Over 4,000 tourists visited Swat in 2007, drawn by its Alpine scenery and Buddhist archaeology. But the trade has dried up this year. Visitors are deterred by the Taliban encamped in the region and the mortar fire meant to oust them."⁽²⁾ The magazine further noted that the damage to Pakistan's tourist industry, which brought in US\$276 million in 2007, was one example of the price the country was paying for the war on terror.⁽³⁾

When the economy struggled through disruption of normal industrial and commercial activities, and the cost of international trade increased substantially due to various factors, society became more volatile and political situation more uncertain. The economy suffered approximately US\$2.669 billion

in 2002 due to terrorism, which increased, as the number of bombings and suicide attacks multiplied, and by 2009 the economy had suffered over \$34-billion.⁽⁴⁾ Now the economic cost of terrorism stands at a whopping \$68 billion.⁽⁵⁾

“After 9/11 Pakistan had to assume the role of a frontline state in the War against Terror. The onset of the War disrupted Pakistan’s normal trading activities, as the cost of trading increased substantially because of higher insurance cover. Consequently, economic growth slowed, demands for imports reduced with consequential decline in tax collection and inflows of foreign investment were naturally adversely affected, accentuated by the travel bans issued by western governments to its entrepreneurs.”⁽⁶⁾

The initial impact of the war was mostly seen in the socio-economic context but soon its strategic implications became visible. The weakness of the state institutions increased and soon a time came when it was being claimed openly that Pakistan’s strategic weapons might fall into the hands of terrorists. As the war on terror lingered on, its long-term effects on the society and economy of Pakistan became more pronounced. There was an unbridled wave of suicide attacks, sending shock waves into the fabric of society and structure of the state. After the fall of Gen Musharraf and with a democratic government in power since February 2008, large-scale power shortages hit the country, prices skyrocketed, unemployment and poverty went up and political unrest increased.

Post 9/11 terrorism

The tragedy of 9/11 changed the landscape of Pakistan as police barricades appeared on roads and highways and frequent security checks became the order of the day. Though Pakistan was facing violence even before 9/11, it was primarily the result of sectarian strife in Punjab and ethnic tension in Karachi, which both erupted in the 1980s when military ruler Gen Ziaul Haq was trying to enforce his brand of Islam and break the political opposition through force and guile. Sectarian and ethnic terrorism followed a particular pattern and most of the killings were targeted while public places were usually spared. However, the nature of the conflict changed after 2001 due to the US-led invasion of Afghanistan and Pakistan’s decision to help the western forces to dismantle the so-called terror network.

Pakistan has since been subjected to a relentless spree of terrorist attacks and the frequency and magnitude of violence increased with each passing year. The data shows stunning surge in terrorism at public places, targeting the common civilians. There were only five acts of terrorism during 2001 but it spiralled up to at least 473 bomb blasts in 2010, which rocked various parts of the country. There were 25 acts of terror in 2002, 11 in 2003, 21 in 2004, 17 in 2005, 41 in 2006, 153 in 2007, 246 in 2008 and 378 in 2009.⁽⁷⁾

The number of violence-related deaths also went up with the rise in terrorism. There were nearly 189 deaths due to violence in 2003, which went up to 863 in 2004. In 2005 the death toll went down to 648 but the following years

saw unprecedented violence-related deaths and 6,715 people were killed due to terrorism in 2008. It further went up to 11,704 in 2009 but declined to 7,435 in 2010. The trend of violence and consequent casualties continued through 2011 and by July 2011, 3,658 people had been killed in the unabated wave of terrorism.⁽⁸⁾ (See the table below).

Table

Annual fatalities in terrorist violence in Pakistan, 2003-2011

Years	Civilians	Security Force Personnel	Terrorists/Insurgents	Total
2003	140	24	25	189
2004	435	184	244	863
2005	430	81	137	648
2006	608	325	538	1471
2007	1522	597	1479	3598
2008	2155	654	3906	6715
2009	2324	991	8389	11704
2010	1796	469	5170	7435
2011	1510	485	1663	3658
Total	10920	3810	21551	36281

*Data up to 24 July 2011

Source: Figures are compiled from news reports and are provisional.

As the clouds of violence thickened over Pakistan, its areas along the tribal belt and the settled parts of Khyber-Pakhtunkhwa and major urban centres in the rest of the country were badly hit by increasing acts of terrorism. The terrorists did not spare even the common people and killed innocent civilians with impunity by targeting markets, mosques and passenger vehicles. The security forces also paid a huge price and thousands of policemen and soldiers lost their lives while fighting violent extremism. In 2003, those killed included 140 civilians, 24 security personnel and 25 terrorists. The deaths went up in 2010 with 1,796 civilians, 469 person from security forces and 5,170 terrorists being killed. But the toll peaked in 2009, when 2,324 civilians, 991 persons from the forces and 8,389 terrorists were killed.

The South Asia Terrorist Portal shows that suicide attacks rose tragically and badly impacted the overall security situation. There was not a single incident of suicide in 2001 but by the end of June 2011 there were at least 283 suicide attacks in the country, in which hundreds of people were killed and injured.⁽⁹⁾ (See table)

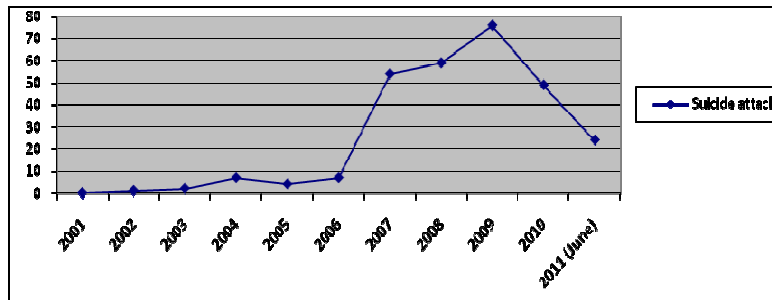
Table

Suicide attacks from 2001 to June 2011.

YEAR	Suicide attacks	Killed	Injured
2002	01	15	34
2003	02	69	103
2004	07	89	321
2005	04	84	219
2006	07	161	352
2007	54	765	1677
2008	59	893	1846
2009	76	949	2356
2010	49	1167	2199
2011 (June)	24	419	775
Total	283	4611	9882

Source: South Asia Terrorism Portal website

A graphic presentation of suicide attacks is as follows.



The graph shows that the suicide attacks peaked in 2009 and have since registered a steady decline, which can be attributed to successive successful military operations in various parts of the country in 2009 and 2010, including operations in Swat, Bajour, South Waziristan, Orakzai and Mohmand. The sudden rise in 2007 was due to the Lal Masjid (red mosque) operation in Islamabad in July which resulted in a number of attacks on the security forces and civilians.

According to official data so far more than 35,000 people have been killed in terrorism-related violence including 5,000 personnel of the security forces. The death toll was released for the first time in a statement by the Foreign Office after the US killed Osama bin Laden in a covert action in Abbottabad on 2 May 2011. "Almost 30,000 Pakistani civilians lost their lives in terrorist attacks in the last few years. More than 5,000 Pakistani security and armed forces officials have been martyred in Pakistan's campaign against al-Qaeda, other terrorist organizations and affiliates."⁽¹⁰⁾ *The Pakistan Economic Survey 2010-11* said that the war had spread like contagion and had so far "cost the country more than 35,000 citizens, (and) 3,500 security personnel."⁽¹¹⁾ But no detailed break-up of the casualties was given.

Socio-political implications

The war on terror and terrorism hit Pakistan at a time when the country was trying to adjust to the new political realities under the military regime of Gen Pervez Musharraf. He was facing domestic problems when the 9/11 incident took place. He supported the US-led war to defeat the Taliban government in Afghanistan. By joining the "war on terror," he wielded enormous influence and was considered by the West the most vital connection in the struggle against extremism. Though his new role helped him bring greater attention to Pakistan, which helped open up economic opportunities for the country, the economic gains were eroded by the social and political unrest as the main opposition parties demanded free elections and restoration of true representative government. The war which Musharraf had joined as the key ally became increasingly unpopular and he was blamed for selling the national interest under pressure from the United States. The violence increased and militancy spewed tension in the country, making the society more violent.

The apparent economic upsurge under Gen Musharraf failed to address long-term deep-rooted problems like rampant poverty, unemployment, disease and illiteracy and people felt that the military ruler was using the war, like Gen Zia did in the 80s, to just prolong his regime. The prices of real estate and commodities began to soar whereas the income of people remained low compared to the rise in prices. There were mega scandals like flour shortage and sugar crisis and the government completely failed to punish the culprits, which created a sense of social alienation among the masses. The social dichotomy also widened due to Musharraf's policy of promoting "enlightened moderation" without a comprehensive policy to contain and root out extremist tendencies. The efforts to ban militant organizations also failed as they resurfaced under

different names. Madras reforms were scuttled due to opposition by the right-wing parties which were supporting Musharraf in the parliament. Ashley Tellis says that Musharraf's campaign against sectarianism failed because it was selective. "But the continuing fragmentation of these violent groups, their links to the wider networks of international terrorism now resident in Pakistan, various foreign sponsors abroad, and the flourishing madaris within the country; and the continuing utility of their gun-toting membership to different political parties and occasionally to governmental organ themselves imply that sectarian threats will be impossible to extinguish."⁽¹²⁾

The public disenchantment with Musharraf's polices increased after 2005 when even the west started asking questions about his ability to deliver on the war on terror and reform the country. "The Bush administration has now begun to press Musharraf to actively interdict the Taliban — an issue that did not become the subject of high-level US demarches before 2005-2006," but it is not sure that Pakistani counterterrorism action "would be as effective as they could have been had they been pursued in the administration's first term."⁽¹³⁾

This was the time when the Americans were deeply in the Iraq war and the Taliban and al-Qaeda had regrouped in the tribal areas to intensify attacks on the western troops in Afghanistan. Pakistan was also asked to send more soldiers in the tribal areas and launch operations against the militants. Pakistan was reluctant and instead tried to restrain the militants through local agreements but the US objected to it. There were more drone attacks in the coming years leading to and increase in anger towards the US.

As the US-led war in Afghanistan continued the acts of terror targeting the people and the armed forces in Pakistan increased, as well as the economic and human costs of the war. *The Pakistan Economic Survey 2010-11*, giving details of the fallout of the war says that it resulted in destruction of infrastructure, internal migration of millions of people, erosion of investment climate, nose-diving of production and growing unemployment. "Pakistan had never witnessed such devastating social and economic upheaval in its industry, even after dismemberment of the country by direct war (in 1971)."⁽¹⁴⁾

One of the tragic fallouts of the war on terror had been the wave of suicide attacks, targeting major towns and civilian and military installations, using mostly teenage madrassa students. The unending supply of suicide bombers shows that impressionable minds of youth have been deeply affected by the militancy in the country. From 2002 to June 2011, 283 suicide attacks were carried out in the country which killed 4,611 people and injured 9,882.⁽¹⁵⁾ It shows that social values of tolerance and peaceful coexistence have long vanished.

The years under Gen Musharraf also saw an important social transformation due to proliferation of media services in Pakistan. As the government encouraged emergence of more and more media outlets, a number of private television channels and newspapers sprang up in the country and the media began to relish the freedom which was never seen in the country before.

The talk-show phenomenon and live coverage of incidents, events and accidents had its social repercussions in the age of terrorism. It was seen that violent acts were shown live by the media which under the “theory of imitation” impacted the people. Both the state authorities and militant outfits competed for media coverage and media houses swung both ways to avoid the wrath of parties involved in the conflict. Incidents of terrorism became the breaking news and headlines while the government struggled to convince journalists to reduce coverage of violence as it provided terrorists what former British prime minister Margaret Thatcher termed the “oxygen of publicity” before clamping broadcasting bans on IRA and Sinn Fein in the late 1980s. “The thinking behind this prohibition was that terrorist groups were exploiting the broadcasters, that the enemies of democracy were subverting the system by harnessing a key tenet of democracy — a free, open media.”⁽¹⁶⁾ Pakistan could not ban the live coverage but it has been reduced in recent times.

Another important social impact of terrorism has been the radicalization of Pakistani society. Today, more youth are spotted with beards than a decade ago. Similarly, the number of females fully or partly covering their faces has increased tremendously. Organisations like al-Huda have also played a role in the radicalisation of women but its success cannot be seen in isolation from the on-going war on terror. The number of madrassas has also gone up in the last ten years. “A recent survey reveals that the number of madrassas across Pakistan stands at 28,982, compared to 2,861 in 1988 and 246 in 1947.”⁽¹⁷⁾ This phenomenon can also be seen in the swelling crowds of Tableeghi Jamat and Dawat-e-Islami, the two missionary organisations promoting radicalism in the name of preaching Islam.

The society has also become more violent and common people do not hesitate to take the law into their own hands. In May 2008 in Karachi, people got hold of two robbers, gave them some severe beating and then set them on fire.⁽¹⁸⁾ In Saikot, people clubbed two young brothers to death on suspicion of theft in August 2010, which angered the entire country. As social unrest increases, even the family system is coming under strain. *Dawn* reported in August 2011 that the number of court marriages has increased in the capital, as the three main nikkah registrars in the Islamabad district courts helped solemnise about 250 marriages in 2010, but they registered 240 court marriages by July 2011 and the total number is “expected to cross 300 by coming December.”⁽¹⁹⁾ There are also reports about increase in domestic violence and surge in divorces rates. It is believed that poverty and social tensions are the key factor behind these problems. Though not directly linked with terrorism, indirectly the violence results in deteriorating social relations as the economy slows down and unemployment increases.

Economic cost of violence

Pakistan’s economy suffered due to increasing terrorism in the form of disruptions in the normal industrial and trading activities and rising cost of international trade due to higher insurance cover and other charges. The law and

order situation not only deterred foreign investors but local businessmen also became reluctant to invest more money under the prevailing state of security and poor economic conditions. Overall development slowed as the funds meant for socio-economic development were diverted towards fighting militancy.

As for the cost of war, Foreign Minister Shah Mahmood Qureshi speaking at a press conference with EU Foreign Policy Chief Javier Solana on 20 July 2009 said that the war against terror had cost Pakistan more than US\$35 billion while the cost in human lives was immeasurable.⁽²⁰⁾ Earlier, the *Economist* wrote on 20 November 2008: “on November 14th the finance ministry announced its estimate of the full (war on terror) bill: US\$8.5 billion for this fiscal year, which ends in June 2009, and a staggering US\$34.5 billion since 2001.”⁽²¹⁾

The government of Pakistan in mid-2009 prepared a document to highlight the economic losses suffered by the country. “The cost of war on terror incurred by Pakistan... was estimated at US\$2.669 billion in 2001-02, but it started increasing in the following years, seriously affecting economic growth.”⁽²²⁾ It is said that in 2001-02 Pakistan suffered US\$1.4 billion in export losses, \$0.3 billion in foreign investment, \$0.5 billion in privatisation, \$0.113 billion in industrial input, \$0.247 billion in tax collection, and \$0.109 billion in expenditure overrun.

The calculation done by the Ministry of Finance based the cost on the following assumptions.

- The war in Afghanistan will end by December 2001.
- Normalcy will resume in January 2002.
- The Taliban government will be ousted though some low-intensity fight will continue, yet life in Pakistan will remain normal.
- The additional increase in freight cargo and war risk permit will be removed.

However, these assumptions did not materialize and instead the war on terror continued to gain momentum becoming more deadly for Pakistan and the rest of the region. The economy was subjected to enormous direct and indirect costs, which continued to rise from US\$2.669 billion in 2001-02 to \$6.264 billion in 2007-08, projected to rise to \$8.4 billion in 2008-09, 13.5-billion-dollars in 2009-10 and estimated to shoot to 17.8 billion dollars in 2010-11.⁽²³⁾

The war affected many areas of economic activities: it scared away potential investors; reduced import demand; reduced exports; affected the process of privatisation; slowed overall economic activity; reduced tax collection and caused expenditure overrun. Foreign embassies, continue to issue travel advisories warning their citizens about hazards in Pakistan. A warning issued by the US embassy on 8 September 2009, asked American citizens to avoid travel to Pakistan due to the continuing threat of terrorism. It reminded

those present in Pakistan to avoid going to places like hotels, markets, etc, exposed to terrorist attacks.⁽²⁴⁾

When terrorists strike, consumer and business confidence weakens, sales slump, production tumbles, and businesses go bankrupt. Foreign investment that played a key role in initiating development in Pakistan also suffered due to terrorism. Starting from just US\$560 million in 2002, it peaked to \$8.4 billion in 2007. But it started declining after this, going down to just \$2 billion in the first three quarters of FY 2009, due to the overall deteriorating law and order situation, especially the relentless campaign of suicide bombings.⁽²⁵⁾ There are also reports that foreign buyers declined to open L/Cs with Pakistani banks for fear of disruption in shipments as the spate of terrorist acts in major cities increased levels of insecurity. Analysts point to the plummeting foreign direct investment (FDI) as a sign of weakening investors' confidence due to a surge in terrorism. "The total investment declined from 22.5 per cent of GDP in 2006-07 to 19.7 per cent of GDP in 2008-09. Fixed investment has decreased to 18.1 per cent of GDP from 20.4 per cent last year. Private sector investment was decelerating persistently since 2004-05 and its ratio to GDP has declined from 15.7 per cent in 2004-05 to 13.2 per cent in 2008-09. Public sector investment-to-GDP ratio rose consistently from 4.0 per cent in 2002-03 to 5.6 per cent in 2006-07; however, it declined to 4.9 per cent in 2008-09."⁽²⁶⁾

The Pakistan Economic Survey 2010-11 says that the economy is under pressure since the war on terror spread like a contagion into settled areas of Pakistan. The new government elected in 2008 constituted an inter-ministerial committee to assess the direct and indirect cost of the war on Pakistan. After careful analysis of the situation, the committee presented its findings: "The conclusion was that the War not only caused serious damage to the economy, but also to the social fabric of Pakistan. Obviously, continuity of War will continue to bleed the economy and society of Pakistan."⁽²⁷⁾

Data shows that at the start of the war, its cost for Pakistan was estimated at US\$2.669 billion in fiscal year 2001-02, but it went up in subsequent years. (As shown in the following table which gives the cost for Pakistan in the last 10 years).

Table

Cost of war estimate in 2001-02 and 2010-11(US\$ billion)

Sectors	2001-02	2010-11 (est)
Exports	1.2	2.9
Compensation to affectees	0.0	0.8
Physical infrastructure	0.00	1.72

Foreign investment	0.15	2.10
Privatisation	0.50	1.10
Industrial output	0.11	1.70
Tax collection	0.25	2.10
Cost of uncertainty	0.10	2.90
Expenditure overrun	0.11	1.60
Others	0.10	0.90
Total	2.72	17.82

Source: Ministry of Finance

Pakistan continued to pay a heavy price and a large portion of its resources, men and material were consumed by this war. "The economy was subjected to enormous direct and indirect costs which continued to rise from US\$2.669 billion in 2001-02 to \$13.6 billion by 2009-10, and was projected to rise to US\$17.8 billion in FY 2010-11, and moving forward, the direct and indirect cost to the economy is most likely to rise further."⁽²⁸⁾ The following table shows the year-wise cost of war on terror.

Table

Cost of war 2001-2011

Years	Billion US\$	Billion Rs	% Change
2001-02	2.669	163.9	-
2002-03	2.749	160.8	3.0
2003-04	2.932	168.8	6.7
2004-05	3.410	202.4	16.3
2005-06	3.986	238.6	16.9
2006-07	4.670	283.2	17.2
2007-08	6.940	434.1	48.6
2008-09	9.180	720.6	32.3

2009-10	13.560	1136.4	47.7
2010-11*	17.830	1528.0	31.5
Total	67.926	5036.8	

* Estimated on the basis of eight months actual data

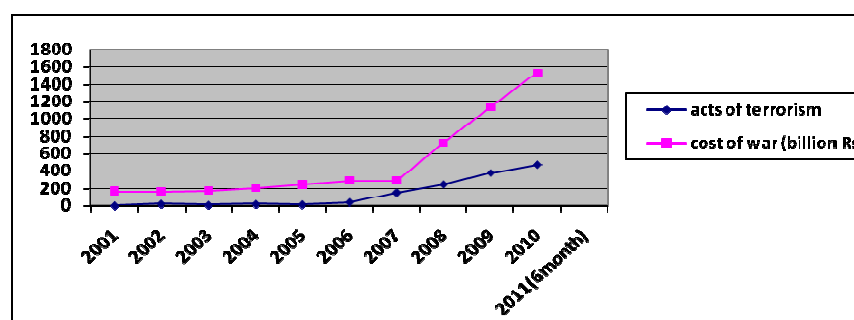
Source: Joint Ministerial Group of Ministries of Finance and Foreign Affairs

It shows that during the last 10 years the cost of war on terror incurred by Pakistan amounted to around US\$67.93 billion or Rs.5037 billion.

The economic losses suffered by Pakistan are far greater than the total US aid received, since joining the war on terror after 9/11. Washington committed to provide \$20.7 billion to Pakistan since 2001, which is just 0.1 per cent of \$3 trillion US spending on the global war on terror. Out of the amount, security-related aid was \$14.7 billion, which also includes payments under the Coalition Support Fund (CSF), and \$6.5 billion for socio-economic development. The biggest actual amount of \$8.8 billion was given under CSF, which is the reimbursement for cost incurred by the Pakistan military on its operations. In this context, actual transfer amounted to \$1.63 billion while the bulk is recycled within the US system, mainly among contractors.

Pakistan is still paying the cost as its investment-to-GDP ratio has nosedived from 22.5 per cent in 2006-07 to 13.4 per cent in 2010-11 with serious consequences for employment generation in the economy. In order to move forward, Pakistan needs enormous resources to enhance productive capacity of the economy but the security situation will be the key determinant of the future development and flow of investment. Pakistan will continue to face problems as long as the war on terror continues.

The correlation and simple link between terrorism and the economy is shown below:



Source: Pakistan Economic Survey 2010-11, and South Asia Terrorism Portal

The graphic presentation shows that economic cost has steadily gone up with the increasing acts of violence in the country after 2001.

Strategic fallout

The word “strategic” has military connotations and originated from the Greek word “strategikos” which means “of or for a general.” Another Greek word of the same root “strategos” means “leader or commander of army.”⁽²⁹⁾ According to the online *The Free Dictionary*, strategy, which grammatically is an English noun, means, “the science and art of using all the forces of a nation to execute approved plans as effectively as possible during peace or war, or the science and art of military command as applied to the overall planning and conduct of large-scale combat operations.”⁽³⁰⁾ Its synonym is “plan of action” which means a plan for actively doing something. The word strategic is an adjective, meaning a plan related to strategy, which if defined narrowly means the art of the general. But broadly it stands for combination of end goals for which an organisation strives and the policy through which it tries to materialise certain well-defined goals.

The word strategic was mostly used in America about the military aspect of the cold war and it meant the “actual use or threat of use of force in international relations.”⁽³¹⁾ But alongside the US-dominated strategic studies, a British school developed which worked on a broader range of issues, and its efforts led to the rise of “security studies” in the 1980s and early 1990s,⁽³²⁾ which take into account the nontraditional threats and create better threat perceptions.

The strategic fallout of the war on terror and subsequent terrorism in Pakistan directly impinged on the national security of the country, which suffered increasing vulnerability due to the unending violence. Security is a broad term and has both strategic and nonstrategic definitions. “The first (strategic definition) conceives security in terms of abstract values and is concerned mainly with the preservation of independence and sovereignty of nation-states; the second (nonstrategic definition) is concerned with both the maintenance of the flow of vital economic resources and the nonmilitary aspects of nation-state functions.”⁽³³⁾

It shows that primarily national security is concerned with the protection of the physical entity of a state, and its sovereignty to make important decisions related to its safety, security and progress. Anthony Burke says, “We know that security is one of the most fundamental human needs: an irrefutable guarantee of safety and well being, economic assurance and possibility, sociability and order; of a life lived freely without fear and hardship.”⁽³⁴⁾ It also brings to light critical questions about the impact of terrorism on national security.

Pakistan’s security problems started when it made a strategic decision in 2001 to join the US-led “war on terror,” and not only provided the land and air space against the militants but also sent troops in the tribal areas to capture the

militants fleeing the bombings in Afghanistan. The decision had long-term strategic ramifications for national security.

Initially, it looked as if the situation was under control. The Americans defeated the Taliban and installed a new government. Pakistan sent its troops into the tribal areas and they helped arrest a number of Taliban and al-Qaeda militants entering Pakistan from Afghanistan. The militants were badly disorganized and scattered after losing power in Kabul and on the run to avoid capture by the US and Pakistani forces and intelligence agencies. But the situation took a new turn after the US attacked Iraq in 2003. The Iraqis put up stubborn resistance after the invasion and their guerilla and terrorist tactics were replicated in Afghanistan, where resistance started, and by 2005 had come of age in the sense that militants were systematically attacking the NATO troops in Afghanistan.

Pakistan was caught in the vortex of fighting as the militants were using its tribal areas to train and launch cross-border attacks on the western troops. The pressure mounted on Pakistan to contain the insurgents and it was forced to send additional troops into the tribal areas to launch organized counter-militancy campaign. The start of active military effort by Pakistan had its repercussions, as the local militants turned their guns at Islamabad and the country started to bleed.

The armed struggle between the Pakistani armed forces and the militants raised many questions, some of them directly relating to the capability and potential of the army to take on the insurgents. It was important as the army was revered in Pakistan as the most disciplined, resourceful and capable institution and any doubt about its ability to crush the militants had serious consequences for its standing among the masses. The credibility of the forces was further eroded in the coming months due to half hearted military operations. The issue of double game also came up as western media propagated that Pakistan army was reluctant to fight Taliban militia, which it helped to create in the 1990s. To avoid more confrontation and restore its standing, Pakistan tried to negotiate peace deals with the militants, but US opposed it and used force to sabotage the first successful agreement with Nek Muhammad. "The Pakistan Army signed first peace deal with Maulvi Nek Muhammad in South Waziristan on March 27, 2004. Within few months Maulvi Nek Muhammad was killed in the first ever drone attack by US in Pakistan on June 18, 2004. That was the beginning of a new bloody war in Pakistan."⁽³⁵⁾

After killing of Nek Muhammad, Abdullah Mahsud came forward as key militant leader and announced to take revenge from Pakistan. The Pakistani establishment supported Baitullah Mahsud and signed a peace deal with him on February 22, 2005 "and it was decided that Baitullah Mahsud will not provide shelter to foreign militants but there was another drone attack on May 14, 2005,"⁽³⁶⁾ which angered the militants and blaming military as ally of the US, they announced revenge. Later, the US carried out a lethal drone strike at a madrassah in Damadolla area of Bajour on October 30, 2006, which killed 80

people and destroyed chances of a peace deal in the region. Among the victims of the attack was Maulvi Liaquat, the owner of the seminary, whose brother, Maulvi Faqeer Muhammad, rose to become an important militant leader who is still fighting against Pakistan, primarily to avenge the killing of his brother.

Three successive events played a key role in creating the strategic problems for Pakistan. These were:

- The killing of Maulvi Nek Muhammad in a US missile strike on 18 June 2004
- The US drone attack at Damadolla on 30 October 2006
- The Lal Masjid Operation in Islamabad in July 2007

These are considered the turning points in Pakistan's involvement in the war on terror which led to strong anger among the militants. They decided to unite and formed Tehrik-e-Taliban Pakistan (TTP) in December 2007, with Baitullah Mahsud as its leader, who unleashed a mayhem in the country through indiscriminate bombing and suicide attacks.

The military was at the receiving end during these years. Its image as ultimate saviour of the country suffered irreparable loss. As the weaknesses of the military vis-a-vis terrorist onslaught became more open, the critical question of the safety of the strategic weapons became more persistent. When militants occupied the Pir Baba shrine in Buner in 2008, the western media said that they were just 100 miles away from Islamabad. Later, the military launched successive operations in Swat and South Waziristan and its image was partly restored; though the question of nukes falling into the militants hands still lingered on, as there were rumours of a “colonel’s coup” by the mid-level officers and the army chief fighting to keep his job.⁽³⁷⁾ The army rejected these rumours as a smear campaign by the western media but serious questions of how to eliminate the militants remained. The military received more shocks when it found infiltration of Hizb-ut-Tahrir (HT) and arrested a brigadier for his connection with the HT.⁽³⁸⁾

The issue of drone attacks highlights another aspect of the war and terror and its impact on Pakistan, as drone strikes have been termed violation of Pakistan’s sovereignty and direct threat to national security. Though the attacks are not without utility as a number of known terrorists, including Baitullah Mahsud, have been killed in these attacks, yet they also kill innocent civilians and help the militants exploit it for enlisting new recruits. Pakistan has officially brought up the issue with the US many times but in vain. The attacks have created serious strategic problems and people continue to ask questions about the credibility and potential of the national security institutions.

Pakistan's strategic problems were further aggravated by the covert US operation on 2 May 2011 to kill Osama bin Laden at Abbottabad, which resulted in huge embarrassment for the security establishment of the country. But the attack at bin Laden compound has become the biggest embarrassment since the

dismemberment of the country in 1971. Apart from denting the pride of the armed forces and the people, the incident raised a number of questions about the capability, commitment and potential of the army in Pakistan and its ability to safeguard the nuclear weapons. CNN reported then CIA chief Leon Panetta as saying in a closed-door meeting of the House of Representatives in August 2011: “either they were involved or incompetent. Neither place is good place to be.”⁽³⁹⁾ Pakistan has still been struggling to put behind the 2 May incident but its bitter memory and long-term effects are going to stay. The incident embittered ties with the United States and increased the trust deficit between the two countries, which also had various strategic implications for Pakistan owing to heavy reliance on US and other western countries for military hardware. The latest blow came in the form of attack at the Mehran Naval Base in Karachi and the national morale sunk even further.

It shows that almost 10 years after 9/11, the war on terror and subsequent terrorism have added to Pakistan's many strategic predicaments. Before this Pakistan never had to prepare a two-pronged war strategy aimed at simultaneously defending the eastern and western borders. Lt Gen (Retd) Ihsanul Haq, who was corps commander, Peshawar, in 2001 and later head of the ISI, said in a Geo TV talk show, “Jirga with Saleem Safi” on 28 July 2011, that he as a general never thought in his entire military career that they would have to send military in the tribal areas. Today, Pakistan is sandwiched between the al-Qaeda and Taliban militants and archrival India. That is why when it faced a possible Indian attack after the Mumbai terror attack in November 2008, it had to rush thousands of troops from its western borders to buttress defences along the eastern border, costing additional resources and time, and also weakening the western front.

In a nutshell, strategic fallout of terrorism has been tremendous which affected all aspects of national security and strategic policy, and made Pakistan more vulnerable to internal and external threats.

Conclusion

The objective of the study was to investigate the impact of terrorism on socio-political and economic security and strategic policy and it was framed around a set of four fundamental queries: a) the magnitude of the wave of terrorism; b) socio-political implications of the unrest caused by terrorism; c) the economic cost suffered by the country, and d) the strategic fallout for Pakistan. After careful analysis it has found that terrorism has resulted in social fragmentation by creating fissures in the society, as people are more uncertain about the future, more concerned about their welfare and more fearful about the prevailing law and order situation. Politically, the “war on terror” and terrorism has created instability and there are questions about the future of democratic institutions and political process. The economy has been badly hit and the immediate economic future looks bleak, with little chances of a revival unless massive investment is made which is not possible without substantial progress in

defeating militancy. The strategic policy remains hostage to terrorism, which has become the major threat for national security.

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ENERGY CRISIS IN IHK: AN OVERVIEW OF HYDROPOWER ISSUES BETWEEN DELHI AND SRINAGAR

ASMA YAQOOB

Introduction

Indian-held Kashmir (IHK) has been facing tremendous power shortages for the last many years. Hydropower capacity of vast river systems and streams in the region has remained untapped. Against a total peak requirement of about 2500 MWs, the occupied state has been able to produce only 788.77 MWs till 2007-08. According to the available data there are about 2000 unelectrified villages/hamlets in the state.⁽¹⁾ The underlying reasons are many, ranging from rugged topography to unfair distribution of resources to lack of finances and manpower to increasing demand-supply gap to the Indian-controlled development of hydropower resources. India's state-owned National Hydropower Corporation (NHPC) is the main organisation involved in planning, construction and operation of hydropower stations in IHK. The present study attempts to identify and analyse two prominent developments in the hydropower sector of IHK. One is the Srinagar-Delhi tussle for ownership of operational projects and the second is the growing investment of private sector in new hydropower stations. Protests from civil society organisations have become more frequent in the region demanding ownership of locally developed power projects. The disappointing role of the NHPC in sharing power generation profits with the local power sector has led the Srinagar-based administration to demand that NHPC hand over a number of construction projects to independent power producers. The study also addresses the blame game started by the Indian government over the Indus Waters Treaty accusing Pakistan of putting restrictions on hydropower development in IHK.

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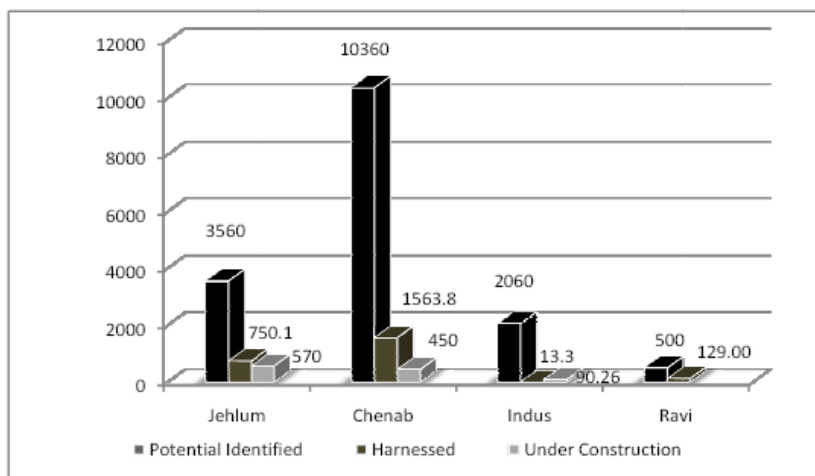
State of hydropower resources in IHK

Situated mostly in the Himalayan Mountains, the disputed territory is home to several glaciers. The Jhelum, Chenab, Indus, Tawi (left Bank tributary of Chenab) and Ravi are its major rivers.⁽²⁾ These river systems are fed from big and small glaciers of the Karakoram mountains, Ladakh ranges, Zaskar range, the great Himalayas and Pir Panjal ranges. These rivers also get seasonal rainfall contribution providing the region with vast capacity for micro run-off hydel power stations. According to the climate assessment studies, almost all IHK streams are fed to the extent of 25 per cent of total run-off/snowmelt during March-May and 45 per cent of the total run-off from June to September each year and the remaining 30 per cent during October to February indicating that glacier fed streams are not only perennial but can also be modulated with storage/reservoir to generate 50 per cent of the installed capacity even in the lean period.⁽³⁾ These glacier-fed streams provide a unique opportunity both for small and medium hydel power generation schemes in the region. In-depth research and surveys on the extent of glacier cover and related climate changes may lead to a more scientific exploration of hydel power in IHK.

Hydel resources are one of the key sources for power production in the region. The region has a hydropower potential of 20,000 MWs out of which nearly 2,456 MWs is harnessed so far (Figure 1).

Figure 1

Hydropower Potential in IHK



Source: "J&K State Hydroelectric Projects Development Policy 2011..."⁽⁴⁾

The irony with hydel power projects in IHK is that in winter (when the Kashmir Valley needs most power) owing to non-availability of water, power generation falls by 66 per cent (i.e. only 1/3rd capacity becomes operational).

Thus in winter the valley has tremendous power shortages and hence no industry can be viable there.⁽⁵⁾

During the pre-partition period, the state had only one 9-MW hydel power station at Mohra which was built on River Jhelum in 1905.⁽⁶⁾ After 1947, a number of works were undertaken by India on the rivers of the occupied state to harness the hydropower resources of the much under-developed region. Ganderbal, Chenani, Upper Sindh I and Lower Jhelum hydropower plants were constructed in Kashmir Valley during the late 1970s. At present, 26 small and medium hydroelectric stations are operating in IHK (Table 1). Many of the old hydel stations are in a poor state seriously affecting their generation capacity. The 105-MW Upper Sindh hydroelectric project in Ganderbal district is handicapped by a damaged canal for the past over three years, incurring an energy loss of millions of rupees to the energy-deficit region of Kashmir.⁽⁷⁾

Besides water shortages for power generation, there are huge transmission losses and huge power bill arrears. For the year 1999-2000 only, transmission and distribution losses were as high as 47 per cent.⁽⁸⁾ The 'Jammu & Kashmir State Power Development Corporation Ltd (JKSPDCL)' was established as a private company in February 1995 to plan and execute power projects in the IHK. The JKSPDCL is operating 20 hydroelectric stations with a total installed capacity of 758.70MW located in various districts including the 450-MW Baglihar-I hydroelectric plant. The four central projects set up by India's National Hydropower Corporation (NHPC) have an installed capacity of 1680 MW, from which 12 % free power is available to the occupied state as royalty.⁽⁹⁾

Table 1**Existing Hydel Power Stations in IHK**

S.No.	Name of Project	Basin	Capacity in MW	Configuration (MW)
State Sector				
1.	LJHP	Jhelum	105.00	3x35
2.	USHP-II Kangan	Jhelum	105.00	3x35
3.	USHP-I	Jhelum	22.60	2x11.3
4.	Ganderbal	Jhelum	15.00	2x3+2x4.5
5.	Pahalgam	Jhelum	3.00	2x1.5
6.	Karnah	Jhelum	2.00	2x1
7.	Baglihar-I	Chenab	450.00	3x150
8.	Chenani-I	Chenab	23.30	5x4.66
9.	Chenani-II	Chenab	2.00	2x1
10.	Chenani-III	Chenab	7.50	3x2.5
11.	Bhaderwah	Chenab	1.00	2x0.5
12.	Iqbal	Indus	3.75	3x1.25
13.	Sumoor	Indus	0.10	2x0.05
14.	Hunder	Indus	0.40	2x0.20
15.	Bazgo	Indus	0.30	2x0.15
16.	Igo-Marcelloung	Indus	3.00	2x1.5
17.	Marpachoo	Indus	0.75	3x0.25
18.	Haftal	Indus	1.00	2x0.5
19.	Satakna	Indus	4.00	2x2
20.	Sewa-III	Ravi	9.00	3x3

Subtotal			758.70	
'Central' Sector				
1.	Salal	Chenab	690.00	6x115
2.	Dulhasti	Chenab	390.00	6x115
3.	Uri-I	Jhelum	480.00	4x120
4.	Sewa-II	Ravi	120.00	3x40
Subtotal			1680.00	
Private Sector				
1.	Athwato	Jhelum	10.00	2x5
2.	Brenwar	Jhelum	7.50	3x2.50
Subtotal			17.50	
Grand Total			2456.20	

Source: "J&K State Hydroelectric Projects Development Policy, 2011."(10)

Note: All the tables are taken from India's or IHK's official sources. In them, wherever applicable, the term "Jammu and Kashmir" refers to the occupied state, central sector means India's state-owned sector while the term "state" sector is used for that controlled by the Srinagar-based administration.

Energy deficit scenario in IHK

Every year, the IHK administration spends millions of rupees to purchase power from India's Northern Grid to meet energy requirements. The power purchase Bill for 2011-2012 has been approved at Rs. 2900 crore.⁽¹¹⁾ During November 2011, IHK chief minister Omar Abdullah had expressed his intention of taking back the two power projects — Salal (690-MW) and Uri (390-MW) — from the Indian-owned NHPC which is demanding nearly Rs2,600 crore in return.⁽¹²⁾ Energy generated from these two projects will be sufficient to meet the anticipated peak shortfall of 710MW for the year 2011-2012.

IHK remained the topmost energy-deficit region in the occupation country's annual power supply position in terms of energy requirement vis-à-vis availability for the period 2010-2011. The maximum energy shortage there was 25% as compared to 14-20% energy deficit anywhere in India.⁽¹³⁾ Such facts look shocking if one compares the hydel power resources of IHK with that of Indian states. Even the states that do not have a single hydropower project such as Delhi are able to meet their energy requirements. (Tables 2 and 3). IHK (-

28.4%) comes fourth after Goa (-39.9%), Daman & Diu (-39.5%) and Bihar (-30.2) facing projected power deficit for the year 2011-2012.⁽¹⁴⁾

From 2007-2010, transmission and distribution (T&D) losses in IHK remained as high as 62 per cent, — highest compared to the figures for any of India's 29 states and six union territories (Annexure A). These additional pressures created by power theft and T&D losses increase the purchase budget. Table 4 shows the gap between the average rate of purchase and the average rate of tariff for sale of power. The rate of purchase from various sources is higher than the rate of tariff which results in huge financial losses for IHK.

Table 2

Comparison of power supply position of IHK with major North Indian States (2010-2011)

Region/State/ System	Energy				Peak			
	Demand (MW)	Availability (MW)	Surplus (+) Deficit (-) (MW) %		Peak Demand (MW)	Peak Availability (MW)	Surplus(+) Deficit (-) for Peak (MW) %	
All India	861, 591	788, 355	-73, 236	-8.5	122, 287	110, 256	-12, 031	-9.8
J&K	13, 571	10, 181	-3, 390	-25.0	2, 369	1, 571	-798	-33.7
Uttar Pradesh	76, 292	64, 846	-11, 446	-15.0	11, 082	10, 672	-410	-3.7
Punjab	44, 484	41, 799	-2, 685	-6.0	9, 399	7, 938	-1, 461	-15.5
Himachal Pradesh	7, 626	7, 364	-262	-3.4	1, 728	1, 187	-91	-7.1
Delhi	25, 625	25, 559	-66	-0.3	4, 810	4, 739	-71	-1.5
Haryana	34, 552	32, 626	-1, 926	-5.6	6, 142	5, 574	-568	-9.2

Source: Central Electricity Authority, India⁽¹⁵⁾

Table 3

**Anticipated Power Supply Position for IHK in comparison to major
North Indian states (2011-2012)**

Region/State/System	Energy				Peak			
	Demand (MW)	Availability (MW)	Surplus (+) Deficit (-) (MW) %		Peak Demand (MW)	Peak Availability (MW)	Surplus(+) Deficit (-) for Peak (MW) %	
All India	933741	837374	- 96367	- 10.3	136193	118676	- 7517	-12.9
J&K	14234	10631	-3603	- 25.3	2500	1790	-710	-28.4
Uttar Pradesh	82411	62975	- 19436	- 23.6	11800	8680	- 3120	-26.4
Punjab	49277	42349	-6928	- 14.1	9800	7790	- 2010	-20.5
Himachal Pradesh	8626	9236	+ 610	7.1	1400	2040	+640	+45.7
Delhi	27870	34581	+6711	24.1	5000	5610	+610	+12.2
Haryana	35929	33777	-2152	-6.0	6500	6050	-450	-6.9

Source: Central Electricity Authority, India⁽¹⁶⁾

Table 4

Discrepancy between rate of purchase and rate of power tariff

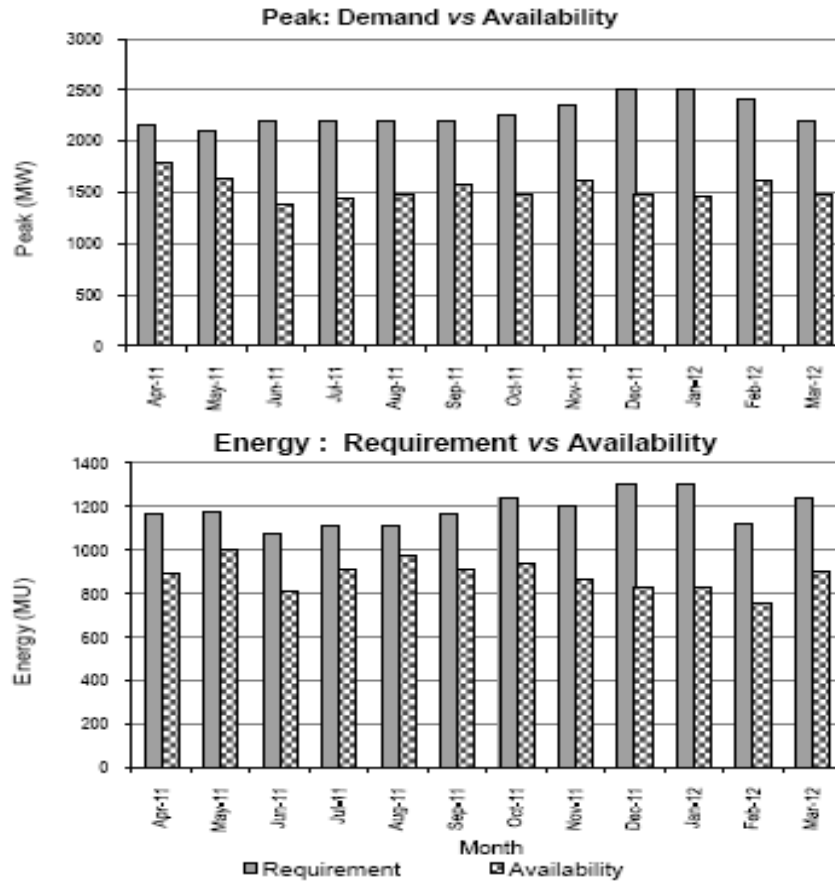
Year	Rate of Purchase	Average Tariff
1997-98	130.7	34.35
1998-99	139.9	66.67
1999-00 (RE)	144.5	156.36
2000-01 (AP)	150.1	194.06

Source: "State Development Report, 2003."⁽¹⁷⁾

There have been projections of an increase in demand-supply gap for energy requirements in the disputed state of J&K. This gap is projected to get worse during peak energy demand periods for the year 2012 (Figure 2).

Figure 2

Anticipated Monthly Power Position in IHK for 2011-2012



Source: Central Electricity Authority, India. ⁽¹⁸⁾

A number of policy reforms have been announced both by the Indian government and IHK administration. These policies focus on adding new generation capacities by involving private sector in building micro hydel power projects, upgrading existing power infrastructure and reducing T&D line losses. A brief review of these reforms follows:

IHK 'State Hydel Power Policy, 2011'

In an attempt to enhance the power generation capacity, the IHK administration has recently embarked upon a development plan for small hydropower stations to raise regional power production. The policy deals with

the development of two types of projects: projects up to 25 MW and projects above 25 MW. Projects above 100MW are not covered by this hydel policy. The said policy aims mainly at encouraging private sector participation in the development of hydropower projects in the occupied state.

The following modes of project execution have been proposed under the policy:⁽¹⁹⁾

1. Purely state projects with 100% ownership by 'JKSPDCL'
2. Large projects through joint ventures of 'JKSPDCL' with India's public sector
3. Joint ventures of 'JKSPDCL' with the private sector
4. Large projects through international competitive bidding (ICB) for independent power producers (IPP) on 'Build, Own, Operate and Transfer (BOOT)' basis
5. Small projects through IPPs BOOT basis through competitive bidding

Under the old IHK hydel policy of 2003, 10 projects were awarded to IPPs during phase I (Annex B). These projects were given on a BOOT basis for a period of 35 years.⁽²⁰⁾ Out of these the Rattle project of 690-MW was awarded to the Mumbai-based GVK Power and Infrastructure Ltd. The Rattle project was the very first private-sector investment in IHK's power sector. Under the bidding terms and conditions, the IHK state will get 15% free power as royalty throughout the concession period after netting off 1% for local area development fund (LADF).⁽²¹⁾ Projects with an estimated capacity of 1872MW are in the process of implementation through state, centre and IPPs. Moreover, three hydel power projects — Pakaldul, Kiru and Kawar — with a total capacity of 2120MW have recently been taken up through a joint venture between the IHK-owned 'JKSPDC', India's State-owned NHPC and the private-sector Power Trading Corporation (PTC).⁽²²⁾ The state authorities formed a joint venture company of JKSPDC, NHPC and PTC under the name of Chenab Valley Power Projects Private Ltd (CVPPPL) and signed a memorandum of understanding (MoU) in this regard with the trio on 21 December 2010.⁽²³⁾ In total, an additional 2872MWs of power will be generated from the disputed territory's rivers, a major share of which will be owned by IHK and only 659MWs will remain with the Indian government. (Table 5). A number of other hydroelectric stations with a capacity of 4756.5MW have been proposed for the region through the three sectors. (Table 6).

Table 5**Projects under Execution (updated to December 2011)**

Sr. No.	Sector	Projects	Capacity MW
1.	State	450MW Baglihar-II, 1.26MW Sanjak, 1.5MW Pahalgam	452.76
2.	Central	45MW Nimoo Bazgo, 44MW Chutak, 240MW Uri-II, 330MW Kishanganga	659
3.	Joint Venture (Chenab Valley Power Projects Pvt. Ltd)	Pakaldul	1000
4.	Private	690MW Rattle & 08 projects out of 10 awarded to IPPs through bidding in Phase-I under State Hydel Policy of 2003	760.50
Total			2872.26

Sources: J&K State Hydroelectric Projects Development Policy 2011,(24) Indian newspapers for updates

Table 6**Projects Planned for Execution (updated till December 2011)**

S.No.	Sector	Projects	Capacity MW
1.	State	1200MW Sawalkote, 990MW Kirthai-II, 240MW Kirthai-I, 93MW New Ganderbal, 37.5MW Parnai, 3MW Hanu & 3MW Dah	2566.50
2.	Central	Bursar	1020
3.	Joint Venture (Chenab Valley Power Projects Pvt. Ltd)	600MW Kiru, 520MW Kwar	1120
4.	Private/IPP	Lower Kalnai	50
Total			4756.50

Sources: J&K State Hydroelectric Projects Development Policy 2011,(25) Indian newspapers for updates

It has been recognized that the greatest weakness is on the distribution front for which the Srinagar-based administration is responsible. Aggregate Technical and Commercial (AT&C) losses of IHK are about 72 per cent adding to financial debt burden in the power sector. Huge financial losses have rendered the local government unable to invest in additional power generation.⁽²⁶⁾ The

IHK administration is trying to focus on reducing technical and transmission losses besides planning for new power generation projects both through Indian and private investments.

Power sector reforms

The Indian government has announced financing of many new hydel power projects in IHK. An amount of Rs 17846.40 crore have been earmarked under the Indian 'prime minister's reconstruction programme' (PMRP) for development of power in the held state. This includes an amount of Rs 14,952.41 crore in the India's state-owned sector for generation of power and Rs 2811.00 crore for strengthening transmission and distribution network/BHEP in the IHK state sector. Under PMRP, a total of 2799 MWs of power generation capacity is planned to be added in the IHK state-owned/Indian state-owned sector. The government of India is also committed to provide an amount of Rs. 3900 crore to the IHK in the shape of power sector reforms grant over a period of three years.⁽²⁷⁾ Following is a list of the hydropower projects which have been allocated funds under the PMRP for power reforms in IHK.

Table 7

**Allocation of funds under 'Prime Minister's
Reconstruction Programme (PMRP)' for IHK power sector**

S.No.	Projects	Allocation
<i>A) Central Sector</i>		
1.	1000 Micro Hydel	10.00
2.	RGGVY	782.99
3.	Pakaldul	3480.00
4.	Bursor	4378.00
5.	Uri	1778.00
6.	Kishanganga	3316.00
7.	Nimmo Bazgo	637.90
8.	Chutak	652.51
Total (Central Sector)		15035.40
<i>B) State Sector</i>		

1.	T&D=34 GS=3250 MW= 28 lines project	1350.00
2.	Access Road Sawalkote	119.00
3.	Ramban Dhumkund Rood	78.00
4.	Srinagar-Leh TL	634.00
5.	Baglihar HEP	630.00
Total (State Sector)		2811.00
Total (A+B)		17846.40

Source: "J&K Economic Survey 2008-2009"⁽²⁸⁾

India's 11th and 12th Five-Year Plans have targeted ensuring substantial expansion in power generation. A review of the proposed additional generation capacities is tabled as below:

Table 8

Power Generation Additions under 11th and 12th Five Year Plans

S. No.	Generation capacity 2008-09		Likely addition 2009-10		Likely addition by the end of 11 th & 12 th Plan		
	Name of Project	Capacity MW	Name of Project	Capacity MW	Name of Project	Capacity MW	Estimated Cost (Rs in crores)
A.	Central Sector-NHPC						
1.	Salal-I	690.00	Sewa-II	120.00	Kishanganga \$	330.00	2414.00
2.	Uri-I	480.00			Uri-II \$	280.00	1725.00
3.	Dulhasti	390.00			Burser \$	1020.00	4378.00
					Nimoo Bozgo \$	45.00	611.00
					Chutak \$	44.00	621.00

	Additional ity during the year	Nil		120.00		1719	
	Total Capacity	1560.0 0		1680.0 0	Total	3399.0 0	9749.0 0
B.	State Sector Projects						
1.	LJ-HP	105.00	Pahalga m-III	1.50	Sawalkote I & II**	1200.0 0	7500.0 0
2.	US-HP-I	22.60	Sanjak	1.26	Baglihar II	450.00	2853.0 0
3.	US-HP-II	105.00	Bhadrw ah-III	0.50	Parnaie * #	37.50	343.00
4.	Ganderbal	15.00	Mitchil	0.35	New Ganderbal #	93.00	688.00
5.	Chenani-I	23.30			Lower Kalnaie #	50.00	376.00
6.	Chenani- II	2.00			Kirthaie-I #	240.00	1900.0 0
7.	Chenani- III	7.50			Shutkari Kalan	84.00	556.00
8.	Sewa-III	9.00			Ladakh Micro Prog	7.90	74.00
9.	Satakna	4.00			Total	2162.4 0	14290. 00
10.	Karnah	2.00					
11.	Sumoor	0.10					
12.	Bazgo	0.30			Micro Hydel Army	200.00	1000.0 0
13.	Hunder	0.40					
14.	Iqbal Bridge	3.75					
15.	Badarwah	1.00					

16	Pahalgam	3.00					
17	Haftal	1.00			Joint Venture & Pvt Projects		
18	Marpachoo	0.75			Kiru	600.00	2382.00
19	Igoo marsheloning	3.00			Pakaldul (*) \$	1000.00	5000.00
20	Baglihar	450.00			Kawar	520.00	3386.00
					Rattle	690	3805.00
	Total	758.70		3.61	Total	2810.00	14573.00
					Micro Hydrel-IPP (59.25 MWs-123.30 MWs) (*&)	182.55	745.00
	Total State	758.70		3.61	Total (State)	5354.95	30608.00
C.	Grand Total (Centre + State) ending March, 2008	2318.70		1683.61		8753.95	40357.00
	Additions during the year	450.00		123.61		7073.95	
	Total Availability	2318.70		2442.31		9516.26	
	Percentage of 16480 MWs	14.07		14.82	14.82	57.74	

(*) Pakaldul is proposed to be transferred from NHPC to State Sector

** May spill over to 12th Five Year Plan

\$ Projects under Central Sector to be executed BY NHPC under PMs Reconstruction Plan

() Besides, one thermal project is under consideration during 11th Five Year Plan

(*&) Projects under IPP-Discussed below. (Out of 182.55 MW identified potential 59.25 MWs have been allotted in 1st Phase allotment).

(BB) Joint Ventures between PDC, NHPC and NTPC

(#) BOT and BOOT for Pvt. Sector.

Source: "J&K Economic Survey, 2008-2009"⁽²⁹⁾

Power sector rivalries

Controversial Role of NHPC

The National Hydropower Corporation (NHPC) Limited of India is often referred to by the people of Kashmir as analogous to the East India Company of colonial times.⁽³⁰⁾ The IHK administration is set to take back various hydel power projects owned and operated by NHPC in the region, while for the new schemes, the NHPC has lost the confidence of the Kashmiris. The Rattle Project (690MW) given to a private company was earlier given to the NHPC for preparing detailed project report (DPR). Total dependence of IHK on the Indian government to plan and fulfil its energy needs is no longer evident today. The state administration has started engaging the private sector for construction of new plants while a good number of large, medium and small schemes are planned by the Srinagar administration itself. The Indian government is not completely out of the picture, though, as four major under-construction hydropower stations in IHK are financed by the NHPC while it has entered into joint venture agreement with the Srinagar administration for three others.

Considerable delays in undertaking important hydel projects have been the main cause for Srinagar's dissatisfaction regarding the unilateral role of the NHPC. For example, the Bursar power project is awaiting funds from the Indian ministry of power for preparation of DPR since 2008. The 4x255-MW Bursar HEP is a storage project in which the flow of water can be regulated not only to the benefit of this project but all downstream projects, i.e. Pakaldul, Dulhasti, Rattle, Baglihar, Sawalkote and Salal hydroelectric projects, thereby enhancing the potential of all downstream schemes. The dam site is located near Hanzal village on the Marusudar River, one of the major right-bank tributaries of the Chenab. The storage provided is intended to be used for additional power generation during lean-flow months and releasing regulated flow in the downstream.⁽³¹⁾

Discontent has grown also due to the recurrent energy shortages in the region in spite of the construction of large hydropower stations by the NHPC in IHK. The power generated from these stations is not available to IHK free of cost and it has to buy back from NHPC the megawatts it requires. Importing power from outside IHK means heavy burden on its exchequer. It also results in recurrent electricity breakdowns for domestic and industrial consumers.

There are two major issues that drive the insolent character of NHPC in hydropower generation in IHK: 1) Srinagar-Delhi tension over royalty, 2) IHK's struggle to take back the ownership of existing hydropower projects from NHPC.

1. 12 per cent royalty is unjust

The Northern Grid,⁽³²⁾ operated by the NHPC, a government of India enterprise, is the biggest source of power supply in IHK. Most of the major operational hydropower stations in the occupied state are financed and controlled by the NHPC. These stations provide only 20 per cent electricity to IHK whereas 80 per cent of the power generated from these stations is added to the energy capacity of India's national grid.

The NHPC owns and operates four major hydropower projects in IHK – namely Salal-I&II (690 MW), Uri-I (480 MW), Dulhasti (390 MW), Sewa II (120 MW), adding a large chunk of 1,680 MWs from IHK to the India's total contribution of just 3,615 MWs. Other projects of 659MW are under execution. In spite of such a large contribution to India's power generation, the IHK gets only 12 per cent royalty. This means free availability of 12 per cent of the total power generated from each hydropower plant operational in IHK.

Reviewing the IHK print media makes it clear that both the people and state machinery are upset over unjust distribution of resources by the NHPC. According to the reports, IHK is disadvantaged as “while in the states like Madhya Pradesh, Himachal Pradesh, Uttarakhand and North-East, most of the NHPC power projects are in joint venture with the respective state governments, sharing energy on 50:50 basis, J&K is the only exception where the Corporation offers peanuts to the state in the shape of just 12% of electricity as royalty for the state.”⁽³³⁾ There have been demands from Srinagar for increasing the royalty from the present 12 per cent to 25 per cent on power projects executed by India in IHK.⁽³⁴⁾

IHK is able to get an increased share of power only by entering into a joint venture with the NHPC for the development of three power projects — Kiru, Kawar and Pakaldul — with an installed capacity of 2120 MW. Under the agreement, the IHK “State Power Development Corporation” will get a share of around 65 per cent of the total energy produced from the projects which includes 49 per cent of the share besides 12 per cent free power generated from the projects and an additional one per cent free power for local area development fund.⁽³⁵⁾

2. Ownership contest for IHK hydropower projects

Voices have been raised in the IHK regarding ownership of the land and of the power projects built on that land by the NHPC. A whole debate got started to dig out the terms and conditions of the agreements ever reached between NHPC and the Srinagar authorities over the construction of hydropower projects in IHK. There are reports of records misplacement⁽³⁶⁾ for the original documentation enlisting the terms and conditions for the Salal hydropower plant — the very first hydel power project undertaken by the NHPC in the occupied state.

According to an IHK cabinet decision of 15 December 1980, “in the Salal project, J&K will have a 50 per cent share of the power generation and half

of the profits it makes. Both sides will review the power requirements of J&K after every five years. The project was supposed to be returned to the state government after the depreciation period against a payment of 10 per cent of the project cost in accordance with the J&K Electricity Supply Act, 1971.”⁽³⁷⁾ However, NHPC shows complete ignorance of any such order or agreement and in its latest and most recent communication with the Public Health Engineering, Irrigation and Flood Control (PHE) department, has categorically denied having entered into any such agreement with the IHK administration stating further that the corporation is executing the power projects “in Jammu and Kashmir under Indian sovereignty” and that the union of India “enjoys sovereign power over the land and waters of Jammu and Kashmir.”⁽³⁸⁾

In the words of IHK minister for PHE department, Taj Mohiuddin, “the project (Salal) got fully depreciated in 2003 but was not handed over. The power share of 50 per cent was never respected. Same is the case with Dulhasti, Uri and other power projects too. This is the main reason why the state reels in the dark despite abundant resources to generate power.”⁽³⁹⁾

Anguish has built up among the Kashmiris for their ownership rights on the hydropower projects controlled by the NHPC in their territory. Even IHK chief minister Omar Abdullah is reported to have said that the state would get self-sufficient in its energy needs by taking back Salal and Uri power projects from NHPC.⁽⁴⁰⁾ The NHPC has rejected ownership claims of the Srinagar administration. In the words of the NHPC Chairman and Managing Director, A.B.L. Srivastava, “the NHPC has no plan to return Salal and Uri to J&K government. The NHPC has invested over 6, 000 crore Indian rupees in these two projects and it is not feasible to give these to J&K Government.”⁽⁴¹⁾ The row over ownership between NHPC and Srinagar may or may not settle in the near future but what is more important is the fact that the Kashmiris have finally woken up over the discriminatory treatment of the occupation government sitting in Delhi.

Srinagar’s cries for compensation: Is IWT to blame?

Any reference to energy shortage problems in IHK does not get through without criticizing the Indus Waters Treaty, a water-sharing arrangement concluded between India and Pakistan in 1960. Many in India and IHK feel that the agreement restricts the region from fully exploiting its hydro resources, both for irrigation and hydropower generation. In a recent attempt to quantify the losses incurred by the Indus Waters Treaty (IWT) on the resources of IHK, its ‘Power Development Department’ invited proposals from “constituencies within and outside India” to assess the treaty’s impact. The ‘State Finance Commission,’ which was constituted by the IHK administration through a legislative Act, has, in its report submitted in November 2010, pointed out that the opportunity cost of economic growth and development forgone as a result of IWT bottlenecks, needed to be assessed from September 1960 to August 2010 and compensation claimed from both governments of India as well as Pakistan. The commission noted that the potential state resources got drained out when

Indian government agencies invested in power generation in the state at the cost of state's development for just 12 per cent power royalty. It mentioned that 12 per cent free power ratio could not be ipso facto applicable to the state as it has put unnatural constraints on the use of its water resources due to the treaty. Therefore, it proposed the ratio should be raised to 25 per cent in the interest of the "equity and natural justice" as it would "compensate partially the losses suffered by JK."⁽⁴²⁾

The Indus Waters Treaty, a water-sharing arrangement brokered by the World Bank in 1962 between India and Pakistan, restricts India from any water storage on the western rivers of the Indus Basin. Under the Treaty, India can only construct run-of-the-river hydel power generation plants on the western rivers flowing through the region of Jammu & Kashmir. Technically, these run-of-the-river projects generate less than the installed capacity during the winter-season reduced flows. The August 1998 Report of the 'Committee on Economic Reforms in Jammu and Kashmir' noted that "on the recently commissioned Uri and Salal Hydro Electric Projects, the energy loss is to the order of 44 per cent and 50 per cent respectively."⁽⁴³⁾

However it is not for this reason that the IHK region is suffering from power shortages; rather, it is the unwarranted export of energy to India at the cost of local needs and unjust profit distribution by the NHPC that is mainly responsible for the current energy crisis in the occupied state. The Treaty has allocated India substantial non-consumptive rights over the western rivers of the Indus Basin flowing through IHK besides giving complete control of the eastern rivers. It is the Indian government which is not ready to share the profits earned from the resources of the IHK.

The treaty itself is not biased vis-à-vis IHK. A careful reading of its provision suggests that the focal point of the IWT is to regulate the distribution of joint waters for irrigation in Indian and Pakistani parts of Punjab. It was as a follow-up to the bilateral water-sharing arrangement between India and Pakistan which set its foundation as early as 1948 through the Inter-Dominion Agreement on the Indus Basin waters that both governments in India and Pakistan began concluding inter-state and inter-provincial agreements for water distribution within their respective territories. In 1955, the Indian government allotted the waters of the three eastern rivers — Ravi, Beas and Sutlej — to Rajasthan (8.00MAF), Punjab (including present-day Haryana 7.2MAF) and IHK (0.65MAF). The occupied state also got a pre-partition share of 0.4MAF thus achieving a total of 0.69MAF from the eastern rivers of the Indus Basin.⁽⁴⁴⁾ In 1979, the then chief ministers of Punjab and IHK signed an agreement under which Punjab had to pay a share of 1,100 cusecs of water, 20 per cent of the electricity, and 15 per cent of the jobs from the Ranjit Sagar Dam (also known as Thein Dam & Hydropower station) on the River Ravi near Thein village along the borders of Punjab and IHK.⁽⁴⁵⁾ The Punjab government's unilateral scrapping of this agreement in 2004 led the IHK to claim Rs. 8,000 crore from Punjab for the use of its land and for non-supply of the "promised" power that is being generated from the dam.⁽⁴⁶⁾

Recognising these losses suffered on the part of IHK, the government of India decided to fund the 90 per cent cost for the construction of the Main Ravi Canal known as Satwian Project — a multi-purpose hydro-irrigation scheme for the development of IHK, the remaining 10 per cent cost to be borne by the occupied state. The statement of the IHK irrigation minister, Taj Mohiuddin, that the “central” share comes in lieu of the losses owing to the Indus Waters Treaty, is justified as part of the water politics being played between East Punjab and IHK. It must not be allowed to malign the spirit of the Indus Waters Treaty or hold Pakistan responsible for any sort of energy crisis in IHK.

The Indus Waters Treaty provides IHK much larger share of development of water resources than is widely discussed and believed. It is largely the ‘internal water politics’ in India that led to the IHK bearing the whole burden of its provisions. IHK has abundant water resources to not only meet its own requirements but also to export surplus power to other areas. The fact that hydropower projects of IHK contribute nearly 40 per cent to the NHPC revenues⁽⁴⁷⁾ substantiates the value of resources allowed for utilisation in the region within the ambit of IWT.

The Indian claims of IHK being deprived in the Indus Waters Treaty backfires in the light the fact that the NHPC-led four operational projects — Salal, Uri-I, Dulhusti and Sewa-II having a total installed capacity of 1680MW — if added to IHK produced power of 750MW, will provide 2430MW units of power against the peak requirement of 2500MW in IHK for the year 2012 (See Tables 1&5). The four other IHK projects of NHPC — Nimmo Bazgo (45 MW), Chutak (44 MW) — Kishanganga (330 MW) and Uri-II (240 MW) — due to complete in the coming years, may also meet the additional requirements by producing a total 659MW of power.

IHK can become self-sufficient in meeting the local electricity needs provided the NHPC either gives it adequate royalty for the Indian-controlled projects or shares power generation profits on a fifty-fifty basis as was decided in the case of Salal. The fact that IHK is not fairly treated by the NHPC in profit sharing from hydropower projects in the region envisages a situation where even if the Indian government utilizes the whole permissible limit of non-consumptive water rights including power generation on the western rivers of the Indus Basin flowing through IHK, the latter would not be able to improve its condition due to the above mentioned factors.

Conclusion

The western rivers of the Indus basin system are a major source of irrigation and hydropower development needs for the IHK people. Jhelum, one of the three western rivers of the Indus basin, originates in the region. The other two, Indus and Chenab, pass through IHK before entering Pakistan. This study explored the state of hydropower resources of the region with a focus on Srinagar-Delhi tussle for control of hydropower resources in IHK. The disputed

territory is blessed with a hydropower potential of 20,000 MWs out of which only 2,456MW is harnessed to date through private, Srinagar-sponsored or Delhi-financed projects. Delhi's contribution to this figure is the greatest with NHPC generating 1,680MW in IHK. However, the peak power availability in IHK (2010-2011) remained at 1,571MW, less than the figure the NHPC generates from its four hydropower stations in the occupied state. IHK remained the topmost energy-deficit region in the annual power supply position of the occupation country for the period 2010-2011. During this period, the energy deficit in IHK was 25 per cent in comparison to 14-20 per cent energy shortages in other regions. Besides poor marshalling of power resources, IHK administration is itself to blame for not checking power thefts and line losses, which result in huge shortfalls.

The transmission and distribution (T&D) losses in IHK are highest compared to any state/union territory in India (see Annex A). During 2008-09 only 28.87 per cent of the power was produced within the IHK,⁽⁴⁸⁾ while the rest — 71.13 per cent — was purchased from other sources including India's national grid. This leaves a huge gap between revenue receipts and expenses incurred. Furthermore, both purchased and generated power meets only 62 per cent of the total energy requirements.⁽⁴⁹⁾ The IHK is an energy-deficit area in spite of having vast hydel power resources. The root of the problem lies both within the IHK and with Delhi government's policy structures. Many NHPC hydropower projects are behind their completion schedule while many other operational projects are generating much less than their capacity. A winter decrease in water flows has cut down the daily generation capacity of the 450-MW Baglihar project to less than 150 MW.⁽⁵⁰⁾ Other hydropower stations face the same condition during low winter discharge in the rivers. There have also been demands to increase power quota allocation for IHK.

Above all, the people of IHK are angry at the occupation authorities who over the years have failed to compensate them and denied them their due share of water and power from the Ravi, Beas and Sutlej rivers. A mere allocation of share in the Ravi water did not help the Kashmiris after the government of Punjab breached the promise to supply the former's share of power from the Thein Dam.

Discontent among Kashmiris has grown to such an extent that they have been demanding the return of Uri and Salal hydropower projects to Srinagar and seeking involvement of the private sector instead of NHPC in the construction of new projects. There have also been demands from the Srinagar administration for increasing the royalty from the present 12 per cent to 25 per cent on the India-executed power projects in IHK. Such a raise can reduce the burden on the IHK power department, which has to buy back power from NHPC to meet local energy needs; any failure to pay back the arrears to NHPC results in power breakdowns throughout the occupied state. The NHPC has, however, rejected the IHK claims of ownership of Salal and Uri. Its neo-colonialist attitude towards the energy problems of the IHK has set off a Srinagar-Delhi tussle.

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Annex A

**State-wise Transmission and Distribution Losses
(As provided by State Electricity Boards by March 2010)**

Overall T&D Loss (%)									
N o.	State Name	200 2-03 Act ual	200 3-04 Act ual	200 4-05 Act ual	200 5-06 Act ual	200 6-07 Act ual	200 7-08 Act ual	200 8- 09 (Pr ov)	200 9- 10 RE
1.	Andhra Pradesh TRANS CO	28	22	19	20	20	20	19	18
2.	Assam	39	36	38	33	33	38	34	32
3.	Bihar	39	36	37	46	46	41	39	37
4.	Chattisgarh	31	27	32	37	32	34	34	33
5.	Delhi								
6.	Gujarat	31	29	34	30	24	25	23	24
7.	Haryana (HVPN)	38	36	32	34	33	33	27	24
8.	Himachal Pradesh	21	22	26	21	17	16	16	15
9.	Jammu & Kashmir	47	48	47	47	51	62	61	62
10.	Jharkhand	47	48	47	49	45	42	43	39
11.	Karnataka PTCL & Discom	32	32	25	30	29	25	22	21
12.	Kerala	30	28	26	25	22	22	20	19
13.	Madhya Pradesh	44	44	43	41	39	42	40	39
14.	Maharashtra	38	38	35	32	34	29	27	23

15.	Meghalaya	23	25	29	41	38	37	33	32
16.	Orrisa (GRIDCO)								
17.	Punjab	24	25	25	25	26	22	20	19
18.	Rajasthan	43	44	43	45	37	36	32	30
19.	Tamil Nadu	18	18	18	18	18	18	17	18
20.	Uttar Pradesh	42	38	31	34	35	33	29	25
21.	Uttaranchal	48	45	34	32	33	32	33	30
22.	West Bengal SEB	34	28	31	32	28	26	28	24

- Note:**
- i. The figures in respect of Orrisa & Delhi have not been included.
 - ii. The improvement shown in 2008-09 and 2009-10 may only be because the data is provisional/estimated.
 - iii. It is also pointed out that State Governments often marginally change previous year's numbers in new submission each year.

Source: Data and Statistics, Planning Commission, India
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Annex B**Projects awarded through bidding to IPPs in Phase-I
under State Hydel Policy of 2003**

S.No.	Name of SHP with Source	Capacity MW	Status
1.	Athwathoo, Bandipora Distt (erstwhile Baramullah district) Madhumati Nallah	10	Commissioned
2.	Brenwar SHP, District Budgam Doodhganga Nallah	7.5	Commissioned
3.	Tangmarg SHP, Distt Baramullah Ferozpora Nallah	10	Work in Progress
4.	Aharbal SHP District Pulwama Vishow Nallah	22.5	Clearances yet to be obtained by the IPP
5.	Hirpora SHP District Pulwama Rambhir Nallah	12.00	IPP engaged in obtaining clearances and land acquisition.
6.	Kahmil SHP District Kupwara Kahmil Nallah	4	IPP engaged in obtaining clearances and land acquisition.
7.	Boniyar SHP District Baramulla Hapathkhai Nallah	12	IPP engaged in obtaining clearances and land acquisition.
8.	Mandi SHP District Poonch Mandi Nallah	12.5	IPP engaged in obtaining clearances and land acquisition.
9.	Ranjala Dunadi SHP District Doda Lower Kalnai Nallah	15	Work in progress.
10.	Drung SHP District Kathua Ujh Nallah	5	IPP engaged in obtaining clearances and land acquisition.
	Total (10 projects)	110.50 MWs	

Source: J&K State Hydroelectric Projects Development Policy, 2011

(Jammu and Kashmir Power Development Department: Srinagar) <http://www.jkspdc.nic.in/pow_pol.htm>.

Annex C**Projects identified under Phase II for IPPs⁽⁵¹⁾**

S.No.	Name of the Scheme	District	River/Nallah	Envisaged Capacity (MW)
1.	Tuele MHS	Baramullah	KIshanganga	1.85
2.	Hanswar	Doda	Hanswar	1.30
3.	Gulah Garh	Udhampur	Ans	1.20
4.	Attal Garh	Doda	Neeru Nallah	2.50
5.	Mawar (Nawgam)	Kupwara	Mawar Nallah	4.50
6.	Boniyar-I	Baramullah	Boniyar Nallah	2.60
7.	Boniyar-II	Baramullah	Boniyar Nallah	1.20
8.	Erin	Baramullah	Erin Nallah	3.00
9.	Chandanwari Uri	Baramullah	Chandanwari Nallah	3.00
10.	Kanzil Wangath	Srinagar	Wangath	12.00
11.	Srenz Ningli	Baramullah	Ningli Nallah	2.30
12.	Hihama (Kulgam)	Anantnag	Vishow Nallah	6.00
13.	Aru (Pahalgam)	Anantnag	Liddar	3.75
14.	Bringi MHS	Anantnag	Bringi Nallah	3.50
15.	Martand Canal (Rambir pora)	Anantnag	Martand canal/lidder	3.00
16.	Sukhnag	Budgam	Sukhnag Nallah	16.00
17.	Shaliganga	Budgam	Shaliganga Nallah	10.50
18.	Girjan Ki Gali	Poonch	Suran River	15.00
19.	Chingus Stage-I	Rajouri	Nowshara Tawi	1.05
20.	Chingus Stage-II	Rajouri	Nowshara Tawi	0.60
21.	Thana Mandi	Rajouri	Suran River	4.05
22.	Ans Stage-I	Udhampur	Ans River	22.00
23.	Bhalla	Doda	Bin Kudh/Neeru Nallah	1.5
24.	Nachia	Doda	Nache Nallah	1.00
25.	Pogal Garh	Doda	Pogal Garh Nallah	1.00

Annex D**List of Unelectrified Census Villages/Hamlets Proposed to be covered Through Renewable Energy Sources (Jammu Division)**

S.No.	District	No. of un-electrified census villages
1.	Udhampur	15
2.	Doda	389
3.	Rajouri	45
4.	Poonch	153
5.	Jammu	06
6.	Kathua	03
7.	Ramban	32
8.	Kishtwar	82
9.	Reasi	84
	Total	809

Kashmir Division

S.No.	District	No. of un-electrified villages
1.	Anantnag	67
2.	Bandipora	39
3.	Budgam	88
4.	Baramulla	17
5.	Ganderbal	03
6.	Kupwara	118
7.	Srinagar	04
8.	Pulwama	13
	Total	349

Sources: Source: J&K Energy Development Agency, Department of Science and Tech, Government of Jammu & Kashmir.

<<http://jakeda.nic.in/rvevillages/rvejammu.pdf>>.

<<http://jakeda.nic.in/rvevillages/rvekashmir.pdf>>. (accessed on 16 February 2012).

IP AND TAPI IN THE ‘NEW GREAT GAME’: CAN PAKISTAN KEEP ITS HOPES HIGH?

SEHER ABBAS

Introduction

“Like most of the 30 years that preceded it, 2012 will be punctuated by statistical evidence of Asia’s growing weight in the world economy and by the West’s relative decline,” declares the *Economist*.⁽¹⁾ The world is now moving to a new polycentric world order. This evolving world order is evident by the struggle for energy-fields that extend from Iran to the Pacific Ocean. It is there, as Pepe Escobar terms it “the Liquid War” for the control of Eurasia takes place. “Nothing in Eurasia is without an energy angle and it has all come down to the struggle for blue gold and black gold.”

OPEC’s monopolistic system of devising oil prices and the political/security instability in the Middle East has caused the world powers to look elsewhere to solve their energy needs. Furthermore, due to the economic rise of China and India, and their subsequent rising thirst for oil and gas to run their growing industries, the global politics of energy is messier than ever. The Central Asian ‘stans’ are the apparent jackpot winners, currently sitting on top of the biggest untapped reserves of oil and gas that exist in the world. Turkmenistan’s proven gas reserves were estimated to be 8.1 trillion cubic metres in 2009, being the fourth largest gas producer in the world after Russia, Iran and Qatar.⁽²⁾

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“The Great Game,” a term coined by Arthur Connally in 1835, referred to the fight for supremacy in Central Asia and Afghanistan between the British Empire and Tsarist Russia in the 19th century.⁽³⁾ The two empires jostled for control of Afghanistan as the strategic base that could be used for invading colonial India or Russian Turkestan. “The New Great Game,” an expression introduced by Pakistani journalist Ahmed Rashid in the 1990s, is centred on the regional energy politics currently at play in Central Asia, encompassing Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan and Tajikistan. Along with the big global powers —the United States and Russia — some new regional players have emerged on the scene, including China, India, Turkey, Iran, and Pakistan. The prize in this game is not just about accessing large reserves of oil and gas but also the economic profits from pipelines, tanker routes, petroleum consortiums and contracts.

Pakistan is directly involved in the New Great Game, as it is a partner in the projects for two important pipelines that will cross the country, the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline and the Iran-Pakistan (IP) gas pipeline. As Pakistan is currently facing one of its worst energy crises and as its indigenous gas reserves are rapidly declining, these pipelines are essential for the country. As Pepe Escobar states “Pakistan is an energy-poor, desperate customer of the grid. Becoming an energy transit country is Pakistan's once-in-a-lifetime chance to transition from a near-failed state into an “energy corridor” to Asia and, why not, global markets.” Despite the vast potential and importance these pipelines hold, their future however is currently bleak.

The paper begins with an explanation of the New Great Game, its importance in understanding the current international political scenario in the region, the roles being played by the key players and the mega projects that are being undertaken or have been completed. This is followed by a review of Pakistan’s energy needs and the current gas shortages affecting the country. The next section of the paper will discuss in detail Pakistan’s involvement in the New Great Game vis-à-vis TAPI and IP pipelines and will include their history, designs, current status, problems and the role regional politics has played in their existing state of affairs. This discussion would further lead us to an overall analysis and suggestions, followed by the conclusion.

The New Great Game: Energy politics and conflict

The “New Great Game” being played today is defined as a rerun of the “Great Game” of the 19th Century when the British Empire and the Tsarist Russia were fighting an undeclared war of competition and influence against each other in Central Asia and Afghanistan.⁽⁴⁾

When the Russians expanded their influence in Central Asia (then known as Turkestan) the British Empire saw it as a direct threat to its “jewel in the crown,” the colony of India. Imperial Russia too was apprehensive of the British and feared that they were working with the Muslim tribes of Turkestan against Russian interests. Their proxy war was for the control of Afghanistan, which could be used as a strategic base to invade either colonial India or Turkestan.⁽⁵⁾ According to Ahmed Rashid, the real battle was fought via communication links: the Russians built railway tracks across Central Asia to their borders with Afghanistan, Persia and China whereas the British built railway lines across India to their border with Afghanistan.⁽⁶⁾ The Great Game died out after the United Kingdom and the Soviet Union became Allies during World War II.

Today, the phrase New Great Game is used to describe modern geopolitics in Central Eurasia and the competition between various extraregional and regional powers for “influence, power, hegemony and profits in Central Asia and the Transcaucasus.”⁽⁷⁾ It is argued that under the Caspian Sea lie the world’s biggest reserves of untapped fossil fuels. Different estimates range from 50 to 110 billion barrels of oil, and from 170 to 463 trillion cubic feet of natural gas.⁽⁸⁾ Azerbaijan and Kazakhstan alone, according to Kleveman, could be sitting on more than 130 billion barrels of oil, more than three times the United State’s own reserves.⁽⁹⁾

The actors in the new post-colonial game however are quite different. The United States has taken over the role from the British Empire, along with the ‘ever present’ Russians, while new regional powers such as China, Iran, India, Turkey and even Pakistan have entered the arena. Including the powerful transnational oil companies, with budgets often higher than those of many Central Asian States, the New Great Game is far more complex, convoluted and far-reaching than its 19th century predecessor.⁽¹⁰⁾

According to Ahmed Rashid, the crux of the game centres around Russian attempts to keep a grip on the Central Asian States and control the flow of Caspian Sea oil through various Russian controlled pipelines and USA’s efforts to stop this. Thus the USA is “thrusting itself into the region on the back of proposed oil pipelines” which would bypass Russia,⁽¹¹⁾ China and Iran. Bill Richardson, who was the US secretary of energy under president Clinton, is reported to have said, “We’re trying to move these newly independent countries (Central Asian States) toward the West. We would like to see them reliant on Western commercial and political interests rather going another way... it’s very important for us that both the pipeline map and the politics come out right.”⁽¹²⁾

Similarly, Iran, Turkey and Pakistan are involved in building their own communication links with the region so that they can become the preferred route of choice for pipelines to the east, west and south. China, the world’s second largest economy and consumer of energy and soon to be the largest global consumer of energy, wants to acquire necessary energy supply for its rapid economic growth and expand its political influence in the region.

The Central Asian 'stans' have their own set of rivalries, political instabilities, preferences and strategies. Looming above this entire spectrum of regional dominance is the fierce competition between the American, European, Russian and Asian oil and gas companies.⁽¹³⁾

Pipelines: The umbilical cords

The rush to lay as many pipelines as each of the powers can to safeguard their interests began in the 1990s. Ahmed Rashid talks in much detail about a gas pipeline proposed by Bidas, an Argentinean oil company, in 1994 from Turkmenistan via Afghanistan to Pakistan and India. This ultimately started a battle between Bidas and Unocal, an American oil company. This gas pipeline is also known as the Turkmenistan-Afghanistan-Pakistan-India pipeline or TAPI and will be discussed in detail ahead.⁽¹⁴⁾

In 1997, against the wishes of the US, Iran constructed a 119-mile-long gas pipeline going from western Turkmenistan to north-eastern Iran. In 1999, Turkmenistan signed an agreement with the consent of the US to build a Turkmenistan-Turkey gas pipeline which was to go under the Caspian Sea to Azerbaijan and avoid Iran.

In 1997 the idea for Central Asia as a 'transportation corridor' was jointly sponsored by United States and Turkey by proposing an oil pipeline, from Baku in Azerbaijan, through Georgia and the Caucasus to Turkey's Ceyhan port on the Mediterranean, called the Baku-Tbilisi-Ceyhan (BTC) pipeline. The BTC finally became operational in 2005, and oil pumped on 10 May 2005 in Baku reached Ceyhan on 28 May 2006. The United States also wanted Turkmenistan to build a gas pipeline which would travel in parallel with BTC eventually and reach Europe. This is now known as the Nabucco Pipeline but its status is still hanging.⁽¹⁵⁾ Through this project US plans to connect to the Baku-Tbilisi-Erzurum gas pipeline (which is already operational) the Nabucco pipeline which will go from Ankara (Turkey) and all the way to Bulgaria, Romania, Hungary and Austria.

Russia and the USA have been in a state of competition in this region, ever since the former Soviet Union split up, and Russia is adamant on keeping the Americans out of its Central Asian backyard. Russia aims to increase European gas dominance on its resources whereas the US wants the European Union (EU) to diversify its energy supply, primarily away from Russian dominance. There are already around three major Russian pipelines that are supplying energy to Europe and Russia has planned two new pipelines. These pipelines that are projected to provide energy supplies to Europe are the Nord Stream and South Stream; both emanating from Russia. Nord stream is already under construction and its projected route is from northwestern Russia through the Baltic Sea to Germany. South stream is projected to originate from Beregovaya (southwestern Russia) across the Black Sea through Bulgaria to Greece and Italy and also to construct one branch to Hungary and Austria.⁽¹⁶⁾ So primarily it will be Nord stream and South Stream vs. Nabucco gas pipeline, i.e. Russia vs the USA in Europe.

The third “big player” in this New Great Game is China, soon to be the world’s biggest energy consumer, which is already importing gas from Turkmenistan via Kazakhstan and Uzbekistan to its Xinjiang province — known as the Central Asia-China Pipeline — which may tilt the balance towards Asia. Pepe Escobar calls it the opening of the 21st century Silk Road in 2009 when this pipeline became operational.⁽¹⁷⁾ China’s need for energy is projected to increase by 150 per cent which explains why it has signed probably the largest number of deals not just with the Central Asian republics but also with the heavily sanctioned Iran and even Afghanistan. China has planned around five west-east gas pipelines, within China, of which one is operational (domestically from Xinjiang to Shanghai) and others are under construction and will be connected to Central Asian gas reserves.

Another important country is Iran. Iran sits on the second largest gas reserves in the world and has over 93 billion barrels of proven oil reserves with a total of 4.17 million barrels per day in 2009.⁽¹⁸⁾ To the dislike of the United States, Iran is a very active player. The Turkmenistan-Iran gas pipeline, constructed in 1997, was the first new pipeline going out from Central Asia.⁽¹⁹⁾ Furthermore, Iran signed a \$120 billion gas exploration deal, often termed the “deal of the century” with China. This gas deal signed in 2004 entails the annual export of approximately 10 million tons of Iranian liquefied natural gas (LNG) to China for 25 years. It also gives China’s state oil company the right to participate in such projects as exploration and drilling for petrochemical and gas industries in Iran.⁽²⁰⁾ Iran also plans to sell its gas to Europe through its Persian Gas pipeline which can become a rival to the US Nabucco pipeline. More importantly, it is also the key party in the proposed Iran-Pakistan (IP) pipeline, also formerly known as the “peace pipeline.” Under this pipeline plan, first proposed in 1995, Iran will sell gas from its mega South Pars fields to Pakistan and India. The ramifications in the geo-political situations are huge and will be a dwelt upon later.

SCO versus NATO

On a larger canvas, this energy politics being played by the Western bloc and the Asian bloc can be termed the battle between the Shanghai Cooperation Organization (SCO) and NATO. The SCO, largely formed of the two regional giants—China and Russia, aims to promote regional cooperation and forward the interests of the region against the US and European forces. It is seen by Pepe Escobar, as the NATO style, an-attack-on-one-of-us-is-an-attack-on-all-of-us protection. SCO’s position over a number of regional issues such as Iran’s nuclear programme runs counter to American stance. Iran is also an enthusiast when it comes to becoming a part of SCO. Pakistan is also actively showing interest whereas India has started backing out a bit — not to our surprise as the US has welcomed it with open arms. According to Escobar, “Moscow's strategy is to boost the SCO as a solid counterpunch not only to NATO but also to the US' designs on Central Asian energy.”⁽²¹⁾

Having given a brief overview of the New Great Game and a quick glance over the politics being played on this chessboard, the study moves forward to talk in detail about the gas pipelines that Pakistan plans to rely on significantly. The ground for the two pipelines, IP (formerly IPI) and TAPI, was set in the early years of the New Great Game. However, the end result has yet to be achieved.

The next section will talk about the present energy crisis, particularly with respect to gas, prevalent in Pakistan. It will shed some light on the present shortage in gas supply which happens to be the most dominating form of energy in Pakistan's energy mix. It will further go on to talk in more detail about the history and present situation of the two gas pipelines being relied on by Pakistan.

Natural gas: Pakistan's drug

Amid an acute shortage of natural gas across the country, triggering public protests in various areas, the Pakistan government decided on 28 December 2011 to massively increase gas tariff for all categories of consumers.⁽²²⁾

Adding to the public shock, Petroleum Minister Dr Asim Hussain issued a grim warning the next day about nationwide gas emergency that would lead to closure of CNG stations in January 2012.

The two news pieces above highlight the intensity of the critical situation in Pakistan. Pakistan ranks among the acutely energy starved countries of the world. With a population touching 180 million and a GDP of US\$ 202.831 billion, in 2010 Pakistan was amongst the group of countries having the lowest energy consumption per capita.⁽²³⁾

From the outset, Pakistan has struggled to have a stable energy scenario and is currently facing the worst energy crisis in its history. It has a highly imbalanced energy mix with natural gas forming around 48 per cent of the primary energy supply, crude oil, LPG and POL constituting for 30.5 per cent, nuclear/hydro are 11 per cent and coal forms a small 8 per cent. Pakistan is highly reliant on gas which constitutes 34.3 per cent of the resources used for electricity generation.⁽²⁴⁾

An observer states that "over the past 15 years, we have been extracting and consuming our endowment of natural gas at an alarming rate" and that it was a "remarkably stupid decision to use it as a vehicular fuel... it was equally stupid to encourage industry to move into captive power generation using cheap gas."⁽²⁵⁾

This high reliance on gas has created a significant gap between supply and demand. According to another expert, there is a natural gas shortage of 1,000 to 1,500 mmcf/d which is further resulting into an electricity shortage of 5000 to 6000 MW in the current scenario. This has resulted in massive electricity and gas loadshedding which has not just hampered the everyday life

of Pakistani citizens but has also severely affected economic growth and political stability.⁽²⁶⁾

The Energy Information Administration of the United States says that in 2007 Pakistan's natural gas reserves were around 28,000 billion cubic feet and it was said that the reserves could last for twenty years.⁽²⁷⁾ However, with the reliance on gas skyrocketing many experts believe that the country's reserves will be exhausted much sooner. A new estimate suggests that the indigenous gas reserves are expected to deplete by 2020 and high reliance on imported gas is projected in the near future.⁽²⁸⁾

Energy security in today's day and age is a matter of national security. Pakistan is facing a critical situation which will take the country into stone ages if the government does not plan prudently and smartly to meet the ever growing energy needs.

TAPI: Pipedream or pipe-plan?

Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline came into public notice when Turkmenistan, Afghanistan and Pakistan signed a pipeline pact in 2002 and India joined the project in 2006. However the inception of this idea and the political struggle that happened in the backdrop dates back to 1994.

Bridas, the first international oil company to invest in Turkmenistan post cold war, visualised connecting its gas fields in Turkmenistan to Pakistan and India via Afghanistan in 1994-95. It eventually succeeded in convincing Afghan warlords and getting the Pakistani government on board with this initiative. It was sold with the hope that it would help peace 'break out' in Afghanistan, resulting in economic growth in the region.⁽²⁹⁾

Due to the magnitude of the project, multiple oil companies had to be involved and thus Bridas started having negotiations with other oil players, particularly Unocal, a US oil company that has since been dissolved and merged with Chevron in 2005. When talks broke down between the two, Unocal came up with a rival pipeline project in 1995. Ahmed Rashid states this as a pivotal moment and labels it the first battle of the New Great Game. Unocal set up a Central Asian Gas (CentGas) Pipeline Consortium in 1997 and proposed two pipelines; one was from the Daulatabad gas field in southern Turkmenistan across south-eastern Afghanistan and southwestern Pakistan to northwestern India to New Delhi. The second was an oil pipeline that was to connect Russia's Omsk oilfield in Siberia across Kazakhstan and Uzbekistan, connecting Turkmenistan's Chardzhou oilfield to Pakistan's coastal city Karachi via Balochistan. The second pipeline was subsequently sidelined. Unocal, backed by the US government and its foreign policy to contain Russia, Iran and China, was moving forward with the gas pipeline and had been busy signing agreements with Turkmen President Saparmurat Niyazov and even the Taliban. However, in 1998 the US fired missiles on al-Qaeda camps in southern Afghanistan, and due to this deterioration in relations Unocal put the project on an "indefinite hold,"

closed offices in Pakistan and Afghanistan and abandoned the CentGas Consortium.⁽³⁰⁾

Bridas saw this as another opportunity to re-enter the game and signed a deal with Niyazov in April 1999. However in July that year US imposed sanctions on the Taliban regime and the project hit another wall. It was again revisited by the Bush administration, favoured particularly by vice president Dick Cheney in mid-2001. But the terrible events of 11 September which changed the dynamics of the world, also changed the fate of this project.

The US launched its War on Terror, ousted the Taliban regime, installed a puppet government in Afghanistan and brought discussions on TAPI back on the drawing board.⁽³¹⁾ Subsequently, as mentioned earlier, agreements were signed between the governments of Turkmenistan, Afghanistan, Pakistan and India on the said pipeline, between 2002 and 2006, with the Asian Development Bank's support as the project's 'development partner'.

The underlying assumption of the United States was that the war in Afghanistan would end in a couple of years, giving the TAPI pipeline legitimacy and security for development and sustainability. However, despite American and NATO presence Afghanistan's security situation is still highly unstable jeopardizing TAPI's foreseeable future.

TAPI's current status

The TAPI project, expected to start in 2012, foresees constructing 1,680 km of pipeline, stretching from Turkmenistan's South Yolstan/Osman (revised from the earlier planned Daulatabad gas field) (145 km), to Afghanistan (735 km) and Pakistan (800 km), before ending at the Indian border town of Fazilka in Punjab. It would carry 33 billion cubic metres of natural gas annually to consumers with a total capacity of 90 million standard cubic metres per day (mscmd). According to the plan, 38 mscmd of gas would go to India and Pakistan each, while 14 mscmd would be bought by Afghanistan.⁽³²⁾

The pipeline, worth \$7.6 billion, saw some progress in November 2011 when the leaders of Pakistan and Turkmenistan initiated the Gas Sales and Purchase Agreement (GSPA). A total of five agreements and a memorandum of understanding (MoU) were signed which plan to operationalize the multi-nation project by 2016.⁽³³⁾ In October last year, Pakistan and Turkmenistan also reached an accord to deliver 1.3 billion cubic feet of Turkmen gas to Pakistan at 69 per cent of crude oil parity price.⁽³⁴⁾

However, the proposed Tapi project faced a setback in March 2012 when Afghanistan pulled out of the venture saying it does not need gas and is only interested in transit fee.⁽³⁵⁾ Pakistan Petroleum Secretary Ijaz Chaudhry said after Afghanistan's withdrawal Pakistan and India would share the allocated to Kabul.

International politics and the games

The United States of America

The United States has been TAPI's most vocal supporter and according to some scholars one of the main reasons why the US invaded Afghanistan. The Bush administration made completion of the TAPI a core part of its Afghanistan war strategy. As then assistant secretary of state Richard Boucher said in 2007: "One of our goals is to stabilize Afghanistan, so it can become a conduit and a hub between South and Central Asia so that energy can flow to the south."⁽³⁶⁾ As stated earlier, after the breakup of the Soviet Union, US became actively engaged in the region, helping the newly created Central Asian states achieve economic liberalisation by supporting in the construction and designing of pipelines across Asia and Europe. A key policy of this 'economic liberalization' agenda however was that these pipelines must avoid Russian and Iranian territory, helping the United States isolate its main rivals.

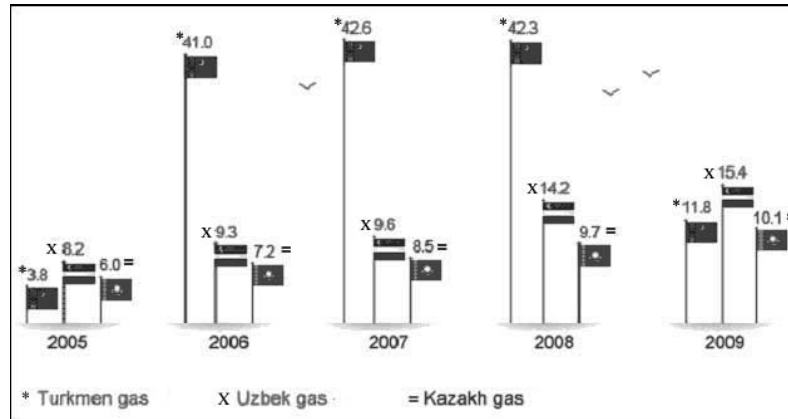
Keeping in the context Afghanistan's reconstruction efforts, the US is propounding the project as the 'magic glue' that will bind the warring factions and their regional proxies into an inter-dependent cooperative framework. The US also hopes that the TAPI pipeline will usher in economic interdependence among competing regional powers, thus making the costs of conflict too high and benefits of cooperation lucrative.⁽³⁷⁾

Antonia Juhasz, an oil industry analyst, and Shukria Dellawar, an Afghanistan security specialist, say that if the pipeline is constructed, its importance to the West will only intensify, as it will desire to keep Afghanistan "open for business."⁽³⁸⁾ Pepe Escobar argues likewise in his article, "Why the US won't leave Afghanistan." He states that it's mind-boggling that 10 years and \$5.4 trillion dollars later, the situation is exactly the same. Washington still badly wants "its" pipeline — which will in fact be a winning game mostly for commodity traders, global finance majors and Western energy giants. Escobar argues that the ideal endgame scenario, for the United States, is "global Robocop NATO — helped by hundreds of thousands of mercenaries — "protecting" TAPI while taking a 24/7 peek on what's going on in neighbours Russia and China."⁽³⁹⁾

Russia and Turkmenistan

Just as the US has been a supporter of TAPI since its conception, Russia has bitterly opposed it. As explained earlier, since the breakup of the Soviet Union and the creation of independent Central Asian states, Russian interests remain in retaining its monopoly on the Caspian states' pipeline routes. Russia relied heavily on Turkmen gas to meet its international contracts and was reaping windfall profits until 2009 when the global economic downfall, disagreements on price settlement and explosion on the Central Asia — Centre pipeline (the Soviet-era pipeline that connects Turkmen gas to Russia) reduced Russia's demand.⁽⁴⁰⁾

As the table below shows, Turkmen gas accounted for more than 70 per cent of Gazprom imports from Central Asia, between 2006 and 2008. Russia purchased Turkmen gas for about \$130 per 1,000 cubic metres and sold it to Europe at market rates for \$354 per 1,000 cubic metres.



Source: <http://www.gazprom.com/production/central-asia/>
Natural gas purchased by Gazprom Group in Central Asia from 2005 through 2009, billion cubic metres

Nikita Mendkovich, an economist at the Centre for Modern Afghanistan Studies in Moscow, argues that the situation in 2009 was dire for Turkmenistan. As European demand fell, Russia gave Turkmenistan a choice between cutting supplies or lowering their price. Ashgabat chose to reduce supplies, which cut gas production in half, from 70.5 billion cubic metres in 2008 to 38 billion in 2009, cost them about a \$ 1 billion a month and resulted in a 25 per cent drop in GDP.⁽⁴¹⁾

Turkmenistan has thus been desperately seeking opportunities for independent trade since the late 1990s to diversify its gas buyers and reduce dependence on Russia. This new projected volume would total over half of the 2010 gas consumption of China. With its capacity of up to 30 billion cubic metres per year and access to the Indian gas market, which is hit by a shortage of several types of fuel, TAPI would allow Turkmenistan to significantly expand its gas export opportunities and further decrease its dependence on Russia.

In late 2010, however, Russia took a complete U-turn on its TAPI policy and publicly started advocating it being a part of the project. The Russians engaged with the leaders of all four participating countries and in early 2011 secured support from Afghan President Hamid Karzai. This has resulted in a joint Russian-Afghan intergovernmental commission, co-headed by Russian Energy Minister Sergei Shmatko. India, Russia's main partner in Asia, has nothing against Gazprom participating in the project, say highly-placed sources.

President Asif Zardari of Pakistan also supports the idea. (He visited Moscow in early May last year. It may be pertinent to mention here that he is the first Pakistani president in more than 30 years to visit that capital.) Only Turkmenistan, due to its bitter experiences with Russian, is strongly opposed to Gazprom's participation in TAPI.⁽⁴²⁾

Gazprom, which also wanted to join the project with Unocal in 1990s but was ultimately denied by the Taliban, could take part in development, become the project designer, and invest in the project's equity, as well as produce natural gas at Turkmenistan's inland deposits and sell it to other participating countries. Turkmenistan, which is striving to enter the European and Asian markets bypassing Russia, has blocked Moscow's initiative.

Experts believe that Russian intervention in TAPI can result in multiple Great Game victories for Kremlin. Firstly, if Gazprom is part of the project, it will possibly kill Turkmenistan's involvement in the much coveted chimera Nabucco. Secondly, as Pepe Escobar argues, Russia's involvement would necessitate withdrawal of NATO forces from Afghanistan for TAPI's protection, and replace it with the Chinese and Russian supported Shanghai Cooperation Organisation (SCO). To strengthen SCO, Russia is pushing for inclusion of Afghanistan, Pakistan and India as full members of the SCO from their current observer status. Lastly, it could be a potential means of getting Russian gas to South Asian markets, which would be needed in the event of problems in Europe. Security experts state that Gazprom will most likely fund construction of the trans-Caspian pipeline, which will make South Stream potentially bidirectional—both to Europe, through the Black Sea route, and to Asian countries through the TAPI infrastructure and the Central Asian gas pipelines to China.⁽⁴³⁾ Turkmenistan however has resisted being a member of SCO and is opposing Russian involvement in TAPI.

TAPI: A mere pipedream?

The route, logically speaking, seems feasible: connecting Turkmenistan to southeastern Afghanistan to southwestern Pakistan province, Balochistan, the pipeline is proposed to integrate with Pakistan's extensive gas distribution network.⁽⁴⁴⁾ Even then this pipeline might not be a pipe-plan rather a pipedream.

Afghanistan and the unsolvable puzzle

Even though Afghanistan has much to gain from TAPI, it is the biggest loophole in this apparently feasible pipeline. With the announcement of the withdrawal of the NATO forces, including US soldiers, by 2014 the endgame has "supposedly" begun. However, according to Rahimullah Yousufzai, a Pakistani journalist who is an expert on Afghanistan affairs, there is no endgame nor will there ever be one in Afghanistan. Afghanistan is a difficult and complex country not just due to the unfriendly topography but also its volatile ethnic mix and ethics of war. He argues that Afghanistan is most notably known as the "Graveyard of Empires" and its history with the British Empire and Soviet Union proves this. Defeating the Taliban, and installing the Karzai government

was thought of as an end to the instability and volatility in the country and be its final sustainable solution. However, it has turned out to be quite the opposite.

War is business in Afghanistan and this business is more of a lifeline than the proposed pipeline can be. Apart from the war ideology in Afghanistan, there is the treacherous topography that has to be tackled as well. The only plausible route for the pipeline is the southern-eastern border of Afghanistan with Turkmenistan through to the southern-western border with Balochistan. The southern region of Afghanistan, through which the pipeline is planned to pass, is dominated by rival warlords: Uzbeks, Tajiks, Pashtuns and Hazaras; and it would be a challenging task to not only reconcile them but also ensure future safety of the pipeline.



Source: <http://www.brussellstribunal.org/Meyer/Pakistan0609.htm>

The concerns in Afghanistan are not close to being over yet. As the map above shows, the proposed route is not only dominated by rival warlords but it is also embedded with land mines and most of the area the pipeline will go through falls under UN declared extreme risk zone.

Furthermore, Shanthie Mariet D'Souza, an associate fellow at the Institute of Defence Studies and Analyses, New Delhi, points out that the absence of an effective police force that provides security for the pipeline could turn this project into a lucrative "protection-racket" for insurgents, local warlords and/or increased dependence on private security armies and contractors, with little being done to build on Afghanistan national security institutions. The success of TAPI would depend on the ability and commitment of the Afghan government and the international community to transform this economic opportunity into tangible benefits for the people of the region. Otherwise, it would only lead to further entrenchment of vested interests and an unending cycle of conflict.

Afghan Minister of Commerce & Industry Wahidullah Shahrani has said that the government would deploy 5,000-7,000 security forces to safeguard the pipeline route. The government in Kabul could earn upwards of \$1.4 billion in transit fees annually through successful operations of TAPI.⁽⁴⁵⁾ However, with the current instability in the country and the government which cannot exercise its rule beyond certain areas of Kabul, the realization of TAPI seems like a pipedream.

Balochistan instability

Another major concern for the success of TAPI is Balochistan and the separatist insurgency engulfing the province. The Baloch nationalists, who feel marginalized at the hands of the Pakistani establishment, both civil and military, have continually raised their voice against the Pakistani state and are fighting for independence. This sense of victimization and second-class-citizen treatment is also fuelled by the Pakistani military and intelligence agencies' not-so-covert operations in the province where hundreds of people have gone missing. This separatist insurgency and the Pakistani military action in the area has been referred to as 'Pakistan's other war'⁽⁴⁶⁾ and even been compared to the Kashmiris struggle against India. On the other hand, the elected governments, both at the provincial and federal levels, seem to be lacking the political will to push ahead with the Aghaz-e-Huqooq-e-Balochistan (the beginning of the rights of Balochistan) programme more forcefully. Apart from allocations under the National Finance Commission (NFC) award and devolution of powers to the provinces under the 18th constitutional amendment, there is an urgent need that the democratic government play a more proactive role to remove the sense of victimisation. This Baloch nationalist movement has been violent in nature and in revenge attacks many people, mostly from Punjab, have been targeted. It is also argued by some international security experts that the top of Taliban hierarchy are based in Quetta, Balochistan's capital, also known as the 'Quetta Shura', from where they plan and fund attacks in Afghanistan. Besides, given the geostrategic location and mineral wealth of Balochistan, involvement of a number of foreign powers cannot be ruled out. Put simply, without peace and stability in Balochistan there remains an imminent threat on the TAPI pipeline.

From IPI to IP pipeline

Though the idea of supplying Iranian gas to South Asia was first floated in 1989, the Iran-Pakistan-India (IPI) pipeline agreement was formally reached in 2008.⁽⁴⁷⁾ Initially, in 1995, it was only Pakistan and Iran which signed a preliminary agreement for the construction of a natural gas pipeline linking Karachi with Iran's South Pars natural gas field. Iran later proposed an extension of the pipeline into India and in 1999 signed a preliminary agreement with them. Pakistan was also on board with the extension plan as it would benefit not only from the supply of gas but also from the transit fees for usage of its territory. Upon the final agreement in 2008, IPI was also referred to as the "Peace Pipeline" between Pakistan and India.⁽⁴⁸⁾ It was argued that sharing Iranian gas would reduce tensions between the two archrivals since the resultant

interdependence and mutual benefits of energy cooperation would reduce confrontation and act as a catalyst for peace.

In the 2008 pipeline plan agreed by the three countries, IPI was proposed to start from Asaluyeh, South Pars, stretching over 1,100 km in Iran itself before entering Pakistan and travelling through Khuzdar, with one section of it going on to Karachi on the Arabian Sea coast, and the main section travelling on to Multan. From Multan, the pipeline was to travel to Delhi where it would end. IPI was to initially have a capacity to deliver roughly 22 billion cubic metres per year which was to evolve to a maximum of 55 billion cubic metres.⁽⁴⁹⁾

However, in March 2010 when the Iranian and Pakistani authorities met to sign a final agreement in Ankara, India backed out, presumably under US pressure and also its own distrust of Pakistan.⁽⁵⁰⁾ Hence from IPI it has ultimately become Iran-Pakistan (IP) pipeline. Furthermore, the cost for the pipeline, initially calculated at \$ 4 billion in 1995, is now estimated to be around \$ 7.6 billion.⁽⁵¹⁾

IP's current status

After 14 years of talks and delays, the IP finally appears to be heading towards a reality. Faced with chronic gas shortages, Pakistan has had to initiate work on the pipeline to serve its growing demand for gas. Subsequent to the final agreement between Tehran and Islamabad in 2010, in July 2011 Pakistan's Minister for Petroleum and Natural Resources Asim Hussain stated that the 1,092 kilometres of the pipeline on the Iranian side was complete and in place.⁽⁵²⁾ On the Pakistani side, a German-based company-ILF, in cooperation with the National Engineering Services of Pakistan (Nespak) has completed a route survey for the \$ 1.25 billion Pakistani portion of the pipeline and has provided the final report to the government of Pakistan. Under the agreement, the pipeline should be operational in 2014 and Pakistan would be required to pay a penalty equal to the cost of 750 mmcf of gas if it fails to receive gas by the agreed date.⁽⁵³⁾ In December 2011, Pakistan's Economic Coordination Committee's (ECC) Steering Committee on the Iran-Pakistan (IP) pipeline and Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline projects approved to hire a consortium of Pakistani and Chinese banks, including Habib Bank and the Industrial and Commercial Bank of China Limited, as financial consultant to generate \$1.2 billion for IP gas pipeline project. However this was after the country's largest bank, the National Bank of Pakistan, and the country's largest exploration company, the Oil and Gas Development Company Limited, refused to finance the project due to threat of possible sanctions by the US.⁽⁵⁴⁾ Coupled with this are press reports that China's Industrial and Commercial Bank has backed off owing to what Pakistan Petroleum Ministry described as "probably" the "changing geopolitical situation in the region."⁽⁵⁵⁾

Coming on the heels of this development are media reports that say Russia's Gazprom has shown interest in financing the project on condition that it is awarded the construction contract without international bidding and with

procurement rules relaxed. Government-level talks between Pakistan and Russia on the matter were scheduled to open in early April.⁽⁵⁶⁾

IP in the New Great Game

United States of America

Richard Rousseau, professor of International Relations at Azerbaijan Diplomatic Academy in Baku, argues that the delay in the pipeline has been caused by the bilateral and trilateral relations of the individual countries. As with TAPI, once again the major factor that has altered the dynamics of this game is the interest of the United States. As mentioned earlier, the post-USSR strategy of the United States has been to contain Russia, China and Iran. Iranian domination of the Persian Gulf and a pipeline running from 'evil' Iran to Pakistan and India would be a major node in the New Great Game and will have major geopolitical repercussions for US's policy to isolate Tehran.⁽⁵⁷⁾ The Heritage Foundation, a US-based research and educational institution, published a report in 2008, "The Proposed Iran-Pakistan-India Gas Pipeline: An Unacceptable Risk to Regional Security" and argues that the IPI pipeline would be "contrary to US strategic interests, would destabilize the Persian Gulf, and would strengthen Russia's grip over Central Asia, decreasing both regional and global energy security." Having India and Pakistan depending on Iranian gas is a thought that deeply worries the United States; the US has also stated the construction of the said pipeline would violate international sanctions against Iran.⁽⁵⁸⁾

Other than heavily endorsing TAPI as a substitute for IPI, the United States 2008 signed a civilian nuclear deal with India and in 2010 offered Pakistan to provide technical and monetary assistance for a liquefied natural gas terminal and also promised to aid the import of electricity from Tajikistan through Afghanistan's Wakhan Corridor, if Pakistan were to leave the project.⁽⁵⁹⁾ However, Pakistan has been adamant on this deal. In late 2011, the US stepped up its pursuit to 'contain' Iran by passing its most stringent sanctions to date and is pressing the international community to do the same; aligned with it is the EU (imposed oil embargo) and Japan and South Korea.⁽⁶⁰⁾

India's reluctance

The US has been in close talks with India, undermining the benefits of IPI and highlighting the uncertainties and high cost in engaging with Iran. It has been very difficult for New Delhi to negotiate and engage in discussions about IPI with Iran when it is developing a, US-assisted civil nuclear programme. Furthermore, India and Iran have not agreed on the gas pricing formula and India is also sceptical about the proposed pipeline's route through Balochistan in Pakistan. Balochistan, as stated above, is a hub of separatist sentiments and instability in Pakistan. India also fears that due to the uncertainty in relationship with Pakistan, a pipeline through Pakistan might give it leverage against India in future tensions and even over the Kashmir dispute by disrupting or threatening to disrupt the gas flow. Similarly, India and Pakistan had yet to negotiate on the

transit fee/tax Pakistan plans to impose as well.⁽⁶¹⁾ Despite these reservations, and ‘seeming’ uninterested in the project, in 2011 India expressed a willingness to return to the project and reengage with Iran on IPI.⁽⁶²⁾ However, as India might be getting cold feet, Iran and Pakistan are interested in getting the much eager China on board — Checkmate!

Inviting China

China, despite persistent US efforts to isolate Iran, has close diplomatic relations with Iran and the relations are expected to swell as Iran sits on some major natural resource reserves that China is in desperate need of. As stated in earlier sections, China has made several natural resource deals with Iran. However, many international relations experts believe that this relationship may not be as stable as it was just a few years ago. Chinese Prime Minister Wen Jiabao’s visit to other oil-producing Persian Gulf states, Saudi Arabia, Qatar and the United Arab Emirates (the first Saudi trip by a Chinese premier in two decades, and the first ever to the other two states) in early 2012, is widely seen as an attempt to diversify Chinese oil imports.⁽⁶³⁾

Pepe Escobar however, in his apt titled article, “The myth of ‘isolated’ Iran,” debunks the growing US pressure and claims that despite Washington’s claims of international confinement, officials from Tehran are welcomed across the global South. Referring to China, Escobar states “most important of all, ‘isolated’ Iran happens to be a supreme matter of national security for China, which has already rejected the latest Washington sanctions without a blink” and that “China may be the true winner from Washington’s new sanctions, because it is likely to get its oil and gas at a lower price, as the Iranians grow ever more dependent on the China market.”⁽⁶⁴⁾

China has also shown interest in the construction of IP on the Pakistani side and further expanding it to China. This means that starting at Gwadar, Beijing plans to build another pipeline, crossing Balochistan and then following the Karakoram Highway northwards all the way to Xinjiang, China’s Far West. China is also most likely to get the construction contract for this pipeline. As stated above, Chinese firms are part of the consortium awarded the contract for the financial consultancy for the project.⁽⁶⁵⁾ Closer participation in the Asian energy projects would also help China increase its influence in the region for its objective of creating the “string of pearls” across the region — which has often scared India as an encirclement strategy by the Chinese government.

Iran: the desperate one

Iran, crippled by the sanctions in place and fearing further sanctions in mid-2012, is desperate for the IP pipeline to be completed. As Iranian oil exports are expected to decrease across the globe it is looking at the IP as an economic lifeline to sustain its economic survival. During India’s involvement it had even suggested that the pipeline be extended up to Bangladesh and has been inviting China into the project since 2008.⁽⁶⁶⁾ Iranian officials also believe that Chinese participation in IP, increased Chinese investment in Iran and Iranian

membership in the SCO (Iran wants to be a member since 2008 but it hasn't been accepted because it is under Western-pushed UN sanctions), would 'protect' Iran from potential war with Israel and/or the United States.⁽⁶⁷⁾

Pakistan: the energy-starved one

Pakistan's primary benefit from the Iran-Pakistan pipeline is to utilize gas it very desperately needs for domestic and industrial use and power generation. Pakistan and Iran have signed a price accord which stated that Pakistan would receive 750 million cubic feet per day (mcfed) of Iranian gas at 78 per cent of crude oil price. However, after the gas price accord with Turkmenistan at 68 per cent of crude oil price, Pakistan aims to re-negotiate these terms of agreement and is estimated to save up to \$6 billion from expected price reduction.⁽⁶⁸⁾

Other than the economic benefits Pakistan can acquire from IP, the most significant benefits however can be achieved if the IP becomes IPC — the Iran-Pakistan-China pipeline. Pepe Escobar states "Pakistan can become a key transit corridor for Iranian gas" and win "especially with increasing Chinese investment; Or with further Chinese military "aid." That's why the Pakistani army's "suspension" by Washington is not bound to rattle too many nerves in Islamabad."⁽⁶⁹⁾

Pakistan however does face certain problems that it needs to address. Firstly are the threats from Washington for involvement in the IP. As stated earlier, the US has already threatened Pakistan with sanctions, which was also evident by some Pakistani firms not engaging to be part of the financial consultancy for the project. Secondly, and equally important, is the current unrest in Balochistan. There already exists Baloch animosity over any Pakistani mega project which doesn't involve the province and in addition there is also the threat from Jundullah, an anti-Iranian organization present in Balochistan.⁽⁷⁰⁾

Iran-Pakistan pipeline has the potential to become a reality even though the sole superpower is opposing it as much as it can. But in today's multi-polar world the opposition of one state does not bring the game to a halt. China is the 'icon' in this game that is playing around IP and both Iran and Pakistan are interested in getting it on board — which might raise many eyebrows but the game to capture the 'blue gold' goes on.

The way forward: Will Pakistan be a winner or a loser?

The geo-political and geo-economic impact of IP and TAPI, the integration of Central Asia and South Asia energy resources, the US 'non-Iran, non-Russia and non-China' strategy, and the role Iran, China and Russia eventually are going to play in this emerging great game are burning issues in today's energy politics. And interestingly all these factors and how they would play out — who would be dominating the energy supply chain — are dependent on the construction of the pipelines; impacts of which are yet to be fully

understood. Be it TAPI or IP, Pakistan wins both ways but both the pipelines create a whole new dimension in the highly complex game being played around energy supplies.

Robert Ebel stated, “The players in the game should remind themselves that peace can bring a pipeline, but a pipeline cannot bring peace.”⁽⁷¹⁾ Therefore, this study has argued that TAPI is a more of a pipedream and would not be a reality at least in the near future (i.e. at least a decade) no matter what exit strategy US plans and no matter what kind of puppet government is put in place in Afghanistan. However, the new great game is an evolving paradigm and the stakes and the moves by different regional powers keep changing. Russia, though initially opposing TAPI, now wants to be in on the project with the condition that Gazprom gets a significant part of the deal. Though these negotiations and power plays, do not make TAPI any more realistic in the near future as the issue still is stability in Afghanistan, they do, however, judge the potential manoeuvring power different players have. Also Pakistan is not a key decision-maker and only the third one in line when it comes to TAPI and the international politics around it. But Pakistan should still not let go the idea of TAPI completely; with increasing Russian interest in the US ‘loved’ pipeline the new great game is becoming more and more interesting.

Therefore Pakistan should stay in TAPI and show as much concern as it wills with the realization that it will not be helping it solve its energy crisis anytime soon. Pakistan should be in it for the energy politics and strategies and the manipulation that will and is going around and should utilise this position to its advantage.

On the other hand, and more importantly, the Iran-Pakistan pipeline is an important chance — and a more realistic one — for Pakistan and also potentially for China to change the dynamics of the New Great Game which the US aims to hijack. The IP pipeline is a very important project for Pakistan and serious efforts should be made by the Government of Pakistan to see it through to completion. The Iran-Pakistan pipeline will not only address the critical energy situation in Pakistan — it has the capacity to supply up to 40-55 billion cubic metres per year — but it is also a geo-political game changer. A blessing in disguise is the current tension between Pakistan and the United States, post the Raymond Davis case, Memogate scandal and the Salala incident where a NATO plane killed 24 Pakistani soldiers. According to some government officials, who wished not to be named, this is the time Pakistan should take the stand and get through to the end with this project.

Also in a time when Iran is being bombarded with more sanctions and oil embargos, Pakistan can persuade Iran to lower its gas price and try to negotiate on these lines. Pakistan should also try and convince to turn the IP into IPC — Iran-Pakistan-China. With China on board with this initiative, there might emerge an interesting turn in the New Great Game.

With increasing interest from China, Pakistan has the potential and the opportunity to become a transit corridor of energy for China through the deep-

water seaport, Gwadar. The port of Gwadar, in southwestern Balochistan, built by the Chinese, proposed to be connected to a pipeline that would go up north through the Karakoram Highway (KKH) to China's Uighur autonomous region of Xinjiang. Even before the pipeline is constructed the transportation network from Gwadar to KKH is established enough to transport energy supplies to Xinjiang. Gwadar is also a way for China to reduce its dependence on the Malacca Straits, which it terms as becoming increasingly dangerous.

But for all this to take place Pakistan needs to put its house in order, i.e. address the instability in Balochistan. The more important question for Pakistan is , as Pepe Escobar puts it, “how will Islamabad deal with ultra-strategic Balochistan — east of Iran, south of Afghanistan, and boasting three Arabian Sea ports, including Gwadar, practically at the mouth of the Strait of Hormuz?”⁽⁷²⁾

Balochistan is becoming a boiling pot for the Pakistani establishment and there is serious need of addressing the concerns of the separatists in the province. Both the pipelines are proposed to pass through Balochistan and the security of the pipelines is often argued to be at stake. Pakistani government needs to get the Baloch leaders on board with the major projects being initiated in the region and a percentage of transit fee should be paid to them as they are the most deprived citizens of Pakistan. The changing energy context in Balochistan can be both a means and incentive to bring the insurgency to a swift, negotiated and plausible end.⁽⁷³⁾ It is time that Islamabad realized that it only serves Pakistan, as Robert Wirsing puts it, to “make the Baloch partners to energy development, not antagonists of it.”⁽⁷⁴⁾

The New Great Game in Eurasia has put Pakistan as a pivotal player and as stated in the beginning, this energy-starved country has the chance to become an energy corridor not just to Asia but to the global markets as well. The energy politics have been fierce, aggressive and dynamic with the energy giants altering the rules of the game often. Today the energy grid is a lot more complex and Pakistan needs to be a fast and diligent player to get the maximum out of it. While keeping one eye towards the Afghanistan situation as it unfolds, Pakistan should focus on bringing its house in order. As Afghanistan's instability is making TAPI impossible, instability in Balochistan also has the potential to sabotage the energy initiatives. For the moment, Iran, Pakistan, China and Russia are the winners. But as Escobar puts it, “Islamabad still has all it takes to royally mess up what it has accomplished (so far) through approving IP.”⁽⁷⁵⁾

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