PAK-CHINA NUCLEAR COOPERATION AND PAKISTAN'S NON-PROLIFERATION INITIATIVES

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Abstract

The research paper aims to highlight the significance of international concerns regarding Sino-Pak nuclear cooperation. A new debate has started in the circles of international non-proliferation regime after the signing of Pak-China nuclear deal in 2010 whether it is consistent with the international safeguards or not. To explore the reality, the paper contains three main sectors including a comprehensive historical background of how Pakistan developed its nuclear capability, the Chinese cooperation in the nuclear and missile technology, and Pakistan's nuclear non-proliferation initiatives. The paper concludes that Chinese assistance is praiseworthy as regard to Pakistan's deterrent capability vis-à-vis its energy requirements.

Introduction:

Pakistan's threat perception is based on its geographical characteristics that include a troubled and enduring clash over Kashmir as well as its failure to maintain an acceptable conventional military balance with India due to limitation of resources. Indian security model is premised on the principle of dominance and enlarging its security parameters as it already enjoys a 2:1 advantage over Pakistan in the army, 3:1 in the air force, and 4:1 in the navy. While Pakistan's security model dictates its perceived needs that can be summed up as, 'survival in a hostile environment'.[1] As stated by Rifaat Hussain; "nuclear weapons have made it possible for weaker states to defend themselves effectively against large powerful countries,"[2] and further clarified by Pervaiz Iqbal Cheema that "threat is a geopolitical environmental condition for which, the price and penalty will have to be paid by the target states if it fails to build its own effective warding-off mechanism."[3] For the attainment of Pakistan's respective security objectives, nuclear weapons have

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played an important role. Over the course of three decades, Pakistan's nuclear relationship with China was a matter of great concern to U.S. government officials. Since 1986, allegations grew that the Chinese government supplied Pakistan with nuclear weapons technology, and its design information when a comprehensive nuclear agreement was signed between Pakistan and China, under which, China would construct four nuclear plants in Pakistan by 2011. This assistance and cooperation may have increased since India signed a nuclear deal with the United States because it set a precedent for cooperation in the nuclear commerce between a signatory and non-signatory of international non-proliferation regime. The deep involvement of US with India's nuclear program contributed to the Pakistani government's decision to convince the Chinese administration for more cooperation in the production of nuclear energy as Pakistan's energy crisis is known to the world.

Historical Background of Pakistan's Nuclear Program:

Pakistan was not as much desirous for making nuclear weapons as consistently and forcefully pursued by India. Following 1971 war with India and the disintegration of Pakistan, Zulfiqar Ali Bhutto expressed a strong desire to acquire nuclear weapon capability comparable to that of India. In January, 1971, within a month after assuming power, Bhutto held a meeting with a group of Pakistani scientists in Multan. Nobel laureate and former scientific advisor to the Pakistani government Dr. Abdus Salam also attended the meeting, where Bhutto allegedly asked, "I shall find you the resources and I shall find you the facilities… can you give it to me?"[4] The answer of several scientists was "yes we can do it," given the resources and facilities which he promised to arrange for them. He also demanded from the scientists that they will produce a fission device within three years.

The construction of Karachi Nuclear Power Plant (KANUPP) after obtaining the "Construction Permit," was started in the middle of 1967 with the Canadian General Electric Company Ltd. (CGE) for the supply of a 137 MW(e) Canadian Deuterium Reactor (CANDU), and had been completed in early 1971. However, the commissioning of the reactor was restarted and completed in 1972. Mr. Z.A. Bhutto formally inaugurated the Karachi Nuclear Power Plant, on November 28, 1972. During his premiership, Zulfiqar Ali Bhutto put into practice what he had lobbied for so many years to acquire the weapon capability. He strengthened Pakistan's nuclear establishment and authorized research and development activities.[5]
In 1974, India detonated its first nuclear device; Bhutto dismissed the Indian assurance that it had no military intentions. Reacting to the 1974 tests Bhutto said, "India has acquired nuclear weapons at very great cost, very great risk and at very great sacrifice to intimidate and blackmail Pakistan. ...to extract political concessions, to establish domination over the sub-continent, to exercise hegemony over the neighboring states."[6] He addressed the National Assembly and stated; "a more grave and serious event has not taken place in the history of Pakistan" and described the Indian capability a threat for Pakistan's security.[7] Following India's test, Pakistani Prime Minister Zulfikar Ali Bhutto convened a meeting with senior Pakistani officials to discuss the implications of India's nuclear tests. A statement by the Pakistani foreign ministry, released after the meeting, stating that India's pronouncements of peaceful intentions do not satisfy Pakistan's security concerns. It also noted that nuclear programs often incorporate both peaceful and military ends.[8] Bhutto's vision and confidence to equate the power balance in South Asia can be measured through his passion to develop a deterrent capability for Pakistan by looking at the chronology of events in the evolution of nuclear history in Pakistan as well as his vision for energy shortfalls in the future. He unsuccessfully struggled during Ayub government, however, Multan conference showed his determination for what he had struggled for so many years. He tried

his best to restructure the PAEC by hunting the best available talent and expertise.

At that time, A.Q. Khan gave his appearance on the scene, bringing the gift of centrifuge enrichment technology. He was a metallurgist by training rather than a nuclear physicist. He gained crucial knowledge of centrifuge operations by working at the URENCO Almelo plant from 1973 to 1975, where his tasks included translating a German report on centrifuge technology. He wrote a letter to Z.A. Bhutto on September 17, 1974, through the Pakistani ambassador in Belgium explaining his expertise in centrifuge-based uranium enrichment technologies. Bhutto responded favorably to Khan's suggestion and directed Dr. Munir Ahmad Khan to meet A.Q. Khan. However, the authorities accepted his offer but asked him to stay longer in the Netherlands, to learn more.[9] Dr. Abul Qarir Khan joined PAEC in 1975 with the knowledge and techniques about the centrifuge technology.[10]

Pakistan signed an agreement with France to acquire a plutonium reprocessing plant which was recommended by IAEA through its information circular INFCIR/239 on June 22, 1976. Pakistan undertook that the equipment and technology acquired from France would not be used or diverted for the weapon purposes. However, under immense US pressure France withdrew from the agreement to supply the plutonium reprocessing plant at Chashma in 1978. Pakistan government approved a plan to build a reprocessing plant and eight nuclear power plants at the Chashma site on the Indus River in Mianwali district. According to plan projections the first nuclear power plant had to be commissioned by 1982.[11]

The development of Pakistan's nuclear weapon program produced another major setback for PAEC that Canadian supply of nuclear fuel for KANUPP was terminated based on immense US pressure.[12] US played a major role in pressurizing France and Canada to terminate their agreements with Pakistan. US President Ford wrote a

letter to ZA Bhutto, perceiving Pakistan's nuclear program a threat to the US efforts for non-proliferation. The situation forced Pakistan to opt for the route of uranium enrichment for which the Kahuta Plant was formed.

Soon after the mid-1970s, the US government forcefully blocked Pakistan's attempt to acquire nuclear technology from European countries. Remarkably, the establishment of NSG in 1974 was to stop Pakistan from going nuclear. It was an evidence of international discrimination against Pakistan's nuclear efforts. U.S. Secretary of State Henry Kissinger visited Pakistan in August 1976 in order to pressurize Zulfiqar Ali Bhutto to abandon the nuclear program. Kissinger offered 110 A-7 attack aircraft as compensation to reverse Pakistan's nuclear ambitions. It is also believed that Bhutto was threatened with severe consequences if he did not change the country's nuclear policy.[13]

On one side US was trying to halt Pakistan's nuclear program by all means including its diplomatic as well as economic relations, on the other hand Pakistan was committed to acquire this capability at any cost. The Carter administration was considering several initiatives to prevent Pakistan from acquiring nuclear weapons. Their efforts ranged from imposing rigorous economic sanctions to supplying advanced conventional arms. One of the options considered includes undertaking covert operations using paramilitary forces to sabotage Pakistan's uranium enrichment plant. During early 1979, U.S. officials considered the option of sabotaging the uranium enrichment facility being constructed in Pakistan. The option was rejected owing to its dangerous nature and political infeasibility.[14] The other two options are imposing harsh economic sanctions or providing Pakistan with advanced conventional weapons like the F-16 fighter planes.[15]

Sources indicated that PAEC had its first nuclear weapon design using uranium-238 (U-238) as early as 1978. Dr. Samar

Mubarakmand reportedly carried out the first cold test of triggering the device without use of fissile material on March 11, 1983. The US State Department reported that Pakistan was now able to produce a workable explosive triggering package. This design was intended to be delivering by aircraft. Meanwhile, Dr. A.Q. Khan also advanced with the weaponization of an HEU device. In March 1984, KRL began its own cold tests at Kahuta and announced that Pakistan was able to produce HEU in April. On June 21, 1984, Democratic Senator Alan Cranston's claim appeared in New York Times that "Pakistan has now acquired all the capability necessary to produce nuclear weapons." He further accused the Reagan administration of not sharing the information with the Congress.[16]

However, the international political scenario had changed soon after the USSR invasion of Afghanistan, which ensured Pakistan that it would be the beneficiary of a massive infusion of US weaponry and its economic and diplomatic support. The situation developed by Cold War players benefited Pakistan's nuclear program when the Reagan administration replaced Carter in United States. These two developments supported Zia-ul-Haq's rule as well as Pakistan's nuclear program vis-à-vis nullifying the prospects of pressure on the continuation of Zia's rule as well as to restrain its weapons program. However, Pakistan's decision to support the Islamic resistance forces - Mujahideen changed the situation at once. Despite the fact that Pakistan was continuing its economic program and a dictatorship in power, it enjoyed a massive economic and military aid from US. In 1981, US State Department believed that Pakistan was seeking to develop a nuclear explosive capability.

In late 1984, President Reagan also wrote a personal letter to Gen Zia for not enriching uranium above 5%, which was answered by Pakistan's foreign minister assuring that its nuclear program is for peaceful purposes. Despite the allegations being labeled against Pakistan, International Atomic Energy Agency (IAEA) Department of Safeguards, expressed its satisfaction on the way in which the

IAEA safeguards were implemented in Pakistan. Department of Safeguards ensured that "there are no problems for the IAEA in performing its safeguards inspections in Pakistan."[17] In March 1985, Dr. A.Q. Khan insisted that Pakistan's nuclear program is entirely for peaceful purposes, however he indicated that the nation could carry out "an atomic explosion in a very short time, if required, without conducting any test."[18] Keeping in view of Pakistan's position in Afghanistan, US government could not give much attention despite President Reagan's warnings that Pakistan will have to face grave consequences in case of uranium enrichment above 5%. However, in 1985, US government passed Pressler Amendments that called for a total stop of US aid for Pakistan.[19]

Overt Nuclearization:

Pakistan had reached the nuclear weapons threshold by 1986, however, the exact date is unclear, and depends on whether one refers to the year enough HEU was produced, or the year when actual weaponisation was achieved. On March 1, 1987, Dr. A.Q. Khan claimed again that KRL was 'in a position to detonate … a nuclear device on a week's notice'.[20] Pakistan also began publishing technical articles about centrifuge technology, magnifying its capability by placing design details. These contributions include articles by A. Q. Khan on balancing sophisticated ultracentrifuge rotors.[21] However, Pakistan for the first time accepted it officially in 1992; in an interview by Foreign Secretary Shaharyar Khan with the Washington Post that Pakistan is capable to assemble one or more nuclear weapons.[22] It was the first time that a NNWS acknowledged the possession of nuclear weapon. Furthermore, Kahuta was said to have operated some 3,000 centrifuges mostly of the P-2 design and was estimated to have a capacity of 9,000–15,000 Separative Work Units (SWU) per year, which could produce 45–75kg of HEU a year, which is enough for two to three warheads of 20kg of HEU. The exact figure of centrifuges installed and operating at Kahuta might

be impossible without any official declaration.[23]

Pakistan initiated its Chashma nuclear power plant project (CHASNUPP) in 1993, having 300 MW capacity in collaboration with the China Nuclear Energy Industry Corporation (CNEIC) as the foreign supplier and put it under IAEA safeguards. As per agreement, China agreed to build a second 300 MW power reactor at the site, which was proposed by Pakistan earlier.[24] Chashma facility was partially built for plutonium reprocessing which was initially started by France but soon abandoned due to American pressure. It was agreed that China will provide Pakistan with a fuel fabrication facility which may be used in some activities undertaken by staff at PINSTECH reprocessing facility.[25]

In March 1996, Former Pakistani Army Chief Mirza Aslam Beg claimed that Pakistan has successfully tested its "atomic bomb capability" using computer simulation and the next task is to focus on delivery systems for its "nuclear capability."[26] Aslam Beg's assertion was further confirmed by the then Prime Minister Nawaz Sharif in September 1997 that "the issue of nuclear capability is an established fact. Hence the debate on this issue should come to an end." He further reaffirmed that the country had progressed to the extent that, "we have left that stage of developmental far behind."[27]

On 6 April 1998 Pakistan conducted its first test of the Ghauri missile system that had a claimed range of 1500 km. However, reports suggest that the missile's flight distance was less than what it was being claimed. Pakistan claimed that the Ghauri missile system is indigenous; however it was in fact a replica of North Korean No-dong missile system. It is also believed that North Korean officials were present during the test of Ghauri missile in Pakistan.[28] The test of Ghauri helped to create the atmosphere of tension between India and Pakistan, as India started propagating against the test. The Hindu fundamentalist leadership of India had declared that it would conduct nuclear and "induct" nuclear weapons. It had also

threatened to conduct attacks on Pakistan across the Line of Control in Kashmir. India had been making active preparation for conducting a nuclear test for some years, with the political manifesto of BJP government in India, the test of Ghauri provided a chance for India to create such a situation where it could demonstrate its capabilities as well. Indian Prime Minister Atal Behari Vajpayee astonished the world on May 11, 1998 by announcing that India had conducted three nuclear tests. Two days later, on May 13, 1998, India announced that two additional tests had been conducted as well. The Indian nuclear tests on May 11 and 13, 1998 increased the pressure on Nawaz Sharif government in Islamabad for testing Pakistan's nuclear weapon.

Keeping in view the domestic pressure as well as the security concerns, Pakistan convened a meeting of Defence Committee of the Cabinet (DCC) on May 15, 1998 in Islamabad. The DCC meeting was chaired by Nawaz Sharif, the then prime minister, where all chiefs of Pakistan's security forces, land, air and navy, participated as well as the two eminent scientists, Dr. AQ Khan Director of the Khan Research Laboratories (KRL), Kahuta and Dr. Samar Mubarakmand who was in charge of PAEC's Directorate of Technical Development (DTD) in the absence of Chairman PAEC Dr. Ishfaq Ahmed who was on a foreign visit. It was ensured that Pakistan could conduct a nuclear test within ten days.

The orders were passed to Chairman PAEC to explode the device on May 18, 1998. Whereas, the U.S. government reported on May 27, 1998 that Pakistan had been observed pouring cement in a test shaft in the Chagai Hills. This indicated that nuclear test devices were being sealed in, which is the final necessary step before conducting nuclear tests. Officials then predicted that tests could occur within hours. According to US presidential spokesman Mike McCurry, Clinton made a very intense call to Nawaz Sharif on May 27, 1998 in which he implored Nawaz Sharif not to conduct a test. Since Indian first test on May 11, 1998, it was fourth presidential call to Sharif.

However, the decision had been taken to conduct the explosion in the afternoon of May 28, 1998.

Chinese Cooperation in Nuclear and Missile Programs of Pakistan:

China has cooperated on both nuclear and missile programs of Pakistan. Pakistan signed a comprehensive nuclear cooperation agreement with China to cooperate in the fields of nuclear technology in late 1986. The salient features of the agreement include that China will construct four nuclear power plants in Pakistan by 2011.[29] The agreement ensured all the equipment and material transferred to Pakistan by China would be placed under IAEA safeguards; however, US called it a violation of Sino-US nuclear agreement which was signed in 1985. US also accused Pakistan that Chinese engineers are assisting their Pakistani counterparts in KRL. Pakistan denied any Chinese involvement in its nuclear program and reaffirmed that its nuclear program is for peaceful purposes. Pakistan condemned the criticism and called it discriminatory based on the lack of such criticism for the nuclear weapons program of India, Israel, and South Africa.[30]

Chinese cooperation also helped Pakistan to start work on the development of liquid fuelled missiles during the mid 1980s and came up with the results of the Hatf-1 and Hatf-2 programs; however, it made little progress. Reagan administration blamed China that it is assisting Pakistan's nuclear weapons program and expressed serious concerns over the presence of Chinese officials at the Kahuta enrichment facility. US government also blamed that China assisting Pakistan to remove the technical barriers in the construction of its uranium enrichment centrifuges, and suggested that China has transferred a quantity of weapons grade highly enriched uranium (HEU) sufficient for a few nuclear devices. China and Pakistan both denied these allegations and considered them baseless.[31]

Pakistan has been active since the early 80s in acquiring ballistic missiles and missile technology. This has resulted in the acquisition and development of an imposing list of missile systems. With non-proliferation sanctions severely curtailing Pakistan's ability to modernize its air force during the 1990s, Islamabad went on a major campaign to procure technology and parts for a variety of ballistic missiles for nuclear delivery roles. These systems are believed to be developed in collaboration of Chinese and North Korean technology. Pakistan also imported the M-9 and M-11missile systems from China and reproduced them with the name of Ghauri-1 and Ghauri-2. However, Pakistan asserts that its nuclear program is indigenous. At the end of 2000, it was reported that the National Defence Complex (NDC) of PAEC had begun serial production of its 'indigenously-built' solid-fuelled missile Hatf-4 or Shaheen-1 that is an intermediate-range ballistic missile (MRBM). Pakistan possesses a missile force comprising road and rail mobile solid-fuel missiles that include Abdali, Ghaznavi, Ghauri and Shaheen missile systems, for long-range targets deep inside India. Pakistan is also working on the Babur missile system which is a ground-launched cruise missile (GLCM). Babur was tested first in August 2005 and again in March 2006. The following table elaborates the Chinese assistance in Pakistan's main air and missile delivery systems in Pakistan's inventory, their alternative names, range and present status.

Pakistan's Air and Missile Delivery Systems

Aircraft/Missile	Range	Source	Status
F-16 A/B	925 Km	US	35 planes in inventory
Mirages 5	1300 Km	France	50 planes in inventory
Hatf-1	80-100km	Indigenous	In service
Hatf-2 (Abdali)	180 km	Indigenous/China	In service
Hatf-3 (Ghaznavi)	300 km	Indigenous/China	In service
Hatf-4 (Shaheen-1)	600-800 km	Indigenous/China	In service

Hatf-5 (Ghauri-1)	1300-1500 km	Indigenous/DPRK	In service
Hatf-5 (Ghauri-2)	2000 km	Indigenous/DPRK	Under production
Hatf-6 (Shaheen-2)	2000-2500 km	Indigenous/China	Under production
Hatf-7 (Babur)	500-700 kmGLCM	Indigenous/China	In Service
Hatf-8 (Ra'ad)	300 km ALCM	-	Tested in 2008

Source: Peter Lavoy, "Pakistan's Nuclear Posture: Security and Survivability," *Center for Contemporary Conflict*, 2007, pp. 8-9

Pakistan's Non-proliferation Initiatives:

As Pakistan's nuclear program is mainly to equate the balance of power with India who has a military might in the region. Pakistan's posture towards all existing and proposed non-proliferation, arms control and disarmament agreements is determined by its bilateral relationship with India. Despite the fact that Pakistan struggled to develop its nuclear weapon in the shadow of real threats from India for its sovereignty, vis-à-vis, it also struggled for the non-proliferation in the region. It offers to sign a given international agreement provided India also sign, and rejects to sign those that have been rejected by India. However, over the years Pakistan proposed a number of bilateral or regional non-proliferation initiatives to India. When Pakistan had not yet mastered the nuclear weapon technology, it proposed for the nuclear refrain in the region, however, in the later stage when it mastered the weapon technology, it proposed the nuclear restraint. Pakistan had offered India with a range of nuclear arms control proposals that include the creation of a NWFZ in South Asia, signatures to the Non-Proliferation Treaty – first by India and followed by Pakistan, equal acceptance of IAEA safeguards, bilateral inspections of the facilities of each other's nuclear facilities, signing a regional test ban treaty and declaration to give up nuclear weapons development.

Following are some proposals and CBMs initiated by Pakistan, mostly rejected by India with few agreements.

a) Pakistan's Proposal for South Asian Nuclear Weapons Free Zone (NWFZ):

Soon after the Indian nuclear explosions in 1974, Pakistan urgently sought a nuclear security against the Indian nuclear threat. Pakistan examined the possibility of Nuclear Security Guarantee (NSG) with US officials, which was not taken seriously by the US.[32] On October 28, 1974, Bhutto proposed a "South Asian nuclear weapons free zone" at the UN General Assembly after his failure to seek a nuclear security from US. The UN General Assembly approved Pakistani proposal to create a nuclear weapons free zone in South Asia by a vote of 82-2.[33] India and Bhutan voted against the proposal with 36 abstentions.[34] Pakistan's intentions to create a NWFZ in South Asia continued in the military regime of General Zia-ul-Huq. On April 8, 1979, Pakistan's Ministry of Foreign Affairs issued a statement that Pakistan was willing to accept all safeguard arrangements for its peaceful nuclear research if such safeguards were applied in a non-discriminatory manner. It explained that Pakistan was willing to have safeguards imposed on its facilities if the United States insists on similar safeguards on the nuclear programs of other countries that have acquired nuclear weapons capability or on the threshold of acquiring nuclear weapons capability. However, it stated that Pakistan will not unilaterally allow inspections on its nuclear facilities unless countries with more advanced nuclear programs allow such inspections. It also indicates that Pakistan had proposed a reciprocal inspection process between India and Pakistan of their nuclear facilities, which was rejected by India.[35]

Pakistan continued its efforts to persuade the regional countries for the creation of a NWFZ in South Asia in the face of Indian opposition. It issued a joint statement with Maldives on May 21, 1979 reaffirming their support for the creation of a nuclear weapons-free zone in South Asia.[36] In order to prevent an arms race between India and Pakistan, the Carter administration subsequently proposed the

creation of a nuclear weapons-free zone in South Asia that required India and Pakistan to abandon the pursuit of nuclear weapons and allow international inspection of nuclear facilities. However, it failed to persuade India and Pakistan to abandon their nuclear weapons program.[37] However, India rejected Pakistan's proposals to create a nuclear weapons-free zone in South Asia once again in August 1980. On September 25, 1987, Pakistan again proposed in the United Nations General Assembly to create "a nuclear-free zone and regional test ban treaty in South Asia."[38] Pakistan proposed the creation of a nuclear free zone in South Asia sponsored by the US, USSR and the People's Republic of China (PRC) in 1991. However, according to India, a nuclear weapons-free zone cannot be created without consulting all the countries in the region and also that any such zone must include China.[39] Pakistan used almost every channel to persuade India for the establishment of a NWFZ in South Asia. Almost every prime minister or president in Pakistan supported or repeated the proposal submitted in 1974 by Zulfiqar Ali Bhutto. General Zia, Benazir Bhutto and Nawaz Sharif anticipated identical proposals that demonstrated Pakistan's peaceful intentions but all such proposals had been denied by India.

b) Proposal for the Mutual Inspections of Nuclear Facilities:

By mid-1980, Pakistan had submitted four different proposals, demonstrating its peaceful intentions sincerity with the issue of non-proliferation. Those proposals were: *First*, India should agree to the establishment of a nuclear weapons-free zone in South Asia. *Second*, both India and Pakistan should accept international inspections of all nuclear facilities or, if this was not acceptable, India and Pakistan should accept, on a mutual basis, the inspection of each other's nuclear facilities. *Third*, India and Pakistan should sign the nuclear non-proliferation treaty. *Fourth*, India and Pakistan should join other countries of South Asia in declaring their renunciation of the manufacture or acquisition of nuclear weapons.[40] In 1985, Pakistan

restated its proposal for mutual inspections of nuclear facilities between India and Pakistan that it had made proposed 3 years ago and did not receive any response from India.[41]

c) Simultaneous Signing of Non-Proliferation Treaty (NPT)

In 1985, at the United Nations General Assembly meeting in New York, Pakistan called for India and Pakistan to sign the Non-Proliferation Treaty (NPT) simultaneously, accepting mutual full scope safeguards and inspections, and renounce the acquisition of nuclear weapons. This proposal was duly endorsed by U.S. President Reagan but rejected by Indian Prime Minister Gandhi.[42] In June 1989, Pakistani Prime Minister Benazir Bhutto spoke to a joint session of the United States Congress and said that Pakistan was willing to throw open its nuclear installations to inspection if other countries in the region do the same. Furthermore, she also said that there was a need for a nuclear-free zone in South Asia and for Pakistan and its neighbors not to conduct a nuclear test.[43] Pakistan called for a regional approach to nuclear non-proliferation in 1991.

d) Proposal for Five Nation Conference on Nuclear Non-proliferation:

On July 13, 1991, Prime Minister Nawaz Sharif called the new Indian Prime Minister, P.V. Narasimha Rao, on the hotline, in order to discuss Pakistan's proposal for a five-nation conference on nuclear non-proliferation in South Asia. India's position on the issue was that non-proliferation cannot be approached regionally but rather globally. Rao refused to participate in "an arrangement in which no one knows what the other country is going to do in spite of the agreement."[44] India rejected the proposal as a "ploy for resumed military aid" from United States.[45]

e) Compliance with IAEA Safeguards:

On the other side Pakistan also satisfied IAEA with its conformity of accepting safeguards system. In July 18, 1991, an International Atomic Energy Agency (IAEA) site safety review team visited the site for the Chashma Nuclear Power Project in Pakistan and issued a report with recommendations. The team did not find anything that would make this side unacceptable.[46] A group of Canadian engineers representing the Candu Owners Group conducted an inspection of Pakistan's 137-MW Karachi Nuclear Power Plant (KANUPP) on January 13, 1994 and found no evidence a common problem found in Canadian-produced Candu reactors after twenty years of service. The inspection team worked under the auspices of the International Atomic Energy Agency (IAEA) as part of the Safe Operation of KANUPP (SOK) program developed in 1989.[47]

India rejected all these initiatives taken by Pakistan on the plea that these initiatives fail to address the Indian perception of a Chinese nuclear threat. Another factor that did not attract India by Pakistani proposals was that they treat India and Pakistan equally. India also rejected these proposals based on its argument that they mean to isolate India in the non-proliferation forums therefore; the India considered them as part of diplomatic offensive by Pakistan.[48]

f) Proposal for Nuclear Restraint Regime in South Asia:

Despite the fact India accepted none of its proposals, Pakistan proposed a bilateral or regional test-ban treaty and a South Asia Zero Missile Zone in 1987 and 1994 respectively. India responded negatively resulting the nuclearization of South Asia. After the nuclearization, Pakistan offered India "nuclear restraint regime" almost similar to the US negotiating team's five conditions for India and Pakistan, that include;

1. Signing the CTBT
2. Permanent ban on production of fissile material
3. Strategic restraint regime that would limit the missile inventory to the versions that had already been tested.
4. Both countries to accept full-scope export controls
5. Resume dialogue to address the root causes of tension. [49]

In 2006, the then Prime Minister Shaukat Aziz once again proposed a Strategic Restraint Regime however India maintained its stance for rejecting all initiatives taken by Pakistan.

g) Nuclear Confidence Building Measures (CBMS)

There are some bilateral agreements, which have been endorsed by India and Pakistan on nuclear issues. The *first* significant confidence building measure was the Non Attack on Nuclear Facilities was initiated in 1985. Under the obligations of the agreement both India and Pakistan agreed to exchange lists of nuclear installations. In 1989, India and Pakistan agreed not to attack each other's nuclear facilities however, entered into force in 1991. *Second*, in June 2004 both countries agreed to establish the hot-line communication between the foreign secretaries of India and Pakistan to warn each other of any accident that could be mistaken for an attack. *Third*, they have also signed an agreement to alerting the other on ballistic missile tests in 2005. *Fourth*, it was agreed by India and Pakistan to take all possible measures to reduce the risk of nuclear accidents and to keep each other informed. Pakistan called for a new consensus on disarmament and non-proliferation to respond to new realities and challenges and has declared its opposition to arms race at regional and global level. In 2008, Munir Ahmed Khan, Pakistan's Ambassador in the UN told a meeting of UNDC that "such a new consensus should revive the commitment by all states to the goal of complete nuclear disarmament with no ambiguity on that

objective."[50]

Pakistan has repeatedly stressed that it will give up its nuclear weapons only when other nuclear-armed states do so. Pakistan has always demanded for the universality and verifiability of disarmament, hence, it rejects any unilateral disarmament on its part. Pakistan has a fear of overpowering superiority that India enjoys in conventional forces. Therefore, Pakistan regards its nuclear weapon as a deterrent against India. Pakistan recognizes that NPT is the most valued instrument and the main global mechanism available to implement a nuclear non-proliferation regime, but the problem lies with the nuclear weapon states to seriously negotiate disarmament.
To sum-up the nuclearization of South Asia, an objective analysis would bring out the formidable Indian military capability beyond the rationale of perceived threats, which compelled Pakistan to seek nuclear guarantees for a reasonable strategic balance in South Asia. Indian leadership was extremely conscious of the geo-strategic importance, therefore, military might and the nuclear weapons had to be acquired.

Therefore, opposition to Pakistan's nuclear program seems rather weak, even, some previous opponents of the nuclear program seem now to accept and justify the decision of testing the device soon after Indian tests. Had Pakistan not tested its nuclear weapons in response to Indian blasts, such a chance would never come. Therefore, Pakistan had to show India and the rest of the world that it was able to match India's nuclear capabilities because it had always been justified its nuclear program based upon Indian ambitions in the field. The notions, that Pakistan should give up its nuclear weapons as they need costly programs and provide basically no extra security, seems inapplicable because a unilateral Pakistani nuclear disarmament appeared to lay outside the political reality of the region. However, Pakistan has maintained that if India abandons its nuclear weapons program, it will follow the suit but once again it will depend on the tools and methods of verification. Pakistan is in

principle attracted in the wide range of arms control initiatives taken by non-proliferation regime. Pakistan's official position towards the applications of the non-proliferation regime and their treaties remains positive. As for CTBT is concerned, it has been killed by the United States. Nevertheless if India agrees to sign it, Pakistan will follow suit. Pakistan does not intend, for the time being, to restart nuclear testing. About NPT, Pakistan is interested in keeping some basic provisions of NPT such as safeguards, but it will not accept to adhere to a discriminatory regime. Whereas, FMCT is concerned, Pakistan agrees to a ban of production of fissile material not limited to weapon-grade material only. Furthermore, NWFZ in South Asia has been proposed by Pakistan in 1974, with no success. It also agrees that Pakistan will not transfer missile technology to other states following MTCR criteria.

New Debate

Pakistan's severe economic crisis has been intensified by its massive electricity power shortage of 4000-5000 MW, which has crippled the industrial sector. Textile industry is shattered due to shortage of electric power supply. Public anger often leads to protests throughout the country on every next day. Pakistan's President, Asif Ali Zardari, paid five visits to China including two official visits since he was elected in 2008, averaging approximately one visit every quarter. Zardari's visit to China in July 2010 sought to strengthen economic and strategic relations between two countries. It is believed that Pakistan and China had agreed in principle to build the remaining two nuclear power plants at Pakistan's Chashma facility, where one reactor is running and another is nearly completed. Some analysts believe that China was emboldened to go ahead with the deal after the US singed a similar deal with India. However, Pakistan's Foreign Minister Shah Mehmood Qureshi said that IAEA can inspect the nuclear cooperation with China as its main objective is to control energy crisis in the country.[51]

India was made an exceptional case for signing the Indo-US nuclear deal, which has actually shattered the global non-proliferation regime as it has opened the doors for such like deal in the future. It was obvious that one deal like Indo-US nuclear deal can destroy whatever steps have been taken to counter international nuclear proliferation. It set a precedent for China to openly commerce in nuclear technology with Pakistan. Chinese Foreign Ministry spokesman, Qin Gang clarified that the, "nuclear cooperation between the two countries was for peaceful purposes and is totally consistent with its international obligations and safeguards of IAEA".[52] After the Chinese confirmation, US Deputy Secretary of States, James Steinberg said that discussions were under way on the question whether per-missible under the safeguards of IAEA. Whereas, US Secretary of State Hillary Clinton raised US concerns about the civil nuclear deal between China and Pakistan.[53] It was not pronounced during Zardari's visit but later in September 2010, it was confirmed by China to help Pakistan in expanding its Chashma nuclear complex by constructing two more nuclear reactors. Time has repeated the situation of 1980s between Pakistan and US on the nuclear program as US cannot stay in Afghanistan without the active support of Pakistan. Despite US concerns, China's main nuclear energy corporation is in talk to build a 1-GW power plant. Pakistani officials believe that these nuclear power plants are important to overcome the energy shortages. Pakistan and China have time and again said that their cooperation is under the safeguards of the IAEA and there should be no concerns about it.

Conclusion

To sum up the story of Pakistan's nuclear program, it can be said that it succeeded to weaponized its program through foreign assistance that came to Pakistan, among other things, from a 137 MW Canadian power reactor, US maraging steel for encasing uranium cores, Flash X rays machines from the Swedish firm Scandiflash,

computers from Norway and a complex assistance from China, rest of the requirements for a complete nuclear program have been developed indigenously. Exactly what the United States government believed it knew about Pak-China nuclear cooperation remains highly secret. Moreover, the records that would shed light on how US tried to reconcile the larger goal of engagement with its two important partners, Beijing and Islamabad with specific concerns about nuclear proliferation issues remain secret. However, China-Pakistan nuclear relationship has always been persistently discouraged by US, whereas Pakistani officials repeatedly denied the allegations and concentrated on the development of Pakistan's nuclear non-proliferation initiatives. Pakistan has always satisfied IAEA with its conformity of accepting safeguards system, it proposed India to establish a NWFZ in South Asia, submitted a proposal for nuclear restraint regime, and proposed so many valuable initiatives which were ultimately denied and rejected by India. Pakistan has mastered in so many technical fields of nuclear technology while ensuring the safety and security of its nuclear arsenals. However, Pakistan's energy requirements compelled Pakistan to convince the Chinese for early completion of energy projects.

Pak-China nuclear cooperation dates back to the era when China was neither the signatory of NPT nor the member of 46-country NSG, whereas Pakistan is still not member of both NSG and NPT. The Indo-US concerns are based on the laws that banish the commerce between a signatory and non-signatory of NPT or between a member and non-member of NSG. However, it would have been better for India and US to consider these arguments when they were finalizing the Indo-US nuclear deal that set precedence by itself. Therefore, they have no legal or moral grounds to object a nuclear cooperation which is now 24 years old and totally consistent with the international safeguards. Moreover, it has nothing to do with the concerns of India and US as it has a legal cover of IAEA

safeguards because it is meant for the production of nuclear energy to overcome the energy crisis in Pakistan.

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