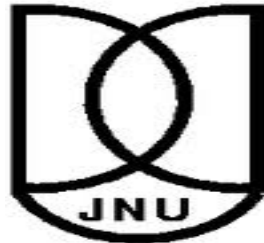


**TRANSFORMATION OF INDIA'S NUCLEAR IDENTITY:
A CONSTRUCTIVIST EXPLANATION**

*Dissertation submitted to Jawaharlal Nehru University
in partial fulfillment of the requirements
for the award of the degree of*

MASTER OF PHILOSOPHY

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Date 20.7.12

DECLARATION

I declare that the dissertation entitled "**Transformation of India's Nuclear Identity: A Constructivist Explanation**" submitted by me in partial fulfillment of the requirements for the award of the degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this University or any other university.

(Smita Singh)

CERTIFICATE

It is recommended that this dissertation be placed before the examiners for evaluation.


(Prof. Swaran Singh)
Chairperson

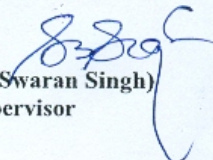

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For any errors or inadequacies that may remain in this work, the responsibility is entirely my own.

(Smita Singh)

ABBREVIATIONS

AEC	Atomic Energy Commission
AERC	Atomic Energy Research Committee
APs	Additional Protocols
BJP	Bharatiya Janata Dal
BARC	Bhabha Atomic Research Centre
CIRUS	Canada India Reactor United States
CMD	Credible Minimum Deterrence
CSA	Comprehensive Safeguards Agreement
CTBT	Comprehensive Test Ban Treaty
DAE	Department of Atomic Energy
DRDO	Defence Research and Development Organisation
DND	Draft Nuclear Doctrine
FMCT	Fissile Material Cut off Treaty
IAEA	International Atomic Energy Agency
IGMDP	Integrated Guided Missile Development Programme
MW	Mega Watt
MTCR	Missile Technology Control Regime
NAM	Non Aligned Movement
NDA	National Democratic Alliance
NFDR	New Framework for India-U.S. Defence Relationship
NFU	No First Use
NNPA	Nuclear Non Proliferation Act
NPT	Non Proliferation Treaty
NSG	National Suppliers Group
NSAB	National Security Advisory Board
NNWS	Non Nuclear Weapon State
NWS	Nuclear Weapon State
NSS	National Security Strategy
NSSP	Next Step in Strategic Partnership
PHWBR	Power Heavy Water Breeder Reactor
PTBT	Partial Test Ban Treaty
PNE	Peaceful Nuclear Explosion
SNEP	Subterranean Nuclear Explosion Project
TIFR	Tata Institute of Fundamental Research
UN	United Nations
US	United States
USSR	Union of Soviet Socialist Republics.

Chapter 1:

INTRODUCTION

The very nature of international system makes the possession of nuclear capabilities a reasonable choice for some states, particularly those that can afford to have them. However, the destructive nature of nuclear weapons makes their possession problematic (Basrur 2009: 2). States have accordingly craved for as well as shunned nuclear weapons. Despite the fact that nuclear weapons have been not used since the bombings on Hiroshima and Nagasaki, their potential use has not been ruled out. Meanwhile, the argument that their use lies in their non-use (deterrence) has gained credibility. Precisely, due to this reason nuclear issue continues to occupy an important space in theoretical discussions of international politics.

As regards India, the last six decades have witnessed a transformation in India's nuclear identity, from an irresponsible nuclear weapon state in 1974 to a target of international sanctions since then and particularly after the 1998 tests, and then to a de facto nuclear weapon power since 2005. India, as often presented as a unique and exceptional case, as opposed to Iran, Pakistan, and North Korea with similar nuclear ambitions that have been labelled as 'rogue states'. India's nuclear behaviour represents a puzzle from the point of view of its own history and for IR theories. A plethora of theoretical perspectives have tried to explain India's path towards nuclearization. Mostly, academicians and policy makers have understood and examined states nuclear behaviour through the realist framework. The role of identity in shaping a state's behaviour, in general and nuclear behaviour in particular has been largely missing. This study tries to analyse constructivist framework to explore the transformation of India's nuclear identity.

Constructivism and International Politics.

The root of constructivism is generally traced to the third debate in IR between the rationalists and the critical theorists that dominated the discipline throughout the 1980s. The collapse of the Cold War stimulated interest in constructivist analysis of world

politics. Both realism and liberalism failed to explain the reasons for the end of the Cold war and thus the limitations of these dominant approaches to IR were exposed. Nicholas Onuf was the first to introduce constructivism into the IR theory debates in 1989 in his book *World of Our Making* (Weber 2001:81). Many scholars like Alexander Wendt, John Ruggie, Peter Katzenstein, Martha Finnemore, Ted Hopf and others have contributed to the evolution of the Constructivist tradition in IR. Constructivism focuses on social construction of world politics.

Distinguishing Attributes of Constructivism

The mainstream IR theories are concerned with ‘why’ questions and are considered as ‘explanatory’, while critical constructivist approach is concerned with ‘how’ questions and is considered as ‘understanding’ (Ulusoy 2003: 163). Constructivism offers alternative understandings of a number of the central themes in international relations theory such as- the meaning of anarchy, the relationship between state identity and interest, an elaboration of power, and the prospects for change in world politics. As a theoretical framework, Constructivism emerged as a critique of the dominant IR theories. Constructivists differ from the realist and liberal paradigms on four fundamental issues.

Firstly, Constructivism challenges the foundational basis of realism and liberalism, that is, a belief in an anarchical international system based on security dilemma and self help. For realists, anarchical system is a “self help system” (Waltz 1979: 105). The fundamental “ordering principles” of international system is anarchy that is defined by the presence of functionally “undifferentiated actors” lacking relations of super and subordination that is distinguished by their “varying capabilities” (Waltz 1979: 88). Constructivists argue that anarchy is not a pre-given system; rather it is socially constructed by the actions, interactions and self- understanding of self. The key point is that “Self-help and power politics are institutions, not essential features of anarchy. Anarchy is what states make of it” (Wendt 1992: 395). There are multiple understandings of anarchy and state action should not be understood only on the basis of self-help.

Secondly, power occupies a central place in both mainstream and constructivist approaches to international relations theory. But their conceptualizations of power are

quite different. Neo-realism and neo-liberal institutionalism assume that “material power, whether military or economic or both, is the single most important source of influence and authority in global politics” (Keohane 1988: 390-391). Constructivism, on the other hand argues that both material and discursive power are necessary for any understanding of world affairs. They are not only concerned with what power means but also what it does whether intentionally or not. Thus, the constructivists examine purpose, that is, the goals actors pursue, with power they have. Constructivist understanding of power involves hard power, institutional power-which can control others in indirect ways and productive power- generated and transformed through discourse. “Power, in short, means, not only the resources required to impose one’s own will to others, but also the authority to determine the shared meanings that constitute the identities, interests and practices of states, as well as the conditions they confer” (Adler 1997:336).

Both realism and liberalism are “explicitly material approaches to world politics” (Reus-Smit and Snidal 2008:300). They seek to look at world events purely in materialist terms like wealth, military strength etc. John Mearsheimer, the proponent of offensive realism noted, “the distribution of material capabilities among states is the key factor for understanding world politics” (Mearsheimer 2001:91). Conventional constructivists follow the same positivist epistemology of rationalist tradition but they differ in ontology by their pronounced emphasis on social ontology. Constructivism proposes that the material forces should be understood through the social concepts that underlie their meanings.

Thirdly, IR theories, particularly realism and liberalism, assume the existence of an objective reality, which states seek to unravel. As Hans Morgenthau writes, “Political Realism believes that politics like society in general is governed by objective laws, the operation of these laws being impervious to our preferences, men will challenge them only at the risk of failures” (Morgenthau 1985: 4). As opposed to both, Constructivism sees the world as “a project under construction, as becoming rather than being” (Adler 1997: 95). For realists, the reality of world politics already exists. But for constructivists, the behaviour of a state is determined by interests and identities, which are neither given nor constant.

Both realists and liberals take states as their starting point of international theory. Constructivists' threat perception is different from realist assumptions. For realists, threats are fixed and objective in nature but the constructivists contend that threats are constructed and these keep changing with time.

Fourthly, according to constructivism, agents and structures are mutually constituted. Drawing from the insights of sociology, Constructivists argue that the question of "who am I?" is both logically and ontologically prior to the question of "what do I want?" and that agents' identities are in turn governed by the normative and ideological structures that they inhabit (Hopf 1998: 175). This is in stark contrast to the realist and liberal position that the structure is prior to the agent.

Constructivism challenges the individualist ontology and methodological epistemology of realism and liberalism. By challenging the individual epistemology, underpinning neo-realism and neo-liberalism, constructivism puts forth its following tenets- anarchy has multiple meanings; power is both materialist as well as discursive in nature; agents and structures are mutually constituted; identities shape state interests.

Variants of Constructivism

There are two broad variants of Constructivism: Conventional and Critical. Conventional Constructivism accepts the positivist canons of inquiry and has a "cognitive interest in understanding and uncovering causal social mechanisms and constitutive social relations" (Adler 2002: 97). In contrast, Critical Constructivism combines subjective understanding with the emancipatory mission. In this social structures are seen oppressive to a section of people or ideas and deconstruction of such power-laden structures opens up new horizons of ideas (Shannon and Kowert 2012: 13). Thus, while conventional constructivists focus on norms and identities, the critical constructivists harp on discourse and power.

However, there are debates within constructivism, the main assumptions of constructivist approach can be stated as follows: First, according to constructivists, the international system "is a set of ideas, a body of thought, a system of norms, which has been arranged by certain people at a particular time and place" (Jackson and Sorensen 2007: 162). They

believe that all data must be “de-contextualised” that is they must be related to and situated within the social environment in which they were gathered in order to understand their meaning (Hopf 2000: 1763). Secondly, both argue that agents do not exist independently of their environment. Norms and shared beliefs constitute actor’s identities and interests that are the way people conceive themselves in their relation with others (Adler 2007: 33). Thirdly, the key structures in the states system are inter-subjective, rather than material. Constructivists emphasize the importance of normative or ideational structures as well as material structures in defining the meaning and identity of an individual. Both highlight the link between power and knowledge. Except its radical post modernism wing, Constructivism “does not challenge science, rationalism and positivism” (Adler 2005: 96). It merely makes all more compatible with constructivist understanding of social reality.

By broadening the contours of international politics theory, the constructivist approach leads to new and meaningful interpretations of international politics. Constructivists emphasize a process of interaction between agents and structures; the ontology is one of mutual constitution, where neither unit of analysis — agents or structures — is reduced to the other and made "ontologically primitive" (Checkel 1998: 326). This opens up what for most theorists is the black box of interest and identity formation; state interests emerge from and are endogenous to interaction with structures (Checkel 1998: 326).

Constructivists favour a social ontology as opposed to individualist ontology of rationalism. According to Katzenstein, constructivists consider states as role players – trying to do what is appropriate or proper to do in a given situation. States conforms to norms not for utility maximization as assumed by rational choice approaches, but because they understand it appropriate and good within the ‘logic of appropriateness’ (Karacasulu and Uzgoren 2007: 37).

State Identity and Nuclear Weapons

In recent years, there has been a vigorous interest in questions concerning identities in social sciences and international relation is no exception to it. The work of Goff and Dunn provides a useful entry point to examine notions of identity. They highlight four

aspects of identity: alterity ('otherness'); fluidity; constructedness; and multiplicity (Goff and Dunn 2004: 4). Identity is a multi-dimensional concept.

The idea of state identity is at the core of constructivist critiques of realism and liberalism. The identity of a state implies its preferences and consequent actions (Hopf 1998: 175). Identity, in constructivist analysis means who the actors are and what they and others perceive their role to be" (D'Anieri 2012: 96). Identity is a core concept in understanding world politics through the constructivist prism.

There exists a crucial difference between constructivism's conceptualization of identities and interests and that of neo-realism. Waltzian neo-realism considers identities and interests as being derived from the condition of structural anarchy, and hence as being immutable and the same for all actors. By contrast, constructivism's insight of identities and interests as socially constructed not only provides an explanation of how states remain in conflict with one another, but also hints at the possibility of overcoming conflict through a radical mutual reconstitution of identities and interests. As Hopf states, "Constructivism conceives of the politics of identity as a continual contest for control over the power necessary to produce meaning in a social group" (Hopf 1998: 174). Consequently, identity is the relational, that is, the inter-subjective nature of identity that accounts for the fluid and multiple features of identities.

A state identity constitutes the distinguishing characteristics of a state, forming the foundation of its self-respect and status. A state understands others, according to the identity it attributes to them, while simultaneously producing its own identity through daily social practice. Constructivists point out the inter-subjective constitution of a state's identity. The process of establishing and maintaining an identity is wrought with insecurity as identities are formed inter-subjectively and therefore are dependent upon the unpredictable responses of others (Markell 2003: 14). In the words of Wendt: "Identities are relatively stable, role-specific understandings and expectations about self" (Wendt 1992: 397). Identity is 'mutually constructed' and involves 'evolving images of self and the other' (Katzenstein 1996: 59). Social identity can explain the choices made by states. Interests and preferences of the states can be explained by identities.

The two broad variants of constructivism understand identity differently. Conventional constructivists wish “to discover identities and their associated reproductive social practices”, and then offer an account of how those identities imply certain action. But critical constructivists “explode the myths associated with identity formation” (Hopf 1998: 184-85). Conventional constructivism accepts the existence of identities and then tries to understand its reproduction and effects. The relation between structures and agent is not one-way but two ways: both construct each other.

Constructivism treats identity as an empirical question to be theorised within a historical context, neo-realism assumes that all units in global politics have only one meaningful identity that of self-interested state (Hopf 1998: 175). Constructivism and neo-realism share the assumption that interests imply choices, but neo-realism further assumes that states have the same a priori interests. Such a homogenizing assumption is possible only if one denies that interests are the products of the social practices that mutually constitute actors and structure (Keohane 1998: 390). Identity is the basis of interests. Identities are multiple, constructivist logic precludes acceptance of a pre-given interest.

Nuclear weapons are seen as serving important symbolic functions; both shaping and reflecting a state's identity. The potency of the nuclear weapons lies in its close nexus with the notion of national interests. In the constructivist perspective, it is not the weapons that matters but the perception of a state towards the state possessing nuclear weapons counts. The variations in importance of nuclear weapons can be best illustrated by the fact that USA considers Iran and North Korea enemies and Britain as a friend. States act differently towards friends than towards enemies because the latter is threatening while the former is not.

Constructivists offer an account of the ‘politics of identity’ (Hopf 1998:192). The principle of identity formation is best expressed by symbolic interactionist notion of ‘looking-glass self’, which asserts that the self is a reflection of an actor’s socialization process (Wendt 1992: 404). The constructivist research agenda incorporates an understanding of how identities are constructed and the role of discursive and materialist power in their reproduction. Identities provide a state a perception about other states’ motives, interests, role and actions.

Explaining India's Nuclearisation Process

There exists a substantial literature, tracing the motivational factors and driving forces of Indian nuclear programme. In accordance with Chakma's (2004) categorisation, there are four explanations for a states process of nuclearisation, namely security concerns, technological and scientific momentum, domestic considerations, national prestige and status.

Security concerns

Conventional wisdom based on realism asserts that insecurity is the most predominant pretext for acquisition of nuclear weapons by states. The anarchic nature of international system makes states insecure and pushes them to rely on themselves for their security (self-help). During the beginning of the Cold War, the two superpowers — USA and USSR — acquired nuclear weapons, in response to perceived threats from each other.

The anarchical nature of nuclear weapons defines the international system by the arrangement of the parts (Waltz 1986). Neo-realists maintain that the stabilizing role of nuclear weapon is because of its 'political effects on statecraft' (Jervis 1988: 82). As Benjamin Frankel notes that a state's decision to build nuclear weapons is a result of its perception of the security equation it faces" (Frankel 1990: 90). Realist argue that the insecurity produced by the anarchic international system compel states to acquire nuclear weapons to address their security concern.

Adherents to realist perspective posit that India conducted the nuclear tests to preserve its national security from regional and global threats. Most importantly, Indian bomb is linked to the Chinese bomb (Chakma 2004:11). Various scholars have underscored the security model as the most pervasive reason for India's nuclear tests in 1998. Bhumitra Chakma posits that India's choice to pursue a nuclear weapons strategy "primarily relates to its perception that its security as a state was best preserved by doing so in a strategic environment dominated by an intractable security dilemma involving itself, China and increasingly after 1974, Pakistan" (Chakma 2009: 12). Ganguly depicts India's pathway to overt nuclear weapons as a zigzag response to external threats and to the failure of the

big powers to provide India with nuclear security (Ganguly1999: 150). He further argues that nuclear threats from China and Pakistan were crucial not only in stimulating and shaping India's earlier nuclear program but also in the 1998 nuclear tests (Ganguly 1999: 172). Bharat Karnad describes the relevance of nuclear weapons to India when he says that, "With the Westphalian system virtually in tatters, countries have ultimately to rely on themselves for their own security — Kenneth Waltz calls it the 'military logic of self-help'- and there are not better means of self protection than nuclear weapons" (Karnad 2008: 9). Even in letters to the world leaders after the tests, India's Prime Minister Vajpayee has pointed out the threat from China and potential nuclear threat from Pakistan as the reason for India going nuclear.

Generally, there are three first image explanations offered to highlight the role of the international system in compelling India to go nuclear in 1998. They are increasing international pressure after the indefinite extension of the NPT and signing of the CTBT in 1998, collapse of the Soviet Union in 1991 and the immediate regional security environment. India's main national-security concern has been the border disputes, a by-product of India's colonial legacy. Nearly 7,000 kilometres of its 16,500km land border is disputed. New Delhi's suspicion that China has aided Pakistan's nuclear and missile programme have sharpened the issue and created a triangular security relationship among the three.

However, the realist logic suffers from certain limitations. This argument fails to explain why only handful of states have gone nuclear in the universal insecure anarchic international system. In the context of India, the regional security environment vis-à-vis China and Pakistan was more stable in 1998, when India conducted the tests compared to earlier years. Moreover, as we will see in the next chapter that India's nuclear programme began way before any concrete threat emanated from China and Pakistan. This view does not explain why India observed nuclear restraint after the 1962 defeat and the subsequent Chinese nuclear tests in 1964. In its strategic relationship with archrival Pakistan, the introduction of an overt nuclear arsenal appeared rather disadvantageous for India. The equalizing effects of nuclear weapons diminish much of India's overwhelming

superiority in conventional weaponry (Fray 2007: 370). The realist argument of nuclear weapons giving a state edge over its rival does not hold water in case of India's 1998 tests.

It should be noted that even the critics of this security argument view it as a partially valid explanation. Scott Sagan pointed out "different historical cases are best explained by different causal models but the largest number of past and even current active proliferant cases are best explained by the security model" (Sagan 1996: 85). Thus, even though realism is the predominant model in explicating the process of weaponisation, it needs to be understood along with other modalities of theoretical analysis.

Technological and Scientific Momentum

The second perspective holds that there exists a link between a state's national security decision-making and the state of military technological development at a given point of time (Chakma 2004: 18). Such a view postulates that key individuals within the scientific and defence establishments play a pivotal role in a state's decision to go nuclear. Also, it argues that by exploding a bomb India wanted to demonstrate its technological efficacy to the international community.

Indian nuclear tests were a by-product of the scientific and technological momentum created by nuclear research and development programme. Itty Abraham, M.V.Ramanna, Srirupa Roy and others advanced such a techno-centric view. India's quest for nuclear weapons were a 'postcolonial state's project of modernity' and also highlights the secretive nature of the Indian nuclear establishment (Abraham 1998: 26). Nuclear technology, have long been seen as an important element contributing to an economic and technical base that could transform India to a modern state.

Analysing 705 nuclear related editorials and opinion pieces published in various English newspapers, Karsten Fray shows that the strategic community comprising of the retired military officials, nuclear scientists and civilian strategists were agents in the creation of public opinion on the nuclear question (Fray 2006: 23) This group of strategists were able to to determine India's nuclear course in two decisive ways: first, through directly and

personally advising India's policy-makers, and second, by guiding public opinion and generating public pressures on the government (Fray 2007: 372). Haider K.Nizamanni (2005) uses the expression "nukespeaks" to delineate the role of this strategic enclave on the nuclear question in India.

Homi J.Bhabha exerted an influential role in almost all decisions related to nuclear establishment and decision-making until his death in 1966. The principal responsibility for nuclear development in India, argues Reiss, can be traced to one individual Homi Bhabha (Reiss 2004: 217). Independent India gave the highest priority to atomic science. Jawaharlal Nehru, India's first Prime Minister, and Dr Homi Jehangir Bhabha, who led the atomic bureaucracy, set up the Atomic Energy Research Committee (AERC) to promote research in nuclear physics at Indian universities as early as 1946. Nehru chaired the first meeting of the AERC just 12 days after independence. Nehru reposed great faith in Bhabha and gave him the authority to run the program as he deemed fit (Karnad 2008: 41).

As an explanatory variable for nuclear proliferation, the techno centric argument entails several shortcomings. This perspective fails to comprehend why India did not go nuclear in 1964 (when Chinese nuclear tests happened) when India had the technical knowhow and the nuclear scientists had an upper hand and total support of Nehru to conduct tests. Further, given the fact that nuclear weapons are seen as political weapons the final say in nuclear decision-making routinely does not rest with the scientific community of AEC but the political leadership.

Domestic Considerations.

The third explanation postulates that the acquisition of nuclear weapons serves the parochial interests of some actors within the state establishment. According to Sagan, there exist three kinds of actors in a state: State's nuclear establishment, military establishment and bureaucratic officials (Sagan 1993:63-64). These three actors, according to this perspective play a paramount role in states acquisition or abnegation of nuclear weapons.

Two domestic considerations have the potential to influence nuclear proliferation. First, states may pursue nuclear ambitions to divert public attention from domestic issues (Dong-Joon Jo and Erik Gartzk 2007: 178). Second, political leaders desire to get electoral gains out of it. In order to score political mileage national leaders use the nuclear card to garner votes and win elections.

Realists recognize that the domestic political actors, having parochial interests have only a marginal influence on national security issues. However, contrary to such assumption, the third explanation argues that domestic political consideration (coming in power of BJP) played a propelling factor in India's overt nuclearization in 1998. Notably, Kanti Bajpai (2009) questions the stated security rationale for India's nuclear weapons programme and asserts that India's claim to acquire nuclear weapons to secure itself against Pakistan and China is misguided. He notes that the Hindu nationalist ideology of the Bharatiya Janata Party (BJP) and the personality of Prime Minister Atal Behari Vajpayee acted as a major catalyst behind India's nuclearisation. It was the ideological inclination of the BJP and the need for the then Indian Prime Minister Atal Bihari Vajpayee to consolidate his power in the coalition government that pushed India towards nuclear acquisition. "The BJP played politics with the bomb", suggests Bajpai, and the nuclear tests consolidated Vajpayee's "hold on his party and the coalition" (Bajpai 2009: 57). The domestic model thus attributes India's nuclear tests to the aggressive political ideology of BJP.

Even though the domestic model has some merit, it over stretches its importance. The argument that Vajpayee government propelled India's nuclear tests misses several key nuclear realities in Indian nuclear history. Successive Indian governments, across party lines have continued to work towards augmenting India's nuclear deftness. Most notably, India conducted its first nuclear tests under PM Indira Gandhi in 1974 and P.V. Narasimha Rao government had also made an attempt to conduct nuclear tests in August 1998. Also, the BJP government was heir to the huge scientific-military nuclear infrastructure that previous regimes of vastly divergent political persuasions had forged (Ganguly 1999: 173). The May 1998 tests would not have been possible in the absence of this well-established nuclear program. However, the applicability of such an argument is questionable. Indira Gandhi lost elections that followed the PNE of 1974 and even the

BJP lost elections after the 1998 tests.

National Prestige and Status

Another motivational factor for nuclear proliferation is based on the presumption that nuclear weapons act as a symbol of prestige and currency of power for a nation. Such a view rests on the assumption that there exists a close relationship between great power status and the bomb. Sagan refers to it as 'nuclear symbolism', that is, nuclear weapons programs serve symbolic functions, both shaping and reflecting leaders' perceptions of appropriate and modern behaviour (Sagan 1997: 74). It is believed that it was prestige that had driven Britain and France to go nuclear.

There is an "enduring and deep-rooted aspiration" of India for a great power status and the possession of an nuclear capability is regarded as a "prerequisite for achieving that status" (Nayar and Paul 2003:3). K.Subrahmanyam has noted,

Nuclear weapons are not military weapons. Their logic is that of international politics and it is logic of global nuclear order... India wants to be a player in, and not an object of, this global nuclear order." (Talbot 1999: 116).

This is largely justified on the grounds that the composition of the Security Council is a function of nuclear status.

The prestige argument suffers from serious limitations. Firstly, Nuclear weapons do not constitute the only basis for acquiring great power status; it needs to be supplemented with economic, political and military capabilities (Chakma 2004: 16). For instance, Japan and Germany are not nuclear powers but are major players in global politics due to their economic and political clout. Second, nuclear weapons programme involves a massive economic and political cost.

As we see, most mainstream explanations about India's quest for acquiring nuclear weapons have been dominantly realist. The widely used realist argument is inadequate in explaining India's acquisition of nuclear weapons. In the vast literature on India's nuclear policy not adequate attention has been given to the shifting nuclear status of India,

manifested in various discourses used to define its nuclear programme.

There is a need to go beyond the security and strategy perspectives and understand how India's nuclear discourses have transformed with changing world politics, with a constant nuclear identity of recognition as a nuclear weapon power. It should be noted that this study does not dismisses the realist perspective, instead it contends that a complete understanding of India's nuclear picture is not possible without taking note of the constructivist analysis.

Objectives and Methodology

The nuclear choices of states are mostly explained through the realist paradigm of security concerns and liberal account of institutional thrust. However, little attention has been given to the constructivist notion of role of identity in understanding India's nuclear behaviour. Through the constructivist lens, this study aims to analyse the meaning attributed to nuclear weapons by India and the range of material and discursive power India has designed to advance that nuclear identity. The notion of identity is central to this study. The broad framework of this study is an adaptation of Alexander Wendt and Ted Hopf's brand of constructivism, particularly related to identity in the context of India's nuclear behaviour.

As identity is the main concept used in this study, it is important to understand its meaning. The identity of a state broadly means a set of preferences driving state actions. In this study, the word is used in the sense used by Alexander Wendt. Wendt viewed identity as a "relatively stable, role-specific understandings and expectations about self" (Wendt 1992:397). It should be noted that the focus on identity does not reflect a lack of recognition for other elements in the constructivist approach, such as norms, culture, and institutions. In so far as identities are the most proximate causes of choices, preferences and action, I concentrate on them.

The objectives of this study are as follows:

1. to explicate the reason behind India's acceptance as a de facto nuclear weapon state.

2. to investigate the link between identity and nuclear weapons.
3. to outline the ways in which India has projected its identity as a responsible power.

What made the international community, which responded negatively in 1998 today consider India as unique case and no longer consider it as target of the non-proliferation regime? I contend that the calibrated projection of India as a responsible stakeholder has facilitated India's acceptance as a de facto nuclear weapon power^{#±} by the global community. Despite being a rank outsider in the non-proliferation community, in the last many years India has invoked various measures for normative adherence with international non-proliferation norms and rules that have helped project its status as a 'responsible state'.

There are various factors which have facilitated India's nuclear recognition such as India's strategic and economic potential, evident in its assertive business community and a world-class culture, along with the potential role as a balancer to rising China, call for democracy promotion, a victim of terrorism, an upholder of anti proliferation, and threat from neighbouring states. The signing of the Indo-US Nuclear Deal in 2008 represented the fruit of many years of careful Indian diplomacy, aimed at establishing its identity as a responsible possessor of nuclear weapons and forging a closer alliance with the US.

There have been some works focusing on the creation of India's nuclear identity through meanings attributed to it. Nizamanni (2003) shows how the nuclear weapons option was gradually converted from a national discourse into a strategic alternative by investing new political meanings to it. From a critical constructivist perspective, Runa Das (2009) in her studies highlight a discursive linkage between political leaders' ideology, articulations of statist identities, and representations of insecurities in India's nuclearisation policies. Fray (2007) writes that the parameters of India's nuclear choice was set by a limited number of strategic thinkers and opinion leaders who created a social

[#] In this study, India has been referred to as a 'nuclear weapon power' and not as a nuclear weapon state since the NPT describes five states, namely the United States of America, Russia, China, France and Britain, as nuclear weapons state who detonated the bomb before 1st January 1968.

reality of its own, in which nuclear weapons became symbols of the idea the strategists have about what India stands for in the world.

The position nations take on nuclear weapons is determined by the idea these nations have about who they are and which role they play in the international arena (Fray 2007:376). In the first two decades after independence, Indian leaders maintained a strong moral and ethical repugnance against the acquisition of nuclear weapons. However, this aversion gradually weakened in the 1980's, and it finally reversed into a pro-bomb attitude that was widely shared by all of Indian society in the late 1990's. Today, nuclear weapons are considered an indispensable element of India's national identity. This study tries to historicise India's nuclear trajectory and highlight not just the way India's nuclear identity has transformed but also how it transformed.

Chapter 2

INDIA'S NUCLEAR JOURNEY

Once a target of the global non-proliferation regime, India is now increasingly recognized as a 'state with advanced nuclear technology'. Nuclear weapons have always been a controversial subject in India's politico-strategic environment. India has always had an ambiguous and uncomfortable relationship with nuclear weapons. During most of its post-independence period, the nuclear discourse in India maintained a strong moral repugnance against the acquisition of nuclear weapons. However, this aversion gradually weakened in the 1980's, and it finally reversed into a pro-bomb attitude that was widely shared by all of Indian society in the late 1990's. Today, nuclear weapons are considered an indispensable element of India's national identity.

Scholars have divided India's nuclear evolution into broad phases based on certain landmark events. Unlike other nuclear weapons state, India started its nuclear programme not for military purposes, but for peaceful purpose. And it stayed focussed on or restricted to peaceful uses for over 50 years since India's independence. Owing to its rich cultural and civilizational legacy and also its robust participation in international affairs, India desired a rightful place in the comity of nations. The evolving identities and interests of India remained closely linked with nuclear decisions and have patterned those decisions at critical historical junctures.

The debates and decisions pertaining to India's nuclear weapons program can be divided into four distinct phases, each of which marked a policy of establishing a India's self identity vis-à-vis the world. The first phase began with the creation of India's Atomic Energy Commission (AEC) in 1948; the Chinese nuclear test in 1964 marked the beginning of the second phase; the third comprises the build up and execution of India's first nuclear test in 1974 and the policy of nuclear ambiguity; the fourth began in the aftermath of the 1998 tests and the signing of the Indo-US Nuclear Deal which marked the acme of India's diplomatic clout and also the transformation in its nuclear identity

Phase I: Nehru's Ambivalence and Bhabha's Insistence (1947- 1964)

The foundation of India's nuclear infrastructure was effectively laid down by two prominent personalities — India's first Prime Minister Jawaharlal Nehru and the Cambridge educated Indian physicist Homi J. Bhabha. To them, nuclear power representing “modernity, potential prosperity, the transcendence of the colonial past, individual and collective prowess, and international leverage” (Abraham 1998: 27).

By the time, India gained independence in 1947, the nuclear age has already begun. Rejecting the Cold War paradigm, India opted for the policy of non-alignment i.e. refraining from the two power blocs and having an independent decision making power under the leadership of Nehru. As an international visionary, Prime Minister Jawaharlal Nehru visualized India as a moral leader, raising the voice of developing countries' for decolonization and independence.

From the very beginning, Nehru stood opposed to acquisition of nuclear weapons and intended to use nuclear technology and know how for peaceful purposes. Nehru's approach towards nuclear decision-making was a product of his aversion for nuclear weapons; non-violent legacy of India's freedom struggle and the horrors of the bombing of Hiroshima and Nagasaki. On 24 July 1957 in Lok Sabha, Nehru declared that “we are not interested in and we will not make these bombs even if we have the capacity to do so and that in no event will we use atomic energy for those most destructive purposes...” (Singh and Sharma 2000: 104).

For Nehru, the scientific object, the atom, was the sign of a new era of human civilization and an epitome of a post-colonial modernity (Abraham 1998: 26). The need of developing atomic energy was justified by Nehru in terms of its historical and scientific necessity. At the end of the Constituent Assembly debate on the Atomic Energy Bill on 6 April 1948, Nehru stated:

Consider the past four hundred years of history, the world developed a new source of power, that is steam- the steam engine and the like- and the Industrial Age came in. India with all her many virtues did not develop that source of power. It became a slave country because of that ... now we are facing the atomic age we are on the verge on ... the point I should like the House to consider is this, that if we are to remain abreast in the world as a nation which keeps ahead of things, we must develop this, we must develop this atomic energy quite far from war. Indeed, I think we must develop this for peaceful purposes... of course,

if we are compelled as a nation to use it for other purposes, possibly no pious sentiments of any of us will stop the nation from using it that way. But I do hope that our outlook in regard to this atomic energy is going to be a peaceful one for the development of human life and happiness and not one of war and hatred.” (Constituent Assembly Debate, 1948)

By developing nuclear technology, Nehru wanted India to utilise the fruits of science for the economic development of the nation.

A. Foundations of Nuclear Organizational Structure

The quest for nuclear knowledge in India started with the Indian Prime Minister Jawaharlal Nehru and Atomic Energy Commission (AEC) chairman Homi Bhabha (Abraham, 1998). The organizational structure of India’s nuclear programme was laid down. In 1945, Bhabha persuaded the House of Tata’s to establish the Tata Institute of Fundamental Research (TIFR) in Bombay. In 1954, the Department of Atomic Energy (DAE) was established to look after matters of atomic energy.

In 1948, Nehru had put forth before the Constituent Assembly an Atomic Energy Act, which was to create an Atomic Energy Commission and the Legal framework for its operations. Modelled on the British Atomic Energy Act, the Act imposed greater secrecy to nuclear research and development than the former did. The Atomic Energy Commission (AEC) was set up in 1948 to develop atomic energy for peaceful use.

B. Development of Nuclear technology

Nehru gave Homi Bhabha autonomy in setting India’s development of atomic energy. It was Bhabha, who drove India’s nuclear programme and gave it a dual use purpose. Bhabha has continually increased his authority on nuclear matters in India. He was the Chairman of Atomic Energy Commission, Tata Institute of Fundamental Research (TIFR), Director of Bhabha Atomic Research Commission and Rare Earth Limited, and Secretary of Department of Atomic Energy. Bhabha not only outlined the directions of India’s nuclear programme, but also determined the diplomacy towards international safeguards on India’s nuclear development.

Bhabha's vision of India developing its atomic energy for industrial development was outlined in the Conference for the development of Atomic Energy held at New Delhi in November 1954. According to him, India would develop atomic energy in three stages. In the first stage, uranium based reactors will be built with Canadian assistance to produce energy. Second, the fuel from the recycled Plutonium would be used to produce nuclear reactors. After fission, the plutonium-thorium fuel would produce uranium-233. This Uranium-233 would be used in the third stage to produce fast breeder reactors. Having an abundant supply of thorium, India would have an unlimited supply of mixed uranium 233- thorium based fuel. The atomic energy according to Bhabha offered "the only chance of raising the standard of living in India" (Perkovich 2000: 27). Realizing India's insufficient supply of natural Uranium resources, Bhabha harped on plutonium for India's development of atomic energy for producing electricity, which potentially would open opportunities for using thorium.

There was no opposition to Bhabha's plan on atomic research and technology. During this phase, the most vocal critic of India's atomic energy policy of Bhabha was Meghnad Saha. He used his position as an elected MP to become a prominent critic of the government's views on a host of issues, particularly atomic energy. In a speech in Lok Sabha in 1954, Saha objected to degree of secrecy and style of functioning of the AEC (Abraham 1998: 73-74). However, Nehru deposited strong faith in AEC and defended it.

C. International motivation

US President Eisenhower delivered the Atoms for Peace speech before the UN General Assembly in 1953, wherein he highlighted the peaceful uses of the atomic energy. In 1955, the United States began training foreign nuclear scientists and engineers and declassifying thousands of documents on matters including plutonium reprocessing. India made use of this opportunity. On Nehru's recommendations Homi Bhabha was made the President of the First UN Conference on the Peaceful Uses of Atomic Energy held in Geneva in 1955.

There was an inflow of British Canadian and US assistance to the Indian nuclear set up. The construction of Apsara nuclear reactor was completed in 1956 with enriched uranium

fuel being supplied by United Kingdom. In pursuance of the Colombo Plan, Canada agreed to build a 40 MW research reactor- CIRUS¹- in 1955 on the condition that it would be used for peaceful purposes. While the reactor was being built, Bhabha proposed to set up a plant called Phoenix at Trombay for extracting plutonium from the spent fuel. Together with CIRUS, the Phoenix plant provided India with its first weapon, grade Plutonium, which was later used by India for the Peaceful Nuclear Explosions in 1974.

The contribution of foreign technology continued unabated throughout the 1960s. The Parliament of India adopted a revised Atomic Energy Act in 1962, which further reinforced the autonomy of the AEC by providing that the “the development, control and use of atomic energy for the welfare of the people of India and for other peaceful purposes and for matters connected therewith”. For the first time, atomic energy became “legally drawn into direct relation with the interest of the state and national security” (Abraham 1998: 102). By bracketing atomic energy into the domain of national security, the act made it impervious of any public scrutiny.

The major flaw in Bhabha’s grand plans was that he overstated the economic benefits of nuclear power. To translate into economic development, energy needs to be backed by infrastructure, capital investment (Perkovich 2000: 31). One of the biggest reasons for the international community in not questioning the Indian quest for atomic energy was Nehru’s constant reiteration of the fact that India will use it for peaceful purposes. Addressing the Lok Sabha on plans of the Department of Atomic Energy, Nehru said, “we are not interested in making atom bombs, even if we have the capacity to do so and in no event will we use atomic energy for destructive purposes.” The twin pillars of Nehru’s grand strategy were “Non-Alignment and Self-Reliance, both sharing a close symbiotic relationship” (Mattoo 1996)

G.G.Mirchandani describes the period 1947 to 1964 as that of ‘nuclear celibacy’ (Mirchandani 1968: 48). Ashok Kapur analysed the general pattern of India’s nuclear activities at three levels - technical, diplomatic and decision-making. Technically, India

¹ Canada India Reactor United States (CIRUS) is a 40 MWT Heavy Water Modulated Research Reactor At BARC, in Trombay. It was supplied by Canada in 1954 but uses heavy water supplied by the United States. It went critical on July 10, 1960.

developed nuclear technology for socio-economic developmental purposes. Science and atomic energy were considered an important instrument for development. Diplomatically, Nehru as an idealist had an unflinching faith in international organisations like United Nations and therefore tried to convince the nuclear weapons powers to eliminate the weapons of mass destruction. Nehru viewed China as a friendly neighbour having strong cultural ties and similar problems. This is echoed in ‘hindi chini bhai bhai’ slogan used during Chou en Lai’s trip to New Delhi in 1954. Nehru strongly opposed all attempts by the major powers at setting up an international authority to regulate the development of nuclear energy, referring to such attempts as ‘atomic colonialism’ (Mattoo and Cortright 1999). There existed duality and ambivalence in Nehru’s nuclear policy making. Nehru’s ambiguous stand on nuclear matters reflected his rejection of absolute power and acceptance of relative power in global politics (Thomas and Gupta 2000).

Meanwhile, from 1947 to 1974, the Indian scientists continued to develop the technological means for producing nuclear weapons within a polity that had moral doubts on the desirability of nuclear weapons and competing priorities (Perkovich 2000: 4). Nehru and Bhabha had outlined India’s approach to the nuclear question after independence. It can be stated that Bhabha and Nehru looked at nuclear weapons as means to provide cost effective electricity, enhanced international prestige and if required, nuclear capability. Even though the nuclear issue dominated India’s foreign policy during Nehru’s time, there was no apparent ‘correlation between nuclear policy and national security concerns’ (Mattoo and Cortright 1999: 57). The Nehru- Bhabha years laid the groundwork of India’s nuclear development and policy-making. In the early years the bureaucracy, the media, the armed forces and the academicians remained almost silent on the nuclear issue. As a result, the Indian public remained largely uninformed and disengaged with India’s nuclear weapons programme.

Phase II: Nuclear Restraint (1962-1973)

A turning point in India’s nuclear policy came in the aftermath of the China-India Border War of 1962. India geared up its defence and military expenditure. Indian decision-makers realised the need for an Indian nuclear weapon to prevent Chinese nuclear

blackmailing (Ganguly 2001). The pro-bomb lobbies stressed the need for early production of the bomb by quoting the remarks of Bhabha on India's capacity and economic feasibility of such and endeavour (Bhatia 1979: 43). Bhabha in a talk on All India Radio on 24 October 1964 declared that 'the explosion of a nuclear device by China is a signal that there is no time to be lost and the only defence against (nuclear) attack appears to be a capability and threat of retaliation' (Jain 1974: 59). The 1962 border war revealed India's vulnerability vis-à-vis China.

A. Chinese nuclear tests

Nehru's death in 1964, followed by the Chinese tests, triggered off immense domestic pressure on Shastri to give up "no nuclear bomb now policy" (Subrahmanyam 1998: 27). For the first time, a real debate on India's nuclear options took place wherein noted political leaders, economists, scientists and social activists participated. Commenting on the first nuclear debate in India, Bhabani Sen Gupta states that,

"Infact, the debate in India on going nuclear was triggered off by the Chinese bomb. But the pressure for the Indian bomb was, from the beginning political rather than strategic, that is, it did not emanate from a widely felt Chinese nuclear threat to India's security. The response to this pressure produced an ambivalent nuclear policy; an unexpressed but implied option to go nuclear with only an insipid political will to do so." (Sengupta1983: 2)

On 22 September 1965, a day before the cease-fire agreement took effect, one hundred members of the Indian Parliament petitioned to Prime Minister Shastri demanding an immediate decision to develop nuclear weapons. The petition referred to the bitter experience of weapons denial by Western governments during the war and emphasized that the security of the country must no longer depend on the 'mercy or whim of so-called friendly countries (Mirchandani 1968: 38)

In December 1963, the Jana Sangh² MP Ramachandra Bade made a formal plea for developing nuclear weapons. On 25 March 1963 he said, "Only those who wish to see

² Jana Sangh was a political Party formed in 1951 by Shyamlal Mukherjee. It was one of the coalition party of the Janata Party which formed Government in 1977. In 1980, its nomenclature was changed to Bharatiya Janata Party with Atal Behari Vajpayee as its President.

Russians or Chinese ruling India will oppose the development of nuclear weapons. I beg the Prime Minister to make full use of our research in atomic energy ” (Chakma 2004: 57).

Ashok Kapur (1970) pointed out two significant changes in India’s defence planning after 1962. First, the nature of threat to India was appreciated more realistically with a growing perception that China posed a long term danger and second deterrence and defence became an important in India’s defence planning and an integral element of Indian diplomacy (Kapur 1970: 784). From this point of time, the China factor played a crucial role in India’s identity of its self-depiction as a “Self” threatened by the “Other”.

B. Positive Assurances

In 1964 at a press conference in London, Prime Minister Lal Bahadur Shastri disclosed India's efforts to obtain a nuclear guarantee from the nuclear weapons states (Noorani 1967: 492). Sardar Swaran Singh, the then Foreign Minister was sent to figure out the views of United States, Britain and Soviet Union on India’s demand for a nuclear guarantee. During a debate on nuclear issue, Swaran Singh revealed the unwillingness of the nuclear weapon states to provide India with a nuclear guarantee. Meanwhile Shastri sanctioned the proposal put forward by Dr. Homi Bhabha for investigating a Subterranean Nuclear Explosion Project (SNEP). He cited economic and political reasons for not favouring such a programme and observed that the possession of nuclear weapons went directly against the policy of peace and nonviolence espoused by Gandhi and Nehru (Chakma 2005: 201). Shastri expressed strong resistance to acquiring nuclear weapons but by giving green signal to SNEP, he continued the policy on nuclear ambiguity.

In 1965, India fought a short but intense war with Pakistan. During the Indo- Pak War of 1965, China provided diplomatic support for Pakistan and threatened to open a second front along India’s Himalayan border. The Soviet facilitation in the signing of the Tashkent Declaration of 1966 restored peace. Shortly after the war ended, around hundred MPs from different political parties (including the Congress)

issued a letter to the Prime Minister in which they wrote, “in the face of the collusion between China and Pakistan, [this] casts a clear and imperative duty on the Government to take an immediate decision to develop our nuclear weapons.” (Mirchandani 1968: 73). With time, the issue of nuclear weapons was increasingly infused with national pride.

Nehru’s daughter, Indira Gandhi succeeded Shastri as India’s Prime Minister in January 1966. Within a span of few weeks, Bhabha died in a plane crash, leaving a ‘huge void into India’s decision- making’ (Perkovich 2000: 113). After Bhabha’s death in 1966, Vikram Sarabhai, succeeded him as the Chairman of AEC. Sarabhai had a strong moral objection to nuclear weapons and was critical of the economic cost such a programme would entail (Perkovich 2000: 121). Sarabhai called off India’s secret SNEP that was proposed by Bhabha and approved by Shastri in mid sixties. While Bhabha believed in the potential of atomic energy for economic development, for Sarabhai atomic weapons were not a solution to the problems of India.

Continuing the endeavour for a nuclear guarantee, Laxmi Kant Jha, Prime Minister’s secretary was sent to Moscow and Washington in April 1967. Amid a number of conditions, United States agreed to offer nuclear guarantee to India. The failure of the nuclear powers to provide meaningful guarantee further exacerbated the demands for developing its own nuclear weapons.

From 1966 to 1970, domestic upheavals contributed in relegating nuclear issues to background. In the 1967 elections, even though the Congress managed to form the national government it lost power in eight states.

C. The Non Proliferation Treaty.

India’s ambitious nuclear development plans clashed with the US led international efforts to tighten safeguards on nuclear fissile materials. Indian delegation to United Nations had played an active role in drafting the non-proliferation treaty. However, after a failed nuclear guarantee, India’s diplomatic stance witnessed a change and there was a reduced sense of urgency in non-proliferation and disarmament matters.

The NPT negotiations started in 1960s. India was a member of the Eighteen Nations Committee on Disarmament and played an active role in drafting the Non Proliferation Treaty (NPT). Sumit Ganguly notes that India's contribution was crucial to the inclusion of two principles in the treaty: that peaceful nuclear energy would be made available to the non-nuclear states, and that non-proliferation was not an end in itself but a step towards universal nuclear disarmament (Ganguly 1999: 155). Despite this, India did not sign the NPT in 1968 on the grounds that it was discriminatory and divided the world into nuclear haves and have nots. Throughout the NPT negotiations, India expresses its concern about China's nuclear weapons and divulged that if the China issue was not addressed, it would opt out of the NPT. In October 1967 Indian Defence Minister Swaran Singh announced in the UN General Assembly that India would not sign the NPT because,

Certain non- nuclear countries could have produced nuclear weapons several years ago had they desired, but have refrained from doing so. It can scarcely be argued that this policy of restraint and self-discipline should result in their being deprived of the benefits of the development of peaceful uses of nuclear technology. While the Government of India continues to be in favour of the non-proliferation of the nuclear weapons, it is equally strongly in favour of the proliferation of nuclear technology for peaceful purposes, as an essential means by which the developing countries can benefit from the best advances of science and technology in this field" (Mirchandani 1968: 149).

India's decision not to sign the NPT, though couched in moral terms was based on a more pragmatic consideration-namely, keeping its nuclear weapons option open. The NPT negotiations marked a daunting challenge for Indian leaders and diplomats. India still required the huge economic aid from the United States and military supplies from USSR.

India was aware that in the given situation defying the international non-proliferation regime in form of NPT would upset the relationships.

The NPT came into force in 1970, India refused to be a party to it. India's foremost reason for opposition to the NPT was its discriminatory nature. However in practical terms, given its security scenario India did not want to close its nuclear weapon option. India's case against the NPT has been "mostly ethical, diplomatic and political" (Cortright and Matoo 1996). India reaffirmed its policy of keeping its nuclear weapons option

open by not being a party to the NPT, the fulcrum of the international non-proliferation regime.

Placating both the pro bomb and the no- bomb lobbies, Indira Gandhi in a Statement in the Lok Sabha on 24 April 1968 noted that,“Policy is framed after due consideration of the national interest, specially with regard to national security...this policy as well as all policies bearing on security is kept under constant review.” She also warned the House “not signing the NPT may bring the nation many difficulties. It may mean the stoppage of aid and stoppage of help. Since we are taking this decision together, we must be all together in facing its consequences” (Jain 1968: 201-202).

D. Regional crisis and US blackmailing

In 1971, a war broke out between India and Pakistan over the Independence of East Pakistan. The United States ordered the deployment of an aircraft carrier USS Enterprise along with nine supporting warships at the Bay of Bengal. Even though US declared that its objective of deployment was to evacuate the Americans from East Pakistan. This ‘gunboat diplomacy’ of United States offended India. Dr. Henry Kissinger has described in his book *The White House Years*, how he tried to pressurize China to intervene against India and the Chinese refused to do so fearing Soviet reaction (Khanna 2000: 51). The then Vice Chief of Naval Staff, Vice Admiral M. R. Schunker observed in the early 1980s: “[T]he memory of “Exercise Enterprise, 1971” should alert us to the danger that superpower nuclear threats are not necessarily confined to mutual deterrent postures: that in certain scenarios, that threat can be directed against us also.”(Chakma 2005: 212). The USS enterprise not only heightened India’s security concern but also its opposition to the NPT.

The nuclear weapons entered into the dominant security discourse only after the 1962 debacle. The bomb represented modernity, transcendence of the colonial past, national prowess and international leverage (Abraham 1998: 27). A large section of Indian public shared the desire for a bomb. In a public opinion survey in 1970, two out of three people interviewed wanted India to have an independent nuclear deterrent (Ziba 1991: 52). Three wars within a span of 15 years brought into light the complex security environment

facing India. This realization led to a dampening of call on global nuclear disarmament and more on searching for nuclear umbrella for India.

Phase III: From Restraint to Ambiguity (1974- 1998)

The Indian official position since the 1974 tests has been that of ‘ambiguity’. The nuclear option is kept in an ambivalent state, where it is “neither operationalised nor foreclosed” (Chari 1995: 102). Till 1974, India’s nuclear programme had been kept state secrecy. India incessantly championed the call for global nuclear disarmament but refused to give up its own nuclear development programme, which was believed to be ‘peaceful and purposeful’. For over two decades, India pursued a policy of nuclear ambiguity — neither denying nor confirming its pursuit of a military nuclear programme.

A. Pokhran I

India conducted its first nuclear tests on 18 May 1974 at a desert village of Lokhani, near Pokhran in Rajasthan. It was dubbed as a ‘Peaceful Nuclear Explosion’ (PNE). Subsequently, the Defense minister Jagjivan Ram, two scientists — R. Chidambaram and R.Ramanna maintained that the tests have no military implications and were aimed for peaceful purposes. Raja Ramanna, the chief architect of the 1974 test wrote that:

The 1974 explosion came as a surprise to the world. They hadn’t expected such an achievement from a developing country ... their criterion for measuring success was different in the sense that they judged the success of a country by its material acquisitions and its overt proof of development ... India didn’t conform to any of these, and in this context alone it seemed somewhat relevant when the Western world expressed bewilderment, coupled with fear and panic at the success of Pokhran” (Ramanna 1991: 92).

The tests proved to be a setback for India’s nuclear programme. The United States and Canada withdrew nuclear cooperation and the international technology control regime was tightened. Canada felt betrayed at India’s use of the CIRUS reactor as the source of plutonium used in the test. The United States introduced the 1976 Symington Agreement to the foreign Aid Bill, which imposed a restriction on certain kinds of economic and military assistance to countries that received enrichment technology and materials

without full scope IAEA safeguards and the U.S. 1978 Nuclear Non Proliferation Act which set aside its 1963 Agreement with India and the supply of uranium for the Tarapur Plan was a topped. At the multilateral level, the London Suppliers Group (later called the Nuclear Suppliers Group) was formed in 1975 that sought to control the export and transfer of nuclear technology and know how.

The domestic consequences of the tests were beneficial as it led to a surge in support of the Congress Government. Indian public opinion polls taken in June 1974 reported, for example, that a full 91 percent of the adult literate population knew about the explosion and 90 percent of those individuals answered in the affirmative when asked if they were "personally proud of this achievement." (Sagan 1996: 68). However, the sharp international reactions, which the test evoked, astound the political and scientific leadership and the nuclear program became increasingly indigenous. At the regional level, Pakistan accelerated its nuclear weapons development. Pakistani PM Bhutto declared that the 1974 test was a "fateful development" (Perkovich 2000: 185).

Both 'structural and proximate factors' (Ganguly 1999: 158) led to the nuclear tests in 1974. At the international level, the continuous failure of the major powers to address India's security concerns and a change in leadership at the domestic front led to a marked shift in India's nuclear policies. No authoritative public chronology exists regarding the peaceful nuclear explosion of 1974 (Perkovich 2000: 170). Raja Ramanna (1976) in his autobiography notes that "only a few select people" were involved in the decision to test. They included P.N.Haksar, the former principal secretary to the prime minister; D.P.dhar; Homi Sethna, the then Chairman of AEC; B.D.Nag Chaudhari, scientific adviser to the defence minister; and Ramanna. Swaran Singh, the Minister of External Affairs, was informed forty-eight hours before the impending detonation and the Defence Minister was informed about the test only on May 8 (Kapur 1976: 82). The decision to explode PNE was restricted to a handful of persons.

Indira Gandhi based India's foreign policy on realistic considerations and signed a twenty-year treaty of peace, friendship and cooperation with the Soviet Union in August 1971. National emergency was declared in 1975 on grounds of internal disturbances. Political survival became the dominant issue on Indira Gandhi's agenda, pushing the

nuclear question to the back. The emergency was put to an end in 1977 and fresh elections were conducted. Indira Gandhi and her Congress Party lost power.

Moraji Desai, a Gandhian and a strong opponent of nuclear weapons, took over the Indian leadership in 1977. He was an ardent opponent of the nuclear weapons. Even though he began by publicly rejecting nuclear weapons, but soon acceded to the old policy of nuclear ambiguity. He was against 'nuclear explosions' but not 'blasts' (Subrahmanyam 1980:4). He also refused to sign the discriminatory NPT and demanded a complete and time bound programme for global nuclear disarmament. Desai's coalition government collapsed in 1979 and Charan Singh succeeded him. Charan Singh's administration made it clear that India would keep her nuclear options open and added a new rationale in the Indian quest for the bomb: Pakistan. During his brief tenure Charan Singh officially expressed concern about Pakistan's nuclear weapons programme (Chakma 2004: 94). Thus the Indian threat perception expanded to include Pakistan along with China.

Following the Soviet invasion of Afghanistan in 1979, The U.S.-Pakistani relations reinvigorated. Unhappy with the potential transformation of the South Asian security situation, India turned to USSR for military assistance. India in return of Soviet arms procurement concessions, abstained from UN Resolution condemning the Soviet occupation of Afghanistan.

B. Renewed Interest in nuclear weapons

Under the Prime Ministership of Rajiv Gandhi from 1984, India continued pursuing the policy of nuclear ambiguity. He ventured into the policy of "military modernization and naval expansion" by intervening in the civil war in Sri Lanka by sending a peace keeping force there and by raising alarm of a war with Pakistan by conducting a military exercise- Operation Brasstacks (Basrur2001:187). In the United Nations General Assembly's Third Special session on Disarmament, Rajiv Gandhi proposed a comprehensive plan of nuclear disarmament known as Rajiv Gandhi Action Plan. Under the leadership of Rajiv Gandhi, India made the decision to acquire the missiles and other

technologies and to develop effective nuclear deterrent (Subrahmanym 1998: 44). Like Nehru, Rajiv Gandhi also pursued a dual policy — proposed global nuclear disarmament on one hand, while the scientific-nuclear establishment received a boost on the other hand.

The Defence Research and Development Organisation (DRDO) started the Integrated Guided Development of Missile Programme (IGDMP) in 1983 with the aim of achieving self-sufficiency in field of missile development & production. It comprises of five core missile programs — the strategic Agni ballistic missile, the tactical Prithvi ballistic missile, the Akash and Trishul surface-to-air missiles and the Nag anti-tank guided missile. Thus, IGDMP represented a “monolithic scientific industrial edifice” unparalleled in any other area of development in India, military or civilian” (Banerjee 1990: 101). Under the leadership of A.P.J.Kalam, the DRDO successfully testfired Agni - India’s first inter- mediate range Ballistic missile in 1989.

A series of real world developments in the 1990s like continued U.S military aid to Pakistan, the growing China-Pakistan military nexus, Pakistan’s increasing nuclear capabilities, collapse of USSR, Brasstacks military exercises in 1987-88, indefinite extension of NPT, adoption of Comprehensive Test Ban Treaty (CTBT) led to rethinking of India’s nuclear strategy. During the 1990s, there was deterioration in India’s security environment. There was not only a perceived renewal of Pakistani threat but also rise of internal insurrections in Kashmir. The indefinite extension of the NPT demonstrated to the Indian leaders, scientists and strategists the desire of the ‘nuclear haves’ to cap India’s nuclear capability. It was against these developments that nuclear weapons were seen as an instrument that can solve strategic, domestic and national problems.

The disintegration of the Soviet Union had widespread implications on India’s strategic situation. It meant the loss of a reliable veto-wielding partner. The Clinton administration introduced the Brown Agreement in 1995, which overriding the Pressler Agreement allowed economic and military assistance to Pakistan without any conditions. This renewed American arms transfer to Pakistan. All these, invariably heightened India’s security concerns. It is in this scenario that Prime Minister Narasimha Rao gave a go for preparations for a nuclear tests in December 1995. However, under the American

pressure he called off the tests. This ‘near test’ challenges the domestic imperatives argument for the Indian tests in 1998.

C. The CTBT

Following two years of negotiations, the Comprehensive Test Ban Treaty featured high in Geneva. The politico-strategic enclave within India argued that India has been a prime target of the CTBT and the proposed FMCT. These two instruments were seen as the “dragnet strategy” to capture those not in the NPT (Chellaney 1999: 165). India had three pre conditions for signing the CTBT. First, the nuclear weapon state should agree to a time bound and complete disarmament plan. Second, the entry into force clause was unacceptable to India as it was thought to be aimed at curbing India’s nuclear programme in particular. Thirdly, the treaty allowed computer simulation of nuclear tests and also hydronuclear tests, so it was not really comprehensive in nature.

Arundati Ghose India’s ambassador to the Geneva talks on CTBT expressed India’s anguish by saying that “the right to continue development and refinement of nuclear arsenals (of the five nuclear countries) is being sought to be legitimised through another flawed and eternal treaty” (Ghose Statement in UN General Assembly 1996). India faced immense international pressure to sign the treaty but even greater domestic pressure not to do so. As the Times of India noted that, “India has hardly ever been so united internally or so isolated internationally as on the issue of Comprehensive Test Ban Treaty”

Despite, India’s opposition, the treaty was unauthorizedly shifted to the UN General Assembly, where it was passed on 10 September 1996 by an overwhelming majority. Between 1974-1998, the Indian debate about nuclear weapons largely revolved around whether India should go nuclear, not what India should do with nuclear weapons. Simultaneous with the nuclear debate on CTBT, India’s relationship with the United States, United Nations and its South Asian neighbours witnessed an upsurge. The Gujral Doctrine was announced in September 1996, Chinese President Jiang Zemin visited India in November, Indo-Pak talks resumed.

During 1997-1998, three governments ruled the country within a span of one year. Following Rajiv Gandhi's footsteps, successive governments under P.V.Narasimha Rao and I.K.Gujral had seriously considered nuclear tests but refrained from it owing to US pressure and their assessment of the social and economic costs of such tests (Raja Mohan 2008). In December 1995, a report by the New York Times put forth that US spy satellites had 'recorded scientific and technical activity at the Pokhran test site in the Rajasthan desert in India (Weiner 1995). The Pakistani test of Ghauri, an intermediate range ballistic missile, on April 6, 1998 triggered off India's politico-strategic environment.

Nuclear ambiguity allowed India to pursue multiple goals such as a principled stand on nuclear disarmament, dual use technological capabilities, a fairly autonomous foreign and security policy, and an elevated status internationally. Indian nuclear diplomacy followed a two-pronged approach between Pokhran I and Pokhran II —while keeping its nuclear option open India vigorously bargained a commitment from the N-5 for the eventual elimination of their nuclear weapons within a reasonable time frame. During this period, India's nuclear capability was best described by Jasjit Singh as 'recessed to non-weaponised capability', where India does not have a declared nuclear weapon programme but has a technological base that is more than adequate to achieve weaponization at short notice (Singh, Jasjit 1998: 9).

Phase IV: Crossing the Nuclear Threshold

Astonishing its own people and the international community, India conducted three nuclear tests on May 11, followed by two more tests, two days later. Long suspected of being a nuclear weapons state, India finally came out of the nuclear closet (Malik 1998: 191). Pakistan followed suit and conducted five nuclear tests at Chaigai Hills on May 28. Nawab Sharif, the then Prime Minister of Pakistan declared, "Today we have settled a score" (Anderson and Khan 1998). The Indian and Pakistani nuclear tests aggravated concerns about regional instability in South Asia.

A. Rationale

Shortly, after the 1998 tests, Indian Prime Minister wrote a letter to the then US President George Bush linking India's nuclear tests with the deteriorating security environment in the region. In the letter to the U.S President Clinton, Vajpayee stated that:

We have an overt nuclear weapon state on our border, a state which committed armed aggression against India in 1962... That country has materially helped another neighbour of ours to become a covert nuclear weapons state. At the hands of bitter neighbour we have suffered three aggressions in the last 50 years. And for the last 10 years we have been the victim of unremitting terrorism and militancy sponsored by it in several parts of our country.

In a Statement on the nuclear tests in Pokhran in Lok Sabha on May 27, 1998, Prime Minister Atal Behari Vajpayee declared that,

India is now a nuclear weapon State. This is a reality that cannot be denied. It is not a conferment that we seek: nor is it a status for other to grant. It is an endowment to the nation by our scientists and engineers. It is India's due, the right of one-sixth of humankind. . Our strengthened capability adds to our sense of responsibility. We do not intend to use these weapons for aggression or for mounting threats against any country; these are weapons of self-defense, to ensure that India is not subjected to nuclear threats or coercion. We do not intend to engage in an arms race.

Further, Vajpayee quoted Gita (Chapter VI-3) to explain India's precarious position:

"Arurukshormuneryogam Karma Karanmuchayate

Yogarudharya tasyaiv shamah Karanmuchayate"

(Action is a process to reach a goal: action may reflect tumult but when measured and focussed will yield its objective of stability and peace).

The BJP's campaign manifesto, called the National Agenda For Governance promised the country's first ever-strategic defence review. The National Agenda For Governance noted that "to ensure the security, territorial integrity and unity of India we will take all necessary steps and exercise all available options. Towards that end we will re-evaluate the nuclear policy and exercise the option to induct nuclear weapons" (National Agenda for Governance 1998).

B. Implications

The 1998 tests stimulated global opprobrium. All political parties congratulated the scientists and showed a sense of elation. However, the tests evoked strong condemnation

from the international community. One hundred and fifty-two individual states spoke out against the tests (Talbot 1999: 110). The World Bank delayed the consideration of several major loans to India disrupting plans for a series of key infrastructure projects (Malik 2006: 206). The UN Security Council passed Resolution 1172 that condemned the Indian and Pakistani nuclear tests and urged the two countries to sign the NPT and CTBT “without delay and without conditions” (Narlikar 2006: 67). On May 13, 1998 USA imposed sanctions on India pursuant to Section 102 of the Arms Export Control Act, also known as the Glenn Amendment” (Raja 2003). The international community stopped imposed economic sanctions and stopped all foreign aid to both India and Pakistan.

The tests were seen as “a double setback: for peace in South Asia and for international efforts to stop the spread of nuclear weapons” and control of the proliferation of weapons of mass destruction (Talbot 1999: 110). The immediate scholarly articles highlighted a grave situation in South Asia, comparing it with the Cold War confrontation between USA and USSR.

The tests undermined the NPT just when it appeared to be in the process of consolidation. Within some time, powers of the world, including United States, France, Russia stated backdoor engagement with India. The most prominent being the Strobe-Talbot dialogue that started within a month of the nuclear tests. China, whose initial reaction to the first set of tests had been muted, reacted viciously after India identified her threat perceptions to the major powers immediately after the tests, as arising from the Sino-Pak axis of nuclear cooperation (Ghose 2009: 435). The official government documents presented the regional threat, emanating from two hostile neighbours as the predominant cause for India’s overt nuclearisation in 1998.

Much concern has been voiced on the ramification of overt nuclearisation of India and Pakistan and its impact on the peace and stability of the region. Broadly three positions emerge from the writings by security analysts and academician. First, a group of writers posit that nuclear weapons would provide peace and stability in the region by means of deterrence. Second view is that of those who advocate the renunciation of nuclear weapons. Third position is that of the status quoist.

C. India's Nuclear Doctrine

Subsequent to the tests, Indian Government stated that India will now observe a voluntary moratorium and refrain from conducting underground nuclear test explosions. On 17 August 1999, the National Security Advisory Board released a the “Draft Report of National Security Advisory Board on Indian Nuclear Doctrine.” The draft, a short document of 4 pages, divided into 8 parts, has not been accepted or endorsed by the Government of India. Kanti Bajpai outlines seven broad features of the doctrine. The seven elements are as follows: -

- Minimum Deterrence
- No First Use (NFU) and non-use of nuclear weapons against non- nuclear weapon states.
- Programme of missile testing
- Moratorium on nuclear tests and accession to the Comprehensive Test Ban Treaty (CTBT).
- Negotiating a Fissile Materials Cut-off Treaty (FMCT).
- Export controls
- Promoting global nuclear disarmament (Bajpai 2000: 268)

In January 2003, India's Cabinet Committee on National Security released a brief press statement (of just 349 words) that revealed some aspects of the ‘official’ nuclear doctrine. From the press statement, it is unclear when this doctrine was formulated and its relationship to the 1999 doctrine. K.Subrahmanyam has elucidated the relationship between the two doctrines by saying that “the latter document shows that the cabinet committee on national security has...accepted the draft nuclear doctrine. (Mia and Ramanna These two doctrines are analysed in details in the fourth chapter.

When the political leadership was ecstatic about the nuclear tests, the strategic community contended that the nuclear weapons have limited use in the present scenario. One of the leading strategic commentators, C. Raja Mohan wrote in 2008 :

Nuclear weapons are certainly important. And India's decision to acquire them was long over due. But in the flush of becoming an atomic power, India could easily overstate the significance of nuclear weapons. They can only serve a limited purpose for India—of preventing the use or threat of use of nuclear weapons by its adversaries against it. There is little else that nuclear weapons

can do... The productive economic and political engagement of the world must remain the bedrock of nuclear India's diplomacy (Tellis 2001:266).

A similar view was echoed by Jasjit Singh, when he noted that the only reason India needs nuclear weapons "is to provide insurance against nuclear threat." (Jasjit Singh 1998).

D. Indo-Pak Tensions

Despite the claim of nuclear hawks that nuclear weapons would prevent war. Within a year of the tests, India and Pakistan were entangled in the Kargil War. Nuclear weapons served to encourage senior Indian and Pakistani officials to issue nuclear threats; by one estimate, at least 13 indirect and direct nuclear threats were made (Bidwai and Vanaik, 1999, vii). Peter Lavoy notes that the Kargil case "is consistent with a looser perspective on nuclear deterrence's" wherein he suggests that limited wars are possible between nuclear weapons (Pant 2010: 393). Many scholars thought that the Kargil conflict, the first nuclear crisis of the subcontinent, would lead to the nuclear tipping point. Both India and Pakistan maintained an unexpected nuclear restraint. For the first time, USA came in support of Indian stance on Kashmir even though in an indirect way.

The attack on the Indian Parliament on 13 December 2001 triggered another crisis. The initial response to the attack was diplomatic: a verbal demarche was issued to Pakistan, seeking action against two terrorist organizations- Lashkar-e-Toiba (LeT) and Jaish-e-Mohammad (JeM). These diplomatic measures were buttressed on 19 December by the full-scale mobilisation and deployment (Operation Parakram) of an estimated 700,000 soldiers to forward positions on the border with Pakistan. This constituted the most important aspect of Indian 'coercive diplomacy' towards Pakistan (Roy-Chaudhary 2003: 280-81). Prime Minister Vajpayee warned. "No weapon would be spared in self defence. Whatever weapon was available; it would be used no matter how it wounded the enemy" (Shukla 2002). All these developments led many commentators to believe that the South Asian nuclear flashpoint has finally arrived.

The military contest between India and Pakistan in 1999 and 2001-02 brought home the

lesson that having nuclear weapons at their disposal, leaders in both India and Pakistan are willing to use them to make threats during a crisis to try “to force a resolution on their own terms and incite international attention and intervention” (Zia and Ramanna, 2008: 203).

Responding to Pakistan’s strategy of using nuclear threats to rouse international attention, Indian Army came up with the war doctrine called ‘Cold Start’ in 2004. This doctrine aims to give India the capability to “shift from defensive to offensive operations at the very outset of a conflict, relying on the element of surprise and not giving Pakistan any time to bring diplomatic leverages into play vis-à-vis India”(Mian and Ramana 2008:203). The Pakistani military has publicly laid down various “red lines” that would result in their using nuclear weapons. Pakistani General Khalid Kidwai highlighted certain scenarios in which Pakistan might be forced to use nuclear weapons) India attacks Pakistan and takes away large parts of its territory; b) India destroys a large part of Pakistan’s army; c) India imposes an economic blockade or limit access to river water; or d) India creates political instability or large scale internal subversion in Pakistan (Martellini and Cotta-Rausino, 2002: 91). As opposed to commonly held theories, instead of fighting by weapons, India and Pakistan fought by words and announcements of provocative policies.

Conclusion

India’s nuclear programme has evolved gradually rather than drastically. The process of making nuclear choice arose from India’s own understanding of itself and the world order. In the initial phases, Indian nuclear programme was conceived as an instrument of economic development. Atomic science and development assumed a significant role in the technological development and the modernization of the country. Then India pursued the policy of keeping ‘nuclear option open’ by not being a party to the NPT.

India’s decision to conduct nuclear tests and formally declare itself a nuclear weapon state marks an important historical transition. At the regional level in South Asia, India

and Pakistan have moved from one nuclear plateau, characterized by a shadow capability, to another, where each country has a demonstrated nuclear capability. At the global regime level, for the first time since the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), two states have attempted to replicate the visibility of the nuclear force architecture and doctrines of the *de jure* nuclear weapon states (NWS). India has now signaled a willingness to put its historical nuclear disarmament agenda on the back burner and join the global non-proliferation regime in exchange for tacit recognition of its *de facto* nuclear status.

Since independence, India's nuclear discourse have been mostly propelled by the international nuclear regime, but its response has been indigenous — a mix of its strategic culture and age-old moral values that are refreshed during independence struggle by the Gandhian outlook. Public opinion and government policy in India tend to become increasingly nationalistic and defy whenever new restrictions are imposed on its nuclear programme. This was true in the case of the Non-Proliferation Treaty in 1968, the Comprehensive Test Ban Treaty in 1995, and after the 1998 tests at Pokhran (Paul and Shanker 2007: 114). The overt nuclearisation of India in 1998 does not mark a shift in India's nuclear ambitions: it merely led to exercise of the reserved option.

Chapter 3

THE INDO-US NUCLEAR DEAL: ISSUES AND IMPLICATIONS

India and United States of America inked a watershed strategic agreement during Indian Prime Minister Manmohan Singh's visit to Washington D.C on 18 July 2005. US President George Bush acknowledged India as a "responsible state with advanced nuclear technology" and thereby expressing an implicit recognition to India's nuclear identity. The Indo-U.S Civilian Nuclear Agreement, signed in 2008 draws a new roadmap for ripening relations between United States and India. The Indo-US Nuclear Deal, though apparently driven by India's increasing energy needs and the desire of United States to forge a strong strategic alliance with India, is not as simple as it looks. It is one of the "most controversial deals, in recent history (Tasleem 2008: 7). It has not only altered the bilateral equations between the concerned party states but also is believed to have regional and global ramifications.

Indo-U.S Nuclear Relations: A brief history

The relationship between United States and India has been roller coasters ride, starting from aloofness in the early part of the Cold War years, to strategic cooperation in the aftermath of the India-China border war of 1962, to acrimony during the 1970s when India was seen as an ally of USSR and to a gradual rapprochement after the end of the Cold War and liberalization of the Indian economy.

Throughout the Cold War, Indo-US relations were marked by 'missed opportunities', despite many 'shared interests and political values' (Pillai Rajagopalan 2001: 1). This uneasy relationship was a direct outcome of Nehru's refusal to join the American led western bloc and his policy of non-alignment. American President Dwight Eisenhower the Atoms For Peace speech in 1953 popularised the idea of the peaceful uses of atomic energy. During the 1950s, the United States fostered nuclear cooperation with India in the form of building nuclear power reactors at Tarapur, providing heavy water for the CIRUS research reactor and allowing Indian scientists to keep themselves abreast of nuclear

technology and knowhow at U.S nuclear laboratories. It was only in the early 1960's that India and the United States negotiated an agreement under which the US companies took the task to construct 200 MW twin Power Reactors at Tarapur. The plant was commissioned in 1969 (Abraham 1998: 91). This initiated bilateral cooperation between India and US in the field of nuclear technology.

After the China-India war of 1962, an agreement was signed between the Government of India and the Government of United States of America on 8 August 1963, known as the Indo-U.S Nuclear Cooperation Agreement of 1963. The Agreement stipulated that US would sell all requirements of the Government of India for enriched uranium required for the Tarapur Power plant (U'S' Department of State 2007). In return, India agreed to only use enriched uranium fuel provided by United States (Article II A) and allow IAEA verifications that the fuel is not diverted to military uses (IAEA Information Circular 1971).

The budding relationship between the two started souring with the discussions on the NPT and India's nuclear test in 1974. India conducted its first nuclear test in 1974 and labeled it as 'Peaceful Nuclear Explosion' (PNE). In reaction to the test, USA mobilized all states and formed the London Suppliers Group — an international export control regime for nuclear related trade — later called the Nuclear Suppliers Group (NSG). At home, United States enacted the Nuclear Non Proliferation Act (NNPA) of 1998, which amended the Atomic Energy Act of 1954. This Act mandated that for receiving nuclear exports from USA, non nuclear weapon states like India require to place all its civilian nuclear facilities under IAEA full scope safeguards. By opting to remain outside the NPT and refusing to accept full scope safeguards under IAEA, India remained isolated from the global nuclear trade regime for almost three decades.

Strobe-Singh Dialogue

The Indian tests of 1998 again led to a setback in India's relationship with USA. US adopted a 'dual strategy of containment and estrangement' in reaction to India's nuclear tests (Rai 2009: 4). Even though USA imposed sanctions on India in keeping with the Glenn Agreement, it also "began to treat India more seriously than ever before" (Mohan

2003: 25). The then US President Bill Clinton stated that ‘he was deeply disturbed by the nuclear tests’ and accused India of making a ‘terrible mistake’ and being on the ‘wrong side of history’ (Ram 1998: 11). However, after the immediate reaction of anger and disapproval, there was a strategic engagement between the countries in the form of Strobe-Singh Dialogue.

The then US deputy Secretary of State Strobe Talbott met fourteen times at ten locations in seven countries on three continents with Indian External Affairs Minister Jaswant Singh in an effort to bring New Delhi more in alignment with the arms control and non proliferation goals of US. These talks were considered to be the ‘the most intense and prolonged set of exchanges ever between America and Indian officials at a level higher than officials’ (Talbott 2004: 4). The main objective of the talks was to reconcile India’s security interests with US global non-proliferation interests.

Even though the immediate purpose of the dialogue remained unfilled, the personal rapport between the two raised the level of trust between the two governments, paving the way ahead for a broadening of bilateral relation and President Clinton’s visit to India in 2000. US President Bill Clinton’s six day visit to India in March 2000 was highly successful resulting in an important document, namely, ‘U.S- India relations: A vision for the 21st century’ (also called the Delhi Declaration) signed between US President Bill Clinton and Indian Prime Minister Atal Behari Vajpayee (Embassy of India 2000).

Strategic Cooperation under Bush Administration

It was under the Bush administration that the parameters of Indo-US relation were re-defined. India’s increasing significance within the new Bush administration became apparent in the National Security Strategy (NSS) that was issued in the year 2002. In the Strategy, reference to India was made at five different instances, with varying connotations (Tasleem 2008: 24). The NSS 2002 states,

The Administration sees India’s potential to become one of the great democratic powers of twenty first century and has worked hard to transform our relationship accordingly ... Differences remain, including over the development of India’s nuclear and missile programs, and the pace of India’s economic reforms. But while in the past these concerns may have dominated our thinking about India, today we start with a view of India as a growing world power with which we

have common strategic interests. Through a strong partnership with India, we can best address any differences and shape a dynamic future” (The National Security Strategy of United States 2002).

In 2004, the Next Step in Strategic Partnership (NSSP) was announced. President Bush declared that

The US and India agree to expand cooperation in three specific areas; civilian nuclear activities, civilian space programs and high technology trade. In addition, we agree to expand our dialogue on missile defence. Cooperation in these areas will deepen the ties of commerce and friendship between our two nations, and will increase stability in Asia and beyond. The proposed cooperation will progress through a series of reciprocal steps that will build on each other” (U.S. White House 2004).

In July 2005, a series of reciprocal steps were taken By India and US. These included expansion of bilateral commercial satellite cooperation and removal of certain US export license requirements for certain low level use dual items.

Another marked development in Indo-US association was the ‘New Framework for India-U.S. Defence Relationship’ (NFDR) signed between US Defence Secretary Donald Rumsfeld and Indian Defence Minister Pranab Mukherjee on June 28, 2005. It was a ten year defence pact and consisted of a number of elements Joint Weapons Production, Cooperation on Missile Defence, Transfer of technology, Induction of Advanced Weapons Systems, Co-production, Deployment of Indian troops in undefined US-led ‘multinational operations around the world (Rajghatta 2005).

During the Cold War, the Indo-US relationship, according to Strobe Talbott was “a victim of incompatible obsessions — India with Pakistan and America’s with the Soviet Union” and both were guilty of being on best terms with “each other’s principal enemy” (Talbott 2004: 7). After the end of the Cold War, there has been a change in US approach towards India. There has been a growing realization that cooperation and not apathy should define their bilateral relationship. The 9/11 attacks on Pentagon has brought to the fore the common shared values of democracy and shared goal of fighting terrorism that the two countries have.

New Framework of the Indo-US Civil Cooperation

The Indo-US Nuclear Deal of 2008 testifies the thriving of trust between India and the United States. Condoleezza Rice, the then U.S Secretary of State visited India in March 2005 as part of her Asia tour and put forth “an unprecedented framework for cooperation with India, something that took the Indian government by surprise” (Mohan 2006: 57). Rice shifted the terms of the debate completely by declaring that the Bush administration was willing to consider civilian nuclear energy cooperation with India. A few days later, the State Department announced the administration’s new India policy, which declared its goal “to help India become a major world power in the 21st century” (US Department Of State 2005). And the first step in that direction was removing the age-old distrust that had existed between the two states over the nuclear issue. It was clear to both the US and India that the road to a healthy strategic partnership between the two democracies was once again opened.

The nuclear cooperation between India and the United States was established in two steps. During the visit of Prime Minister Manmohan Singh to Washington on July 18, 2005, both states agreed on the principles of close Indo-US cooperation in the nuclear field. On this basis, a more detailed agreement on nuclear cooperation was signed during President Bush's visit to New Delhi in March 2006.

A. The Joint Statement

On 18 July 2005 U.S President Gorge W. Bush and Indian Prime Minister Manmohan Singh signed a Joint Statement for a broad global partnership between United States and India. In this Joint Statement, Indian Prime Minister Singh and U.S. President Bush proposed cooperation in a broad range of activities including agriculture, energy and the environment, combating HIV/AIDS, space, high technology cooperation, and disaster relief. The most significant arena of cooperation was that of civilian nuclear energy cooperation The Joint Statement between President Bush and Prime Minister Singh contained five areas of agreement: the economy, energy and the environment, democracy and development, non-proliferation and security, and high technology and space (See Text of the Joint Statement in Appendix III).

In this Joint Statement, President George Bush Jr. acknowledged India as “a responsible state with advanced nuclear technology” and who “should acquire same benefits and advantages as other such states”. In pursuant to this objective, USA would

work to achieve full civil nuclear energy cooperation with India as it realises its goals of promoting nuclear power and achieving energy security... would seek agreement from Congress to adjust US laws and policies, and the United States will work with friends and allies to adjust international regimes to enable full civil nuclear energy cooperation and trade with India, including but not limited to expeditious consideration of fuel supplies for safeguarded nuclear reactors at Tarapur (See Appendix III).

On his part, the Indian Prime Minister Manmohan Singh agreed to assume the following ‘responsibilities and practices’: -

- Identifying and separating its civilian and nuclear facilities in a phased manner.
- Filing a declaration regarding its civilian facilities with the International Atomic Energy Agency (IAEA) and voluntarily placing its civilian facilities under IAEA safeguards.
- Signing and adhering to an Additional Protocol with respect to civilian nuclear facilities.
- Continuing its unilateral moratorium on nuclear testing.
- Working with the United States for the conclusion of a multilateral Fissile Material Cut Off Treaty (FMCT)
- Refraining from transfer of enrichment and reprocessing technologies to states that do not have them and supporting international efforts to limit their spread.
- Ensuring that the necessary steps have been taken to secure nuclear materials and technology through comprehensive export control legislation and through harmonization and adherence to Missile Technology Control Regime (MTCR) and Nuclear Suppliers Group (NSG) guidelines” (Appendix III).

Implementing the Joint Statement was an arduous task since both the U.S congress and export control regime of the NSG “restricted nuclear cooperation with India because New Delhi possesses nuclear weapons and is not a recognized nuclear weapon-state under the Nuclear Non-proliferation Treaty (NPT)” (Kerr 2012:1). Thus, in order to put the statement into action a lot of things had to be put in place.

B. The Separation Plan

The Joint Statement refers to “identifying, and separating civilian and military nuclear facilities in a phased manner and taking a decision to place voluntarily civilian nuclear facilities under IAEA safeguards.” In keeping with the Statement, India is required to separate its nuclear reactors and facilities into civilian and military. The former will be placed under IAEA supervision. Presently, India’s nuclear facilities include — research reactors (3); power reactors (15 operating, 8 under construction and 3 planned); breeder reactors (1 operating, 1 under construction); uranium enrichment (1 operating), spent fuel reprocessing (3); heavy water production plants (6); uranium processing (3 mines; 2 copper-mine tailing extraction units) (Squassoni 2006: 8).

After months of complex and difficult negotiations, the Indian government announced the Separation Plan on 7 March 2006 and was tabled in Indian Parliament on 11 May 2006. The main provisions of the Separation Plan spelt out the nuclear facilities and activities that were to be under the IAEA safeguards. India agreed to put 14 of its 22 thermal nuclear reactors under international safeguards by the year 2014. This amounts to 65 per cent of thermal nuclear reactors in operation or under construction.

In its approach to the separation of its civilian nuclear facilities, India was guided by the following principles: “credible, feasible, and implementable in a transparent manner; Consistent with the understandings of the 18 July Statement; Consistent with India’s national security and R&D requirements as well as not prejudicial to the three-stage nuclear programme in India; Must be cost effective in its implementation; and acceptable to Parliament and public opinion” (MEA 2006).

It was made clear that the Prototype Fast Breeder Reactor (PFBR) and Fast Breeder Test Reactor (FBTR) both located at Kalpakkam will be kept out of international safeguards. It is because the Fast Breeder Reactor is in R & D Stage and its technology will take time to mature and reach an advanced stage of development (MEA 2006). It was also decided to permanently shut down the CIRUS reactor in 2010. United States reassured uninterrupted supply of fuel to reactors that will be offered for safeguards. Preparations will also be made to shift the fuel core of the APSARA reactor that was purchased from

France outside BARC and make the fuel core available to be placed under safeguards in 2010.

However, the several nuclear facilities were not in the separation plan. These included — the eight indigenous Indian power plants; Fast Breeder Test Reactor (FBTR) and Prototype Fast Breeder Reactors (PFBR) under construction; enrichment facilities; spent fuel reprocessing facilities; research reactors- CIRUS, Advanced Heavy water Reactor, Dhruva; three heavy water plants; and various military related plants.

The Chairman of the Atomic Energy Commission (AEC) Dr. Kakodkar argued that the breeder program could not be put on the civilian list “from the point of maintaining long-term energy security and for maintaining the minimum credible deterrent” (Baruah 2006). In keeping with its national objective goals and strategic autonomy, India decided to keep breeder reactors outside IAEA supervision.

C. 123 Agreement

Till date, more than twenty-three 123 agreements have been entered by the United States but none has been with a non-signatory of the NPT. After 5 rounds of negotiations from June 2006 to July 2007, negotiations for the U.S.-India 123 Agreement was completed and the text was finally agreed on 20 July 2007.

Some important provisions of the ‘Agreement for Cooperation between the Government of India and the United States of America concerning Peaceful uses of Nuclear Energy’ include the following:

First, the Agreement provides for civilian nuclear cooperation between India and US. India was granted authorization to reprocess spent fuel at a national reprocessing facility that New Delhi plans to establish under International Atomic Energy Agency safeguards.

Second, India was given assurances that supplies of fuel for its civilian reactors will not be interrupted- even if the United States terminates the 123 Agreement- through U.S. commitments to “work with friends and allies ... to create the necessary conditions for India to obtain full access to the international fuel market,” and to “support an Indian effort to develop a strategic reserve of nuclear fuel.

Third, the agreement also talks about a possible scenario of a future nuclear test by India. In such an event, the two countries would launch immediate bilateral consultations to “consider carefully the circumstances” and take into account whether the circumstances resulted from “serious concern about a changed security environment or as a response to similar actions by other states which could impact national security.”

Fourth, while the U.S. President would have a right to demand the return of all U.S. - supplied nuclear equipment and material in such a circumstance, the text recognizes that “exercising the right of return would have profound implications” for bilateral relations and calls for both parties to “take into account the potential negative consequences” of any termination of ongoing cooperation.

The Agreement provides for nuclear trade, transfer of nuclear material equipment, components and related technologies and for co- operation in nuclear fuel cycle activities.

D. Henry J. Hyde Act

The Henry Hyde Act has been an important appendage of the Indo-U.S. Nuclear Deal. Section 401 of U.S Nuclear Non Proliferation Act (NNPA) 1978 prohibits United States to enter into any agreement with a non-NPT member. However to enter into any such an agreement, USA needs to pass a law to provide for such an exception. As a consequent, U.S. had to pass the Henry J. Hyde United States- India Peaceful Atomic Energy Cooperation Act in 2006. (U.S. Department of State 2007)

The Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006 enabled the US President with the means to waive a U.S. nuclear cooperation agreement with India from several requirements of the Atomic Energy Act (AEA) of 1954, as amended. India and the United States announced July 27, 2007, that they had reached agreement on the text of such an agreement. The Hyde Act was passed by an overwhelming 359-68 votes in the House of Representative on 26 July 2006 and by 85-12 in the Senate on 16 November 2006 reflecting a strong show of bipartisan support The

Hyde Act has drawn considerable scepticism by Indian leaders, strategic analysts and media.

Although the Indian Government had welcomed the Hyde Act, it said it would not accept any conditions that went beyond the parameters of the bilateral July 18, 2005 Joint Statement and the Separation Plan. The reason for this was that there were specific sections of the Hyde Act, which were viewed by the Indian Government as contrary to the general provisions of the two prior joint statements. These included a formal moratorium on nuclear tests.

A provision in the US Atomic Energy Act, Section 123(a)(4) stipulates that all 123 agreements must allow the United States the right to require the return of “any nuclear materials and equipment transferred” if the recipient country “detonates a nuclear explosive device” (Kimbal and McGoldrick 2007). This provision drew a lot of scepticism in India.

E. India specific IAEA Agreements

According to the Joint Statement India is required to “file a declaration regarding civilian facilities with the International Atomic Energy Agency (IAEA). The NSG Guidelines, which form an integral component of the current non-proliferation regime that is built on the tenets of the NPT, allow nuclear transfers, the ‘Trigger List’ items, to a NWS without license. But nuclear transfers to a non-nuclear weapon state (NNWS) are conditioned on IAEA safeguards on all current and future peaceful nuclear activities, what are called the full-scope safeguards (FSS) or comprehensive safeguards.

Since India is a NNWS according to the NPT definition, the NSG Guidelines as currently implemented would, therefore, invoke FSS if India seeks nuclear technology or nuclear power plants – even on a turn-key basis – or nuclear fuel from any NSG member-country (Ramachandran 2005: 576). To overcome this legal constrain, the export restrictions on India need to be lifted through a waiver by NSG and IAEA.

IAEA, created in 1957 as a fall out of US President Eisenhower's Atoms For Peace deals with nuclear verification and security, safety and technology transfer. It is not a

specialized agency under the United Nations family, but it got a special status in the United Nations to see that nuclear technology for peaceful purpose is not digressed to military purposes. Under the deal, the authority of the IAEA safeguards is to ensure full international cooperation for peaceful purposes, to ensure that such cooperation will not contribute to the proliferation of nuclear weapons or other nuclear explosive devices, and to guard against withdrawal of safeguarded nuclear material from civilian use at any time. India submitted a copy of its separation Plan to IAEA on July 25, 2008. On 1 August 2008, India specific safeguards agreement was unanimously passed by IAEA in its meeting of its 35 member board of governors in Vienna without being put to vote (Rai, 2009, 71). Endorsing the Indian case, the IAEA Director General Mohammed El Baradei observed,

It would be a milestone, timely for ongoing efforts to consolidate the non-proliferation regime, combat nuclear terrorism and strengthen nuclear safety... The agreement would assure India of reliable access to nuclear technology and nuclear fuel. It would also be a step forward towards universalisation of the international safeguards regime... This agreement would serve the interests of both India and the international community (IAEA Press Release 2005).

Additional Protocols, which are based on a Model Additional Protocol, are designed to augment the IAEA's ability to detect undeclared nuclear activities in an NPT member-state (Kerr 2012: 121). It enables the Agency a credible assurance against (clandestine) proliferation by an NNWS (Ramchandran 2005: 586). However, it will not be the case with India.

The IAEA Safeguards on India are 'India-specific' and not full scope. Further, the agreement has a non-hindrance clause, which says-

The IAEA shall implement the safeguards in a manner designed to avoid hampering India's economic or technological development, and not to hinder or otherwise interfere with any activities involving the use by India of the nuclear material non nuclear material equipment, components, information or technology, produced, acquired or developed by India independently of the agreement for its own purpose" (Rai 2009: 73).

This clause assuaged Indian fears of disruption of supply.

F. NSG Waiver

The Nuclear Supplier Group was created in 1975 largely in response to India's 'Peaceful Nuclear Explosion' of 1974. It aims to ensure that nuclear trade for peaceful purposes does not contribute to the proliferation of nuclear weapons or other nuclear explosive devices, which would not hinder international trade and cooperation in the nuclear field.

India is neither a member of the NSG, nor a signatory to NPT and therefore ineligible for nuclear trade with countries. After submission of the separation plan, the U.S administration started convincing members of the NSG to make India specific exceptions, which could allow India to acquire advanced nuclear technology from these countries. On 8 September 2008, India was granted clean and unconditional waiver at the NSG meeting in Vienna, Austria. The final amendment not only exempted India from full scope requirements applicable for NNWS but also absolved India from automatic suspension of cooperation if India conducts a nuclear test.

New Delhi welcomed the decision as "forward-looking and momentous" in "marking the end of India's long isolation from the nuclear mainstream and of the technology denial regime." Independent proponents called it "a significant victory for those who welcome India's rising global economic and political influence" (Kronstadt 2009: 43). Indian PM Dr, Manmohan Singh noted, "the shift marked India's emergence as the world's sixth recognized nuclear weapons power in its legitimized ability to purchase nuclear fuel and technologies in the global marketplace while still maintaining a nuclear arsenal" (MEA 2008).

It is contended by many analysts that it was the US power and clout along with India's non-proliferation credentials that compelled the recalcitrant members of the NSG, including China to grant India a waiver. The Australian Foreign Minister, Stephen Smith, during his visit to India said:

"The key factor to me is a recognition that India is on the rise. Not only does this century see a shift of strategic influence and power to the Asia Pacific, it also sees the rise of India. The importance of the NSG declaration reflects that fundamental appreciation by the international community" (Rai 2009: 70)..

G. Formal Signing of the Deal

The U.S Senate on 1 October 2008 endorsed the deal formally titled ‘US-India Nuclear Cooperation and Non-Proliferation Enhancement Act’ with 86-13 margin.(Rai, 2009, 85-86). The Then Secretary of State Condoleezza Rice and External Minister of India Pranab Mukherjee signed the deal on 10 October 2008 and it entered into force on 6 December, 2008.

At the signing ceremony, U.S. Secretary of State Condoleezza Rice stated:

Many thought this day would never come. But doubts have been silenced now...with the conclusion of this civil nuclear agreement, our partnership will be limited only by our will and our imagination...Indeed, what is most valuable about this agreement is how it unlocks a new and far broader world of potential for our strategic partnership in the 21st century, not just on nuclear cooperation but on every area of national endeavor” (Rajghatta 2008).

Highlighting the importance of the Deal, External Affairs Minister Pranab Mukherjee stated:

The significance of this Agreement is that it is the first step to civil nuclear co-operation and trade between India and the USA. This is an agreement about civil nuclear co-operation and reflects a careful balance of rights and obligations. The Agreement has been passed by the US Congress without any amendments. Its provisions are now legally binding on both sides once the Agreement enters into force. We look forward to working with US companies on the commercial steps that will follow to implement this landmark Agreement. (Mukherjee 2008)

H. The Nuclear Liability

The passage of a bill on nuclear liabilities of Companies was the next stumbling block in the implementation of the Indo-US Nuclear Deal. Both house of Indian Parliament passed The Civil Liability for Nuclear Damage Bill in August 2010. It deals with civil liability for nuclear damage and compensation in case of a nuclear accident. The Governed faced severe opposition in passage of the Bill as it contains several controversial clauses. India signed the Convention on Supplementary Compensation for Nuclear Damage (CSC) on October 27, 2010. The US State Department described India’s decision to “become a

party” to the convention as “an important step in ensuring that U.S. nuclear firms can compete on a level playing field with other international competitors” because many other countries’ nuclear firms “have other liability protections afforded to them by their governments” (Kerr 2012: 3). The Nuclear Liability Act, 2011 was passed amidst great domestic upsurge and as of now no American Company has started any venture into Indian nuclear reactors.

Debating the Deal: contentious issues

The negotiations on the deal continued for nearly three years from 2005 to 2008. These negotiations not only saw the non-proliferation regime at stake but also the ruling political dispensation in India. The response to the Indo-US Deal was mixed both in India as well as in United States of America. The Nuclear Deal has been hailed in the writings of Nicholas Burns, Sumit Ganguly, Amit Gupta, Ashley Tellis, Shyam Saran, Parag Khanna, C. Raja Mohan. On the other hand, there are others like Praful Bidwai, George Perkovich, Pratap Bhanu Mehta, Amit Baruah and others who are either critical of this relationship or apprehensive of the consequences of Indo-US nuclear deal.

The Deal has been an issue of extensive discussion and analysis among intellectuals, nuclear scientists, political and strategic analysts. The contentious issues involved in the nuclear deal can be summarized under the following heads:

A. Separation of civilian- military facilities

The issue of separating the civilian and military facilities has evoked controversies. First, the two have remained intertwined for almost sixty years and a clear-cut segregation is not only costly but also difficult. The separation of civilian and military facilities might entail serious repercussions for research and development in weapons development and for production facilities needed for the nuclear deterrent (Pant 2007:462).

Secondly, the U.S insistence to place the maximum number of nuclear facilities including the fast breeding reactors, which India claims to be an indigenous test program, under IAEA safeguards was seen by many as an attempt to halt India’s fissile production.

Thirdly, bifurcation of its nuclear-energy program into civilian and military sections will at a stroke destroy the unitariness and cohesion of the broad-based dual use nuclear-energy program.

The break down of the Non-proliferation goals has been the major obstacle to the deal from the opponents of the deal in USA. On the issue of separating the civilian-nuclear facilities, the US administration maintained that the separation must be “credible and defensible from a non-proliferation standpoint” to ensure US compliance with Article I of the NPT, which reads that a NWS should ‘not assist a nuclear weapons program in a non nuclear weapon state. It was further reiterated, “

To strengthen the international non-proliferation regime and to meet our own expectations, the civil/military split must be comprehensive enough to strengthen the nuclear non-proliferation regime and to provide strong assurances to supplier states and the IAEA that materials and equipment provided as part of civil cooperation will not be diverted to the civil cooperation (Joseph 2005)

In response to criticism on this aspect of the deal, Indian PM Manmohan Singh in a *Suo Motu* Statement in the Lok Sabha on 27 February, 2006 clarified that

We have taken into account our current and future strategic needs and programs after careful deliberation of all relevant factors, consistent with our nuclear doctrine...there has been no erosion of the integrity of our nuclear doctrine, either in terms of current or future capabilities...it will be the autonomous Indian decision as to what is ‘civilian’ and what is ‘military’. Nobody will tell us what is ‘civilian’ and what is ‘military’ (See Appendix IV)

It can be safely presumed that India was given an upper hand in determining which facilities it regarded civilian and accordingly place under IAEA inspections.

B. Nuclear Energy

The supporters of the Indo-US Nuclear Deal contend that the deal aims at strengthening India’s growing energy needs. As a result of India’s economic growth, there has been soaring demand for energy. Energy deficit has emerged as a constraint on India’s accelerating growth. However, such a claim is dubious as India’s performance in nuclear energy has been disappointing.

Given the fact that India’s utilizes 11per cent of various available energy sources including oil, gas, coal, wind and nuclear power for producing electricity. Out of this only

2-3 per cent is produced through nuclear power. The civil nuclear cooperation agreement, once materialized in its true essence by 2025 could increase this production to a maximum of 6–8 per cent only. In 1962, Homi Bhabha, the founder of India’s nuclear program, claimed that by 1987 nuclear energy would constitute 20,000-25,000 megawatts of installed electricity-generation capacity. His successor as head of the Department of Atomic Energy, Vikram Sarabhai, predicted that by 2000 there would be 43,500 megawatts of nuclear power. Neither of these predictions came true (Sultan 2006: 6). From the very beginning India started using nuclear technology for the purpose of socio-economic development, but even today nuclear energy contributes 3,300 MW, that is 3% of India’s installed electricity capacity. Thus prospects of the deal on the energy front are not as promising as projected by the Indian political and strategic leaders.

C. Compromising National sovereignty

Nuclear stalwarts like P.K.Iyengar, Bharat Karnad and A. N.Prasad (2009) noted that the deal “would undermine India’s nuclear programme, hurt independent nuclear technology development, compromise the nuclear security interests of the country and strategic independence and lead to the loss of sovereignty (Iyengar and others 2009: xv) The BJP’s resistance to the deal is primarily centered on the fact that the terms of the deal endangers India’s nuclear programme and thereby country’s strategic autonomy.

In reaction to the U.S. Congress’s passage of enabling legislation-the Hyde Act- in 2006, the BJP listed numerous continuing objections, and went so far as to call the deal “unacceptable” and aimed at “capping, rolling back, and eventually eliminating India’s nuclear weapons capability. (BJP Press Statement 2006).

The deal notes Jaswant Singh,

“compromise national security issues: autonomy of India’s decision-making processes: the autonomy and independence of our nuclear programmes: the inviolability of the principle of a minimum credible deterrent ...plus the future of our scientific and technological research in the nuclear field (Singh 2006).

Thus, we see that BJP in particular has stood against the deal on the ground of it compromising India’s sovereignty.

D. Nuclear Testing

The issue of nuclear testing has generated heated controversies in India. As per the terms of the 123 Agreement, the US and NSG members would stop transfer of any items of technology controlled by the NSG trigger List, in case India conducts a nuclear test. This qualification regarding testing is viewed with suspicion as a strategem to force India's entry into the CTBT by the backdoor. Similarly the Presidential determination under section 106 of the Hyde Act provides that "A determination and any waiver under section 104 shall cease to be effective if the President determines that India has detonated a nuclear explosive device after the date of the enactment of this title." (U.S Department of State 2007).

What is worth noticing is that after Pokhran II, India in its Draft Nuclear Doctrine had announced a voluntary moratorium on nuclear testing and the deal merely reinforces that doctrine. India is bound by the bilateral 123 Agreement, which does not say anything about nuclear testing.

E. Goal of disarmament

By placing this deal on the top, critics of the deal, particularly the Left argue that India has put its age old championed goal of global disarmament far behind. India has "betrayed its disarmament commitment", joined 'Atomic Apartheid' regime, and agreed to pursue an uneconomical and unsafe energy technology by signing the "grand' nuclear bargain with Washington" (Bidwai 2005: 3362). For long India has championed the call for a phased and universal elimination of nuclear weapons and by celebrating its implicit nuclear recognition, it has accepted the existing discriminatory nuclear order.

Further the nuclear deal is depicted to erode India's credibility and global stature and "expose her colossal hypocrisy in masking a crude, dirty truth behind high moral posturing" (Bidwai 2005: 3363). India has now upheld and sanctified the global nuclear regime, which it for decades condemned as 'Atomic Apartheid' and this is a moral back track.

F. Blow to Non-proliferation

Critics of the deal, particularly in USA, have pointed out that by giving an exception to India, the July Statement amounts to a glaring violation of the non-proliferation regime. The opponents of the proposed nuclear cooperation termed the agreement a fatal error for global non-proliferation regime, and have raised concerns that this could have a domino effect. Many nuclear have-nots will be more inclined to regard NPT as an anachronism, reconsider their self-restraint, and be tempted by the precedent that India has successfully established and that now, in effect, has an American blessing (Talbot 2005: 14). Moreover, states like Brazil, South Africa, Ukraine and others who have given up nuclear weapon programme might feel offended.

The issue of US non-proliferation goal being dampened has raised serious concerns within some members of US Congress. Some members of the US Congress pointed out that “the US could not afford to play favourites and break the rules of the non-proliferation regime to favour one nation at the risk of undermining critical international treaties on nuclear weapons” (Pant 2007: 459). Although opponents of the deal have pointed to the adverse implications it might have for the Iranian and North Korean calculations, it should be remembered that both these states pursued nuclear weapons long before this deal.

Right to return

The provision of the right of the supplying country to take back its nuclear technology and know how once the receiving country —India violate the terms of the agreement—is not only a costly affair but also a humiliating one. The Atomic Energy Act grants US the right (in agreement for cooperation with non nuclear weapon states) to require the return of any nuclear materials and equipment transferred and any special material produced through its use, in case the cooperating country detonates a nuclear explosive device.

Fissile material Production

It is alleged by the critics that the deal will be a setback for India's fissile material production. The nuclear deal, by itself, does not cap or put a ceiling on the amount of fissile material that India can accumulate. This can only happen once an FMCT comes into effect, and that is unlikely to happen in the foreseeable future. China had blocked negotiations on the treaty in the Conference of Disarmament (CD) in Geneva because of American ballistic missile defence plans (Mattoo 2005: 3817)

The misgivings on the negative impact of the deal on India's fissile material production are also serious even if misplaced. As one analyst pointed out that:

In one important respect, India has received more leniency than the five established nuclear "haves" have asked for themselves: The US, Britain, France, Russia, and China say they have halted the production of the fissile material that goes into nuclear bombs, while India has only promised to join universal ban that would include Pakistan, if such a thing ever materializes" (Talbot 2005).

Increasing Interference of USA in Indian foreign policy choices

Critics of the deal, particularly the Left parties in India have now and then alleged that as a result of the deal the influence and interference of US in India's foreign policy framework will increase. India's vote against Iran in September 2005 and again in February 2006 in IAEA was cited as a case of growing US clout over India 's foreign policy choices.

The most pervading obstacle to the Indo-US Nuclear Deal came from the domestic situation in India. Since the announcement of the Deal, the Communist Parties have been sceptical of the deal. The Communist Parties constituted an important coalition of the Congress Party-led United Progressive Alliance (UPA) government. It had 59 seats in the 552-member of the lower house of Parliament. Their main objection to the deal related to subservience of India's independent foreign policy. The BJP's opposition to the deal was political rather than substantive, focusing on the issue of compromising India's nuclear

posture. The CPM threatened the government to withdraw support if the deal is not renegotiated.

Potential Benefits of the Deal

As Stephen P. Cohen notes, “there are four schools of thought in India regarding relations with America: the Enthusiasts, the Free Riders, the Doubters, and the Hostiles’ The Enthusiasts and the Free Riders support closer ties with the United States and are defensive realists, pointing ‘to the threat to India from a rising China and conclude that Washington sees India as a potential balancer. The Doubters and the Hostiles are offensive realists and reject closer ties with the United States (Cohen 2003: 56). In the debate over the Indo-US nuclear deal, we find all the four school of thoughts featured prominently.

Secretary of State Rice appeared before key Senate and House committees in April 2006 to press the Bush Administration’s case for civil nuclear cooperation with India. The Administration offered five main justifications for making changes in U.S. law to allow for such cooperation, contending that doing so would-

- benefit U.S. security by bringing India into the non-proliferation mainstream;
- benefit U.S. consumers by reducing pressures on global energy markets, especially carbon-based fuels;
- benefit the environment by reducing carbon emissions/greenhouse gases;
- benefit U.S. business interests through sales to India of nuclear reactors, fuel, and support services; and
- benefit progress of the broader U.S.-India “global partnership (Rice,2005).

Rajaraman argues that one beneficial consequence of the nuclear deal is that a “nationwide discussion took place on this subject” (Rajaraman 2006: 3351). Interestingly, as seen above the main opposition to the Indo US Nuclear Deal came from within India and not from the international community. The cost and benefit of the deal can be analysed from three spheres: economic, diplomacy and strategic and non-proliferation.

On the business side, the U.S. Chamber of Commerce-which, along with the U.S.-India

Business Council, lobbied vigorously in favour of President Bush's initiative-specified that civil nuclear cooperation with India could generate contracts for American businesses worth up to \$100 billion, as well as generate up to 27,000 new American jobs each year for a decade (Yadav 2010: 43). It was expected to open up around \$ 27 billion in investment in 18-20 nuclear plants in India over next 15 years (Rai 2009: 101). A more modest estimate foresaw the deal generating as much as \$40 billion in new foreign investment into India (Kronstadt 2009: 38).

On the nuclear front, India will get access to civilian nuclear technology and fuel to expand its domestic programme. Further, the Nuclear Deal affords an opportunity for India to escape the constraints imposed by the NPT, which has disallowed India from importing certain nuclear technology. P K Iyengar further said,

No where in the Indo-US joint statement is there mention of any interference in our Military programme. It's only under the FMCT that the question of restricting the production of fissile materials for weapons comes in. That's a long way off...This is a welcome for the future agreement growth of our nuclear power industry" (Iyengar 2009: 361).

The NSG waiver left decisions regarding nuclear commerce with India almost entirely up to individual governments. Since the NSG decision, India has concluded numerous nuclear cooperation agreements with foreign suppliers. In September 2008, the Indian and French governments signed a landmark nuclear cooperation pact that paves the way for the sale of French nuclear reactors to India (France 24: 2008) In December 2008, India and Russia signed agreements that would enable Russian firms to build four new nuclear power plants in India. A deal with uranium-rich Kazakhstan was signed in January 2009. The Canadian Government, which stopped all civilian cooperation with India following the 1974 tests, also signed a nuclear cooperation Agreement with India in 2008.

On the strategic front, the Joint Statement of July 2008 had created "a third category of nuclear weapons state, foreseeably limited to India alone, giving it some of the right of the favoured five not enjoyed by the rest" (Mohan 2003 page number). It signified the recognition of India's growing role in global politics. The deal can be viewed as reward for the exemplary voluntary restraint India has shown in maintaining strict controls over

its nuclear know-how and technology, despite being outside the fold (Paul and Shankaran 2007: 119). Geopolitically, the deal is also seen as being a part of American strategy to counter the rise of China in Asia.

The Deal received its share of criticism as well as jubilation. Under Secretary of State Nicholas Burns, the lead U.S. negotiator, called the deal “

perhaps the single most important initiative that India and the United States have agreed to in the 60 years of our relationship” and “the symbolic center piece of a growing global partnership between our two countries” (Kronstadt 2009: 39).

On the other hand, in the words of the former Atomic Energy Agency Chairman M. R. Srinivasan's the deal, “re-establishes India's capabilities in the international stage while removing the decades of isolation in which atomic energy in India was developed”(Bagla 2006).

The Indo-US nuclear deal reflects not only the preponderant influence of American power on the non-proliferation regime but also the fact that the exemption granted to India is an acknowledgement of India's growing stature in global polity. While the importance of the US for India has always been more obvious, there is now growing recognition within the US of the increasing importance of India on a number of grave matters such as terrorism, climate change, clean energy, free trade, maritime security and the promotion of democracy and secular values.

Conclusion

Clearly, the phrase “state with advanced nuclear technology” in the Joint Statement of 18 July 2008 refers to India's nuclear weapons capability and, to that extent, achieved the aim of an indirect U.S. acknowledgement of India's status as a nuclear-weapon state. Thus we see that the deal saw strong political divide in non-proliferation norms that over a period of time has acquired a life of their own, even though initially powerful states play a decisive role in their entrenchment in the system. For example, the culmination of the deal did not lead to the breakdown of the NPT system; rather, the deal was

rationalised on the grounds that it strengthens rather than undermines the non-proliferation regime both in India and United States.

In the final analysis, the Indo-US nuclear deal symbolised transformation of India's nuclear identity, from a pariah to partner in nuclear non-proliferation. India and the US are strategic partners with many converging interests, even if not actual 'allies' in the classical sense of the term. It is the sum of their multiple commonalities, shared strategic interests and cultural connections, and some clearly established while others are still evolving, that will help forge an even closer relationship between them in the future.

Chapter 5:

NUCLEAR LOSSES AND GAINS: CONSTRUCTING ANEW IDENTITY

The sole super power appeared to be recognizing India's status as a nuclear-armed state by opening up the possibility of nuclear cooperation. The signing of the Indo-US nuclear deal in 2008 “represented the fruit of many years of careful Indian diplomacy aimed at establishing its identity as a responsible possessor of nuclear weapons and forging a closer alliance with the US” (Sashikumar 2007: 825). While the nuclear deal, like most events were the product of a convergence of circumstances (such as the ideological orientation of the administration in the White House and the recent revelations about nuclear transfers out of Pakistan), the main enabling condition was India's strategy of constituting itself as a responsible nuclear power.

India’s Responsible Nuclear Behaviour.

India has sought legitimisation of its nuclear status by projection of its unblemished record on non-proliferation of nuclear technology, peaceful use of nuclear energy, defensive posture of its nuclear doctrine and its conspicuous call of global nuclear disarmament. In this section, I will highlight the various modes by which India has promoted itself as a responsible nuclear weapons possessor who has been compelled to acquire nuclear weapons due to a mix of security, normative and domestic compulsions.

India and the Non Proliferation regime

Although India has posed a quasi-challenge, and has been defensive of its own nuclear programme, it has never sought to undermine the non-proliferation regime by spreading nuclear weapons, material or technology. India has always maintained a distinction between NPT and non-proliferation. While having reservations on the former, India has been fully committed to the latter.

India signed the Partial Test Ban Treaty (PTBT) in 1963. The treaty prohibited all form of testing except underground testing. Later, it was India that introduced the proposals that lead to the NPT and CTBT (Jayaprakash 2000: 25). India has stood against the ‘discriminatory NPT and CTBT by not signing it. The Indian objections to the NPT were put forth in a Statement given by the Indian Ambassador Mohammad Azim Hussain in the 57th meeting of the first Committee of the United Nations (FCUN) on 14 May 1968. They included the following issue areas:

- The treaty did not ensure the non-proliferation of nuclear weapons but also stopped the dissemination of weapons to non nuclear weapon states without imposing any curves on the continued manufactures, stockpiling, and sophisticating nuclear weapons by the existing nuclear weapon states.
- The Treaty did not do away with the special status of superiority associated with power and prestige conferred on these powers, which possessed nuclear weapons.
- The treaty did not provide for a balance of the obligations and responsibilities between the nuclear weapons states and the non- nuclear weapons states. While all the obligations were imposed on the non nuclear weapons states, the nuclear weapon states had not accepted any.
- The Treaty did not constitute a sep by step approach towards nuclear disarmament.
- The treaty did not prohibit one nuclear weapon state from assisting another nuclear weapon state by providing technological help.
- The long period of a quarter of century provided in Article X of the treaty would appear to endorse and legitimize the present state of affairs and legalize, if not encourage an unrestricted vertical proliferation by the present nuclear weapon state.
- Article VI did not create a juridical obligation in regard to the cessation of nuclear arms race at an early date.
- The treaty imparted a false sense of security to the world.
- The treaty was discriminatory in regard to the peaceful benefits of nuclear explosions.
- The treaty was discriminatory in regard to the safeguards and controls, which were imposed on the non nuclear weapon state while none whatsoever, were imposed on the nuclear weapon states.
- The security assurances to the non nuclear weapon states could not be a quid pro quo for the acceptance of a treaty. This must be obligatory for a nuclear weapon state (Subrahmanyam 1974: 259-260).

In the early stages of negotiations on the CTBT in the Conference on Disarmament in Geneva, India actively participated and saw it as the first step towards global disarmament. However, the discussions over the CTBT shattered New Delhi’s

“misplaced hopes in nuclear disarmament” in post cold war world (Dikshit 1998: 7). The compelling international system mounted immense pressure in Indians regarding the exercise of its nuclear weapon option.

Moreover, India maintained an effective export controls on nuclear material as well as related technologies even though India is neither a party to the NPT or the NSG. In 2002, India joined the Vienna Convention on the Physical Protection of Nuclear Material.

India's call for Global disarmament

India's first Prime Minister Jawaharlal Nehru was one of the first leaders to recognize the dangers posed by nuclear weapons. Gandhi "believed that the bomb would bring moral devastation on those who developed and used it" (Cortright and Mattoo: 1996: 6). Addressing the United Nations General assembly on 3 November 1948, Nehru had said that,

I am not afraid of the bigness of great powers, and their great armies and fleets and their atom bombs. That is the lesson, which my masterji (Gandhi) taught me. We stood as an unarmed people against a great country and a powerful empire." (Nehru 1962: 161).

After the TNT Hydrogen Bombs tests were conducted by United States in 1954, Nehru was the first statesman to call for immediate suspension of all nuclear weapons in the Parliament. Successive Indian governments have since championed the call for total global nuclear disarmament at several international forums. During 1950s, India presented eight separate disarmament initiatives, either individually or jointly within various organs of the UN. These eight initiatives included: a Draft resolution on “Peaceful Uses of Atomic Energy” to the General Assembly in 1948; a draft resolution on “Declaration on the Removal of Threat of a New War and the strengthening of Peace and Security Among Nations” in 1949; Standstill Agreements in 1954: “Dissemination on Information on the Effects of Atomic Radiation and the Effects of Experimental Explosions of Thermonuclear Bombs” in 1955: “Cessation of All Explosions of Nuclear and Other Weapons” in 1956; “suspension of Nuclear and Thermonuclear tests in 1959; and a draft resolution on the “Directives on General and Complete Disarmament” in

1959. Similarly, during 1962 and 1971, India presented four disarmament initiatives to the UN. These were: a draft resolution “Question on Disarmament in 1961; a request for the agenda item “ The Urgent Need for Suspension of Nuclear and Thermonuclear Tests” in 1962; “Non Proliferation of Nuclear Weapons” in 1964; and Resolution 2028 presented by India and seven other nations “A Treaty to Prevent the Proliferation of Nuclear Weapons” in 1965. At the third UN Special Session on Disarmament in 1988, Rajiv Gandhi came up with his ‘Action Plan to Usher in a Nuclear Weapon Free and Non Violent World order’ (Jayprakash 2000:527).

The 1998 tests and India’s simultaneous proclamation of itself as a nuclear weapon state amounted to “a bold challenge to the existing major power-system in that it embodied a declaration that the present status hierarchy in the international system was no longer acceptable and needed to be modified by accommodating India.” (Nayar and Paul 2003: 231-232). The Post Pokhran II environment boosted the confidence of the common man, who perceived that their country has now become a major power.

In tune with UN Security Council Resolution 1540³ of 2004, India, like other states with an advanced nuclear technology base, has adopted an overarching domestic legislation in June 2004, known as ‘The Weapons of Mass Destruction (WMD) and Their Delivery Systems (Prohibition of Unlawful Activities) Act’. On July 24, 2006, India signed the International Convention for the Suppression of Acts of Nuclear Terrorism, 2005. These initiatives reflect India’s heightened concerns about the weakening of the non-proliferation regime in the wake of disclosures about the controversial nuclear programmes of Libya, North Korea, and Iran, and the role that the Pakistan-based A. Q. Khan nuclear network seems to have played in these (Mishra 2007: 792).

After the twin crisis — Kargil War and operation Parakaram, National Security Adviser Brajesh Mishra said, "The recent operations in Kargil have demonstrated that our system and the political leadership believe in great responsibility and restraint, as you would expect from the largest democracy in the world." (Sasikumar 2007: 830).

³ UNSC Resolution 1540 imposes binding obligation on states to adopt domestic legislations to prevent proliferation of nuclear, chemical and biological weapons and their means of delivery and establish appropriate domestic controls over related materials to prevent their illicit trafficking

Nuclear Doctrine

In nuclear matters, India's nuclear doctrine can be traced to BJP's election manifesto, issued before the March 1998 elections (Chari 2000: 124). The National Agenda for Governance promised that the BJP, if elected, would establish a National Security Council to:

undertake India's first Strategic Defence Review to study and analyse the security environment and make appropriate legislations...and to re-evaluate the country's nuclear policy and exercise the option to induct nuclear weapons" (National Agenda For Governance 1998).

Given that India had declared itself a nuclear weapon power after its nuclear tests in 1998, the establishment of a formal command-and-control structure was also long overdue (Pant 2005: 280). The National Security Advisory Board, headed by India's leading defence analyst K. Subrahmanyam drafted the Indian Nuclear Doctrine. The draft was released by the National Security Adviser, Brajesh Mishra on 17 August 1999 for public scrutiny and debate. It was an informal and unofficial report that was neither accepted nor endorsed by the government.

The Draft doctrine outlined "the broad principles for the development, deployment and employment of India's nuclear forces" (See Appendix I). Some of the important elements of the doctrine were: No first use, credible minimum deterrence, Non-use against non nuclear weapon states, unilateral moratorium on testing and export controls. The draft states that India will not "be the first to initiate a nuclear strike"(Clause 2.4) nor will India "resort to the use or threat of use of nuclear weapons against states which do not possess nuclear weapons" (Clause 2.5). To pursue a credible nuclear deterrence, India's nuclear forces will be "effective, enduring, diverse, flexible and responsive" and will be based on a "triad of aircraft, mobile land based missiles and sea based assets" (Clause 3.1). Three principles of "credibility, effectiveness and survivability" are regarded central to India's nuclear deterrent. It further states that the Indian Government will take measures to ensure the security and safety of nuclear weapons and prevent "unauthorized or inadvertent activation/use of nuclear weapons" (Clause 6). Finally, the Draft reiterates India's yearning for global disarmament and arms control (See appendix I).

Although the DND carved out the broad outlines of India's nuclear doctrine, the formal doctrine was announced by the Cabinet Committee on Security (CSS) on 4 January, 2003. India's nuclear doctrine as finally announced in 2003 by and large complied with the draft nuclear doctrine. Thus, through its Nuclear Doctrine India has presented itself as a responsible nuclear weapon state which has declared a policy of no first use and unilateral moratorium on testing and credible minimum deterrence reflecting the defensive posture of India's nuclear programme.

According to C. Raja Mohan, owing to India's responsible nuclear behaviour, Indian case has been considered unique:

The present circumstances dictate both the countries to accommodate each other. India is mindful that its aspirations could never realize without the dominant power agreeing to redraw the order in vogue. On the other hand, the imperatives of the American security interests need India as a swing state in its tryst to maintain a stable and liberal international order" (Mohan 2003: 125).

India's responsible nuclear behaviour is one of the many factors that have contributed to India's heightened nuclear status. As George Perkovich rightly notes that "nuclear weapons are not sufficient to make a super power...if this is not, Pakistan too would qualify as a major power, as would Israel and perhaps North Korea" (Perkovich 2003: 129). India's demonstration of itself as a state with nuclear weapons have been acknowledged by the Indo-US Nuclear deal and subsequent deals with France, Russia, Kazakhstan, Niger, Australia and Japan. However, the nuclear factor is not the sole propellant behind this recognition. Various other factors like economic, demographic, cultural and diplomacy have reinforced India's identity as a rising power.

Victim of Terrorism

India's identity of itself as a victim of terrorism has enabled it to shift the terms of the security discourse towards a greater emphasis on its concerns. India has been constantly appealing to the international community about its vulnerability as a target of terrorist activities. The increasing violence in Kashmir due to cross terrorism and also in other parts of the country has claimed numerous innocent lives. Till 2001, terrorism was seen

as an internal problem of India.

The September 2001 terror attack in New York was a game changer in global geopolitics, and it made the US view India in a new light (Agrawal 2011: 63). After the 9/11 terrorist attack on Pentagon, the US war on terrorism produced greater empathy from United States on India's concerns about terrorism.

Soft Power Capabilities

Democratic values

India has played up the fact that it is the world's largest democracy. As the largest democracy in the world, India appears to fit well in America's push for democracy promotion in Middle East, Africa and China. Despite the fact no obvious link can be established between democratic system and legitimacy of nuclear weapons, the destabilizing tendencies of autocratic regimes in North Korea and Iran furnish such an argument with some basis. This has certainly helped in augmenting India's nuclear credentials.

India and USA are active in the Global Democracy Initiative, aimed at strengthening democratic practices and capacities in emerging democracies. In 1999 India became one of the 10 founding members of the Community of Democracies Initiative (Mohan 2010: 105). However, in view of its strong connection with NAM and G77, where substantial members are non-democratic states, India refused to be actively involved in the Initiative. Extolling the virtues of democracy, Prime Minister Manmohan Singh said: "For us, democratic ideal is a heritage of mankind. Those fortunate to enjoy its fruits have a responsibility to share its benefits with others" (Mohan 2010: 109). Again, at a 2007 U.S.-India business conference in Washington, then-Secretary of State Rice laid out this new perspective by saying that:

"We in America look to the rise of India as an opportunity, a chance to work with a great fellow democracy to share not only the benefits of the international system, but indeed, the burdens and the responsibilities of maintaining it, of strengthening it, and defending it. We are eager to continue charting a global partnership with India, one that addresses the global challenges upon which the safety and success of every nation now depends: stemming nuclear proliferation, fighting terrorism, combating disease,

protecting the environment, supporting education and upward mobility, expanding economic development, and promoting freedom under the rule of law.”(U.S. Dept of state 2007)

Time and again Indian and American leaders have highlighted the converging issues of democracy and war against terrorism as major factors that make the largest and the strongest democracy “natural allies.”

Civilization and Culture

India is a multi-ethnic, multi religious and multi-linguist country. Indian civilization, dating back 5000 years is one of the oldest civilizations of the world. It is the birthplace of four major religions of the world- Hinduism, Buddhism, Jainism and Sikhism; and is also country to have second largest Muslim population after Indonesia. In the recent years, the Indian government has undertaken various efforts to insert ‘culture’ into Indian foreign Policy (Wagner 2010: 335). Karan Singh, President of the Indian Council for Cultural Relations (ICCR) stated that “soft power is important and the idea behind[...] is to project India as a plural multicultural society and to achieve the goals of political diplomacy”(Shukla 2006: 24).

Until 2009, the ICCR has set up 22 cultural centres in 19 countries. Numerous activities ranging from film festivals to book fairs and art events illustrate India’s new endeavours to use soft power in her foreign policy. Moreover, the Indian movie industry- Bollywood- based in Mumbai has carved out prominent presence in disparate markets of West and Central Asia, Southeast Asia, China, Russia, and the Caribbean (Pattnayak 2007: 86).

Indian Diaspora

Indian Diaspora has also created substantially in the transformation of India’s nuclear identity. India is the second most populous country of the world after China. The Indian diaspora has a powerful presence across the globe, particularly in the United States. The influence of a growing and relatively wealthy Indian-American community of more than

two million is reflected in Congress's largest country-specific caucus. These Indian-Americans have created a positive image of India in the United States.

As Lloyd Rudolph notes:

India has become one of the most effective foreign policy lobbying groups, the US-India Political Action Committee (US-INPAC) and the largest caucus in the US House of Representatives (155 members). Indo-Americans are now visible and effective players in US politics and in the making of US foreign policy." (Rudolph and Rudolph 2006: 2)

Not only this, India and the US share an intangible cultural space and multiple 'soft power' points of contact, mostly stemming from the phenomenal growth of India's professional middle class that is inclined to American education, intellectual influence and lifestyle. Currently, there are more than 105,000 students from India enrolled across America, representing 15 percent of all international students in US higher education, the second largest group after China (Agrawal 2011: 65).

Over the past seven years, legal Indian immigrants have come to the United States at a more rapid rate than any other group. In 2005 and 2006, the Indian-American community, relatively wealthy, geographically dispersed, and well-entrenched in several U.S. business sectors, conducted a major (and apparently successful) lobbying effort to encourage congressional passage of legislation to enable US-India civil nuclear cooperation" (Kronstadt 2009: 7).

Sustaining Economic Development

Since independence, India has used the rhetoric of industrial development to garner support for its nuclear programme. The idea that nuclear energy would spur development is still used; only the economic structure has shifted from state directed capital-intensive development to export-oriented growth led by the private sector. Indian economy has been witnessing a robust growth rate of around 7 per cent since past decade. Against this background, India has successfully presented itself as an attractive market for U.S nuclear reactors and other materials. This in turn has again encouraged major powers to endorse India's nuclear credentials.

Meanwhile, the US economy is in a prolonged phase of slow and jobless growth, In the times of financial crisis, India is seen as a dependable market to invest. India is seen to be a growing economy. Furthermore, the Goldman Sachs Report 2003 had predicted that Indian economy will become the third largest economy after United States and China by 2032 (Patttnayak 2007: 82). Moreover, The impact of global financial meltdown on India has been mild. The Indian economy has been resilient and has witnessed a respectable 5.8 per cent in 2009 and around 8 per cent in 2010. Raja Mohan observed that: “Its not the question whether India wants to be or not wants to be a great power. If the logic of its current economics continues, there is no escaping becoming a major power (Narlikar 2011: 1610)

The massive size of the Indian market, next only to China, has created very high expectations among US firms, many of which already have old links with India. This has led to a sharp demand of the Indian market for world goods.

India’s Security Environment

India is positioned in a place, where two nuclear-armed neighbours, China and Pakistan, surround it. It has already faced four military conflicts with Pakistan and one with China. India has often used this threatening security environment to justify its possession of nuclear weapons. Furthermore, with the growing global focus on the menace of nuclear terrorism, the world has begun to appreciate the original Indian predicament.

Indian Defence minister, George Fernandes had once branded China as “ potential threat number one” (Fernandes 2008). The China threat as a legitimate strategic rationale for India’s nuclearisation is questionable, China has superior nuclear as well as conventional weapons capabilities vis-à-vis India. The most probable reason could be the fact that USA sees in India a potential balancer to China in Asia. India rise can balance, if not challenge Chinese growing dominance in Asia.

Expanding Defence Cooperation

Defence cooperation between India and the US has made exponential progress in the last ten years, especially since the signing of a defence protocol in 2005 by President Bush and Prime Minister Manmohan Singh, and has now become one of the main pillars of the relationship. Since 2002, the United States and India have held frequent and regular exercises involving all wings of their militaries, including joint exercises by US and Indian Special Forces, an annual naval exercise and frequent air exercises by ace fighter squadrons of both nations. In addition, hundreds of US Special Forces soldiers have attended India's Counter-Insurgency Jungle Warfare School. (Agrawal 2011: 61)

India has already become one of the world's biggest arms importers. This has led many major powers like Russia, France, Britain, and Canada gaining interest in finalizing defence agreements with India. This has also facilitated the acceptance of India's identity as a rising powers amidst major powers of the world.

International Institutional Engagement

Not only is India's growth rate soaring, but also it has entered the centre of multilateral diplomacy as a seasoned, accomplished and institutionally engaged player. It is true that India was seldom a quiet or submissive participant in any international regime. Recall, for instance, its leading role in the G77 and the Non-Aligned Movement (NAM) as classic instances of Third World activism in the UN Conference on Trade and Development (UNCTAD) and the UN General Assembly. It was also active in other arenas. To the 56 UN Peacekeeping missions established until 2003, India has contributed over 67 000 personnel to 37 missions (Narlikar 2007: 985).

Today, India forms a part of the G20 group of finance ministers and central bank governors. Again as part of various regional sub-groupings like BRICS, IBSA, BASIC India is playing a decisive role in climate change negotiations. In 2003 India, Brazil and South Africa established the so-called IBSA initiative to strengthen South-South cooperation and to find common positions in the World Trade Organization (WTO). At the climate summit in Copenhagen in December 2009 India formed together with Brazil,

China and South Africa the BASIC group that reached an agreement with the US. India's strong multilateral engagement is still a good indicator for her soft power approach.

Many scholars contend that after the end of the Cold war, Indian foreign policy has undergone a radical transformation and have "identified a marked shift from idealism to pragmatism with national interests taking precedence over norms and ideals" (Sullivan 2008: 73). In contradiction to such an argument, the recent prolonged and intense debate on the Indo- Us nuclear deal highlight the continuing importance attached to normative assertions.

A January 2009 report issued by the New York-based Asia Society asserted that India "matters to virtually every major foreign policy issue that will confront the United States in the years ahead" and it recommended "dramatically enhancing" U.S.-India cooperation between both governments and private sectors" (Kronstadt 2009: 2).

Regional Diplomacy

Since its independence in 1947, India has been involved with recurring conflicts with its immediate neighbours in South Asia. The most bitter of these have manifested in multiple wars and near-wars with Pakistan over the contested terrain of Kashmir, a border war with China in 1962, border and water disputes with Bangladesh since 1971, tense periodic disagreements over the conduct of foreign relations with Nepal and Bhutan, and a clash of worldviews with Sri Lanka and Myanmar.

Each of the neighbouring countries contains sizeable ethnicities that are also found within the borders of India. Bengalis in both Bangladesh and India, Punjabis in both Pakistan and India, Tamils in both Sri Lanka and Southern India, Gurkhas and other tribes in both Nepal and India, tribals on both sides of the Indo-Myanmar and Indo-Bhutanese borders sustain identities not bound by clear national demarcations.(Pattnayak 2007:88).The cultural inter-connectedness complicate the problems further. In the changed equations with major powers, India is often cited as a successful example of multiculturalism.

India has been at the forefront of the reconstruction activities at Afghanistan. Through its provision of education, medical treatment and small-business support, India has projected

considerable soft power in Afghanistan. It provides 2,000 scholarships to Afghans annually for schooling and training in India, including for 500 Afghan civil servants. More than 100 Indian-supported but Afghan-owned small development projects are being implemented. Indian medical missions in Kabul, Jalalabad, Kandahar, Herat and Mazar-e-Sharif provided free treatment for more than 350,000 Afghans in 2009-10 (Rai 2009: 89). India is the biggest aid donor to Afghanistan in the region so far. The activities of India and Pakistan in Afghanistan create immense mutual distrust and suspicion between the two. Pakistan perceives India's presence and influence as a deliberate attempt to encircle it: while India sees Islamabad organizing bases of terrorist activities against India.

Despite the existence of a regional organisation — SAARC — since 1985, political and economic relation between the South Asian nations presents a dismaying picture. For instance, in GDP terms, according to the World Development Report 2006, the combined economies of Afghanistan, Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka only account for 26 per cent of the Indian economy, a share that is only likely to grow smaller with each passing decade. The scope and impact of SAARC has been limited in scope and magnitude due to lack of political will. The tension with Pakistan poses great challenge to Indian diplomacy in this region.

The end of Cold War, the disintegration of USSR and liberalization of the economy led to reorientation of Indian foreign policy. India became a member of ASEAN Regional Forum (ARF) in 1997. During the initial phases, India focussed on economic and institutional partnership with ASEAN but later on broader issues of strategic cooperation were also involved.

Noting the importance of the Look East policy, PM Manmohan Singh in his address to the Asia Society Conference in 2006 said:

I must pay tribute to our East and Southeast Asian neighbours for shaping our own thinking on globalisation and the means to deal with it ... in 1992 our Government launched India's "Look East" policy. This was not merely an external economic policy; it was also a strategic shift in India's vision of the world and India's place in the evolving global economy. Most of all it was about reaching out to our civilisational Asian neighbours (Mohan 2008:46).

In East Asia relations with Japan and South Korea have improved significantly. Such engagement is only expected to increase with the rise of China, as both Japan and Korea have historic reasons to feel China as a potential challenger. (Pattnayak 2007:94). Japan's sanctions following the 1998 nuclear tests have been considerably removed. Recently, both South Korea and Japan concluded a Civilian Cooperation agreement with India.

The most critical aspect in India's diplomacy is its relation with China. Mutual perceptions and policies of "an emerging India and a rising China has increasingly become the focus of public debates around the world" (Singh Swaran 2008: 84). Despite historical and political issues, the two countries have shown immense economic and institutional engagement. Both must ensure that their continued rise does not slide into any unforeseen pitfalls.

Undoubtedly, India by its economic, diplomatic and technological capabilities has enhanced its position in the global politics. This elevated status is mostly the result of India's calculated projection of its identity by various discursive and materialist means.

Through consistent endeavour India has built up its identity as a responsible power and the acknowledgement by the dominant power-USA-testifies this. India has always identified itself as a great power and looked its role beyond the regional horizon. It should be noted that there is no reservations about India's rise but it is still not a great power yet. At best India is a rising power whose importance cannot be ignored.

Constructivism and India's transformation of nuclear identity

Constructivism argues that actors in international politics act in accordance with their understanding and interpretation of the world. In this act of understanding and interpretation, their surroundings around them, identities are constructed and give inter-subjective meanings to them. Thus, identities play a key role in determining interests. India's identity of itself as a dominant actor in international politics has shaped its interests and consequently her behaviour since independence.

The identity of a central actor in international politics has guided India's action. India was one of the founding members of the UN in 1945. As a moral leader, India stood for the decolonisation and the right to self determination of the developed countries and to extent Jawaharlal Nehru along with others started the Non aligned Movement (NAM). India always considered itself as a moral leader of the world.

Nuclear energy was viewed by Nehru and after him almost all Indian leaders as the most potent weapon of gaining international recognition, as one of the foremost nations of the world. India's preference for nuclear technology guided its consequent actions. It is in this light that India has seen itself and other actors. As O' Hagan noted, "Discourses of identity play an important role in framing and constituting the political; they not only help to constitute actors but also establish what is possible, what is legitimate and what is desirable" (Commuri 2010: 11). This aspect of possibility, legitimacy and desirability is profoundly discerned in India's nuclear behaviour.

Nuclear energy was regarded as the most probable route to economic development. Though opposed to nuclear weapons, India's first Prime Minister Jawaharlal Nehru along with Homi J. Bhabha laid the foundation of India's nuclear infrastructure. India remained outside the NPT, the centrepiece of the global non-proliferation regime on the grounds that there cannot be a discriminatory legitimisation of nuclear weapons amongst states by dividing them into haves and have not. India has justified its nuclear tests, mostly on grounds of its insecure and threatening global and regional environment. Again, India has justified the desirability of elimination of nuclear weapons on universal and not selective basis.

India's quest for gaining recognition as a nuclear weapon power has been the most proximate motivation for its engagement with other states. As constructivists contend, identity of 'self' is incomplete until and unless recognized by the 'other'. To that extent, India used both materialist as well as ideational powers to get its identity recognized by international community.

In Wendtian Constructivism, though identity is relatively stable and role specific, it involves evolving images of self and others. India's identity of itself as a great nation has remained almost stable but it has not fixed once and for all. It has had multiple sub-

identities that change over time to fit in the broader 'self-identity'. After the May 1998 tests, from a champion of global disarmament, India has gradually moved towards non-proliferation strategies (e.g. participation in FMCT negotiations).

Through multiple ways — economic, strategic, cultural, diplomatic India has sought acceptance of its nuclear weapons from the global community. In the economic sphere, India has projected itself as a robust with an attractive market and profitable investment destination. Culturally, India has projected its multi-cultural and multi-ethnic ties with other states. Diplomatically, India's relation with almost all major powers has improved tremendously.

Constructivist analysis by its analytic emphasis on identity and interests has the potential to enrich work on India's nuclear behaviour. The Indo-US Deal of 2008 testifies the transformation of India's nuclear identity from an hitherto violator of non proliferation regime to a unique exception to it.

Conclusion

Since the days of Nehru, all Indian leaders, irrespective of their political affiliations have proclaimed a special destiny or mission for India in Asia and the world, based on the greatness of its civilization, its strategic location, and its distinctive view of the world (Cohen 2000: 46). There has been a strong inter linkage between nuclear question and India's greatness. The positions states have on nuclear issues is constructed by the idea they have about itself and the world.

The identity of a state with global role has considerably shaped India's interests. It is through this prism that India has viewed other states. As discussed in the first chapter a state's identity becomes complete only when the "others" recognise that identity. In order to obtain that recognition, India has practised sundry of discursive and material means. The prolific projection of its self-image has led to a partial, if not a complete recognition of India as an emerging power in world politics.

Chapter 5

CONCLUSION

India has always regarded itself as destined to be a major player in international politics. The shift of India's status from a non nuclear weapon state (NNWS) to a 'state with advanced nuclear technology' marks a transformation in India's identity, from a regional to a global player. Till recently, India's was seen as a target of non-proliferation and its role was considered to be limited to South Asia. However, with the signing of Indo-US Nuclear deal, there has been a greater acceptance of India's nuclear credentials and an ascendance in India's status within the comity of nation.

This study explores the reasons behind international community's gradual acceptance of India's nuclear weapons capabilities and nuclear identity. It uses a constructivist lens to examine how India has used its material and discursive power in putting forth its case as a responsible nuclear power (though not yet a legal nuclear weapon state as per the NPT). To attain these objectives, the study is organised into five sections.

In the first Chapter, I have spelt out the theoretical framework within which transformation of India's nuclear identity is analysed in this dissertation. The broad configuration within which the self-identity of a state (in this case India) is investigated is based on the notion of identity as postulated by two prominent constructivist scholars Alexander Wendt and Ted Hopf. Broadly four rationales are advanced to explain state's nuclearisation, namely, security imperatives, technological and scientific momentum, prestige and status and domestic considerations. Though each explanation offers an illuminating insight about India going nuclear, there has been a general neglect of role of identity in understanding India's nuclear behaviour. This study contends that any study of India's nuclear process will be inadequate if the notion of identity is not taken into account.

The second chapter provides a brief historical sketch of India's nuclear journey since independence. On the basis of certain landmark development India's nuclear trajectory has been loosely delineated into various phases. When India gained independence the

nuclear age has already arrived. India could not be oblivious to this extraordinary world reality. During this period, India under the leadership of Prime Minister Nehru followed a dual nuclear policy. Being a pragmatic idealist, Nehru was conscious of the economic benefits of nuclear technology but he was totally against the destructive uses of nuclear weapons. Along with Nehru, Homi Bhabha, the Chairman of AEC played an instrumental role in shaping India's nuclear policy. Globally, Indian leaders advocated global nuclear disarmament, but at the domestic level the importance of atomic energy to India's identity and economic development was underlined.

In Chapter 3 '*The Indo-US Nuclear Deal*', regarded as a historic agreement, has been analysed in all its aspects. The Joint Statement between US President George W. Bush and Indian Prime Minister Manmohan Singh of 18 July 2005 acknowledged India's nuclear capabilities by describing it as a 'state with advanced nuclear power'. The deal has its share of accolades and criticisms. The most interesting part of the deal was the opposition to it within India was more vehement than outside. Within India, the debates focussed mainly on strategic autonomy, independence of foreign policy, right to testing in future, economic feasibility and regional implications. The debates in US revolved around compromising of US non-proliferation goals and the NPT and setting a bad precedent for some potential nuclear proliferators, particularly Iran and North Korea.

Chapter 4 explores the various materialist and ideational discourses employed by India to portray itself as a responsible power with a growing stake in international politics. Immediately after independence, India assumed the leadership of developing countries by playing a critical role in formation of NAM and G77. Later, with Chinese nuclear tests, creation of a discriminatory nuclear order and China-Pakistan nexus, security interests assumed an important factor destabilising Indian identity. In order to advance its self-image as a state with a global role, it has made use of a range of materialist and ideational discourses like a responsible nuclear possessor, a matured and accountable democracy, economic powerhouse, a rich cultural and civilizational legacy, victim of terrorism as well as constructive engagement with major powers and international institutions. It is this the calibrated projection of India as a responsible stakeholder that has facilitated its acceptance as a de facto nuclear weapon power by the global community, as amplified by the Indo-US Nuclear Deal.

Barring few exceptions, there has been consensus and continuity in India's nuclear behaviour. It is mostly because of the way India has perceived itself and its role in the international stage.

II

India's quest for a recognition of its nuclear capabilities as a first step towards projecting its image of a global power validates the basic assumption of this study, that is, identities and interests drive the actions of a state. India's nuclear identity was not endogenously given rather it was constructed by investing certain set of preponderant meanings to it. India's nuclear interaction with states have impacted and in turn affected India's identity of itself. Through a calibrated manner and by using its discursive power, India has achieved the status of a de facto nuclear weapon state despite remaining outside the NPT.

The nuclear discourses in India are not only about objective realist/neoliberal issues of insecurity and strategic interdependence but also contain subjective implications. From the very beginning, India has attributed political as well as strategic essence to nuclear weapons. During Nehruvian time, nuclear option was judged not on any country specific security considerations but on philosophical grounds of Gandhian idealism. India's nuclear policy has displayed two different strands. While espousing the case for global nuclear disarmament, India kept its atomic and space research program going, even though in a sporadic manner.

The newly independent India viewed nuclear weapons as a destabilizing factor that not only threatened global security but also human values. Such a worldview was put forward clearly by India's first PM Pandit Jawaharlal Nehru who took a pronounced stance in international institutions for total and complete elimination of all nuclear weapons. At the same time, Nehru was equally aware of the importance of atomic energy in industrial development. In the meantime, the Indian scientists developed the technological means for producing nuclear technology that can be used for peaceful purposes of meeting energy needs and industrial development. To a nation that just came out of 200 years of colonial yoke, atomic energy symbolised modernity, national prowess and international leverage.

But in the aftermath of the India-China Border war, it became increasingly clear to India that the present nuclear strategy was not sufficient and thereby India started seeking positive nuclear assurances from great powers. During the 1960s and 1970s the cost of a nuclear program prevented India from considering nuclear option. The security concerns started developing in India with perceived Chinese and Pakistani nuclear threats. Shastri succeeded Nehru as the Prime minister of India. He followed a guarded approach towards India's nuclear programme. Resisting domestic pressure within and outside his party, he stuck to no weapons policy.

Under the leadership of Indira Gandhi, India conducted its first nuclear test (PNE) in May 1974. India garbed the tests under normative overtures by describing the 1974 tests as Peaceful Nuclear Explosions (PNE) and named it 'Smiling Buddha'. The magnitude of international reactions surprised India. To prevent the international sanctions and increasing cost of nuclear build-up India went into nuclear slumber for next 24 years. It was the fear of economic sanctions and the huge cost of nuclear weapons programme, which prevented India from going nuclear out rightly. Furthermore, there were external pressures and also political costs of crossing the rubicon.

India's nuclear programme was revived after the coming in power of the young Prime Minister Rajiv Gandhi in 1984. He allowed modernization of India's nuclear programme by giving a green signal to The 'Missile man of India' A.P.J. Kalam to start IGMDP in 1983. He continued the policy of nuclear ambiguity throughout the 1990s. The 1990s witnessed a time of political turmoil for Indian system wherein three governments changed within a span of six years. However, there was no drastic change in India's nuclear posture: It remained ready to fire and yet under the carpet.

Thus, from independence to 1998 nuclear tests, India's nuclear policy displayed four major elements - opposition to military use of nuclear weapons, time bound programme for complete and global nuclear disarmament, developing nuclear technology only for peaceful purposes and opposition to the discriminatory nuclear regimes and treaties. But at no point of time in India's nuclear history did India thought of giving up nuclear weapons. India's elimination of nuclear weapons programme was contingent upon a total

and universal nuclear disarmament.

During most of India's post-independence period the nuclear question was viewed as a taboo trade-off between its moral integrity as a non-nuclear weapons state on the one hand, and the pursuit of power politics on the other. But during the 1980s and 1990s, the choice was gradually reframed as a tragic trade-off: the nuclear taboo was broken for the sake of moral values attributed to the possession of nuclear weapons, above all the quest for an international nuclear order both just and equity-based (Fray 2007: 381).

The objective of India's nuclear diplomacy has radically transformed after the tests. Until 11 May, the purpose was to create and sustain the option to make nuclear weapons when needed. Since Pokhran II, the diplomatic task has been to defend India's nuclear deterrent, reduce the political and economic fallout of exercising India's nuclear option, and eventually gain international acceptance of its new status" (Nayar and Paul 2003: 225).

As constructivists say, the emergence of norms and other social processes change identity and interests, and as such have a decisive impact on nuclear choices of states. The normative context of the nuclear question heavily influences the choices states make. Prior to 1998, India's nuclear discourse was guided by a deep-seated sense of victimization. Even after India conducted nuclear tests in 1998, it has to couch it in normative justification of a result of security compulsion of a state with clear and impeccable non-proliferation records. But after the 1998 tests, we witness a more assertive India as compared to the docile one in earlier times. The Indian Prime Minister Vajpayee openly declared India as a nuclear weapon state and was willing to bear the repercussions of such a proclamation. On one hand, there was an assertive India and on the other side there was a diplomatically active India willing to talk on every possible nation that can help it achieve its national interests, shaped by its conception of itself as an effective participant in international politics.

The study reinforces the notion that it was the calibrated projection of India as a responsible stakeholder that has facilitated India's acceptance as a de facto nuclear weapon power by the global community. It reflects the adroit Indian diplomatic strategy

of drawing on international norms. The US–India nuclear deal is a bold recognition by the dominant power, US, of the rising global profile of India and an attempt to carve out a strategic partnership with a nation with which it shares not only a range of significant interests but also a whole range of political and cultural values. More significantly, there is a sense in India that with this agreement the world has finally reconciled itself to India’s status as a nuclear power and a major global player.

This study therefore fills a critical gap by establishing how it is only after analysing India’s nuclear behaviour from a constructivist prism of identity, and interest that one can get a complete picture of the process of transformation of India’s nuclear identity from a irresponsible nuclear weapon state to a de facto nuclear weapon state and consequently from a regional power to major global power.

III

On the basis of the study an endeavour has been made to outline a small research agenda for future IR scholars, which will be discussed in this section. Recognizing and acknowledging the importance of the social nature of man, and hence the social constructions of man - paves the way for a deeper understanding, and perhaps even groundbreaking reformulation, of explanations of world events.

India’s nuclear behaviour has been explained by a myriad of theoretical standpoints, all making significant contribution to the broad corpus of academic research. However, in the entire literature on nuclear policy very less attention have been given to a post modernist analysis of nuclear strategy. Particularly, the Feminist tradition within IR has been almost neglected in the study of high politics. There is a growing need to fill this void. Feminism offers an interesting insight about nuclear policy. Feminist scholars are generally critical of the way in which male decision makers dominate international politics. The norms, cultures and institutions set up by the international system is also men dominated. In a similar fashion, gender perspectives have been underplayed in nuclear decision-making and policy analysis.

Further, there has been no serious endeavour to explain the reason behind the near exclusion of the army in the Indian nuclear decision making process. Security studies

today cannot be complete without understanding human security, soft power, interdependence of actors, increasing role of non-actor. Finally, academic research is a never ending quest for understanding and explaining world events and this quest for questioning forms the bedrock of a good research.

On 11 March 2011, the Fukushima Daichii plant in Japan experienced a nuclear core meltdown following an earthquake. It is the second worst nuclear disaster after Chernobyl, leading to massive impact on human health and lives. This has led to worldwide debate on the utility of nuclear reactors for energy purposes. In India this debate is important for two reasons. The first is that India has experienced the world's worst industrial disaster, the Bhopal Gas Disaster in 1985, and is still struggling with its consequences. Secondly, India is aiming to establish a number of nuclear plants in the near future to boost its electricity production. In India, there were public protests to the Koodankulam nuclear power plant in Tamil Nadu. In light of this changed realities, what is worth noticing is how India responds to it.

Since the very beginning India has viewed nuclear research and technology as symbolizing its greatness. At no point in time in India's nuclear journey did India talk about unilateral or voluntary renunciation of nuclear weapons. This exemplifies the role nuclear weapons play in India's understanding of itself.

Identities evolve, transform, fade and re-establish it. The transformation of India's nuclear identity has taken place. What is to be seen is now how will India deal with this elevated identity. Will it be able to sustain it? Will it be a player, which will follow hard-core national interest or contribute something meaningful? Only time will decide this.

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APPENDICES

INDIA'S NUCLEAR DRAFT DOCTRINE

PREAMBLE

1.1. The use of nuclear weapons in particular as well as other weapons of mass destruction constitutes the gravest threat to humanity and to peace and stability in the international system. Unlike the other two categories of weapons of mass destruction, biological and chemical weapons which have been outlawed by international treaties, nuclear weapons remain instruments for national and collective security, the possession of which on a selective basis has been sought to be legitimised through permanent extension of the nuclear Non-Proliferation Treaty in May 1995. Nuclear weapon states have asserted that they will continue to rely on nuclear weapons, with some of them adopting policies to use them even in a non-nuclear context. These developments amount to virtual abandonment of nuclear disarmament. This is a serious setback to the struggle of the international community to abolish weapons of mass destruction.

1.2. India's primary objective is to achieve economic, political, social, scientific and technological development within a peaceful and democratic framework. This requires an environment of durable peace and insurance against potential risks to peace and stability. It will be India's endeavour to proceed towards this overall objective in cooperation with the global democratic trends and to play a constructive role in advancing the international system toward a just, peaceful and equitable order.

1.3. Autonomy of decision making in the developmental process and in strategic matters is an inalienable democratic right of the Indian people. India will strenuously guard this right in a world where nuclear weapons for a select few are sought to be legitimised for an indefinite future, and where there is growing complexity and frequency in the use of force for political purposes.

1.4. India's security is an integral component of its development process. India continuously aims at promoting an ever-expanding area of peace and stability around it so that development priorities can be pursued without disruption.

1.5. However, the very existence of offensive doctrines pertaining to the first use of nuclear weapons and the insistence of some nuclear weapon states on the legitimacy of their use even against non-nuclear weapon countries constitute a threat to peace, stability and sovereignty of states.

1.6. This document outlines the broad principles for the development, deployment and employment of India's nuclear forces. Details of policy and strategy concerning force structures, deployment and employment of nuclear forces will flow from this framework and will be laid down separately and kept under constant review.

OBJECTIVES

2.1. In the absence of global nuclear disarmament India's strategic interests require effective, credible nuclear deterrence and adequate retaliatory capability should deterrence fail. This is consistent with the United Nations Charter, which sanctions the right of self-defence.

2.2. The requirements of deterrence should be carefully weighed in the design of Indian nuclear

forces and in the strategy to provide for a level of capability consistent with maximum credibility, survivability, effectiveness, safety and security.

2.3. India shall pursue a doctrine of credible minimum nuclear deterrence. In this policy of “retaliation only,” the survivability of our arsenal is critical. This is a dynamic concept related to the strategic environment, technological imperatives and the needs of national security. The actual size, components, deployment and employment of nuclear forces will be decided in the light of these factors. India’s peacetime posture aims at convincing any potential aggressor that:

a. any threat of use of nuclear weapons against India shall involve measures to counter the threat; and

b. any nuclear attack on India and its forces shall result in punitive retaliation with nuclear weapons to inflict damage unacceptable to the aggressor.

2.4. The fundamental purpose of Indian nuclear weapons is to deter the use and threat of use of nuclear weapons by any state or entity against India and its forces. India will not be the first to initiate a nuclear strike, but will respond with punitive retaliation should deterrence fail.

2.5. India will not resort to the use or threat of use of nuclear weapons against states which do not possess nuclear weapons, or are not aligned with nuclear weapon powers.

2.6. Deterrence requires that India maintain: **a.** sufficient, survivable and operationally prepared nuclear forces. **b.** robust command and control system. **c.** effective intelligence and early warning capabilities. **d.** comprehensive planning and training for operations in line with the Strategy, and **e.** the will to employ nuclear forces and weapons.

2.7. Highly effective conventional military capabilities shall be maintained to raise the threshold of outbreak both of conventional military conflict as well as that of threat or use of nuclear weapons.

NUCLEAR FORCES

3.1. India’s nuclear forces will be effective, enduring, diverse, flexible, and responsive to the requirements in accordance with the concept of credible minimum deterrence. These forces will be based on a triad of aircraft, mobile land- based missiles and sea-based assets in keeping with the objectives outlined above.

Survivability of the forces will be enhanced by a combination of multiple redundant systems, mobility, dispersion and deception.

3.2. The doctrine envisages assured capability to shift from peacetime deployment to fully employable forces in the shortest possible time, and the ability to retaliate effectively even in a case of significant degradation by hostile strikes.

CREDIBILITY AND SURVIVABILITY

The following principles are central to India’s nuclear deterrent:

4.1. Credibility: Any adversary must know that India can and will retaliate with sufficient nuclear weapons to inflict destruction and punishment that the aggressor will find unacceptable if nuclear weapons are used against India and its forces.

4.2. Effectiveness: the efficacy of India’s nuclear deterrent be maximized through synergy among

all elements involving reliability, timeliness, accuracy and weight of the attack.

4.3. Survivability: a. India's nuclear forces and their command and control shall be organized

for very high survivability against surprise attacks and for rapid punitive response. They shall be designed and deployed to ensure survival against a first strike and to endure repetitive attrition attempts with adequate retaliatory capabilities for a punishing strike, which would be unacceptable to the aggressor.

b. Procedures for the continuity of nuclear command and control shall ensure a continuing capability to effectively employ nuclear weapons.

COMMAND AND CONTROL

5.1. Nuclear weapons shall be tightly controlled and released for use at the highest political level. The authority to release nuclear weapons for use resides in the person of the Prime Minister of India, or his designated successor(s).

5.2. An effective and survivable command and control system with requisite flexibility and responsiveness shall be in place. An integrated operational plan, or a series of sequential plans, predicated on strategic objectives and a targeting policy shall form part of the system.

5.3. For effective employment, the unity of command and control of nuclear forces including dual capable delivery systems shall be ensured.

5.4. The survivability of the nuclear arsenal and effective command, control, communications, computing, intelligence and information (C412) systems shall be assured.

5.5. The Indian defence forces shall be in a position to execute operations in an NBC environment with minimal degradation.

5.6. Space based and other assets shall be created to provide early warning, communications, damage/detonation assessment.

SECURITY AND SAFETY

6.1. Security: Extraordinary precautions shall be taken to ensure that nuclear weapons, their manufacture, transportation and storage are fully guarded against possible theft, loss, sabotage, damage or unauthorized access or use.

6.2. Safety is an absolute requirement and tamper-proof procedure and systems shall be instituted to ensure that unauthorized or inadvertent activation/use of nuclear weapons does not take place and risks of accident are avoided.

6.3. Disaster Control: India shall develop an appropriate disaster control system capable of handling the unique requirements of potential incidents involving nuclear weapons and materials.

RESEARCH AND DEVELOPMENT

7.1. India should step up efforts in research and development to keep up with technological advances in this field.

7.2. While India is committed to maintain the deployment of a deterrent which is both minimum and credible, it will not accept any restraints on building its R&D capability.

DISARMAMENT AND ARMS CONTROL

8.1. Global, verifiable and non-discriminatory nuclear disarmament is a national security objective. India shall continue its efforts to achieve the goal of a nuclear weapon-free world at an early date.

8.2. Since no-first use of nuclear weapons is India's basic commitment, every effort shall be made to persuade other states possessing nuclear weapons to join an international treaty banning first use.

8.3. Having provided unqualified negative security assurances, India shall work for internationally binding unconditional negative security assurances by nuclear weapon states to non-nuclear weapon states.

8.4. Nuclear arms control measures shall be sought as part of national security policy to reduce potential threats and to protect our own capability and its effectiveness.

8.5. In view of the very high destructive potential of nuclear weapons, appropriate nuclear risk reduction and confidence building measures shall be sought, negotiated and instituted

Source: Embassy of India (1999), *The Draft Report Of India's Nuclear Doctrine* [online: Web]
URL: [Online:web] Accessed on 14 November 2012,
URL:http://www.indianembassy.org/policy/CTBT/nuclear_doctrine_aug_17_1999.html>

TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

The States concluding this Treaty, hereinafter referred to as the “Parties to the Treaty”,

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States,

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in co-operation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the co-operation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water in its Preamble to seek to achieve the

discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Have agreed as follows:

ARTICLE I

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

ARTICLE II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices .

ARTICLE III

1. Each Non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfilment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Procedures for the

safeguards required by this Article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. The safeguards required by this Article shall be applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere.

2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article.

3. The safeguards required by this Article shall be implemented in a manner designed to comply with Article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international co-operation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this Article and the principle of safeguarding set forth in the Preamble of the Treaty.

4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this Article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or accession after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

ARTICLE IV

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty.

2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also cooperate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

ARTICLE V

Each Party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a non-discriminatory basis and that the charge to such Parties for the explosive devices used will be as low as possible

and exclude any charge for research and development. Non-nuclear- weapon States Party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear-weapon States. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

ARTICLE VI

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

ARTICLE VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

ARTICLE VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.

3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realised. At intervals of five years thereafter, a majority of the Parties to the Treaty may obtain, by submitting a proposal to this effect to the Depositary Governments, the convening of further conferences with the same objective of reviewing the operation of the Treaty.

ARTICLE IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics and the United States of America, which are hereby designated the Depositary Governments.
3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositaries of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear- weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January, 1967.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.
6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

ARTICLE X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.
2. Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.

ARTICLE XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies

of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorised, have signed this Treaty.

DONE in triplicate, at the cities of London, Moscow and Washington, the first day of July, one thousand nine hundred and sixty-eight.

Source: Text of the *Non-Proliferation Treaty (NPT)* Signed at Washington, London, and Moscow, 1 July 1968. [Online: Web] Accessed on 19 November 2011 URL: http://www.nti.org/media/pdfs/aptnpt.pdf?_=1316547167&_=1316547167

**Text of the letter by Indian PM Atal Behari Vajpayee to US President Bill Clinton
on 14 May 1998**

Dear Mr. President,

You would already be aware of the underground nuclear tests carried out in India. In this letter, I would like to explain the rationale for the tests.

I have been deeply concerned at the deteriorating security environment, specially the nuclear environment, faced by India for some years past. We have an overt nuclear weapon state on our borders, a state which committed armed aggression against India in 1962. Although our relations with that country have improved in the last decade or so, an atmosphere of distrust persists mainly due to the unresolved border problem. To add to the distrust that country has materially helped another neighbour of ours to become a covert nuclear weapons state. At the hands of this bitter neighbor we have suffered three aggressions in the last 50 years. And for the last ten years we have been the victim of unremitting terrorism and militancy sponsored by it in several parts of our country, specially Punjab and Jammu & Kashmir. Fortunately, the faith of the people in our democratic system as also their patriotism has enabled India to counter the activities of the terrorists and militants aided and abetted from abroad.

he series of tests are limited in number and pose no danger to any country which has no inimical intentions towards India. We value our friendship and cooperation with your country and you personally. We hope that you will show understanding of our concern for India's security.

I assure you that India will continue to work with your country in a multilateral or bilateral framework to promote the cause of nuclear disarmament. Our commitment to participate in non-discriminatory and verifiable global disarmament measures is amply demonstrated by our adherence to the two conventions on Biological and Chemical Weapons. In particular we are ready to participate in the negotiations to be held in Geneva in the Conference on Disarmament for the conclusion of a fissile material cut-off treaty.

I enclose for your information the text of the press statement issued after the nuclear tests were carried out today. I close with the expression of my highest consideration for your country and yourself.

Yours sincerely,

A. B. VAJPAYEE

Source: Text of Vajpayee's letter to Clinton on May 14, 1998, *The Indian Express*, May 14 1998,
[Online: web] Accessed on 3 September 2011
URL:<http://www.expressindia.com/fe/daily/19980514/13455844.html>

**India-US Joint Statement
Washington D.C**

JULY 18, 2005

President George W. Bush and Prime Minister Manmohan Singh today expressed satisfaction with the great progress the United States and India have made in advancing our strategic partnership to meet the global challenges of the 21st century. Both our countries are linked by a deep commitment to freedom and democracy; a celebration of national diversity, human creativity and innovation; a quest to expand prosperity and economic opportunity worldwide; and a desire to increase mutual security against the common threats posed by intolerance, terrorism, and the spread of weapons of mass destruction. The successful transformation of the U.S.-India relationship will have a decisive and positive influence on the future international system as it evolves in this new century.

Reviewing the progress made in deepening the global partnership between the United States and India since their Joint Statement of July 18, 2005, the President and the Prime Minister reaffirm their commitment to expand even further the growing ties between their two countries. Consistent with this objective, the two leaders wish to highlight efforts the United States and India are making together in the following areas, where they have:

FOR ECONOMIC PROSPERITY AND TRADE

(1) Agreed to intensify efforts to develop a bilateral business climate supportive of trade and investment by:

1. Welcoming the report of the U.S.-India CEO Forum, agreeing to consider its recommendations aimed at substantially broadening our bilateral economic relations, and directing the Chairs of the Indo-U.S. Economic Dialogue to follow up expeditiously with the CEO Forum;

2. Endorsing the efforts of the U.S.-India Trade Policy Forum to reduce barriers to trade and investment with the goal of doubling bilateral trade in three years;

3. Agreeing to advance mutually beneficial bilateral trade and investment flows by holding a high-level public-private investment summit in 2006, continuing efforts to facilitate and promote foreign direct investment and eliminate impediments to it, and enhancing bilateral consultations on various issues including tariff and non-tariff barriers to trade in goods and services, and preventing the illicit use of the financial system.

(2) Sought to expand cooperation in agriculture by:

1. Launching the Knowledge Initiative on Agriculture with a three-year financial commitment to link our universities, technical institutions, and businesses to support agriculture education, joint research, and capacity building projects including in the area of biotechnology.

2. Endorsing an agreed work plan to promote bilateral trade in agriculture through agreements that: lay out a path to open the U.S. market to Indian mangoes, recognize India as having the authority to certify that shipments of Indian products to the United States meet USDA organic standards, and provide for discussions on current regulations affecting trade in fresh fruits and vegetables, poultry and dairy, and almonds.

(3) Reaffirmed their shared commitment to completing the WTO Doha Development Agenda (DDA) before the end of 2006, and agreed to work together to help achieve this outcome.

FOR ENERGY SECURITY AND A CLEAN ENVIRONMENT

(1) Welcomed the successful completion of discussions on India's separation plan and looked forward to the full implementation of the commitments in the July 18, 2005 Joint Statement on nuclear cooperation. This historic accomplishment will permit our countries to move forward towards our common objective of full civil nuclear energy cooperation between India and the United States and between India and the international community as a whole.

(2) Welcomed the participation of India in the ITER initiative on fusion energy as an important further step towards the common goal of full nuclear energy cooperation.

(3) Agreed on India's participation in FutureGen, an international public-private partnership to develop new, commercially viable technology for a clean coal near-zero emission power project. India will contribute funding to the project and participate in the Government Steering Committee of this initiative.

(4) Welcomed the creation of the Asia Pacific Partnership on Clean Development and Climate, which will enable India and the U.S. to work together with other countries in the region to pursue sustainable development and meet increased energy needs while addressing concerns of energy security and climate change. The Partnership will collaborate to promote the development, diffusion, deployment and transfer of cleaner, cost-effective and more efficient technologies and practices.

(5) Welcomed India's interest in the Integrated Ocean Drilling Program, an international marine research endeavor that will contribute to long-term energy solutions such as gas hydrates.

(6) Noting the positive cooperation under the Indo-U.S. Energy Dialogue, highlighted plans to hold joint conferences on topics such as energy efficiency and natural gas, to conduct study missions on renewable energy, to establish a clearing house in India for coal-bed methane/coal-mine methane, and to exchange energy market information.

FOR INNOVATION AND THE KNOWLEDGE ECONOMY

(1) Emphasizing the importance of knowledge partnerships, announced the establishment of a Bi-National Science and Technology Commission which the U.S. and India will co-fund. It will generate collaborative partnerships in science and technology and promote industrial research and development.

(2) Agreed that the United States and India would work together to promote innovation, creativity and technological advancement by providing a vibrant intellectual property rights regime, and to cooperate in the field of intellectual property rights to include capacity building activities, human resource development and public awareness programs.

(3) Agreed to continue exploring further cooperation in civil space, including areas such as space exploration, satellite navigation, and earth science. The United States and India committed to move forward with agreements that will permit the launch of U.S. satellites and satellites containing U.S. components by Indian space launch vehicles, opening up new opportunities for commercial space cooperation between the two countries.

(4) Welcomed the inclusion of two U.S. instruments in the Indian lunar mission Chandrayaan-1. They noted that memoranda of understanding to be signed by ISRO and NASA would be significant steps forward in this area.

(5) Welcomed the U.S. Department of Commerce's plan to create a license exception for items that would otherwise require an export license to end-users in India engaged solely in civilian activities.

FOR GLOBAL SAFETY AND SECURITY

(1) Noted the enhanced counter-terrorism cooperation between the two countries and stressed that terrorism is a global scourge that must be fought and rooted out in every part of the world.

(2) Welcomed the increased cooperation between the United States and India in the defense area, since the New Framework for the U.S.-India Defence Relationship was signed on June 28, 2005, as evidenced by successful joint exercises, expanded defence cooperation and information sharing, and greater opportunities to jointly develop technologies and address security and humanitarian issues.

(3) Reaffirmed their commitment to the protection of the free flow of commerce and to the safety

of navigation, and agreed to the conclusion of a Maritime Cooperation Framework to enhance security in the maritime domain, to prevent piracy and other transnational crimes at sea, carry out search and rescue operations, combat marine pollution, respond to natural disasters, address emergent threats and enhance cooperative capabilities, including through logistics support. Both sides are working to finalize a Logistics Support Agreement at the earliest.

(4) Welcomed India's intention to join the Container Security Initiative aimed at making global maritime trade and infrastructure more secure and reducing the risk of shipping containers being used to conceal weapons of mass destruction.

(5) Reiterated their commitment to international efforts to prevent the proliferation of weapons of mass destruction.

(6) Building on the July 2005 Disaster Relief Initiative, noted the important disaster management cooperation and their improved capabilities to respond to disaster situations.

(7) Recognized the importance of capacity building in cyber security and greater cooperation to secure their growing electronic interdependencies, including to protect electronic transactions and critical infrastructure from cybercrime, terrorism and other malicious threats.

DEEPENING DEMOCRACY AND MEETING INTERNATIONAL CHALLENGES

(1) Recalled their joint launch of the UN Democracy Fund in September 2005 and offered the experience and expertise of both Governments for capacity building, training and exchanges to third countries that request such assistance to strengthen democratic institutions.

(2) Welcomed the decision of India and the United States to designate a representative to the Government Advisory Board of the International Centre for Democratic Transition (ICDT) located in Budapest to facilitate cooperative activities with ICDT.

(3) Agreed that the Virtual Coordination and Information Centres set up in September 2005 should be further strengthened and a bilateral meeting aimed at developing a practical programme for utilization of its services be held soon.

(4) Expressed satisfaction at the expedited USFDA drug approval processes that strengthen the combat against HIV/AIDS at the global level and encourage greater corporate participation to meet this challenge, including the establishment of the Indo-U.S. Corporate Fund for HIV/AIDS.

(5) Agreed to expand bilateral efforts and continue cooperation in the area of medical research and strengthen technical capacity in food and drug regulation in India as well as address the concern on avian influenza, including agreement to reach out to the private sector, develop

regional communications strategies, and plan an in-region containment and response exercise. The President welcomed India's offer to host the International Partnership on Avian and Pandemic Influenza meeting in 2007.

(6) Welcomed India's membership in the Coalition Against Wildlife Trafficking, a partnership through which we will collaborate in the fight against illegal trade in wildlife and wildlife parts; we also welcome the opportunity to strengthen longstanding work together on the conservation of wildlife through cooperation on park management and ecotourism.

President Bush thanked Prime Minister Singh and the people of India for the warmth of their reception and the generosity of their hospitality.

Source: MEA, India (2005), *Indo-US Joint Statement*, 18 July 2005, Washington D,C, [Online:web] accessed on 16 July 2011, URL: <http://meaindia.nic.in/mystart.php?id=53019889>