Durham E-Theses

THE POLITICS OF SOUTHERN ASIAN BALLISTIC MISSILES: TOWARDS A FRAMEWORK FOR A MUTUAL RESTRAINT REGIME

KHAN, MUHAMMAD,TAYYEB

THE POLITICS OF SOUTHERN ASIAN BALLISTIC MISSILES: TOWARDS A FRAMEWORK FOR A MUTUAL RESTRAINT REGIME

Muhammad Tayyeb Khan

A thesis submitted in partial fulfilment of the requirements of Durham University for the degree of Doctor of Philosophy in International Relations

PhD in International Relations

School of Government & International Affairs

Durham University

2010

ABSTRACT

Southern Asia is witnessing the rapid proliferation of ballistic missiles in and around the region. This proliferation phenomenon, together with ongoing and enduring conflicts amongst the "competing parties" (China, India and Pakistan) creates a potential surfacing of "nuclear flashpoint" in the region. This research is an endeavour to explore the causes of this nuclear and missile race amongst the Southern Asian powers (China, India, and Pakistan) with the help of the theory of strategic culture.

This study proceeds in the following way: it assesses the geo-political forces at work in the region; examines the strategic culture of China, India and Pakistan; traces the motivation of these countries for the strategic weapon programmes and delivery systems; describes their nuclear doctrines and command and control structures; and the current status of their ballistic missile programmes. It then addresses the prospects for Pakistan, India and China to move towards a system of mutual restraint regime, in which international regime theory is discussed as a conceptual framework; cold war models of strategic arms limitation and reduction models are studied and the important role of Confidence and Security Building Measures (CSBMs) is identified. The same procedure is then applied in the context of Southern Asian region; problem areas identified with the help of CSBMs tools; and conclusions reached as to the potential to move beyond CSBMs into full restraint regime.

The study finds the very nature of the overlapping threat perceptions and the continuance of the unresolved issues and disputes as the main hurdles in the successful restraint models. Recommendations are therefore made for more comprehensive CSBMs leading to a Southern Asian regional version of cold war prototypes of strategic arms limitation and reduction for a more comprehensive and fruitful restraint model, which might then be applied and adhered to at the global level.

The study therefore opens new avenues of research and progress in the discipline.

ACKNOWLEDGMENTS

First and the foremost, Praise be to Allah, The Lord of the worlds, the infinitely Good, the all merciful and may peace and blessings of Allah SWT be upon the last of His Prophets and messengers Muhammad ﷺ. It is Allah SWT to whom my perpetual, continual and undying gratitude for His everlasting Guidance, Support and Blessings on me all through my life. The completion of this work is another manifestation of His Graciousness, and Kindness that I could never forget and deny.

Second, my parents, my late father Hazrat Maulana Abdul Rashid (May Allah SWT have mercy on him) and my very honourable mother (May Allah SWT bless her with a healthy, long and prosperous life), their prayers were a great moral and spiritual support to me.

Third, I would like to express my deepest appreciation and approbation to my Supervisor, adviser and friend Dr. David S. Kerr for the true encouragement, guidance and support he big-heartedly and open-handedly provided me.

Fourth, I wish to extend my intimate recognition, credit and respect to all my brothers and sisters (in blood and in law); my colleagues and friends, whose generous material and moral support helped and enabled me to conduct and complete this research work.

Lastly, my dear wife, my Daughters Rafi and Dani and my son 'Zilmaarij' for an unflinching support to me during my studies.

DEDICATION

I dedicate my work to the loving memories of my great Father who together with my mother taught me generosity, loyalty, self sacrifice, and content in all whatever we come across in our life.

I also dedicate my work to my children Rafi, Dani and Zilmaarij with a wish that they will hold the torch of knowledge high and take it further as 'Knowledge is the Prophetic inheritance'.

CONTENTS

List of Figures

Chapter 1

INTRODUCTION

This research discusses a strategic region that will be called 'Southern Asia'[1], which has at its core three countries: India, Pakistan and China. The research will discuss different aspects of this strategic region, including the strategic culture of the Southern Asian countries of China, India and Pakistan, their motivations to develop strategic nuclear weapons systems, nuclear doctrines and arsenals etc. Prior to such explanations, it is very beneficial to study the geo-strategic environment of Southern Asia as it will help in further contextualizing their relationships and will thus have direct bearing on the rest of the research discussions.

In this Southern Asian region several important developments over the last decade in the security arena have taken place. These include: both the vertical and horizontal proliferation of the Strategic Weapons Systems (SWS) in the region following the India and Pakistan nuclear tests and the subsequent race for the acquisition of highly developed state of the art ballistic missile systems to serve their nuclear doctrines; and this nuclear challenge being conducted along side the Kargil war in Kashmir; Afghanistan being attacked and occupied by the allied powers under United States for a war against terror; and furthermore, war clouds heading for Iran with another potential breach of proliferation norms. At the same time the United States-India

---

[1] "Southern Asia" is defined broadly to include the lands from the Persian Gulf to Malaysia and Indonesia, but primarily to include China, as well as India and Pakistan, in the nuclear equation. These, as Sonika Gupta, Arpit Rajain and others note, constitute a unique "strategic triangle," with "asymmetries" that are explored in several of the contributions.

William L. Richter, "Review: [Untitled]," *Pacific Affairs* 77, no. 4 (2004).

This term is also widely used in scholarship such as: Raju G. C. Thomas, "Security Relationships in Southern Asia: Differences in the Indian and American Perspectives," *Asian Survey* 21, no. 7 (1981);P. R. Chari et al., *Nuclear Stability in Southern Asia* (New Delhi: Manohar Publishers & Distributors, 2003);Uday Bhaksar, "Ten Years after Pokhran II: Nuclear Stability in Southern Asia," (2008), http://www.carnegieendowment.org/events/?fa=eventDetail&id=1131;Michael Krepon, "Is Cold War Experience Applicable to Southern Asia?," in *Nuclear Risk Reduction in South Asia*, ed. Michael Krepon (New York: Palgrave Macmillan, 2004).

strategic partnership along with the signing of their nuclear deal is also reflective of some very significant United States stakes here in this region. The United States-China dynamic has also been more manifest in the area and the competitive nature of relationship between these two is also growing so that along with Taiwan this region may yet provide a second 'would be' flash point.

1.0. STATEMENT OF THE PROBLEM

Ballistic missile proliferation has emerged as one of the most salient security issues since the end of the Cold War. The continued missile tests of the last few years by India and Pakistan coupled with the nuclear testing by both countries had seriously undercut international non-proliferation efforts and continue to pose grave threats to global and regional security. On the global security stage the spread and development of ballistic missile systems and related technology across the world has presented a herculean task:

i. To contain the proliferation of Weapons of Mass Destruction (WMD),
ii. To create an environment conducive for the reduction and gradual dismantlement of the existing arsenals, and
iii. To move closer to the objectives of achieving a world free of WMDs.

Similarly, at the regional level the unchecked and continued spread of ballistic missiles technology is:

i. Exacerbating the mutual fears and tensions, and consequently thus
ii. Fuelling regional arms races.

From the non-proliferation perspective, these trends on the global as well as regional level along with the continued missile research and development programs and growing qualitative improvements in domestic production capabilities are creating instability and insecurity in a number of regional security settings. Furthermore, due to the continued proliferation of the ballistic missile systems and the relevant technologies today, the analysts and policy makers are confronting serious issues regarding:

i.   the threat and potential use of missiles armed with weapons of mass destruction during conflicts,

ii. the consequences of missiles proliferation for regional stability and crisis management,

iii. negative impacts on arms control and disarmament undertakings, and

iv. future prospects for international missile non proliferation controls.

Today all such concerns are highly evident in the case of Southern Asian countries of Pakistan, India and China. Southern Asia today is in the throes of a languorous arms race, which has the potential of spiralling into an unintended but lethal confrontation between China, India and Pakistan[2]. Although this build-up is apparent in both the conventional and nuclear spheres, it is particularly evident in the area of nuclear weapons and their related means of delivery, especially missiles, and this without any doubt is likely to have serious strategic implications for the region and beyond. Therefore, the Southern Asian Missile Restraint Regime[3] as a distinct technological

---

[2] Waheguru Pal Singh Sidhu, "A Languid but Lethal Arms Race " in *India and Pakistan: Peace by Piece*, ed. Kerstin Vignard (Geneva, Switzerland: UNDIR, 2004).

[3] Many writers across the world have started writing about the need of having a restraint regime in South Asia, For example See: Brigadier Feroz Hassan Khan, Gaurav Rajen, and Michael Vannoni, "A Missile Stability Regime for South Asia," in *Cooperative Monitoring Center Occasional Paper* (Albuquerque, New Mexico: Sandia National Laboratories, 2004);Steven E. Miller, "Nuclearization of South Asia: Problems and Solutions A Conference Report," in *Nuclearization of South Asia: Problems and Solutions*, ed. P. Cotta-Ramusino and M. Martellini, *Unesco Science for Peace Series* (Como (Italy): UNESCO, LNCV & USPID 1999);Ashok K. Mehta, "Missiles in South Asia: Search for an Operational Strategy," *South Asian Survey* vol.11, no. 2 (September 2004);Zia Mian, R. Rajaraman, and M. V. Ramana, "Early Warning in South Asia--Constraints and Implications," *Science and Global Security* 11, no. 2-3 (2003);Dinshaw Mistry and Mark Smith, "Negotiating Multilateral Instruments against Missile Proliferation," *International Negotiation* 10, no. 3 (2005);Gaurav Rajen, "A Survey of Nuclear-Related Agreements and Possibilities for Nuclear Cooperation in South Asia," in *Cooperative Monitoring Center Occasional Paper* (Albuquerque, NM, USA: Cooperative Monitoring Center Sandia National Laboratories, April 2000);Tariq Rauf, "Accommodation, Not Confrontation," *Peace Research Abstracts* 37, no. 3 (2000);Zia Mian and M.V. Ramana, "Beyond Lahore: From Transparency to Arms Control," *Economic and Political Weekly*, no. April (1999);J. Jerome Holton, Lora Lumpe, and Jeremy J. Stone, "Proposal for a Zero Ballistic Missile Regime " *Science and International Security Anthology* (1993);Lora Lumpe, "Zero Ballistic Missiles and the Third World," *Arms Control* 14, no. 1 (April 1994).

and political issue is now entered upon a most critical stage of controversy and technological development.

It is because of these concerns that this study has been taken up to investigate the politics of ballistic missile proliferation and all relevant issues in Southern Asia. The focus of my research will be on the nuclear-capable missile race in the geo-strategic region of Southern Asia. The research therefore will be an attempt to suggest possible policy options for ensuring strategic stability and preventing an inadvertent slide towards a military and, perhaps, a nuclear confrontation by trying to evolve a missile restraint regime in South Asia.

1.1. ANALYSIS OF THE PROBLEM

This work will present an analysis and understanding of international regimes theory followed by missile restraint regime as a policy issue. It will trace the development of missile restraint regimes (historically and in terms of the world views underlying the policy antagonists, politically and technologically), and assess missile programs future impacts upon Southern Asian security interests. The stakes are high in that the wrong decisions could lead to possible national military and economic disaster down the road. By its very nature, MTCR especially in the nuclear age deals with issues of national life and death. A failed control regime could lead to a devastated society arising from leadership overconfidence in regime effectiveness or due to excessive uncertainty concerning the regimes effectiveness. Effectiveness is measured empirically by regimes capacity to reliably and repeatedly restrain upcoming developments in warheads, delivery systems, including the WMD, in the chaos of missile race or threat perception.

Achieving theoretical success, however, raises other troubling questions concerning the future shape of regional as well as global politics. The relationship between the Islamic Republic of Pakistan and Republic of India, or with third parties, may be altered significantly and potentially in fortunate ways if a Missile Restraint Regime actually works. Therefore judgments have to be made in evaluating the likely reaction of other states to this altered strategic environment. What lends particular urgency to

this analysis is the intense and mounting international political momentum for starting to evolve a missile restraint regime in South Asia. Political pressures generated by some quarters are building up to render such a decision quickly. To use John Kingdon's terminology, a policy window appears to be opening ---that is: "an opportunity for advocates to push their pet solutions, or to push attention to their special problems."[4]

1.2. SCOPE OF THE STUDY

For the purposes of this study the strategic region comprising of China, India, and Pakistan will be addressed as 'Southern Asia'. The Southern Asian region because of the existence of long 'enduring rivalry'[5] and 'protracted contests'[6] is in the throes of a languorous nuclear weapons and missile systems race which has the potential of spiralling into an unintended but lethal confrontation between China, India and Pakistan,[7] thus being considered as the likely 'nuclear flashpoint' of the world.

Moreover, the increasing geo-strategic significance of the region due to 1) the energy resources gateway to the Persian Gulf and Central Asian reserves, and 2) important Sea Lanes of Communications (SLOC) located here, has also increased the stakes of both regional and extra-regional forces. This immediate strategic context interacts with a very distinctive strategic culture that has been developed between China, India and Pakistan, produced by the interplay of geo-strategic environmental settings and history. This strategic culture not only persists and is manifested in the words and deeds of their leaderships but also plays a very vital role as the main motivating force behind their strategic weapons programme development and doctrine of these countries.

Collectively these factors provoked the present inquiry into comprehending the issue in its entirety and exploring whether the cultivation of a mutual, transparent and

---

[4] Rittberger Volker, ed., *Regime Theory and International Relations* (Oxford: Oxford University Press, 1993), p.27.

[5] T. V. Paul, ed., *The India-Pakistan Conflict: An Enduring Rivalry* (Cambridge: Cambridge University Press, 2005).
[6] John W. Garver, *Protracted Contest: Sino-Indian Rivalry in the Twentieth Century* (Seattle and London: University of Washington Press, 2001).
[7] Sidhu, "A Languid but Lethal Arms Race ".

verifiable mechanism of confidence and security building measures among China, India, and Pakistan can help in producing a restraint and stability regime between these countries, hence replacing the instability in security with stability through regimes.

1.3. RESEARCH PARADIGM

The researchers in social research often approach the research questions from different theoretical and methodological perspectives by using a 'Research Paradigms' (RPs). These RPs can be defined as the process of "over arching or underpinning the choice of research problem, the formulation of Research Questions and the selection of one or more Research Strategies".[8]

In each RP a particular combination of ontological and epistemological assumptions are embodied, and these have a bearing on the kind of research outcomes achieved.[9] The research paradigms can be categorized and grouped as both 'classical' and 'contemporary'. The 'classical', represent the earliest attempts at either applying the methods of the natural sciences to the social sciences, or rejecting such an application. The 'classical' as grouped by Norman Blaikie include: Positivism, Critical Rationalism, Classical Hermeneutics and Interpretivism.[10] Norman Blaikie notes that:

> Each RP provides its own particular answer to the question, 'Can the methods of the natural sciences be applied to the social sciences?' Positivism's answer is a straightforward 'Yes'; it advocates that all sciences, whether natural or social, should use the epistemology of empiricism. The second answer, given by Critical Rationalism, is 'Yes and No; it argues for the use of the same methods, or logics for advancing knowledge, but rejects the view of science associated with Positivism in favour of a different one. The third answer, from Classical Hermeneutics, is a definite 'No'; it claims that the aim of explanation in the natural sciences is not relevant to the social sciences. It is concerned with interpretation, particularly the interpretation of texts. The fourth answer

---

[8] Norman Blaikei, *Approaches to Social Inquiry: Advancing Knowledge* (Cambridge: Polity, 2007), p.109.

[9] Ibid.

[10] Ibid.

of Interpretivism is also 'No'; it rejects the methods of the natural sciences as appropriate for the social sciences, arguing that, because of the qualitative differences in their subject matters, a different approach is required.[11]

The second group of 'contemporary research paradigms' as called by Blaikie are critical of or entirely reject both Positivism and Critical Rationalism and, to varying degrees, use or build on Classical Hermeneutics and/or Interpretivism. They provide another range of responses to the key question, 'Can the methods of the natural sciences be used in the social sciences?'[12] Blaikie notes that:

> The first of the contemporary RPs to be reviewed, Critical Theory, provides a 'Yes and No' response to the question; it argues for the use of a combination of methods in the social sciences, including some aspects of Positivism and Interpretivism, and adds a concern with human emancipation. The second RP, Ethnomethodology, provides a 'No' response. It not only regards the methods of the natural sciences as irrelevant but, while receiving inspiration from some phenomenologists, also rejects Hermeneutics and Interpretivism. The third RP, Social Realism, is another 'Yes and No' response. In recognizing the qualitative differences in subject matters between the natural and the social sciences, it also adopts aspects of Interpretivism, but argues for principles of enquiry different from those contained in any of the other responses, principles that are claimed to be common to both areas of science. The fourth RP, Contemporary Hermeneutics, is another definite 'No'; it develops the concerns of Classical Hermeneutics in directions that take it further away from Positivism and Critical Rationalism than any of the other responses. The fifth RP, Structuration Theory, is essentially a 'No' response; it provides a synthesis of aspects of many theoretical and philosophical traditions, with a strong foundation in Contemporary Hermeneutics, Interpretivism and Ethnomethodology. While its concerns are more ontological than epistemological, it transcends many of the deficiencies in earlier RPs. The last RP, and another 'No' response, is Feminism. It not only includes some issues absent in the other RPs for example, a concern about the masculine nature of

---

[11] Ibid.

[12] Ibid., p.134.

science and the consequences for knowledge of women being viewed as an oppressed class - but it also grapples with many of the same issues. It shares some features of Interpretivism, Critical Theory and Structuration Theory and, in its present developing state, includes a variety of views…..

It is worth noting that these contemporary RPs are much more complex than most of the classical ones, and also incorporate a high level of internal diversity.[13]

This research follows broadly within the classical tradition. It accepts Rationalist assumptions about actors' behaviour; but it borrows from the Interpretivist RP because of its concern with the way actor's identities are shaped by their cultures, and in particular the way strategic identities and behaviours are shaped by strategic culture.

1.4. AIMS AND OBJECTIVES OF THE STUDY

The core aim of this research is to show that a very distinctive strategic culture has been developed between China, India and Pakistan, produced by the interplay of geo-strategic environmental settings and history. The objective of this research therefore is to clarify that strategic culture not only persists and is manifested in the words and deeds of the leaderships of the three countries but continues to play a very vital role as the main structural force behind their strategic weapons programme development and doctrines. This research also aims to show that it is only by the cultivation of a mutual, transparent and verifiable mechanism of confidence and security building measures that the three countries can be brought to a mutual restraint and stability regime.

The objectives of this research therefore can be briefly outlined as following:

i) to examine the asymmetry between the perceived importance and acquired understanding of the strategic culture of China, India and Pakistan;

ii) to investigate the complication, induced by the latter, of the western understanding of the motivations to acquire strategic weapons system and the nuclear doctrines of these countries; and

---

[13] Ibid., pp.134-35.

iii) to discover the potential for using the Cold War superpowers model for a restraint and stability regime in Southern Asia.

In order to meet these objectives, this research:

i) examines the geostrategic environment of Southern Asia and assesses the geo-political forces at work in the region;

ii) examines the strategic culture of China, India and Pakistan and traces the motivation of these countries for the strategic weapon programmes and delivery systems;

iii) describes their nuclear doctrines and command and control structures and the current status of their ballistic missile programmes;

iv) addresses the prospects for Pakistan, India and China to move towards a system of mutual restraint regime, in which international regime theory is discussed as a conceptual framework and Cold War models of strategic arms limitation and reduction models are studied and the important role of Confidence and Security Building Measures (CSBMs) identified;

v) applies this regime theory and model in the context of Southern Asian region, identifying problem areas with the help of CSBMs tools, and reaching conclusions as to the potential to move beyond CSBMs into full restraint regime.

1.5. RESEARCH QUESTIONS OF THE STUDY

In order to address the context of strategic culture and offer some mechanisms towards a framework for a missile restraint regime, the research is aimed at the following research questions, which put together the two types of RP. The first type which explores the identity problem between the parties, and the second type which explores their 'rational' responses to the strategic dilemma:

Type 1:

  i.   Why do states pursue strategic weapons systems programs?
  ii. What conditions in the environment, culture, motivations of Pakistan, India and China account for the current status of their strategic weapons systems?

Type 2:

    iii. What are the doctrines and command and control structures of strategic nuclear weapons of China, India and Pakistan?

    iv. What are the circumstances under which states agree to mutual restraints on their strategic weapon programs? and

    v. What are the prospects for Pakistan, India and China to move towards a system of mutual restraint in the strategic weapons systems?

Since all of the above questions and their answering debate comes in the defense and security studies domain of the discipline of International Relations (IR); and since IR is considered to be part of the wider area of social sciences, the general principles of teleology, epistemology, and ontology will be followed to situate and develop the research methodology within the social science discipline.

1.6. TELEOLOGY

Teleology provides for the ultimate and inherent answers about design and purposes of the research. Every academic inquiry and research is directed to serve certain purposes or achieve some kind of objectives. The teleological argument of this study is mainly based on the following considerations: the asymmetry between the perceived importance and acquired understanding of the strategic culture of China, India and Pakistan; the complication, induced by the latter, of the western understanding of the motivations to acquire strategic weapons system and the nuclear doctrines of these countries; and the potential for using the Cold War superpowers model for a restraint and stability regime in Southern Asia. In brief, the topic has both practical and theoretical significance.

1.6.1. Asymmetry between the Perceived Importance and Acquired Understanding of the Strategic Culture of China, India and Pakistan

The Southern Asia region as a polity has been considered as one of the most important, mainly due to 1) the geo-strategic significance of the land mass and its occurrence on the doorsteps of the world richest oil and energy resources of the Persian Gulf and Central Asia, 2) the growing nuclear and missile power of the countries of the region, and the unresolved disputes between the states, particularly

between India and Pakistan over Kashmir, and 3) the increasing level of militant ideologies and their associated threats.

In contrast to the growing perceived importance of the region, the strategic culture of these countries is little known in the west. Most of the studies are focused on the unresolved disputes and their role in creating threats perceptions, but what generally been ignored or not explored is the role that the strategic culture of these countries has played in shaping their security and military policies or for that matter their vision about the outside world. This forms what has been referred to as an asymmetry between the perceived importance and acquired understanding. The study is therefore an endeavour to elaborate and correct the strategic cultural understanding of these countries.

1.6.2. Complication, Induced by the Strategic Culture of China, India and Pakistan, and the Western Understanding of the Motivations to Acquire Strategic Weapons System and the Nuclear Doctrines of these Countries

To date the studies directed towards understanding the causes and motivations of states trying to acquire strategic weapons systems and technology mention different reasons, many of which derive from realist or neo-realist explanations. The cultural variables have got a very limited examination. This creates a misperception about the causes of nuclearisation and the subsequent weapons development programs, and this is reflected in the literature on the Southern Asian cases that have been seen through the same theoretical frameworks. This study is therefore an attempt to explain the strategic cultural prominence in the motivations for the strategic weapons development of the three countries.

1.6.3. Potentials of Using the Super Powers Model for Restraint and Stability Regime in Southern Asia

During the Cold War, the United States and former Soviet Union were committed to a nuclear and missile race and the world came very close to war, notably during the Cuban missile crisis though the situation was quickly resolved and the emerging crisis was defused. The Cold War history is replete with the examples of restraint and resultant stability between the two rival superpowers. In addition, the Cold war produced a history of arms control and limitation initiatives. These initiatives can be

considered within the Cold War models. This study attempts to find the potential for developing a replica of those in the Southern Asian context. The regime theory therefore is taken up as a source to provide the theoretical underpinnings to understand the Cold War models as well to address the issue area of 'ballistic missile proliferation' in Southern Asia. This study therefore will also help in exploring the potentials of using the superpowers model during the Cold War for restraint and stability regime in Southern Asia.

1.7. RESEARCH STRATEGIES

Research strategies are located within the broader framework of theoretical or philosophical perspectives, commonly referred to as 'paradigms'.[14] There are two distinguishing characteristics which form their core and on which they differ: namely, the assumption made about the nature of the social reality that is investigated (ontological assumption) and a related set of assumptions about the way in which knowledge of this reality can be obtained[15] (epistemological assumptions). The fundamental methodological problem that faces all social researchers is what kind of connections are possible between ideas, social experience and social reality. Ideas refer to the ways of conceptualizing and making sense of experience and reality – such as concepts, theories, knowledge and other interpretations. Social experience refers to individual conduct, social relationships and cultural practices in everyday life, and to the every day interpretations and meanings associated with these. Social reality refers to the material and socially constructed world within which everyday life occurs, which can have an impact on people's lives, in terms of both providing opportunities and imposing restrictions[16] The various research paradigms present different ways of making connections between ideas, social experience and social reality. To a large extent, this is expressed in the ontological and epistemological assumptions they adopt: that is, their particular way of looking at the world, as well as their ideas on how it can be understood.[17]

---

[14] Ibid., p.12.

[15] Ibid., pp.12-13.

[16] Ibid., p.13.

[17] Ibid.

1.7.1. EPISTEMOLOGY

An epistemology is a theory of knowledge, 'a theory or science of the method or grounds of knowledge'. It is a theory of how human beings come to have knowledge of the world around them, of how we know what we know?. An epistemology provides a philosophical grounding for establishing what kind of knowledge are possible – what can be known – and criteria for deciding how knowledge can be judged as being both adequate and legitimate.[18] Epistemology addresses questions related to the nature of knowledge. What knowledge is; how it might be assessed; what the grounds/assumptions for an idea might be; what claims to truth might be made; whether true knowledge can be achieved. There are three main ways of conducting research and gaining knowledge, they are: study in real or empirical time – i.e. 'empiricism', study of formal or mathematical reasoning, and the study of the things that happened in past, i.e. historical research.

The epistemology is therefore necessarily eclectic combining several knowledge gaining types and approaches. The study therefore would be a holistic research pursued by the following strategies:

1.7.1.1. Abductive Research Strategy:

The abductive strategy aims to discover the social world of the social actors. It helps "discover their construction of reality, their ways of conceptualizing and giving meaning to their social world, their tacit knowledge." By using abductive research strategy, I tried to seek answer for my first question: Why do states pursue strategic weapons systems programs? And for that I had to enter into the social world of these countries in order to redescribe these actions and motives, and the situations in which they occur, in the technical language of the social scientific discourse.[19]

The abductive research strategy incorporates the meaning and interpretations, the motives and intentions, that people use in their everyday lives, and which direct their behaviour – and elevates them to the central place in social theory and research. As a consequence, the social world is the world perceived and experienced by its members, from the 'inside'. The social scientist task is to discover and describe this 'insider;

---

[18] Ibid., p.18.

[19] Ibid., p.10.

view, not to impose an 'outsider' view on it. Therefore, the aim is to discover why people do what they do by uncovering the largely tacit, mutual knowledge, the symbolic meaning, intentions and rules, which provide the orientation of their actions. Mutual knowledge is the background knowledge that is largely unarticulated but which is constantly used and modified by social actors as they interact with each other.[20]

This research strategy answers both what and why questions. All of the research question of this study are 'what and why type', so abductive research is the main strategy for my research. Though operating within the conventional methodologies of strategic studies the research is able to make some innovative contributions, in particular through use of interpretative ideas of strategic culture and by application of regime restraint models most commonly theorised in superpower relations to the regional strategic behaviour of Southern Asian states.

(Neo-)Realist theories of International Relations have linked nuclearization to systemic factors, power distribution and the external security environment of states. The slow pace of proliferation in spite of an ever growing number of nuclear capable states has called into question the one-sided concentration on structural aspects and balance-of-power mechanisms. By contrast, more recent explanatory frameworks stress sub-systemic and domestic determinants of nuclear weapons policies. They focus on the role of nuclear bureaucracies, the psychology of individual leaders, domestic political survival or questions of prestige. Many of these competing theoretical approaches to understanding the phenomenon of nuclear proliferation (and non-proliferation) use the same case studies but often interpret the available historical evidence in profoundly different ways. At the very least, this raises the question of the reliability of existing historical accounts of state decisions in favour of/or against nuclearisation. One basic prerequisite in order to overcome deficiencies and predictive weaknesses of existing theory-driven approaches to nuclear behaviour seems to be a greater knowledge and a better understanding of historical instances of proliferation.

---

[20] Ibid. p.90.

1.7.1.2. Inductive Research Strategy

The inductive research strategy starts with the collection of data, followed by data analysis, and then proceeds to generalizations using so-called inductive logic. The aim is to describe the characteristics of people and social situations, and then to determine the nature of the patterns of the relationships, or network of relationships, between these characteristics. Once generalizations about characteristics and/or patterns have been established, some writers claim that they can be used to explain the occurrence of specific events by locating them within the established pattern. The Inductive RS is useful for answering 'what' questions.[21] The earliest form of induction used to develop knowledge about the world has been attributed to Aristotle and his disciples known as 'enumerative induction'.[22] The inductive research strategy has been described by Harre[23] as consisting of three principles:

i. **Accumulation:** knowledge grows by the addition of further well-attested facts such that each new fact does not reqire any alteration to the previous ones.

ii. **Induction:** from true statements describing observations and the results of experiments, tru generalizations can be inferred.

iii. **Instance confirmation**: the level of our belief in the truth of a generalization is proportional to the number of instances that have been observed.

An early advocate of the use of the inductive research strategy in sociology was Emile Durkheim.[24]

1.7.2. ONTOLOGY

Ontology denotes the study of the ultimate nature of things. It therefore specifies the concepts, relationships, and other distinctions that are relevant for modelling a domain. Each Research Paradigm embodies a view of the world that is underpinned by the ontological assumptions. In their domain of interest, RPs implicitly or explicitly make different claims about what kinds of things do or can exist, the

---

[21] Blaikie, *Approaches to Social Inquiry: Advancing Knowledge*, p.9.

[22] Ibid., p.59.

[23] Cited in: Ibid., pp.59-60.

[24] Ibid., p.61.

conditions of their existence, and the ways in which they are related.[25] Ontological assumptions are embedded in the theoretical ideas that are used to guide research and in the research strategies and methods that are adopted.[26]

1.7.2.1. Conceptual Framework

Concepts are vital to the development of knowledge, it is therefore very important that the purposes of the research are aligned and coherent with the way the research is conducted. To develop such coherence, a conceptual framework is needed. Every study whether explicitly or implicitly, is based on a conceptual framework or model that specifies the variables of interests and the expected relationaship between them.[27] In order to develop the conceptual framework for the restraint and stability regime, I thought it pertinent to go for comparative cross-national research.

1.7.2.1.1. Comparative Cross-national Research

To compare is a natural way of thinking. Nothing is more natural than to study people, ideas or institutions in relation to other people, ideas, or institutions. We gain knowledge through reference. International comparison requires an articulated conceptual framework. Social scientists who analyse only one country may proceed step by step, without structured hypothesis, building analytical categories as they go. Comparativists have no such freemdom. They cannot advance without tools. Confronted with a variety of contexts, they are obliged to rely on abstractions, to master concepts general enough to cope with the diversity of the cases under consideration. When concentrating on a single country, a single cculture, a single system, one may possibly grope. Comparativists on the contrary, need a compass that will allow them to pass from one context to the another, to select in each country the differences or similarities that can be integrated into their general scheme.[28] The comparative method was perceived by John Stuart Mill, Auguste Comte, and Emile

---

[25] Ibid., p.13.

[26] Ibid., p.14.

[27] Leonard Bickman and Debra J. Rog, "Applied Research Design: A Practical Approach," in *Sage Handbook of Applied Social Research Methods*, ed. Leonard Bickman and Debra J. Rog (USA: 2009), p.7.

[28] Mattei Dogan and Dominique Pelassy, *How to Compare Nations: Strategies in Comparative Politics* (Chatham, New Jersey: Chatham House Publishers, Inc, 1984), pp.3-4.

Durkheim as the best substitute for the experimental method in the social sciences.[29] Cross-national research is needed and conducted because it is the closest approximation to the controlled laboratory experiment of the natural scientists which is available to the social scientists. A first central goal of comparative research is to develop concepts and generalisations at a level between what is true of all societies and what is true of one society at one point in time and space. A second purpose of comparative research is to contribute to the development of a relevant knowledge base for both domestic and foreign policy. Comparative research can fill important gaps in knowledge about how other countries deal with similar situations, about the background and the effects of alternative strategies for solving common problems. Comparative research can aid in the specifications of the conditions under which one country can learn from another. In short, comparison can put our judgements about policy processes and outcomes into a broader and more refined perspective. Researchers conducting comparative investigations often find that they learn as much, if not more about their own political systems by studying others. Not only do they find new policy option in other countries, but they also discover latent policy constraints and opportunities within their own system.[30]

1.8. RESEARCH DESIGN AND METHODOLOGY OF THE STUDY

The research design is therefore necessarily eclectic combining several knowledge approaches: conceptual, theoretical, interpretative, quantitative, and analytical. These may be summarised as follows:

  i.   conceptually the research explores and employs both macro-structural concepts such as strategy, deterrence, and geo-strategy (the location and determination of strategy within regional contexts) and micro-operational concepts like doctrines and programmes;

 ii.   theoretically the research is most concerned with the drivers of strategic behaviour and the interaction between these drivers and regimes of restraint;

iii.   interpretatively the research explores ideas of culture and identity as drivers of the structural and operational contexts of threat, deterrence and strategy;

---

[29] Ibid., p.13.

[30] Meinolf Dierkes, Hans N. Weiler, and Ariane Berthoin Antal, eds., *Comparative Policy Research: Learning from Experience* (England: Gower publishing company, 1987).

iv. quantitatively it provides detailed accounts and explanation of the arms and delivery systems of the three countries in the context of their shifting deterrence doctrines;

v. analytically it draws these components together to provide an assessment of the potential for regimes of restraint on arms programmes for the Southern Asian strategic region.

vi. Though operating within the conventional methodologies of strategic studies the research is able to make some innovative contributions, in particular through use of interpretative ideas of strategic culture and by application of regime restraint models most commonly theorised in superpower relations to the regional strategic behaviour of Southern Asian states.

1.9. COMPOSITION OF THE STUDY

The study encompasses nine chapters in all. Chapter 1 is an introductory chapter which is in two parts. The first part provides an overview and rationale for the study; explains the purposes and objectives of the study followed by propositions; then raises the research questions, and ends with research methodology. The second part describes the terminologies related to strategic nuclear weapons systems. Chapter 2 contextualises the politics of ballistic missile proliferation in Southern Asia and in doing so explains the geo-strategic environment of the Southern Asian region. The chapter thus explores the internal and external dynamics of the region to understand the different forces which are at work in the region, thus signifying the region and the current research. Chapter 3 explains the missile programs of China, India and Pakistan and thus works as a foundational chapter in further contextualisation of the research topic. Chapter 4 likewise is a foundational inquiry for conceptual development of restraint regime. It therefore details the regimes in theory and practice. This chapter is in two parts. The first part explains the international regimes theory and in second part details the Cold War restraint regimes models and identifies the salient feature of Confidence Building Measures through which the restraint attempts were being made time and again. The chapter then traces the equivalents of Cold War restraint models constructs in Southern Asia, and identifies the gaps found in the Southern Asian CBM related agreements.

The fifth chapter of the study is about the strategic cultures of China, India and Pakistan as a framework for understanding the pursuit of strategic nuclear weapon systems. This chapter provides the discussion on the general explanations for the pursuit of strategic weapons systems in its first part. It also defines the strategic culture and describes the cultural approaches to strategic studies and their importance as an important tool of analysis. The chapter finally explains the strategic cultures of China, India and Pakistan. Chapter 6 provides the strategic cultural explanations of the motivations for the development and the employment strategies of strategic nuclear weapon systems of China, India and Pakistan. Chapter 7 is about the nuclear doctrines of China, India and Pakistan. Chapter 8 is towards a framework for a mutual restraint and stability regime. This chapter is based on the concepts acquired and developed in Chapter 4. It therefore details the Southern Asian nations experience with CBMs as per the cold war restraint models, discusses the implications of Southern Asian nuclear and missile race and then explores the prospects and potentials to move beyond confidence building measures into full restraint regime in the region and suggests a way forward. The study finally ends with Chapter 9 as conclusions and recommendations.

In the light of raised research questions we can say that Chapters 5 and 6 provide answers to research question 1. Chapters 2, 3, 5, and 6 will answer research question 2; Chapter 7 answers research question 3; Chapter 4 answers research question 4 and research question 5 is answered in Chapter 8.

Figure 1-1: Structure and Composition of the Research

Research Question -1	Chapter – 1: Introduction
	Chapter – 2: The politics of BM proliferation in Southern Asia - Contextualising the issue
	Chapter – 3: Missile Programs of CIP
	Chapter – 4: International regimes theory - Foundational inquiry for concept development
	Chapter – 5: Strategic Cultures of CIP as a framework to understand the pursuit of SWS
Research Question -2	Chapter – 6: Strategic Cultural Explanations of the Motivations of CIP for the pursuit of SWS
	Chapter – 7: Nuclear Doctrines and CIP
	Chapter – 8: Towards a framework for a mutual restraint and stability regime
	Chapter – 9: Conclusion

Research Question -3

Research Question - 4

Research Question -5

Part II

1.10. TERMINOLOGY

Different terminologies have been used in the study like *strategic culture*, *nuclear doctrine*, *international regimes*, *confidence building measures* and have been explained as the discussion progresses. But the very basic issue area, i.e. the *strategic weapon systems* needs explanation from the very onset in order to avoid semantic confusion.

Strategic weapon systems are all manner of deadly weapons systems which are responsible for mass scale destruction in the world. In normal practice the term denotes the nuclear biological and chemical (NBC) weapons and their delivery systems. These weapons could be delivered in delivered in different modes from a variety of platforms. For example, they could be delivered via aircraft delivery in the form of bombs, and missiles and also from sea and surface launch in the form of ballistic and cruise missiles and "collectively these systems comprise the strategic triad".[31] This study, however, uses the term mainly with respect to the nuclear weapons capable delivery system – ballistic missiles.

Ballistic missiles are very hard to define as the technological development and sophistication with every passing day is bringing in so many things that a comprehensive definition is difficult to reach. But for the purpose of this study, I will use Aaron Karp's definition that, "any unmanned, actively guided, rocket- propelled vehicle that can be fired ground-to-ground along a ballistic (or parabolic) trajectory", is called as ballistic missile.[32] It is to note that the propulsion is only in the initial phase of the boost to enable them to go out of the atmosphere and after re-entry into the atmosphere, the gravity takes over. Cruise missile, on the other hand, is an unmanned aircraft, though uses a rocket propellant during the launch but later on in flight, it depends on an air-breathing engine similar to those of aeroplanes.[33] Furthermore, within the ballistic missile technology domain, the important technical terminologies that needs to be understood in the ballistic missiles, as they help distinguish the different missile

---

[31] Paul Craig, "Historical Introduction," in *The Future of Land Based Strategic Missiles*, ed. Barbara G. Levi, Mark Sakitt, and Art Hobson (New York: American Institute of Physics, 1989), p.7.

[32] Aaron Karp, *Ballistic Missile Proliferation: The Politics and Technics* (New York: Oxford University Press, 1996), p.4.

[33] W. Seth Carus, *Ballistic Missiles in Modern Conflict* (New York: Praeger, 1991), p.2.

programs and also facilitate in analysing the strengths and weaknesses of a missile program are:

1) Propulsion systems,

2) Guidance systems,

3) Re-entry vehicle or warheads, and

4) Circular Error Probable (CEP)

1.10.1. Propulsion Systems

In a very common way of understanding propulsion system refers to the fuel that the rocket engine/motor uses. The rocket propulsion system involves the combine burning of the fuel with an oxidizer in the combustion chamber of the rocket motor assembly which then releases powerful exhaust gases that move the missile. Ballistic missile systems are powered by two different types of propulsion systems. They being, 1) liquid based propellants, and 2) solid based propellants.

1.10.1.1. Liquid based propellants

The first generation missile propellant technology uses liquid fuels. This though provide a powerful lift up to the missile but is very complicated and troublesome. Their "use requires complicated tanks, high speed pumps, fuel-injection systems, combustion-chamber cooling and high-pressure plumbing, regulators and ignition systems. Even in elegant designs, these can cause serious problems of excess weight, poor reliability and high maintenance requirements."[34]

1.10.1.2. Solid based propellants

The modern day solution for many of the problems faced by the liquid propulsion system is the solid base propellants. No complicated combustion chamber, just a simple igniter and a chemically composed fuel cake. Solid based propulsion is the best choice for the ballistic missiles development, deployment and storage, as they can be easily moved and stored, thereby considerably cutting down the maintenance cost. They have got their own type of weaknesses and these include the short range and less weight pay load, as well as the engine cooling problem. As the solid propellants while burning raise the temperature very high of the

---

[34] Karp, *Ballistic Missile Proliferation: The Politics and Technics*, p.102.

rocket motor, there lies the risk of on board computers and electronics failure and melt down. They therefore, require a very sophisticated cooling system and the designers have to rely on "highly advanced materials and the use of complicated aerodynamic cooling techniques".[35]

1.10.2. Guidance Systems

Guidance system refers to the monitoring and correction technology for winds, atmospheric pressures, and other conditions affecting the missile flight trajectory and hence plays its part for steering the missile to its designated target with increasing level of accuracy on its impact. The various guidance systems that are available to the missile manufacturers today include:

i. Inertial navigation system,

ii. strap-down guidance, and

iii. radio guidance.

Radio guidance and strap-down guidance were earlier modes of guidance system, the new comers in the missile technology area, though still use strap-down and some time use radio signals to supplement strap-down, but the more sophisticated programs have started getting away with these and have moved on to inertial navigation system.

1.10.2.1. Inertial navigation system

The inertial navigation system is considered to be the best guidance system in the ballistic missiles. The system works with the help of pre-fed flight path data in its on-board computers before launch. The missile then automatically corrects is yaw, pitch and role movements by continuously monitoring its flight trajectory and comparing it with pre-fed flight path and thus adjusting corrections with no external controls. As the inertial guidance system does not transmit and receive any signals, so the guidance system cannot be detected, intercepted or jammed.[36]

1.10.3. Re-Entry Vehicle or Warheads

Re-entry vehicle or warhead section is that nose cone of the ballistic missile which actually reaches the target. Re-Entry vehicle, when is entering back into the atmosphere confront

---

[35] Ibid., p.109.

[36] George M. Siouris, *Missile Guidance and Control Systems* (New York: Springer, 2004), pp.365-66.

thousands of degrees Celsius temperature, hence is provided by a special protective shield called ablative coating to protect the warhead and warhead fuses. Most advanced missile programs these days are also applying Multiple Independent Re-entry Vehicles (MIRV), which help credible penetration into any possible enemy defences like Theatre Missile Defence (TMD) systems or Anti Ballistic Missile (ABM) systems.

1.10.4. Circular Error Probable (CEP)

Circular Error Probable (CEP) refers to the way in which the accuracy of the missile is measured. "If the CEP is one mile, this signifies that if a large number of missiles were fired at a target point, 50 percent of the shots would land within a distance of one mile from the point."[37]

---

[37] Albert Legault and George Lindsey, *The Dynamics of the Nuclear Balance* (Ithaca and London: Cornell University Press, 1974), p.49.

Chapter 2

THE POLITICS OF BALLISTIC MISSILE PROLIFERATION IN SOUTHERN ASIA – CONTEXTUALISING THE ISSUE

2.1. INTRODUCTION

As stated in the introduction the region comprising of China, India, and Pakistan is addressed as 'Southern Asia'. It is not argued that all of China is in Southern Asia; but rather that China is part of the Southern Asian strategic region and that it can certainly bring to bear all its comprehensive national strength in the Southern Asian region, should it need to. Though I am looking at different topics like strategic culture of the Southern Asian countries of China, India and Pakistan, their motivations to develop strategic nuclear weapons systems, nuclear doctrines and arsenals etc, prior to all such explanations, it is very beneficial to study the geo-strategic environment of Southern Asia as it will have direct bearing on the rest of the research discussions.

In this Southern Asian region several important developments over the last decade in the security arena have taken place. These include: both the vertical and horizontal proliferation of the Strategic Weapons Systems (SWS) in the region with India and Pakistan nuclear tests and subsequent race for the acquisition of more and more state of the art ballistic missiles to serve their nuclear doctrines; the failure of the nuclear deterrence logic between the nuclear rivals and the Kargil war in Kashmir; Afghanistan was occupied by the allied powers under United States for a war against terror; further on, over Iran war clouds seem to be heading. Moreover the United States-India strategic partnership along with the signing of the nuclear deal is also reflective of some very significant United States stakes here in this region. The United States-China dynamic has also been more manifest in the area and the competitive nature of the relationship between these two is also growing, so that Pakistan and Afghanistan have joined Taiwan as 'would be' flash points between the two.

All these developments depict the first important moves of a 'Great game'. In order to comprehend fully the 'great game' in the offing in this part of the world, it is worthwhile to analyse all those factors that when taken into consideration, make Southern Asia a very important geo-strategic region. Hence, I will proceed in two parts; the first part will discuss the general internal dynamics of the region, their mutual conflicts and their impacts on the

security environment. The second part will discuss the external dynamics involving the energy geo-politics and its bearing on the Southern Asia due to (1) being itself in enhanced need of energy due to rapid industrialisation and (2) being on the doorsteps of the world biggest energy reserves of Persian Gulf and Central Asia.

Part I

2.2. INTERNAL DYNAMICS OF SOUTHERN ASIA

China, India and Pakistan between them occupy 13,467,451 sq km of the land and constitute nearly 43% of the total world population. The place in which their societies and nations meet thus becomes a very important region because of the existence of three important regional nuclear and missile powers who seem mutually locked into an old adversarial relationships.

Table 2-1: Table Showing Area and Population of Southern Asian Countries

(Individual and Total)

S. No	Countries	Area(sq km)	Population
1	China	9,326,410	1,338,612,968
2	India	2,973,190	1,166,079,217
3	Pakistan	778,720	176,242,949
4	Bangladesh	133,910	156,050,883
5	Srilanka	64,740	21,324,791
6	Nepal	143,181	28,563,377
7	Bhutan	47,000	691,141
8	Maldives	300	396,334
9	Southern Asia	13,467,451	2,887,961,660
9	World	148,940,000	6,790,062,216

Source: Authors compilation of data from https://www.cia.gov/

Figure 2-2: Population of Southern Asia
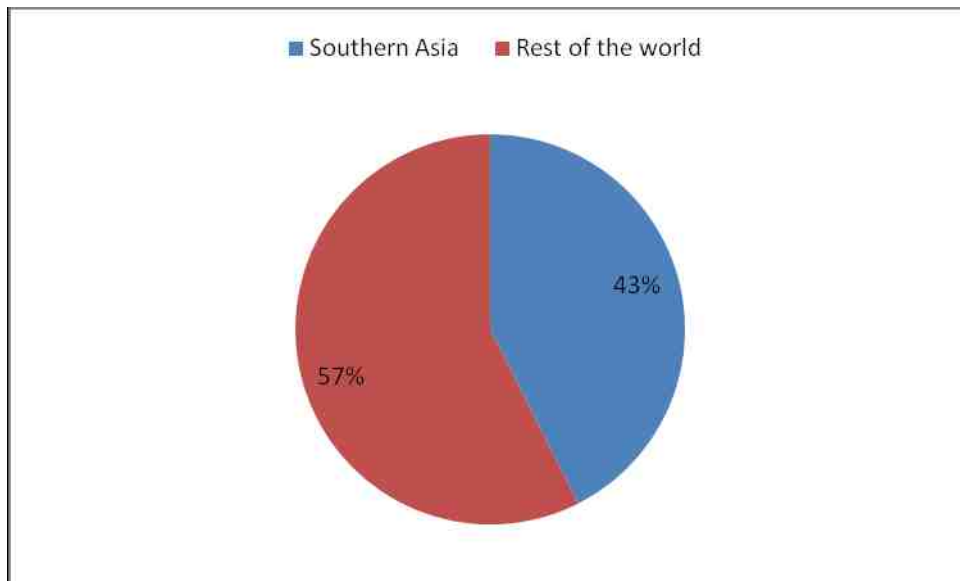
Source: Authors description based on data from https://www.cia.gov/

This Southern Asian region's protracted and enduring conflicts and rivalries are emanating mainly from the unfinished business of the messed up partition and the resultant conflicting territorial claims. Some other time the national identity and irredentism along with the habit of mutual meddling in each other's politics created these conflicts. I will briefly summarise here the main disputes between the three main Southern Asian players-China, India and Pakistan.

2.2.1. India vs. Pakistan

After the independence from British raj in 1947, India and Pakistan emerged as two quarrelsome neighbours because of innumerable issues ranging from 'contested identities' to 'contested borders and sovereignties' and have therefore been caught up for about 62 years now in a long enduring rivalry.[38] "The India Pakistan rivalry remains one of the most enduring and unresolved conflicts…(which) has continued for well over half a century with periodic wars and crises…(and) has affected all key dimensions of inter-state and societal

---

[38] Peter R. Lavoy, "Security in South Asia," in *Asian Security Handbook 2000*, ed. William M Carpenter and David G Wiencek (Armonk, N.Y: M.E. Sharpe, 2000), p.40.

relations of the two antagonists."[39] The reasons for such a long enmity in addition to the partition problems and disputes could also be traced out in their respective strategic cultures.

2.2.1.1. Kashmir

The 90,000 sq.km territory of Kashmir located in the northern reaches of the subcontinent, flanking close to all India, Pakistan, Afghanistan, and China is the heart of conflict between India and Pakistan. The Kashmir issue is at the bottom of all three wars (1948, 1965 and 1991) along with several border skirmishes and crisis situations between the two newly nuclearised weapon states of India and Pakistan. The nature of the Kashmir issue though in essence is fairly simple but the complexities of its details are indeed formidable. It is simple because of the logic of partition of the Indian empire into Muslim and non Muslim portions, but has been complicated by the political play on ground including the getting of the instrument of accession signed by Hindu Maharaja.[40]

The seeds of the dispute between India and Pakistan were sown actually in the weakening days of British *Raj* in India. With the British decision to depart from India, the partition plan was announced of dividing the territory into two sovereign states of Muslim majority Pakistan and Hindu dominated '*secular*' (as the Congress vowed) India. The trickier question though was the fate of 562 princely states of India which were the part of the Indian Empire by virtue of having acknowledged the paramountcy of the British Crown. The mechanism set forth in the 1935 Govt of India Act and in the subsequent Independence Act, provided the *rulers* with the option of acceding to either dominion keeping in consideration two important caveats. 'First, basic geographical realities have to be recognized' in order to avoid the 'patch work' on their maps and second, 'primarily Hindu states would accede to India, while Pakistan would absorb primarily Muslim states'.[41]

The Kashmir state was predominantly a Muslim majority state with a Hindu Maharaja but geographically not linked with India if the three *tehsils* of Gurdaspur District with two

---

[39] Paul, ed., *The India-Pakistan Conflict: An Enduring Rivalry*, p.3.

[40] For all relevant details see: Alastair Lamb, *Kashmir : A Disputed Legacy, 1846-1990* (Hertingfordbury: Roxford Books, 1991), pp.121-45.

[41] S. Paul Kapur, "The Kashmir Dispute: Past, Present, and Future," in *The Routledge Handbook of Asian Security Studies* ed. Sumit Ganguly, Andrew Scobell, and Joseph Chinyong Liow (London: Routledge, 2010), p.103.

clearcut Muslim majority *tehsils* were not manipulatively handed over to India through the Radcliffe Award.[42]

Maharaja remained undecided which dominion to join so opted for the 'standstill agreement' which permitted him under the defined mechanism to sign with 'unresolved issues at the time of accession with one or both dominions', Pakistan accepted that on 15th August whereas India procrastinated.[43] Meanwhile an uprising in Poonch started against the Maharaja, and the communal strife and killing stories of the refugee caravan further infuriated the tribal people of the North Western regions of Pakistan, who then formed their *Lashkars* to help their brethren get their rightful right from the Maharaja. Maharaja now fearing loss of authority and control appealed to Lord Louis Mountbatten for helping him secure the territory by repulsing intruders, Mountbatten and Nehru both agreed to send in Indian troops provided in return stipulating that 'Kashmir must accede to India'.[44]

It is because of these facts that S.Paul Kapur noted in his latest research that, "Indians employed a dual strategy in the Kashmir conflict, combining diplomacy with military action. At the diplomatic level they lodged a formal complaint about the Pakistani attack with the United Nations Security Council on 1st January 1948......(and) at the military level, Indian forces launched extensive combat operation against the intruders."[45]

Since India took the issue to the United Nations, the United Nations has adopted various resolutions in order to seek resolution of the dispute and called for a free and fair plebiscite to enable people to decide about their future. Both the states did agreed to these resolutions as the text of the resolution testifies to the fact e.g. the Resolution of the Security Council of April 21, 1948 mentions, "both India and Pakistan desire that the question of the accession of Jammu and Kashmir to India or Pakistan should be decided through the democratic method of a free and impartial plebiscite"; the Resolution of the Commission of August 13, 1948 mention, "the future status of the State of Jammu and Kashmir shall be determined in accordance with the will of the people and to that end ...both Governments agree to enter into consultations with the Commission to determine fair and equitable conditions whereby such

---

[42] For about the details of the partition and award see: Lamb, *Kashmir: A Disputed Legacy, 1846-1990*, pp.101-20.

[43] Ibid., pp.121-22.

[44] Kapur, "The Kashmir Dispute: Past, Present, and Future," p.104.

[45] Ibid.

free expression will be assured"; and similarly the Resolution of the Commission of January 5, 1949 states "The question of the accession of the State of Jammu and Kashmir to India or Pakistan will be decided through the democratic method of a free and impartial plebiscite."[46]

After 62 years these resolutions have still not been implemented. Due to the non-compliance with the terms of the resolution, the disputes not only persist even today but at times become very serious both to the region as well as international community from the stability perspective of two nuclear countries. This is why at many a times this specific issue has been referred as 'likely point of a nuclear flash'. The Kargil war of 1999, the 2001 attack of the Indian parliament; the 2002 terrorist attack on an Indian army camp in Jammu; 2005 Diwali bombing in New Delhi; 2006 train bombing in Mumbai; and 2008 Mumbai attacks-all are refereed to be linked to the Islamist groups affiliated with the Kashmiri independence struggle and so to the dispute.[47] Consequently, both the parties are locked in an enduring conflict with a continuously failing attempts towards the peace and stability maintenance in the region.

2.2.1.2. Sircreek

Sir Creek is a marshy land between the Sind and Kutch area of Indian Gujrat. This marshy land is built because of an estuary of the Arabian Sea and is therefore considered to be rich in fish and oil resources. It is because of this economic potential that the region is of vital importance for the two countries and is therefore an Exclusive Economic Zone (EEZ) definition and demarcation issue between the two. This land belonged to the Sind as per the boundary demarcation done between the Sind and Kutch in 1914, so when the states of Pakistan and India came into being with Sind joining Pakistan and Kutch going to India, Pakistan claimed the already decided boundary area to be its, whereas Indians, realising the economic potential of the area, tried to revoke the issue and asked for the re-demarcation on the basis of 'Thalweg doctrine'[48], which asks for mid channel division of navigable rivers between the two states. Pakistan objects to that because (1) it is already settled boundary as per the 1914 agreement, and (2) the 'Thalweg doctrine' in applicability to this as it is non-

---

[46] For the text of all these resolutions please see: "United Nations Resolutions on Kashmir ", Ministry of Foreign Affairs, Pakistan, http://www.mofa.gov.pk/Pages/UN_Resolution.htm.

[47] The Indians, however allege all these event are because of Pakistani backing and support to these groups and totally ignoring the Kashmiri intifada.

[48] Rajpal Budania, *India's National Security Dilemma: The Pakistan Factor and India's Policy Response* (New Delhi: Indus Publishing Company, 2001), p.186.

navigable and is a marsh land. India maintains that in high floods it is navigable and so be decided on mid channel division. If mid channel principle applied, Pakistan looses a major chunk of the area, which is part of Sind. The dispute therefore continues and entered the lime light again, when on 10th of August, Pakistan navy slow moving reconnaissance plane *'Atlantic'*, which was on a training mission in the area with 16 people on board was shot down by India on the plea of violation of Indian air frontiers, thus killing all 16 on board.[49]

2.2.1.3. Siachen

Siachen Glacier is in the Kashmir region. The genesis of this dispute is again in the unfinished business of boundary demarcations. The Cease Fire Line (CFL) which was drawn after the first India-Pakistan war of 1948 on the Kashmir region in the following Karachi Agreement of 29 July 1949. This agreement defined the CFL in this area as running from . . .Chalunka (on the Shyok River- *map reference NJ 980420 commonly referred to as NJ 9842*), Khor, *thence north to the glaciers*.[50] The Simla Agreement of 1972, while working out the ceasefire line between India and Pakistan did not decide the boundary beyond NJ9842, presuming it to be difficult to inhabit and demarcate as well.[51] India maintains that the boundary line goes up from NJ9842, Thus bringing glacier on the Indian side, whereas according to Pakistan the same pattern of line drawing which is before NJ9842 should be followed, which therefore brings Siachen Glacier on the Pakistani side. See Map 2-3 for the comprehension of the respective perspectives. In the 1970s and early 1980s, mountaineering expeditions to climb high peaks of the Siachen area started coming to the region with a permit obtained from the Government of Pakistan. This was taken up by India as Pakistani move to assert their sovereignty on the glacier, whereas it was yet not decided who controls the glacier. The expeditions' permission, therefore, from the government of Pakistan amounted to Pakistani control over the territory. India therefore launched Operation Meghdoot on 13 April 1984 when the Kumaon Regiment of the Indian Army and the Indian Air Force went into the

---

[49] Vice Adm (Retd) Iqbal F. Quadir, "Shahadat by the Naval Aircrew," *Defence Journal* November (1999), http://www.defencejournal.com/nov99/naval.htm.

[50] Brigadier (ret.) Asad Hakeem et al., "Demilitarization of the Siachen Conflict Zone: Concepts for Implementation and Monitoring " (Albuquerque, New Mexico, California: Sandia National Laboratories September 2007), p.14.

[51] P.R.Chari, Pervaiz Iqbal Cheema, and Stephen P. Cohen, eds., *Four Crises and a Peace Process: American Engagement in South Asia* (Washington, D.C: Brooking Institution Press, 2007), p.21.

Glacier.[52] Pakistan, on the intelligence of Indian operation Meghdoot, responded with troops deployments but the Indian's pre-emptive move helped them secure two passes- Sia La and Bilfond La before Pakistani troops can make it and so established control over the majority region with Pakistan being left with just Gyong La pass.[53] Since then both the forces are busy in the Siachen Glacier fighting to take control of the majority area and thus to dislodge the other.

2.2.2. India and China in Southern Asia

The above disputes arise from the ongoing problems between India and Pakistan that have arisen following partition. Into this tense relationship China has intruded in pursuit of its own strategic interests. The Sino-Indian border dispute mirrors that of India and Pakistan in that it results from the incomplete and at times fraudulent boundary commissions of the former 'colonial powers'. The Sino-Indian border dispute is in two areas of Arunachal Pradesh in the Northeast and Aksai Chin in Ladakh. The Arunachal issue dates back to 1914, when the then Foreign Secretary of the British Indian government Sir Henry McMahon drew a line 60 km further north in a hope that with persuasion or bullying he could get it accepted as new boundary by the Chinese delegates at Simla Conference between the two.[54] Although McMahon failed in getting it approved, yet the British started advances in the area in 1936 to hold ground. The Chinese Guomindang (GMD) government strongly protested these advances as violation of their territorial sovereignty in the area. In 1947, soon after Indian independence from the British Raj, The Nehru government decided that the British McMahon Line (after being made better on the ground) would be preserved as the country's north-eastern boundary.[55]

The point to note is that this decision was made even before the communist government came to power in China and the predecessor government of Guomindang (GMD) had already registered its objection of intrusion and informed the same to the Nehru government.[56]

---

[52] "All About the Siachen Glacier," http://www.siachenglacier.com/.

[53] It is also to note that the Indian troops were air lifted to the area. Ibid;Hakeem et al., "Demilitarization of the Siachen Conflict Zone: Concepts for Implementation and Monitoring ".

[54] N. Maxwell, "Forty Years of Folly - What Caused the Sino-Indian Border War and Why the Dispute Is Unresolved," *Critical Asian Studies* 35, no. 1 (2003): p.101.

[55] Ibid.: p.100.

[56] Ibid.

Nehru's government rejected this and called for McMahon's lack of topographic knowledge and so started improvements in the line with further northern moves. By 1954, these unilaterally redrawn maps were then officially published and circulated showing fixed and final Indian frontiers in the area and "Nehru instructed ministries concerned that those lines were to be considered 'firm and definite (and) not open to discussion with anybody'."[57] This sowed the seed of the conflict between the two neighbours and there followed a long protracted conflict of irredentist claims as noted Neville Maxwell:

"the deadly logic of the decision that Nehru and his privy officials had taken about 1947, to make good territorial claims and then refuse to negotiate them, had by 1959 already locked India on a course that would lead inevitably to armed conflict with China…In late 1961 the Chinese began to understand that they faced what was, from their point of view, an expansionist neighbour that, while refusing to negotiate, persisted in deploying armed force in implementation of irredentist claims."[58]

The controversies escalated into the war of 1962 between China and India. As a result of which China annexed Aksai Chin and overrun Arunachal Pradesh. After the ceasefire China withdrew its forces from Arunachal Pradesh back to the McMahon Line, but retained Aksai Chin. Beijing, however, has persistently laid claim to Arunachal Pradesh as part of China mainly because of the Tawang monastery. Chinese claim lie in the premise that as Tawang is the part of Tibet and as Tibet belongs to China, so the area India called NEFA/Arunachal is part of China. Both the countries clashed again in 1986-87 in the Sumdorong Chu valley of Arunachal Pradesh.

The Indian point of view is that both Arunachal and Aksai China belong to India. Indians maintain that the problem in Arunachal started when Chinese published maps showing the western part of the McMahon Line as part of China followed by secret construction of road linking Tibet through Aksai Chin connecting Tibet and the province of Xinjiang.[59] Hence, the construction of this China strategic National Highway 219 between Tibet and Xinjiang through Aksai Chin was the primary cause of the escalation of conflict into a full-fledged border war in 1962 with Chinese seizing about 38,000 square kilometers (14,670 sq mile) of

---

[57] Cited in: Ibid.: p.102.

[58] Ibid.: pp.103-04.

[59] Bharti Chhibber, "India-China Dialogue Process Must Continue," *Mainstream* XLVII, no. 38 (9 September 2009), http://www.mainstreamweekly.net/article1610.html

Indian Territory in Aksai Chin.[60] India says Beijing is illegally occupying 43,180 sq km of Jammu Kashmir including 5180 sq km of northern Kashmir ceded to it by Pakistan in 1963.[61] The Indian view is based on the claim that as Aksai Chin region is located at the juncture of China, Pakistan, and India and represents about one fifth of Jammu and Kashmir, and Jammu and Kashmir being part of India is forcefully seized and wrongfully ceded by Pakistan to China through Pak-China boundary demarcation of 1963.

Both the countries in 2000 exchanged the maps again on the middle segment of their least controversial points on frontier and in 2003 appointed special representatives to work out possible resolution of the dispute. In 2005 the Prime Minister of India Dr Manmohan Singh and Chinese Premier Wen Jiabao signed an agreement on political parameters and guiding principles to work out a solution to the problem during the later's visit to India. The situation on the ground however rather then improving has gone worse with the recent media reports published from India which suggest that 'China had developed new air field in Shiquanhe in Gar Gunsa, which can have strategic ramifications for Ladakh, Himachal Pradesh and Uttarakhand'. And also that 'in the western sector, along the strategic lake of Pangong Tso, they (Chinese) have built a road from Chuti Chan La to Bush area on the Indian side of LAC'.[62]

The report adds that 'in a war situation, development of three rail heads at Kashi in the western sector, Golmud in the middle sector and Chengu in the eastern sector of LAC can enable rapid mobilisation of troops and missiles'.[63] India simultaneously is reported to have 'begun to counter the bolstering of infrastructure by China, with detailed plans for all the three sectors - western (Ladakh), middle (Uttarakhand, Himachal Pradesh) and eastern (Sikkim, Arunachal Pradesh)'. And that Indian government 'has plans to reactivate airfields like Chushul in Ladakh, besides setting up new airfields to ward off Chinese dominance.'[64] All such reports are indicative of the aggressiveness of both the sides in protecting their

---

[60] Mohan Balaji, "India Being Threatened by China's Expansionist Plans?," *MIL* (4 Feb 2008), http://www.internationalreporter.com/News-Print-3214/india-being-threatened-by-china%E2%80%99s-expansionist-plans-.html

[61] Chhibber, "India-China Dialogue Process Must Continue."

[62] Balaji, "India Being Threatened by China's Expansionist Plans?."

[63] Ibid.

[64] Ibid.

versions of claims in the area but resultantly the dispute will prolong and remain a continued bone of contention between the two.

2.3. IMPACTS OF THESE DISPUTES ON THE GOVERNMENTS AND PEOPLE

These enduring and protracted conflicts have cast a very prominent impact on the governments and people of the region. These conflicts have contributed in developing different threat perceptions of the states and so, in order to ensure their territorial sovereignties and integrities they started developing an array of modern sophisticated weapons systems. On the other hand, politically speaking the continuance of these conflicts paved the way for rising extreme ideologies and nationalism drives, which in turn fuelled the animosities and accelerated the weapons development race. I will look both of these phenomena separately.

2.3.1. Arms Race -Weapons of Mass Destructions and their Delivery Systems

The unresolved disputes were a great catalyst in shaping the threat perceptions of the states. Consequently they were caught up in an action reaction natured arms race. This can be well ascertained by the Chinese nuclear explosion in 1964, Indian first Peaceful Nuclear Explosion (PNE) dubbed tests in 1974 and again in 1998, followed by Pakistan after just two weeks in 1998. The same phenomenon is observed in the delivery systems i.e. ballistic and cruise missile programs and related technologies. Weapons of Mass Destruction of the nature of nuclear, chemical, biological and radiological and their delivery system are of prime importance in any nation's security calculation because they can be used by the hostile nation to inflict mass scale destruction.

This same security calculation applies in the Southern Asian region and so the Weapons of Mass Destruction (WMD) are given utmost importance in their security and defence policies. These concerns became particularly significant after the nuclear test carried by both India and Pakistan in 1998 as the justification was found not only to give credibility to the national deterrent potential but also to prove the national scientific and technological mettle. Domestically speaking, the scientific elite were also given 'the go ahead signal' by ruling parties in both the countries (India and Pakistan) with the aims of winning over their oppositions in national interest issues, to facilitate their re-election in the next political terms.

It could be argued that even though BJP in India for example used the slogan of nuclear detonations during the election compaign but their failure to come back to power in the post-elections showed that it did not worked. The point is that even BJP failed to reap the results of its pro-nuclear policies but it certainly used the slogan in 1998. Had it not been the case of the exploitation of aftermaths of the post-test international sanctions by the opposition parties, and the incompetencies of the BJP leadership to deliver - the BJP would have continued in office. And although their 'wishful thinking' about the detonation decision gain political advantage failed them with BJP losing the election in India and Nawaz Sharif ousted by October military coup of Pervaiz Musharraf. But ever since the detonation, the respective decision by the political parties kept resonating in the political rallies.

The action-reaction styled missile race and competition between India and Pakistan is not only affecting the economy of the two nations but also has brought a heightened sense of insecurity. The missile race and competition between the two countries has led to a rethink the security and defence requirement not only of these two countries, but the issue has traversed the boundaries in the East with North Korea emerging as a nuclear state and Iran aspiring to be a 'nuclear state' in West Asia. This in turn again is aggravating the missile race and competition. William M. Carpenter and David G. Wiencek, in "Asian Security Handbook 2000" note that, they "are doing this partly for symbolic reasons, recognizing the importance that responses in-kind have for maintaining an adequate level of deterrence. They are also pursuing this path because, in their view, defensive options in the form of TMD systems may not be coming online quickly enough to meet their urgent security requirements."[65] The issue of missile race and competition has reached the danger level with the presence of 'Proliferation Rings' of underground networks and their involvement in its commercialization.

2.3.2. Rise of nationalism and extreme ideologies and the war on terror

The continuation of the disputes and the resultant wars between these states on one hand forced the government to pursue an arms race. Similarly in the public domain, there emerged another phenomenon of the rising of extreme ideological and nationalistic drives. This cultivated strong and influential pockets both in government and in public domain, thereby

---

[65] William M Carpenter and David G Wiencek, eds., *Asian Security Handbook 2000* (Armonk, N.Y: M.E. Sharpe, 2000), p.13.

adding more fire to the already burning enmity and fuelling the strategic culture. The rise of Hindutva inspired political class in India in the shape of militant groups like Shiv Sena and political parties like BJP are cases in point. Similarly, the increasing role of the Islamists parties and their joint electoral alliances reflect the same tendencies. In the same order is the rising wave of new nationalism in China. All bear witness to the fact that unresolved disputes and irritants are contributing to the arms build up, extremist views and so develops an environment which is very volatile for both internal and external stake holders in and around the region. This makes this region a very important region to focus on for the peace and stability in the world.

In 2002, South Asia remained a central battleground in the global war on terrorism. The liberation of Afghanistan from the Taliban regime eliminated al-Qaida's principal base and sanctuary, but remnant cells continued to present a danger throughout the region. Fleeing terrorists have also caused serious incidents in Pakistan and other states through which they transited. The examples include but not limited to the December 2001 Indian Parliament attack; Christian Villages attack on Island of Sulawesi Indonesia; Shoe Bomber Plot Foiled, January 22, 2002; Attack in India near the US Information Service building in Calcutta; April 11, 2002; A truck bomb at a synagogue in Djerba, Tunisia; October 2, 2002, a series of bombings in and around Zamboanga City in the southern Philippines; suicide bombing against a French oil tanker, the *Limburg* in the Gulf of Aden off the coast of Yemen October 12, 2002; Bali Bombings of November 28, 2002; Three suicide bombers detonating their explosives outside a resort hotel in Mombasa, Kenya in May 12, 2003; various Saudi Arabia Bombings; Suicide Bombings in Casablanca, Morocco; August 5, 2003; Suicide Bombing in Jakarta, Indonesia; Militant Bombing of Ferry in Philippines March 11, 2004; Al-Qaeda-Linked Train Bombings in Madrid; and July 7, 2005 '7/7' Bombings in London. The list of the activities of the fleeing terrorists goes on and on. It is therefore said that Al-Qaeda graduates under the new proliferation strategy of 'international terrorism' through 'franchising' are now responsible for all such incidents.

All countries in the Southern Asian region have strongly supported the Coalition effort against terrorism by al-Qaida and the remnants of the Taliban. But today there is also a need to look into other terror groups and extremists functioning and operative in the region and which are providing or could be providing safe sanctuaries to their comrades in arms, consequently making the situation more strategically volatile. The growing number of violent

conflict that take place within existing states are the most pressing security issue facing both regional and international actors. These various forms of *intra-state* conflict—secessionist movements, civil wars, communal violence, and so on—have become an increasing threat to political stability and state security in many countries.

In Sri Lanka the country's long civil war and its attendant terrorism between the Sri Lankan Government and Liberation Tigers of Tamil Eelam (LTTE) has led to one of the world's deadliest terror groups for pioneering the use of suicide vests, which has committed far more suicide-bomb attacks than any other terrorist organization.[66]

At the same time, a bloody conflict characterised by the use of terrorist tactics is the Maoist movement in India.[67] The movement started in late 1960s in the Indian North West Bengal province area called *Naxalbari* and so also labelled as Naxal movement has recently been a matter of serious concern for India as it has challenged the writ of the Indian government by establishing not only a Red Corridor of influence that passes through the states of West Bengal, Bihar, Jharkhand, Orissa, Chattisgarh, Madhya Pradesh, Andhra Pradesh and Maharashtra, but has also their own Maoist rule with complete system of administration. The movement is also assuming an international dimension because of the alleged reports of its links across the border in China, Myanmar, Nepal and Bangladesh.[68]

India likewise faces a significant terrorist threat from the militants opposed to continued Indian rule over the disputed province of Kashmir. Unlike jihadi violence that is alleged to have its roots in Pakistan, Maoist violence has its roots firmly in India. "Indeed, the Maoist

---

[66] The LTTE has been defeated in the recent governmental offensive against it and the leadership killed.

[67] Dr Debidatta Aurobinda Mahapatra in a report notes that "Out of 29 states in India 20 and out of 600 odd districts in India 223 are affected by the Maoist violence. From January to August 2009 there have been more than 1,400 cases related to Maoist violence in which about 600 civilians have lost their lives. Reportedly, the Maoists have killed about 1,200 people since 2008". For details see : Dr Debidatta Aurobinda Mahapatra, "The Maoist Surge in India," *EPOS Insight* 2010, no. 6 Feb (11 December 2009), http://www.eposweb.org/index.php?option=com_content&task=view&id=49&Itemid=1

[68] Ibid.

problem has left India red-faced". [69] Beside these two nearly 177 different terrorists, separatists and secessionist groups are present in India creating a very alarming situation. [70]

The Government of Pakistan on the other hand has arrested and transferred to US custody nearly 500 suspected al-Qaida and Taliban terrorists, detained hundreds of extremists, and banned five extremist organizations: Lashkar-e-Tayyiba (LT), Jaish-e-Mohammed (JEM), Sipah-e-Sahaba Pakistan (SSP), Tehrik-i-Jafria Pakistan (TJP), and Tehrik-i-Nifaz-i-Shariat-i Mohammadi (TNSM). Pakistan's involvement with the United States' war on terror has brought heavy toll on the Pakistani nation with Pakistan army now fighting this war in the tribal belt of North and South Waziristan and all along Bajaur and Swat valley.

In spite of all such heavily militarised operations, the problem does not seem to be settling down as the inter regional and intra-regional interests are also involved in fuelling this wave of extremist ideologies and nationalism drives. And so if they persist they will further aggravate the security situation amongst the regional actors as well as extra-regional actors. Consequently the Southern Asian region will remain a troubled spot for some time to come.

Part II

2.4. EXTERNAL DYNAMICS OF SOUTHERN ASIA

Southern Asia is the region which sits on the doorsteps of the oil and energy rich resources of the world. Both Persian Gulf and Central Asian reserves are in its close proximity, and so any instability in Southern Asia would affect the Oil and energy consumer world access, supply and even pricing of these resources. Moreover the major oil supplying Sea Lanes of Communication (SLOC) are concentrated in the littoral regions of Southern Asia. Besides these water channels, many of the proposed land pipelines are also focusing on this region. All these factors together bring in the very strong political play by many stakeholders in and around this region that some call the 'great game'. To comprehend this complex scenario, I will discuss first the geo-politics of oil and energy resources in general, highlighting the importance of energy resources and then the push to control these by great powers. Then I would move on to the general analysis of the geo-strategic environment of the region,

---

[69] Sudha Ramachandran, "Maoists Rule India's 'Red Corridor'," *Asia Times Online* (24 Apr 2009), http://www.atimes.com/atimes/South_Asia/KD24Df05.html

[70] For detailed description of all geographical areas groups see "India - Terrorist, Insurgent and Extremist Groups," South Asia Terrorism Portal, http://www.satp.org/satporgtp/countries/india/terroristoutfits/index.html.

discussing specifically the Chinese, United States and Russian competing involvement and interests for the control of these resources. Finally I will again take up Sino-US relationship and geo-strategic of Southern Asia before making a conclusion.

2.4.1. Geo-politics of Oil & Energy Resources

Energy is one of the most basic of human needs. The accomplishments of civilization have largely been achieved through the increasingly efficient and extensive harnessing of various forms of energy to extend human capabilities and ingenuity. Providing adequate and affordable energy is essential for eradicating poverty, improving human welfare, and raising living standards worldwide. With the growing world population and people's innate aspirations for improved life, a central and collective global issue in the new century will be ensuring economic growth within the constraints of the planet's limited natural resources in a sustainable way. The war studies history reveals that during the past few decades the battlefields have been concentrated in or around the energy rich areas of the world. The Arab Israeli wars, the Arab-Arab wars, Iran-Iraq war, US-Gulf wars, all reflect the same trend being the vital areas of world largest oil reserves. It is therefore pertinent to ensure the security and consistent and sustainable supply of these resources to the rest of the consumer world.

It is therefore from that oil and its related politics in the Middle East and Central Asia that the political stability of this region and particularly the Southern Asian region becomes of prime importance for the stability of world oil supply and prices. It is no surprise that the United States, as a major oil consumer, would want to control the supply of oil from the Middle East.[71] This provides now the energy consumer world and for that matter the stake holders the new direction in securing the energy supply routes from this region in addition to the physical security of the resources through basing policy and this brings forth the geo-strategic significance of the Strait of Hormuz being the foremost and fundamental supply highway in the Persian gulf region, and for that matter the geo-strategic importance of the Southern Asia as it sits not only on the doorsteps/gateway of these energy resources but is also the region around which there is a concentration of all these oil transiting Sea Lanes of Communications (SLOC).

The Persian Gulf and Central Asia has long been labelled as strategically important by contending great powers for being the holder of the important energy resources, the most notably of these being oil. Strait of Hormuz, the bottle neck of the Persian Gulf, is the most important route for the supply of

---

[71] Dag Harald Claes, "The United States and Iraq: Making Sense of the Oil Factor," *Middle East Policy* 12, no. 4 (2005): p.55.

oil to a large number of countries in the world, including USA, EU countries, China, Japan and Korea.[72]

The Strait of Hormuz is a vitally important international waterway that connects the Persian Gulf with the Gulf of Oman into the Indian Ocean. The strait of Hormuz is a narrow and curved channel and is approximately hundred nautical miles long, the narrowest part of this strait 21 nautical miles lies between the Iran in island of Larak and Omani islet of Greater Quoin, both Iran and Oman claimed 12 nautical miles of territorial water there, which overlap by a stretch of 15 miles, where the two countries have agreed to define the median line.[73] The passageway is by far the single most important chokepoint in the world oil transportation system. It consists of two, mile-wide channels for inbound and outbound tanker traffic in addition to a 2-mile-wide buffer zone.[74]

The Strait is the main passageway for nearly 17 million barrels of oil a day, roughly two-thirds of total world oil trade by tanker and 20 percent of total world daily oil demand. Oil and petroleum products from Iraq, Iran, Kuwait, Saudi Arabia, Qatar, and the United Arab Emirates (UAE) transit the Strait of Hormuz. Large quantities of liquefied natural gas are also exported from Qatar through the Strait. Maintaining the free flow of oil through the Strait of Hormuz is therefore of vital strategic importance to the world economy and to the United States and its allies. The United States receives about 25 percent of its imported oil via the Straits and China, Japan, South Korea, India, and Singapore receiving the lion's share of Middle East exports through the Strait of Hormuz.[75]

Historically there have been threats to freedom of navigation in the Straits of Hormuz area due to mining and targeting of the tankers in the area particularly during Iran-Iraq war and the US mine sweepers and escort vessels had to patrol the area to ensure freedom of navigation through Straits.

The significance of the Strait of Hormuz has become even more enhanced in recent years because virtually all of the world's excess spare production capacity that can be brought on line quickly to defend against the adverse effects of a sudden oil supply crisis or disruption is located in Saudi Arabia, Kuwait, and the UAE and thereby could be cut off, if the Strait could be closed. Keeping the Strait

[72] John C. Campbell, "The Gulf Region in the Global Setting," in *The Security of the Persian Gulf* ed. Hossein Amirsadeghi. (London: Croom Helm, 1981), p.1.

[73] Pirouz Mojtahed-Zadeh, *Security and Territoriality in the Persian Gulf : A Maritime Political Geography* (Richmond, Surrey: Curzon, 1999), p.27.

[74] Peter J. Katzenstein, Robert O. Keohane, and Stephen D. Krasner, "International Organization and the Study of World Politics," *International Organization* 52, no. 4 (1998).

[75] Dagobert Brito and Amy Myers Jaffe, "Reducing Vulnerability of the Strait of the Hormuz," in *Getting Ready for a Nuclear-Ready Iran*, ed. Henry D. Sokolski and Patrick Clawson (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2005).

open is therefore significantly important as a matter of protecting the international order and global economy by maintaining the indisputable right of the freedom of navigation of international seaways that is so vital to international trade and commerce. It is because that about 30 U.S. warships now patrol the Persian Gulf and nearby waters, about twice the level posted there during the Iran-Iraq war in the 1980s.[76] Moreover, the Southern Asian constitutes the major littoral region for all such types of oil supply routes. There exists a very complex and broad network of very important Sea Lanes of Communication (SLOC) network all along the coastal regions of Pakistan, India and China, see Map 2-2.

Likewise the Southern Asian region is the region from which important energy pipelines from Central Asian reserves will pass through to the outer world. Provision of sufficient, secure and affordable energy is crucial for the sustainability of modern societies. It is because of these energy needs significance and their sustainable and secure supply to the world markets that Southern Asian region becomes increasingly important being located at the gateway of these energy rich regions of Persian Gulf and Central Asia.

It is because of these facts that the states going through the rapid industrialisation and development phase like China and India along with the already developed countries of United States and Russia are the important stakeholders of the region. The interplay of their interests in the oil and energy resources further signifies the Southern Asian geostrategic location. To have a comprehensive understanding of their roles, the study will now focus on the analysis of the proximity and interlinked regions.

2.5. GEOSTRATEGIC ENVIRONMENT-ANALYSIS OF THE PROXIMITY AND INTERLINKED REGIONS

The countries of Southern Asia themselves concede to a mounting overlap of their strategic interests in the Middle East, Central Asia and increasingly Southeast Asia and are carefully watching the increasing involvement of United States and Russia in the region. Three factors are worth mentioning here to make the point and they are:

i. United States factor,
ii. Russian factor, and
iii. China factor.

---

[76] Chip Cummins, "As Threats to Oil Facilities Rise, U.S. Military Becomes Protector," *Wall Street Journal*, 30 June 2004.

2.5.1. United States Factor

The United States has always been an active player and a factor in the geo-strategic environment of Southern Asia, and this could be ascertained by its invitation to Pakistan to join SEATO and CENTO in 1950s and then its establishment of its military base in Badaber, Peshawar, to keep a check on the former Soviet Union by flying U-2 spying missions from here. Some time it is mentioned that the United States 'swing power' strategy to position itself as a member of three macro regions of Asia-Pacific, North Atlantic, Western Hemisphere to legitimize its actual presence was confined to Europe, East Asia and Latin America, and the other regions like Middle East and South Asia were always peripheral to this strategy.[77] This is not true and the American involvements as shown above clearly refute it. The United States rather has always fancied 'temporary marriage' in the region and has divorced when its desires and aims were fulfilled. The latest example in the episodes of event is that of Afghanistan war. The United States vacated the region and left Pakistan on the total mercy of the CIA trained 'Jihadis' and when Pakistan finding an opportunity in Indian second nuclear tests of 1998 detonated its own nuclear device and revealed their indigenous ballistic missile program, the Americans started to speculate about the Sino-Pakistan increasingly cordial relationship. The Chinese increasing industrial demand for the energy and the Sino-Pak joint venture of Gawadar port triggered the alarm bells in Washington.

This is where China came to be seen as a challenger and in the Bary Buzan's words, the beginning of the time, when "the United States might well look toward India as a major ally and a fellow democracy."[78] And the *Indo-American Next Steps in Strategic Partnership and the nuclear deal* depicts of this change and the increasing interest of United States in the region as whole. Moreover the region being the gateway of the 'Oil Heartland'[79] is a very crucial area in the United States policy of oil security and sustainable supply and also for the protection of Sea Lanes of Communications (SLOC) security in the region. Similarly the increasing concerns of the 'green peril' is also causing United States increasing involvement in the region as Donald L. Berlin notes:

---

[77] Barry Buzan, *The United States and the Great Powers : World Politics in the Twenty-First Century* (Oxford Polity, 2004), p.103.

[78] Ibid.

[79] "Oil Heartland" is the region between Algeria on the west and Pakistan on the east, which encompasses the prolific oil reserves of the middle east

"The United States has been increasing its security presence over the past few years from the coast of East Africa to Djibouti, Yemen, Oman, Pakistan, India, Sri Lanka, and Diego Garcia, and on to the Strait of Malacca and Singapore. There are many situation-specific reasons for this, most obviously the wars in Afghanistan and Iraq. More broadly, the United States has been strengthening its military profile in the Indian Ocean because of a perception predating 9/11 that it is here—the historic home to most of the world's Muslims, 60 percent of the world's poor and 70 percent of the world's illiteracy—that the more extreme, unpredictable, and undeterrable threats will arise."[80]

The importance of the region from the United States side can also be well understood by the "Transformational Diplomacy" of Condoleezza Rice during her term in the office of the Secretary of State. Secretary Rice addressing Georgetown University is reported to have said,

"In the 21st century, emerging nations like India and China and Brazil and Egypt and Indonesia and South Africa are increasingly shaping the course of history... It is clear today that America must begin to reposition our diplomatic forces around the world, so over the next few years the United States will begin to shift several hundred of our diplomatic positions to new critical posts for the 21st century. We will begin this year with a down payment of moving 100 positions from Europe and, yes, from here in Washington, D.C., to countries like China and India and Nigeria and Lebanon, where additional staffing will make an essential difference."[81]

61 positions were thus being cut to help pay for (10 in Russia, seven in Germany, with two or three axed in each of Belgium, Poland, Italy, Spain, Japan and Brazil) creating fifteen new positions at the US embassy in China, and 12 at the other rising Asian giant, India. There would be five new slots in Jakarta. In all, there would be 74 new posts, the overwhelming majority in the developing world. In the diplomatic world, it was an earthquake and what has

---

[80] Donald L. Berlin, "The Indian Ocean and the Second Nuclear Age," *Orbis* 48, no. 1 (2004).

[81] Secretary Condoleezza Rice, "Secretary Rice Address at Georgetown University Washington, DC on 'Transformational Diplomacy'," (18 January 2006), http://www.state.gov/secretary/rm/2006/59306.htm.

come with it is a general acceptance that the shift in how America engages with the world was inevitable and necessary in a time when the country was at war.[82]

Exemplifying this new American thinking, George Bush travelled to three countries at the heart of the new strategy. First stop was Afghanistan, to reassure its nascent yet fragile government that the US would not abandon its fight against the Taliban. Then, India, a new economic powerhouse, which according to some is being courted as a counterweight to the rapidly expanding ambitions of China[83] and finally to Pakistan. All three offer varying diplomatic challenges and with it different dangers.

Another development of sublime importance has been the transfer of the headquarters of the US Army 1st Corps Command from Washington to Kanagawa, near Tokyo. The 1st Corps is the one responsible for maintaining peace in the so-called arch of instability that extends from the Pacific, through eastern Asia and the Indian Ocean, to the Middle East.

2.5.2. Russia Factor

In 1995 Menon described Russia as a having 'neo-imperialist' strategy, and that Moscow would always see Central Asia and the south Caucasus as a 'Russian sphere of influence' being significant to its security interests. This is still valid today as Russia is continuously trying to minimize the expansion of foreign presence and influence in this region.[84] Central Asia being a key geographical element in Russia's stronger military posture even today is evident from the fact President Medvedev has called for the Collective Security Treaty Organisation (CSTO) to increase its military capability, implying that Russia wants to increase its standing in the region as a counter to United States and Western influences.[85]

Russian security interests in the region could also be ascertained from the fact that when the US established a military base in Kyrgyzstan, Russian took it as a signal that this would lead

---

[82] Julian Borger, Ewen MacAskill, and Jonathan Watts, "New Diplomatic Priorities Offer Snapshot of Changing World Order," *The Guardian*, 4 March 2006.

[83] Ibid.

[84] Rajan Menon, "In the Shadow of the Bear: Security in Post-Soviet Central Asia," *International Security* Vol. 20, no. 1 (Summer, 1995).

[85] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics* (London: Routledge, 2009), p.208.

to all round access to further military, political, and economical spheres of the US. Russians therefore considering it as a direct threat to its geopolitical position in the region, asked the Kyrgyz Government for the opening up of the Kant base under the rule of the CSTO (Collective Security Treaty Organization), and also signed for additional Russian military contingent in Kyrgyz territory through an agreement valid for 49 years.[86] Such Russian moves were political attempts to clarify to the Americans that Russians are still the dominant force in Central Asia.

Thus, Russian-US moves and counter moves in Kyrgyzstan, similarly the Russo-Uzbek agreement of summer of 2004, on "strategic partnership" along with the Georgian episode of August 2008 seems to suggest that Russia still considers this region a part of its historical and traditional sphere of influence and tries to secure its control over the region with economic contracts and military and security cooperation. Russian's traditional military, security, and intelligence elites therefore view that conflict and instability along its southern border, coupled with the expansion of Western influence, especially in the south Caucasus, pose a threat to Russian security interests. These nationalist therefore, are expected to be continuing advocating an assertive policy of defending Russia's interests in the region and thwarting inroads by outside powers.[87]

In such a changed geopolitical order the both halves of Transcaspian, Central Asia and Transcaucasia along with the Black Sea enjoy heightened analytical and policy interest for stabilizing a reconceptualised Eurasia. Some writers even describe geographic and even strategic unities between Transcaspian and South Asia. Sir John Thomson, a former British High Commissioner to India, wrote that, "The geographical definition of South Asia has expanded. If we had any doubt before, September 11 has made it clear that we have to take into account Afghanistan and its neighbours: Iran to the west, all the former Soviet republics

---

[86] Shamkhal Abilov, "The Russian Influence over the Central Asian Countries in the Context of Kyrgyzstan," *Turkish Weekly* 13 January (2010), http://www.turkishweekly.net/article/339/the-russian-influence-over-the-central-asian-countries-in-the-context-of-kyrgyzstan-.html.

[87] Richard Sokolsky and Tanya Charlick-Paley, *NATO and Caspian Security: A Mission Too Far?* (Santa Monica, CA Rand Corporation, 1999), p.30.

to the north, and China to the east. The geographical context for South Asia may be even wider."[88]

2.5.3. China Factor

Domestically speaking the Chinese are still working on the unification of the whole of Chinese mainlands and though, they have been successful in unifying Hong Kong with the Peoples' Republic, still the Taiwan issue is unresolved and the Chinese believe the United States is the major impediment to its resolution on Chinese terms. Chinese therefore want to see the weakening of the American alliance relationship with Taiwan, Japan and South Korea and consequent reduction of their military presence in the region. As Rajesh M. Basrur and Stephen Philip Cohen note, China's major program of military modernization is aimed at becoming one of the world's independent power centers, re important divergences of strategic interest between China and the United States over Taiwan, and over the U.S. missile defense programs. There are also significant differences over China's treatment of political dissenters. Specific events, such as the 1989 Tiananmen Square incident, the 1999 bombing of the Chinese embassy in Belgrade, and the collision between an American surveillance aircraft and a China fighter over the South China Sea in April 2001 have created a lack of trust between these two states. To many Americans it appears that China sees itself as the successor to the Soviet Union, as the new challenger to American hegemony. Some have also argued that China's strategic culture embodies a tendency to use force in its approach to difficult external disputes and that a future cold war cannot be ruled out. In that case, the U.S. might decide to resume nuclear testing, and pursue the fast-track development of missile defense, possibly providing Taiwan with a Theater Missile Defense (TMD) umbrella. A crisis over Taiwan may occur. In such a deteriorating situation, China may expand its arsenal rapidly and assume a more aggressive posture"[89] As a result Beijing is perceived by some US analysts as becoming hostile to the American forces forward basing in East Asia and naval deployments in the

---

[88] Sir John Thomson, "Policy Paths in South Asia: Intersections between Global and Local " in *South Asia in 2020: Future Strategic Balances and Alliances*, ed. Dr Michael R. Chambers (Carlisle Barracks: Strategic Studies Institute, U.S. Army War College, November 2002), p.17.

[89] Rajesh M. Basrur and Stephen Philip Cohen, "Bombs in Search of a Mission: India's Uncertain Nuclear Future," in *South Asia in 2020: Future Strategic Balances and Alliances*, ed. Dr Michael R. Chambers (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, November 2002). P.137.

Western Pacific and therefore seeking a 'regional hegemony' or 'sphere of influence' to enhance its status on the global stage to be able enough to revise the international 'rules of the game'.[90]

On the contrary, Beijing herself refers to the growing complexities in the Asia-Pacific security environment. The China White paper 2008 mentions new adjustment which are going on in the strategic alignment and relations among major countries in the region, and new changes that have occurred in the hotspots in the region. The paper talks of United States' accelerating realignment of military deployment to enhance its military capability in the Asia-Pacific region; the United States and Japan strengthening military alliance in pursuit of operational integration; Japanese seeking to revise their constitution and exercise collective self-defense – reflecting a military posture which is becoming more external-oriented; and the DPRK missile tests and nuclear test. Thus, the paper notes that the situation on the Korean Peninsula and in Northeast Asia has become more complex and challenging; and the Middle East has become more volatile because Iraq and Afghanistan continued to face turbulence and the settlement of the Iranian nuclear issue is not yet in sight.[91]

According to the white paper China's overall security environment remains sound. However, China's security still faces challenges that must not be neglected and that include United States continued selling of advanced weapons to Taiwan, and strengthened military ties with Taiwan. The paper notes that a small number of countries have stirred up a racket about a 'China threat,' and intensified their preventive strategy against China and strove to hold its progress in check. Complex and sensitive historical and current issues in China's surrounding areas still affect its security environment.[92]

Inspite of all such challenges of complexities which Chinese were facing, what is more significant was there decalartion in the white paper that China will never seek hegemony, nor will it join any military bloc or crave for any sphere of influence. The paper stressed that China opposes policies of war, aggression and expansion, stands against arms race and supports efforts of the international community to solve international disputes in a fair and

---

[90] Zalmay Khalilzad, "Congage China," in *Issue Papers* (RAND, 1999).

[91] "White Paper China 2006: The Security Environment," Gov.cn: Chinese Government's Official Web Portal, http://www.china.org.cn/english/features/book/194486.htm.

[92] Ibid.

reasonable manner. It therefore endorses all activities conducive to maintaining the global strategic balance and stability, and actively participates in international cooperation against terrorism.[93]

2.6. THE SINO-US RELATIONSHIP AND GEOSTRATEGIC ENVIRONMENT OF SOUTHERN ASIA

Asia in general and Southern Asia (as defined for the purposes of this study) in particular has increasingly taken the shape of one of the most critical regions in an evolving international order. Geopolitically the region includes three of the world's nuclear powers – China, India and Pakistan; and two others, the United States and Russia, have got important stakes in the region, and so happen to be present in its peripheries and interacting extensively with it. If considered more broadly then one finds five nuclear players in this region, namely China, India, and Pakistan in Southern Asia, and Russia and United States in its near periphery Demographically as shown earlier, Southern Asia has got 43% of the total world population and if the whole of Asia is for that matter taken into account it is expected to reach 60% of the world population by 2050. Economically it is projected that by 2030, China and India alone will account for more than 50% of global growth.

How the relationship between the United States and China will evolve is the single most important question confronting the polity of the Southern Asian region in the new millennium. The notions of 1990s that China could become a "peer competitor" or "near peer competitor" of the United States in the military arena;[94] more alarmist China's emergence as a "regional hegemon" towering over its cowed neighbours and threatening American interests in a region of increasing importance to the United States,[95] motivated the thinking of many

---

[93] "White Paper China 2006: National Defense Policy ", Gov.cn: Chinese Government's Official Web Portal, http://www.china.org.cn/english/features/book/194485.htm.

[94] Harvard University's Fairbank Center for East Asian Research-Conference on "The China Threat?" and Army War College, Carlisle Barracks, Conference "China: Strategic Partner or Peer Competitor?.The peer competitor debate was the focus of these conferences in 1993–94.

[95] Nicholas Kristof, "The Rise of China," *Foreign Affairs* Vol. 72, no. 6 (November/December 1993).;Denny Roy, "Hegemon on the Horizon? China's Threat to East Asian Security," *International Security* Vol. 19, no. 1 (Summer, 1994).; Richard Bernstein and Ross H Munro, "Coming Conflict with America," *Foreign Affairs* Vol. 76, no. 2 (March/April 1997).

American strategists to assess this relationship to be one of a growing competition and diverging interests in key areas. As William M. Carpenter and David G. Wiencek write:

"There are signs that a new competition is arising between Washington and Beijing. This competition will be unlike the old cold war rivalry, which was dominated by the ideological considerations. Instead, the new US-China competition is likely to be marked by a somewhat more complex mix of political, economic, and security challenges."[96]

In fact, the security aspect will be the key factor and motivation for their strategic competition, and will thus maximise the tension. China is on a fast track mode of major overhaul of its military power potential; at least part of which must be aimed at developing an effective deterrence against the United States. China wants to find itself in the rightful place in the family of powerful nations and as such, worries that the United States might try to hinder it. Yet China is also conscious of the risk of direct confrontation with America that might impact on their internal dispute in Tibet or Taiwan, patterned on Kosovo episode of 1999.[97] The inadvertent United States bombing of the Chinese embassy in Belgrade during the Kosovo crisis and the United States Cox Committee report detailing charges of Chinese espionage of the United States nuclear weapon laboratories exacerbated the Chinese threat perception. The Chinese exploitation of Revolution in Military Affairs (RMA) for asymmetric warfare strategies designed to attack the opponent's weakness with sophisticatedly precision weapon technology is causing alarm and suspicion in the United States.

William M. Carpenter and David G. Wiencek has noted that the United States sees, "important indicators of China's intent to build up its military power projection capabilities, including new long range, mobile, multiple-warhead missiles, new nuclear submarines, advanced cruise missiles, ballistic missile defences, an anti satellite capability (ASAT), and an aircraft carrier to be built in the next decade".[98] The United States interest in the Chinese modernisation initiatives is not a new secret even today but what is important is that how United States view China amongst the major and emerging powers? The United States Quadrennial Report 2006 provides the answer when it notes that China has the greatest potential to compete militarily with the United States and field disruptive military

---

[96] Carpenter and Wiencek, eds., *Asian Security Handbook 2000*, p.14.

[97] Ibid., p.15.

[98] Ibid.

technologies that could over time off set traditional U.S. military advantages absent U.S. counter strategies. (Yet) U.S. policy remains focused on encouraging China to play a constructive, peaceful role in the Asia-Pacific region and to serve as a partner in addressing common security challenges, including terrorism, proliferation, narcotics and piracy. U.S. policy seeks to encourage China to choose a path of peaceful economic growth and political liberalization, rather than military threat and intimidation.[99]

The Peoples Liberation Army (PLA) on the other hand is showing keen interest in deception mechanism of information to attack enemy's decision making capability. The Chinese excellent capacity to efficiently use ballistic or cruise missile with a high degree of precision strike and penetration and capacity to use ASATs to disturb and damage the communication satellites and capacity to use jammers against Global Positioning system is causing alarm in the American camp. United States analyst Dr. Michael Pillsbury has noted: "The Chinese argue each of America's high technology weapons is flawed in one way or another and can be defeated. They point to American over reliance on satellites for targeting, reconnaissance, and battle damage assessments. They believe that United States relies on satellites for 90 percent of its combat information and communications and that asymmetric warfare targeting these assets could cripple the United States at low cost to China."[100] The proliferation of ballistic missiles is another new factor that could put at risk the United States forward based forces. The overwhelming long term concern, however, is about the emergence of China as a major economic and military power, one that may become dominant in the region.

As Craig Covault of *Aviation Week & Space Technology*, reported that "China performed a successful anti-satellite (ASAT) weapons test at more than 500 mi. altitude Jan. 11 destroying an aging Chinese weather satellite target with a kinetic kill vehicle launched on board a ballistic missile."[101] This ASAT test was very significant and carried political connotations for the unilateralism of United States as the United States military is almost completely dependent on space assets. Chinese convinced about the United States intentions in Space

[99] "Quadrennial Defense Review Report 2006," US Dpartment of Defense, http://www.defense.gov/qdr/report/Report20060203.pdf.

[100] Cited by Carpenter and Wiencek, eds., *Asian Security Handbook 2000*.

[101] Craig Covault, "Chinese Test Anti-Satellite Weapon," *Aviation Week & Space Technology* (2007), http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=space&id=news/CHI01177.xml.
.

because of its refusal to enter into any restrictive space arms control treaty, has concluded that America is determined to dominate and control space. Moreover the 'Shriever' space war games conducted by the U.S. Air Force in 2001, 2003 and 2005 strongly reinforced their conclusion that United States space control sets China as a target, so it has become inevitable for Beijing to proceed with their own weaponization of space programs at least to show their military muscle and reach too. It was therefore that China through the successful test of ASAT demonstrated a deterrent to defend against any potential threat to their sovereignty.

The Pentagon annual report to the Congress in 2008 also highlighted China's growing efforts to limit or prevent the military use of the space by potential adversaries during times of crisis or conflict by pointing to a vigorous Chinese civilian and military space programmes, and the catalyst for their attention was the surprise test of Chinese direct-ascent anti-satellite (ASAT) weapon in 2007.[102] The "China concern" along with a plethora of territorial disputes that could generate armed conflict from the Korean Peninsula on one side to Caucasus and Middle East on the other is altering the United States strategic profile across Asia. The United States control of Afghanistan on one end, logistical presence in access to Singapore, use of ship repair facilities in Malaysia, and perhaps in Indonesia, as well enhanced bilateral military cooperation between the United States and ASEAN nations-underscored by the new United States-Philippines military cooperation accord and the United States-India strategic partnership deal have reinforced the United States commitment to security engagement in the region.

2.7. CONCLUSION:

The geostrategic environment of the countries of Pakistan, India and China constituting the Southern Asian region is of very important significance because of its internal and external dynamics and the resultant role of political, military and security forces in the region. Internally the countries of India and Pakistan are caught up in longstanding adversarial relationship because of the many outstanding disputes like Kashmir, Sir Creek and Siachen and hence witnessed many wars and crisis because of these unresolved issues. Similarly the Sino-Indian war of 1962 and continued conflict over the Arunachal and Aksai Chin areas has also contributed in their mutual rivalry. The result of the regions internal disputes and wars

---

[102] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*, p.365.

have been a cause of arms race in military and security domain and in public political sphere have caused the expansion of politico-religio wave of extremist nationalistic ideologies.

The regions external geostrategic environment places it on the door steps of oil and energy resource rich regions of Persian Gulf and Central Asia. The presence of important Sea Lanes of Communication (SLOCs) in all its littoral region and Oil and Gas proposed pipelines in and around Southern Asia makes it not only the gateway to the energy resources but also the site of energy corridors, hence a very important region in the energy geopolitics. It is because of this increased importance of the region due to the energy geopolitics that United States and Russia became increasingly involved in the region. The United States also sceptical about the Sino-Pak nexus in WMDs development program and concerned about 'China threat theory' got an opportunity in the shape of 9/11 episode to attack Afghanistan and establish a strong hold there in order to check the Chinese challenge in the energy game and keep an eye on the Pakistani nuclear program.

The United States President Bill Clinton during his visit to the region saw India as one of the "world's oldest and largest democracies", and as the United States natural partners in making shared expertise in high technology a source of dynamism in the global economy; whereas of Pakistan, the President Clinton saw a deeply religious Islamic society and a democracy situated on the crossroads of the Near East and South and Central Asia, facing choices that will resonate far beyond its own borders.[103] The Bush administration therefore built upon Clinton's "discovery of India" and set out to create a comprehensive and positive relationship with New Delhi. It valued India's expanding political and economic power and its democratic political order. Strategically, New Delhi was viewed as a potential counterweight to a rising China. Like its predecessor, the Bush administration recognized the potential political importance of Indian-Americans, and sought to harmonize its foreign policy goals in South Asia with the desires of this affluent community. Today, the United States concerns in Pakistan include terrorism, nuclear proliferation, relations with the Islamic world, democratization, and relations with other important Asian states. Pakistan's failure along one

---

[103] Strobe Talbott, "U.S. Diplomacy in South Asia: A Progress Report "

http://www.mtholyoke.edu/acad/intrel/strobie.htm.

or more dimensions could spread waves of political instability, terrorists, and nuclear technology throughout Asia and the Middle East.[104]

Pakistan's nuclear program was labelled as "Islamic Bomb" and has long been an old concern. But given recent revelations about the movement of nuclear and missile technology to and from Pakistan by the A.Q. Khan network, and the post 9/11 scenario of the threat of the 'Al-Qaeda' or 'Taliban' getting hold of a dirty bomb has further increased American alarm and interest in the country. Besides Pakistan's dangerous nuclear arms race with India, it is feared that it can play a destabilizing factor in disputes in other regions, notably the Gulf area because of its ties to Saudi Arabia. On the other side, India views the evolving Caspian security environment through the prism of its rivalry with China and Pakistan. In short, India and China are likely to be rivals for influence in Central Asia. This competition will add a new geopolitical dimension to their rivalry and, in particular, will only strengthen existing Indian-Russian strategic cooperation.

All these United States moves in the region are also being watched by Russia, and especially with regard to the energy game, as Russia considers the Central Asia and Caucasus as Russian spheres of influence, so have become increasingly involved in the region as is therefore considered an important factor while studying the southern Asian geo-strategic environment.

In short to conclude it could thus be inferred from all this diplomatic shake-up of not just the west shifting eastwards but also the east moving in every direction, that the battle between the major powers for influence in emerging nations is intensifying. However, India and Pakistan nuclear and missile race with added risk of inadvertent or accidental nuclear use because of unsophisticated nuclear command and control systems; China's quest for modernized force projection capabilities; Japan's impressive acquisition of dual use capabilities; the dangers of nuclear and missile proliferation by North Korea and the presence of proliferation rings and terror networks, however do provide a cause for concern and so making the important geo-strategic environment of the redefined South Asia.

It can therefore be concluded that Southern Asian region is a very important region and will remain one not only because of its own internal dynamics but also because of the strategic proximity and interplay of many external and extra-regional forces. And above all the

---

[104] Stephen Philip Cohen, "The United States and South Asia: Core Interests and Policies and Their Impact on Regional Countries," http://www.brookings.edu/views/speeches/cohens20030811.pdf.

existence of nuclear weapons and their delivery systems in this region beside other dynamics makes it all the way very important to be studied with respect to restraint and stability regime prospects.

Chapter 3

MISSILE PROGRAMS OF CHINA, INDIA AND PAKISTAN

3.1. INTRODUCTION

The southern Asian missile powers - China; India and Pakistan - are locked into an increasingly action-reaction modelled missile race, particularly the states of India and Pakistan. After identifying and sicussing the politics of ballistic missle proliferation in Southern Asia, this particular chapter discusses in three parts the historical origin and developments of these countries respective missile programs and highlights their ongoing programs with technologically detailed nature of their current arsenals.

Part I

3.2. MISSILE PROGRAM OF CHINA

3.2.1. Overview

Chinese missile force has an operational history of nearly five decades and today Chinese second artillery is truly a modern missile force which evolved over several developmental phases. It is therefore that Shirley A Kan had discussed Chinese missile programs under four phases of development and deployment. She notes that, "After developing a land-based, nuclear-armed MRBM and a limited range ICBM in the first phase, China sought greater reach, diversity, and reliability. In the second phase, China added a long-range ICBM, a mobile and solid-fuel MRBM (with nuclear- and conventionally-armed versions), and SRBMs to its ballistic missile force… In the third phase, China plans to deploy after 2000 or 2005 a new land-mobile, solid-fuel ICBM with a lighter warhead and a SLBM on a next-generation submarine. For the fourth phase, China plans to deploy a land-mobile, longer-range ICBM, perhaps after 2010."[105]

This seems to indicate that the Chinese have been very well planned and organised about their missile program and were thus keeping themselves abreast of all the scientific and

---

[105] Shirley A. Kan, "China: Ballistic and Cruise Missiles," *CRS Report for Congress* (2000), http://www.opencrs.com/rpts/97-391_20000810.pdf.

technological developments. This section is thus an attempt to comprehend the Chinese ballistic missile program more systematically.

Today China is in the midst of a ballistic missile modernisation programme and is continuously improving its force, both qualitatively and quantitatively, in all classes of missiles. China is increasing the number and variety of warheads in its inventory as well as replacing the older generation liquid fuel ballistic missiles by the newer generation of solid fuel and road mobile designs. The modernization drive thus implies that China intends to improve its nuclear deterrence.

As is the case generally with the defence modernisation programs that they are wrapped in ambiguity and mystery due to the nations security/interests requirements, the Chinese program too is a case in point and so all the research about its programs are mired in their cultural specific 'strategem'. And although so many types and versions of Chinese missiles are being discussed by analysts[106], that it is very hard to reach a consensus about the origin and development nature of the program.

Confronted by the same issue of limited available data, I have tried to sift through information in an easily comprehendible way and have therefore reached the following developmental phases based on the propulsion technologies of the Chinese missile programs.

3.2.2. Developmental phases

3.2.2.1. First phase (1956-1981) - Liquid Propulsion.

In the Chinese missile program history the first phase of liquid propulsion from 1956 to 1981, was the period of first generation of Chinese missiles. This first generation included two types

---

[106] For Example see: Ibid.; John Wilson Lewis and Xue Litai, "The Chinese People's Liberation Army 60 Years On: Transition Towards a New Era Strategic Weapons and Chinese Power: The Formative Years," *The China Quarterly* Dec,1987, no. No. 112. (1987).; Lewis and Hua, "Chinese Ballistic Missile Programs: Technologies, Strategies and Goals."; Hans M. Kristensen, Robert S. Norris., and Matthew G. McKinzie. "Chinese Nuclear Forces and U.S. Nuclear War Planning.". (Place Published: The Federation of American Scientists and the Natural Resources Defense Council, 2006), http://www.fas.org/nuke/guide/china/Book2006.pdf.; "People's Liberation Army Rocket Forces Second Artillery Corps," SOFTWAR, http://www.softwar.net/dongfeng.html.; "China's Ballistic Missile Update - 2004," *The Risk Report* 11, no. 1 (2004), http://www.wisconsinproject.org/countries/china/ChinaBMupdate.html;John J. Mearsheimer, "The False Promise of International Institutions," *International Security* 19, no. 3 (1994).;Duncan Lennox, *Jane's Strategic Weapon Systems: Issue Fifty* (Surrey, UK: Jane's Information Group Limited, 2009). etc…

of Intermediate Range Ballistic Missiles (IRBMs) and one Intercontinental Ballistic Missile (ICBM). Both of these missile systems were liquid fuelled missiles, land based and were designed to carry heavy warheads. It appears that as their accuracy was poor so by targeting against cities and other soft targets, they wanted a true minimum retaliatory capacity. The warhead miniaturization and target setting strategy would change with the improvements in accuracy which would ultimately result due to transformation in propulsion technologies from liquid to solid in the second phase.

Table 3-2: Chinese Missile Programme

Name	Type	Range	Propulsion
Ist Phase - Liquid Propulsion			
R-2 (1059)		950 km	Liquid-LOX/ethanol
DF-2	MRBM	1050 km	Liquid-LOX/ethanol
DF-3	IRBM	2500 km	Liquid-LOX/Kerosine
DF-4	IRBM	4800 km	Liquid-LOX/Kerosine, Liquid- AK27/UDMH
DF-5	ICBM	1300 km	Liquid-N2O4/UDMH
2nd Phase – Solid Propulsion			
DF-15 (M-9)	SRBM	500 km	Solid
DF-11/A (M-11)	SRBM	700 km	Solid
DF-31	ICBM	1100 km	Solid
DF-31 A	ICBM	10000-11000 km	Solid
DF-41	ICBM	12000 km	Solid
JL-1	SLBM	2150 km	Solid
JL-1A	SLBM	2500 km	Solid
JL-2	SLBM	8000 km	Solid

Source: *Author's Compilation*

3.2.2.2. Second phase (1982-todate) - Solid Propulsion

China successfully launched a solid fuelled SLBM in 1982, with which it entered into the second phase of rocketry in solid propulsion technology and started replacing their first generation strategic forces with the more survivable solid-propelled missiles of the second generation. It is clear that the objective now is to build a less vulnerable, more flexible, and more reliable and better, long distanced and accurate strategic retaliatory force, thus providing China with a credible deterrent potential. It would also seem that now in this phase the emphasis would also be on the complete triad of the nuclear delivery systems.

3.2.3. Origin of the Program

The origin of China's missile industry coincides with the deportation to China of prominent U.S. Air Force engineer Qian Xuesen in 1955. Qian was educated at MIT and Caltech on a scholarship in 1935. As one of the initial cadre of the Jet Propulsion Laboratory, Qian worked on a number of advanced aircraft and missile projects. As an Army Air Corps colonel, he was not only the member of the U.S. team who debriefed Werner von Braun, designer of the German V-1 and V-2 missiles, but also he participated in the drafting of the U.S. Air Force's first long range vision, Toward New Horizons. However, suspected of harboring communist sympathies, Qian was deported to China in 1955.

It is generally accepted that shortly after his return to China, on February 17, 1956, Qian submitted a formal proposal for the development of ballistic missiles, satellites, and launch vehicles by establishing research and development (R&D) facilities to the party leadership. On May 26, 1956, the Party's Central Military Commission created a missile research and development (R&D) organization, the Defense Ministry's Fifth Academy. Qian Xuesen was appointed as its initial director of an organization composed of 10 research sections.

By that time the United States had emerged as Beijing's enemy and a nation that had repeatedly threatened China with nuclear attack, it was implicit to the Chinese leadership that only long-range ballistic missiles could strike the homeland of the United States, the commission therefore assigned the Fifth Academy the task of building these missiles. Chinese turned to the Soviet Union for help and on September 13, 1956, Moscow agreed to sell the PRC two R-1 (code named 'Scunner', in the west-270 km range-copy of V-2) missiles and relevant technical documents.

3.2.3.1. R-2-'sibling' and the start of Fifth Academy's Project 1059

The R-1 missiles were from the early family of soviet ballistic missiles and so were not a sophisticated one and did little help to the Chinese. It was only on October 15, 1957, when the Sino-Soviet New Defense Technical Accord signed, and a Soviet Army missile battalion with two R-2 (code named 'sibling' in the west-590 km range) missiles and their associated launching equipment reached Beijing on December 24 that Fifth Academy named 1059, marked the real beginning of the Chinese ballistic missile program. Chinese tested their own version of R-2 1059 on November 5, 1959, and handed over to PLA a year later with conventional weapon payload for training. However, they continued its production until 1964.

It is therefore generally accepted that the first Chinese ballistic missiles were thus based on Russian design, which was originally based on the German V-2 rocket. It was thus that the Chinese ballistic missiles program story began and they launched Dong Feng projects which provided them a sound stepping up the ladder of technological breakthroughs.

3.2.3.2. Dong Feng-East Wind

When Chinese relations with Soviet Union started deteriorating in 1960s, the Chinese decided to work hard for indigenizing their efforts to meet the threats to their homeland and in doing so they chalked out a program of modification of 1059. The Fifth Academy therefore directed the development of a dongfeng (DF or East Wind) series of land-based intermediate and intercontinental ballistic missile on September 19, 1958, and scheduled that R&D on the missile to be completed before 1962.

The first in the DF series, the single-stage DF-1, was designed to have a range of 2000 km, enough to hit all of Japan from East China with a payload of 1,500kg. The DF-1's[107] idea originated from another Soviet missile R-12 which Moscow had refused to sell because it did not, as a rule, allow the transfer of state-of-the-art weapons to allies before it had deployed at least two types of more advanced systems. However, Chinese students majoring in rocketry at the Moscow Aviation Institute had gained a rudimentary knowledge of the R-12 by copying the restricted notes and quizzing talkative Soviet experts about another missile R-5.

---

[107] Similar to the R-12, the DF-1 used storable liquid propellants (TG-021 AK-20) for improved readiness and had a cluster of four engines with a total lift-off thrust of 64 tonnes.

This seems to imply that Chinese were now confident of their knowledge base and so they found no problem in jumping into the field of the stat of the art technology and the successive developments indicate the same. Since then, China has made many advances in its ballistic missile and rocket technology, the launching up of Banian Sidan projects takes the story further up the ladder of technological sophistication and improvement to date.

3.2.3.3. Banian Sidan

Between 1961 and 1965, China's space and missile industry witnessed a remarkable expansion. In early 1963, the academy devised a Banian Sidan (four missiles in eight years) plan; that is, to build four types of strategic surface-to-surface missiles in eight years. Banian Sidan was thus a staged effort towards an ICBM. The draft plan, as originally formulated in 1964, stipulated intended ranges and imaginary targets for each missile: Japan (DF-2), the Philippines (DF-3), Guam (DF-4), and the continental United States (DF-5).[108]

It could thus be argued that technology, not strategy, determined the pace and main direction of the ballistic missile program at least until the late 1970s. In practice, the designers were neither told nor supposed to worry about the possible strategic purposes of their missiles. They were simply given the range and payload requirements for striking, sequentially, Japan (DF-2), the Philippines (DF-3), Guam (DF-4), and the continental United States (DF-5). In 1971, with the successful flight test of DF-5, the goals of the Banian Sidan were achieved and Chinese were now set for moving on to triad of deterrent. The Julang project seems to suggest the same.

3.2.3.4. Julang – Giant Wave

As the name suggests Julang-Giant Wave is a Submarine Launched Ballistic Missile (SLBM) but with solid fuelled technology, the JL program brought the Chinese missile program to new horizons. The succesfull test launch of JL-1 on October 12, 1982, with a range of 1700 km and 600 kg payload, opened up the road to surface version of the same technology for enhanced operational usability. The JL-2 is also reported to have been developed as a second generation intercontinental range Submarine Launched Ballistic Missile (SLBM) which is a three-stage solid-propellant missile which is said be capable of carrying either single or three

---

[108] Lewis and Litai, "The Chinese People's Liberation Army 60 Years On: Transition Towards a New Era Strategic Weapons and Chinese Power: The Formative Years."

to eight MIRV with decoys and penetration aids upto a minimum of 2,000 km and a maximum range of 8,000 km.[109]. JL-2 program is produced together with land based ICBM DF-31, and is thus reported to be similar and identical to DF-31, which is reported to have been test fired ten times in between 1995 to March 2004.[110] JL-2 planned launch was reported from the trials submarine in August 2002, with a reported range of 6000 km, second flight test in 2003, third in August 2004, and a fourth in May 2005.[111] This missile thus would give China its first 'credible sea-based deterrent' potential.

It was thus that technology drive which accelerated the pace of continued achievement for longer ranges, better accuracies, improved reliability and operability, and more rapid deployment capability and the Chinese missile program kept on moving from one triumph to the other. The development of Solid fuelled missiles, the expansion of FOBS and spreading out the efficacy by MIRVing of the missiles along with precision improvement by on board computer usage and GPS systems, are the stories in point which render second artillery in today's China as the pocket of excellence.

---

[109] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.38.

[110] Ibid.

[111] Ibid.

Table 3-3: Characteristics of Chinese Ballistic Missile Arsenal

Short Range Ballistic Missiles (SRBM)					
Missile Name	**Range and Payload**	**Warhead Type & Yield**	**Propulsion & Guidance**	**Estimated CEP**	**Possible Targets**
DF-15 (M-9)	600 km 950 kg	Single nuclear warhead, 50-350 kT Single or cluster conv. warhead	Single-stage; solid propellant; strap-down inertial computer-digitized guidance system with terminal control	35~50m	Targets along China's border, including Taiwan.
DF-11 (M-11)	280~350km 800 kg	Single nuclear warhead, 350 kT Single or cluster conv. warhead	Single-stage; solid propellant; strap-down inertial computer-digitized guidance system with terminal control	500~600m	Targets along China's border, including Taiwan
DF-11 A	over 500~700km	Both conventional and unconventional warhead such as fuel-air explosive (FAE), sub-munitions, and chemical agents. Can also carry tactical nuclear warhead of 2~20kT yield	Single-stage; solid propellant; strap-down inertial /GPS guidance system with optical correlation terminal targeting	below 200m	Targets along China's border, including Taiwan
Medium Range Ballistic Missiles (MRBM)					
DF-21 upgraded to **DF-21A**	1800 km 500 kg	Single nuclear warhead of 100kT, 200kT and 500kT Can also be configured to carry conv. HE warheads	Two stage; solid propellant; gyro-platform inertial guidance coupled to terminal radar guidance	300~400 m	Countries surrounding China, including Japan and Southeast Asian countries

Intermediate Range Ballistic Missile (IRBM)					
DF-3/3A	2850 km 2150 kg	Single nuclear warhead, 1-5 MT (3.3 MT) -Single conv. warhead	Single-stage; storable liquid propellant (AK-27/UDMH); Fully inertial strap-down guidance system	2.5~4.0 km DF-3A an improved version with 1000 m CEP	Countries surrounding China, including Japan, India and possibly Southeast Asian countries
DF-4	4850-5500 km 2200 kg	Single nuclear warhead, 1-5 MT (3.3 MT)	Two-stage, non-storable liquid propellant (LOX/ kerosene)	3.0~3.5 km	Countries surrounding China, including Russia, Japan, Southeast Asian countries and Guam.
Intercontinental Ballistic Missile (ICBM)					
DF-5	13000+ km 3200 kg	Single nuclear warhead, 1-5 MT (4-5 MT) Can be modified for MIRV	Two-stage; storable liquid propellant (N2O4/ UDMH); gyro-platform with onboard computer	0.5~3.0 km	All of Russia, Hawaii and the continental United States, and Europe
DF-31	8000 km 700 kg	single 1,000kT nuclear warhead	three-stage, road-mobile, solid-propellant, inertial guided equipped with a stellar update system	300m	All of Russia, the continental United States, and Europe
DF-31A	10,000~11,000 km	3~5 (MIRVs), each with 20, 90 or 150kT yield	three-stage, road-mobile, solid-propellant, inertial guided equipped with a stellar update system	<300 m	Cover most of the targets in the United States

DF-41	12000 km 800 kg (700 kg)	Single nuclear warhead, 200 ~ 300 kT Possibly equipped with MRV/MIRV capability	three-stage, road-mobile, solid-propellant, inertial guided	700~800 m	Cover all of the targets in the United States
Submarine Launched Ballistic Missile (SLBM)					
JL-1/1A	2150 km 600 ~700 kg JL-1A improved for 2500 km	Single nuclear warhead, 250 ~ 500 kT	Two-stage; solid propellant; gyro-platform inertial guidance with onboard computer	700 m	Targets surrounding eastern China, including Japan and Southeast Asian countries when deployed in China's home waters.
JL-2	8000 km	3~4 (MIRVs), each with 90 kT yield or single warhead of 1000 kT	Two-stage; solid propellant		

Source: Author's compilation

3.2.4. Chinese Missile Arsenal Today

As mentioned earlier that the Chinese ballistic missile modernisation programme is a continuous feature of their deterrent potential development, so we find a wide variety of systems in Chinese arsenal. I will discuss this arsenal in a sequence which was fairly convincing to me to assume that it constitutes the current inventory of the Chinese missile systems.

3.2.4.1. Short-Range Ballistic Missiles (SRBM)

3.2.4.1.1. B-611 (CSS-11) and B-611M

B-611 is a single-stage, solid-fuelled, 80 km-150 km range Short Range Ballistic Missile (SRBM) reported in 2003 to have started in 1995 with the requirement for a cheaper but accurate SRBM, that can manoeuvre during flight using a low trajectory to make any defence more difficult.[112] In 2005, an improved version B611M was reported with an increased range of 260 km and as low altitude flight as 35 km because of the two pop out wings and four fixed tail fins thus enabling it for a successful manoeuvre to avoid interceptors.[113] The missile is believed to have strap-down laser-gyro guidance system that enables it hit with accuracy claimed by Chinese as CEP 75 m and with terminal guidance even to 10-20 m CEP.[114]

3.2.4.1.2. DF-15 (M-9) Short-Range Ballistic Missile

The DF-15 (export name: M-9; NATO codename: CSS-6) is a road-mobile, single-stage, solid-fuel, short-range ballistic missile (SRBM) system developed by China Academy of Rocket Motor Technology CARMT, also known as 4th Aerospace Academy).[115]

It has been reported that the DF-15 SRBM development began in 1985, and the first test launch took place in June 1988, and the development was completed in 1990.[116] It is believed that since 1989 the PLA Second Artillery Corps had already deployed the missile in a small

---

[112] Ibid., p.4.

[113] Ibid.

[114] Ibid., pp.4-5.

[115] "DF-15 (M-9) Short-Range Ballistic Missile," (3 Oct 2009), http://sinodefence.com/strategic/missile/df15.asp.

[116] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.23.

number, whereas the latest Janes report of 2009 still uses 'probably entered service around 1990'.[117]

The missile is also said to be launched from an 8X8 transporter-erector-launcher (TEL) vehicle to provide full road and cross-country mobility and uses the inertial guidance, though China has also been reportedly seeking to further improve the accuracy of the DF-15 missile by integrating it with the global positioning system (GPS) or a similar indigenously-developed satellite-based navigation and positing system. A terminal radar-guidance system is also under development. With both systems onboard the missile's accuracy may increase to CEP 35~50m.[118]

The DF-15 program seems to indicate that the missile can carry a range of warhead types including high-explosive, high-explosive incendiary, and armour-piercing cluster. Other warhead types under development include mine-laying, electromagnetic shockwave, and low-yield nuclear deep-penetration. With a terminal velocity of over Mach 6, the missile is difficult to intercept with any existing missile defence technology.[119] The reports are also there of the improved versions of this missiles system designated as DF-15A;DF-15B; and DF-15C with increased accuracy and peneteration aids, as for example DF-15 C is suggested to be designed to attack underground and hardened shelters, using a steep dive onto the target.[120]

3.2.4.1.2. DF-11/A (M-11) Short-Range Ballistic Missile

The DF-11 (export name: M-11; NATO codename: CSS-7) is a road-mobile short-range ballistic missile (SRBM) system developed by CASIC Sanjiang Space Group (also known as Aerospace Base 066) in Hubei Province.[121] The missile was originally developed for export market with its specifications (a range of 280~350km and a single-warhead of 500kg)specifically tailored to meet the requirements of the Missile Technology Control Regime

---

[117] "DF-15 (M-9) Short-Range Ballistic Missile.";for Janes report see:Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, 24.

[118] "DF-15 (M-9) Short-Range Ballistic Missile."

[119] Ibid.

[120] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.24.

[121] "DF-11/A (M-11) Short-Range Ballistic Missile," (23 May 2007), http://sinodefence.com/strategic/missile/df11.asp.

(MTCR), which restricts the export of delivery systems and related technology for those systems capable of carrying more than 500kg payload over a range of 300km or above. Its improved variant DF-11A was later adopted by the PLA in the early 1990s as a tactical theatre missile for its ground forces with extended range (over 500~700km) and greater accuracy as a result of the introduction of GPS guidance technology.

The development of the DF-11A began in 1993 and was successfully test fired on 6 October 1997, and entered service with the PLA in 1998/99.[122] The missile may also be able to carry unconventional warhead such as fuel-air explosive (FAE), sub-munitions, and chemical agents. It may also be able to carry tactical nuclear warhead of 2~20kT yield.[123]

The basic variant DF-11 uses an inertial guidance + terminal radar guidance, giving a circular error probability (CEP) of 500~600m. The improved DF-11A uses inertial/GPS guidance system with optical correlation terminal targeting, resulting in an greater accuracy of below 200m CEP, and is launched from a 8X8 WA2400 transporter-erector-launcher (TEL) vehicle, to provide full road and cross-country mobility.[124]

3.2.4.2. Medium-Range Ballistic Missiles (MRBM)

3.2.4.2.1. DF-2 Medium-Range Ballistic Missile

The DF-2 (NATO code name: CSS-1) is a single-stage, liquid-propellant, road-mobile, medium-range ballistic missile (MRBM) developed by the Ministry of Defence 5th Academy (now China Academy of Launch Vehicle Technology, CALT) and is reportedly China's first indigenously developed ballistic missile.[125] The development of the DF-2 began in the late 1950s, but it would appear that due to Soviet Union's withdrawal of its technical assistance in 1960, Chinese redesigned DF-2A and successfully launched it on 29 June 1964. Though once in operational service with the PLA, this missile was completely retired from active duty in the early 1980s.

---

[122] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.22.

[123] "DF-11/A (M-11) Short-Range Ballistic Missile."

[124] Ibid.

[125] "DF-2 Medium-Range Ballistic Missile," (23 May 2007), http://sinodefence.com/strategic/missile/df2.asp.

3.2.4.2.2. DF-21 Medium-Range Ballistic Missile

China Changfeng Mechanics and Electronics Technology Academy (also known as 2nd Aerospace Academy) developed the DF-21 (NATO code name: CSS-5) as a two-stage, solid-propellant, single-warhead medium-range ballistic missile (MRBM) system capable of delivering a 500kT nuclear warhead over a distance of 1,800km.[126]

The first test launch of the DF-21 missile took place in May 1985, entered operational service in the late 1980s. In the mid-1990s, 2nd Aerospace Academy also introduced the improved DF-21A (CSS-5 Mod 2) with increased range and accuracy using both GPS and a radar-based terminal guidance system.[127]

It appears that the missile uses an inertial guidance, coupled to a terminal radar-guidance system to increase the accuracy. The missile's CEP is estimated to be about 300~400m. The missile carries a single 100kT, 200kT, or 500kT nuclear warhead, but can also configured to carry conventional HE warheads. This missile designed to provide target coverage in Asia and West Pacific regions.

3.2.4.3. Intermediate-Range Ballistic Missiles (IRBM)

3.2.4.3.1. DF-3 Intermediate-Range Ballistic Missile

China began to develop an intermediate-range ballistic missile in the early 1960s, which entered operational service in 1970 as DF-3(NATO designation: CSS-2). The 2,500 km-range DF-3 was designed to launch warheads against American bases in the Philippines in Eastern Asia. The missile has a payload of 2,000 kg, which was expected to be the weight of the hydrogen bomb under development in China at that time.

The DF-3 is a single stage, liquid-fuelled ballistic missile, 21.2 m long and 2.25 m in diameter with four clipped delta fins at the base of the missile that in the early days probably used ground-based radio-command guidance system but now uses an inertial guidance.[128] The missile has an estimated CEP of 1,000 ~ 4,000m and carries a 2,000 ~ 3,000kT yield nuclear

---

[126] "DF-21 Medium-Range Ballistic Missile," (23 May 2007),

http://sinodefence.com/strategic/missile/df21.asp.

[127] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.25.

[128] Ibid., p.15.

warhead, but can also configured to carry a conventional HE warhead.[129] An improved version DF-3A was developed in 1980s with an accuracy improved to 1,000m CEP, and a range of 2,800 km to 4,000 km with varying payloads, but since the late 1990s, the PLA began to gradually phase out the early variant DF-3 missiles and replace them with the more capable DF-21.

3.2.4.3.2. DF-4 Intermediate-Range Ballistic Missile

China began the research and development of the DF-4(NATO code name: CSS-3) missile in 1965 and managed to begin its initial deployment in 1971. The DF-4 is a two-stage, single 1,000~3,000kt thermonuclear warhead, with an accuracy of around 1,500m missile.[130] It was the first Chinese ballistic missile that posed a real threat of reach to Moscow and a number of other key Russian cities.

The DF-4 could carry a megaton warhead to a maximum range of 4,800 km and the Central Military Commission made the United States Strategic Air Command base on Guam the theoretical target of this very capable system,[131] though it still could not reach the U.S. mainland. However, the capability itself significantly boosted China's ability.

3.2.4.4. Intercontinental Ballistic Missiles (ICBMs)

3.2.4.4.1. DF-5 Intercontinental Ballistic Missile

In 1965 the Chinese began development of the DF-5(NATO codename: CSS-4), a two-stage, intercontinental ballistic missile capable of delivering a multimegaton warhead to Hawaii and the continental United States.[132] DF-5 is thus believed to have a minimum range of 3500 km and a maximum range of 12000 km, the area also unconfirmed reports of the existence of an improved version DF-15A with an increased range of 15000 km.[133]

---

[129] "DF-3 Intermediate-Range Ballistic Missile," (23 May 2009),

http://sinodefence.com/strategic/missile/df3.asp.

[130] "DF-4 Intermediate-Range Ballistic Missile," (23 May 2007),

http://sinodefence.com/strategic/missile/df4.asp;Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*.

[131] Lewis and Litai, "The Chinese People's Liberation Army 60 Years On: Transition Towards a New

Era Strategic Weapons and Chinese Power: The Formative Years."

[132] Ibid.

[133] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.20.

The DF-5 entered operational service in 1981, and were deployed in hardened constructions in central China. The DF-5 carries a single 3 megatons nuclear warhead. Multiple independently targetable re-entry vehicle (MIRV) warhead capability was in mind when the DF-5 was developed and now it is being reported that some DF-5A missiles may have been modified to carry four or six MIRVs with nuclear warheads having a yield of 150 to 350 kT each.[134] The missile accuracy is also said to have improved from CEP 800 m to CEP 500 m.

3.2.4.4.2. DF-31 Intercontinental Ballistic Missile

The DongFeng-31 (DF-31, NATO codename: CSS-9) solid-propellant ballistic missile programme began in 1986 as a successor to the DF-4 (CSS-3) liquid-propellant long-range ballistic missile.

The DF-31, is a three-stage, road-mobile, solid-propellant, inertially guided equipped with a stellar update system ICBM capable of delivering a single 1,000kT nuclear warhead, and is expected to have an accuracy of at least 300m CEP The missile incorporates many advanced technologies similar to current generation Russian missiles, including the transporter-erector-launcher (TEL) for upgraded mobility, use of penetration aids such as decoys or chaff, and an improved solid propellant. These technologies were presenting Chinese designers with substantial challenges, resulting at least two failed test launches in the 1990s. The first 'live' test of the missile using a dummy warhead and several decoys was conducted on 2 August 1999, from Wuzhai Missile Test facilities in Shanxi Province to the impact zone in Lop Nor in Xinjiang.[135]

China is currently developing two follow-on versions of the DF-31: the 11,000km-range DF-31A ICBM with improved accuracy and possibly multiple independently-targeted re-entry vehicle (MIRV) capability, and the JL-2 submarine-launched ballistic missile (SLBM) that will be deployed on China's next-generation Type 094 nuclear missile submarines (SSBN).[136]

---

[134] Ibid.

[135] "DF-31 Intercontinental Ballistic Missile," (23 May 2007),

http://sinodefence.com/strategic/missile/df31.asp.

[136] Ibid.

3.2.4.4.3. DF-31A Intercontinental Ballistic Missile

The missile is likely to be a replacement for the now-cancelled DF-41 ICBM as the future mainstay of China's intercontinental ballistic missile (ICBM) arsenal. Like the DF-31, the DF-31A is also road-mobile and uses solid-propellant.

The upgraded DF-31A is said to have a range of 10,000 ~ 11,000km, enabling it to cover most targets in the United States. The missile is said to be capable of deliver 3 ~ 5 multiple independently-targeted re-entry vehicles (MIRVs), each with 20, 90 or 150kT yield.[137] It is also possibly equipped with penetration aids such as decoys and flares to complicate enemy missile warning and defence.

3.2.4.4.4. DF-41 Intercontinental Ballistic Missile

The DongFeng-41 (DF-41, NATO codename: CSS-X-10) is a three-stage, solid-propellant, intercontinental-range ballistic missile developed in the 1990s as a successor to the DF-5 (CSS-4) ICBM. The 12,000km-range DF-41 was developed in parallel with the 8,000km-range DF-31.

There has been only one reported ground test and a simulated test launch in October 1999, but since then no flight tests todate, which push forward speculations as for example unconfirmed US reports that the project was halted or terminated in 2002, but there is an equal possibility that the project has been restarted with a new performance requirement.[138] This should also be remembered that, the PLA is now developing an enhanced version of the DF-31 ICBM known as DF-31A as the future mainstay of China's ICBM arsenal.

3.2.4.5. Submarine-Launched Ballistic Missiles (SLBM)

3.2.4.5.1. JL-1 Submarine-Launched Ballistic Missile

China began to develop an intermediate-range, two-stage, solid-propellant submarine-launched ballistic missile (SLBM) in the mid-1960s as a part of its nuclear missile submarine programme. The project entered full-scale development in 1968. In September 1977, the

---

[137] "DF-31A Intercontinental Ballistic Missile," (23 May 2007), http://sinodefence.com/strategic/missile/df31a.asp.
[138] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, pp.29-30.

SLBM project was listed by the Chinese government as the country's three most important weapon development programmes.[139]

The JuLang-1 (NATO codename: CSS-N-3) first successful test launch from a Golf class trials submarine took place in October 1982, and the missile was first launched from the Type 092 nuclear submarine in 1988. China introduced the improved JL-1A with increased range in the late 1990s.The JL-1 missile provides China with the capability to strike back after enemy's first attack thus significantly increasing the survivability.

The JL-1 missile uses a two-stage solid-propellant engine. The missile has a range of 2,150km (2,500km for JL-1A) with an accuracy of 700m CEP obtained from an inertial guidance system.[140] It delivers a payload of a single warhead that weighs 600 ~ 700kg, which is believed to carry a 250 ~ 500kT yield nuclear device.[141]

3.2.4.5.2. JL-2 Submarine-Launched Ballistic Missile

The JuLang-2 (JL-2, NATO codename: CSS-NX-4) is the two-stage, solid-propellant submarine-launched ballistic missile (SLBM) under development since the early 1990s to replace the first-generation JL-1 (CSS-N-3). Very little information is available regarding this highly classified weapon development programme. It is understood that the missile is a sea-based version of the DF-31 intercontinental ballistic missile (ICBM).[142]

The JL-2 SLBM is a three-stage solid-propellant missile which is said be capable of carrying either single or three to eight MIRV with decoys and penetration aids upto a minimum of 2,000 km and a maximum range of 8,000 km.[143] The JL-2 SLBM is an important step for China towards a credible sea-based nuclear retaliation capability.[144]

---

[139] "JL-1 Submarine-Launched Ballistic Missile," (23 May 2007), http://sinodefence.com/strategic/missile/jl1.asp.
[140] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.37.

[141] "JL-1 Submarine-Launched Ballistic Missile."
[142] "JL-2 Submarine-Launched Ballistic Missile," (23 May 2007), http://sinodefence.com/strategic/missile/jl2.asp.
[143] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.38.

[144] "JL-2 Submarine-Launched Ballistic Missile."

Part II

3.3. MISSILE PROGRAM OF INDIA

3.3.1. Overview

Indian missile program has a very deep rooted history, it developed over decades. For convenience I spread it over to two phases. In the first phase I will trace its origins in its satellite launch programs and in second in its regular missile programs – but in reality I don't feel much of a difference between the two as all the activities of satellite programs were designed and developed in two to help them master the missile technology. President Dr A.P.J. Kalam, who is known to be the father of Indian space and missile programs once said, "Many individuals with myopic vision questioned the relevance of space activities in a newly independent nation, which was finding it difficult to feed its population. Their vision was clear if Indians were to play meaningful role in the community of nations, they must be second to none in the application of advanced technologies to their real-life problems. They had no intention of using it as a mean to display our might."[145]

It seems to be reasonably certain from all such statements that what all these space/satellite launch programs were targeting at was nothing but a powerfully weaponized hegemon in the world. The first phase debate of India's satellite launch program further clarifies my point of Indian missile program origin.

3.3.2. Developmental phases

3.3.2.1. First Phase (1963-1970)-International help and collaborations-Acquaintance Phase

The foundations of the Indian missile program were laid down by United States launching of sounding rocket[146] in November 1963 in India. They were further stoned by the same pattern and privilege being continued between 1963 and 1975 with approximately 350 U.S; French; Soviet and British sounding rockets launches from India's Thumba Range. It is important to note that the United States also helped design Thumba Range and trained group of Indian

---

[145] "Indian History in Rocketry," *Missile History* (14 Apr 2006), http://www.bharat-rakshak.com/MISSILES/History.html.

[146] Sounding rockets fly straight up into the atmosphere to conduct scientific experiments.

engineers in rocket launching and range operation in the United States, included among them was the Agni's chief designer, A. J. P. Abdul Kalam.[147] In 1963-64, he spent four months in training in the United States and visited NASA's Langley Research Center in Virginia, where the U.S. Scout rocket - a low-cost, reliable satellite launcher was conceived, and the Wallops Island Flight Center on the Virginia coast, where the Scout was being flown.[148]

Soon afterward, in 1965, Homi Bhabha, head of the Indian Atomic Energy Commission asked NASA whether the United States would help with it and their reply was "available . . . for purchase . . . in connection with scientific research," but warned that "transfer of this technology . . . would be a matter for determination by the Department of State under Munitions Control," nevertheless sent India technical reports on the Scout's design, which was unclassified.[149]

This seems to imply that A. J. P. Abdul Kalam now had the information he needed. He built the India's first satellite launcher SLV-3 (Space Launch Vehicle). Its design is virtually identical to the Scout's as both rockets are 23 meters long, use four similar solid-fuel stages and "open loop" guidance, and lift a 40-kilogram payload into low earth orbit. It is therefore generally accepted that the SLV's 30-foot first stage would later become the first stage of the Agni.

In 1988, the United States supplied an advanced ring laser gyroscope to help guide a new Indian fighter plane [150] which could easily be adapted to the demands of missile acceleration.[151]

On the other hand France going a step further up helped master liquid propulsion technology. This suggests that Indian 'Vikas' – liquid propelled high thrust rocket motor engine originated

---

[147] Gary Milhollin, "India's Missiles - with a Little Help from Our Friends," *Bulletin of the Atomic Scientists* November (1989).

[148] Ibid.

[149] Ibid.

[150] Steven R. Weisman, "U.S. Clears Vital Gyroscope for Indian Jet Fighter " *New York Times*, 7 April 1988.

[151] Milhollin, "India's Missiles - with a Little Help from Our Friends."

from 'Viking' –which Indian engineers helped develop for European Space Agency's Ariane satellite launcher under a license from France's Societe Europeene de Propulsion (SEP).[152]

This further suggests that the training in liquid propulsion seems to have paid off and India tested liquid propelled 'Prithvi' missile just a year before testing the Agni whose second stage is a shortened version of the Prithvi.[153]

In the 1970s and 1980s, German government's aerospace agency DLR (Deutsche Forschungsanstalt fur Luftfahrt und Raumfahrt e.V) gave India help in three indispensable missile technologies: guidance, rocket testing, and the use of composite materials and launched a program called APC-Rex for Autonomous Payload Control Rocket Experiment.[154]

In the light of all the above deliberations, I have attempted to demonstrate that it is clear that India utilised all these joint ventures for the technological and theoretical development and continued its parallel development in its both space and missile programs. So all these supportive cooperation and collaborations put India on the path of its program development in the first phase, and refining the technological base seems to have been set conveniently for the second phase.

---

[152] Ibid.

[153] Ibid.

[154] For all these details please see Ibid.

Table 3-4: International Helpers of Indian Missile Programme

France

- Licensed production of sounding rockets in India
- Supplied the liquid-fuel Viking rocket engine, now the "Vikas" engine of the Polar Satellite Launch
- Vehicle (PSLV) second stage
- Tested Indian-produced Vikas engine in France

Germany
- Delivered measurement and calibration equipment to ISRO (Indian Space Research Organization) laboratories
- Trained Indians in high-altitude tests of rocket motors and in glass and carbon fiber composites for rocket engine housings, nozzles and nose cones
- Designed high-altitude rocket test facilities
- Conducted wind tunnel tests for Satellite Launch Vehicle - SLV-3 rocket
- Developed radio frequency interferometer for rocket guidance
- Developed computers for rocket payload guidance based on U.S. microprocessor
- Supplied documentation for a filament-winding machine to make rocket engine nozzles and housings
- Helped build Vikas rocket engine test facilities
- Designed hypersonic wind tunnel and heat transfer facilities
- Supplied rocket motor segment rings for PSLV

Russia
- Supplied surface-to-air missiles which became the models for the Prithvi missile and the second stage of the Agni medium-range missile
- Sold seven cryogenic rocket engines

United Kingdom
- Supplied components for Imarat Research Center, home to the Agni missile
- Supplied magnetrons for radar guidance and detonation systems to Defense Research and Development Laboratory

United States

- Launched U.S.-built rockets from Thumba test range
- Trained Dr. Abdul Kalam, designer of the Agni
- Introduced India to the Scout rocket, the model for the Satellite Launch Vehicle - SLV-3 rocket and the Agni first stage
- Sent technical reports on the Scout rocket to Homi Bhabha, the head of the Indian Atomic Energy Commission
- Sold equipment that can simulate vibrations on a warhead

Sources: Author's compilation based on information from: India: Missile Helpers The Risk Report Volume 1 Number 1 (January-February 1995); Gary Milhollin India's Missiles - With a Little Help from Our Friends Bulletin of the Atomic Scientists November 1989, pp. 31-35

3.3.2.2. Second Phase (1971-1980)- Reverse engineering and experimenting with technology phase.

The second phase of missile development in India starts with first the DRDO two significant projects-Project Devil and Project Valiant. second, when Dr APJ Kalam prepared a blue print for a staggered scheme of five missile development programs for making India into a missile nation and presented it to Venkataraman the then Defense Minister. Out of this audacious initiative was born The Integrated Guided Missile Development (IGMDP) in 1983 with the aim of achieving self-sufficiency in missile development & production. [155] Today this 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.[156]

Initial missile programs-'Project Devil' (a theatre ballistic missile) and 'Project Valiant'(an intercontinental ballistic missile) were scattered and stymied by many issues, which included technology development, financial resources and manpower,[157] yet it is important to study them for knowing the developmental path.

3.3.2.2.1. Project Valiant (1971-1974)

The first, Project Valiant, was an ambitious attempt to develop a 1,500km-range ballistic missile in perhaps 7-8 yrs, against the overambitious desire of PM Indira Gandhi for an 8000-km range long ballistic missile with a payload of 500-kg.[158] Three stage designs was thus proposed with a hope of using scaled up and modified versions of the SA-2 liquid fuel engines in a cluster of four 30-ton liquid fuel engines in the first stage, two and one engine respectively in stage two and three.[159] However, India lacked the

---

[155] "Indian History in Rocketry," Bharat Rakshak, http://www.bharat-rakshak.com/MISSILES/History.html.

[156] Ibid.

[157] Ibid.

[158] Kampani, "Stakeholders in the Indian Strategic Missile Program."

[159] Ibid.

scientific, engineering, and industrial base to build a long-range ballistic missile. Due to faltering progress, the Indian government terminated the Valiant program in 1974.[160]

3.3.2.2.2 Project Devil (1972-1980)

The second, Project Devil (1972-1980), was an attempt to 'reverse-engineer' the Soviet SA-2 surface-to-air missile (SAM), with no production intention but just as a means to acquire detailed knowledge of all the design parameters of a proven missile and to establish the infrastructure for the development of modern missiles in India.[161] The engineers were unsuccessful in overall "system analysis" in the design and development of the missile's "ground electronics", but apparently accomplished the task of "hardware fabrication" and insist developing two solid-fuel boosters and a three ton liquid sustainer engine for the "Devil Missile" by the time it was shelved in 1980.[162]

It may be possible to conclude that though any of the original objectives were not achieved in both of these projects, yet it could be argued that the experienced gained in developing the liquid-fuel engine along with imported infrastructure for aerodynamic, structural and environmental test facilities, liquid and solid propulsion test facilities, fabrication and engineering facilities and control, guidance, rubber and computer facilities etc… have helped India in its ballistic missile development efforts in 1980s.[163]

3.3.2.3. Third Phase (1983-todate)-Integrated developmental and testing phase: Integrated Guided Missile Development Program (IGMDP)-1983-todate.

India initiated its Integrated Guided Missile Development Program (IGMDP) in July 1983 with the aim of achieving self-sufficiency in military missile production and development.

The Integrated Guided Missile Development Program (IGMDP) has given India the capability to shift from technology-gathering, reverse-engineering and design-competence into a well developed program to make a series of operational missile systems.[164] It therefore appears that

---

[160] Gaurav Kampani, "India:Missile Overview," Center for Nonproliferation Studies at the Monterey Institute of International Studies for NTI, http://www.nti.org/e_research/profiles/India/Missile/.

[161] Kampani, "Stakeholders in the Indian Strategic Missile Program."

[162] Ibid.

[163] Ibid.

[164] Kampani, "India:Missile Overview."

the years 1980-1994, in India's missile program, marked a crucial turning point during this period. It has also been shown that IGMDP comprises five core systems: the Agni ("Fire") series of MRBMs, Prithvi ("Earth") series of SRBMs, the Trishul ("Trident") short range SAM, the Akash ("Sky") medium range SAM, and the Nag ("Cobra") anti-tank guided missile. The Sagarika sea-launched missile and the Surya ICBM were subsequently added to the IGMDP.

The progress of IGMDP could be well ascertained by the fact that initially, this program had a budget of around Rs 400 crore, but it has since been revised to Rs 800 crore.[165] The Indian missile arsenal itself is a reflection of the need of increasing budget.

3.3.3. Indian Missile Arsenal Today

The India's strategic missile program stretched from the mid-1990s until todate characterized by the partial success of IGMDP and limited serial production of the Prithvi and Agni ballistic missiles. Capitalizing on its successes with the Prithvi and Agni, India embarked on programs to develop shorter- and longer-range versions of the Agni (Agni-1 and Agni-III), a supersonic cruise missile (BrahMos) with Russian collaboration, and a naval variant of the Prithvi (Dhanush). India is also believed to be developing a sea-launched ballistic missile, the Sagarika, which is expected to become operational by 2010. In addition, India has sought US, Russian and Israeli collaboration in the development of an anti-tactical ballistic missile (ATBM) system.[166]

It is therefore noted that current Indian missile arsenal comprises of a variety of systems. It is also due to the Indian struggle to develop a triad of nuclear deterrent force. However, I will discuss the main series of ballistic missiles in Indian arsenal being Prithvi and Agni – as the other names are just different variants of these two.

3.3.3.1. Prithvi Series

Prithvi is a road-mobile, short range ballistic missile (SRBM) powered by a single-stage, two engines, and liquid-fuel. It has a strap-down inertial guidance system, and can be manoeuvred by fins controlled by an on-board computer. Despite many corroborated estimates the credible

---

[165] "Nag (Cobra) Anti-Tank Missile," GlobalSecurity.org,

http://www.globalsecurity.org/military/world/india/nag.htm.

[166] Kampani, "Stakeholders in the Indian Strategic Missile Program."

Circular Error Probable (CEP) estimates of Prithvi are 300 m at 150 km range and 500 m at 250 km range, i.e., 0.2 percent of the range.[167]

Prithvi is fuelled by a liquid propellant. According to most reports the oxidizer is inhibited red fuming nitric acid (IRFNA) and the fuel is a 50:50 combination of xylidine and tnethlyamine, which is highly volatile and has to be loaded just prior to launch.[168]

Development of the Prithvi began in 1983, and it was first tested fired on February 25, 1988. According to the Carnengie Endowment for International Peace "Given the Prithvi's range, its role would be restricted to use against Pakistan." [169] The Prithvi has reportedly been configured for nuclear delivery.[170] Prithvi missile has three versions:

3.3.3.1.1. Prithvi - I (SS-150)

Like all Prithvi variants, The Prithvi I, is a single-staged, liquid propellant, single warhead short-range ballistic missile, first test fired in February 1988. The Prithvi I reported to have high explosive (HE) penetration, submunitions (incendiary and anti-personnel/anti-armor), and fuel air explosive and possibly chemical warheads.[171]Following the nuclear tests in May 1998, it is believed that a range of small yield nuclear warheadshas been developed with 1Kt, 5kT or 12 to 20 kT yields, and a weight of around 250 to 300kg.[172] However, as the Pritvi I range varies from 40km upto a maximum of 150 km Prithvi, so 2003 reports indicated that nuclear warheads were unlikely to be fitted with short range Prithvi I (SS-150) missiles.[173] This missile is in service with the army - 333rd and 334th Missile Groups since 1994,[174] and in 2002 the Army has raised and equipped its new 444 missile group with the tactical surface-

---

[167] Z. Mian, A.H. Nayyar, and M. V. Ramanac, "Bringing Prithvi Down to Earth: The Capabilities and Potential Effectiveness of India's Prithvi Missile " *Science and Global Security* 7 (1998).

[168] Ibid.

[169] "Prithvi," Federation of American Scientists, http://www.fas.org/nuke/guide/india/missile/prithvi.htm.

[170] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, pp.57-59.

[171] Andrew Feickert and K. Alan Kronstadt, "Missile Prolieration and the Strategic Balance in South Asia," *CRS report for Congress; RL32115;* (2003), http://www.fas.org/spp/starwars/crs/RL32115.pdf.

[172] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.58.

[173] Ibid.

[174] Kampani, "India:Missile Overview."

to-surface Prithvi missile. [175] Prithvi missile is believed to be capable of striking approximately a quarter of Pakistan, including Islamabad and other major cities. [176] The Prithvi-I is relatively small, 8.55 meters long and 1.1 meters in diameter. It weighs 4,000-4,500 kg. India has demonstrated its ability to launch the Prithvi from mobile launchers. [177]

3.3.3.1.2. Prithvi - II (SS-250)

Prithvi II missile is an Air Force version to support the Indian Army on the battlefield, was first test fired in January 1996. The IAF's two missile squadrons--one of which may be called the 2203 Squadron--are being raised to cater for Prithvi II. This missile is assessed to be capable of hitting almost half of Pakistan including almost all critical military targets and all major cities.

3.3.3.1.3. Prithvi - III (Dhanush)

The Prithvi III is believed to have a range of 350 km and a payload of 750 kg and may also have either a new liquid or solid propulsion system. The first test of the Dhanush in April 2000 ended in failure. However, in October 2004, DRDO conducted the first successful underwater launch from an especially designed canister placed in an artificial body of water and also declared a subsequent successful off-shore flight-test in November 2004 from the INS Subhadra. [178] The missile and its sub-systems are also referred by the project name K-15 and have been placed on a fast track development path. [179]

3.3.3.2. Agni Series

In the early 1980s, Agni was conceived as a hybrid, two-stage (solid-motor/liquid-engine) "technology demonstrator" (TD) to test propulsion, staging, and re-entry technologies for applications in medium- and intermediate-range ballistic missile systems. The work on the 1,200-1,500km-range/1,000kg-payload Agni TD most likely began in 1983. In May 1989, India test-fired the Agni as a two-stage missile with the first stage using solid-fuel booster

---

[175] Gaurav C. Sawant, "Prithvi Adds Muscle to 444 Missile Group," *The Indian Express*, 28 May 2002.

[176] "Prithvi."

[177] Ibid.

[178] Kampani, "India:Missile Overview."

[179] Ibid.

motor of the SLV-3 satellite launch vehicle, thus marking the first time that India had used directly a component of its civilian space research program for military purposes.[180]

The Agni family is said to be comprising of Agni-TD, Agni-I, Agni-II, Agni-IIAT, Agni-III, Agni-IV[181] but I will be focusing on first three as the rest are merely continuous improvement programs.

From 1989 to date different and improved variant have been researched and developed including two-stage, all solid-fueled, 2,000-2,500km-range/1,000kg-payload Agni-II. Today it is claimed that Agni has a CEP of 1% or better and can carry four types of warheads: 1,000 bomblets (1 kg each), guided submunitions, fuel-air explosives, and a thermonuclear warhead.[182] A missile of this class could provide a deep strike weapon against targets. The Agni series is thus claimed to be the basis for the Intercontinental Ballistic Missile (ICBM). Dr A.P.J Abdul Kalam in an exclusive interview to Hindustan times disclosed that Agni-2 is a precursor to the ICBM and so India is on the threshold of becoming an intercontinental ballistic missile power. He said, "Today we have the capability to design and develop any type of missile, including the ICBM. Now it's for the country to decide"[183] Dr R.N.Agarwal, the Director of the Agni project, has observed that the guidance system and vehicle structure would be roughly the same for an ICBM.[184]

3.3.3.2.1. Agni-TD

The Agni-TD is an amalgam of the Prithvi and the SLV-3 booster. According to Arun Vishwakarma, The Agni-TD project objectives were to test and validate: Re-entry test vehicle to evaluate structure, guidance and control during re-entry into earth's atmosphere at hypersonic velocity; Inertial Navigation System; and Rocket Staging.[185] The first launch came

---

[180] Milhollin, "India's Missiles - with a Little Help from Our Friends."

[181] Arun Vishwakarma, "Agni - Strategic Ballistic Missile," bharat-rakshak, http://www.bharat-rakshak.com/MISSILES/Agni.html.

[182] Anupam Srivastava, "India's Growing Missile Ambitions: Assessing the Technical and Strategic Dimensions " *Asian Survey* Vol. 40, no. 2 (March - April, 2000).

[183]Vishal Thapar, "Icbms Any Day, Says Kalam," *Hindustan Times*, 17 September 2000. "India Can Develop ICBM: Abdul Kalam," *News*, 19 September 2000.

[184] Timothy V McCarthy, "India:Emerging Missile Power," in *The International Missile Bazaar*, ed. William C Potter and Harlan W Tenks (Westview Press, 1994).

[185] Vishwakarma, "Agni - Strategic Ballistic Missile."

on 22 May 1989, and the program ran its course with the development and proving of crucial technologies for full-fledged, multi-staged, long-range ballistic missiles, including re-entry and navigation avionics and reached engineering status.[186]

3.3.3.2.2. *Agni - II*

Agni-II is an Intermediate Range Ballistic Missile (IRBM) with some experts believing that it has a minimum range of 500 km and a maximum range of 3,000 to 3,5000 km.[187] It is a motor missile originally designed to be launched from a rail-mobile launcher giving it several critical degrees of flexibility and survivability, but can also be launched from a road TEL vehicle. The rail launch system disguises both the missile launcher and the separate mobile launch control center under 'bogie' covers on a regular commercial goods cargo train, which can be used in most parts of the Indian commercial rail system.[188]

The first test of this missile was carried out on April 11, 1999, 11 months after the twin 'Shakti' nuclear tests in Pokhran. The Agni-II is a ready-to-fire mode missile and can be launched within 15 minutes.[189] Agni-II was test fired second time in January 2001 from a wheeld TEL over a range of 2100 km and 700 kg payload and a third test flight in August 2004 from a rail-car launch vehicle to a range of 1200 km.[190]

The Agni II has two solid propellant stages and some experts believe that the second-stage system was taken almost directly from India's Polar Satellite Launch Vehicle (PSLV) program and has already been extensively tested and used by the Indian Space Research Organization (ISRO).[191]

The Agni-II is fitted with a basic strap-down inertial navigation system (tribune), but there are also reports that the Agni-II's navigation and aiming uses an accurate terminal navigation and guidance system using a TDOA (Time Delay Of Arrival) technique, which constantly updates

---

[186] Ibid.

[187] Feickert and Kronstadt, "Missile Prolieration and the Strategic Balance in South Asia."

[188]Michael Kraig, "The Indian Drive Towards Weaponization: The Agni Missile Program," Federation of American Scientists, http://www.fas.org/nuke/guide/india/missile/agni-improvements.htm.

[189] "Agni-2 Test-Fired," *Tribune*, 18 January 2001.

[190] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.56.

[191] Kraig, "The Indian Drive Towards Weaponization: The Agni Missile Program."

information about the missile flight path using Global Positioning System information provided by ground-based beacons.

For adjustments to missile trajectory during flight and higher accuracy, the missile's on board sensors and thrust control capability with a flex nozzle enables the commanders on ground to correct errors during the flight. This nozzle can be manipulated through a closed loop guidance and control system to make changes in the flight of the missile.[192] The Agni II is thus believed to have a 100 m CEP.[193]

3.3.3.2.3. Agni - I

The Agni-I is a medium range ballistic missile which was rapidly developed after Kargil War when the India's external affairs and defense ministers, Jaswant Singh and George Fernandes, discuss the need for a ballistic missile to cover the gap between the short-range Prithvi and the longer-range variants of the Agni ballistic missile.[194] So Agni-I is effectively the Agni-II minus it's second stage and can carry a one ton conventional or nuclear payload to most targets in Pakistan without having to be deployed at the borders.[195]

Agni –I was first flight test in January 2002 from a road TEL over a range of 700 km but the US reports suggested that the RV did not separate as planned.[196] The second test was made in January 2003 again from a TEL vehicle and was successful; third test was made in July 2004 with a range of 750 km; fourth test was made in October 2007 and a fifth in March 2008.[197]

3.3.3.3.4. Agni-III

Agni III is a two-stage solid propellant missile, with a payload third stage and with a maximum range of 3000-5000 km range surface-to-surface nuclear capable intermediate range ballistic missile (IRBM).[198] The 16 metre-long and 1.8-metre wide missile Agni-3 had

---

[192] Wilson John, "Shedding Inhibitions," *Pioneer*, 18 January 2001.

[193] Feickert and Kronstadt, "Missile Proliferation and the Strategic Balance in South Asia."

[194] K. Santhanam, "Agni-I: A Short-Range N-Missile India Urgently Needs," *Times of India* 27 January 2002.

[195] Vishwakarma, "Agni - Strategic Ballistic Missile."

[196] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.56.

[197] Ibid.

[198] Ibid., p.55.

an inertial guidance system with improved optical or radar terminal phase correlation capability to guide it accurately to its target. Agni-III missile first test-fire on July 9, 2006, failed however, the second test conducted on April 12, 2007, was a successful flight and a third test in May 2008.[199]

Agni-III is the country's first solid fuel missile that is compact and small enough for easy mobility and can be easily packaged for deployment on a variety of surface and sub-surface platform.

Agni-III support both conventional and nuclear warheads configurations with a total payload ranging between 600 kg and 1.8. The April 12, 2007 test of Agni-III was carried out from a rail-mobile platform which manifests that it could be deployed using rail or road mobile launch vehicles.

Agni-III is also important in the sense that due to its increased range it would be able enough to strike deep into China including Beijing and Shanghai and so carries enhanced politico-military weightage with respect to Indo-Chinese relations.

3.3.3.2.5. Agni-IV

Agni-IV design is believed to have started in 2006, adding a third stage to Agni-III, and to provide a range capability of 5000 to 6000 km with an increased payload and thus making it India's first ICBM.[200] However, this Agni-IV status is yet not clear as some reports are also referring it to an improved version of Agni-III designated as Agni-IIIA. An Indian report in 2007 December stated that the newer version test would be made in 2009/2010 and the missile would carry three MIRVs with decoys, later on planned as Manoeuvring RV.[201]

3.3.3.2.6. Surya

The status of the Surya, meaning sun, ICBM program is extremely unclear, with some report indicating that the development of this system was initiated in 1994. Conflicting reports regarding the Surya's configuration claim that it will be based on the components of the polar space launch vehicle (PSLV) and the Agni IRBM, and that it will have a range between 8000

---

[199] Ibid., p.56.

[200] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*, p.360;See also: Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.54.

[201] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.54.

and 12,000 kms. The reports of 2001 suggested Surya-I would have a range of 8000 km whereas Surya-II will have a range of 12000 km.[202]

Some of the recent analysis on India Internediate Range Ballistic Missile Agni-III test launch also stated that it is prelude to Intercontinental Ballistic Missile Program (ICBM) – Surya, and that by merely adding an additional rocket motor and reducing the warhead payload, the scientist can easily convert that into ICBM.

3.3.3.2.7. Sagarika

The initial reports talked about Indian Submarine Launched Ballistic Missile (SLBM) – Sagarika (K-15) with a successful test flight to a range of 700km and one ton payload.[203] The recent reports are using the same name associated with the Sea Launched Cruise Missile (SLCM) program.

Sgarika was reported to use terrain contour matching, INS and GPS guidance and to carry a nuclear and HE warhead and was intended to be used from from ships and future nuclear powered submarines ATV project.[204] The actual status is however yet not clear, but for sure if developed will increase Indian second strike potential.

---

[202] Ibid., p.60.

[203] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*, p.360.

[204] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.60.

Table 3-5: Indian Missile Arsenal

Series	Missile	Type	Range	Propulsion
Prithvi Series	Prithvi-I (SS-150)	SRBM	150 km	Liquid
	Prithvi-II (SS-250)	Air Force Version	250 km	Liquid
	Prithvi-III (Dhanush)	Sea launched	350 km	Liquid
Agni Series	Agni-TD			
	Agni-II	IRBM	500-3500 km	Solid
	Agni-I	MRBM		Solid
	Agni-III	IRBM	3000-5000 km	
Surya	Surya	ICBM	8000-12000 km	
Sagarika	Sagarika	SLBM	700 km	

Source: Author's compilation

Part III

3.4. MISSILE PROGRAM OF PAKISTAN

3.4.1. Overview

Pakistan embarked on its Ballistic Missile Development Program due to her worries of the developments taking place in its immediate neighbourhood, compounded by ever increasing threat to its security and conscious of the fact that the most reliable defence against ballistic missiles is the possession of a matching capability to deter their use. This suggests that the program history is not that old and substantial as its two other missile power neighbours of Southern Asia, Its merely because of her defence and security needs in the backdrop of wars of an enduring rivalry with its archrival India, that it felt the need of launching the program of its own. Any how while tracing the origins, one does find the experiments of sounding rockets.

3.4.2. Developmental phases

3.4.2.1. First Phase (1960s)-Experimenting with sounding rockets-Acquaintance phase.

Pakistan had been experimenting with sounding rockets and weather satellites since early 1960s. These experiments were made possible through the bilateral cooperation extended by the US under the auspices of NASA, along with many other countries like Argentina, Brazil and India. Similarly, France provided the 'Mammoth' propulsion system for production by both India and Pakistan.[205]

3.4.2.2. Second Phase (1980s) - indegenizing and refining technology-experimenting basic Hataf phase.

It seems to be reasonably certain that the serious beginning of the program originates in 1980's, when Pakistan civilian space agency SUPARCO, was tasked with HATAF Program for an indigenous ballistic missile effort, but was disclosed publicly in 1989 by the then Chief of Army Staff General Mirza Aslam Beg. SUPARCO obtained the technology for building sounding rockets from the French company Aerospatiale (formerly Sud Aviation) in the early

---

[205] Naeem Ahmad Salik, "Missile Issues in South Asia," *Nonproliferation Review* Summer (2002).

or mid-1980s. The French transfers most likely included technologies and equipment for solid-fuel casting, curing, and solid-rocket testing facilities.[206]

It could also be argued that as a result of Soviet war of Afghanistan and Iran-Iraq war widespread proliferation of 'Soviet Scuds' in the neighbourhood were the easy access to information on missile designs, which helped further refine the knowledge of Pakistani engineers and scientists.

Since the late 1980s and early 1990s, Pakistan has invested in both solid-motor and liquid-engine ballistic missile programs, and it is anticipated that Pakistan's reasons for investing in both solid- and liquid-propulsion technologies respectively could also be viewed as a proactive attempt on the part of Pakistan's military to factor in possible bottlenecks or failure along one technological front.

After a modest beginning in late 1980s, with first test-firing of the short-range Hatf-1 and Hatf-2 missiles, Pakistan slowly moved to consolidate and develop its indigenous technological base. Pakistan has come a long way in its missile development efforts and has acquired the capability to produce short and medium-range ballistic missiles of both liquid and solid-fuelled varieties.

3.4.2.3. Third Phase (1989-todate)-Expanding and broadening ballistic missile R&D-upgrading Hataf phase.

Pakistan, according to many observers, has two clearly distinct missile development programs. The first program is run by the Pakistan National Development Complex (PNDC) in collaboration with the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) and the Pakistan Atomic Energy Commission (PAEC) and has focused since the early 1980s on solid-fueled ballistic missiles.[207]

The second development program has been headed by Khan Research Laboratories. One report has suggested that these competing ballistic missile development efforts were aligned

---

[206] Gaurav Kampani, "Pakistan:Missile Overview " *NTI Countries Overviews* (2006), http://www.nti.org/e_research/profiles/Pakistan/Missile/index_3066.html.

[207] Sharon A. Squassoni, "Weapons of Mass Destruction: Trade between North Korea and Pakistan," Congressional Research Service The Library of Congress, http://fpc.state.gov/documents/organization/77721.pdf.

with competing nuclear warhead efforts — that is, the team developing a plutonium warhead for Pakistan's bomb, the PAEC, worked towards developing Chinese-derived nuclear-capable missiles, while the HEU team (KRL), collaborated with North Korea on liquid-fueled missiles derived from Scuds.[208]

There are many other analysts who are of the view that the NDC, a subsidiary of the PAEC, acquired complete though unassembled M-11s and possibly an undisclosed number of M-9 SRBMs from China. Chinese assistance extended to training Pakistani missile crews in the assembly, maintenance, and simulated launches of the missiles. During the mid-1990s, China apparently transferred an entire production line for M-11s and possibly M-9s to the NDC. Chinese assistance most likely encompassed equipment and technology transfers in the areas of solid-fuel propellants, manufacture of airframes, re-entry thermal protection materials, post-boost vehicles, guidance and control, missile computers, integration of warheads, and the manufacture of transporter-erector launchers (TELs) for the missiles.[209]

Similarly, a group also opines that Pakistan has relied extensively on North Korea for its liquid-engine ballistic missile program. North Korea is alleged to have supplied Pakistan with 12-25 operational Nodong ballistic missiles and their TEL vehicles. They sat that North Korean assistance has also included technical support, including missile launch and telemetry crews. Analysts speculate that North Korea may have also transferred an entire production line of the Nodong ballistic missiles to KRL. After allegations surfaced in U.S. newspapers that KRL had assisted North Korea with its centrifuge-based uranium enrichment program in exchange for Nodong missiles, Pakistani President Pervez Musharraf stated that defense cooperation between the two countries had ended)[210] The Pakistani officials also very candidly reject all these reports and stress upon the indigenization of the program.[211]

Even Duncan Lennox – one of the foremost missile experts in the United Kingdom conceded while responding to a question at Jane's Annual Ballistic Missiles Conference in London in October 2000 that 'while similarities may indicate that the designs of the Pakistani systems

---

[208] Ibid.

[209] Kampani, "Pakistan:Missile Overview ".

[210] Ibid.

[211] See for example: Salik, "Missile Issues in South Asia."; Salik, "Pakistan's Ballistic Missile Development Program – Security Imperatives, Rationale and Objectives."; Salik, "Missile Issues in South Asia."

may have been inspired by the aforementioned missiles, it does not definitively lead to the conclusion that the Ghauri and the SHAHEEN-1 are direct copies of the original North Korean or Chinese missiles respectively'.[212]

In addition to these two widely held views about the existence of mainly two organizational based programs (KRL and NDC), I would highlight the establishment of central state of the art scientific and Technological R&D base of National Engineering and Scientific Commission (NESCOM) spearheading these strategic organizations with the inclusion of Air weapons Complex (AWC); Project Management Organization (PMO) and Maritime Complex (MTC). This newly formed conglomeration of all strategic organizations may suggest that Pakistan is developing the triad of its own nuclear forces, to fulfil the minimum credible deterrent requirements.

3.4.3. Pakistan's Missile Arsenal Today

A large number of analysts are confused about the missile program of Pakistan and keep on describing different series as HATF; GHAURI and SHAHEEN. Whereas I strongly believe in the existence of just one series and that is HATF and rest all are different names attached to different variants within that series in terms of type, range, propulsions systems, capabilities and usage.

3.4.3.1. Hatf

With the HATF series started the initial component of the Pakistani missile arsenal. It was also planned as a counter to India's Prithvi missile. HATF is an indigenous[213] effort and contributes significantly to Pakistan's national security and deterrence strategy for being designed as an offensive weapon to knock off Indian armour concentrations. The modern variants of this series can carry a variety of warheads ranging from submunition dispencer, Cluster, Fuel Air Explosives to NBC.

---

[212] Salik, "Missile Issues in South Asia."

[213] Some analysts believe that the Hatf-1, -1A, and -2 are likely derivatives of the French sounding rockets known as Eridan. See: Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.108.

This series started up with the 80km-range was extended to 300km in the *Hatf* 2a, and to 800km in the *Hatf* 3.[214] And it can be seen that it is continuously being improved in Hataf 4, Hataf-5 and Hataf-6.

3.4.3.2. Hatf-1

The Hatf-1 is a single-stage solid-propellant short range missile with a range of 60 km to 80 km carrying a 500 kg payload, or 350 km with a 100 kg payload. This missile development began in 1980 and on 07 February 2000, Pakistan conducted a test of the Hatf-1, characterized as 'a sequel to several previous tests' and was claimed to represent an improved version of the missile, with a larger payload and an improved range of up to 100 kilometres, versus the 60-80 kilometres initially reported. In the defensive mode, this system is considered be used in dual roles to destroy Indian bridge-heads in Pakistani territory. Its chief use could be said to be along Pakistani borders with India, both inside and outside.

3.4.3.3. Hatf-2 (ABDALI)

The Hatf-2 is a two-stage solid-propellant missile with a range of 280 km carrying a 500 kg payload, or 450 km carrying a 300 kg payload and is based on a stack of two Hatf-1 stages stacked. It is reportedly a mobile system, but it is carried on converted World War-II – era anti aircraft gun trailers instead of modern transporter-erector- vehicle.

There are unconfirmed reports from Pakistan that this missile Abdali could have a nuclear warhead, but if has then the yield is expected to be around 5 Kt.[215]

3.4.3.4. Hatf-3 (Ghaznavi)

The original Hatf-3 Ghaznavi missile programme started in 1987 as two-stage missile using the Hatf-2 design with a larger boost motor to give it a maximum range of 800 km. The original programme is reported to have been terminated in 1994 only to be restarted again in 1997 with a first flight test made in May 2002.[216]

Ghaznavi missile is a single-stage solid-fuelled system with a minimum range of 50 km and a maximum of 250 kms. The missile guidance is inertial with the payload section having an

---

[214] Squassoni, "Weapons of Mass Destruction: Trade between North Korea and Pakistan."

[215] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.110.

[216] Ibid., p.111.

optical terrain correlation system guidance. The payload section is believed to be 700 kg in weight with a number of warhead options ranging which could be nuclear 12 kt to 20 kt, HE unitary or submunition.[217] TheThe last batch of Hataf-3 Ghaznavi missiles was handed over to Army Strategic Force Command (ASFC) here on 9 December 2006.[218] Indigenously produced Hatf-3 Ghaznavi Ballistic Missiles, were taken over by the Second Missile Group of Pakistan Armys Strategic Force Command, and it now forms an integral component of Pakistan's strategic land delivery system.

3.4.3.5. Hatf-4 (Shaheen-1)

The Shaheen missile program was initiated in 1995 and assigned to the NDC under its founding Director General Dr. Samar Mubarikmand. The Shaheen project used the resources that were available within the various other institutions in Pakistan, supplemented with infrastructure created at the National Development Complex for capabilities which were not available elsewhere in Pakistan. The facilities of SUPARCO were utilized in the Shaheen project, along with the facilities of industry in Lahore, Karachi, Islamabad, Gujranwala, Sialkot, Gujrat and other cities. Missile components from these various facilities were brought to the NDC for final integration.[219] This gave two benefits. First, the missile was prepared in a record short period of time, and second, it did not cost too much.[220]

The Shaheen missile was conceived keeping in mind two things. First, what are the Pakistani defense needs? Second, which of the enemy's military installations should come within Pakistani missile range? These were kept in mind while determining the range of the Shaheen

---

[217] Ibid.

[218] Pakistan Test-Fires New Version Of Nuclear-Capable Missile, December 11, 2006 Monday, BBC Monitoring International Reports; Islamabad PTV World in Urdu at 0427 GMT on 9 December repeatedly carries following "News Flash" in English as screen caption; "Strategic Force Command launch Hataf-3, Ghaznavi Missile."Source: PTV World, Islamabad, in Urdu 0427 GMT 9 Dec 06, "News Flash" in English as screen caption; Senior Officers Attend Launch of Pakistan Nuclear-Capable Missile, December 11, 2006 Monday, BBC Monitoring International Reports.

[219] Hanif Khalid, "How 'Shaheen' Was Developed " *Jang*, 19 April 1999.

[220] Ibid.

missile.[221] Shaheen-1 is a single stage solid fuelled Medium Range Ballistic Missile (MRBM) with a range of 750 km with a payload of 700 kg.

3.4.3.6. Hatf-5 (Ghauri)

The Ghauri missile was named after the 12th century Afghan king Shahbuddin Ghauri who captured western parts of India between 1176 and 1182, and captured northern India by defeating Prithvi Raj Chauhan in 1192. The Ghauri name is thus highly symbolic, as 'Prithvi' is the name of the Indian short-range ballistic missiles, and Pakistan's 'Ghauri' has a much longer range than the Indian missile. Ghauri missile is the developmental effort of Khan Research Laboratories (KRL).

Ghauri is a single stage liquid fuelled Medium Range Ballistic Missile (MRBM) with a range of 1500 kilometres. The test firing of the liquid-fuelled single stage Ghauri was carried out on 16 April 1998 and was considered a major breakthrough because with a range of 1500 km and a payload of 700 kg, provided Pakistan with a real deterrent against India's growing missile capability.[222]

With its extended range, the Ghauri series could effectively reach virtually the whole of India but it seems that the strategic targeting of this missile would be more towards Mumbai and Peninsular India in which lie India's most sensitive installations. Ghauri is a mobile system and could be used for counter-value-strikes.

3.4.3.7. Hatf-6 (Ghauri-II)

The Ghauri-II is a medium-range ballistic missile MRBM. It is a longer ranged variant of the Ghauri-I missile. The more advanced Ghauri II can hit targets up to 2,300kms (1,437 miles).[223]

3.4.3.8. Hatf-7 (Shaheen-II)

The Shaheen-II missile development programme started around 1996 as a two stage solid fuelled longer range version of Shaheen-I. There started appearing unconfirmed reports that a newer missile designated as Shaheen-II had been developed and is ready for a test flight in

---

[221] Ibid.

[222] Salik, "Missile Issues in South Asia."

[223] Raja Asghar, "India-Pakistan Missile Tensions Fired Up," *Dawn*, 10 January, 2003 2003.

June 1999, the missile was thus unveiled on 23 March 2000 in Pakistan Day Parade (a military show), but the first test flight was made in March 2004.[224] This missile is considered to be Pakistan's answer to India's Agni II. It has as all India coverage, but can be said to have Mumbai and Peninsular India as the main target. With its ground mobility and solid state propellant systems it should logically form the backbone of Pakistani nuclear deterrent. With mobility comes survivability and therefore the Shaheen-II could impart to Pakistan a second strike capability in the future.

Shaheen-II is Pakistan's longest-range ballistic missile system, with the potential to reach 2,500km.[225]

Table 3-6: Pakistan's Missile Arsenal

Missile	Type	Range	Propulsion
Hataf Series			
Hataf-1	Unguided Rocket/SRBM	60-80 km/100 km	Solid
Hataf-2 (ABDALI)	SRBM	280-400 km	Solid
Hataf-3 (GHAZNAVI)	SRBM	290 km	Solid
Hataf-4 (SHAHEEN-1)	IRBM	750 km	Solid
Hataf-5 (GHAURI-I)	MRBM	1500 km	Liquid
Hataf-6 (GHAURI-II)	MRBM	2300 km	Solid
Hataf-7 (SHAHEEN-II)	IRBM	2500 km	Solid

Source: Author's compilation

3.5. CONCLUSION

The missile programs of these countries reflect clearly the overlapping nature of threat perception of these countries. Pakistan is trying to catch up with India, India is trying to chase China and China has got her own rivals to concentrate on and prepare for.

---

[224] Lennox, *Jane's Strategic Weapon Systems: Issue Fifty*, p.115.

[225] "Pakistan Successfully Test-Fires Surface-to-Surface Hatf Vi Missile," *Hindustan Times*, 23 February 2007.

These countries therefore have a very well developed, state of the art missile programs and arsenals today and they reflect their governments desire to cater for the credible nuclear doctrines of these countries. The nature of these programs also reflects that they are keeping up with the technological developments in the field, which would justify all their $RI^2 T^3$ logics.

Chapter 4

RESTRAINT REGIME IN THEORY AND PRACTICE: A FOUNDATIONAL INQUIRY FOR CONCEPTUAL DEVELOPMENT

The discussion in the preceding chapters focused on the politics of ballistic missle proliferation and the missile programmes of the countries in question, which provided a foundational base for the theoretical framework, which is the subject matter of this chapter.

This chapter constitutes two parts. The first part is an endeavour to develop a conceptual framework for the research based on international regime theory. For this reason regime dynamics are explained in their entirety, starting from the very definitions of the concept 'regime', and how they have been classified by the scholars of the discipline. Based on this literature the 'regime' idea and concept will be evaluated in its different perspectives and conclusions drawn as to how best to use the concept for the theoretical-conceptual development of the framework of the debate towards the conclusion of this research. The second part of this chapter explores the US-Soviet restraint regime models as these existed between the two super powers of the bi-polar world, and applies the 'regime theory model' to help understand this phenomenon. The study therefore finds that Confidence Building Measures were the basic key in these phenomena of restraint and the emergence of a stability regime amongst the super powers during and after the Cold War. It therefore also explains how the term CBM can be defined and used under certain mechanisms in the role of helping to bring peace and stability amongst the hostile parties in a given issue area.

The study of International regimes theory is useful for comprehending the circumstances under which states can agree to cooperate with each other for coordinating their behaviours in a specific area of international relations. This study therefore provides the research with the very conceptual foundations of the regime formations, which I will be using again at the end of the research and justifying the need for developing a framework for restraint and stability

regime in the Southern Asian context. As under these conceptual foundations, the study also helps me identify the gaps in scholarship and practical attempts in my area of research, in which the study CBM related agreements for the Southern Asian region is of fundamental importance to this research.

Part-I

INTERNATIONAL REGIMES THEORY AND COLD WAR RESTRAINT REGIMES MODELS

4.1. INTERNATIONAL REGIMES

As commonly understood international regimes emerge in response to particular problems – those serious enough to justify the creation of an international regime. This implies that international regimes emerge as solution providers to the problems. As has already been discussed the Southern Asian region is highly volatile and a possible nuclear flash-point due to the ongoing WMD delivery systems race and the existence of protracted and enduring conflicts in particular between China, India and Pakistan. It is therefore essential and timely to pursue serious research efforts that explore the potential to help restrain the situation for the greater mutual benefit of the regional community in particular and the international community in general. In order to move toward a system of mutual restraint in Southern Asia, it is pertinent to comprehend the ideas of international regime dynamics, which is the direction the discussion in this chapter will take. The chapter will first provide comprehensive theoretical deliberations on the theories of international regimes; and secondly explore the nature of regime development during the era of the Cold War.

4.1.1. Regime-Definitions

The concept and definition of regime has been elucidated by various scholars in the following ways:

Ernst Haas believes that regimes are man made arrangements for managing conflicts in substantive issue areas in international relations that are characterized by the condition of

complex interdependence. [226] Haas therefore believes that these arrangements comprise coherent sets of rules, norms and procedures which together constitute what is called a regime. [227] Hedley Bull states that regimes are rules and institutions where rules refer to "general imperative principles which require or authorize prescribed classes of persons or groups to behave in prescribed ways."[228]

Oran R. Young states that "regimes are social institutions governing the actions of those interested in specifiable activities", and as all such social institutions "they are recognized patterns of practice around which expectations converge", therefore emphasizing that they are human artefacts belonging to the sphere of social systems rather than natural systems, "having no existence or meaning apart from the behaviour of individuals or group of human beings."[229]

Donald Puchala and Raymond Hopkins, define regimes as attitudinal phenomena constraining and regularizing the behaviour of participants, therefore affecting which issues among protagonists move on and off agendas, and determining which activities are legitimized or condemned, and influencing whether, when, and how conflicts are resolved.[230]

Stephen Krasner's definition is by far the most commonly used definition. According to Krasner regimes can be defined as "sets of implicit or explicit principles, norms, rules, and

---

[226] Ernst B. Haas, "Words Can Hurt You; or, Who Said What to Whom About Regimes," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), pp.26-27.

[227] Ernst B. Haas, "Technological Self-Reliance for Latin America: The OAS Contribution," *International Organization* 34, no. 4 (Autumn 1980): p.553.

[228] Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (London: Macmillan, 1977), p.54.

[229] Oran R. Young, "International Regimes: Problems of Concept Formation," *World Politics* 32, no. 3 (1980);Oran R. Young, "Regime Dynamics: The Rise and Fall of International Regimes," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), pp.93-95.

[230] Donald J. Puchala and Raymond F. Hopkins, "International Regimes: Lessons from Inductive Analysis," *International Organization* 36, no. 2 (1982);Donald J. Puchala and Raymond F. Hopkins, "International Regimes: Lessons from Inductive Analysis," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), p.62.

decision-making procedures around which actors expectations converge in a given area of international relations."[231]

Stephen Krasner further explains what he means by the usage of the terms 'principles', 'norms', 'rules' and 'decision-making procedures' in the definition. He notes that by usage of the term 'principles', he meant "beliefs of fact, causation and rectitude"; by 'norms', "standards of behaviour defined in terms of rights and obligations"; by 'rules' as "specific prescriptions or proscriptions for action"; and 'decision-making procedures' are the "prevailing practices for making and implementing collective choice."[232]

A similar definition has been put forward by Keohane and Nye, they defined regimes as "sets of governing arrangements" that comprise "networks of rules, norms, and procedures that regularise behaviour and control its effects."[233]

Volker Rittberger, however is of the view that in order to be able to identify an international regime, two more criteria of the regimes injunctions *effectiveness* and *durability* be added to the Krasnerian definition's core of principles, norms, rules and procedures. Hence, all six elements of the definition together would permit the reliable identification of the international regimes.[234] Volker Rittberger also believes that these two additional elements raise the threshold for the cooperative mode of conflict management to be called a regime.[235]

4.1.2. Classifications of Regimes.

The theory of international regimes is relatively nascent. The literature therefore provides a picture of the classification of the regimes which is still evolving and being refined. However,

---

[231] Stephen D. Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," *International Organization* 36, no. 2 (1982);Stephen D. Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), p.2.

[232] Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables.";Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables."

[233] Robert O. Keohane and Joseph S. Nye, *Power and Interdependence* (Boston: Little Brown, 1977), p.19.

[234] Volker Rittberger, ed., *International Regimes in East-West Policies* (London and New York: Printer Publishers Limited, 1990), p.3.

[235] Ibid.

several major works have contributed to shaping the theory of regimes thus far and I will present the relevant classifications here.

4.1.2.1. Oran Young's classification based on types of orders

Oran Young first discussed the origin in terms of three channels or tracks which were classified as contractarian; evolutionary; and piecemeal tracks.[236] However in response to the evolving debate of regime dynamics, Young further developed his understanding by illustrating three types of orders in expounding the origins of regimes.[237]

1) Spontaneous orders.

A regime would be said to be the result of a spontaneous order if it emerges without an explicit permission to socially engineer or an attempt to engineer on behalf of its subjects or potential subjects. All such regimes are therefore "the product of the action of many men but . . . not the result of human design."[238] This would suggest that regimes which result from a spontaneous order are not the output of conscious coordination or design among participants, rather they are a natural convergence of expectations and interests in a given issue area.

2) Negotiated orders.

A regime is said to be the result of a negotiated order if its subjects or potential subjects have sought its establishment in an explicit consent to its major provisions and have made a conscious and concerted effort for it.

3) Imposed orders.

If a regime formation is not done through negotiations, nor is it a result of spontaneous order but is rather fostered deliberately by dominant powers or consortia of dominant actors, then it would be said to be the result of imposed order. Imposed orders also do not require and involve the subject's explicit consent and are deliberately established by dominant actors who

---

[236] Young, "International Regimes: Problems of Concept Formation."

[237] Young, "Regime Dynamics: The Rise and Fall of International Regimes," pp.281-84.

[238] Friedrich A. Hayek, *Rules and Order*, vol. 1, Law, Legislation, and Liberty (Chicago University Press, 1973).

succeed in getting the subjects to conform to the requirements of these orders through some combination of coercion, cooptation, and the manipulation of incentives.[239]

4.1.2.2. Puchala and Hopkins' classification based on the four characteristics of theoretical importance of regimes.[240]

Donald J. Puchala and Raymond F. Hopkins have undertaken work aimed at comparing varieties of international regimes and attempting to distinguish between them. Furthermore they have also tried to identify the various types of regimes by inducing principles and norms from evidence of participants' perceptions. As a result of this work they highlight the existence of four characteristics of theoretical importance of regimes, which according to them are as under:

1) Specific vs. diffuse regimes

Regimes must be analysed according to both the activities and the actors they include. Regimes are specific if they are targeting a specific group of participants or a specific type of activity. They are said to be diffused if the membership is not confined to a specific group or similarly if the issue area is not explicitly narrowed down to a specific domain.

2) Formal vs. informal regimes

Those regimes which are governed by some form of legislation and are therefore recognized subjects of international or national law and are maintained by international bodies or bureaucracies are termed as formal regimes.

In contrast to this any regime which comes into being through a convergence of interests and objectives and is merely enforced by informal agreements and monitored by mutual surveillance is termed an informal regime.

3) Evolutionary vs. revolutionary change

Regimes may change in at least two different ways. The procedural norms of a regime may be changed by the participants due to changes in information or knowledge. If such a change

---

[239] Young, "Regime Dynamics: The Rise and Fall of International Regimes," p.100.

[240] Puchala and Hopkins, "International Regimes: Lessons from Inductive Analysis," pp.64-66.

does not disturb the power structure within the regime, such a change is called an evolutionary change. Such changes are not very common.

If, however, the power structure with in a regime alters considerably such that the disadvantaged parties can bring about substantial change in the norms and rules of the regime, such a change is termed revolutionary change. In extreme cases the disadvantaged participants can actually become the advantaged party.

4) Distributive bias

Recognizing the fact that all regimes are biased, it is possible to classify them according to the degree of bias present. Many regimes favour the interests of the stronger participants and act to maintain them. However, some regimes may show a level of concern for the disadvantaged participants and hence try to maintain a more just balance. Distributive bias in this way can be used to compare and classify regimes.

4.1.2.3. Hasenclever, Mayer, and Rittberger's classification

Hasenclever, Mayer, and Rittberger in the year 1997 suggest the following classification of regimes:[241]

1) Power based-Realists

Power based theorists i.e. the realists tend to explain that regime creation is the result of the existence of a hegemon which can establish, impose and ensure the maintenance of the regime. Therefore the regimes go hand in hand with the interest of the hegemon, which is to maintain the power hierarchy. If the hegemon's interest is lost in a regime, that regime is likely to collapse or cease to exist. Such regimes can serve to reassure states about their power being maintained, thereby cultivating cooperation.

2) Interest based-Neoliberals

Neoliberal derived interests based theorists emphasise realising the self interests of the participants. They believe that such interests can be promoted by channelling them through specific institution building. The resulting institutions are then-regimes. The benefit of

---

[241] Andreas Hasenclever, Peter Mayer, and Volker Rittberger, *Theories of International Regimes* (New York: Cambridge University Press, 1997).

regimes is that different participants can pursue their self interests in mutually beneficial ways.

3) Knowledge based-Cognitivists

The knowledge based theorists opine that participants such as states are not only motivated by material or power self interests but also by the idea of their role in wider society. Knowledge and ideas evolve over time and can help shape a role or identity. Regimes may arise as a result of knowledge creation, new ideas and social aims. These theorists do not deny that regimes can fulfil a regulatory role but they assert that regimes can also help in constructing identities by delineating roles and relations.

4.1.3. Appraisal

The studies of international regimes have been an important part of international relations and today constitute an imperative and pervasive phenomenon in this field. Although scholars conceive of regimes in several different ways but in essence, three basic orientations can be distinguished as illustrated by Krasner.[242] They are:

- Conventional structuralism
- Modified structuralism
- Grotian

1) Conventional structuralism

Conventional structuralists view the regime concept as useless, if not misleading. This is reflected by Susan Strange, who has grave reservations about the value of the notion of regimes. Strange contends that the concept is pernicious as it makes it difficult to understand the interests and power relationships that are the proximate, not just the ultimate, cause of behaviour in the international system. "All those international arrangements dignified by the label regime are only too easily upset when either the balance of bargaining power or the perception of national interest (or both together) change among those states who negotiate

---

[242] Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," p.190;Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," p.6.

them".[243] This also seems to imply that conventional structuralism either excludes regimes completely or if it accepts the existence of regimes then it believes that they exercise very little impact on outcomes and related behaviours.

Krasner opines that "Strange's position is consistent with prevailing intellectual orientations for analyzing social phenomena. These structural orientations conceptualize a world of rational self-seeking actors. The actors may be individuals, or firms, or groups, or classes, or states. They function in a system or environment that is defined by their own interests, power, and interaction. These orientations are resistant to the contention that principles, norms, rules, and decision-making procedures have a significant impact on outcomes and behaviour."[244]

2) Modified structuralism

The second orientation to regimes, modified structuralism, suggests that regimes may matter, but only under fairly restrictive conditions. This is most candidly and clearly mirrored in the works of Keohane and Stein. Both of these authors begin with a conventional structural realist perspective, a world of sovereign states seeking to maximize their interest and power and then modify it to accommodate the regime formation.

According to Keohane,

> the use of rational choice theory implies that we must view decisions involving international regimes as in some meaningful sense voluntary".[245] He explains that as the relationship of power and dependence in world politics is an important determinant of the characteristics of international regimes, so "actors choices will be constrained in such a way that the preference of more powerful actors will be accorded greater weight…thus we have to be continually sensitive to the structural context within which agreements are made. Voluntary choice does not imply equality of situation or outcome.[246]

---

[243] Susan Strange, "Cave! Hic Dragones: A Critique of Regime Analysis," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), p.345.

[244] Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," p.6.

[245] Robert O. Keohane, "The Demand for International Regimes," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), p.146.

[246] Ibid.

Stein states that the,

> conceptualization of regimes developed here is rooted in the classic characterization of international politics as relations between sovereign entities dedicated to their own self-preservation, ultimately able to depend only on themselves, and prepared to resort to force.[247]

Nation states thus consider every option available to them and make their choices independently based on their interests and preferences, resultantly the outcome can range from pure conflict to no conflict at all. Stein believes that,

> such independent behaviour and the outcomes that result from it constitute the working of normal international politics - not of regimes…As long as international state behaviour results from unconstrained and independent decision making, there is no regime. A regime exists (only) when the interaction between the parties is not unconstrained or is not based on independent decision making.[248]

The basic function of regimes is to coordinate state behaviour among the sovereign states to achieve desired outcomes in particular issue-areas. Such coordination is attractive under a number of circumstances. Stein and Keohane posit that regimes can have an impact when Pareto-optimal [249] outcomes could not be achieved through uncoordinated individual

---

[247] Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," in *International Regimes*, ed. Stephen D. Krasner (Ithaca and London: Cornell University Press, 1983), p.116;Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," in *Neorealism and Neoliberalism: The Contemporary Debate*, ed. David A. Baldwin (New York: Columbia University Press, 1993), p.30.

[248] Stein, "Coordination and Collaboration: Regimes in an Anarchic World," pp.116-17;Stein, "Coordination and Collaboration: Regimes in an Anarchic World," pp.30-31.Stein, "

[249] Pareto optimality, is an important notion in neoclassical economics with broad applications in game theory, engineering and the social sciences. The term is named after Vilfredo Pareto, an Italian economist who used the concept in his studies of economic efficiency and income distribution. Given a set of alternative allocations and a set of individuals, a movement from one allocations to the another that can make atleast one individual better off, without making any other individual worse off, is called a Pareto improvement or Pareto optimization. An allocation of resources is Pareto efficient or Pareto optimal when no further Pareto improvements can be made.

calculations of self-interest.[250] Thus, the second orientation, modified structuralism, believes regimes are emerging under restrictive conditions as pure power motivations prevent regimes.

3) *Grotian*

The Grotian tradition, named after Dutch legal theorist Hugo Grotius, proposes an alternative view to both structuralism and modified structuralism and sees regimes as a pervasive phenomenon of all political systems. Donald Puchala and Raymond Hopkins, reflect the Grotian view. Puchala and Hopkins conclude that,

> regimes exist in all areas of international relations, even those, such as major power rivalry, that is traditionally looked upon as clear-cut examples of anarchy. Statesmen nearly always perceive themselves as constrained by principles, norms, and rules that prescribe and proscribe varieties of behaviour.[251]

They argue that, "realist and other paradigms prove too limited for explaining an increasingly complex, interdependent, and dangerous world."[252]

The Grotian view rejects the perception that the international system is composed of sovereign states limited only by the balance of power. Rather, elites having transnational as well as national ties are the practical actors in international relations acting within a "communications net, embodying rules, norms, and principles, which transcend national boundaries".[253]

In summary we can conclude the theoretical understanding of regimes as follows…

We can conclude by the definition given by all the scholars that if any arrangement is to be considered as a regime it must include three essential elements. These are:

i. there must exist an issue requiring solution,

ii. there must be a prevalent willingness of the issue area effectees to seek solution, and

---

[250] Keohane, "The Demand for International Regimes.";Stein, "Coordination and Collaboration: Regimes in an Anarchic World."

[251] Puchala and Hopkins, "International Regimes: Lessons from Inductive Analysis," p.86.

[252] Ibid., p.61.

[253] Krasner, "Structural Causes and Regime Consequences: Regimes as Intervening Variables," p.9.

iii. there must be a set of coherent rules, norms, principles and procedures for providing a solution.

From Krasner's outline of the three different perspectives regarding the importance of studying regimes, my understanding is that the approach taken by conventional structuralists such as Susan Strange does not adequately account for the fact that regimes have been and continue to be prevalent in international relations. Furthermore many regimes have been effective and durable. This lends more credence to the approach of modified structuralists and Grotians in highlighting the importance and relevance of the study of the international regime dynamics.

In my opinion the Grotian tradition best recognizes the complexity and seriousness of the issue areas and hence captures the essence of regime dynamics. Regimes are that pervasive phenomenon which can not only encompass the issues at a state level but can over arch the boundaries and limits of national sovereignty.

The rationale of studying the regime theory in detail was to understand the theoretical underpinnings of the 'regimes' formation and operation, which is considered as the theoretical framework for this research. Such theoretical knowledge also enables us to synthesise the various Cold War era restraint and stability attempts between the United States and former Soviet Union through the history of arms control and limitation initiatives. These initiatives can be considered within the Cold War models. This study attempts to find the potential for developing a replica of thid theoretical framework within the Southern Asian context to give further meaning to the research questions identified in the beginning of the research. The regime theory therefore is taken up as a framework to provide the theoretical underpinnings to understand the Cold War models and to apply these to the field of 'ballistic missile proliferation' in Southern Asia; thus exploring the potentials of using super powers model during the Cold War for restraint and stability regime in Southern Asia.

Part-II

US-SOVIET RESTRAINT REGIME MODELS AND THEIR CONSTRUCTS IN SOUTHERN ASIA

4.2. COLD WAR AND POST-COLD WAR RESTRAINT MODELS AS PER REGIME THEORY

The regimes definition pointed out that three main components are essential for the regimes to emerge. These are that there exists: 1) an issue requiring solution, 2) an underlying will and 3) the set of coherent rules, norms, principles and procedures (organization) to carry out that will. We shall next examine the nature of international regimes during the era of Cold war bipolarity and subsequently based on these three main components. The Cold war powers perceived the threat of the advertent and inadvertent nuclear war between them as a very problematic issue, because of the increasing number of the strategic weaponry. For this reason their interest in pursuing prevention of any such catastrophe created the underlying will to address the proliferation of strategic weapons for the greater peace and stability of their relationship; and to materialize this into concrete results by means of organizations and forums. This process has continued into the post-Cold War era, with continuing attempts to establish restraint regimes for missile programmes. It is important to examine this context of formal regime development before moving to the potential of regimes for Southern Asia.

4.2.1. Cold War Missile Regimes

a) **Issue area:** The continued advancement in the development of the technology of nuclear weapons and delivery systems led the United States and the Soviet Union to realize the futility of an unlimited arms race in those devices. The issue area here was the prevalent risk of advertent and inadvertent nuclear war between the Cold War powers. With a continuously ongoing missile race between the Cold War Powers, there was an exceeding vertical proliferation of missiles in between the two and beside an ever increasing risk of 'planned or unplanned' use, the maintenance of such a huge stockpile was also becoming risky. It was therefore a problem needing solution.

b) Underlying will: Both the powers were apprehensive of the issue area and there existed an underlying will amongst the leadership to address the issue and seek solutions as how best the risk could be managed.

c) Set of coherent rules, norms, principles and procedures-organization: The underlying will on the part of both actors led them to a series of negotiations over the cold war period which culminated in various treaties and agreements which laid down the set of rules, norms, principles and procedures to prescribe and proscribe the issue area. These agreements and treaties are detailed below.

1) Strategic Arms Limitation Talks (SALT) I, II and Anti Ballistic Missile (ABM) Treaty

The leaders of both states agreed to hold meetings to discuss the issue. These meetings finally materialized in 1969 at Helsinki and achieved successful negotiation on two aspects, firstly the interim agreement to freeze the total number of Inter-Continental Ballistic Missiles at their existing level with the only allowance of the replacement of old missiles with new ones. This interim agreement came to be known as SALT and there were two rounds of both called respectively SALT I & II. The second aspect of the negotiations was the Anti Ballistic Missile (ABM) Treaty which came to successful treaty signatures in 1972.

Regime theory relevance: As can be readily ascertained an 'issue area' of an unlimited strategic weapons arms race existed between the cold war super powers, they therefore found themselves in a convergence of interest environment with regard to limitation of this arms race phenomenon. The underlying political will and the need of the time brought them to the negotiation tables to negotiate an order for regime formation. Hence, the SALT (I), (II), and ABM Treaties were signed. The continuing of the talks resulted in the bringing in of wider 'issue areas' in the later stages (SALT II and ABM) reflecting the evolutionary change of the regime formation.

2) The Agreement between the USSR and the USA on Establishing Nuclear Risk Reduction Centres, 1987

This agreement was an important step in establishing mechanisms of notifications of the ballistic missile launches. It is worth mentioning that even to date the notifications on ballistic missile launches are transmitted through these centres under the above-mentioned agreements in between the two (USA & Russian Federation as successor of former USSR).

Regime theory relevance: The establishment of the Nuclear Risk Reduction Centres reflects the spontaneous as well as interest based convergence of interests of the parties in the issue area. The durability and effectiveness of it to-date highlights that even self interest stakes of the participants ensure the formation as well as sustenance of regimes.

It is noteworthy that this whole series of agreements and treaties addressing the wider issue area were lacking any formal set up to monitor and verify the implementation of the agreed principles. Hence the establishment of the Nuclear Risk Reduction Centres was a successful attempt to fulfil this need. The success of this informal institution can be judged by the fact that these centres still function today.

3) Intermediate-Range and Shorter-Range Missiles (INF) Treaty

The United States and former Soviet Union, signed the Elimination of their Intermediate-Range and Shorter-Range Missiles (the INF Treaty) in 1987 which entered into force in 1988. This treaty was designed to not only prohibit the production, possession, and flight- testing of intermediate-range ground-launched ballistic and cruise missiles, the stages of such missiles, or launchers for such missiles but complete elimination of an entire class of United States and Soviet ground-launched ballistic and cruise missiles with ranges of 500-5500 km. It is again worth noting that after the disintegration of Soviet Union in December 1991, the Russian Federation replaced the Soviet Union as a Party to the INF Treaty with an addition of Belarus, Kazakhstan, and Ukraine through May 1994 amendment to the INF Treaty as parties responsible for its continued implementation.

Regime theory relevance: The issue area of nuclear weapons vertical proliferation has such an ongoing evolutionary nature that the negotiations of the participants were oscillating between specific and diffused areas, in terms of activity. The United States of America and the former Soviet Union had already acquired the underlying will of dealing with the issue in totality. Therefore, the INF Treaty reached by negotiated order, inspired by knowledge based congnitivism of the issue area, seemed to move towards a more specific 'issue area' regime.

4) Strategic Arms Reduction Talks (START)

Another successful attempt by both these states was again witnessed with the signing of START in July, 1991, and which has been in force since December, 1994. But important to note is that following the break-up of the Soviet Union in late 1991, the four republics on

whose territories strategic offensive arms were located – Belarus, Kazakhstan, Russia, and Ukraine – became Parties to START via the 1992 Lisbon Protocol. START therefore required that the parties to the treaty reduce the levels of accountable warheads carried by both land and sea-based ballistic missiles and long-range bombers from Cold War levels by the end of seven years after entry into force, i.e., December, 2001.

START I Treaty also provides for reporting other additional parameters of missile launches for example like, - telemetry broadcast frequencies and modulation types used during the launches, etc. The provision of such additional data on planned missile launches increases transparency and decreases the possibility of appearance of a surprise factor in the strategic relationship between them and, as a consequence, contributes to global stability.

Regime theory relevance: The START, as negotiated order has been moving into more diffused 'issue area' than being specific as initially negotiated as a result of continuous evolutionary change.

3.2.2. Post Cold-War Missile Regimes

a) Issue area: The major problem which the super powers witnessed in the post Cold War nuclear weaponry area was the rapid horizontal proliferation of missiles in the developing world. This proliferation problem coupled with unstable and fragile political governments in the developing world, endeavouring to travel the road of military modernisation and strategic weapons, was causing big alarm in the United States. The United States therefore believed that the increasing risk of proliferation of nuclear and missile technologies to the developing world will consequently bring greater instability and anarchy in the world system. As missiles are the most effective means of reaching long distance targets and can act as delivery systems for a multiple variety of both conventional and unconventional warheads, so there was a perceived need to put a control on any such technologies and equipment which could help these 'rogue' 'aspirants of power' states to develop this kind of weapons inventory. This problem of both horizontal and vertical proliferation of missile related technologies was therefore the 'issue area' in the post-Cold War era.

b) Underlying will: The supply side powers of the nuclear and missile technology on the convincing of the United States and others were becoming gravely concerned of the issue area and therefore came to the logical point of convergence for establishing controls and code of

conducts in the 'issue area'. This generated the 'political will' amongst the leadership to seek ways and means of reaching the solutions of the problems.

c) Set of coherent rules, norms, principles and procedures-organization: The underlying will on the part of the supply side technological advanced and powerful community led to a series of negotiations amongst each other for concluding the post-Cold War period treaties and agreements establishing the set of rules, norms, principles and procedures to prescribe and proscribe the issue area. These post-Cold War regime type arrangements are detailed below.

1) Missile Technology Control Regime (MTCR)

The international community developed a voluntary export control regime for the missiles and began to call it as Missile Technology Control Regime (MTCR). The MTCR comprises common export policy guidelines for member countries implemented in accordance with their national laws. The goal of the MTCR is to restrict the proliferation of missiles, unmanned air vehicles, and related technology for those systems carrying a 500-kilogram payload at least 300 kilometres, as well as systems intended for delivery of weapons of mass destruction. MTCR controlled items are listed in the MTCR's Equipment and Technology Annex. Controlled items fall into two general categories: Categories I and II. Category I items are defined as, "complete rocket systems (including ballistic missiles, space launch vehicles and sounding rockets) and unmanned air vehicle systems (including cruise missiles systems, target and reconnaissance drones) with capabilities exceeding a 300km/500kg range/payload threshold; production facilities for such systems; and major sub-systems including rocket stages, re-entry vehicles, rocket engines, guidance systems and warhead mechanisms."[254]

Category II on the other hand includes complete rocket systems as defined in Category I but not covered in it, these complete rocket systems therefore capable of a maximum range equal to or greater than, 300km. Category II items also included a wide range of 'dual-use' - equipment, material, and technologies, such as propellants, structure materials, test equipment, and flight instruments.

With respect to Category I items the regime guidelines state that "particular restraint" will be exercised in transferring Category I items, and "there will be a strong presumption to deny"

---

[254] "MTCR Guidelines and the Equipment, Software and Technology Annex ", http://www.mtcr.info/english/guidelines.html

any transfers the exporting country judges to be intended for WMD delivery systems. On the other hand, with respect to Category II items, MTCR guidelines permit member states to license Category II items for export provided the equipment or technology is not destined for end use in the development or production of a missile covered by MTCR restrictions (500kg/300km).

2) *Hague Code of Conduct Against Ballistic Missile Proliferation (HCOC)*

The MTCR started recognizing the growing international concern on both the vertical and horizontal proliferation of ballistic missiles in the world, yet it was inadequate in many areas as for example Dinshaw Mistry and Mark Smith pointed out: "First, (MTCR) left out key suppliers such as Russia, China, and many European states. Second, it would be ineffective on states that had an independent technological capability to construct rockets. Third, it did not offer incentives for missile-seeking countries to abandon these activities. Fourth, it did not call for the elimination of missile forces in over twenty states, and did not seek to establish treaties and norms against the possession or acquisition of missiles."[255] MTCR partners therefore initiated the process to address these issues first internally amongst its members then started external consultation with the non-MTCR states. These strenuous efforts at the MTCR plenary meeting of Noordwijk in October 1999 brought forward many papers on norm construction for minimize this threat of global missile proliferation. The proposals included confidence-building measures (CBMs) on satellite launch vehicles, including policy and planning declarations and other transparency measures; CBMs on missile development, including launch notification schemes; plans for missile-free zones; and economic incentives for nonproliferation.[256]

Thus, a year-long discussion that began at Noordwijk produced the draft International Code of Conduct against Ballistic Missile Proliferation (ICOC) at the MTCR's Helsinki plenary meeting in October 2000 and later on came to be known as the Hague Code of Conduct against Ballistic Missile Proliferation (HCOC).

The Hague Code of Conduct against Ballistic Missile Proliferation (HCOC) was finally adopted at an international conference held on 25-26 November 2002 in The Hague.

---

[255] Mistry and Smith, "Negotiating Multilateral Instruments against Missile Proliferation."

[256] Ibid.

The Code is meant to be an international voluntary arrangement under a politically binding document but without any legal binding - to supplement the Missile Technology Control Regime (MTCR). The participating states thus make commitments to curb the proliferation of WMD-capable ballistic missiles and to exercise maximum restraint in developing, testing, and deploying such missiles. The Hague Code of Conduct also contains principles, obligations, incentives, and confidence-building measures, including the announcement of planned missile launches, and transparency measures relating to missile policy and stockpiles. The subscribing States to the draft Code agreed to introduces transparency measures such as annual declarations and pre-launch notifications regarding ballistic missile and space launch programs due to the similarities between the technologies used in ballistic missiles and civilian rockets. The Hague Code of Conduct therefore offers all countries outside the MTCR an opportunity to engage in a broader common effort to agree on an internationally binding Code of Conduct.

3) *Global Control System for the Non-Proliferation of Missiles and Missile Technology*

The idea of the Global Control System for the Non-Proliferation of Missiles and Missile Technology was put forward by the President of the Russian Federation in June 1999 and proposed to the international community at the 54th session of the General Assembly of the United Nations Organization.

The Russians believed[257] that, the prevention or reduction of the danger of using missiles in peacetime, including the reduction of the risk of other states' misperception of conducted launches (misinterpretation of the situation), the establishment of "rules of conduct" in the missile field, and the voluntary and conscious renunciation of possession of missile delivery vehicles for WMD and associated technologies remain serious problems requiring resolution. The resolution of these problems is unavoidably linked to need to provide transparency of missile activity, in particular missile launches, factors motivating States to develop missile technologies and possess missile delivery vehicles for WMD, guaranteeing the security of a state given its voluntary renunciation of the possession of such missiles, and to providing incentives for a State not to engage in proliferation of missiles and missile technology. This is by no means a complete list of what will lie at the foundation of preventing or reducing the

---

[257] "Concept of the Global Control System for Non-Proliferation of Missiles and Missile Technology (Outline)," http://www.fas.org/nuke/control/mtcr/news/GSC_content.htm#surv_1.

danger of using missiles, and establishing 'rules of conduct' in the missile field but, it represents an important portion which, in many respects, determines the position of a state with a decision to make whether to possess or not to possess missile technology. It is well known that a number of states have voluntarily and consciously abandoned national missile programs and a number of states have continued their implementation. Russia therefore presented its version of 'Global Control System for the Non-Proliferation of Missiles and Missile Technology', which they assumed would be addressing all the anomalies in the previous arrangements.

GCS, as per the Russian visualization[258] would represent a system of international regimes and mechanisms, including:

- a missile launch transparency regime;
- a mechanism to guarantee the security of GCS participating States which have renounced the possession of missile delivery vehicles for WMD;
- an incentive mechanism for States which have renounced the possession of missile delivery means for WMD;
- an international consultations mechanism in the framework of GCS for improving the regimes and mechanisms of the Global Control System and resolving issues that arise.

Matthew Rice of the Arms Control Association notes that, "The GCS would increase transparency and reduce the risk of miscalculation or misunderstanding by requiring nations to provide notification of pending missile or space-launch vehicle (SLV) test-launches. To discourage proliferation, the GCS would offer incentives to members of the regime that forswore the use of missiles as delivery mechanisms for weapons of mass destruction, including security assurances against the use of missile systems and assistance from the UN Security Council if such weapons were used. In addition, referencing Article IV of the NPT, the regime would provide for assistance in the peaceful uses of space for members that gave up missiles as weapons."[259]

According to Matthew Rice the USA response was,

---

[258] Ibid.

[259] Matthew Rice, "Russia Proposes Global Regime on Missile Proliferation," Arms Control Association, http://www.armscontrol.org/print/673.

First, while supporting the multilateral exchange of test-launch data, Washington expressed concern that the GCS plan could 'legitimize the missile programs of rogue states.' Second, it maintained that assuring the security of countries that renounce their missile programs is 'unfeasible.' Third, the United States argued against using 'one-size-fits-all' incentives to encourage states to forgo missile programs at the expense of targeted bilateral efforts, and expressed particular concern that aid to peaceful space programs could be readily applied to military missile programs. Finally, the United States said that the MTCR should remain the only forum for discussing such matters. 'We do not believe that broad multilateral discussions will be productive at this time,' the U.S. documents state.[260]

Regime theory relevance: The development of MTCR and HCOC was a result of long negotiations, which had to take into account different agenda items as they progressed. This seems to suggest that these regimes have quite often been the result of negotiated orders and have been subjected to evolutionary changes. It is also evident from the nature of these regimes that as negotiated bilaterally, were definitely negotiated orders but when the participants (USA and USSR) tried to diffuse them with regard to geographically wider participants on the 'issue area', they have been becoming a sort of imposed orders.

The GCS, on the other hand was a Russian initiative in a unipolar world, where USA had emerged as the sole hegemon of the world, so the revolutionary change was somewhat reflected in that regime, because of which the hegemon rejected that.

4.3. CONFIDENCE BUILDING MEASURES (CBMs) AND THE IDENTIFICATION OF GAPS IN SOUTHERN ASIAN EXPERIENCE

The Cold War and the post Cold War models discussed above, all validate the point that the basic objectives attempted through these models was conflict management and seeking solutions to the conflict in a 'given issue area' in a regulated way of enhanced mutual interaction, exchange of information and confidence building measures.

Confidence Building Measures in a proper institutionalised form will thus be taken as the key point of deliberation of regime theory and will be developed further towards the end of the research to devise regulated conflict management through an attempt of formation of a

---

[260] Ibid.

restraint regime model in Southern Asia. It is therefore, necessary that I shall briefly touch upon the very basic theoretical understanding of the concept of Confidence Building Measures at this point along with the regime theory.

Therefore, the various definitions of Confidence Building Measures (CBMs) will be examined, regarding their role; and then I will explore in what contexts CBM mechanisms may be applied for the reduction of the tensions between belligerent parties in an issue area. It is worth mentioning here that it is these CBM mechanisms that when applied and seen through the Southern Asian experiences so far (Chapter 8), reflect the points of weaknesses on their part in bringing in a stable and effective restraint regime. It is therefore a key point which helps us identify the gaps in Southern Asian CBM related agreements, thereby providing a level field for recommending an effective and theoretically complete framework for a mutual restraint and stability regime in Southern Asia.

4.3.1. Defining the Confidence Building Measures (CBMs)

Brad Glosserman defines the Confidence Building Measures (CBMs) as both formal and informal measures, whether unilateral, bilateral, or multilateral, those address, prevent, or resolve uncertainties among states, including both military and political elements.[261]

According to Michelle Maiese, Confidence Building Measures (CBMs) are;

> Agreements meant to give each party assurance that the other is not preparing for surprise military action or pursuing policies associated with such future action. Such agreements provide a way to avoid misunderstandings about ambiguous events or perceived threats, and play an important role in instilling a sense of stability and security.[262]

When dealing with the parties which are drawn in a protracted conflict, Confidence Building Measures (CBMs) are mostly in the military and diplomatic domain. However in a wider requirement of the building of trust and confidence in the societies of the conflicting parties

---

[261] Brad Glosserman, "Cross-Strait Confidence Building Measures," *Issues & Insights* 5, no. 2 (February 2005): p.7.

[262] Michelle Maiese, "Confidence-Building Measures," University of Colorado, http://www.beyondintractability.org/essay/confidence_building_measures/.

they could also cover broad spectrum measures of military, diplomatic, political, economical or socio-cultural nature.

It is because of that broad spectrum requirement that the international working group on confidence and security building measures in the Asia-Pacific uses an expansive definition that includes,

> Formal and informal measures, whether unilateral, bilateral, or multilateral, that address, prevent, or resolve uncertainties among states, including military and political elements. Such measures contribute to a reduction of uncertainty, misperception, and suspicion and thus help to reduce the possibility of incidental or accidental war.[263]

These definitions imply that all such measures which help build and restore confidence can be put under the rubric of CBMs. They may not necessarily be military in nature but could encompass almost anything from economic, social, and cultural to security and military domain. It is because of this comprehensiveness of the CBMs nature that scholars have likened them to all such measures that contribute to a reduction of uncertainty, misperception, and suspicion and thus help to reduce the possibility of incidental or accidental war.

The process of adopting confidence building measures is initiated by identifying any shared interests. Furthermore an atmosphere of mutual cooperation must be developed over time in order to fulfil various requirements which may range from total restraints and avoidance of unintended war escalation to an enhanced environment of peace and tranquillity. The process is a gradual one which begins by bridging major grievances and then moves on to the core security concerns. A successful CBM process according to Michael Krepon, involves creating a framework of principles, values, and objectives (symbolic as well as substantive) that will govern the foreign relations.[264] The process of confidence building measures aims at limiting escalation, preventing conflict and where possible contributing to peace building. It does this by setting up norms, rules, principles and procedures to make military intention and capabilities more transparent as well as mechanisms for verifying compliance with those rules. In this way CBMs serve to reduce anxiety and suspicion between the parties and enable

---

[263] Michael Krepon, *A Handbook of Confidence-Building Measures for Regional Security*, 3rd ed. (Washington, D.C.: Henry L. Stimson Center, 1998), p.27.

[264] Ibid., p.13.

behaviour to be more predictable. It is therefore said that a series of such agreements can allow for an increased sense of security and stability.

It becomes apparent from the above definitions of the CBMs that what we are talking about are in actual fact a form of regime. This is because, in the case of CBMs just as in the case of regimes, we find the elements of 'issue area', 'underlying will', 'shared interests', and a 'framework of principles and objectives'.

4.3.2. CBMs Mechanisms

In order to move towards the reduction of the tension between the belligerent parties and to inculcate an atmosphere of mutual trust and respect, different Confidence Building Measures (CBMs) mechanisms have often been recommended and used. These Confidence Building Measures (CBMs) mechanisms are considered to be important in making the behaviour of states more predictable by assisting and facilitating communication between states and instituting rules or patterns of behaviour for states' military forces; as well as the means to determine and verify compliance with those patterns. These include[265]:

1) Use of communication: Use of communication means that the parties to a conflict are still in contact with each other and the process of interaction and negotiations are not being cut off. Communication plays a very vital role in diffusing the crisis before their eruption. A variety of step could be taken to enable the continuous use of communication between the parties and they include:

   i.   Establishment of 'Hot Lines',

  ii.   establishment of regional communication centres, and

 iii.   devising a mechanism for regular consultative meetings.

2) Applying constraints: Applying constraints means, enacting all such measures that are designed to limit or restrict certain types and levels of states' military forces in a particular border region where conflicting troops are facing one another, and it also implies that devising certain restraint and control measures which can strengthen the mutual restraint and control measures. These measures include:

   i.   Thin-out zones, or limited force deployment zones; and

---

[265] "Confidence-Building Measures in South Asia ", The Henry L. Stimson Center, http://www.stimson.org/?SN=SA2001112047.

ii.   pre-notification requirements before activities subject to prior notification could occur

3) Enhancing transparency: This means greater openness of each others' potential's information. In other words the more open the information is available each others' force structures, mobilisation, and state of readiness along with military potentials, the more trust could be developed. Transparency can therefore be worked out by the implementation of following measures:

i.   Pre-notification requirements,
ii.   data exchanges, and
iii.   voluntary observations.

4) Adopting verification measures: This suggest the application of all such measures which are formulated for the purposes of collection of data to ensure that the treaty or agreement provisions are complied with. Different such measures through which the treaties or the agreements provisions are and can be monitored are:

i.   Use of aerial inspections,
ii.   electronic censoring devices, and
iii.   on site inspections.

4.3.3. Identifying the gaps in Southern Asian CBMs related agreements – Verification Measures Missing

Verification is a means of monitoring a counterpart state's military activities and assessing whether these activities are in compliance with the terms of a negotiated agreement.[266] Hence verification provides vital means for both deterring and discovering breaches and provides a factual basis for determining what the reaction against such breaches should be. For example the START-I and II Treaties in between the cold war rivals stipulated a detailed mechanism of verification and inspection for the purpose of ensuring verification of compliance with the provisions of the treaty, under the Articles IX, X and XI. So much so that a detailed protocol

---

[266] Susan M. Burns, "Preventing Nuclear War: Arms Management " in *Nuclear Proliferation in South Asia: The Prospects for Arms Control*, ed. Stephen Philip Cohen (Oxford: Westview Press, 1991), p.89.

on inspections and continuous monitoring activities – 'Inspection Protocol' consists of a preamble, 18 Sections, and 12 Annexes was attached to it.[267]

The Protocol provided detailed procedures for implementing the Treaty's on-site inspection and continuous monitoring procedures. These extensive and intrusive on-site procedures will work in conjunction with national technical means of verification provided for in Articles IX, X, and XII, and the information exchanges provided for in Article VIII, to assist in verification of compliance.

Even under SALT-I, the Article V and under SALT-II, the Article XV, provided each party to use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law for the purpose of providing assurance of compliance with the provisions of the agreement.

The problem with the agreements reached so far between the Southern Asian nations is that although all agreements between the parties clearly identify requirements and measures relating to the communication of information and various constraints and transparency mechanisms, there is no mention of any arrangements whether mutual or otherwise, to monitor the compliance with such measures by any party. Consequently we find no definite and drastic change in the environment. This is in contrast to almost all the cold war models that we discussed and illustrated using the examples above, which have extensive mention of verification, thus fulfilling the requirement of all the mechanisms of the confidence building measures.

4.4. CONCLUSION

In an anarchic world, the states often come across a wide variety of issues and problems, which can cause an alarm of widespread chaos and conflict. In order to address the varying natures of conflict and seek solutions to them, the newer discipline which started emerging on the subject domain was the study of the concept of regime formation. The regimes while converging the interests of the parties on a given issue area, tried to provide them a platform from which they can establish and define rules, rights and principles of dealing with the issue

---

[267] For the detailed text of the Articles and attached inspection protocols of these treaties plese see: "Treaty Compliance: Treaties and Agreements," Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, http://www.dod.gov/acq/acic/treaties/index.htm.

area, hence enabling them to reach some decisions. In this way regimes acted as solution providers.

All the prevailing scholarship on the regime dynamics suggest that the very nature of the task which regimes are performing can be summarised as:

A social institution development through which, the issue area conflicts are mutually stabilised by a system of enhanced interaction, information flow, and transparency which in turn would act as the confidence building measures. And once the confidence building measures are in place then the conflicts in a given issue area are controlled and ultimately resolved in a much more regulated way.

In order to understand the capacity of the states of the Southern Asian region to employ a regulatory regime, it is first necessary to establish the motivations, doctrines and status of these countries. This discussion should begin with considertation of the strategic cultures that have done so much to shape their strategic thinking and behaviours.

Chapter 5

STRATEGIC CULTURES OF CHINA, INDIA AND PAKISTAN AS A FRAMEWORK FOR UNDERSTANDING THE PURSUIT OF STRATEGIC NUCLEAR WEAPON SYSTEMS

5.1. INTRODUCTION

This chapter will provide an account of the literature that examines general explanations for the motivation to develop strategic nuclear weapons systems and then will proceed to consider the specific arguments of the strategic culture explanations as a framework for the motivations of these countries nuclearisation efforts. In doing so it will first define the strategic culture, elaborate the cultural approaches to strategic studies, indicate the importance of using strategic cultural approach as a tool of analysis, and finally will bridge this discussion with the authors understanding of the motivations of India, Pakistan and China for pursuing strategic weapons systems.

Part- I

5.2. GENERAL EXPLANATIONS FOR THE PURSUT OF STRATEGIC WEAPONS SYSTEMS

Since the beginning of the nuclearisation process in the world, researchers have put forth many explanations as to why it occurs[268], why states devote enormous human and financial

---

[268] There is a vast amount of literature being published which some how tries to answer it, this includes but not limited to: Lewis A. Dunn and William H. Overholt, 'The Next Phase in Nuclear Proliferation Research,' Orbis, Vol. 20, No. 2 (Summer 1976), pp. 497–524; William Epstein, 'Why States Go—And Don't Go—Nuclear,' The Annals of The American Academy of Political and Social Science, Vol. 430 (March 1977), pp. 16–28; Lewis A. Dunn, Controlling the Bomb (New Haven: Yale University Press, 1982); William H. Kincade and Christoph Bertram ed. Nuclear Proliferation in the 1980s: Perspectives and Proposals (London: McMillan, 1982); Stephen M. Meyer, The Dynamics of Nuclear Proliferation (Chicago: University of Chicago Press, 1984); Bradley A. Thayer, 'The Causes of Nuclear Proliferation and the Utility of the Nuclear Nonproliferation Regime,' Security Studies, Vol. 4, No. 3 (Spring 1995), pp. 463–519; Tanya Ogilvie-White, 'Is There a Nuclear Proliferation Debate? An Analysis of the Contemporary Debate,' The Nonproliferation Review, Vol. 4, No. 1 (Fall 1996), pp. 43–60; Scott D. Sagan, 'Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb,' International Security, Vol. 21, No. 3 (Winter 1996–97), pp. 54–86; Scott D. Sagan, 'The

resources to develop these Weapons of Mass Destruction (WMD)?, and what sets them on the path of mutual annihilation and destruction?, what are the principle desires and fears that drive these expensive yet demanding programs?.

The first concrete study appeared in 1977 in which Epstein noted that almost all nations have two goals: to enhance their power and thus maximise their positions and capacity to influence the behaviour of other nations; and to diminish their dependence on other states and to increase their freedom of action-outcomes.[269]

Figure 5-3: Epstein Approach
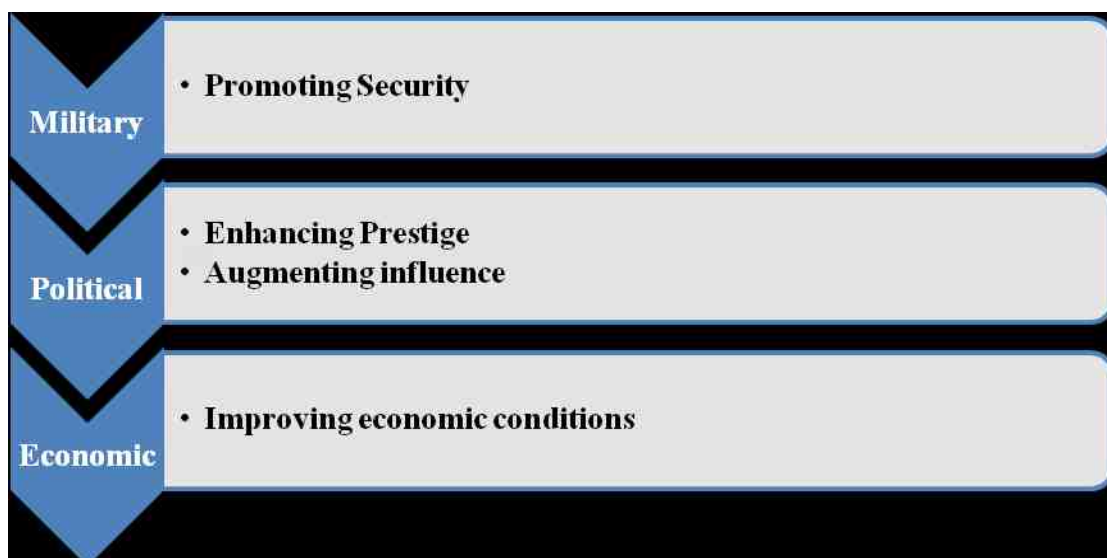
According to Epstein as all these objectives require the accretion of power, nuclear power has been seen as a most prominent and effective means to promote states security, enhance their prestige, augment their influence, and even improve their economic conditions.[270] Whether, and to what extent, a given state will act on these possibilities depends in part on its leaderships' perceptions of the international environment and on their assessments of the best ways to achieve national objectives in that environment. It depends, also, on the results of bureaucratic competition and on the pressures of domestic politics.[271] Therefore there are a

---

Causes of Nuclear Proliferation,' Current History, Vol. 96, No. 609 (April 1997), pp. 151–6; Bhumitra Chakma, 'Proliferation of Nuclear Weapons: The Conceptual Debate,' BIISS Journal, Vol. 22, No. 3 (July 2001), pp. 334–53.Joseph Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons* (New York: Columbia Univrsity Press, 2007).
[269] William Epstein, "Why States Go -- and Don't Go -- Nuclear," *Annals of the American Academy of Political and Social Science* 430 (1977): p.17.
[270] Ibid.
[271] Ibid.

combination of military, political, institutional and economic concerns and motivations that explain the phenomenon of nuclearisation or non-nuclearisation.

Figure 5-4: Scott D. Sagan Approach
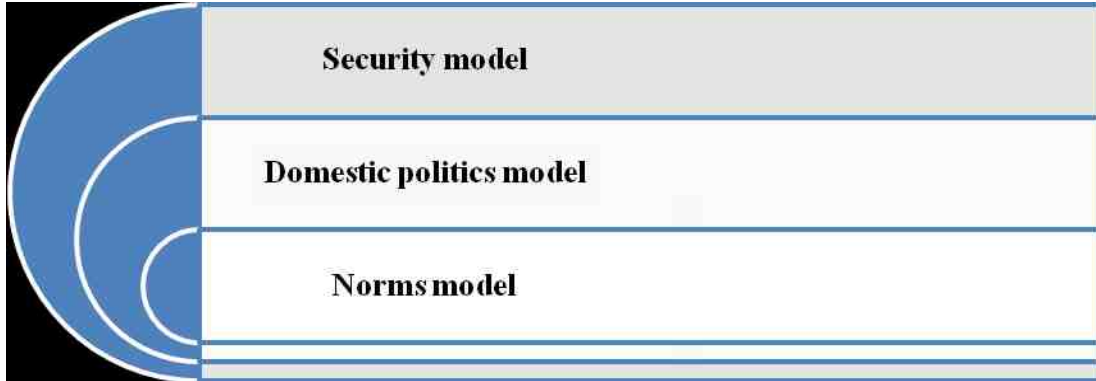
Following the same line of argument Scott D. Sagan challenged the consensus view that equates nuclearisation only with national security considerations as the cause, arguing that this view is dangerously inadequate because nuclear weapons programs can serve other, more parochial and less obvious objectives. Therefore, multi-causality lies at the heart of the nuclear proliferation problem.[272] According to Sagan nuclear weapons, like other weapons, are more than tools of national security; they are political objects of considerable importance in domestic debates and internal bureaucratic struggles and can also serve as international normative symbols of modernity and identity. Sagan put forward three alternative theoretical frameworks or 'models' as to why states decide to build - or refrain from developing - nuclear weapons. They are: 'the security model', 'the domestic politics model', and 'the norms model' under which nuclear weapons decisions are made because weapons acquisition, or restraint in weapons development, provides an important normative symbol of a state's modernity and identity.[273] Unlike the literature that analyzes proliferation in relation to threat perceptions and national security concerns, this approach examines the significance of nuclear weapons in terms of their political values. Nuclear weapons are not instruments for fighting wars and although the tactical nuclear weapons are specifically designed miniaturised warheads for use in a limited battlefield scenario, it can be argued that their primary utility is also deterrence in a tactical sense just as the strategic nuclear weapons' military value derives indirectly from the political effects of the existence of nuclear arsenals, including their ability

---

[272] Scott D Sagan, "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb " *International Security* Vol. 21, no. 3 (Winter, 1996-1997): pp.54-86.
[273] Ibid.: p.55.

to define and shape political stability between rival nations and blocs. Nuclear arms are therefore the first truly political weapon systems, bestowing both international influence and prestige.[274]

In his study of the mechanisms behind Indian nuclearisation Gaurav Kampani took an approach comparable to that of Sagan. Kampani examined three models: the 'Domestic Factor' model, which looks at national prestige questions, great power aspirations, and the post-colonial project and the need to exorcise the ghost of colonialism; the 'Organizational Model' which links it all to the interests of scientific and industrial lobbies within the state also known as 'Strategic Enclaves'; and the 'Realism Model' which takes a threat perception perspective. Rather than thinking of these as separate 'models' it would be more appropriate to say that all three are sets of factors behind strategic behaviour, sometimes as sole drivers and at others as a combination of them all. So according to Gaurav Kampani, it is in essence the sum total of all three domestic, organizational and strategic factors that shape strategic logic.[275]

Similarly in a latest study on the subject Joseph Cirincione stated the five main reasons due to which the states acquire nuclear weapons, these being, prestige, domestic politics, technology, and economics. Cirincione notes that:

> Each has been developed by international relations theorists into distinct, but often complementary, models that help answer our questions. The "national security" model argues that states seek nuclear weapons in order to enhance their own security. The "prestige" model emphasizes the symbolic value of nuclear weapons: states see the weapons as a prerequisite for great power status. The "domestic political" model views states as units made up of competing internal factions within which influential bureaucratic and military actors can lead a state to nuclear weapons. The "technology" model, or technological determinism, contends that if a state is technologically capable of developing nuclear weapons, then the allure of such a scientific accomplishment will be too much for most leaders to resist. Finally, economic factors, though not enough to stand on their own as a causal model, interact with the other four drivers of nuclear proliferation, sometimes encouraging nuclear proliferation and sometimes

---

[274] Brahma Chellaney, "South Asia's Passage to Nuclear Power," *International Security* vol.16, no. 1 (Summer, 1991): p.44.

[275] Gaurav Kampani, "Stakeholders in the Indian Strategic Missile Program," *The Nonproliferation Review* (Fall - Winter 2003).

restraint. Each of these theories can illuminate decisions to develop nuclear weapons, but few experts claim that any one motive is robust enough to explain all cases.[276]

It is therefore an understanding common to Epstein, Sagan, Kampani and Cirincione that strategic logic and behaviour are complex processes that include assumptions about warfare, politics, and status. It is an important fact that the possession of nuclear weapons has been a significant determinant of status in the international system throughout the second half of the twentieth century. In order to attain status as a 'Great Powers' states should have nuclear weapons; and if they do not they fear their bargaining power will suffer; and they may be excluded from, or denied an appropriate voice in, councils concerned with the uses (or the disposition) of strategic weapons. This motive, which strongly influenced 'early nuclearisers' like the British or French[277], is still valid today. The Chinese and Indian cases, and even the Pakistani decisions to have this class of weapons, testify to this fact. Heightening their international status through effective display of power for deterrence, dissuasion and defence was an important determinant in the nuclear weapons decisions of China in 1965 and of India and Pakistan in 1998. Likewise, the possession of the Cold war superpowers - the 'nuclear haves' - of nuclear weapons and their advanced delivery systems made their argument against acquisition of these deterrents by other sovereign states – the 'have-nots' - morally hollow. In arms control circles, the commonly held view is that a prime cause of proliferation was the failure of the United States and the Soviet Union to fulfil their obligations under Article VI of the Non-Proliferation Treaty (NPT), that is, to end 'vertical' proliferation and make meaningful progress toward nuclear disarmament.[278] Thus, when the Non-Proliferation Treaty (NPT) was being put forward as a means for controlling proliferation Beijing denounced the treaty as 'superpower collusion' to uphold their 'nuclear monopoly', so as to be able to exercise 'nuclear blackmail' against the non-nuclear countries of the Third World.[279] New Delhi also denounced the treaty as discriminatory and as obstructing movement toward general nuclear disarmament. So there were strong parallels between China's and India's rejection of the NPT and together they perceived the non-proliferation

---

[276] Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons*, pp.47-48.
[277] Joseph I. Coffey, "Nuclear Guarantees and Nonproliferation," *International Organization* 25, no. 4 (Autumn, 1971): p.837.
[278] Richard K. Betts, "Paranoids, Pygmies, Pariahs & Nonproliferation," *Foreign Policy* 26 (Spring, 1977): pp.157-58.
[279] Garver, *Protracted Contest: Sino-Indian Rivalry in the Twentieth Century* p.348.

regime as discriminatory, a view that was widely shared in the Third World.[280] Asian states like India, China, and Pakistan do not disagree with Western non-proliferation goals; but reject the 'nuclear apartheid'[281] of proliferation for some; and non-proliferation for others.[282]

So modern analysis agrees that strategic thinking and behaviour derives not solely from threat perception, as in security or realist logic; but from assumptions about prestige, status, influence, and norms, or what should be termed identity logic. Accounts of Southern Asian politics often emphasise the role of identity, especially the cultural values and humanist credentials of the region's political elites. Southern Asia is widely envisaged both internally and externally as a place where culture and identity are especially vital influences on state action and therefore operate as causal factors in foreign and security policy. This may be a mistake: there may be no more reason to believe that identity has been central in shaping strategic logics in Southern Asia than in Europe or East Asia. What is not in doubt is that the meeting of different cultures of strategic values and behaviour have been very significant in determining nuclear policy in India, China and Pakistan; and that material and ideological factors have been in some way affected by their historical past and mutual identities. Strategic culture undoubtedly provides a matrix of intellectual and emotional bases for these countries view of each other, and ultimately their pursuit of nuclear weapons acquisitions.

This chapter therefore now moves to defining strategic culture. It explains briefly the history of cultural approaches to the field of strategic research; elaborates the variables influencing the shaping of the strategic culture; and finally establishes the linkage between strategic acquisition programs and strategic culture as a tool of analysis. The second part of the chapter elaborates this theory by examining the strategic cultures of China, India and Pakistan.

5.3. WHAT IS STRATEGIC CULTURE?

When in 1977 Jack Snyder coined the term 'strategic culture', in an effort to understand the nuclear strategy of the Soviet Union, he defined strategic culture in the seminal RAND Report R2154AF as "the sum total of ideas, conditioned emotional responses, and patterns of habitual behavior that members of a national strategic community have acquired through

---

[280] Chellaney, "South Asia's Passage to Nuclear Power," p.46.
[281] J. Singh, "Against Nuclear Apartheid," *Foreign Affairs* 77, no. 5 (1998).
[282] Joseph Cirincione, "The Asian Nuclear Reaction Chain," *Foreign Policy*, no. 118 (2000): p.133.

instruction or imitation and share with each other with regard to nuclear strategy"[283] Ken Booth subsequently offered an expanded definition: "a nation's traditions, values, attitudes, patterns of behavior, habits, symbols, achievements and particular ways of adapting to the environment and solving problems with respect to the threat or use of force"[284] Booth also explains that the "strategic culture of a nation derives from its history, geography and political culture", and it shapes the behaviours regarding the issues of use of force and strategic doctrine of the most influential elites may they be "political elite, the military establishment and/or public opinion".[285] The difference to note in both the definitions is that Booth on one hand introduced the notion of 'symbols' as components of strategic culture and on the other he substituted "values" and "attitudes" for "conditioned emotional responses," replaced the "national strategic community," with a more general 'nation' and broadened the focus from "nuclear strategy" to "the threat or use of force."

Alastair Iain Johnston framed strategic culture as "shared assumptions and decision rules that impose a degree of order on individual and group conceptions of their relationship to their social, organizational or political environment."[286] This expands on Booth's definition by making 'system of symbols' central to his definition. Johnston thus defined strategic culture as: "an integrated system of symbols (i.e. argumentation structures, languages, analogies, metaphors, etc.) that acts to establish pervasive and long-lasting grand strategic preferences by formulating concepts of the role and efficacy of military force in interstate political affairs, and by clothing these conceptions with such an aura of factuality that the strategic preferences seem uniquely realistic and efficacious.[287] Johnston's work however, invited very strong rebuttal by Colin Gray when he noted that "it contains errors of a kind that… are apt to

---

[283] Jack Snyder, "The Soviet Strategic Culture: Implications for Limited Nuclear Operations," in *RAND Report R2154AF* (Santa Monica: RAND, 1977), p.8.

[284] Ken Booth, "The Concept of Strategic Culture Affirmed," in *Strategic Power : USA/USSR*, ed. Carl G. Jacobsen, et al. (Basingstoke: Macmillan, 1990), p.121.

[285] Ibid.

[286] Cited by: Jeffrey S. Lantis, "Strategic Culture: From Clausewitz to Constructivism," Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/essays/Lantis%20Strategic%20Culture%20essay%20(final%2030%20Oct).pdf;Also cited in: Jeffrey S. Lantis, "Strategic Culture: From Clausewitz to Constructivism," in *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, ed. Jeannie L. Johnson, Kerry M. Kartchner, and Jeffrey A. Larsen (New York: Palgrave Macmillan, 2009), p.39.

[287] Alastair I. Johnston, *Cultural Realism : Strategic Culture and Grand Strategy in Chinese History*, Princeton Studies in International History and Politics; (Princeton University Press, 1995), p.36.

send followers into an intellectual wasteland".[288]Colin Gray argued that, "strategic culture is not only 'out there', also it is within us: we, our institutions, and our behaviour, are the context." This is an important refinement since culture is treated not only as an environment in which actors move, but the behaviours of the actors. Gray's definition then becomes: "the persisting socially transmitted ideas, attitudes, traditions, habits of mind, and preferred methods that are more or less specific to a particular geographically based security community that has had a necessarily unique historical experience."[289]

As well as debates as to whether culture represents an environment or whether it represents a behavioural context, we also find in the literature differences between narrow definitions that focus on operational posture; and broader definitions that are centred on identity. Examples of operational focus are the definitions given by Stephen Peter Rosen. Rosen defines strategic culture as the "beliefs and assumptions that frame decisions to go to war, preferences for offensive, expansionist or defensive modes of warfare, and levels of wartime casualties that would be acceptable." [290] Similarly, Andrew Scobell who defines strategic culture as the "fundamental and enduring assumptions about the role of war (both interstate and intrastate) in human affairs and the efficacy of applying force held by political and military elites in a country".[291] Broader identity centred definitions are given by Hasan-Askari Rizvi, a Pakistani scholar, who explains strategic culture as a,

> collectivity of the beliefs, norms, values, and historical experiences of the dominant
> elite in a polity that influences their understanding and interpretation of security issues
> and environment, and shapes their responses to these … a perceptual framework of
> orientations, values, and beliefs that serves as a screen through which the

[288] Colin S. Gray, "Strategic Culture as Context: The First Generation of Theory Strikes Back," *Review of International Studies* 25 (1999): p.51.
[289] Ibid.: pp.51-53.
[290] Stephen Peter Rosen, *Societies and Military Power : India and Its Armies*, Cornell Studies in Security Affairs; (Ithaca: Cornell University Press, 1996), p.12.
[291] Andrew Scobell, ""Cult of Defense" And "Great Power Dreams": The Influence of Strategic Culture on China's Relationship with India," in *South Asia in 2020 : Future Strategic Balance and Alliances*, ed. Michael R.Chambers (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2002), p.330.

policymakers observe the dynamics of the external security environment, interpret the available in formation and decide about the policy options in a given situation".[292]

Similarly for Kartchner, strategic culture is a set of,

> shared beliefs, assumptions, and modes of behaviour, derived from common experiences and accepted narratives (both oral and written), that shape collective identity and relationships to other groups, and which determine appropriate ends and means for achieving security objectives."[293]

All these definitions and approaches thus recognize strategic culture as a product of historical circumstances and national identity, and allow it a role in shaping decisions about strategy. They tend to differ in emphasis in whether environment is more significant than behaviour or behaviour more significant than environment; and whether we should study strategic culture at a broad macro-historical level or as a more specific operational code. The nature of the emphasis is often shaped by the research project of the analyst so it is helpful to examine some examples of cultural approaches to strategic studies.

5.4. CULTURAL APPROACHES TO STRATEGIC STUDIES

Cultural approaches to strategic studies have existed in various forms for hundreds of years. The argument that culture influences national security policy according to Jeffrey S. Lantis is grounded in classic works, including the writings of Thucydides and Sun Tzu, whereas Clausewitz advanced these ideas by recognizing war and war-fighting strategy as "a test of moral and physical forces."[294] The anthropologically modelled 'national character studies' of the 1940s and 1950s represented some of the first social scientific efforts to draw connections between culture and state behaviour and linked Japanese and German strategic choices in World War II to deeply rooted cultural factors of language, religion, customs, socialization, and the interpretation of common memories. Russell Weigley's 1973 classic, *The American*

---

[292] Hasan-Askari Rizvi, "Pakistan's Strategic Culture," in *South Asia in 2020 : Future Strategic Balance and Alliances*, ed. Michael R. Chambers ([Carlisle Barracks, PA]: Strategic Studies Institute, U.S. Army War College, 2002), p.305.

[293] Kerry M. Kartchner, "Weapons of Mass Destruction and the Crucible of Strategic Culture," Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/essays/Kartchner%20essay%20on%20WMD%20and%20Strategic%20Culture%20(final%201%20Nov%202006).pdf.

[294] Lantis, "Strategic Culture: From Clausewitz to Constructivism," p.33.

144

Way of Warfare and Jack Snyder's adoption of the political cultural argument into the realm of modern security studies by developing a theory of strategic culture to interpret Soviet nuclear strategy in 1977, directed scholarly attention to the key link between political and military culture and strategic choice.[295] Snyder's contributions resonated with other security policy analysts, such as subsequent work on strategic culture in Booth's *Strategy and Ethnocentrism* (1979), which continued to explore the ideational foundations of nuclear strategy. In simple terms, as noted by Jeffrey S. Lantis "this 'first generation' of work on strategic culture described a synergistic link between strategic culture and WMD policy."[296]

In the 1990s, the utility of cultural interpretations was reasserted by a new generation of scholarly work.[297] This revival if interest in the cultural interpretations was also noted by Yosef Lapid in his book, *The Return of Culture and Identity in IR Theory*, when he wrote that: "Culture and identity are staging a dramatic comeback in social theory and practice at the end of the twentieth century… Political realists-who, under the impact of their Waltzian move to neorealism have harshly marginalized culture and identity-are cautiously partaking in this trend. Similarly, following a period of hostile indifference to "ideational explanations" the time for ideas seems to have come around once again in International Political Economy".[298]

The rising tide of the constructivist school of thought also played its part in providing the foundations for ideational models[299] and thus the significant advances in the theoretical work on strategic culture, domestic structures, and organizational culture were made during this period. Ted Hopf argued that constructivism promised "to return culture and domestic politics to international relations theory" and therefore believed that given its proclaimed ontological agnosticism, the paradigm "envisions no disciplinary divides between international relations and comparative subfields" and so offers "a promising approach for uncovering those features

---

[295] Ibid.

[296] Ibid., p.35.

[297] See for example the works of:Peter J. Katzenstein, *The Culture of National Security : Norms and Identity in World Politics*, New Directions in World Politics; (New York: Columbia University Press, 1996).;Alastair Iain Johnston, "Thinking About Strategic Culture," *International Security* 19, no. 4 (1995).;Stephen Peter Rosen, "Military Effectiveness: Why Society Matters," *International Security* 19, no. 4 (1995).;Elizabeth Kier, "Culture and French Military Doctrine before World War II," in *The Culture of National Security Norms and Identity in World Politics*, ed. Peter J. Katzenstein, *New Directions in World Politics;* (New York: Columbia University Press, 1996).

[298] Yosef Lapid, "Culture's Ship: Returns and Departures in International Relations Theory," in *The Return of Culture and Identity in IR Theory*, ed. Yosef Lapid and Friedrich Kratochwil (Boulder, Colo: Lynne Rienner, 1996), p.3.

[299] Alexander Wendt, "Identity and Structural Change in International Politics," in *The Return of Culture and Identity in IR Theory*, ed. Yosef Lapid and Friedrich Kratochwil (Boulder, Colo: Lynne Rienner, 1996), pp.47-64.

of domestic society, culture, and politics that should matter to state identity and state action in global politics."[300]

Writing about the social construction of power politics Alexander Wendt in his path breaking work of 1992 argued that state identities and interests can be seen as "socially constructed by knowledgeable practice."[301]

The same point is maintained in the arguments of few others that "national identities are social-structural phenomena,"[302] which provide a "logic of appropriateness" regarding policy choices.[303] According to Katzenstein, Keohane, and Krasner, constructivism recognizes the importance of "inter-subjective structures that give the material world meaning,"[304] (check this reference again from the source and edit as me got it from lantis)including norms, culture, identity and ideas on state behaviour or on international relations more generally.[305] Thus, Inspired by the rise of constructivism and what Desch called "a renaissance of interest in culture in security studies," culture was now increasingly been thought as an important and emerging variable effecting state behaviour towards national security in mainstream international relations research.[306] However, virtually all culturalists, especially the new movement in security studies, are united in their belief that realism in its emphasis on a material balance of power is an overrated, if not bankrupt, body of theory, and that cultural theories, which look to ideational factors, do a much better job of explaining how the world works.[307] Elizabeth Kier argues that different domestic political cultures will adopt divergent means of controlling their militaries based on domestic political considerations, not external strategic concern.[308] Alastair Johnston, while exploring 'cultural realism' in Chinese security policy during the Ming dynasty, posited that societal characteristics have influenced state behaviour throughout

---

[300] Ted Hopf, "The Promise of Constructivism in International Relations," *International Security* 23, no. 1 (1998): p.914.

[301] Alexander Wendt, "Anarchy Is What States Make of It: The Social Construction of Power Politics," *International Organization* 46, no. 2 (1992).

[302] Jacques E.C. Hymans, *The Psychology of Nuclear Proliferation* (Cambridge: Cambridge University Press, 2006), p.17.

[303] Ibid.

[304] Katzenstein, Keohane, and Krasner, "International Organization and the Study of World Politics," p.679.

[305] Ibid.

[306] Michael C. Desch, "Culture Clash: Assessing the Importance of Ideas in Security Studies," *International Security* 23, no. 1 (1998).

[307] Ibid.

[308] Kier, "Culture and French Military Doctrine before World War II."

much of the history of human civilization.[309] Peter Katzenstein and Noburo Okawara, and Thomas Berger, maintain that domestic political attitudes toward the use of force vary significantly among states similarly situated in the international system.[310] Stephen Rosen argues that societies with different domestic social structures will produce different levels of military power.[311] Iain Johnston suggests that domestic strategic culture, rather than international systemic imperatives, will best explain a state's grand strategy.[312] Finally, Dana Eyre and Mark Suchman argue that all states will acquire similar sorts of high-technology conventional weaponry, not because they need them, but because these weapons epitomize 'stateness'.[313]

These diverse arguments have a common thread: dissatisfaction with realist explanations for state behavior in the realm of national security. As Iain Johnston notes, "All [cultural approaches] take the realist edifice as target, and focus on cases where structural material notions of interest cannot explain a particular strategic choice."[314] Colin Gray concluded:

> Attempts to apply American deterrence logic to all national components in the nuclear arms race are bound to result in miscalculation if the distinctiveness of each component is not fully recognized. Similarly, American theories of limited war, escalation, counterinsurgency, and nation-building are unlikely to achieve the desired ends unless adequate attention is paid to the local contexts.[315]

Gray's dissatisfaction with general theories of strategy that ignored differences in "local context" was widely shared among security analysts and led to a search for alternative theories of strategic behavior. Cultural theories were one obvious choice, and so they again

---

[309] Johnston, "Thinking About Strategic Culture."

[310] Peter J. Katzenstein and Nobuo Okawara, "Japan's National Security: Structures, Norms, and Policies," *International Security* 17, no. 4 (1993).

[311] Rosen, "Military Effectiveness: Why Society Matters.";Rosen, *Societies and Military Power : India and Its Armies*, pp. viii-xi.

[312] Johnston, "Thinking About Strategic Culture," p. 63;Johnston, *Cultural Realism : Strategic Culture and Grand Strategy in Chinese History*;Alastair Iain Johnston, "Cultural Realism and Strategy in Maoist China " in *The Culture of National Security : Norms and Identity in World Politics*, ed. Peter J. Katzenstein, *New Directions in World Politics* (New York: Columbia University Press, 1996).

[313] Dana P. Eyre and Mark C. Suchman, "Status, Norms, and the Proliferation of Conventional Weapons : An Institutional Theory Approach " in *The Culture of National Security Norms and Identity in World Politics*, ed. Peter J. Katzenstein, *New Directions in World Politics* (New York: Columbia University Press, 1996).

[314] Johnston, "Thinking About Strategic Culture."

[315] Colin S. Gray, "What Rand Hath Wrought," *Foreign Policy*, no. 4 (1971).

attracted adherents in security studies.[316] Culture is an ideational variable; these ideas are usually domestic; and they frequently emphasize the uniqueness within, rather than similarity across, cases. Finally, the return to culture in security studies is attractive to some scholars because culture is less wedded to positivism-"the view that all true knowledge is scientific"-than other approaches to national security studies.[317]

Overall, this research will employ the definition of strategic culture given by Jeannie L. Johnson as,

> that set of shared beliefs, assumptions, and modes of behavior, derived from common experiences and accepted narratives (both oral and written), that shape collective identity and relationships to other groups, and which determine appropriate ends and means for achieving security objectives.[318]

Of course, in considering the motivations of states towards strategic weapons systems it is important to locate strategic culture appropriately, including a mix of material and ideational factors. Materially, we must consider the nature of the strategic space that states have to inhabit, encompassing clearly, geography, climate, population and resources. For many, it is the interaction of geographic and demographic circumstance with cultural-ideational perception that is the key to understanding why some countries adopt particular strategic policies rather than others. Some states have multiple borders and may be confronted by different strategic factors at each point of contact with neighbouring states and cultures. They could have to respond to multiple security dilemmas;[319] and this has clearly shaped strategic orientations in countries like India, for example.

A second set of factors is the political and institutional context. History and experience are important considerations in the birth and evolution of states and their institutions, and the strategic cultural identities of states will be shaped by them. Several kinds of states ranging from weak to strong, colonial to post-colonial, and pre-modern, modern and postmodern are

---

[316] Desch, "Culture Clash: Assessing the Importance of Ideas in Security Studies."

[317] Ibid.

[318] Jeannie L. Johnson, "Strategic Culture: Refining the Theoretical Construct," Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparative_strategic_cultures_curriculum/essays/Johnson%20Methods%20essay%20(final%2030%20Oct).pdf;Kartchner, "Weapons of Mass Destruction and the Crucible of Strategic Culture."

[319] Lantis, "Strategic Culture: From Clausewitz to Constructivism."

being identified by international relations theory, this raises the prospect that different kinds of states may confront different strategic problems and with varying material and ideational re-sources, and thus apply unique responses.[320] In the ideational context of strategic culture we should pay most attention to the myths and symbols that are an essential part of all cultural groupings. Both can act as a stabilizing or destabilizing factor in the evolution of strategic cultural identities. John Calvert writes that myth can refer to "a body of beliefs that express the fundamental, largely unconscious or assumed political values of a society—in short, as a dramatic expression of ideology." Many analysts regard these collective narratives as being set out in key texts, that often take on sacred or civilizational significance, and contain important ethical or operational wisdom for strategic thought and action. Traditional analyses of peace and conflict have long pointed to the influence of such texts throughout history and in different cultural settings. These may follow a historical trajectory—from Sun Tzu, who wrote the *Art of War* during the time of the warring states in ancient China, or through the writings of Kautilya in ancient India.[321] In the case of Islamic societies, of course, assumptions about peace and war have been overwhelmingly shaped by the Qur'an and other Holy texts, so this already established a significant difference in the strategic culture of these states and others.

Theoretical work on strategic culture, domestic structures, and organizational culture advanced significantly in the post-Cold War period, and as a result, culture was increasingly thought of as an important and emerging variable affecting state behaviour towards national security in mainstream international relations research. As culturalist approaches advanced, realism, the dominant research program in international relations that emphasizes factors such as the material balance of power, has been criticised as an inadequate, if not bankrupt, body of theory.[322] This research seeks to build on this approach, not by neglecting material factors, but by establishing strategic culture as the structure within which states understand, and seek to shape, the material world of security.

It also argues that the strategic culture debate is fundamental to understanding the new dangers of weapons proliferation in Asia. The concept of 'strategic culture' has become an important tool for analysing all aspects of strategic reasoning, choice and behaviour, but none more so than for understanding the reasons, incentives, and rationales for acquiring,

---

[320] Ibid.
[321] Ibid.
[322] Desch, "Culture Clash: Assessing the Importance of Ideas in Security Studies."

proliferating, and employing Weapons of Mass Destruction (WMD) by diverse actors, though the emphasis here is on states' choices. The importance of strategic culture as a tool of analysis in understanding this kind of strategic behaviour is manifold. Cultural scripts can determine what is considered 'rational'; and according to Valerie Hudson, "rationality itself may mean different things in different cultures."[323] This has important implications for deterrence, and for understanding different motivations that various cultures may have for acquiring, proliferating, or employing weapons of mass destruction. For example, if one's deterrence threats are considered 'irrational' by the targeted society, they may not be considered credible, or they may be misconstrued. They may not even be considered threats, or they may be considered challenges to be confronted, thus having the exact opposite effect of that desired.[324]

According to Kerry M. Kartchner, strategic culture offers the promise of providing insight into motivations and intentions that are not readily explained by other frameworks and that may help make sense of forces we might otherwise overlook, misunderstand, or misinterpret. Kartchner goes on to explain that there are several reasons why it is especially important to apply strategic culture analysis to issues related to Weapons of Mass Destruction (WMD). Kartchner notes that first, there is increasing recognition that understanding strategic culture is vital to effectively implementing and safeguarding national security and foreign policy, and combating the proliferation of weapons of mass destruction. Second, it is important to 'know one's enemy' of course, to better assess new and emerging threats. Strategic cultural analysis can provide insights into identifying and evaluating emerging threats. But, it is also important to know one's friends and allies, to know what assures them, what inspires their confidence, or conversely, what undermines such confidence, and what the basis of their own threat assessments are. Third, those groups and states at present most interested in acquiring, proliferating, or using Weapons of Mass Destruction (WMD) often justify their policies and actions in cultural terms. Rather than dismissing such language as mere propaganda, strategic cultural perspectives underscore the importance of such language for understanding the motivations and intentions of these actors.[325]

---

[323] Cited by: Kartchner, "Weapons of Mass Destruction and the Crucible of Strategic Culture."
[324] Ibid.
[325] Kerry M. Kartchner, "Strategic Culture and WMD Decision Making," in *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, ed. Jeannie L. Johnson, Kerry M. Kartchner, and Jeffrey A. Larsen (New York: Palgrave Macmillan, 2009), p.57.

From this perspective this research aims to apply the new understandings of the strategic culture approach to the states of the Southern Asian strategic region. In offering this approach it hopes first to present new research on the motivations for Indian and Pakistani nuclearisation and advance necessary measures to constrain the development of weapons systems in the China, India, Pakistan strategic relationship.

5.5. REFINING STRATEGIC CULTURE AS A THEORETICAL APPROACH TO THE CONTEXT OF THE CHINA, INDIA AND PAKISTAN RELATIONSHIP [326]

A multitude of factors and actors influence security policy in any given state. Determining which of these appropriately fall under the auspices of 'strategic culture' continues to pose a challenge for its theoretical development. Colin Gray points out, in order to merit the rubric 'culture', the variables we consider must have a somewhat lasting nature:

> We must insist that culture in its several identities – public, strategic, military-organizational – should consist of assumptions and ideas that are strongly held. Its roots might not be very deep, and the plant might be a recent development, but it has to be hardy to be worthy of the description, cultural. Culture does not refer to mere opinions, to fashionable attitudes, or to shifting patterns of behaviour.[327]

As argued, in defining the variable components of strategic culture consideration should be given to both material and ideational factors. The material factors mean the nature of the strategic space that states have to inhabit, encompassing geography, climate, population and resources. That implies that when some states have multiple borders, they may be confronted by different strategic factors at each point of contact with neighbouring states and cultures and could have to respond to multiple security dilemmas;[328] and this has clearly influenced strategic orientations in countries like India, Pakistan and China for example. This is because, for many, it is the interaction of geographic and demographic circumstance with cultural-ideational perception that is the key to understanding why some countries adopt particular strategic policies rather than others.

---

[326] This section is based on the format and work of: Johnson, "Strategic Culture: Refining the Theoretical Construct."

[327] Colin S. Gray, "Out of the Wilderness: Prime Time for Strategic Culture," in *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, ed. Jeannie L. Johnson, Kerry M. Kartchner, and Jeffrey A. Larsen (New York: Palgrave Macmillan, 2009), p.228.

[328] Lantis, "Strategic Culture: From Clausewitz to Constructivism."

The second set of variable components we noted were the political and institutional contexts. History and experience of warfare have shaped the creation and development of states and their institutions, and the strategic cultural identities of states will be shaped by these events. China, India and Pakistan have quite variable inheritances in this regard, which continue to impact on their strategic cultures. Understanding the ideas, ideologies, and cultural mindsets of political leaders and other scientific and cultural elites is an important part of understanding the role of strategic ideas in the strategic choices and ambitions of these countries.

Finally, many analysts note the role of myths, narratives, and philosophy as important in shaping actors understanding of appropriate strategic thought and action. Traditional analyses of peace and conflict have long pointed to the influence of both Holy and worldly texts throughout strategic cultural history. As noted China, India, and Pakistan have quite different inheritances in terms of the mixture of sacred, civilizational, and operational philosophies. China and India can point to quite diverse origins in the regard. In Chinese tradition we can contrast the 'realism' of Sun Tzu's, *Art of War,* written during the time of the warring states period, against the 'idealism' of Confucian harmony. In India we have the writings of Kautilya, which contrast with the pacifism of Buddhism. The inheritance of Pakistan is quite different. Undoubtedly Pakistan has a strategic tradition almost as long as that of India and China derived from the great Mughal and Central Asian dynasties. But no scholar or strategist of this tradition would claim that it had an ethical or philosophical basis that was separate from the sacred texts of Islam. In this way Holy Quran and the Prophet Muhammad's Ahadiths represent the all-encompassing framework in which Pakistan as an Islamic society has interpreted issues of peace and war.

What follows here is a comparative evaluation of Indian, Chinese and Pakistani strategic cultures. Attempting to do this in a short space is very difficult and the analysis focuses primarily on the two component variables in each case: the role of myth, narrative, and philosophy, including the significance of faith; and the political and institutional contexts of post-independence India and Pakistan and post-revolutionary China, including the assumptions of historical narrative in nation-building and experience of warfare. In my examination of the cases of China, India and Pakistan I will attempt to show how these variables shaped the strategic culture of these states, which ultimately over- shadowed their missile acquisition motivations.

Part-II

5.5.1 Strategic Culture of India

The strategic culture of India is not monolithic, rather it is mosaic-like; but even as a composite it is more distinctive and coherent than that of many contemporary nation-states because of its substantial continuity with the symbolism of pre-modern Indian state systems and threads of Hindu or Vedic civilization dating back several millennia.[329] This continuity of Vedic civilization and values remained consciously embedded in the minds of educated Hindu social elites of the Indian subcontinent; and were never cut off or submerged, whether by Muslim invasions and Mughal rule, the seaborne arrival of French and Portuguese adventurers and missionaries, or the encroachment of the British Empire – with its implantation of representative political institutions and modern law.[330] This suggests that Indian culture is assimilative, and according to Rodney W. Jones, "during the rise of nationalism under British rule, India's strategic culture assimilated much of what we think of as 20th Century 'modernity'… (which) informed India's behaviour after 1947 as an independent nation."[331] Though Indian strategic culture today operates through a secular constitution, the Indian society internally is highly diverse and there remain traits which rely on metaphors of 'Indian-ness' or 'Bharatvarsha and Hindutva', that have persisted into the post-independence era. In particular, India's strategic culture sees the outside world hierarchically both in measures of material power and in attributes of intellectual and ideological competence. As Rodney W. Jones notes,

> "This hierarchical view of the world is informed by the basket of distinctive Hindu mythologies and symbols, which emphasize both what is worthy morally and of durable practical importance. It also draws on Chanakya's (Kautilya's) secular treatise, the *Arthashastra*, which closely parallels Niccolo Machiavelli's *The Prince*, as an exposition of monarchical statecraft, realpolitik in inter-state balances of power, and the practices of war and peace".[332]

---

[329] Rodney W. Jones, "India's Strategic Culture and the Origins of Omniscient Paternalism," in *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, ed. Jeannie L. Johnson, Kerry M. Kartchner, and Jeffrey A. Larsen (New York: Palgrave Macmillan, 2009), p.117.
[330] Ibid.
[331] Ibid.
[332] Ibid., p.120.

These civilizational traits may be considered the core or skeleton of India's strategic culture and have not changed essentially since independence and have been implemented in the face of external challenges and live security threats, including threats to internal security.[333] The post-independence Indian political elite used the cultural and spiritual ethos of religious and national identity, norms, values and beliefs to forge a new nationalist consciousness that would meet their vision of India as a world power. These would ultimately converge around the strategic imperatives of the Indian nuclearization program in a number of ways, ranging from internal and external threats perceived by the political, scientific and military elites. It is generally accepted that India was confronted by range of perceived threats and so in the strategic cultural perspectives had to develop a synergistic link between a new state identity and the weapons status of the country.

There appear to be two dominant trends in post-independence India: an idealpolitik claim that embraced multi-traditional democratic 'Indian-ness' and a realpolitik claim that pursued a single tradition of authoritarian 'Hindu-ness'. These two trends had different interpretations of the legacy of the past, and had very different political platforms for Indian politics. The idealpolitik claim was for the first 40 years of independence associated with the Nehruvian-dominated INC; the realpolitik claim was various but was to solidify in the political challenge of the BJP to Congress ideology that was to triumph in the 1990s. We can argue that a core part of the logic for India's nuclearisation stemmed from the increasing power of the Hindutva tradition that argued that the Hindu world is vulnerable with respect to geographical unity and racial features, and that a common cultural identity was required to provide a framework for consolidating the security, unity, status and prestige of independent India. This tendency has largely dislodged the Nehruvian idealpolitik trend in Indian external strategy.

The historical memory of the great Indian civilization coupled with India's history and experience of foreign invasions and domination affected several aspects of post independence Indian foreign relations. Coming out of some three centuries of colonial status, the Indians have a strong sense of national independence. In order to escape from the legacy of colonization, they have aimed to replace the image of India as an underdeveloped colonized

---

[333] Rodney W. Jones, "India's Strategic Culture," Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/case%20 studies/India%20(Jones)%20final%2031%20Oct.pdf.

third world country with that of a first world developed country status.[334] India's past anticipated a great historical destiny and the struggle against British empire had already awakened Indian culture and values and had inspired within India's political elites a profound commitment to controlling India's own national destiny. Thus the pre-independence anti-colonial attitudes of India's nationalists were carried over after independence into the foreign policy perspective of the new Indian state. On the eve of India's Independence Day, August 15, 1947, the country's first prime minister said to his compatriots:

> Long years ago we made a tryst with destiny, and now the time comes when we shall redeem our pledge, not wholly or in full measures, but very substantially[335].

This famous statement shows that the historical consciousness of the great Indian civilization has practical consequences, and that India's leaders believed they were a representing not just a state but a world civilization, and that international cooperation with others must not therefore interfere with a national policy that was designed to fulfil India's destiny in this regard.[336] In March 1948, Nehru told the constituent assembly somewhat emphatically:

> … It is merely the fact that we are potentially a great nation and a big power, and possibly it is not liked by some people that anything should happen to strengthen us.[337]

A belief in a historical destiny of prestige, honour and status therefore started with Nehru trying to carve out a role for India in the wider world, assuming that this would enhance India's prestige and thus lend weight to its diplomacy. Nehru did not simply envision India as a future power, but his grand strategy encompassed a domestic planning precisely for that purpose. In this sense Nehru may have been an idealist, but he pursued a foreign policy of pragmatism in the long term. This pragmatism led him to envisage the creation of a rather

---

[334] Hooman Peimani, *Nuclear Proliferation in the Indian Subcontinent: The Self-Exhausting "Super Powers" And Emerging Alliances* (Westport, Conn: Praeger, 2000), p.21.

[335] Jawaharlal Nehru, *Jawaharlal Nehru's Speeches*, vol. I (Delhi :: Publications Division, Ministry of Information and Broadcasting, 1954), p.25;Also cited in: Devin T. Hagerty, ed., *South Asia in World Politics* (Oxford: Rowman and Littlefield Publishers, Inc., 2005), p.11.

[336] Stephen Philip Cohen, *India: Emerging Power* (Washington, D.C.: Brookings Institution Press, 2001), p.52.

[337] Baldev Raj Nayar and T.V. Paul, *India in the World Order: Searching for a Major-Power Status* (Cambridge: Cambridge University Press, 2003), p.134.

self-sufficient economy with its own industrialisation, capital goods and strategic industries.[338] This seems to imply that without a strong productive and technological base, India could not secure its desired future.

5.5.1.1. The role of myth, narrative, and philosophy, including the role of faith in India

From its very beginning in the 19th century, nationalism in India has employed religious identification.[339] Indeed the claim to be a world civilization of the past and the future was inseparable from the traditions and philosophies in Hinduism. As the British Empire lost its capacity to control the sub-continent, both Hindus and Muslims, debated the extent to which nation building was directly dependent on religious consciousness community. failure to reach agreement on this led to the most important political event of the 20th century South Asian history, the formation of the Republic of India and Pakistan as homelands for the two communities.[340]

The Indian National Congress which was the most prominent claimant to represent the Indian nation irrespective of social, occupational, class, religious or caste differences sought to espouse secular nationalism, yet in the 1930s and 1940s, many of its agents continued to identify with forms of Hindu politics and ideas of Hindu nation.[341] This is to say that because INC was by no means a homogeneous institution, individuals acting in its name could and did produce political ideas that evoked religious community.[342] Marriot Mckim opines that the Indian nation was thus presented in propaganda using popular notions of Hinduism and folk culture and to achieve this, some Congress men and women drew illustrations and analogies from the great epics of the – Mahabharta and the Ramayana.[343] Thus the Hindu consciousness which apparently found its principal expression in the 17th and 18th centuries empires of Shivaji and in the confederation of Maratha was transformed during the ideological construction of nationalism between 1870s and 1920s. In doing so it relied in some part on the

---

[338] Ibid., p.152.

[339] Peter Van Der Veer, *Religious Nationalism: Hindus and Muslims in India* (London: University of California Press Ltd, 1994), p.2.

[340] Ibid.

[341] William Gould, *Hindu Nationalism and the Language of Politics in Late Colonial India* (Cambridge: Cambridge University Press, 2004), p.1.

[342] Ibid., p.4.

[343] Cited in: Ibid., p.8.

invention of a position which Christophe Jaffrelot describes as a strategy of stigmatization and emulation.[344] Jaffrelot notes that:

> these terms refer to a process of cultural reorganisation launched in reaction to external threats, real and/ or imagined, in the form of proselytisation by Christian missionaries, the impact of British rule and the militancy of the Muslim minority. Such a process implied a defensive stigmatisation of these others, but it also represented a strategic emulation; it redefined Hindu identity in opposition to these 'threatening others' while – under the pretext of drawing inspiration from a so-called Vedic 'Golden Age' – assimilating those cultural features of the others which were regarded as prestigious and efficacious in order to regain self esteem and resist the others more effectively.[345]

Hindu nationalism, was thus constructed as an ideology between 1870s and 1920s by high caste Hindus, popularly known as Arya Samajists, with the primary concern of maintaining the basic elements of the traditional civilization order and the cultural identity of the Hindus. This endeavour implied both the stigmatization of threatening others and the emulation of those whose status the high-caste Hindus thought India should aspire. At the same time the tension between the cultural preservation and modernisation was solved through the invention of a distant golden age which was both indigenous and in accord with modern values. The idea of the golden age was to become one of the corner stones of 20th cnetury Hindu nationalism.[346]

Though all Indian nationalism sought to draw on the symbols and myths of Hindu civilization to some extent, some ideologists crossed the boundary between cultural and ethnic arguments of Indian identity, thus moving away from the political idea of 'Indian-ness' as espoused by the INC leaders. An important early example is the Maharastrian Brahmin, Vinayak Damodar Savarkar. Savarkar, who was also president of the Hindu MahaSabha (1937-42) set out his ideas in the work 'Hindutva: Who is a Hindu?' as a basic text for nationalistic Hinduness..[347] Savarkar's main argument is that the Aryans who settled in India at the dawn of history

---

[344] Christophe Jaffrelot, *The Hindu Nationalist Movement in India* (New York: Coloumbia University Press, 1996), p.6.

[345] Ibid.

[346]Ibid., p.11.

[347] Ibid., p.25.

already formed a nation which is now embodied in the Hindus. Their Hindutva, according to him rests on three pillars: geographical unity; racial features; and a common culture.[348] The Hindutva of Savarkar was conceived as an ethnic community possessing a territory and sharing the same racial and cultural characteristics, three attributes which stemmed from the mythical reconstruction of the vedic golden age.[349] Out of such promulgations emerged new Hindutva sects like the Rashtriya Swayamsevak Sangh (RSS). The political impact and the growth of the RSS in the 1940s was magnified by the events surrounding the birth of independent India and the rejection of the concept of a state that was neutral - or equally tolerant - towards all religions.[350] For this reason, the RSS implacably opposed the partition of India and this form of Hindu nationalism refused to reconcile themselves to partition.[351] Post-independence the RSS became only the best known of a number of affiliated orgnizations within different sectors and institutions of Indian society that sought to infuse ethnic Hindu nationalist values into public life.[352] After the banning and arrests of the RSS cadreship, a new party – the Jana Sangh – emerged towards the end of 1949. The Hindu nationalists achieved another success when in the special session of All India Hindu MahaSabha in Jaipur in 1951, the MahaSabha constitution was amended and assigned to the party the aim 'of establishing a Hindu state'.[353] The worst extreme of the Hindu MahaSabha's articles of faith concerned the annulment of partition and the party called, in effect, and consistently, for restoration of a united India - Akhand Bharat - if necessary by force.[354] Promotion of Hinduism was taken up from 1964 onwards by the Vishwa Hindu Parishad (VHP-World Hindu Council); but the emergence of new Hindu nationalist movement dates from 1980 with the inauguration of a new party, the Bharatiya Janata Party (BJP).

The rise of the BJP as a rightist opposition to the INC's secularism and socialism always had an important external dimension. From the beginning BJP sought to build strong public

---

[348] Ibid., p.27.

[349] Ibid.

[350] Ibid., p.531.

[351] Ibid.

[352] Ibid., p.114.

[353] Ibid., pp.107-08.

[354] Ibid., p.108.

support for a strategy of India's nuclear deterrence by (re)constructing certain postcolonial (in) securities in contemporary India.[355] Runa Das notes,

> that a discursive legitimisation of the ideology of *Hindutva*, constructing Islam/Pakistan as a 'demonic' Other to the 'virtuous' India, lies at its root. In doing this, the BJP not only goes beyond the traditional logic of realism to define the country's geostrategic threats but also politicises the ideology of *Hindutva* to accentuate India's 'real' threats and construct postcolonial (in)securities along communal lines. This justifies a communal version of contemporary Indian nuclearism. *Hindutva*, or what the BJP has called 'cultural nationalism', and what the anticommunalists see as a clarion call for establishing a Hindu India. [356]

Such communal sentiments saw in the Hindutva ideology a unifying force that will create a national identity and ensure social cohesion for India. These were visible in the BJP's Election Manifesto of 1996. In the introduction, which spelled out the "vision, faith, and commitment" of the BJP, the Manifesto declared: "The present millennium begun with the subjugation of our ancient land. Let a re-invigorated, proud, and prosperous India herald the next millennium."[357] According to the BJP President, L. K. Advani,

> Democracy and liberalism as preached by Nehru are denuded of their Indianness.... I believe that India is what it is because of its ancient heritage—call it Hindu, or call it

---

[355] Runa Das, "Engendering Post-Colonial Nuclear Policies through the Lens of Hindutva: Rethinking the Security Paradigm of India," *Comparative Studies of South Asia, Africa and the Middle East* 22, no. 1-2 (2002);Runa Das, "Postcolonial (in)Securities, the BJP and the Politics of Hindutva: Broadening the Security Paradigm between the Realist and Anti-Nuclear/Peace Groups in India," *Third World Quarterly* 24 (2003): p.84.

[356] Das, "Engendering Post-Colonial Nuclear Policies through the Lens of Hindutva: Rethinking the Security Paradigm of India.";Das, "Postcolonial (in)Securities, the BJP and the Politics of Hindutva: Broadening the Security Paradigm between the Realist and Anti-Nuclear/Peace Groups in India," p.84.

[357] Das, "Engendering Post-Colonial Nuclear Policies through the Lens of Hindutva: Rethinking the Security Paradigm of India.";Das, "Postcolonial (in)Securities, the BJP and the Politics of Hindutva: Broadening the Security Paradigm between the Realist and Anti-Nuclear/Peace Groups in India," p.85.

Bharatiya (India). If nationalism is stripped off its Hinduism, it would lose its dynamism.[358]

Thus the Hindutva doctrine successfully found its way into different societal settings, and was ultimately to challenge the anti-communalist and political Indian-ness espoused by post-independence INC.

Of course, the incentive and disincentives for countries to pursue nuclear weapons status are diverse, comprising a combination of military, political, and economic concerns and motivations. Almost all nations want to (i) enhance their power and thus improve and increase their positions and influence among the behaviour of other nations, (ii) diminish their dependence on other states and to increase their freedom of action-outcomes.[359] Though the Indian elites were divided in their perception of the timing and desirability of nuclear weapons status they were to over time to evolve towards a consensus on this status which pertains today. The next section will debate the role of post-independence nationalism among India's elites in the evolutionary decision-making towards nuclear capability.

5.5.1.2. The political and institutional context of Indian

India's interest in nuclear physics began even before India achieved its independence, largely through the efforts of Homi J. Bhaba, who in 1944 established the institution that became known as the Tata Institute of Fundamental Research. The basic institutional structure of India's nuclear programme was laid down in the Atomic Energy Act passed by the Constituent Assembly in 1948. Although the Act did not explicitly mention the development of a nuclear weapons structure as one of the programme's objectives, its careful wording avoided any provisions that would exclude it in the future:

> ... the Bhabha paper (Atomic Energy Act) put up to the government in 1948 was not entirely innocent. The background to it and reading between the lines leaves no doubt that Bhabha realised that a national nuclear programme would eventually acquire certain military objective.[360]

---

[358] Y Malik and VB Singh, *Hindu Nationalists in India* (Westview: Boulder, CO, 1996), p.41.

[359] Epstein, "Why States Go -- and Don't Go -- Nuclear," p.17.

[360] Karsten Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up" (Universität Heidelberg, 2004), pp.99-100.

Since then India has developed a self-sufficient scientific and technological personnel of over two thousand scientists, five hundred technicians, and eight thousand staff, covering every phase of nuclear scientific activity. For India the development of nuclear technology promised to serve **a** multiplicity of ends, so it was and still is fundamentally an important means of introducing science and technology into the country and of developing modern industry. As H. J. Bhaba stated:

> The problem of establishing science as a live and vital force in society is an inseparable part of the problem of transforming an industrially underdeveloped to a developed country.[361]

Bhabha was aware of the dual-use nature of the nuclear programme in the early 1950s, and he not only accepted the potential military use of the programme, but also sought to create the means and know-how to acquire nuclear capabilities for military purposes. Subsequently, India's strong opposition to the growing efforts of the international community to establish restrictions and safeguards on fissile material reflected Bhabha's stance. It is hard to accept that Bhabha was undertaking this research by himself and that the Congress leadership of Nehru knew nothing about it. Rather Nehru can be characterised as operating in the contradiction between his quest for international status and his moral concept of a peaceful world order. As George Perkovich writes:

> Closer scrutiny, however, reveals that Nehru also accepted, albeit reticently and ambivalently, the potential military deterrent and international power embodied in nuclear weapon capability. ... . The moralist visionary Nehru abhorred the wanton destructiveness of nuclear weapons and saw them as anathema to the unique spirit of India. ... At the same time, however, there was another Nehru, the ambitious, realist prime minister who recognized that nuclear weapon capability could enhance India's status and power in the West-dominated world... [362]

---

[361] Lt.J.Bhabba, "Science and Problems of Development,"Science, Vol.151, No.3710 (Feb.4.1966),p.542. Cited by:William R. Van Cleave and Harold W. Rood, "A Technological Comparison of Two Potential Nuclear Powers: India and Japan," *Asian Survey* 7, no. 7 (1967).

[362] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.97.

Nehru was to remark that no country is truly independent unless it is independent in matters of armament; so it followed that independent India would accord high importance to self-reliance in defence.[363] Nehru had repeatedly emphasized from countless platforms, varying from parliament to business associations, that heavy industry was essential for the country's independence, not simply in economic terms but also in defence.[364] Nehru was aware of the possible role of nuclear weapons in international politics, but deliberately highlighted peaceful benefits of nuclear energy for a developing country like India. While emphasizing the peaceful uses of nuclear research as the primary objective of India's nuclear planning, he did not rule out the possibility of other options in future. So he remarked:

> as long as the world is constituted as it is, every country will have to devise and use the latest scientific devices for its protection. I have no doubt India will develop her scientific researches and I hope Indian scientists will use the atomic force for constructive proposes. But if India's threatened she will inevitably try to defend herself by all means at her disposal.[365]

Government expenditure on scientific research witnessed exponential growth under Nehru, expanding about tenfold in real terms, as a share of GNP, and nuclear and defense research expenditure's amounted to roughly half of all of India's research and development expenditure at the end of the Nehru era.[366] Nehru's concern for asserting independence in its foreign and security policy making is especially manifest in the field of nuclear technology, where he noticed and experienced the operation of technological protectionism in an extreme form. Accordingly he was insistent that India should not lag behind in this area, he therefore resisted the imposition of restrictive international regimes in the nuclear field.[367]

According to Karsten Frey, within India's discourse on nuclear weapons, neither its relationship with China nor its relationship with Pakistan figured prominently, despite their being the two major strategic targets of India's nuclear deterrence capability. Instead, India's

---

[363] Jasjit Singh, "The Role of Air Power," in *Securing India's Future in the New Millennium*, ed. Brahma Chellaney (London: Sangam books limited, 1999), p.117.

[364] Nayar and Paul, *India in the World Order: Searching for a Major-Power Status*, p.153.

[365] Budania, *India's National Security Dilemma: The Pakistan Factor and India's Policy Response*, p.140.

[366] Ibid., pp.153-54.

[367] Ibid., pp.156-57.

nuclear debate focused on the international nuclear regime which was vehemently dismissed as discriminatory and imperialist and a 'Nuclear Apartheid'. Frey writes:

> Using Morgenthau's dialectics, India's 'desire for social recognition' proved to be a 'dynamic force determining social relations and creating social institutions,' as they were now recognized as a nuclear weapons power and as a member of the exclusive 'nuclear club.'[368]

Selig Harrison captures the essence of the conflict between India and the United States over the NPT as not only reflecting disagreement on nuclear matters, as such, but also underlines what may prove to be incompatible views concerning the nature of the global power structure." The U.S. wants to restrict the ownership of nuclear weapons to a small group of states for power reasons, but:

> It is India's goal to escape from second class status in world affairs and receive recognition commensurate with its position as one of worlds oldest and largest civilisation, constituting nearly one 5th of the human race. Since nuclear weapons still constitute the principal coin of power, this quest for equitable status has prompted India to perfect its ability to assemble and deliver nuclear weapons, unless and until the existing nuclear weapons states make credible progress' toward a nuclear free world.[369]

In the same tone Jaswant Singh noted:

> as a country of unique status and civilizational influence, India cannot do without them.[370]

India therefore while attempting a general development of heavy industry and an expansion and modernization of its armed forces undertook an ambitious nuclear program. This also suggests that Indian political and scientific elites were cognizant of the fact that prior to the development of a certain level of civil nuclear technology, the nuclear weapons option is not a

---

[368] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.22.

[369] Baldev Raj Nayar and T.V.Paul, *India in the World Order: Searching for Major-Power Status* (Cambridge: Cambridge University Press, 2003), p.77.

[370]Cohen, *India: Emerging Power*, p.44.

practical consideration; but with the development of civil nuclear technology the weapons option increasingly comes into view. At that time, a combination of pressures, not the least of which may be the pressure of scientific-technological dynamism, may well make the decision *not* to produce nuclear weapons more difficult to maintain than what may seem to be a natural development of circumstances through the production of nuclear weapons.[371] In fact, once a nuclear civil technology complex has been built, it produces its own pressures to make nuclear weapons and India found itself approaching this point.[372] Domestically, what one analyst has called a "strategic enclave of research establishments and production facilities" created the vital technological foundation for Indian nuclear prowess, providing India's nuclear programme with inexorable momentum and pushed Indian political leaders along the nuclear path for both National Security and prestige proposes.[373] The pressure of scientific establishment was an important factor in India's decision to carry out nuclear explosions both in 1974 and 1998.[374] It may be the case that as the nuclear scientific establishment expanded, the desire of the scientist to use their skills to diversify into achieving weapons capability became inevitable.[375] It can also be argued that the projection of the symbolist meaning of nuclear technology, preferably through the display of power, was considered an intrinsic part of the scientists' work. In Morgenthau's terminology: The image of the nuclear programme in India's public was more important to the scientific community in their struggle for existence than its actual contribution to the country's development and security.[376] The nuclear scientific establishment's efforts to direct public opinion on the nuclear issue continuously through opinion articles and analyses in India's dailies by its representatives seems to suggest that this section of India's epistemic community, referred to as the scientific-strategists,

---

[371] Cleave and Rood, "A Technological Comparison of Two Potential Nuclear Powers: India and Japan."

[372] Thomas A. Rusch, "Indian Socialists and the Nuclear Non-Proliferation Treaty," *The Journal of Asian Studies* 28, no. 4 (1969).

[373] Devin T. Hagerty and Herbert G. Hagerty, "India's Foreign Relation," in *South Asia in World Politics*, ed. Devin T. Hagerty (Oxford: Rowman and Littlefield Publishers, Inc., 2005), p.28.

[374] Budania, *India's National Security Dilemma: The Pakistan Factor and India's Policy Response*, p.129.

[375] Ibid., p.146.

[376] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.55.

generally proved to be the most uncompromising and determined proponents of India's nuclear emergence, even in comparison to other sections of India's strategic elite.[377]

In the light of status and prestige attainment commensurate with it past and anticipated destiny, Stephen Cohen opined that India's considerable scientific and defence capabilities and its armed forces are fast becoming symbols of the capacity to produce the most modern artefacts of modern civilisation: aircrafts, tanks, missiles, and nuclear weapons. This combines India's commitment to modern power along side promotion of its cultural ideneity. This is especially clear from names given to military equipment, such as Agni missile and the Arjun tank, names drawn from Sanskrit or Indian traditions that show the world that Indian science and industry can make "sophisticated" systems which are important not only as a means of maintaining military balances but also as representation to others- and to Indians themselves - of Indian civilizational accomplishments in this area of modern technology.[378] The nuclear capability has resultantly increased India's political and diplomatic bargaining position with the other major powers, as is evident in the strategic dialogues that New Delhi has been engaged in with all of them.[379]

5.5.1.3. Appraisal

From the preceding analysis, it emerges that the goal to become a major power, the determination to protect the goal from subversion by internal and external forces, and the endeavour to build diverse capabilities to ensure India's status over the longer run were fundamental to India's grand strategy in the post-independence era.[380] Despite a number of variations - in the intensity of this ambition, in the application of the means to achieve it, and in the willingness to take hard-line positions - this thread has been common to all post-independence elites. Non-alignment, heavy emphasis on public sector and heavy industry and in the prominence of science and technology for building up of the science and technology programmes was established under Nehru and his successors in the INC tradition. The Nehruvian phase or the pre-Chinese test phase (1964) in Indian nuclear history could be termed as the period in which all the extensive civilian nuclear research programs were being carried out to revive India's status with rapid scientific, technological and economic

---

[377] Ibid.

[378]Cohen, *India: Emerging Power*, p.63.

[379]Nayar and T.V.Paul, *India in the World Order: Searching for Major-Power Status*, p.52.

[380] Ibid., p.135.

development. This is evident from the Nehru's beliefs that the scientific community could speed up India's development by decades, which were shaped by Homi Bhabha and other Indian scientists.

The 1962 Sino-Indian border war and the Chinese nuclearisation saw a significant escalation in the defensive stigmatization and emulation of the 'threatening others'. The long enduring rivalry with Pakistan and the strategic space ventures in India's rim land further advanced the idea of these 'threatening others'. The attempt by the US to close off the route to nuclear status by the Test Ban Treaty and other regulations seemed also to be a threat to close the door on the major power club with India on the outside amongst the backward countries.

For the past so many years, India has sought, with considerable dedication, the re-enactment of the Akhand Bharat or greater India dream. The role of cultural symbols and reference to a pervious golden age that must be recreated under the modern international system was common to all Indian nationalist leaderships. India retained an intensively Hindu-centric understanding of the Southern Asian region and resented attempts to penetrate this cultural region by 'outsiders'. Indian elites did divide after partition on whether the country could aspire to a secularist, democratic all-inclusive India; or a communalist, authoritarian Bharatiya shaped by Hindutva ideology. Over time, and in response to the pressures inside and outside the country, the latter ideology has dislodged much of the secularist ideal. India's nuclear doctrine has been a logical evolution of India's power ambitions that it pursued since its independence. Today the Indian nuclear doctrine reveals New Delhi's goal of acquiring major nuclear capabilities - a "triad" of up to 400 operationally deployed ground, air and sea-based nuclear weapons, a nuclear force as large as this may be credible but it will certainly not be "minimum" and not all of the five NPT nuclear weapons States possess such a triad.[381] India's evolving strategic culture, and its interpretation within the political, strategic, and scientific elites of the country, has played a significant role in the movement towards nuclear weapons ambitions. Cultural nationalism – of various kinds – does not explain all of India's drive for major power status; but great power cultural nationalism has been, and is continuing to be, an important determinant of India's foreign and security policies, including its pursuit of strategic weapons systems.

---

[381] Shamshad Ahmed, "India's Nuclear Doctrine: Implications for Regional and Global Peace and Security," http://www.fas.org/news/pakistan/1999/990907-IndianNucDoc-FS.htm.

5.5.2 Strategic Culture of Pakistan

Pakistan was created as a separate state on 14th August 1947, in the name of the Muslims of British India, by the rupture of partition. Pakistan is located at the cusp of the Middle East, the Persian Gulf, and South Asia, and as the door to Central Asia and China so that it is a strategically very significant country within Asian regions and potentially on the global scene. Besides this strategic location, Pakistan is an important Muslim country. It was named the Islamic Republic of Pakistan in the constitution of 1973 to indicate the role of Islam in the foundation of the country and the guidance of its political life. Pakistan has developed one of Asia's largest and best equipped armed forces, indicating also that it is a country deeply preoccupied with a number of strategic challenges. These have their origin in intense insecurity feelings rooted in its difficult and complex history as a product of historical invasion, colonial rule, communal strife, forcible partition, and civil war. The bitter colonial history and the worst ever communal genocide accompanying the dawn of independence left a deep mark on the minds of the people and elites that had to govern the newly founded state after 1947. From partition onwards every Indian move of creating difficulties with regard to the assets distribution and boundary demarcation and definition, with special reference to the princely states, all stirred enhanced fears in the Pakistani minds that India rejected the very logic of partition expressed in the 'Two Nation Theory'; and that some Indians at least hoped that they might reconquer the Pakistani territories. Statements by some Indian leaders served only to build up these fears. President of the Indian National Congress, Acharya Kripalani, said in 1947 that "neither Congress nor the nation has given up its claims of a united India"; and Sardar V.B.Patel, the home minister at the time, predicted that "sooner then later, we shall again be united in common allegiance to our country".[382] India's involvement in the further partition of Pakistan as East Pakistan became Bangladesh in 1971 only furthered strengthened the Pakistani view that Indian elites would not be content until they had undermined and possibly absorbed more parts of their neighbours.

Against this backdrop of perceived Indian hegemonic ambitions for Southern Asia, the strategic objectives of Pakistan remained: to strengthen national power; to deter open aggression by India; to induce India to modify its goals, strategies, tactics and operations; and

---

[382] Ross Masood Husain, "Threat Perception and Military Planning in Pakistan:The Impact of Technology, Doctrine and Arms Control," in *Military Capacity and the Risk of War : China, India, Pakistan, and Iran* ed. Eric Arnett (Oxford: Oxford University Press, 1997).

to attain a position of security regionally and beyond. In order to achieve these ends Pakistan has consistently sought to promote and capitalize on advances in technology in order to sustain parity in military power; and to deter war in order to allow the arts of peace to flourish and satisfy the constructive objectives of society in the region.[383] The intensive and on-going antagonism between India and Pakistan trickled down to the new generations after independence through historical accounts and narratives created and controlled by the dominant elite through text books and syllabi.

All these factors contributed in the making and shaping of the strategic culture of the present day Pakistan. To see the impact of all these phenomenon in more detail this section will discuss the evolution of strategic culture under two main heads: 1) the role of the myth, narrative, and philosophy, including the significance of faith in Pakistan and 2) the political and institutional contexts of post-independence Pakistan.

5.5.2.1. Role of myth, narrative, and philosophy, including the significance of faith in Pakistan

Different arguments have been put forward as to why the partition in the subcontinent could not be avoided as the British Empire retreated. A few were of the view that the Muslims were always a separate and identifiable community with their own distinctive traditions. For example, long before the demand for Pakistan, Alberuni, the noted Central Asian scholar who studied Hindu religion and civilization in India for several years, found that, ". . . the Hindus differ from the Muslims in every respect . . . we believe in nothing in which they believe, and vice versa".[384] The other side of the argument refers to the role of history and politics, and in particular the way the British employed communal politics to prevent challenges to their rule. Thus, while there is no doubt that Muslims were always a separately identifiable community, it is also a fact that before the British rule in the subcontinent, the religious affiliations of the inhabitants –whether Muslims or Hindus - were not that dominant and they lived alongside each other at a reasonable ease. It was thus the experience and policies of British imperialistic rule that ultimately assisted them in framing and developing their ideas about national community that would result in partition. In particular, the Muslims could not avoid the

---

[383] Ibid.

[384] Cited by: Abdullah Adnan, "Pakistan: Creation and Genesis," *The Muslim World* 96 (April 2006): p.203.

conclusion that the INC strategy was to be the successor to the empire, as M.A. Jinnah revealed in a speech in 1940:

> People ask us, what is your position? The matter is simple. The British want to rule over India, Gandhiji and the Congress want to rule over both the Muslims and India, we say that we will not allow the British or Congress to rule over the Muslims, we want to be free of the influence of both of them.[385]

To understand how the early Pakistani leadership was drawn into the claim of national statehood for India's Muslims we then have to track the experience of those Muslims under the British Empire.

The foundations of the Muslims rule in the Subcontinent were laid down with the invasion of Muhammad Bin Qasim in 712 A.D. The subcontinent from then on witnessed different Muslim dynasties ruling over India but it is important to note that none of the rulers ever tried to change the religious composition of the predominantly Hindu society by force. The Muslims were never more than one fourth of the population and other religions and communities were allowed to flourish without any hindrance by the rulers. However, the inherent incompatibilities[386] of the two largest religions, Islam and Hinduism, prevented the development of a sense of common belonging together between them. Religious antagonism, however, remained somewhat dormant until the arrival of the British.

It was from the Muslim dynasties that the British had taken power, and the British were therefore anxious to ensure that the Muslims were not in a· position to recapture their lost authority. The early phase of the East India Company's rule is considered to be virtually a campaign against the Muslim community. The British thus on one hand effectively promoted the Hindu-Muslim antagonism through their strategy of "divide and rule" and on the other hand while increasingly turning against Muslims started promoting Hindus over the former in the strategically vital areas including government, education and business. Documents dating

---

[385] Cited by: Shubh Mathur, *The Everday Life of Hindu Nationalism*, (Harayana: Three Essays Collective, 2008) p.77.

[386] The very foundational difference is that 'Monotheism' and 'Ploytheism' ,i.e Muslim believe in the oneness of Allah whereas Hindus believe in multiple Gods; Islam also exhorts man to consider himself and his surroundings as examples of Divine Creation, whereas Hindus' believe in the philosophy of Pantheism.

back to the late 19th century show that this strategy had been in the making by the British for some time. Lord Dufferin, the secretary of state in London, advised the British viceroy of India between 1884 and 1888 that "the division of religious feelings is greatly to our advantage" and that he expected "some good as a result of your committee of inquiry on Indian education and on teaching material."[387] A few years later, Lord Curzon (Governor General of India 1895-99 and viceroy 1899-1904) was told by the secretary of state for India, George Francis Hamilton, that they "should so plan the educational text books that the differences between community and community are further strengthened."[388]

The British preferential treatment towards Hindus and bias towards Muslims can be ascertained in this report by Sir William Hunter:

> "…there was only one Muslim among the 240 Indian lawyers admitted to the Calcutta bar between 1858 and 1868 and there was not a single Muslim High Court Judge. Of 1,338 civil service appointments in Bengal, Muslims received only 92."[389]

Such realities of continued Muslim separation and exclusion in the Imperial society served to raise the political consciousness of Muslims. It gave birth to myths, such as British India as *dar-ul-harb* or place of war so that Muslims are required to continue resistance to foreign subjugation until they find their country as *dar-ul-Islam* or place of peace. These myths together with continued British discrepancy in their policy actually worked to the benefit of the religious and intellectual re-awakening of Muslims in the subcontinent. As Dr Allama Muhammad Iqbal - the poet philosopher of the East also famously known as *Musawwir-e-Pakistan* (Architect of Pakistan) - noted: *Musalman ko Musalman kar diya toofan e magrib ne* [Western and Imperial oppression forced the Muslims to resort to their Islamic identity]. Consequently, the Muslims because increasingly conscious about their identity and survival. They realised that in order to safeguard their Islamic identity and values they would have to equip themselves with the modern knowledge of language, science and engineering. Sir Sayyid Ahmed Khans' scientific society of 1863 and Muhammedan Anglo Oriental College

---

[387] "Transfer of Power Documents 1942-1947," ed. India Office (London).and widely quoted in literature e.g. See;M.H. Faruqi, "The Muslim Rule in India," *Impact International* 28 (July 1998).

[388] Ibid.

[389] Richard V. Weekes, *Pakistan: Birth and Growth of a Muslim Nation* (Princeton, NJ: D. Van Nostrand Company, Inc, 1964), p.68.

(1877) which later became Aligarh University were all such offshoots of the reform movement. It is important to note that Aligarh University was later central in providing the founding cadres for Muslim League and Pakistan movement.

The All India National Congress was established in 1885 to promote the political awakening in India in a legitimate fashion; but the Muslims of India seemed not to have great confidence in Congress; and laid down the foundation of the All India Muslim League in 1906 to establish a platform to present the sentiments of the Muslims of India and to fight for their rights. While they had little hopes of fair treatment from the British, the Muslims gradually became wary of the attitude of the Congress leadership also. By the end of the first quarter of the 20th century the Muslims had developed the understanding that they could not preserve and promote their identity in a political system in which decision-making would be dominated by a Hindu majority. So the 'divide and rule policy' rather then helping to prolong Imperial government paved the way for two separate independence movements that became crystallised in the 'Two Nations Theory'. This theory did not simply mean "one plus one"; but rather signified that there two major political streams were to emerge in India, one which saw itself based on faith and a divine linkage and another committed to a vision that is exclusively secular and of this world, unrelated to religion and divinely revealed values.[390] Prof Khurshid Ahmed in this regard notes:

> "The political struggle of the Muslims in India had two distinct dimensions, both equally important; First, restoration of Muslim political power in the Subcontinent, at least in that part of it where Muslims are in the majority and as such could enjoy authority to run their own affairs; and secondly, the establishment of a state for Muslims of the Indian Subcontinent where they would be able to practice their religion, promote their culture and civilization, and build a society based on their ideals, values, principles and aspirations. This was the only way to capture political and economic opportunities denied to them under British rule and would have remained denied to them in a political system ruled by the Hindu majority."[391]

---

[390] Khurshid Ahmad, "Pakistan: Vision and Reality, Past and Future " *The Muslim World* 96 (April 2006): p.366.

[391] Ibid.: p.367.

171

It was also the case that the concerns of Indian Muslims for fair treatment were greatly increased in the 1930s by the strengthening of Hindu communalism as represented by the Hindutva inspired ideologies of the RSS. It was against the backdrop of the failed Crips mission and Lucknow pact, Shudhi and Bandemataram controversies, that the gulf between the Hindus and Muslims of India widened. Allama Iqbal, feeling the pulse of the time, surveyed the political scene in his presidential address at the annual session of the Muslim League in 1930 in Allahabad, indicating the goal of the Muslim community as:

> I would like to see the Punjab, North-West Frontier Province, Sind and Balochistan amalgamated into a single state. Self-government within the British Empire or without the British Empire, the formation of a consolidated North-West Indian Muslim State appears to me to be the final destiny of the Muslims, at least of North-West India.[392]

At the heart of the Two Nations theory, therefore, was the impossibility of containing two different civilizations within a single country or government. M.A. Jinnah was to return to the points made by Albeiruni some 900 years earlier in the historic address of March 23, 1940, which set forth the logic of Pakistan:

> The Hindus and Muslims belong to two different religious philosophies, social customs, and literatures. They neither intermarry, nor inter-dine together and, indeed, they belong to two different civilizations which are based mainly on conflicting ideas and conceptions. Their aspects on life and of life are different. It is quite clear that Hindus and Musalmans (Muslims) derive their inspiration from different sources of history. They have different epics, their heroes are different, and they have different episodes. Very often the hero of one is a foe of the other, and likewise, their victories and defeats overlap.[393]

Jinnah similarly believed that,

---

[392] Muhammad Iqbal, "Presidential Address," in *Thoughts and Reflections of Iqbal*, ed. S.A.Vahid (Lahore: Muhammad Ashraf, 1964), pp.170-71. See also, Fazlur Rahman, "Islamic Thought in the Indo-Pakistan Subcontinent and the Middle East," *Journal of Near Eastern Studies* 32, no. 1/2, Jan-Apr. (1973): p.200.

[393] Jamil-ud-din Ahmad, ed., *Speeches and Writings of Mr. Jinnah*, vol. 1 (Lahore: Muhammad Ashraf, 1952).

"Pakistan had 'started the moment the first non-Muslim converted to Islam . . . [because] as soon as a Hindu embraced Islam he was outcast not only religiously but also socially, culturally and economically . . . throughout the ages Hindus and Muslims had not merged their entities — that was the basis of Pakistan."[394]

These difficulties of co-existence were brought to a head by the retreat of empire and the rise of modern Asian politics. As long as there were no modern nations in South Asia it was possible for Hindus and Muslims to co-exist, even if there was little prospect for convergence or integration between them. As soon as nationhood reached attainment, the impossibility of shared statehood was revealed, as Jinnah noted:

"the Hindus and Muslims belong to two different civilizations which are based mainly on conflicting ideas and conceptions . . . To yoke together two such nations under a single State, one as a numerical minority and the other as a majority, must lead to growing discontent and final destruction of any fabric that may be so built up for the government of such a State."[395]

It is a pronounced reality, therefore, that no single element in the lives or political consciousness of the Pakistanis plays a more pervasive role than Islam. For millions, religion is the reason they are Pakistanis at all, rather than Indians. It is therefore true that Islam lies at the very genesis of the establishment of Pakistan, and the Muslim intelligentsia, in particular the poets and philosophers, were the most important influences in reviving the spirit of Islamic community and merging it with Muslim nationalism and nationhood. These 'Poets of Freedom' through their lyrics, satires and patriotism awakened Muslims throughout the subcontinent to their special heritage, language religion and culture.[396] The Muslim culture that developed in the sub-continent naturally had its roots in the teachings of Islam. For this reason, although the Muslim population of the sub-continent absorbed layers upon layers of Arabs, Turks, Afghans, Iranians, and others, they all formed part of a cohesive *millat* - nation.

It is also worth noting that some of the Muslim religious scholars of the subcontinent initially opposed and disapproved of the idea of the making of Pakistan on the pretext that living

---

[394] Cited by: Adnan, "Pakistan: Creation and Genesis," p.203.

[395] Cited by:Ibid.: p.204.

[396] Weekes, *Pakistan: Birth and Growth of a Muslim Nation*, p.206.

together would be in the better interests of the Muslims of India. They thought living as a minority would force India's Muslims to guard their religious beliefs, norms and values against dominant Hindus and so would turn out to be truly good Muslims. But when Pakistan came into being then Maulana Hussain Ahmed Madni, one of the most prominent critics of the Pakistan movement, said, "Now it is a mosque and so be thus protected".[397] This further exemplifies the importance attached to the coming into being of a Muslim state in the subcontinent; and that such promulgations fused the need to defend Pakistani statehood with the defence of the Muslim community of the subcontinent. Later these elements were used to shape and frame the strategic culture of Pakistan.

Islamic values and devotion for Islam are one of the most prominent built-in features of Pakistan as is also vivid not only from the Khilafat Movement of (1919-1924) but also from the resolutions of All India Muslim League's annual sessions dating as early as 1930s. Stanley Wolpert, for example, notes that: "much of the 3rd day of the All India Muslim League's 1938 annual session held in Patna was devoted to debating the Palestine resolution." He further writes that the resolution of the session warned the British government that "the problem of Palestine is the problem of Muslims of the whole world; and if the British Government fails to do justice to the Arabs….Indian Muslims….will be prepared to make any sacrifice…to save the Arabs from British exploitation and Jewish usurpation". This stance of the Indian Muslims who themselves are yet to be independent in favour of their fellow Muslims thousands of miles away is a remarkable gesture that shows a deep-rooted awareness of the way Islam shaped international relations.[398]

These were the people who now constituted the nation state Pakistan. Pakistan was considered to be the important citadel of Islam in public minds right from the independence movement slogans:

> *Pakistan ka matlab kia……..La Ilaha Illa-Allah*

> *Tera mera rishta kia…… La Ilaha Illa-Allah*

---

[397] Quoted by an Urdu Columnist in a daily news paper "Daily Express", for reference see: Abdullah Tariq Sohail, "Waghera Waghera," *Daily Express* (2008),
http://www.express.com.pk/epaper/PoPupwindow.aspx?newsID=1100462168&Issue=NP_LHE&Date=20080811.

[398] Stanley Wolpert, *Jinnah of Pakistan* (Oxford: Oxford University Press, 1989), pp.166-67.

What does Pakistan means….. There is no God but Allah alone

What is the relationship between you and me ….. There is no God but Allah alone

Thus from the outset 'Islam in danger' and the establishment of an 'Islamic state' were the rallying cries of the movement for Pakistani independence. It was thus the existence of Islamic ideological bonds which brought together people of different linguistic and tribal groupings (Bengalis, Sindhis, Baluchis, Punjabis and Pathans-NWFP) together under the banner of a common faith[399] to form a state. Of course, the inward drive to merge faith and nationhood was also shaped by long-term external forces related to Pakistan's strategic position. The people of the region comprising today's Pakistan have seen and experienced innumerable foreign invaders coming through Central and West Asia, and undoubtedly this made them prone to militarism and martialism. It was due to these facts that ultimately the character that developed amongst these people led them to be seen as Martial Races. So the strategic culture of the new Pakistani states, including weapon's acquisition, maintenance and usage was born from this tradition as well as the defence of the Islamic community of South Asia.

5.5.2.2. The political and institutional contexts of post-independence Pakistan

The logic that led to the creation of Pakistan was manifold: it mixed perceptions of discrimination in the British empire, with ideologies of nationalism, a belief in Hinduism and Islam as embodying two different, and possibly contradictory, civilizations that could not coexist within a single state. Pakistan also inherited a martial tradition that was reinforced though its position as a strategic place between West, South and Central Asia. There were then several possible directions for the development of security concerns but the fact that Pakistan was created against the backdrop of the genocide of partition served to entrench a visceral concern with the India-Pakistan antagonism; so that. Pakistan right from its inception became apprehensive about its vulnerability vis–a-vis India. This security consciousness of varied threat perceptions of the politico-military elite of Pakistan was the hallmark of its post independence phase, and continued to shape the state's foreign and security policies. The post independence politico-military elite unanimously agreed on the perception that "most Indians, especially the policymakers, viewed the establishment of Pakistan as a negation of the

---

[399] The common criticism of this ideological bond refers to the separation of East Pakistan to an independent state of Bangladesh but what is often ignored is the ……………

principles they stood for during the struggle for independence, and that their disposition towards Pakistan ranged from reluctant acceptance to a hope that the new state might collapse, making it possible for the separated territories to return to India". In reaction to the perception that India wanted to strangle the new state in its infancy Pakistani leaders took a proactive stance so that Rizvi considers that they "overemphasized their separateness and distinct identity".[400]

It should be recalled that in the beginning expectations were of cordial relations between the two dominions after partition. Due to such expectations the Pakistani leadership put forth ideas like 'peace and security for India resulting from an internal balance of power' and 'join together as good friends and neighbours and say to the world Hands off India', thus proclaiming 'a Monroe Doctrine of their own for the defense of the subcontinent against all outsiders'.[401] But there appeared a drastic change in the perception of the elite towards their Indian counterparts. Rizvi cites the following three major developments which changed the perspective of Pakistani leaders towards India and caused serious security problems for them.[402] First, the communal riots that accompanied the partition of India and the massive influx of refugees; the disputes over the distribution of assets of the government of British India (civil and military) caused much bitterness, and, finally, the dispute on the accession of the princely states of Junagadh and especially Jammu and Kashmir created an issue of permanent antagonism.

These factors were further worsened by the fact that the families of the civilian and military bureaucrats of the new state were trapped in communal riots and mass migrations. An event in this regard is cited from the work of Farley by Shuja Nawaz that Muslim officers who 'exchanged presents' sang 'Auld Lang Syne' and swore 'to remain friends' and 'meet each other as the best friends and in the same spirit of good comradeship' with their Indian counterparts, were hacked to death by lawless gangs during the migration when the train carrying them to Pakistan was attacked.[403] Such events suggested a 'systematic and well planned massacre of Muslims' on a massive scale, along with the mass migration, and gave

---

[400] Rizvi, "Pakistan's Strategic Culture," p.309.

[401] Ibid.

[402] Ibid., pp.309-10.

[403] Shuja Nawaz, *Crossed Swords: Pakistan, Its Army, and the Wars Within* (Oxford: Oxford University Press, 2008), p.21.

the two dominions the worst possible start, with Pakistani leaders viewing these events as "almost like genocide".[404]

This trauma was then reinforced by the issues of distribution of assets and role of Princely states. Pakistan historically had been the agrarian backwaters of British India and did not have anything remotely resembling an industrial infrastructure. The revenues accruing to the state were extremely inadequate, and there was therefore a pressing need to get its share of undivided India's assets. Though Pakistan was determined to secure these, the Indian leadership were anxious to deny them especially the due share of military stores, weapons, and equipment.[405] Furthermore, the contiguous Muslim and Hindu areas of the subcontinent were to form the twin dominions of India and Pakistan and the 565 rulers of the princely states had to opt for either one or the other dominion under the terms of the partition, based on the religious make up of their population and contiguity. The Kashmir state, contiguous to both, was among those that did not accede to either union at the time of the partition along with Hyderabad and Junagadh. This laid the ground for an eventual conflict in the shape of first Kashmir war, in 1947-48, that brought the two armies face to face with each other at a time when the Pakistani military, the smaller of the two armies, was in the process of reorganization. From this point on the Kashmir questions continued to reverberate in history, performing as a factor that shaped Pakistan's perception of India as an adversary.

Dr. P.I.Cheema in his book "Armed Forces of Pakistan" very impressively details the set of factors which had intensified Pakistan's sense of insecurity during the early phase:

"First, its territory lacked adequate depth (and as) its main communication lines ran parallel to the manmade Indo–Pak border and most of its major cities were (and still are) situated close to this border. Second, Pakistan lacked a well-trained, adequately equipped, well-disciplined and numerically sufficient Army. Third, Pakistan had no arms industry; besides, not much in the way of arms, even the legitimately allocated share of arms, were transferred to Pakistan at the time of partition with India. Fourth, a very large border with India, amounting to 2250 kilometres, was inherited by Pakistan's western part; and East Pakistan, which was separated from the west by over 1600 kilometres of Indian territory, was almost entirely surrounded by

---

[404] Pervaiz Iqbal Cheema, *The Armed Forces of Pakistan* (Australia: Allen & Unwin, 2002), pp.19-20.

[405] Ayesha Jalal, *The State of Martial Rule: The Origin of Pakistan's Political Economy of Defence* (Cambridge: Cambridge University Press, 1990), pp.32-33.

India. Pakistan also shared 950 kilometres of border with Iran and 1920 kilometres with Afghanistan. Fifth, the unresolved issues and problems that were the product of hasty and ill-planned partition processes contributed enormously towards the sense of unease."[406]

These analyses together seems to suggest that Pakistan's security perception have largely been influenced and shaped thus by a number of threat perceptions mainly centred on India in the East. The threats from the East gradually evolved with the changes in Iran and Afghanistan, and rising awareness of the ambitions of the Soviet Union to push southwards towards the Gulf and the Indian Ocean.

It was therefore a combination of awareness of Pakistan's own precarious internal defense potential with these shifting external threats that became the core concern for the decision makers. It was thus not at all difficult to evolve a historical narrative to justify the search for security of a vulnerable Pakistan. Dr Rizvi notes that:

The search for security emerged as the cardinal concern of Pakistan's policymakers that not only shaped their worldview and disposition towards regional and international politics but also served as an instrument of policy. It manifested itself in four major policy options: 1) opposition to India's regional dominance agenda, 2) augmentation of security by assigning the highest priority to defense needs, 3) weapons procurements from abroad, and 4) reliance on diplomacy, including military alignment, to overcome its military weakness vis-à-vis militarily powerful India."[407]

It was this perception of internal-external vulnerability and the subsequent search for security that pushed the decision makers in Pakistan to adopt a two pronged strategy which ultimately shaped the country's strategic culture. The first part of the strategy was based on the fact that as the country was lacking material resources of war and defence, so they had to turn toward the religion based ideational sources to infuse the strong strategic cultural construct based on Quran and Ahadiths.

This is how the army slogans like "*Emaan, Taqwa and Jihad fi sabilillah* (Belief in Allah, Righteousness and Jihad in the way of Allah)" found a new role, slipping into the popular culture which was already in shock with the partition bloodbath and Indian enmity. Here it

---

[406] Cheema, *The Armed Forces of Pakistan*, p.3.

[407] Rizvi, "Pakistan's Strategic Culture," p.313.

must be emphasises that Islam, as in its literal meaning, is the religion of peace. One of its most important characteristics is justice; it demands its followers to adapt to a balanced and just attitude in their individual life as well as family and social life. So does it also command justice in the affairs at the national and international levels. Islam in its very nature is against all forms and manifestoes of oppression and injustice. One of the Ahadeiths of the Prophet Muhammad PBUH says: "The best amongst you is the one who pays the rights of others generously."[408] However, when it comes to external oppression and injustice, Islam asks its followers to rise to the occasion and to stand against the aggression steadfastly. Similarly, if a war is being imposed on a Muslim state, as per Islamic beliefs it becomes obligatory on the state to defend it. In this way injustice against Islamic communities is one of the very pertinent and fundamental pillars of Islam and the Quranic and Prophetic teachings. It was, therefore, almost inevitable that the rising security vulnerabilities of the Pakistani state were cast as an injustice against Islam that must be resisted by all believers.

The second dimension was the realisation that in order to preserve its security and territorial integrity it was imperative for Pakistan to maintain a reasonably strong armed forces; but also that this seemed impossible without external support. It was in this way that "mobilising internal resources, procuring weapons from abroad and relying on astute diplomacy in order to ensure its security" became the cardinal principles of Pakistan's strategic doctrine. The broad aim was deterrence of Indian ambitions by acquiring "enough military capability to let India know that Pakistan could not only withstand India's military pressure but also increase the cost of an armed conflict for that country".[409] For this reason Pakistan kept a close eye on the military developments across its Eastern border, and developed an uncompromising mindset of seeking to match any escalation from that direction. It was from this position that when India tested its nuclear capability in 1974, Pakistan decided to accept this new challenge as well.

As well as a military preparedness, Pakistan's diplomacy was developed and employed to benefit its security. Pakistan played an active role as part of the block of the Muslim World. Pakistan's emphasis on its Islamic identity increased significantly as Zulfikar Ali Bhutto (1971–1977) channelled Pakistan's Islamic aspirations towards its foreign policy, an example of which was hosting the Second Islamic Summit of 1974 in Lahore. General Zia-ul Haq's

---

[408] Sayings of the Prophet Muhammad (PBUH) in "Bukhari-501".

[409] Rizvi, "Pakistan's Strategic Culture," p.317.

military regime (1977–1988) took matters a step further by formalizing the pre-existing state ideology into an official policy of Islamization, thus making Pakistan an important ideological and organizational centre of the global movement of Islamic countries.[410] Pakistan's leading status in the Muslim world was emphasised when President Zia addressed the 35th session of the United Nations General Assembly on 1 October 1980 as the Chairman of Islamic conference. Haqqani reflects the impression that very often both civilian and military leaders pursued this role in the Muslim world as a gambit in their strategic objectives: "all Pakistani leaders simply embraced Islam as a politico-military strategic doctrine that would enhance Pakistan's prestige and position in the world".[411]

The Armed Forces in many nations are seen as the defender of core values and the security and integrity of the nation. It is for this reasons that almost all nations are prepared to allocate big portions of their resources and assets towards defense budgets to enable the armed forces to perform their primary functions.[412] The same is true in Pakistan's case as the armed forces have been the major recipient of the developmental funds of the Government of Pakistan to meet both the internal and external threats the nation was facing. The primacy of the Pakistan Army in the political process in various forms from the early years is another factor that has influenced the strategic culture of the country. It has been the practice of the ruling regimes in Pakistan to call upon its army to assist them in their assigned roles which at times they failed to perform successfully or to correct their wrong doings. This provided the excuse to the military to rise in the 'Warrant of Precedence': the list that Pakistan inherited from the British that established the relative ranking of civil and military officials for protocol purposes. Indeed all of the civilian Prime Ministers have elevated military officers to levels beyond those envisaged by the founders of the nation and then complained publicly about military asserting itself in the politics of Pakistan.[413]

The military thus remained well entrenched and powerful to play the key elements in Pakistan's polity by moving to fill whatever power vacuum or gap they found.[414] The military

---

[410] Hussain Haqqani, "The Role of Islam in Pakistan's Future," *The Washington Quarterly* 28, no. 1 (Winter 2004-2005).

[411] Ibid.

[412] Cheema, *The Armed Forces of Pakistan*, p.121.

[413] Nawaz, *Crossed Swords: Pakistan, Its Army, and the Wars Within*, p.x1.

[414] Ibid., p.x1i.

bureaucracy has exerted its influence on many other occasions as well to attain its desired objectives. Prof Stephen Cohen thus wrote that "there are armies that guard their nation's borders, there are those concerned with protecting their own position in society, and there are those that defend a cause or an idea," but the Pakistan Army does all three.[415] Dr Cheema details four reasons that seem to have facilitated the process of military takeover in Pakistan:

"First, the superiority of military discipline and organisational skill, together with the willingness to play an active role in the developmental tasks of Pakistani society. Second, the weakness of political institutions and the almost continuous wrangling among various groups of politicians seeking to gain power. Third, the inability of civilian regimes to keep firm control over both the civilian and the military bureaucracies; the two were, compared to other national institutions, somewhat overdeveloped entities. Fourth, the overwhelming illiteracy of the general public, which precluded constructive evolution of public opinion and allowed the public to fall easy prey to organised divisive manoeuvres".[416]

Thus after independence, the Pakistan army gained the respect of the country's population for its spirited defence of the country's borders and thereafter gradually acquired the status of the most important member of the ruling troika. The Pakistan Army today has expanded its domain to include, not only the fulfilment of strategic doctrine, not only the maintenance of internal order, but also most importantly the protection of the national ideology, as this has evolved from Muslim state at independence, to an Islamic polity under Zia-ul-Haq, and back to 'enlightened moderation' under General Musharraf.[417]

5.5.2.3. Appraisal

Like its neighbour India, Pakistan's strategic culture is a mosaic. It contains many inheritances of the past in myths, narratives, and diverse traditions, which have been reinforced by its position as an ancient strategic cross-roads. Of unparalleled importance, however, has been the faith, law, and philosophy of Islam, so that Pakistanis largely do not distinguish between the defence of their country and the defence of their faith. Yet it must also be said that even after independence Islam has not played a single role, but has itself evolved as the Muslim community of South Asia has changed, from within the British empire,

---

[415] Stephen P. Cohen, *The Pakistan Army* (Berkley: University of California Press, 1984), p.105.

[416] Cheema, *The Armed Forces of Pakistan*, pp.135-36.

[417] Nawaz, *Crossed Swords: Pakistan, Its Army, and the Wars Within*, p. xxx.

through partition and the wars with India, to the post-Cold war strategic politics of today. Pakistan's perception of vulnerability has privileged the doctrine of maintaining parity of deterrence against India, and this in turn has allowed the army to assume the dominant position within the politics of the country. Pakistan's nuclearisation and pursuit of missile delivery systems resulted from these logics. But it was always the case that Pakistan could not follow the self-sufficiency route as advocated by Nehru and the Indian elites. Pakistan has always required the outside assistance of other countries, and the relationship with China has been the most successful example of this. As we will see there is little in common between the strategic cultures of Pakistan and China, suggesting that it has been a relationship of strategic imperatives and not of cultural agreement.

5.5.3 Strategic Culture of Peoples Republic of China

Chinese strategic culture has been elaborated and discussed in detail by many China specialists. The galaxy of these scholars holds quite different views about the Chinese strategic culture. So today we find the explanations of it as 'cultural moralism'; 'Chinese cult of defense'; and also as 'Confucian-Mencian' strategic culture. Finding the true reflection cannot be within the scope of this study, and the purpose should be to understand the whole context of its strategic culture evolution; and the ways that all episodes in its political history and philosophy helped shaped this. Chinese strategic culture as we know it today is the result of centuries of civilizational history; and it is the interplay of this historical development with that of the philosophical debate which has resulted in a very rich literature about the art and statecraft of the successful dominion. To understand this, it is therefore prudent to recap its politico-philosophic construction from the 'age of philosophers' down to current day 'Peoples Republic'.

5.5.3.1. The role of myth, narrative, and philosophy in China

Chinese civilization is one of the most ancient and continuous civilizations of the world, so its norms, values and beliefs are deeply rooted in its history. Therefore in order to understand their strategic culture, one has to dive deep into the historical origins of their philosophical beliefs, the role of the myths and narratives, which played a pivotal role in shaping of strategic culture of modern day China. Chinese civilization is also very unique in the sense that it has a history of the existence of long cherished beliefs and philosophies so deeply rooted through continued historical narratives that it is very difficult to ignore their impact on the Chinese people as a whole.

The existing Chinese beliefs can be traced back to the Warring States (463-222 B.C) time when not only their territorial state system originated but which also produced a large body of interesting military literature on strategy and tactics, of which the Sun Tzu's *The Art of War* is the most influential Chinese classical text.[418] During this period, China witnessed such a tremendous philosophical evolution that David Nivison termed this Warring States Period as "an age of philosophers…of exuberant originality and variety, which settled into something steadier and less varied in the long subsequent centuries of empire"[419] It was during this period that the scholars, who were often the advisors to the ruling elite, formed their schools. These included the Confucian school (rujia), the legalist (fajia) or military strategists (bingjia) as the best known among the "hundred schools of thought" that provided the philosophical underpinnings of Chinese state's ruling philosophy and military thought, and which did much to the common cultural identity of China.[420]

Sun Tzu belonged to the legalist school (fajia) and believed that a system of severe laws and punishments is the only remedy for creating a powerful and prosperous state where people will feel respectful and responsible towards each other. In the foreign relations domain, Sun Tzu's *Art of War* is the true description of his 'realist' thinking about the world where states were fighting for survival and supremacy. Sun Tzu believed that war is a matter of vital importance to the state so 'it must be thoroughly studied'.[421] He advocated that strategists should be so skilful as to be able to "subdue the enemy's army without engaging it, to take its cities without laying siege to them, and to overthrow his state without bloodying swords".[422] It is interesting to note that although the legalist reformation of which Sun Tzu was the architect brought the unification of China under the Qin state, it was, however, the Confucian school that finally won the philosophical struggle and became the major dominating state

---

[418] J.K. Fairbank, "Varieties of the Chinese Military Experience " in *Chinese Ways in Warfare*, ed. Jr F.A. Kierman and J.K. Fairbank (Cambridge: Harvard University Press., 1974), p.4.

[419] Cited by: Huiyun Feng, *Chinese Strategic Culture and Foreign Policy Decision-Making: Confucianism, Leadership and War*, ed. Sumit Ganguly and Andrew Scobell, Asian Security Studies (London and New York: Routledge, 2007), p.18.

[420] Ibid.

[421] Samuel B. Griffith, *Sun Tzu the Art of War Translated and with an Introduction by Samuel B. Griffith and a Foreword by B.H.Liddel Hart* (London, Oxford, NY: Oxford University Press, 1963), p.39.

[422] Ibid., preface p.x.

philosophy in the institutional and spiritual frameworks of the Chinese State.[423] In contrast to the legalist view of state domination, the Confucians maintained that through good government and internal peace and prosperity China would play a leadership role in the world and serve as a universal paradigm for other nations.

One contribution of the Confucian school was its emphasis on the importance of civilization in the practice of government. From earliest times the Chinese have always been very sharply distinctive in their outlook towards the outer world with their ideas of *Hua Hsia* (the Chinese) and the *Yi-Ti* (the barbarians). When the Europeans reached China in numbers in the 19th century the Chinese attempted to manage this relationship by traditional means. With the exceptions of the Russians, all of the trading nations were confined to the port of Canton, and the business was conducted without treaty arrangements through Cohongs – the special agents. This was in itself a concession since the Chinese preferred to close their doors to barbarians. The Emperors Ch'ien-lung famous reply to the envoy of King George III, Lord McCartney, who was sent to develop special trade relations in 1793, is evidence of that preference. The emperor said: "….we possess all things, I set no value on objects strange or ingenious, and have no use for your country's manufacture…".[424] The Chinese doors, however, were set forcefully open by these *Yi-Ti's* as a consequence of the 'opium controversy' and the ensuing famous 'Opium War (November 1830-August 1842).[425]

As a result of this colonial pressure, a series of treaties were signed between China and the western world which remain deeply controversial and significant to this day. The Chinese state was forced repeatedly to cede control to the foreigners and surrendered more and more of its sovereignty. This can be ascertained by the fact that after the opening up of China, there were 32 treaty ports in China in 1899 which increased to 48 in 1913 and that foreigners not

---

[423] Feng, *Chinese Strategic Culture and Foreign Policy Decision-Making: Confucianism, Leadership and War*.

[424] Winberg Chai, *The New Politics of Communist China : Modernization Process of a Developing Nation* (Pacific Palisades, California: Goodyear Pub. Co, 1972), p.18.

[425] Opium was discovered as a commodity that Chinese will buy and so was very valuable and profitable to the western traders but the Chinese Emperor put a ban on its trade too and appointed a special Commissioner Lin Tse-Hsu to enforce the prohibition at Canton, Lin asked all the foreign traders to surrender their opium and burned it down. The British retaliated and resultantly the Opium war began which lasted from November 1830 to August 1842 with the British emerging victorious.

only seized these local points along the sea coast but had made them ports for the penetration of the interior.[426] In brief the latter decades of the nineteenth century witnessed crushing national humiliation of China by the hands of all these states (Russia, Japan, Great Britain, France) seizing portions of the Chinese dominion and with new powers – Germany, Japan and America - also pressing to share in these extra territorial privileges. These penetrations were made worse by increasing demands for reparations if China resisted in any way. The Chinese were fined war reparations of 450,000,000 Haikwan tael of fine silver, or approximately U.S.$6.653 billion today. This large indemnity criplled the Treasury and the the economic growth of China as large amounts of money flowed out of China to foreign powers. The sum total that China had to pay over the next 39 years with the added interest of 4 percent was over 900,000,000 taels. [427]

As a consequence of the war and the war indemnity, the traditional political social structure disintegrated. The Japanese defeat of China in 1895 brought a fatal blow to any of the remaining prestige of the Chinese empire and cast a profound impact on the Chinese minds. In the circumstances of imperial collapse new movements and ideologies arose to make a new China.

The most important leader at first was Dr. Sun Yat Sen, who formed first the League of Common Alliance (T'ung-meng Hui) and then reorganised his followers into the Kuomintang. He conceived this new party as fully compatible with the Confucian tradition and proposed an ideological integrity that would insure unanimity in strategy and tactics and hence be the embodiment of unity, without factions or internal dissention. He advocated a revival of China's "ancient morality" inspired by the tradition of Confucian thought and maintained that, "China has a specimen of political philosophy so systematic and so clear that nothing has been discovered or spoken by foreign statesmen to equal

---

[426] For example: Russia had penetrated into Manchuria, Mongolia and Chinese Turkistan, Great Britain accessed to the ports of Canton, Amoy, Foochow, Ningpo, and Shanghai along with Hong Kong complete secession and have also penetrated into Upper Burma, French acquired a protectorate over Annam, Portuguese cession of Macao and Japan enforced claim of suzerainty over Ryuku Islands and acquisition of the islands of Formosa

[427] See f.n.24 in: Colonel Kenneth D. Johnson, *China's Strategic Culture: A Perspective for the United States* (Carlisle, PA: SSI, US Army War College June 2009).

it. It is found in the 'Great Learning', one of the Confucian Four Books."[428] Sun Yat Sen hoped to employ Confucianism to put together a political program of national unity, ideological integrity, mass discipline, scientific advancement, and accelerated economic development. He saw a new China rising out of the wreckage of Manchu dynasty because of his ambitious program for the economic modernization and industrialization.[429] When in 1925 shortly before his death Sun Yat Sen was asked to identify the intellectual inspiration of his revolutionary doctrines, he with complete conviction and without any hesitation, responded that his thought was a "development and continuation of the ancient Chinese doctrines of Confucius."[430]

But Sun Yat-Sen's Kuomintang did not succeed in freeing China from economic difficulties; ideological conflicts, political chaos and foreign intervention, and the country remained divided among different warlords. Sun Yat-Sen formed alliances with the Chinese Communist Party, formed in 1921, and with the Soviet Union; but neither of these relationships were to survive his death in 1925. The attempts for the unification of China under one authority were soon dashed and the period between 1925 to the beginning of the Northern expedition in 1926 was characterised by conflict between the communists and the old-time KMT members. The apparent complete unification was achieved during 1928 but KMT was never successful in consolidating its strong political base across the country and the communist pressures along with the foreign aggression threats kept looming over the nationalist government. When the Japanese moved into Manchuria in 1931, Shanghai in 1932 and pursued full scale invasion and infiltration of Northern China from 1937, the failure of nationalist government to meet this threat head-on alienated many Chinese, who thought that rather then concentrating on internal power struggles Chinese leader focused should have been more focused on resisting the foreign aggression against the nation. These aspirations forced the national government to take once more to take a united stand against the Japanese threat along with the communist cadres. But, though this on the one hand ensured a more concerted defense of the nation, it simultaneously worked in benefit of the CCP, as they emerged as the most energetic defenders of the Chinese nation against the foreign aggressors in the eyes of the Chinese people and especially to the intelligentsia. The reasons for the CCP's success in unifying

---

[428] A. James Gregor and Maria Hsia Chang, "Anti-Confucianism: Mao's Last Campaign," *Asian Survey* 19, no. 11 (Nov., 1979).

[429] Ibid.

[430] Ibid.

China and establishing the sovereignty of the PRC are much discussed, but one scholar states that:

"the Chinese people are highly sensitive to the presence or absence of vital spirit (ch'i); and it took no time for them to perceive that the Kuomintang was exhausted. In the meantime the Communists had been preserving their ch'i by healthful open-air exercise, hard work, simple fare, and a judicious refusal to enter upon extreme military adventures in their highly selective warfare against the Japanese."[431]

The ideology of the CCP was very different from the aspirations of Sun Yat-sen to advance a modern Confucianism for the New China. The leading ideologist of the CCP was Mao Zedong who during the course of the anti-Japanese struggle emerged as a very prominent leader. Mao successfully advocated the seizing and holding of the rural hinterland over a wide area while never permitting PLA troops to get engaged in a fatal showdown of frontal operation with the Japanese. He prepared the book *New Democracy* as a communist program designed to appeal to the post war intelligentsia, commercial and industrial middle class as well as to poor peasants and urban workers.[432] The CCP leadership was skilled and unified as a result of its war against Japan, and on 1st October 1949 it was able to declare the new Republic of the Chinese People. In a speech on 21st September 1949 Mao Zedong said:

"The Chinese have always been a great, courageous and industrious nation; it is only in the modern times that they have fallen behind. And that was due entirely due to oppression and exploitation by foreign imperialism and domestic reactionary government…ours will no longer be a nation subject to insult and humiliation. We have stood up."[433]

It will be thus fair to say that history seems to have left its deepest mark on the Chinese minds and therefore the historical experience which begin with the Opium War against Britain and ended with the Yalta concessions to the USSR has taught them that in order to earn back their

---

[431] W. W. Rostow, *The Prospects for Communist China / W.W. Rostow ; in Collaboration with Richard W. Hatch, Frank A. Kierman, Jr. [and] Alexander Eckstein* ([Cambridge] : New York : London :: Technology Press of Massachusetts Institute of Technology ; John Wiley & Sons ; Chapman & Hall, 1954), p.18.

[432] Ibid., p.28.

[433] Witold Rodzinski, *The People's Republic of China : Reflections on Chinese Political History since 1949* (London Collins, 1988), p.13.

lost respect and prestige, they have to build their nation strong and developed. In the light of these historically learned lessons, the CCP leadership along with many observers of international affairs sought to diagnose the nature of the problem afflicting their country in order to prescribe a cure. The CCP under the leadership of Mao had to set a demanding security agenda that will continue to guide them against challenges from intrusive outside powers, resentful and nationalistic neighbours, and restive ethnic groups. It was thus that the century of humiliation, which constitutes the negative pole of Chinese experience, was inextricably joined to a positive pole defined by recollections of the great and prosperous imperial history, as that past offered the only indigenous benchmark for measuring progress toward a position of restored national power and pride.[434]

5.5.3.2. The political and institutional contexts of post-revolutionary China

There is, therefore, a long and diverse tradition and literature of strategic and military thought in China. In more recent years, the nature and function of this diverse tradtion has become the subject of much scholarly discussion. However, during the earlier years of the People's Republic, this cultural heritage was laid aside and the most important influence on the Chinese strategic culture was through the personality of Chairman Mao and his relationship with the revolutionary and military leaders of the CCP and the PLA. Mao's revolutionary strategy was intimately bound up with his emphasis on political values. It was thus that he attached great importance to his strongly populist outlook for serving the interests of the masses. His belief was that unity and loyalty can only be achieved when the peoples interests are looked after. It is due to this reason that the hallmark of Mao's political thought is considered to be his belief in the power of the masses and commitment to their interests and so we find him saying that, "if all the hearts in the realm are moved, is there anything which cannot be achieved? And…how, then, can the state fail to be rich, powerful and happy?"[435] Mao's patriotic instincts, his internationalism, were always firmly situated within a broader, distinctly China-centred outlook. Mao had written in 1917 that to overcome national weakness, Chinese needed to cultivate the martial virtues – courage, dauntlessness, audacity,

---

[434] Michael H. Hunt, *The Genesis of Chinese Communist Foreign Policy* (New York: Columbia University Press, 1996), pp.17-27.

[435] Cited in William H. Mott IV and Jae Chang Kim, *The Philosophy of Chinese Military Culture: Shih Vs. Li* (New York: Palgrave Macmillan, 2006)Cited in: Ibid., p.76.

and perseverance. "all were not something heaven decreed but humans worked for"[436] He depended above all else on the great energy of the people, which he trusted to respond to his leadership, to bring his dreams of remaking China to fruition.

In the 1970s two important changes were undertaken. First, China was forced to re-think its strategic position as the USSR and its military relationship with countries such as Vietnam and India rose in significance. Mao and the Chinese leaders needed to overcome their isolation and successfully sought a readjustment of relations with the USA after 1972. Secondly, the Cultural Revolution was seen as having negative consequences for China internally and externally. It was, therefore, necessary to have an ideological correction including seeking for truths in more traditional Chinese strategic thought. The interest in Sun Tzu and other classical Chinese military thoughts has been revived since China embarked on the mission of national development in 1978. However, these changes have led to much controversy in the study of Chinese strategic culture. Analysts have contended around the questions such as: how much of China's strategic culture is classical and how much comes from its modern political doctrines; how far is China's strategic culture defensive and how much is offensive?

John King Fairbank in the edited volume of *Chinese Ways in Warfare*, identifies "specific habits of mind and action" that reflect the traditional view of Chinese attitudes toward the use of force: "a tendency to disesteem heroism and violence" and to emphasize the civilian over the military; a preference for defensive, attritional warfare over offensive warfare with the goal of annihilating the enemy; and a conceptualization of warfare as limited and punitive rather than global and expansionist.[437] Mott and Kim agree that the dominant view has been shaped by the Confucian ideals that consider war as an aberrant event. Therefore, China should avoid the use of force and try to achieve objectives through non-violent stratagems, deceptions and coercive diplomacy, while avoiding offensive military campaigns and relegating force to a "last resort" and that too for purely defensive and limited roles:[438]

---

[436] Ibid., p.210.

[437] Fairbank, "Varieties of the Chinese Military Experience ", p.25-26 Cited from:Lawrence Sondhaus, *Strategic Culture and Ways of War* (Abingdon Oxon and New York: Routledge, 2006).

[438] William H. Mott IV and Jae Chang Kim, *The Philosophy of Chinese Military Culture Shih Vs. Li* (New York: Palgrave Macmillan, 2006), pp.2-3.

"China's strategic culture has regarded war as an inescapable, unpredictable evil that disturbs universal harmony… When war occurs, rulers must manage it carefully. China's strategic culture commands rulers and generals to use only the force that is necessary to restore domestic order and universal harmony—to control specific means within explicit ends"[439].

This position is supported by China's analysts such as People's Liberation Army Lieutenant General, Li Jijun:

"The extensive and profound Chinese culture has nurtured an oriental military science that is unique and has lasting influence. Ancient Chinese military science was one that exalted resourcefulness, stratagem and prudence in waging any war or resorting force. This military culture based on reflecting on war, having evolved from war's primitive form of fighting each other, later reached the stage where a strategist is not a militarist. It showed the beauty of philosophic wisdom. Because of this culture, unification war planners, while structuring their strategies, would follow the principle that, "in drawing up a military strategy, importance should be given to stratagem." The objective was 'complete' victory without having to resort to force. To this end, they would comprehensively analyze the strategic situation, carefully structure their strategic policies, set proper strategic objectives, correctly choose their strategic course, specifically plan their strategic moves, and properly employ strategic means."[440]

The main challenge to this view has come from Alastair Iain Johnston in his famous work on cultural realism. Johnston employs a new methodology to assess the grand strategic preference rankings of Chinese leaders, derived from the assumptions of the parabellum paradigm. He notes that through the *Seven Military Classics of Chinese* there is a preference for offensive strategies over static defensive and accommodationist options. He admits that "cultural realism" rather than realist theory offers the best explanation for Chinese strategic preferences and behavior[441] but he rejects the conventional view of defensive warfare. He

---

[439] Ibid., p.1.

[440] Li Jijun, "The Unification Belief of the Chinese Nation", Cited in: David Lai, *Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi* (Carlisle: Strategic Studies Institute (SSI), U.S. Army War College, May 2004), p.26.

[441] Johnston, *Cultural Realism : Strategic Culture and Grand Strategy in Chinese History*;Johnston, "Cultural Realism and Strategy in Maoist China ".

postulates the existence of two competing strategic cultures the "Confucian-Mencian" strategic culture; and the realpolitik culture. He notes, [442]

"A *realpolitik* strategic culture still colours the worldviews of many of China's senior security policy decision makers, a worldview in which military force is a potentially useful tool, among others, for the pursuit of traditional power and prestige maximizing national interests in a competitive and relatively dangerous world."[443]

But Johnston's view is strongly resisted by Chinese scholars such as Huiyun Feng[444] and Tiejun Zhang[445] who questions his interpretation of ancient Chinese language and also the validity of the use of classic Chinese philosophical and military works. According to Tiejun Zhang, Johnston uses only those sources which help him explain his point so Johnston's selection of sources is biased.[446] This is noted by Huiyun Feng as well when he writes that Johnston's theory focus mainly on military generals and points out that even "Seven Military Classics focuses on strategies and tactics of how to fight a war (only) after it has started and are appropriate only for war fighting situations".[447] Tiejun Zhang agrees with Fairbank's view that Confucian beliefs indeed had a strong influence on traditional Chinese strategic culture and defined it by the term "cultural moralism" - referring to the habit and practice of constant moralizing and a persistent emphasis on morality, characterized by Confucian norms of Virtue, Benevolence and Righteousness for judging the domestic and foreign policies of rulers.[448] Zhang argues that since the inception of Chinese Empire (221 BCE) up to its defeat in the Opium War (1893-42), China was a self-sufficient continental power facing no serious

---

[442] Johnston, *Cultural Realism : Strategic Culture and Grand Strategy in Chinese History*, p.30.

[443] Alastair Iain Johnston, "China's Militarized Interstate Dispute Behavior 1949–1992: A First Cut at the Data," in *Chinese Foreign Policy in Transition*, ed. Guoli Liu (New York: Aldine de Gruyter, 2004), p.260.

[444] Feng, *Chinese Strategic Culture and Foreign Policy Decision-Making: Confucianism, Leadership and War*.

[445] Tiejun Zhang, "Chinese Strategic Culture: Traditional and Present Features," *Comparative Strategy* 21 (2002).

[446] Ibid.: p.73.

[447] Feng, *Chinese Strategic Culture and Foreign Policy Decision-Making: Confucianism, Leadership and War*, pp.3-4.

[448] Zhang, "Chinese Strategic Culture: Traditional and Present Features," p.73.

threats from the outside. Such conditions afforded China the luxury of a strategy driven by a "cultural moralism" rather than Johnston's "cultural realism".[449]

Seeing such a controversy developing, Andrew Scobell has therefore tried to resolve the issue of whether Chinese strategic culture should be seen as offensive or defensive. He notes that,

"two dominant strands of Chinese strategic culture -a Confucius/Sun Tzu one and a Realpolitik one - exist side-by-side. Both of these are operative, and the interaction between the two strands produces a distinctive strategic culture: what I have dubbed the "Chinese Cult of Defense".[450]

According to this view, the Chinese tend to view their own strategic culture in Confucian terms, but their actual "cult of defense" stems from the dialectic interaction between the defensive and offensive traditions, with the former often being used to justify the latter. The examples of the construction of Great Wall, by far the largest protective fortification ever constructed by any civilization, remains a powerful symbol of a Chinese defensive mentality. Similarly Chinese scholars have often compared the non-conquering and non-colonizing nature of fifteenth-century voyages of Ming China's Zheng He, with the aggressive nature of the European imperialism. Scobell therefore argues for the continuing relevance of the parallel defensive "Confucian–Mencian" tradition in China's strategic culture, alongside the offensive realpolitik that Johnston attributes to cultural realism. Scobell notes that, "Because of Confucianism, … China tends to favour harmony over conflict and defense over offense". Chinese predisposition were for "stratagem over combat and psychological and symbolic warfare over head-to-head combat on the battlefield" and, "these interpretations of Confucius and Sun Tzu created the image of a China whose use of force is cautious and restrained."[451] Yet while Chinese leaders "believe profoundly that the legacy of Chinese civilization is fundamentally pacifist," as Scobell observes, "they are nevertheless predisposed to deploy force when confronting crises".[452]

---

[449] Ibid.: pp.73-74.

[450] Scobell, ""Cult of Defense" And "Great Power Dreams": The Influence of Strategic Culture on China's Relationship with India," p.332.

[451] Ibid., p.331.

[452] Ibid.

It may be the emphasis on interpreting 'cultural China' in recent years has been a distraction. China's traditions are very diverse and sometimes quite contradictory; also China has changed out of recognition in the last 100 years. China's military modernisation over the last 20 years, in particular, has raised important questions about China's intentions. It is also the case that interpreting the decision-making processes in the Chinese strategic command remains very difficult. What is not in question is that China after 1949 has varied between ideologies of peace such as socialism and harmony, and doctrines of strategic force and punishment against those who threatened or disrespected China, particularly its neighbours. China's nuclear strategy has been part of this ambivalence: China acted decisively to gain a nuclear capacity, believing that it was vulnerable in the bipolar system; but thereafter, it has not greatly built up its nuclear weapons capability, as we might be expect from a power that favours a defensive culture. As a recent analysis suggested China's strategy remains open to many different interpretations, including in the role of history and culture:

"In recent Chinese history, as China contended with its international decline and its protected rebuilding effort, contending ideas emerged reflecting distinct Chinese cultural traditions. Today, the debate continues. China's official position is that it seeks peace and development and an international order based on tolerance, mutual benefit, multilateral cooperation, and resistance to hegemony. But zero-sum visions of international politics and interest in a transformed world order, derived either from contemporary Western realism or revolutionary and revisionist Marxism, remain prevalent and influential in Chinese strategic thinking."[453]

5.5.3.3. Appraisal

To sum up, it could therefore be said that China, since ancient times has been a political as well as a cultural and geographic entity and the Chinese leaders and the Chinese academics and analysts together have long asserted that "a distinctive traditional Chinese philosophy" dating back to antiquity shapes their country's approach to international relations, including its attitude toward warfare.[454] Chinese diplomatic and defense communities popularly mention the Chinese way of war and diplomacy which is different to that of the West as the Chinese place heavy emphasis on strategy and stratagems whereas the West relies more on

---

[453] Robert Ross and Zhu Feng, *China's Ascent: Power, Security and the Future of International Politics*, (Cornell University Press, Ithaca, 2008) p.308.

[454] Scobell, ""Cult of Defense" And "Great Power Dreams": The Influence of Strategic Culture on China's Relationship with India."

overwhelming force and advanced capability.[455] The presence of the largest number of ancient military writings along with the possession of the world's first comprehensive military classic, the Art of War, all emphasizing strategy and stratagems make Chinese even go so far to call China the birthplace of stratagems.[456]

The Chinese faith in the superiority of their strategic traditions, both ethically and effectively, makes the Chinese strategists stress the significance of their strategic culture. The Chinese strategists also understand that solid and credible capability will enhance the effectiveness of their play of strategy and stratagem in contemporary times. That is why the Chinese as a nation today are determined to develop China's comprehensive national power in line with all the current revolutions in military affairs technologies ranging from conventional to strategic nuclear weaponry.

5.6. CHAPTER CONCLUSION

In this chapter we debated the various ideas within the strategic culture approach before accepting the definition of Jeannie L. Johnson:

> that set of shared beliefs, assumptions, and modes of behavior, derived from common experiences and accepted narratives (both oral and written), that shape collective identity and relationships to other groups, and which determine appropriate ends and means for achieving security objectives.[457]

From this perspective we see that the three countries of India, China and Pakistan have some traditions, experiences and narratives in common, not least those drawn from religious or philosophical belief, and political and military history. Yet their strategic cultures are not the same, and indeed the differences between India and Pakistan became the basis for the most important event in 20th century South Asia: the partition of the sub-continent. New collective identities were formed as the countries moved from colonialism to status as new Asian powers; and the inter-mix of nationalism with strategic culture had a big impact on the way each of the countries assessed the others. That they had outstanding territorial and other

---

[455] Lai, *Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi*, p.3.

[456] Ibid.

[457] Johnson, "Strategic Culture: Refining the Theoretical Construct.";Kartchner, "Weapons of Mass Destruction and the Crucible of Strategic Culture."

disputes with each other carried over from the colonial time, as discussed in Chapter 2, created a dangerous security potential. In this way the strategic culture mindset of 'appropriate ends and means of security objectives' intermixed with modern nationalism to prevent movement towards resolution of disputes; and instead drove the powers towards the buildup of ever more significant deterrents against the others. In the next chapter I discuss the development of motivations towards possession of advanced weapons systems.

Chapter 6

STRATEGIC CULTURAL EXPLANATIONS OF THE MOTIVATIONS FOR THE DEVELOPMENT AND THE EMPLOYMENT STRATEGIES OF STRATEGIC NUCLEAR WEAPON SYSTEMS OF CHINA, INDIA AND PAKISTAN

6.1. INTRODUCTION

Having discussed the strategic culture of the three countries of China, India and Pakistan, we move on to comprehend the motivations that drove them toward the development of the nuclear weapons and ultimately the acquisition of their delivery systems i.e. missiles. This chapter therefore will first provide a summative introductory account of the research which gives general explanations as to why states pursue the development of nuclear weapons and then will proceed with the individual analysis of the three countries of China, India and Pakistan about their programs motivations and inspirations.

6.2. REFLECTING ON THE MOTIVATIONS FOR CHINA, INDIA AND PAKISTAN: FROM STRATEGIC CULTURAL INTERPRETATION TO REALIST, IDEOLOGICAL AND TECHNOLOGICAL (RIT) LOGIC

Accounts of Southern Asian politics often mention the cultural values and humanist credentials of the region's political elites. Southern Asia is widely envisaged both internally and externally as a place where culture and identity are especially vital influences on state action therefore operate as causal factors in foreign and security policy. Thus domestic factors, including moral and political norms, have been more significant in determining nuclear policy and each of these material and ideological factors has been in some way affected by their historical past and identity. In this way strategic culture undoubtedly provides a matrix of intellectual and emotional basis for these countries nuclear weapons acquisitions.

Figure 6-5: My Approach (RI2T Logic)
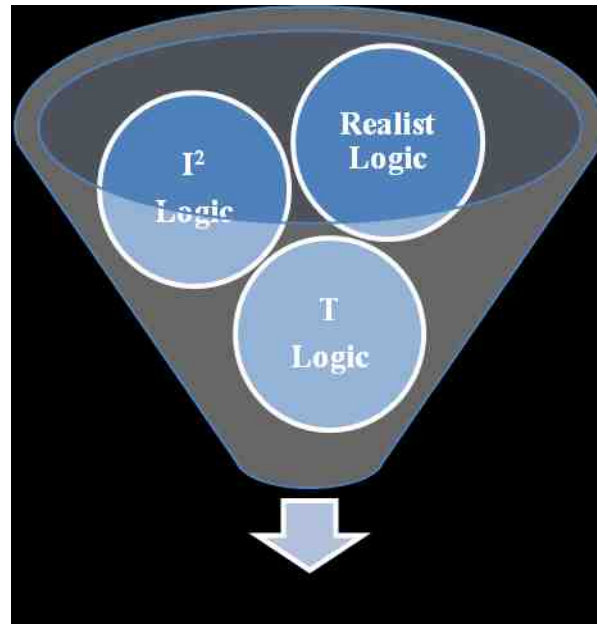
To my understanding, therefore, three logical explanations could be given to help understand the phenomenon. These being the

  i.   Realist Logic,
  ii.   Identity and Ideology (I^2) Logic and
  iii. Technology Logic.

6.3.1. Realist Logic

Security being a relational and an ambiguous concept has the useful feature of incorporating much of the insight from the analysis of power. Barry Buzan's *'People States and Fear'*, highlights a very critical element of his definition of security-the referent object. According to him, "security as a concept clearly requires a referent object, for without an answer to the question 'The security of what?' the idea makes no sense. To answer simply 'The state', does not solve the problem …One soon discovers that security has many potential referent objects. These objects of security multiply … as one moves down through the state to the level of

individuals, and up beyond it to the level of the international system as a whole."[458] Barry Buzan argues that the 'primary', 'main focus' and 'essentially' it is 'the state',[459] whose security is prior to that of other candidates who depend on it for theirs[460] and are relegated to the status of conditions for state security.[461] This clearly suggests the fact that the principal dimension of security however remains the security of the sovereignty and territorial integrity of a state and implies that, security relates not only to the states ultimate desire of survivability, but also the desire that it should live without serious external threat in a stable and a peaceful environment. "all that can be said is that without strong states, there will be no security, national or otherwise."[462]

Dr Pervaiz Iqbal Cheema, a South Asian scholar has very beautifully summarised the need for quality, self reliance and diversity of supply in military affairs in these words:

"A nation's primary goal is to protect and secure adequate defense for its homeland. No nation feels comfortable living under a security threat and consequently the energies of any nation that does are bound to be directed at the objective of removing the sense of insecurity as soon as possible. To strengthen their security environment, nations employ various strategies: seeking the help of an outsider in the form of a bilateral alliance; joining a multilateral alliance; strengthening indigenous capabilities; persuading an outsider to come into the area as an outsider as a balancer; isolating the adversary; promoting a regional alliance; seeking reconciliation with the adversary even at a cost deemed to be high; and adhering to the logic of arms control and disarmament. Among the developing countries this last strategy has not yet had the impact that has been desired. Instead most have opted for armament and believe that the use of force is as relevant today as it was in the pre-nuclear age. Even the end of the cold war and the emerging realities of the new era have not influenced them meaningfully. There are three possible roads to peace and security-

---

[458] Bary Buzan, *People, States and Fear: The National Security Problem in International Relations* (Brighton: Wheatsheaf, 1983), p.26.

[459] Ibid., pp.27,51,54.

[460] Bill McSweeney, *Security, Identity and Interests: A Sociology of International Relations* (Cambridge: Cambridge University Press, 1999), p.55.

[461] Buzan, *People, States and Fear: The National Security Problem in International Relations*, p.27.

[462] Ibid., p.106.

disarmament, arms control and armament. Most third world countries view the first as idealistic, arms control as some what pragmatic, and armament as necessary and realistic."[463]

As is generally agreed, the security concerns of a state drive them on the path of the acquisition of these weapon systems. For this reason, most of the countries that have acute security problems, have also running missile programs. Because they believe that ballistic missiles can also accomplish those tasks and deliver those objectives which no other weapon type can. So by realist logic, I tend to incorporate all the security threats to a state emanating both from within the region it inhibits or beyond the region and again may they be real or just perceived, and agree with W. Seth Carus when he opines that ballistic missiles are strategic weapons to provide deterrent against external threats of aggression.[464]

6.3.2. Identity and Ideology (I^2) Logic

Identity has been a major cause of upheaval in Central and Eastern Europe and a source of resistance to integration in the European Union. Ideology likewise played a dominant role in the Post World War II world and could be seen very visible as a cause of cold war besides the division of Indo-Pak subcontinent and in the creation of Israel.

Scholars therefore have always been preoccupied with the role of identity and ideology in societal sociological studies. Later on the constructivists also approached these from a sociological angle focusing on the processes and practices by which people and groups construct their self image.[465]

Societal security dimension was subordinated to the state as a sector by Buzan, whereas Waever et al gave it a new status as an object of security in its own right. There is now

---

[463] Pervaiz Iqbal Cheema, "Arms Procurement in Pakistan: Balancing the Needs for Quality, Self Reliance and Diversity of Supply," in *Military Capacity and the Risk of War : China, India, Pakistan, and Iran* ed. Eric Arnett (Oxford: Oxford University Press, 1997).

[464] W.Seth Carus, *Ballistic Missiles in the Third World: Threat and Response*, Washington Papers (London: Praeger, 1990), p.6.

[465] McSweeney, *Security, Identity and Interests: A Sociology of International Relations*, p.69.

"duality of state security and societal security, the former having sovereignty as its ultimate criterion, and the later being held together by concerns about identity".[466]

Identity and Ideology together therefore had always exercised some very pertinent influences on the life and behaviour of nation states which in turns shapes the respective strategic cultures. These influences can be seen again through religio-texts and religio-norms/values or the belief system of its peoples and also through the political philosophical/ideological texts and general political norms/values and beliefs of the masses.

6.3.3. Technology Logic

The level of technology becomes a high priority between nations locked in an adversarial relation, as they have to guard against their opponents making some decisive technological breakthrough, and consequently see themselves as compelled to maintan high levels of innovation.[467] This is a classic example of the 'security dilemma' as Zachar Davis puts it, "Nations accumulate power to reduce insecurity, but they face a dilemma that too much power may cause other states to feel insecure and inspire them to increase their own power."[468]

This explains the leaders of such countries concerns with technological weakness in the military sector as military weakness can obviously contribute to the overthrow or destruction of the state through war.[469] Similarly states with valid security concerns but not having sufficient technological base and strength to manufacture their own, will buy modern weapons-if can afford in order to either match, or gain an edge on, their rivals, and if cannot afford modern weapons, may have to make political arrangements with a supplier state in which allegiance, bases or economic assets are traded for arms.[470] So, in both of these cases, technology not only bring development and strength but also brings trade, moreover, as

---

[466] Ole Waever et al., *Identity, Migration and the New Security Agenda in Europe* (London: Pinter Publishers Ltd, 1993), p.25.

[467] Barry Buzan and Eric Herring, *The Arms Dynamic in World Politics* (London: Lynne Rienner Publisher, Inc, 1998), p.31.

[468] Zachary Davis, "The Realist Nuclear Regime," *Security Studies* Spring/Summer (1993);Also cited in: Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons*, p.54.

[469] Buzan and Herring, *The Arms Dynamic in World Politics*, p.32.

[470] Ibid.

Patrick Morgan suggests, continuing qualitative (technological) advance creates incentives to export in order to recover R&D costs and pay for the new qualitative (technological) advances in the pipeline.[471] Barry Buzan and Eric Herring also argue that the "possession of an arms industry serves the basic security value of self reliance, and also supports the pursuit of power and influence. Traditionally, any state seeking to attain a leadership position in the international power hierarchy has needed its own arms industry."[472]

The advent of modern scientific and technological knowledge had significantly influenced every nation's strategic culture, which in turn has provided them with powerful incentives to acquire ballistic missiles. And as the states often see their scientific and technological advancement as a yard stick of their status in the comity of nations, so ballistic missile acquisition and development demonstrated can clearly reflect their technological sophistication of the countries capabilities and a confirmation of their modernisation.[473] It is thus that T^3 Logic explains their strategic cultural variables through the important technological advancement of the states and resultant struggle by them for avoiding technological apartheid by the industrial advanced nations; improving trade and economic conditions; and desires of augmenting its power base, henceforth enhancing honour and prestige.

6.4. MOTIVATIONS FOR CHINA

6.4.1. Realist Logic

As security considerations have been paramount for all the states in the world, so realist logic of the strategic weapons systems worked for every state in the beginning and was true about China as well. China, whose modern history was of defeat, subjugation and humiliation at the hands of the west and Japan, has produced an acute Chinese desire for solidifying its defences and getting international respect and prestige as a great power.

Since the end of the second world war, Chinese have found the presence of many potential threats, both nearby and distant on its long (well over 10,000 miles) and in many places geographically open and exposed border. Militarily strong or highly industrialized states such

---

[471] Cited in: Ibid., p.33.

[472] Ibid., p.34.

[473] Carus, *Ballistic Missiles in the Third World: Threat and Response*, pp.3-4.

as Russia, Japan and the United States have posed a variety of security threats or concerns to Chinese leaders, including the threat of invasion. This threatening environment with border vulnerability has often presented major challenges to every Chinese government's efforts to maintain an adequate defence against external attacks.

Chinese attempted to protect themselves from the threat posed by the other extra-regional superpower, and therefore signed with the Soviets the Sino-Soviet treaty of alliance in 1950. The Korean War and the Taiwan crises in 1954 and 1958, however, made the Chinese realise the fallacy of this approach. Khrushchev's attempts to promote cooperation with the western world and confront the US only when Soviet vital interests were threatened, was evident in the muted and belated Soviet support for China when it faced U.S. coercion during the 1958 Taiwan Straits crisis. The Soviet refusal to back the Chinese in any risky situation during the Quemoy crisis of August-September 1958 made it clear to Chinese leaders that while the US might be willing to use nuclear weapons if pressed too hard, the Soviets were unwilling to take similar risks in protecting China. Here was therefore, a reason to question the validity of Chinese reliance on the Soviet nuclear shield.[474] The decision to reduce their dependence on a potentially irresolute ally saw the birth of the Chinese own nuclear weapon program.[475]

This decision appeared wise enough when the later events showed that PRC got involved in two major wars against United States – a direct one in Korea and an indirect one in Vietnam. China has also engaged in several border skirmishes with the former Soviet Union. During the cold war years, the Chinese communists saw these confrontations as threats to China's national sovereignty and territorial integrity.[476] It is for this reason that China said it was forced to develop its nuclear weapons to counter the United States. Historians detail several instances of threats by the United States to use nuclear weapons against China when they didn't possess nuclear deterrent capability, General Douglas MacArthur for example, during

---

[474] Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," *International Organization* 36, no. 2 (1982).

[475] Avery Goldstein, "Understanding Nuclear Proliferation: Theoretical Explanation and China's National Experience," in *The Proliferation Puzzle: Why Nuclear Weapons Spread and What Results*, ed. Zachary Davis and Benjamin Frankel (London: Frank Cass Publishers, 1993), p.226.

[476] Di Hua, "Threat Perception and Military Planning in China: Domestic Instability and the Importance of Prestige," in *Military Capacity and the Risk of War China, India, Pakistan and Iran*, ed. Eric H. Arnett (Oxford: Oxford University Press, 1997), p.26.

the Korean War, wanted to use atomic bombs and artillery to decimate Chinese forces and drive them from Korea, and then lay down "fields of suitable radio-active materials" to keep the Chinese off the peninsula for centuries to come.[477] Major General Wu Jianguo explaining the security consideration and rationales of strategic weaponry for China mentioned number of incidents when China was being threatened with nuclear weapons. He noted that, "During the Korean War, U.S. Commander-in-Chief MacArthur once threatened a sudden attack of atomic bombs on China's northeast and coastal strategic targets. After Eisenhower came to power, he again ordered the Pentagon to formulate a nuclear program aimed at China. During its war of aggression in Vietnam, the United States also made nuclear threats and was prepared to resolve the issue with nuclear weapons. After the armed conflicts on Zhenbao Island between China and the Soviet Union in 1969, Brezhnev considered initiating a nuclear attack on China in an attempt to ruin China's nuclear facilities."[478]

In the light of such provocations by US, China's leaders concluded that they needed to develop their own nuclear weapons. Their logic is summarized in the famous "Los Angeles" quote, which former U.S. Ambassador Chas Freeman reports a Chinese General told him:

"You do not have the strategic leverage that you had in the 1950s when you threatened nuclear strikes on us. You were able to do that because we could not hit back. But if you hit us now, we can hit back. So you will not make those threats. In the end you care more about Los Angeles than you do about Taipei".[479]

According to the Deputy Commander of the Second Artillery-Major General Yang Huan, "China's strategic nuclear weapons were developed because of the belief that hegemonic power will continue to use nuclear threats and nuclear blackmail. From the day of establishment, the People's Republic of China faced a major economic and technology blockade from hostile powers. Further, it also faced serious nuclear threats from hegemonism. To oppose nuclear war, smash nuclear blackmail, safeguard national security and sovereignty, and keep peace throughout the world, China needed a powerful national defense and its own strategic nuclear weapons. At that time, the Central Committee of the Party, Mao Zedong and

---

[477] Cirincione, "The Asian Nuclear Reaction Chain," p.127.

[478] Major General Wu Jianguo, "Nuclear Shadows on High-Tech Warfare "

http://www.fas.org/nuke/guide/china/doctrine/jianguo.htm

[479] Cirincione, "The Asian Nuclear Reaction Chain," pp.127-28.

Zhou Enlai made a wise decision to make China's strategic nuclear weapons independently. This decisive and timely step paved the way for developing our strategic nuclear weapons."[480]

Another scholar Savita Pande[481] opines that, China decided to build nuclear weapons mainly because of two reasons. Firstly, they believed that their alliance with the Soviet Union did not provide adequate security; and second for a self-reliant strategy of dissuasion by nuclear deterrence or dissuasion by conventional defence. Secondly, there was a realisation that a self-reliant strategy of dissuasion would better serve China's national interests than the alternatives of dissuasion by conventional deterrence or dissuasion by conventional defence, mainly because of the resource constraints it faced.

According to the Deputy Commander of the Second Artillery-Major General Yang Huan, the Chinese Government has declared again and again, "China is compelled to conduct nuclear tests and develop nuclear weapons in order to break the nuclear monopoly."[482] Similarly, the current ballistic missile defense system or the missile shield idea of the US against the attacks of rogue states like North Korea has been accepted by neither China nor Russia and both believe that the United States is building a national missile defense system as part of a strategy to allow the United States to launch a first strike at their nuclear weapons and then use missile defences to minimize the damage from a retaliatory strike.[483] China therefore announced it would spend an increased military spending to upgrade its nuclear-forces modernization program to allow for "a vigorous counterattack once hegemonists and their military alliance use nuclear weapons to make a surprise attack on China," according to General Zhang Wannian of the People's Liberation Army.[484]

Another perspective which is of 1990s also implied that the Sino-Indian protracted conflict was reflected in the continued weapons race; but in Chinese security planning India did not have the same significance as the Americans or the East Asia arena. Nevertheless, according to this perspective the emerging strategic realities indicated that Sino-Indian rivalry could be

---

[480] Major General Yang Huan, "China's Strategic Nuclear Weapons,"
http://www.fas.org/nuke/guide/china/doctrine/huan.htm.

[481] Savita Pande, "Chinese Nuclear Doctrine," *Strategic Analysis* XXIII, no. 12 (March 2000).

[482] Huan, "China's Strategic Nuclear Weapons."

[483] Cirincione, "The Asian Nuclear Reaction Chain," p.129.

[484] Quoted in:Ibid.

expected to intensify as the world's two most populous nations sought to carve out bigger roles for themselves in Asia. Referring to the ongoing naval build-up programs in both countries, in particular the emphasis on establishing large blue-water navies, this perspective therefore takes it as a signal of an emerging Sino-Indian competition in the Indian Ocean and the waterways of Southeast Asia. Theis perspective implied that China indeed believed that India would remain "one of its most likely foes over the next couple of decades."[485]

The above mentioned perspective of the 1990s may be seen now to have been a fairly accurate one on the premise that even after the collapse of the former Soviet Union, China and India both remained as the growing powers and are thus continuously embroiled in a mutual power contest. This may also be exemplified by the local implications of the regional overlapping arms race.

6.4.2. Identity and Ideology (I^2) Logic

On the ideological logic side it could be seen that the leaders of the People's Republic of China embraced early and with clarity the status-enhancing effects of nuclear weapons. China decided that it should acquire nuclear weapons as quickly and as completely as possible when in 1955, the Soviet Union and the United States began working together to create the non-proliferation regime because Beijing concerned their efforts as attempts to stifle China's emergence as a great power.[486] The status-enhancing effect of nuclear weapons was explained by Marshal Nie Rongzhen when he recorded in his memoir why he had agreed in 1956 to Mao Zedong's request that he assume overall command of China's newly inaugurated nuclear weapons program:

"After the founding of the nation [in 1949], while we were still healing the wounds of war, several other big countries (*da guo,* which could also be translated as "great powers") had already achieved modernization, entering the so-called "atomic age" and "jet age." Even more important, we had already had the experience of the War to Resist America and Aid Korea (the Korean War) in which backward technology caused us to suffer much bitterness. We also faced a new threat of aggressive war, a war which would be a test of steel and technology. Imperialism dared to bully us because we were backward.

---

[485] Chellaney, "South Asia's Passage to Nuclear Power," p.50.

[486] Garver, *Protracted Contest: Sino-Indian Rivalry in the Twentieth Century* pp.343-44.

When I was young I saw with my own eyes the poverty and backwardness of old China, and encountered situations of humiliation. This left a deep impression on me.... The Chinese people under the leadership of the Chinese Communist Party ... can certainly ... catch up with and overtake the advanced industrial countries of the world, establishing the Chinese nation as one of the powerful nations of the world."[487]

John.W.Garver comments "two sentiments can be distinguished in Marshal Nie's words. One is a desire to acquire nuclear weapons to prevent or defeat foreign attack. The second is a drive to acquire nuclear weapons so that China will stand among the ranks of the "powerful nations of the world."[488]

In fact, the origins of the Chinese nuclear programs show that a key motivating force was an intense national desire to gain international status as important political and technological power.[489] Potentially, all nations have the status and prestige incentive. This is likely to be most potent, though, for those states that are emerging as dominant regional power centres with plausible pretensions to being great powers, and without front-line involvement in the East-West superpower confrontation.[490] Chairman Mao Zedong revealed this political aspect of nuclearisation in 1958 when he said that "we also need to build a few atomic and hydrogen bombs: without these the others would say "you are nothing".[491] The concept of prestige served by nuclear weapons at that time was rather simple and mattered only the distinction between the 'haves' and the 'haves nots'.[492]

6.4.3. Technology Logic

Similarly, the technological logic side suggests that for over 25 years from the late 1950s, Chinese engineers worked and succeeded in equipping the PLA with its first generation nuclear ballistic missiles, including the land-based liquid-propellant missiles and the

---

[487] Quoted in:Ibid., p.345.

[488] Ibid.

[489] John Wilson Lewis and Litai Xue, *China Builds the Bomb* (Stanford, California: Stanford University Press, 1988), p.2.

[490] Betts, "Paranoids, Pygmies, Pariahs & Nonproliferation," p.164.

[491]Cited in: Hua, "Threat Perception and Military Planning in China: Domestic Instability and the Importance of Prestige," p.29.

[492] Ibid.

submarines-launched solid-propellant missiles, which helped in drastically increasing the Chinese prestige in the international arena and also brought China a seat in the security council from the first day of returning to the United Nations in 1971.[493] This clear states that most important role to be served by the second generation arsenal in the post-cold war era was to demonstrate Chinese technological prowess to the domestic audience who otherwise could have said that liquid-propellant missiles without MIRVs are nothing as compared to other modern strategic forces. The vast majority therefore supported the government nuclear missile modernisation programs. It was this particular environment which made Di Hua comment that:

"Foreign environmentalists who demonstrated in Tiananmen square to protest China's recent nuclear testing were seen by Beijingers as laughable, the Japanese suspension of economic aid to China as stupidity, and the US and Russian expressions of regret as hypocrisy. … Chinese people … are extremely eager to upgrade their nation's prestige, including its military prestige.[494]

China's relatively high status is, partially a function of its nuclear arsenal and the PRC nuclear weapon program can be said to be serving that purpose in different steps like the first generation was to provide international prestige and the second generation was to provide the domestic prestige.[495]

6.5. MOTIVATIONS FOR INDIA

6.5.1. Realist Logic

The realist logic of the weapons acquisition programs based on the security environment of the Southern Asian region was time and again highlighted by Indian politician; officials and intellectuals. This could be well ascertained by Prime Minister Vajpayee's letter to President Clinton on the eve of the nuclear tests in which He identified China and Pakistan as the security reasons compelling it to test nuclear devices as Vajpayee wrote: "we have an overt nuclear weapon state on our borders, a state which committed armed aggression against India in 1962…That country has materially helped another neighbour of ours to become a covert

---

[493] Ibid.

[494] Ibid., pp.29-36.

[495] Ibid., pp.29-30.

207

nuclear weapon state. At the hands of this 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…"[496]

Later on, Indian defence minister George Fernandes also pointed towards US deployment in Diego Garcia suggesting that India perceived an all azimuth threat and so India's five nuclear tests in May 1998 were ostensibly impelled by security considerations.[497] Professor Waheguru Pal Singh Sidhu, who has been following the progress of India's nuclear doctrine for the past 15 years argues using organizational theory and strategic culture or neo-cultural theory, along with realism, that the dynamic but hesitant process behind the evolution of India's nuclear doctrine was on account of three variables: the perceived threat; the role of organizations dealing with the process of nuclearisation; and the influence of domestic politics and strategic culture.[498]

However, despite the security consideration claims, non-security factors clearly played a role as the Atlantic Council attributed the decision to domestic political developments: "…..the decision was more grounded in domestic political imperatives and a desire for great power status rather than the result of a careful, comprehensive analysis of the security environment and longer-term consequences."[499] This is in contrast to the Indian point of view is that China is the principal threat that has driven Indian interest in a weapons option and most experts date the beginning of the Indian nuclear program to China's 1964 test.[500] There was also a synergistic quality in the perceptions of danger from China: the trauma of the border conflict was followed only two years later by China's nuclear explosion. The first event reified the threat; the second underlined its nuclear dimension.

It was therefore that nine days after the first Chinese nuclear test in 1964 Homi Bhabha, father of the Indian nuclear establishment, made a famous broadcast in which he argued that the

---

[496] P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," *The Nonproliferation Review*, no. Fall/Winter (2000): p,123.

[497] Ibid.: p.123.

[498] Waheguru Pal Singh Sidhu, "Evolution of India's Nuclear Doctrine," in *CPR Occassional Paper Series 2003-04* (Dharma Marg, Chanakyapuri: Centre for Policy Research, 2004).

[499] P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," p.123.

[500] Cirincione, "The Asian Nuclear Reaction Chain," p.127.

only defense against nuclear attack "appears to be the capability and threat of retaliation."[501] Less than a year later, in the 1965 Indo-Pakistani war, China threatened to open a second front on Pakistan's behalf; and the People's Liberation Army did in fact carry out lightening military strikes at Indian outposts in the Himalayas during the war.[502]

While it is true that the 1962 war left India with psychic scars, for China it was but a border skirmish, now nearly forgotten. Chinese military officers say today that for decades they have not done any contingency planning for a war with India and even if there were any it is unlikely that nuclear weapons figured in those plans a they are of little use in border wars with limited aims, so India had no reason to fear a Chinese nuclear threat as Beijing had totally different priorities.[503] The Indian Ministry of Defense annual report for 1967-68 notes that the "Chinese danger poses to be a long-term one while the danger from Pakistan centres on certain problems and has certain elements which do not give it such a long-term character."[504]

The period after the 1974 Indian nuclear explosion that saw India keeping the nuclearisation option open, but not developing a deployable nuclear force also suggest that it was a political rather then a military threat oriented response to China.[505] Indians are not convinced by the PRC's professions of "no first use" of nuclear weapons and do not believe that the PRC's designs on the subcontinent are limited, especially given previous Chinese support to Maoist and other insurgent or secessionist groups, such as the Naxalites and Naga and Mizo tribal rebels.[506] It is for this reason that Stephen P Cohen also opines that the India-China conflict bears the seeds of a calamitous nuclear holocaust. And according to him some Indians regard the Chinese threat as the key with which they can set free the Indian nuclear genie. They

---

[501] Quoted in:A. G. Noorani, "India's Quest for a Nuclear Guarantee," *Asian Survey* 7, no. 7 (1967): p.490.

[502] Ashok Kapur, "Peace and Power in India's Nuclear Policy," *Asian Survey* 10, no. 9 (Sep 1970): p.784.

[503] Batuk Vora, "China Does Not Threaten India," *Himal*, 11 June 1998, p.16.

[504] Kapur, "Peace and Power in India's Nuclear Policy," p.784-85.

[505] Ashok Kapur, *India's Nuclear Option: Atomic Diplomacy and Decision Making* (New York: Praeger, 1976), p.21.

[506] Richard K. Betts, "Incentives for Nuclear Weapons: India, Pakistan, Iran," *Asian Survey* 19, no. 11 (1979): p.1056.

therefore, saw an opportunity to fulfill an Indian national destiny by emulating the Chinese nuclear program.[507]

6.5.2. Identity and Ideology (I^2) Logic

The historical memory of the great Indian civilization coupled with India's history and experience of foreign invasions and domination affected several aspects of post independence Indian foreign relations. Coming out of some three centuries of colonial status, the Indians have a strong sense of shame of their fate as a colonised country. In order to overcome their sense of shame, they have aimed to replace the image of India as an underdeveloped colonized third world country with that of a first world developed country status.[508] India's past anticipated a great historical destiny and the struggle against the British empire had already awakened a strong sense of 'Indian-ness' that drew especially on Hindu culture and values and had inspired within India's political elites a profound commitment to controlling India's national destiny. Indian officials clearly believed they were representing not just a state but a civilization, and that dependence on others might interfere with a national policy designed to fulfill that destiny.[509] In March 1948, Nehru told the constituent assembly somewhat emphatically: "… It is merely the fact that we are potentially a great nation and a big power, and possibly it is not liked by some people that anything should happen to strengthen us".[510]

It was against this particular background that the inherited social values of a Hindu Society publicized by Savarkar's Hindutva came into play to give credence to preordained destiny in defining independent India's National Security approach. The attempts towards a great historical destiny of prestige and honour therefore started with Nehru trying to carve out a role for India in the wider world, assuming that this would enhance India's prestige and thus lend weight to its diplomacy. Nehru did not simply envision India as a future major power, but his grand strategy encompassed economic planning precisely for that reason. Nehru may have been an intellectual idealist, but he was a policy realist, particularly for the long term. His

---

[507] Stephen P. Cohen, "Issues in South Asia " *Asian Survey,* 15, no. 3 (Mar 1975): p.205.

[508] Peimani, *Nuclear Proliferation in the Indian Subcontinent: The Self-Exhausting "Super Powers" And Emerging Alliances*, p.21.

[509] Cohen, *India: Emerging Power*, p.52.

[510] Nayar and Paul, *India in the World Order: Searching for a Major-Power Status*, p.134.

realism led him to envisage the creation of a rather self-sufficient economy with its own metal making, capital goods and strategic industries.[511] This seems to imply that without the strong productive and technological base, India cannot secure its future.

The socially constructed values allocated to the policy of prestige and status seeking played a dominant role in India's nuclear policy making. The essence of the policy of prestige is to influence the impression other nations have from the power of one's own nation. The policy of prestige uses military demonstrations as means to achieve its purpose and since military strength is the obvious measure of a nation's power, its demonstrations serves to impress the others with that nation's power.[512] Within the Indian discourse, the reputation inherent to nuclear weapons power was considered the most effective instrument to gain international prestige.[513] In the light of status and prestige attainment commensurate with its past and anticipated destiny, Stephen Cohen opined that India's considerable scientific and defense capabilities and its armed forces are therefore fast becoming symbols of the capacity to produce the most modern artefacts of modern civilization: aircrafts, tanks, missiles, and nuclear weapons and this is especially clear from names given to military equipment, such as Agni missile and the Arjun tank, names drawn from Sanskrit or Indian traditions that show the world that Indian science and industry can make "sophisticated" systems which are important not only as a means of maintaining military balances but also as representation to others-and to Indian themselves-of Indian civilizational accomplishments in this area of modern technology.[514] The nuclear capability has resultantly increased India's political and diplomatic bargaining position with the other major powers, is evident in the strategic dialogue that New Delhi has been engaged in with all of them.[515]

---

[511] Ibid., p.152.

[512] Hans Joachim Morgenthau, *Politics among Nations: The Struggle for Power and Peace* Brief ed. (Boston, Mass: McGraw-Hill, 1993), p.90.

[513] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.55.

[514] Cohen, *India: Emerging Power*, p.63.

[515] Nayar and Paul, *India in the World Order: Searching for a Major-Power Status*, p.52.

6.5.3. Technology Logic

As is known the Indian program began even before India achieved its independence, largely through the efforts of Homi J. Bhaba, who in 1944 established the institution that became known as the Tata Institute of Fundamental Research. The basic institutional structure of India's nuclear programme was laid down in the Atomic Energy Act passed by the Constituent Assembly in 1948. Although the Act did not explicitly mention the development of a nuclear weapons structure as one of the programme's objectives, its careful wording avoided any provisions that would exclude it in the future. Frey notes "... the Bhaba paper (Atomic Energy Act) put up to the government in 1948 was not entirely innocent. The background to it and reading between the lines leaves no doubt that Bhabha realised that a national nuclear programme would eventually acquire certain military objective".[516]

Since then India has developed a self-sufficient scientific and technological personnel of over two thousand scientists, five hundred technicians, and eight thousand staff, covering every phase of nuclear scientific activity. And as for India, the development of nuclear technology promised to serve **a** multiplicity of ends, so it was and still is fundamentally an important means of introducing science and technology into the country and of developing modern industry. As H. J. Bhaba, the late chairman of India's Atomic Energy Commission, stated: "The problem of establishing science as a live and vital force in society is an inseparable part of the problem of transforming an industrially underdeveloped to a developed country".[517] We can also say with a reasonably degree of certainty that right from its outset, Bhabha was aware of the dual-use nature of the nuclear programme as in the early 1950s, he not only accepted the potential military use of the programme, but also sought to create the means and know-how to acquire nuclear capabilities for military purposes, consequently, India's strong opposition to the growing efforts of the international community to establish restrictions and safeguards on fissile material reflected Bhabha's stance.

---

[516] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", pp.99-100.

[517] Lt.J.Bhabba, "Science and Problems of Development,"Science, Vol.151, No.3710 (Feb.4.1966),p.542. Cited by:Cleave and Rood, "A Technological Comparison of Two Potential Nuclear Powers: India and Japan."

For the Indians, the development of nuclear energy has been undertaken as part of a monumental effort to industrialize, modernize the nation and provide for its security. It might be possible to conclude that Nehru's doctrine of achieving status for India strictly through peaceful means did not allow him to pursue active nuclear development – at least in his official statements. He nevertheless recognised the fact that other states actively used nuclear weapons as tools to gain international status and advantage. Nehru discerned the contradiction between his quest for international status – necessitating keeping the nuclear option open – and his moral concept of a peaceful world order. As George Perkovich wrote:

"Closer scrutiny, however, reveals that Nehru also accepted, albeit reticently and ambivalently, the potential military deterrent and international power embodied in nuclear weapon capability. ... . The moralist visionary Nehru abhorred the wanton destructiveness of nuclear weapons and saw them as anathema to the unique spirit of India. ... At the same time, however, there was another Nehru, the ambitious, realist prime minister who recognized that nuclear weapon capability could enhance India's status and power in the West-dominated world..." [518]

Prime Minister Nehru was well aware of the rapid technological development. He stressed the development of an industrial and technological base and believed that defense with imported equipment and lacking technological knowledge is a 'superficial type of defence'. He therefore advocated that "apart from the army, navy and so on, you have to have an industrial and technological background in the country".[519] It therefore could be ascertained that Nehru's desire of independence in matters of armament through non-'superficial defence' suggested that India would accord high importance to self-reliance in defence,[520] and to the development of heavy industry not simply because of economic terms but as an indispensable component of defence.[521]

---

[518] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.97.

[519] Jawaharlal Nehru, *Jawaharlal Nehru's Speeches*, vol. III (Delhi :: Publications Division, Ministry of Information and Broadcasting, 1954), pp.39-40.

[520] Singh, "The Role of Air Power," p.117.

[521] Nayar and Paul, *India in the World Order: Searching for a Major-Power Status*, p.153.

Though when India became independent on 15 August, 1947 only the United States had nuclear weapons, Nehru had an unmistakable strategic vision of what was going to happen in the field of nuclear science and research and its implications for the nature of future international conflict. Thus Nehru observed:

> "as long as the world is constituted as it is, every country will have to devise and use the latest scientific Devices for its protection. I have no doubt India will develop her scientific researches and I hope Indian scientists will use the atomic force for constructive proposes. But if India's threatened she will inevitably try to defend herself by all means at her disposal".[522]

According to Karsten Frey, within India's discourse on nuclear weapons, neither its relationship with China nor its relationship with Pakistan figured prominently, despite their being the two major strategic targets of India's nuclear deterrence capability. Instead, India's nuclear debate focused on the international nuclear regime which was vehemently dismissed as discriminatory and imperialist and a 'Nuclear Apartheid'. Frey writes:

> "Using Morgenthau's dialectics, India's 'desire for social recognition' proved to be a 'dynamic force determining social relations and creating social institutions,' as they were now recognized as a nuclear weapons power and as a member of the exclusive 'nuclear club'."[523]

Selig Harrison captures the essence of the conflict between India and the United States over the NPT as not only reflecting disagreement on nuclear matters, as such, but also underlines what may prove to be incompatible views concerning the nature of the global power structure." The U.S. wanted to restrict the ownership of nuclear weapons to a small group of states for power reasons, but: "It is India's goal to escape from second class status in world affairs and receive recognition commensurate with its position as one of world's oldest and largest civilisation, constituting nearly one 5th of the human race. Since nuclear weapons still

---

[522] Norman Dorothy, ed., *Nehru: The First 60 Years*, vol. 2 (New York: John Day, 1965).Also Cited in;Budania, *India's National Security Dilemma: The Pakistan Factor and India's Policy Response*, p.140.

[523] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.22.

constitute the principal coin of power, this quest for equitable status has prompted India to perfect its ability to assemble and deliver nuclear weapons, unless and until the existing nuclear weapons states make credible progress' toward a nuclear free world."[524]

India therefore while attempting a general development of heavy industry and an expansion and modernization of its armed forces undertook an ambitious nuclear program. This also suggests that they were cognizant of the fact that prior to the development of a certain level of civil nuclear technology, the nuclear weapons option is not a practical consideration; but with the development of civil nuclear technology the weapons option increasingly came into view. At that time, a combination of pressures, not the least of which may be the pressure of scientific-technological dynamism, may well have made the decision *not* to produce nuclear weapons more difficult to maintain than what may seem to be a natural evolution of circumstances towards the production of nuclear weapons.[525] In fact, once a nuclear civil technology complex has been built, it produces its own pressures to make nuclear weapons and by the 1990s India was approaching this point.[526] The pressure of scientific establishment was an important factor in India's decision to carry out nuclear explosions both in 1974 and 1998.[527] The nuclear scientific establishment's efforts to direct public opinion on the nuclear issue continuously through opinion articles and analyses in India's dailies by its representatives seems to suggest that this section of India's epistemic community, referred to as the scientific-strategists, generally proved to be the most uncompromising and determined proponents of India's nuclear build-up (compared to the two other sections of India's strategic elite). Unlike the politico-strategists, the scientific-strategist did not view the discriminatory international nuclear regime in reference to India's security needs, but as an unfair attempt to curb India's scientific genius.[528]

---

[524] Nayar and Paul, *India in the World Order: Searching for a Major-Power Status*, p.77.

[525] Cleave and Rood, "A Technological Comparison of Two Potential Nuclear Powers: India and Japan."

[526] Rusch, "Indian Socialists and the Nuclear Non-Proliferation Treaty."

[527] Budania, *India's National Security Dilemma: The Pakistan Factor and India's Policy Response*, p.129.

[528] Frey, "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up", p.55.

This view supports Rodney Jones' assessment of India stresses the strong value placed by Indians on modern scientific and instrumental knowledge and its affect on two forms of security policy: weapons manufacture and negotiating style. Jones therefore notes that, "this trait drove India's investment in modern science and engineering across the board, its acquisition of modern military technology and large standing military forces, its development of nuclear and missile capabilities" and "its secret development of chemical weapons".[529] This trait was also favourable to Indian practitioners in strategic decision-making and negotiations as they were not only turning out to be well versed in modern knowledge but also in the cultural frame of reference, hence better informed and more analytically focused than most of their external interlocutors.[530]

6.6. MOTIVATIONS FOR PAKISTAN

6.6.1. Realist Logic

Pakistan is situated at the crossroads of the South Asian, Persian Gulf, and Central Asian security complexes, and perceives numerous threats from compound regions. Pursuit of nuclear capability therefore represented, in theory, a rational response to a highly threatening security environment. Pakistan's neighbours after partition included an initially dormant Iran, a volatile Afghanistan, and three of the world's most populous nations–India, China, and the Soviet Union. However, the largest determining factor and the major contribution to Pakistan's sense of insecurity has been the been the perception that India intends to dominate Pakistan and arguably the whole of South Asia. Pakistan perceived a security threat from India from the outset and problems emanating from the imperfect and hasty way in which partition was carried out made this worse. Repeated threats of undoing Pakistan by various Indian leaders have forced Pakistan to put on 'realistic logic cap' for taking decisions of devising a concrete mode of ensuring its territorial integrity and sovereignty.

The insecurity feeling of the Pakistani establishment along with the military inferiority complex vis-a-vis India prompted them to seek support through alliance relationships for strengthening their defences by military cooperation and aid. It was thus that Pakistan aligned itself with the West in the South East Asia Treaty Organization (SEATO) and the Central

---

[529] Jones, "India's Strategic Culture."

[530] Ibid.

Treaty Organization (CENTO) and thus it became known as 'most allied ally' of the Americans in the region. But this alliance relationship had a psychological set back when as a result of Sino-Indian war the US started military supplies to India. In President John F Kennedy's message to President Ayub on October 28 1962 he called on Pakistan to view the Chinese attack against India as a threat to whole of South Asian subcontinent, including Pakistan. Pakistan responded by saying that "while the Kashmir dispute is still pending, we are apprehensive of massive US military aid to India"; which in the Pakistani point of view would be used against Pakistan. The United States irked by the neutral position taken by Pakistan started applying pressures on Islamabad, and resultantly Bhutto started cultivating a relationship with China. In January 1964 came the announcement of the agreement between the two for the demarcation of 300 miles undefined frontier and the decision to build a road linking Xinjiang with northern areas of Pakistan. The United States, therefore in June 1964, responded to all these initiatives by suspending all aid to Pakistan and during the 1965 Indo-Pak war they together with all western European countries stopped the flow of economic aid and closed their armament industry to Pakistani purchases.

Up to this point although the US 'atoms for peace' program was helping many states towards the peaceful uses of nuclear technology but in Pakistan no serious realisation of the 'nuclear technology need' was seen. As is very candidly noted by Bhumitra Chakma in his latest study *Pakistan's Nuclear Weapons* (2009), there was a "lack of serious commitment from the Pakistani political leadership to advance the country's nuclear programme. Pakistani policy-makers in the 1950s and 1960s neither seriously endeavoured to strengthen their indigenous capability for reactor construction or operation, nor did they vigorously attempt to use nuclear energy for industrial or other civilian uses." During that period "the nuclear programme was primarily, and perhaps exclusively, motivated by the intent to use the atom for peaceful purposes." It further stresses the fact by noting that "there was no indication or evidence of any intention at that time to use nuclear power for military purposes."[531]

Chakma's analysis is also supported by the fact that Pakistan in those days was busy in 'assertive non-proliferation diplomacy' which could be seen through the enthusiasm of its leaders on different international forums asking for "urgent consideration to the conclusion of a treaty to outlaw the further spread of nuclear weapons and the knowledge of their

---

[531] Bhumitra Chakma, *Pakistan's Nuclear Weapons* (London ;New York: Routledge, 2009), p.13.

manufacture"[532] and so therefore concluding agreement that will "prevent the further spread of nuclear weapons".[533] The situation however changed with the October 1964 nuclear tests of China and the subsequent Indian Chief nuclear scientist Homi Bhabha's assertions that India can detonate a nuclear device in 18 months. The Indian intentions were the leads in the national media with editorial reports clearly referring to Indian aspirations to atomic weaponry, thus creating a very profound impact on the Pakistani mindset. The obvious result was the recognition by the politico-military elite of Pakistan of the potential nuclear danger from the adversary.[534]

Pakistan with this increased realisation of the nuclear dangers in South Asia pursued a more aggressive nuclear diplomacy, hence continuously raising their concerns with the international community. But rather than taking note of Pakistani concerns, the international community on the contrary continued their assistance to India, which further aggravated Pakistani concerns.[535] The Indo-Pakistani war of 1965 on one hand further exposed Pakistan military might and on the other shattered Pakistan's false impressions that being a member of the SEATO and CENTO organization they are secure and would be helped by the partners. Islamabad hence feeling betrayal by the alliance partners made a major review of its security policy. The important differences which were felt resulted in two changes: one, Pakistan started get even closer to China; and two, it overhauled its nuclear diplomacy which became now Indo-centric. Islamabad and Beijing linked up their signing of NPT in 1968 with that of India hence adopting 'nuclear option'. This was the first time that any such change with regard to 'nuclear option' was visible from the government policy. Yet it is still important to note that even with the shift in policy, there was no practical disposition of this approach. This is supported by Chakma's latest research, which concludes

---

[532] "Address by Mr Mohammad Ayub Khan, President of Pakistan 26 September 1962," (General Assembly Official Records, 17th session, 1133rd Plenary Meeting);Also cited in: Chakma, *Pakistan's Nuclear Weapons*, 14.

[533] "Address by Mr. Zulfiqar Ali Bhutto, Foreign Minister of Pakistan 30 September 1963 ", (General Assembly Official Records, 18th session, 1220th Plenary Meeting);Also cited in: Chakma, *Pakistan's Nuclear Weapons*, p.14.

[534] For media reports see: "India's Efforts to Enter N-Club," *Dawn*, 21 Novemebr 1964;"India and the Bomb," *The Pakistan Observer*, 16 November 1964;Also cited in: Chakma, *Pakistan's Nuclear Weapons*, p.15.

[535] Chakma, *Pakistan's Nuclear Weapons*, p.15.

that "there is no evidence that, during the period from 1954-71, any government in Pakistan embarked on a military nuclear programme".[536] (p.18)

Pakistan became caught up in a long enduring conflict with India over the disputed territories of Kashmir, Siachin, Sir Creek etc…, where it also confronted the Indian military superiority. The history of three major wars of 1948, 1965 and 1971 and the dismemberment of Eastern wing of country in a separate entity of Bangladesh, supported and sponsored by India,[537] was an all time hanging sword on Pakistani heads.

It was therefore these lessons of history alongwith India's continuing military expansion, which made nuclear weapons more attractive as a means of countering Indian conventional advantages, as was clearly stated by Pakistan's Foreign Minister Zulfikar Ali Bhutto, in his book 'The Myth of independence'. Bhutto argued that as wars are transforming into 'total wars' in concept and strategy, it is therefore very timely to assume that Pakistan can confront a 'total war' scenario. He therefore, wrote, "It should be dangerous to plan for less and our plans should, therefore, include the nuclear deterrent…it is (therefore) vital for Pakistan to give the greatest possible attention to nuclear technology…(and) to obtain such a weapon in time before the crisis begins"[538]

---

[536] Ibid., p.18.

[537] The Indian support to the rebels and their role in the organisation of *Mukti Bahini* is no secret today as Bangladesh documents volumes details and cites incidents from which their involvement can be inferred very easily. There is a huge body of academic research which shares the view of Indian involvement. Moreover the Indian parliament resolution in assuring the rebels of 'whole hearted sympathy and support of India' is on record. For detailed literature see:Henry Kissinger, *White House Years* (Toronto, Canada: Little Brown & Co 1979), p.855, p.71, p.93, p.915. On the issue of training camps and recruitment of Mukti Bahini see: Kabir Uddin Ahmad, *Breakup of Pakistan : Background and Prospects of Bangladesh* (London Social Science Publishers, 1972), pp.92-93;On the issue of raising funds, buying arms for rebels and assertions like Mujib 'fighting India's battle' etc... see:L. F. Rushbrook Williams, *The East Pakistan Tragedy / [by] L. F. Rushbrook Williams* (London :: Tom Stacey Ltd, 1972), pp78-79;The Indian involvement is well reflected every where in the book particulalry see chapter on 'Insurgency': Siddiq Salik, *Witness to Surrender / by Siddiq Salik* (Karachi ; Oxford :: Oxford University Press, 1977), pp.97-106.

[538] Z. A. Bhutto, *The Myth of Independence* (Lahore: Oxford University Press, 1969), pp.153-4.

The crisis started unrolling in 1971 with the East Pakistan crisis, which provided further impetus for the embarkation of Pakistani nuclear program. The consequential loss of half of the Pakistani state as a result of Indo-Pak war of 1971, the humiliating nature of Simla Accords as between the victor and the vanquished, the exchange of 93,000 Pakistani prisoners of war, and India's 1974 'peaceful nuclear explosion' dealt an appalling blow to Pakistan's security, economy and pride. Pakistan, as in the words of Hugo Trevor-Roper was "defeated, demoralized, and in the eyes of the world, disgraced"[539], and in consequence became determined to construct a nuclear weapon. The reasons were essentially the same as during the 1960s, but more urgent because of the changing regional and international environment.

It was that background of being defeated; dismembered; humiliated; betrayed, but above all the "Buddha Smile" in Pokhran, which led the new Prime Minister Zulfikar Ali Bhuttoto express his determination to build an effective military strategy against any future national humiliation. He therefore called upon a meeting of scientists at Multan and spoke to them about Pakistan's defeat and humiliation in the war with India and vowed that he would vindicate the country's honour. Bhutto asked the scientists of their contribution towards national security and said that, "I shall find you the resources, and I shall find you facilities"[540]. This meeting then set the stage for Pakistan's national crash program to get the bomb as a 'realists' response to Indian threat. And since Bhutto's time, successive Pakistani governments ensured the continuity of the security policy of creating a credible nuclear deterrence against India's overwhelming superiority in conventional warfare.

Pakistan's nuclear program development resembles more closely to the Chinese because of the feeling of betrayal by an ally (Soviet Union in case of China and US in case of Pakistan) was a very strong driver for the Pakistan's pursuit of nuclear technology and weapon development. The security considerations of Pakistan therefore imply that more than anything else, Pakistan embarked on developing a credible nuclear deterrence for survival rather than gaining power, prestige or world status. For this reason, Pakistan seeks to uphold hi-tech alertness with an adequate force level to ensure that the enemy does not strike suddenly with a coup de main or overwhelming blow.

---

[539] Cited in: Steve Weissman and Herbert Krosney, *The Islamic Bomb: The Nuclear Threat to Israel and the Middle East* (New York: Times Books, 1981), p.40.

[540] Cited in: Ibid., p.46.

The geography of Pakistan, in the shadow of three of the largest and most populous countries of the world with its width ranging between 100-300 kilometres and the fact that including a concentration of population centers and major military installations near the Indian hostile border, saddle it with intractable disadvantages. A lack of defensive spatial depth in military terms means that even a short range, battle-support missile like Prithvi-I, with a range of 150 kilometres, has strategic implications for Pakistan, as it can reach most of the strategic targets in Pakistan, including the national capital Islamabad. India's repeated testing of Pakistan-specific 'Prithvi' missiles was thus a security concern for the government of Pakistan.

Pakistan's geo-strategic and security environment in the light of India's expressions of self-perceived greatness have played a major part in provoking Pakistan into desperate attempts to bolster its own national defense, by embarking on a relatively modest ballistic missile development program of its own, with all its attendant politico-diplomatic and economic costs. Pakistan views India's aspirations as a direct challenge to its sovereignty and security. Military planning in Pakistan is almost wholly directed at achieving some kind of parity with India. To the policy planners in Pakistan the security concerns after losing the eastern wing of the country and the fears of further dismemberment have not been allayed. There are regional and ethnic separatist movements in Pakistan, the Baluchistan and Pashtunistan issues were alive and some diplomats in the early 1970s claimed to have evidence that the former USSR was supporting secessionists in Baluchistan and the North West Frontier Province (NWFP).[541] An alarming scenario to Pakistani planners was thus the possibility of a crisis over the Pak-Afghan border issue igniting a two-front war with India and Afghanistan.

Thus, Pakistan in early 1980 started an Indo-centric ballistic missile effort as a strategic requirement of developing a diversified and survivable nuclear deterrent potential. However, Pakistan has been a reluctant entrant into the missile club, which is evident from the fact that in the early 1990s, Pakistan proposed a 'Zero Missile Regime' for South Asia, but unfortunately the proposal did not evoke a positive response from India. Pakistan has, however, reiterated on a number of occasions that it has no intention of matching India missile for missile and has deliberately eschewed a nuclear/missile arms race with India, by embracing a policy based on 'Minimum Nuclear Deterrence'.

---

[541] A. Syed, "Pakistan's Security Problem: A Bill of Constraints," *Orbis* XVI, no. 4 (Winter 1973): p.971.

Pakistan's missile programme is aimed at achieving a credible, reliable and sustainable deterrence capability, which is not aimed at achieving a power projection capability beyond its immediate security arena. It is purely security driven and, unlike India, it does not harbor any unrealistic pretensions to global power status. Brig Naeem Ahmad Salik writes that Pakistan has exercised the utmost restraint in the development of its missile program and conducted a bare minimum number of missile flight tests, consistent with the minimum essential needs for technical validation of systems, or in response to provocative Indian actions.[542] On a number of occasions, Pakistani officials have reiterated in unequivocal terms that Pakistan does not want to get embroiled with a debilitating and potentially catastrophic nuclear/ missile arms race with India.[543]

Pakistan's missile development programme has thus been driven entirely by its security concerns and Pakistan's goal has been to strengthen its national technology base to attain strategic and tactical advantages vis-à-vis an increasingly militaristic and bellicose India, which seeks, without any pretence, a regional and a global power status.

6.6.2. Identity and Ideology (I^2) Logic

Pakistan was established as a Muslim homeland state under the slogans of "there is no God but Allah"; and adopted Islam as the state ideology with the aims of defining a Pakistani identity. Due to the Pakistani peoples' commitment to Islam, all political parties claim to have Islam as their first principle of state policy, and many party's leaders started to play on religious sentiment as a means of strengthening the country's national identity shortly after Pakistan's inception. They therefore recognize the centrality of Islam to the political process and highlight their commitment to Islam in their election manifestos and policy statements. This explains why "Islam figures prominently in political and military discourse"?, Dr Hasan-Askari Rizvi notes that, "as Islam is closely associated with the establishment of Pakistan, its defense, especially vis-à-vis India, is projected by civilian and military leaders as the defense of Islam."[544] Pakistani scholar Husain Haqqani argues that Pakistan's secular elite used Islam as a national rallying cry against perceived and real threats from predominantly Hindu India.

---

[542] Naeem Ahmad Salik, "Pakistan's Ballistic Missile Development Program – Security Imperatives, Rationale and Objectives," *Strategic Studies* XXI Spring no. 1 (2001).

[543] Ibid.

[544] Rizvi, "Pakistan's Strategic Culture," pp.319-20.

This political commitment to an "ideological state" gradually evolved into a strategic commitment.[545]

The Islamic influences on the strategic culture of Pakistan, became inevitably intermeshed with the Indo-Pak rivalry expressed in a history of three wars (1948; 1965; and 1971) plus humiliation of defeat in the last war of 1971. This defeat in particular was still fresh in Pakistani minds when India tested the first nuclear device in 1974. Although Delhi labelled it as peaceful nuclear explosion (PNE) this undoubtedly fuelled the Pakistani threat perception vis-à-vis India. It was at this time that Pakistani Prime Minister Mr. Zulfikar Ali Bhutto, declared that Pakistan would acquire nuclear weapon capability, to maintain the balance of power in South Asia, no matter what price it had to pay.

General Aslam Beg, a former Army Chief of Pakistan mentions the sacrifices the Pakistani leadership had made for achieving the desired objectives of acquiring the nuclear deterrent potential. He said Pakistan is indebted to five main personalities for their nuclear program. Mr. Zulfikar Ali Bhutto, who gave the 'policy definition and set the goals'; General Ziaul Haq provided unflinching support to the programme from 1977 to 1988; Benazir Bhutto added 'logic and restraint'; Dr. A.Q. Khan, the work-horse, with his technological skills achieved break-through in a short period of ten years. Finally, Mian Nawaz Sharif added 'credibility and confirmation' to our nuclear weapon capability, by giving the response to the Indian atomic tests of 12 May 1998, carried out under the leadership of Dr. Samar Mubarakmand who conducted five tests on 28th May at Chaghi and the sixth on 30th May at Kharan. General Beg added that all the five personalities paid a very high price for their contributions. Mr. Zulfikar Ali Bhutto was eliminated through the judicial process; General Zia was assassinated through sabotage; Benazir Bhutto was assassinated through terror in cold-blood; Dr. A.Q. Khan was humiliated by the military government and confined to languish in a sub-jail, since 2004. Mr. Nawaz Sharif lost his government, suffered humiliation and eight years long exile.[546]

The story of Pakistan's Nuclear weapon programme thus very clearly reflect that it is because of the identity and ideological underpinnings which are rooted deep in its evolution that the country hold it nuclear weapons status so essential.

---

[545] Haqqani, "The Role of Islam in Pakistan's Future."

[546] Mirza Aslam Beg, "Nuclear Security Imperatives," *The Nation*, 23 June 2008.

6.6.3. Technology Logic

It can also be argued that the rapid technological advances by Pakistan in recent years are also a symbol of nationalistic pride in a country which has overcome major political, technical, and industrial challenges to mount a program with a team of dedicated scientists. Pakistan is showing the world how a country with limited technical resources and a narrow industrial base can acquire nuclear-weapons and ballistic missile capabilities by riding a wave of nationalism.[547]

Pakistan remains hopelessly inferior to its primary antagonist in important gross indices of conventional military power and potential. Nuclear weapons therefore appeared to be the only means by which to assure deterrence of Indian conventional attack, or to defend Pakistani territory if deterrence fails. Richard K Betts notes, that, "Given the unwillingness of allies (the U.S. and the PRC) to intervene militarily on its behalf in the last two wars, the Carter administration's diplomatic "tilt" back towards New Delhi, and difficulty in obtaining advanced military equipment abroad, Pakistan may also feel it has little to lose in undertaking a nuclear weapons program. Of the three countries at issue, Pakistan has the most compelling positive incentives for a bomb, and the fewest and weakest negative incentives."[548]

Furthermore following defeat in the 1971 war, Islamabad has been suspicious of New Delhi's annexation of Sikkim and diplomatic pressure on Bangladesh and Nepal. Militant Hindu nationalism has been ignited in India with a potent anti-Islam, anti-Pakistan message furthering heightening the fears of Pakistanis. Pakistani Prime Minister Zulfiqar Ali Bhutto pointed out after the Indian nuclear test, "No two among the five great nuclear weapon powers . . . have had a history of confrontation and wars between them in contemporary times or in past remotely comparable to the relations between India and Pakistan".[549]

Pakistanis hence were left with an unavoidable choice of pursuing its own program to provide the country with the needed deterrent and thereby strengthening and solidifying the country's

---

[547] Chellaney, "South Asia's Passage to Nuclear Power," p.59.

[548] Betts, "Incentives for Nuclear Weapons: India, Pakistan, Iran," p.1059.

[549] statement in US Arms Control and Disarmament Agency"Documents on Disarmament 1974," (Government Printing Office:Washington, D.C, May 1976).

sovereignty, security and territorial integrity. As Lt Gen (rtd) Kamal Matinuddin said: "If we had to regain our national pride, we had to test. The issue had been brought to a boiling point by India. Now we have restored the strategic imbalance that India had created. We feel secure now."[550] Thus it was very strongly felt that even though the Kargil war occurred right after the nuclear detonations and even though there were looming threats of surgical strikes against the 'alleged masterminds' of the Mumbai blast, it was basically the possession of a nuclear deterrent that prevented any misadventure.

This reflects that how the strategic aims of Pakistan security policy of strengthening national power; preventing open aggression by India; thus attaining a position of security while promoting and capitalizing on advances in technology have delivered by providing a *minimum credible* deterrent potential to the country. It could very rightly be said that nuclearisation strengthened Pakistani beliefs in the ability of its deterrent potential to inhibit India from using its superior conventional force for intimidating Pakistan.

6.7. CONCLUSION

Following the three logics in the cases of China, India and Pakistan, the research so far has suggested that states pursue these weaponization programs through a mix of strategic culture mindsets with actual problems of security and survival. The strategic culture thus creates an encompassing cognitive framework for the Realistic Logic, Identity and Ideological Logic and Technology Logic. This framework sets down the following objectives for the states to aspire to achieve:

   i. To rekindle the glorious historical past
   ii. To seek international respect and recognition
   iii. To be able enough not to be a victim of technological apartheid and in sum,
   iv. To be an impregnable country –able to maintain and sustain itself in an anarchic world.

---

[550] Raj Chengappa and Zahid Hussain, "Bang for Bang:Pakistan Claims It Has Evened the Score by Conducting Nuclear Tests. The Situation Now Calls for Extraordinary Statesmanship to Avert a Dangerous Confrontation.," http://www.india-today.com/itoday/08061998/cover.html.

And it has been shown that the answer to the way to accomplish these objectives was to be found in the acquisition of the most sophisticatedly available state of the art means of power. The missiles being one such, served to encompass all these objectives.

In short to sum it up, we therefore may say that if we assume Y=Yes, and N=No and then study realist logic in case of China, India and Pakistan, it would appear that Chinese have their security concerns both in the region and beyond the region and they are again both real and perceived. For example as already discussed the Chinese have valid security concerns, both real and perceived 1) vis-à-vis Taiwan; 2) Japan; 3) North Korea; and 4) India. India, on the other side has both real and perceived security concerns only in the region, *e.g* vis-à-vis 1) China; and 2) Pakistan. But to date no extra-regional threats to its security has been cited in its history of independence. Whereas, Pakistan has also got both real and perceived security concerns in the region, *e.g* vis-à-vis 1) India; 2) Afghanistan; and 3) Iran. Pakisan has again both real and perceived security concerns vis-à-vis extra-regional actors *e.g* 1) Russia (FSU); 2) Israel; and 3) U.S.A.[551]

Similarly, when Identity and Ideology Logic is studied in the case of China, India and Pakistan, we find no evidence of religio-based texts and norms/values/beliefs in case of China, but of course the existence of a wide variety of politico-ideological and philosophical texts (hundred schools of thought; seven military classics; Confucius; Mencius and Sun Tzu etc..) and norms/values/beliefs - based and inspired by these writings. Whereas, in India both religio – texts and norms/values/beliefs shaped by these - are existing (Vedas; Arthashastras; and Ramayanas etc…) mix with the strong influences through political ideological/philosophical writings (Kautilya's works; Savarkar's Hindutva etc…) and their cultivated and inspired norms/values/beliefs. On the other hand in Pakistan, we again find strong influences based on religio texts (Al Quran; and Ahadiths-sayings of the Prophet) and their associated norms/values/beliefs, but quite contrary we do not find strong evidence of political ideological/philosophical texts and their cultivated norms/values/beliefs, except general writings by for example Dr Allama Iqbal.

---

[551] There have been numerous reports about the India-Israeli nexus and US-Israeli nexus for decapitating strikes against Pakistan's nuclear assets. This makes the country wary about their intentions.

The Technology Logic, however when studied in the context of these states of China, India and Pakistan depicts equally same sorts of desires; ambitions and motivational influences on them.

Figure 5-6: Security Concerns of China, India And Pakistan Explained Through Realist Logic
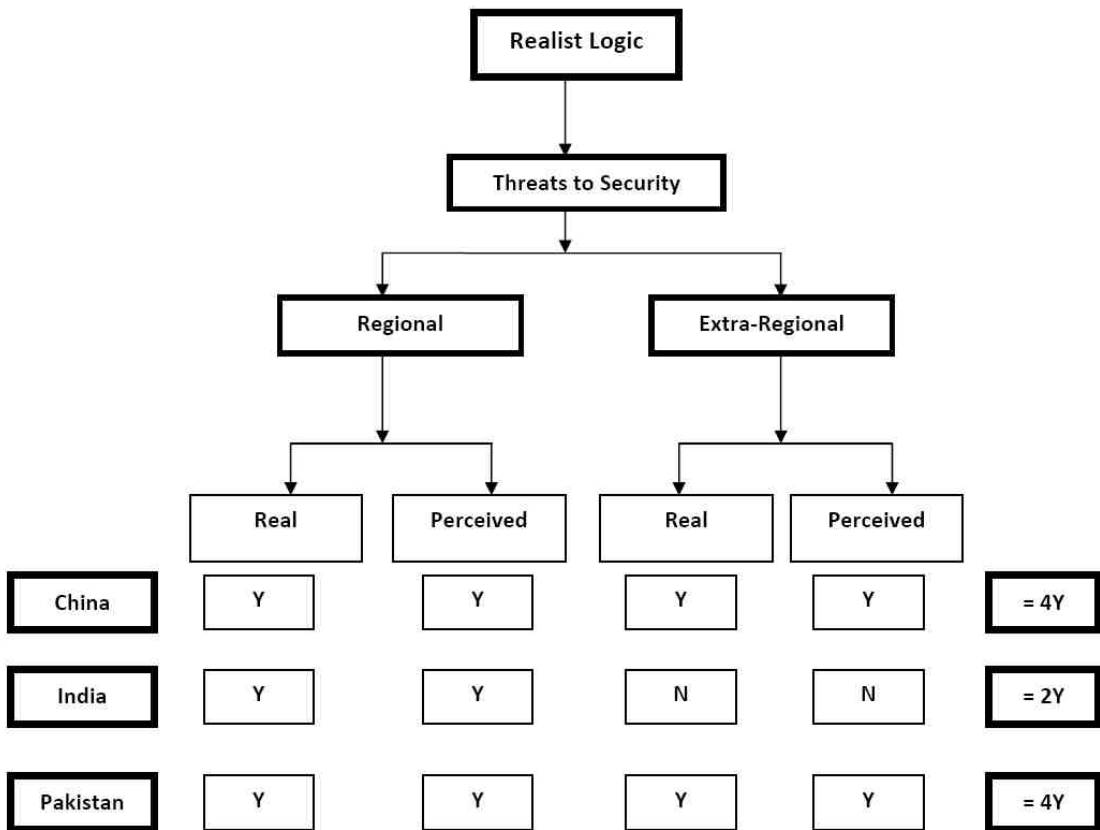
Figure 5- 7 : Various Influences on China, India and Pakistan Explained Through Identity & Ideological Logic
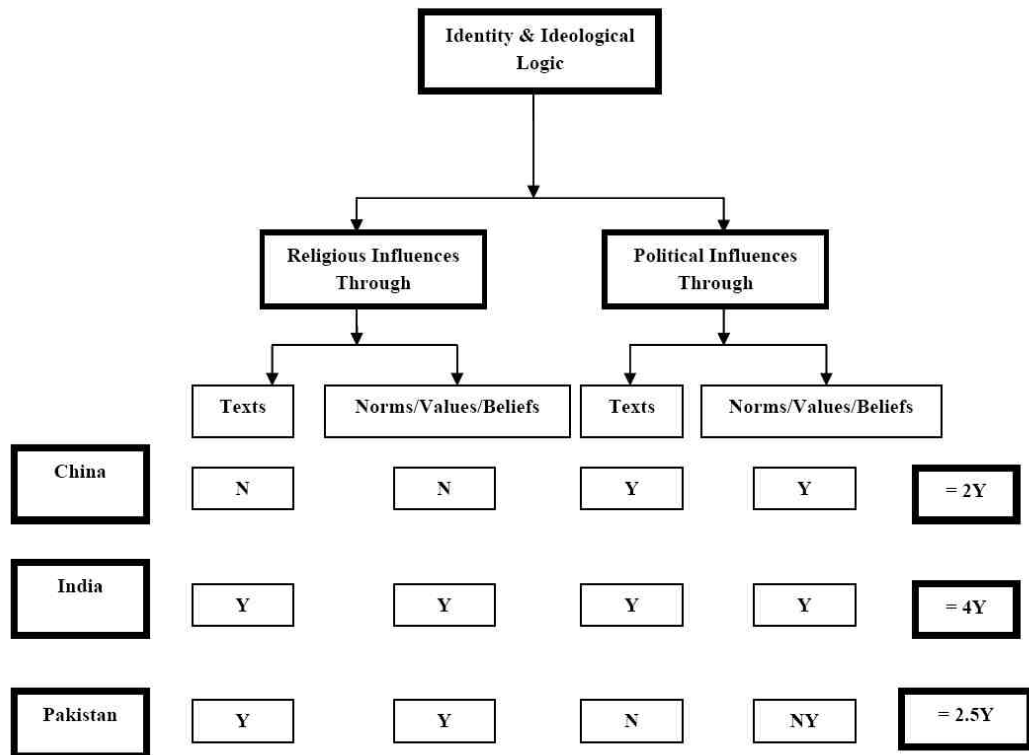
**Figure 5-8 : Chinese, Indian and Pakistani Motivations Explained Through Technology
Logic**
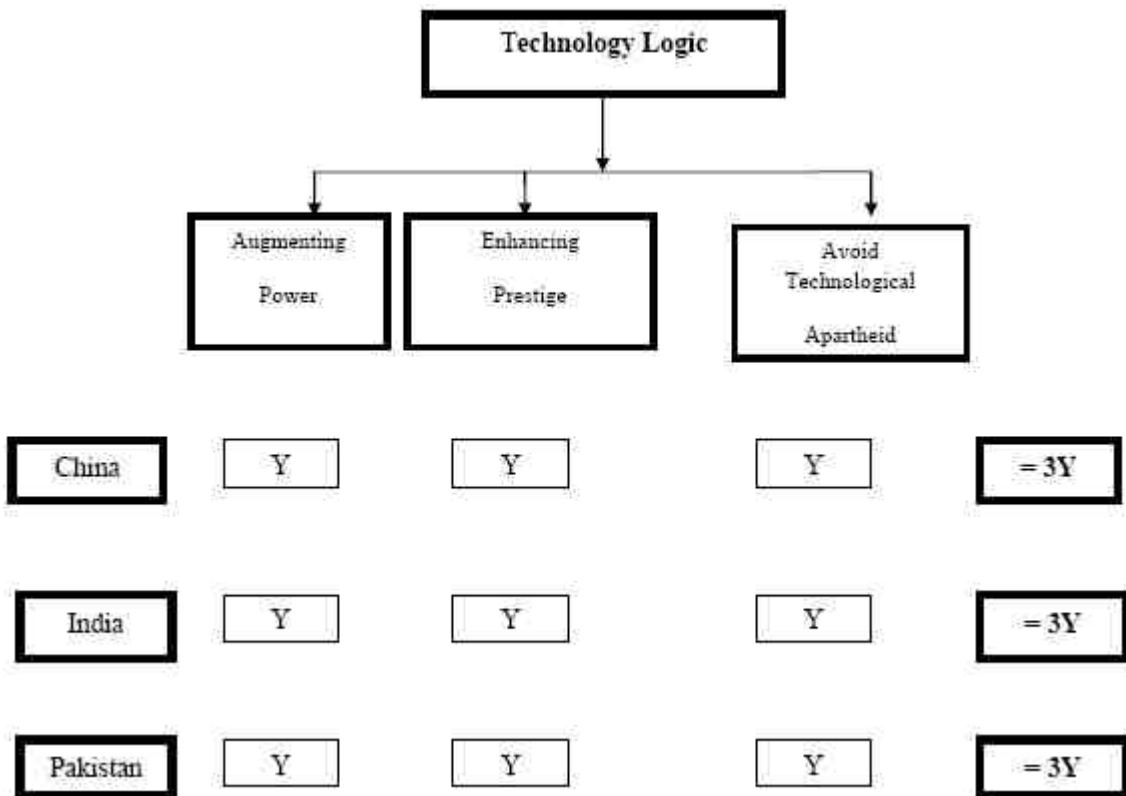
Figure 6-9: China, India and Pakistan RI2T Logic
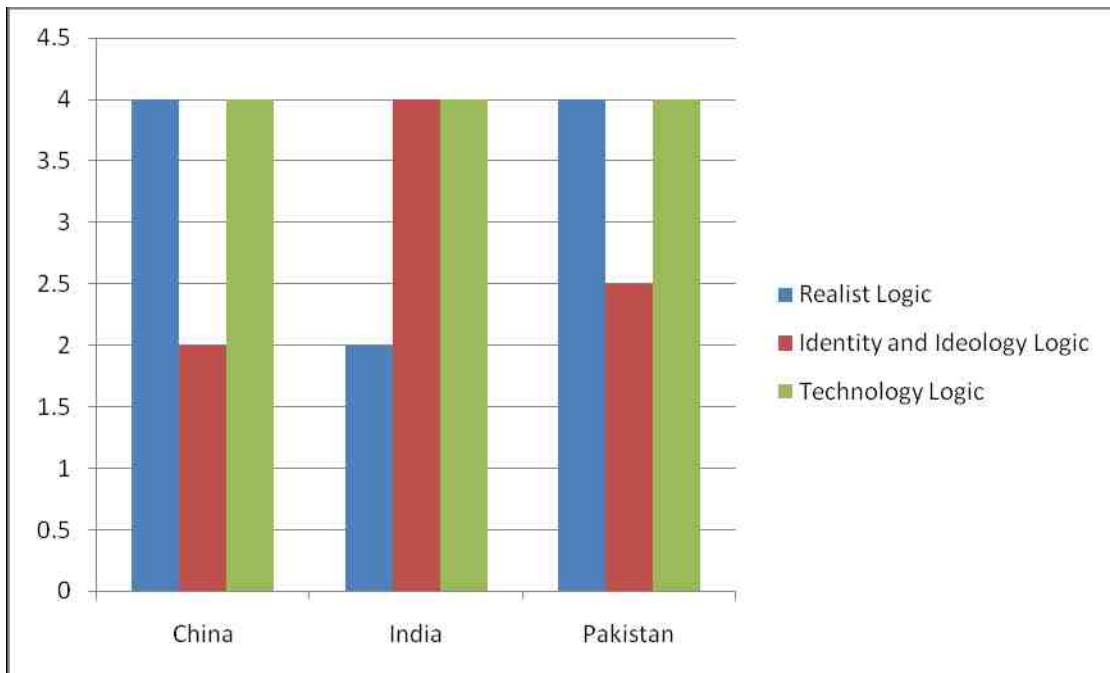
Based on all these, if we make a comparison graph on the basis of Realist; Identity and Ideology; and Technology (RI^{2}T) Logic, we can see that the China and Pakistan programs are more closer to each other, both basically being threat perception based with a history of aggressions and threats of aggression against them. As no nation feels comfortable living under a security threat, therefore its very logical and understandable that their primary objective was to secure adequate defences for their homelands to become impregnable to external aggression. This suggests that these two countries (China and Pakistan) have pursued these weapons programs mainly in military terms to acquire an effective and credible deterrent potential - true to realist logic.

On the Identity and Ideology Logic side, the memories of once great civilizations coupled with the feeling of shame for recent inglorious stature or even humiliation at the hands of foreign invaders had rekindled the respective cultures and beliefs to aspire for grandeur; status and prestige and as again this class of weapons was a manifestation of all that – so motivated them to acquire these. This logic have played a full part in Indian context and found political reality in the Hindutva movement that gave credence to preordained destiny in defining India's approach to these weapon programs. According to Dr A.Z. Hilali, "the basis of this vision has thus been defined by the upper caste Hindu-culture of the Hindi-belt, under its concept of *Ram Rajya*, a term denoting a revivalism that seeks to bring back the values of the

230

past." [552] It is therefore that the Indian program is more influenced and driven by its ideology. And that's why it is hegemonistic in intentions and designs.

Pakistan too has got strong Islamic influences on its strategic culture but primarily, in large measures a manifestation of acute emotion and fear as much as ambition and human aspirations.[553] The country does maintain strong links with the rest of the Islamic world, from Egypt to Indonesia, but the attachments are primarily based on an economic expediency or a common religious bond. But still this common religious bond of Islamic unity however cannot be confused with the dream of pan- Islamism. In part, one of Pakistan's more basic requirement is the communication of national pride and a sense of honourable common destiny for all its inhabitants.[554] The largest determining factor and the major contribution to Pakistan's sense of insecurity has been the continuous belief that India will not be content until it has eliminated all obstacles to its power dominance in South Asia. So though in the Indian case we find major role of ideological logic, it is not that effective and impressive in the Pakistani and Chinese side.

Technology Logic was almost equally applicable to China, India and Pakistan. At the time of independence of India and communist revolution in China - both were having very strong scientific and technological base with them, to which even an author called "strategic enclaves", there were no such strategic enclaves in Pakistani case and the nation had to struggle very hard on that point first getting their manpower trained and then getting the job accomplished. And the Pakistani investment in here started coming after the secular government of Mr Z.A. Bhuttto's decided to equip the nation with this technological prowess to be strong, secure and self reliant.

The understanding of the motivations and drivers in this way is very vital for the "evolving restraint regime" question in Southern Asia, as it gives a clear cut picture of how to address these motivating forces.

---

[552] A.Z. Hilali, "India's Strategic Thinking and Its National Security Policy," *Asian Survey* XLI, no. 5 (September/October 2001): p.741.

[553] Lawrence Ziring, "Introduction," in *Pakistan: The Long View*, ed. Lawrence Ziring, Ralph Braibanti, and W.Howard Wriggins (Durham, N.C: Duke University Press, 1977), p.1.

[554] Ibid., p.5.

Chapter 7

NUCLEAR DOCTRINES OF CHINA, INDIA AND PAKISTAN

7.1. INTRODUCTION

Having explored the strategic culture of these states and its impact on the acquisition drive of strategic weaponry, it is now pertinent to discuss the publicized set of principles which are needed to guide these programs to achieve their desired goals and objectives in the light of geostrategic environmental compulsions. All such sets of principles and rules some time instruct the employment of the weapon systems and some other time non-employment. Together such policy decisions of whether employment or non-employment constitute what is called to be the nuclear doctrine of a state.

This chapter therefore eloabarates what nuclear doctrines are? And what states tend to acieve with these nuclear doctrines? This chapter also discusses the different doctrinal options available to a nuclear weapon state. It then moves on to discussing the respective nuclear doctrines of China, India and Pakistan and in doing so highlight the geostrategic environmental compulsions which are shaping their nuclear doctrines. It further explain their respective command and control structures as well.

7.2. NUCLEAR DOCTRINE

A doctrine could be defined as a set of principles formulated and applied for a specific purpose, working towards a desired goal or aim. These principles could, of course, be advocated and taught as the right belief or dogma acceptable to a majority of the people concerned. The term nuclear doctrines are used synonymously with nuclear weapons doctrine and therefore include both strategic nuclear doctrine as well as tactical nuclear doctrine. According to Chong-Pin Lin, nuclear doctrine is "a body of publicized principles concerning the physical and psychological employment of nuclear weapons and the nature of nuclear war," and is often infused with ideology.[555] A nuclear doctrine would consequently consist of

---

[555] Chong -Pin Lin, *China's Nuclear Weapons Strategy—Tradition within Evolution* (Lexington Books, 1992), 4.

a set of principles, rules and instructions for the employment or non-employment of nuclear weapons and other systems associated with those weapons.

7.3. WHAT STATES TEND TO ACHIEVE WITH THE NUCLEAR FORCE DOCTRINES

The states aim to achieve four key goals that guide the development of nuclear forces capabilities and operational use:

i. assuring friends and foes the steadfastness of purpose and its capability to fulfil its security commitment;

ii. dissuading adversaries from undertaking programs or operations that could threaten its interests;

iii. deterring aggression and coercion by deploying forward the capacity to swiftly defeat attacks and imposing severe penalties for aggression on an adversary's military capability and supporting infrastructure; and,

iv. Decisively defeating an adversary if deterrence fails.

These purposes and principles of a nuclear force are then applied through a nuclear doctrine.

7.4. WHAT ARE THE DIFFERENT DOCTRINAL OPTIONS AVAILABLE TO A NUCLEAR WEAPON STATE?

The different options that are available to a nuclear weapon state are:

7.4.1. Pre-Emptive First Strike

This is an ability to destroy in an initial nuclear attack the adversary's strategic (nuclear) arsenal through direct hits in one massive attack to the extent that the damage caused by any surviving nuclear weapons launched in retaliation would be acceptable.[556] This policy tries to put a halt to an 'imminent' targeting and destruction of a country's nuclear assets and provides their usage before being destroyed. This is also called as decapitation strike as that attack also aims to remove the command and control mechanisms of the opponent, in the hope that it will severely degrade or destroy its capacity for nuclear retaliation.

---

[556] Buzan and Herring, *The Arms Dynamic in World Politics*, p.55.

7.4.2. Launch Under Attack (LUA)

This is the policy of a nuclear weapon usage, the very moment the attack begins and so therefore leaves no time for consultations between the commanders and decision makers. Some portion of the nuclear arsenal would inevitably be destroyed in such an attack but still to a degree provides the state with the opportunity of its usage before being fully decapitated.

7.4.3. Launch on Warning (LOW)

This is the policy which after receiving the confirm reports of an incoming attacks provides for a counter attack usage before an incoming attack impact. This means use it or lose it scenario and therefore requires a very effective early warning system and an assured command and control infrastructure. Launch on Warning (LOW) policy had enormous practical problems and is therefore regarded as an extremely dangerous policy to implement as it creates the potential for nuclear war through misperception as the warnings could turn out to be wrong.[557]

7.4.4. Delayed Second Strike (DSS) / Second Strike

This policy of Delayed Second Strike (DSS) / Second Strike potential provides for nuclear weapon usage in retaliation after absorbing or withstanding the first nuclear strike. These are very important doctrinal options as they assure retaliation and so entirely are based on the credibility of the weapon system. These are therefore adhered when the arsenal is triad based and is well dispersed and mobile again meaning the same-the potential to absorb and retaliate in kind with a certain delay. Chinese at the moment seems to be following the Delayed Second Strike (DSS) policy which entails that China's nuclear and conventional ballistic missiles are geared toward ensuring that China's nuclear retaliatory capability can withstand several days of sustained nuclear strikes before retaliating.[558]

The DSS and the second strike are almost the same concepts of assured retaliation but Chinese tend to use the term as DSS to create a further level of surprise inherent in their Mao's people's war formula of "the enemy advances, we retreat…the enemy retreats, we

---

[557] Ibid.

[558] Larry M. Wortzel, *China's Nuclear Forces: Operations, Training, Doctrine, Command, Control, and Campaign Planning* (US Army War College SSI, Carlisle, 2007), p.16.

pursue".[559] These DSS/ second strike options assure powerful nuclear retaliation against the attacker and depend on the credible survivability and sustainability of the nuclear assets due to the effective triad of nuclear assets; deep and hardened silos; and mobile assets and launching pads.

Now in the light of the above we have to explore that what are nuclear doctrines of the China, India and Pakistan and how do they serve the purposes and principles of the nuclear forces and what doctrinal options are they exercising based on what?

7.5. NUCLEAR DOCTRINE OF CHINA

Chinese Communist strategic thinking and Peking's attitude was being influenced by two series of technological advances First, development of 'tactical' nuclear weapons and Secondly, development of thermo- nuclear weapons (1952) and subsequently fission-fusion-fission weapons (1954) coupled by Korean War.[560]

The PLA which until now had the true bearing of Mao People's war formula, "the enemy advances, we retreat. The enemy advances, we harass; the enemy retreats, we pursue"[561] and Mao's strategic thinking of the entire populace and resources mobilisation, had significant learning impact of these two events. This was being highlighted and reflected in an article by General Su Yu which introduced the term "people's war under modern conditions" in which he made a case for studying and mastering "tactics developed along with new technology equipment".[562]

It was thus that the solid foundation of the Chinese nuclear programme was laid out later in 1957, when the former Soviet Union agreed to supply China with a prototype of an atomic weapon and related technical data and also to assist in the construction, training and operation of a gaseous diffusion plant in Lanzou to produce enriched uranium-235 under the Sino-Soviet Agreement on New Technology for National Defence. This agreement thus implied

---

[559] Lawrence Freedmen, *Evolution of Nuclear Strategy* (London: St. Martin's Press, 1993), p.275.Citing: Ralph Powell, "Maoist Military Doctrine," *Asian Survey* (April 1968).

[560] William R. Harris, "Chinese Nuclear Doctrine: The Decade Prior to Weapons Development (1945-1955)," *The China Quarterly* Jan. - March, no. 21 (1965): pp.90-91.

[561] Freedmen, *Evolution of Nuclear Strategy*, p.275.Citing: Powell, "Maoist Military Doctrine."

[562] Cited in: Pande, "Chinese Nuclear Doctrine."

heavy Soviet assistance and thus China's nuclear effort deepened considerably under this agreement.[563]

It was not long after, when the Sino-Soviet split abruptly ended this programme and hampered the rapid development of the Chinese programme. As Yeu–Farn Wang says, "Once the Soviets suddenly pulled out, the PRC was left high and dry to manage projects conceived and executed under Soviet tutelage. Left with only prototypes, the Chinese had no choice but to reverse engineer them, a process that took years."[564] This process met fruition when on October16, 1964, China exploded the first atom bomb. It must be remembered here that in 1958, Special Artillery Corps was built, then on July 1, 1966, the Second Artillery Corps was officially established with the approval of the Central Military Committee and when on October 27, 1966, it conducted its first successful missile trial test, the second artillery was given the task of missile corp; and on June 17, 1967, the country exploded its first hydrogen bomb, with which the nuclear force weapons were thought to be finalised. Now with the attainment of nuclearisation along with deliverable means, the logical next step was to have a nuclear doctrine. But few scholars here on this question maintain that for almost three decades after China exploded its first nuclear weapon, there was no coherent, publicly articulated nuclear doctrine that could have provided a clear definition of its nuclear strategy – hence a constant source of debate among China Scholars.[565]

Whatever the scholarly understanding, the popular belief is that until the early 80s there was no strategic research in China and no direct linkage of nuclear weapons to foreign policy. Earnest efforts to come up with a nuclear strategy suitable to China, a medium sized nuclear power like that of Britain and France, began in the mid-80s.

---

[563] John W. Garver, *Foreign Relations of the People's Republic of China* (Englewood Cliffs, NJ: Prentice-Hall, 1993), p.55.

[564] Yeu-Farn Wang, *China's Science and Technology Policy: 1949-89* (Aldershot, England: Avebury Ashgate Publishing, 1993), p.56.

[565] Alaistar Iain Johnston, "Prospects for Chinese Nuclear Force Modernization: Limited Deterrence Versus Multilateral Arms Control," in *China's Military in Transition*, ed. David Shambaugh and Richard H. Yang (Oxford: Clarendon Press, 1999), p.288.Also Cited by:Pande, "Chinese Nuclear Doctrine.";See also: Chu Shulong and Rong Yu, "China: Dynamic Minimum Deterrence," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford, California: Stanford University Press, 2008), p.167.

It was around 1987 that the Strategic Missile Forces (Zhanlue daodan budui), for instance began a research programme on nuclear campaign theory that focussed on a range of topics including the character and form of a nuclear counter-attack, the command and control of nuclear weapons, and the defence and survivability of nuclear weapons.[566]

The use of the term deterrence in Chinese usage first surfaced in 1988 in Central Military Commissions (CMC) document on China's new era military strategy and from then on the term has been alternatively used by the Chinese leaders both political and military to describe the 'functions of China's nuclear weapons'; 'deterrence role of the armed forces' and 'fostering deterrence with Chinese characteristics'. It was during that era that the Chinese scholarship started surfacing on the subject discipline of deterrence and strategic studies.[567]

In 1997 President Jiang Zemin set out in a speech a fifty-year, three-step national defense and military modernisation plan, which among other things, called for enhancing the 'nuclear deterrence capability'.[568] President Hu Jintao on March 11, 2006 while addressing the fourth session of the Tenth National People's Congress told the PLA delegation that 'China would realise the first of the three steps set out by Jiang', Chu Shulong and Rong commenting on this statement made by Hu Jinato notes that "obviously for these directives to be executed, China has to have a nuclear strategy".[569]

And so from then on the Chinese officials started talking and describing the features of Chinese nuclear strategy as for example on a 15 July 1997, in a speech to the US Army War College, Lt. General Li Jijun, Vice President of the PLA's Academy of Military Science described China's nuclear strategy, stating that: "China's nuclear strategy is purely defensive in nature. The decision to develop nuclear weapons was a choice China had to make in the face of real nuclear threats. A small arsenal is retained only for the purpose of self-defense.

---

[566] Pande, "Chinese Nuclear Doctrine."

[567] For example see: Lin, *China's Nuclear Weapons Strategy—Tradition within Evolution*;Wenrong Wang, ed., *Strategic Studies* (Beijing: National Defense University Press, 1999);Tianfu Wu, ed., *Trends in Interntional Nuclear Strategic Thought* (Beijing: Junshi Yiwen Press, 1999);Also see: Shulong and Yu, "China: Dynamic Minimum Deterrence," p.167.

[568] Shulong and Yu, "China: Dynamic Minimum Deterrence," p.168.

[569] Ibid.

...China's strategy is completely defensive, focused only on deterring the possibility of nuclear blackmail being used against China by other nuclear powers."[570]

The fundamental stand China maintains on possessing nuclear weapons is further highlighted by the Deputy Commander of the Second Artillery-Major General Yang Huan when He noted: "China's nuclear weapons will be used definitely for self-defense; the Chinese Government has always advocated an all-round prohibition and a complete destruction of nuclear weapons in the world."[571] And the No First Use Policy seems to be very much in line with it and thus seems to be the compatible with their inherent strategic culture.

Reiterating the points made in Lt Gen Li's speech, the China's 1998 White Paper on National Defense pointed out that: "From the first day it possessed nuclear weapons, China has solemnly declared its determination not to be the first to use such weapons at any time and in any circumstances, and later undertook unconditionally not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones."[572]

Similarly in the same tone the China's National Defense in 2006 White Paper states the country's nuclear strategy as:

> China's nuclear strategy is subject to the state's nuclear policy and military strategy. Its fundamental goal is to deter other countries from using or threatening to use nuclear weapons against China. China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons. China upholds the principles of counterattack in self-defense and limited development of nuclear weapons, and aims at building a lean and effective nuclear force capable of meeting national security needs. It endeavors to ensure the security and reliability of its nuclear weapons and maintains a credible nuclear deterrent force. China's nuclear force is under the direct command

---

[570] "Traditional Military Thinking and the Defensive Strategy of China', an Address at the US Army War College," *Letort Paper* 1, no. 29 (August 1997): p.7.

[571] Huan, "China's Strategic Nuclear Weapons."

[572] Colin S. Gray, "National Style in Strategy: The American Example," *International Security* 6, no. 2 (1981).

of the Central Military Commission (CMC). China exercises great restraint in developing its nuclear force. It has never entered into and will never enter into a nuclear arms race with any other country.[573]

From all such statements and promulgations it is clear that the Chinese are adhering to the 'minimum credible deterrence' nuclear strategy. But as the 'minimum' is a relative term meaning different things to different people at different times and different conditions, so it is very difficult to ascertain that what exactly is 'minimum' for the Chinese. Chu Shulong and Rong Yu had very brilliantly described the 'minimumness' of the Chinese nuclear strategy in the following words:

"Looking at the mission of China's nuclear forces and the capability required to fulfil the minimum deterrence strategy, the strategy can be seen as 'large-scale minimum' for a 'limited deterrence' strategy. The Chinese 'minimum' is not a matter of numbers, but a matter of capability. And the 'minimum deterrence' nuclear strategy is to have and maintain the 'minimum capability' to deter stronger powers from using nuclear and large-scale conventional forces against China. And since 'minimum deterrence' refers to a capability of deterrence, retaliation and actual 'secon-strike capability' in any situation at any time, then the strategy itself must be dynamic. Because the forces and the conditions that the strategy deals with are always changing, the strategy itself has to change in some ways all the time."[574]

Some foreign and Chinese scholars feel and I agree with them that the doctrinal ambiguity was deliberate[575], designed to keep the political adversary guessing about the form, timing, targeting of Chinese nuclear attack in retaliation and I would add that even non writings on nuclear doctrine were to cater the same. Goldstein has cited a Chinese officer saying that retaliation could take place over days, weeks or months after initial strike.[576]

---

[573] "White Paper China 2006: National Defense Policy ".

[574] Shulong and Yu, "China: Dynamic Minimum Deterrence," pp.168-69.

[575] Johnston, "Prospects for Chinese Nuclear Force Modernization: Limited Deterrence Versus Multilateral Arms Control."

[576] Avery Goldstein, "Robust and Affordable Security: Some Lessons from Second-Ranking Powers During the Cold War," *Journal of Strategic Studies* 15, no. 4 (December 1992).

The late evolution or revelation of the nuclear doctrine notwithstanding, the Chinese leadership always understood the military value of nuclear weapons as well as their importance for China in the great power politics. This was implied in the politburo speech by none other than Mao Zedong himself in which he had said, "If we are not to be bullied in this world, we cannot do without the bomb".[577] In 1958, he is reported to have said, "As for the atomic, bomb, this big thing, without it people say you don't count for much. Fine then we should build some".[578]

In 1983 Deng Xiaoping described the basic deterrent value of nuclear weapons by saying "You have some (nuclear missiles) and we also have some. If you want to destroy us then you yourself will receive some retaliation".[579]

The perception of military role of nuclear weapons has never been under understood, infact in a meeting organised by the General Staff Department's Chemical Defense Department, attended by the Ministry of Foreign Affairs, Ministry of Nuclear Industry, Ministry of Health, the Operations and Intelligence Department, Academy of Military Sciences and the National Defense University, it was decided that since other states were developing nuclear and chemical weapons a nuclear war could not be completely ruled out, therefore, Chinese troops had to be prepared to fight under nuclear and chemical warfare conditions.

To improve credibility and survivable retaliatory capability of their nuclear arsenal, the Chinese emphasise mobility and pre-launch survivability.[580] The path to obtain this is also established in the Chinese aphorism, "the essence of war is but the art of ambiguity".[581] Sun-Tzu stated that "warfare is a matter of deception—of constantly creating false appearances, spreading disinformation, and employing trickery and deceit".[582] To protect the Lop Nor testing site against the reconnaissance of overflying superpower satellites, six identical-

---

[577] Cited in: Pande, "Chinese Nuclear Doctrine."

[578] Ibid.

[579] Ibid.

[580] John Wilson Lewis and Di Hua, "Chinese Ballistic Missile Programs: Technologies, Strategies and Goals," *International Security* 17, no. 2 (Fall 1992): p.25.

[581] Lin, *China's Nuclear Weapons Strategy—Tradition within Evolution*, p.21.

[582] Cited in: Pande, "Chinese Nuclear Doctrine."from: Ralph. D. Sawyer, *The Seven Military Classics of Ancient China* (Westview Press, 1993).

looking bases were constructed in the area. The Chinese missiles are concealed in man-made caves, but are occasionally deliberately exposed to satellites or their pictures are published in defence magazines, which is because as according to Lin, to effect ambiguity in perception, routine concealment is punctuated with selective and deliberate revelation.[583]

China has to rely on raising the cost to a nuclear aggressor by ensuring that their force has a survivable retaliatory capability. China must give the perception that they have the will to use nuclear forces, their forces are survivable, and there is a command and control apparatus in place for rapid retaliatory execution. The nuclear deterrent is advertised but the operational strategy is not. Paul Godwin and John J Schulz say that China's overall strategy is designed to preclude nuclear blackmail. The idea is to create a countervalue (city busting) deterrent of sufficient size and range to guarantee that no enemy planner could use force, or threaten to use it, without the certain knowledge of Chinese retaliation at a level sufficient to make the costs too high.[584]

Savita Pande discussing Lin, notes that he has emphasised the "Chineseness" of the nuclear doctrine in which China has shown minimalism, ambiguity, flexibility, and patience in which there is a small pro-triad but deliberate ambiguity about targeting and launch doctrine.[585]

According to Goldstein, some Chinese strategists reject the term deterrence as a description of what Chinese nuclear forces were supposed to do in theory. Even today some Chinese strategists insist that China does not practice deterrence but adheres to a doctrine of "defence"(fang yu) or 'self-protection' (zi wei).[586]

Another key element of China's nuclear doctrine has been its No-First Use (NFU) pledge which is also being reportedly by different scholars, Shulong and Yu notes it is "never at any time or under any circumstances be the first to use the nuclear weapons" and so this pledge "

---

[583] Lin, *China's Nuclear Weapons Strategy—Tradition within Evolution*, pp.62-69.

[584] Paul Godwin and John Schulz, "Arming the Dragon for the 21st Century: China's Defence Modernisation Plans," *Arms Control Today* (December 1993): p.6.

[585] Pande, "Chinese Nuclear Doctrine."

[586] Goldstein, "Robust and Affordable Security: Some Lessons from Second-Ranking Powers During the Cold War."

has been reiterated and sustained and later expanded to include a positive security assurance and negative security assurance to the states that do not possess nuclear weapons".[587]

Savita Pande on the other hand had described this NFU pledge as: "We will not attack unless we are attacked: If we are attacked, we will certainly counterattack. China will counterattack only if the enemy uses nuclear weapons first."[588] But the ambiguity is still maintained when there is a talk of No First Use (NFU) in a regional context, especially with the deterioration of relations across the Taiwan Strait, this pledge has often been eyed with suspicion as the Chinese delegate to the United Nations (UN) disarmament talks has asserted that since Taiwan is Chinese territory the Chinese no-first use pledge does not apply. "This is a signal of ambiguity in Chinese nuclear policy for areas China views as its sovereign territory".[589]

To sum it up it could thus be inferred that the main features of the Chinese nuclear doctrine are 'Minimum Credible' deterrence which can give them an edge to define it with respect to the 'opposing force' 'force posture' assuring a 'Second-Strike potential', and a NFU pledge but certainly not at the cost of Chinese national interests particularly in Taiwan-Strait as the "only plausible scenario that would cause China to abandon it NFU policy is a showdown with the United States over Taiwan".[590]

7.5.1. China's Central Military Commission – The Central Command & Control Body

The Red Army of China established in June 1928, "Central Military Department" as its highest military command organ. With the success of People's revolution and the establishment of the People's Republic of China (PRC) in October 1949, Central Military Department for the Red Army was reconstituted as the People's Revolution Military Commission of the Central People's Government (as the leading military organ for the country's armed forces. In 1954, the first PRC Constitution created the National Defence Commission and Defence Minister in the State government as its military organs. At the same time, the People's Revolution Military Commission was abolished and replaced by the CMC re-created within the Party system.

---

[587] Shulong and Yu, "China: Dynamic Minimum Deterrence," p.174.

[588] Pande, "Chinese Nuclear Doctrine."

[589] Ibid.

[590] Shulong and Yu, "China: Dynamic Minimum Deterrence," p.176.

The PRC Constitution passed in December 1982 created a new combined state and party body – the State CMC – as the country's top decision-making body in military affairs. The state is headed by the Chairman, who is the commander-in-chief of the nation's armed forces. In practice, the State CMC is exactly identical to the Party CMC in membership, making the CMC a leading military organ for both the Party and state government.

7.5.2. The Second Artillery Corps (SAC)[591]

The Second Artillery Corps (SAC) is the strategic missile branch of the People's Liberation Army (PLA), controlling all of PRC's land-based strategic missile assets as well as the majority of its land-based conventional theatre missile assets. The Second Artillery Corps (SAC) units across the country are organised into six missile bases, each of which consists of several missile launch brigades plus support units. The Second Artillery Corps (SAC) is headed by a general, who is also a member of the Central Military Commission (CMC).

As a strategic asset, the Second Artillery Corps (SAC) units across the country are not subordinated to the military regions they are stationed in. Instead, all the Second Artillery Corps (SAC) units are subject to strict command and control from the Central Military Commission (CMC). Orders are passed down to operational units via a four-level chain of command: Central Military Commission (CMC), missile bases, missile brigades, and launch battalions.

The Chinese had established their first missile battalion in 1959 and the battalion did test fired the Soviet made R-2 surface to surface missile and Chinese made versions of it, DF-1. The number was raised to four more battalions in early 190s with the task of conducting more tests but, the People's Liberation Army (PLA) got the firm foundations of their Strategic Artillery Corp laid down when after the nuclear explosion of China in1964, these battalions were expanded into regiments and ultimately on 1 July 1966 created the Second Artillery Corps (SAC) as the country's strategic missile force. The first nuclear missile weapon test took place on 27 October 1966, when a DF-2 SRBM carrying a 12kt nuclear (atomic) warhead was

---

[591] This section information is mainly through the use of: "PLA Strategic Missile Force (Second Artillery Corps)," SinoDefence.com,

http://www.sinodefence.com/armedforces/missile/introduction.asp.

launched from Jiuquan and then detonated over the target zone in Lop Nor about 800km away. The test marked the beginning of the China's nuclear deterrence capability.

Since that time on , the Second Artillery Corps (SAC) conducted a range of long-distance manoeuvre to test the force's ability; to launch missiles from mobile launchers equipped with strategic missiles; took part in the PLA's joint-service campaign exercises; carried out the war preparedness duty, putting its strategic missiles on constant state of readiness for launch should a pre-emptive nuclear attack on China took place. The Second Artillery Corps (SAC) began to introduce its second-generation road-mobile, solid-propellant strategic missiles in the late 1990s. This all made the Second Artillery Corps (SAC) not only an effective deterrent force but also ensured to the Central Military Commission (CMC) cadres the proficiency of the force with Command and Control procedures.

Figure 7-10: Evolution of CMC in China
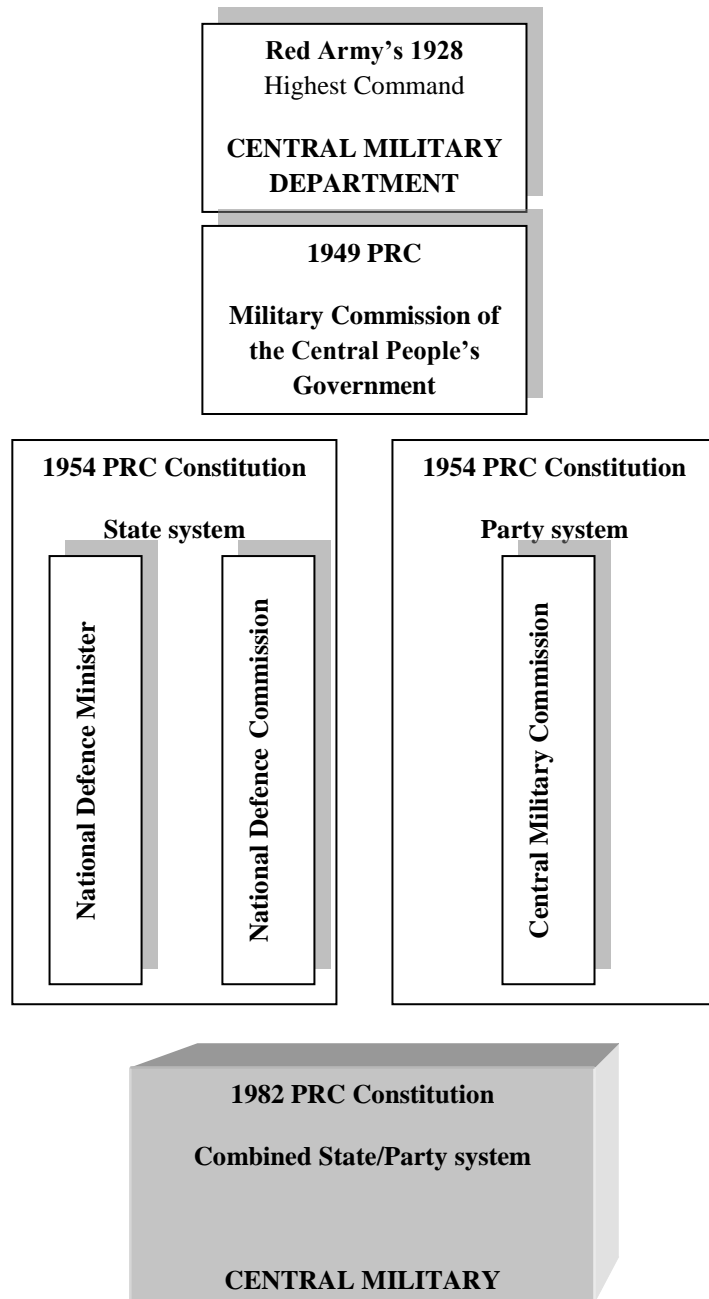
Red Army's 1928
Highest Command

CENTRAL MILITARY DEPARTMENT

1949 PRC

Military Commission of the Central People's Government

1954 PRC Constitution

State system

National Defence Minister

National Defence Commission

1954 PRC Constitution

Party system

Central Military Commission

1982 PRC Constitution

Combined State/Party system

CENTRAL MILITARY

Source: "PLA Strategic Missile Force (Second Artillery Corps)." SinoDefence.com, http://www.sinodefence.com/armedforces/missile/introduction.asp.

During the 1995/96 Taiwan Strait Crisis, the Second Artillery Corps (SAC) conducted two missile launches, firing a total of ten DF-15 (CSS-6) SRBMs into the international waters near Taiwan. This was the first time that Second Artillery Corps (SAC) demonstrated its operational capability publicly.

Missile bases are largest operational unit of the Second Artillery Corps (SAC), each assigned with a specific target area. A base is normally headed by a Major General, who reports vertically to the Second Artillery Corps (SAC) headquarters in Beijing. Although the Second Artillery Corps (SAC) bases receive logistic support from the Military Regions (MR) they are stationed in, they do not report to the Military Regions (MR) headquarters.

Currently the Second Artillery Corps (SAC) has six operational missile bases, which are numbered from 51st to 56th. Four of these bases (51st, 52nd, 55th and 56th) are "Army Level" units, while the other two (53rd and 54th) are "Deputy-Army Level" units, which are half grade lower in PLA's hierarchy. The 22nd Base, also "Army Level", located in Baoji, Shaanxi Province is officially known as the "Training and Experimental Base". Each Base consists of a headquarters and a number of missile brigades. The missile brigade is the principal operational unit that operates, protects, maintains and supports the missile troops. A missile brigade normally consists of a brigade headquarters, 4~6 launch battalions, a technical battalion, a repair battalion, and a number of support units. Each missile brigade likely includes a mobile command post, a central depot, a transfer point, and an assigned set of pre-surveyed launch sites, as well as a set of reserve launch sites. In peacetime, missile brigades reports to their Base headquarters. However, in time of war, nuclear missile brigades are likely report to the Second Artillery Corps (SAC) National Command Centre in Beijing directly, while conventional missile brigades likely report to the war front command.

Figure 7-11: Chinese Strategic Artillery Corp Organization & Chain Of Command
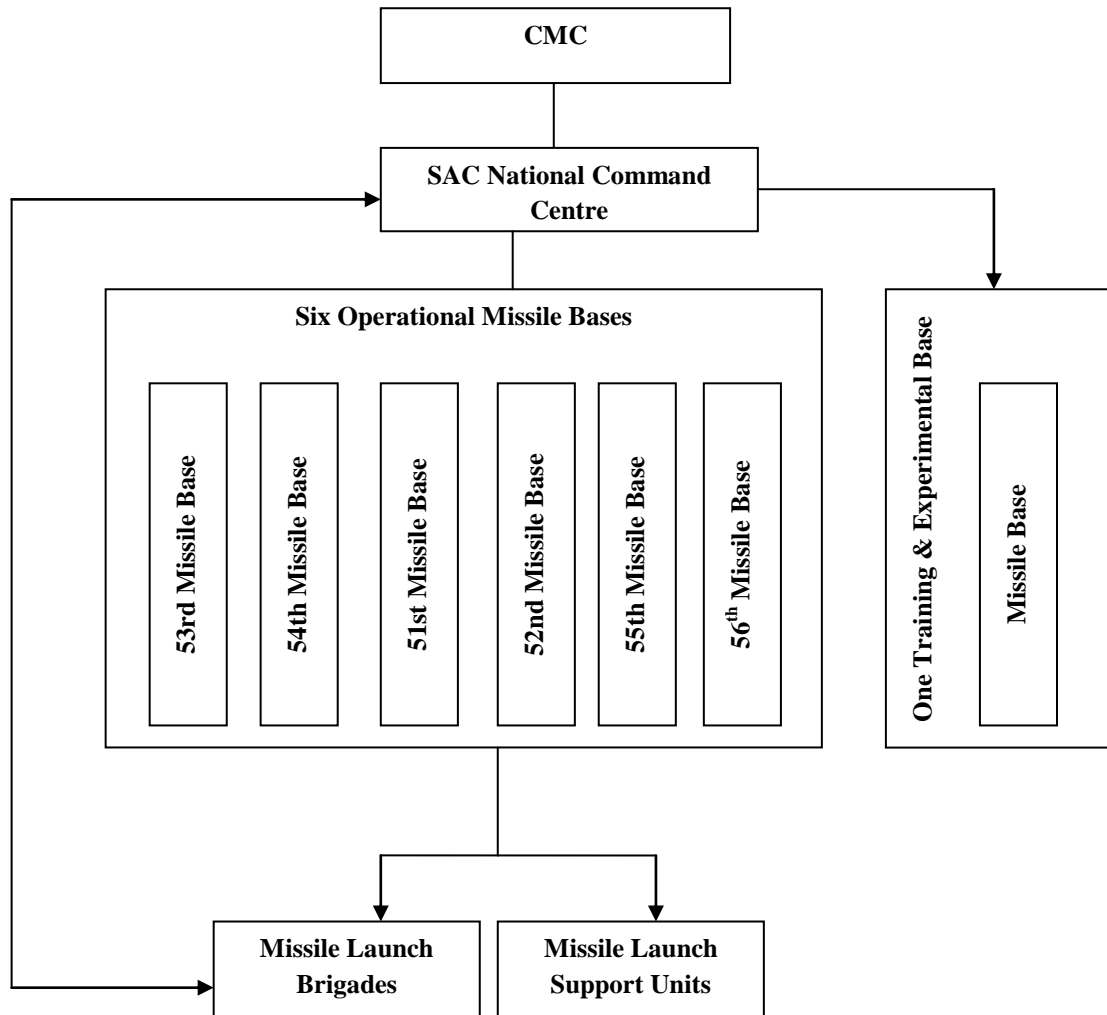
Source: "PLA Strategic Missile Force (Second Artillery Corps)." SinoDefence.com, http://www.sinodefence.com/armedforces/missile/introduction.asp.

7.6. NUCLEAR DOCTRINE OF INDIA

The evolution of India's nuclear weapon capability and related doctrine has been unusual. After conducting May 1974 'peaceful nuclear explosion', New Delhi enforced a self-imposed pause of 24 years before conducting a series of nuclear weapon tests in May 1998 and proclaiming itself to be a nuclear weapon state.

Ever since India's "peaceful nuclear explosion", the nation's strategic and political elite had been engaged in an extensive period of debate and discussion in an effort to arrive at a broad consensus on the nature and scope of India's nuclear program.

The thinking and activity in regard of establishing the National Security Council, whereas can be traced back to 1980s. In September 1983, Indira Gandhi anticipating changes in the security environment instituted a Cabinet Committee on National Security (CCNS). Its members were the Prime Minister and the Foreign, Defence, Home and Finance Ministers. But it got sidetracked after 1984. Then, V.P. Singh set up an NSC with a vast, ad hoc membership but according to a retired Indian General A S Kalkat, "with no concept, a mere debating society."[592] After the Bharatia Janata Party (BJP) government assumed power for the second time in March 1998, a three-man Task Force was appointed to advise on constituting the Council.[593] The constitution of the National Security Council was in line with the BJP's election manifesto issued before the March 1998 general elections, which first brought the BJP to power for a brief 13-day period. It promised that BJP, if elected, would establish a National Security Council to "undertake India's first ever Strategic Defence Review to study analyse the security environment and make appropriate recommendations….[and to r] e-evaluate the country's nuclear policy and exercise the option to induct nuclear weapons.". This ambition was reiterated in the BJP's "National Agenda for Governance".[594]

---

[592] A S Kalkat, "A Broad-Spectrum Antidote," *Indian Express*, no. 27 April (1998), http://www.indianexpress.com/res/web/pIe/ie/daily/19980427/11750074.html.

[593] Dick W. P. Ruiter, "Structuring Legal Institutions," *Law and Philosophy* 17, no. 3 (1998). Also Cited in: P R Chari, "India's Nuclear Doctrine: Confused Ambitions," *The Nonproliferation Review*, no. Fall/Winter (2000): p.124.

[594] P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," p.124.

It is very pertinent to note here that the Task Force after extensive interviewing several persons submitted its report by the end of June 1998.[595] India by that time had already tested its nuclear device and again this is important to note that the salient aspects of the Indian nuclear doctrine had already been enunciated in a paper submitted by Prime Minister Atal Bihari Vajpayee in the Indian Parliament on May 27, 1998, entitled *"Evolution of India's Nuclear Policy."*[596] This is why PR Chari notes that the nuclear tests were conducted before the National Security Council undertook the Strategic Defence Review; in consequence the nuclear doctrine was drawn up without the security environment being analysed to estimate the nuclear threats to India's security.[597]

Indian Prime Minister Atal Bihari Vajpayee issuing a Suo Motu Statement on 27th May, 1998 on the floor of the Parliament said, "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 others 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 human-kind… 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".[598] He also declared that, "India will now observe a voluntary moratorium and refrain from conducting underground nuclear test explosions".[599] Besides issuing this Suo Motuo statement, Mr Vajpayee also laid down a paper on the table of the house on 'Evolution of India's Nuclear Policy' in which Vajpayee reiterated Indian government readiness to discuss a "no-first-use" agreement with Pakistan, as also with other countries bilaterally, or in a collective forum.[600]

---

[595] Kalkat, "A Broad-Spectrum Antidote." Also see; P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," p.124.

[596] "Paper Laid on the Table of the House On "Evolution of India's Nuclear Policy" May 27, 1998 ", Embassy of India, http://www.indianembassy.org/pic/nuclearpolicy.htm.

[597] P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," p.124.

[598] "Suo Motu Statement by Prime Minister Shri Atal Bihari Vajpayee in Parliament on 27th May, 1998," http://www.fas.org/news/india/1998/05/980527-india-pm.htm.

[599] Ibid.

[600] "Paper Laid on the Table of the House on Evolution of India's Nuclear Policy 27 May 1998," *India News Online*, no. May 16-June 15 (1998), http://www.indianembassy.org/inews/mayjune1598.pdf.

Vajpayee's statement of Indian readiness to discuss 'No-First Use' (NFU) agrrement with Pakistan was not taken seriously in Pakistan as the later believed that "India's declared intention of a 'No-First Use policy' is (only) aimed at gaining high moral ground and has no credence, as India itself refused to give any credence to China's No-First Use policy."[601]

In the same Parliamentary session question answer session on 29 May, Prime Minister Atal Bihari Vajpayee more explicitly reflected nuclear doctrinal resolve when he in a reply to the discussion in Loksabha said, "Nuclear weapons are weapons of mass destruction. They are meant for self-defense. Let our adversaries know that we have them and that they should not dare attack us."[602]

These pronouncements and many more were merely rhetoric's so far but after declaring itself as a Nuclear Weapon State (NWS) in May 1998, the Cabinet Committee on Security (CCS) of the Indian government took its first major step of converting that rhetoric into reality in January 2003 when it explicitly described its nuclear weapons doctrine and the nature of its operational arrangements of command and control over its atomic arsenal. This explicit description was made in two steps towards framing of India's Nuclear Doctrine.

7.6.1. National Security Advisory Board (NSAB) Draft Nuclear Doctrine Period 1999-2003

The government of India after the nuclear tests of May 1998 established the 27-member National Security Advisory Board (NSAB) with the task of drafting the broad framework of India's nuclear doctrine. The draft nuclear doctrine was released by the Indian national security advisor, Brajesh Mishra in August 1999.

Draft Report of National Security Advisory Board on Indian Nuclear Doctrine[603] consists of the following eight main headlines:

---

[601] Naeem Salik, *The Genesis of South Asian Nuclear Deterrence* (Karachi: Oxford University Press, 2009), p.225.

[602] "Prime Minister's Reply to the Discussion in Lok Sabha on Nuclear Tests on May 29, 1998," *India News Online*, no. May 16 - June 15, http://www.indianembassy.org/inews/mayjune1598.pdf.

[603] "'Draft Report of National Security Advisory Board on Indian Nuclear Doctrine' August 17, 1999," Embassy of India, http://www.indianembassy.org/policy/CTBT/nuclear_doctrine_aug_17_1999.html.

i.   Preamble,

ii.   Objectives,

iii.   Nuclear forces,

iv.   Credibility and Survivability,

v.   Command and Control,

vi.   Security and Safety,

vii.   Research and Development, and

viii.   Disarmament and Arms Controls.

The Draft Nuclear Doctrine document recognizing India's security as an integral component of its development process aims at promoting an ever-expanding area of peace and stability. It henceforth outlines the broad principles for the development, deployment and employment of India's nuclear forces and declares that from this document framework will flow 'the details of policy and strategy concerning force structures, deployment and employment of nuclear forces, and will be laid down separately and kept under constant review'.[604]

The Draft highlights that India's strategic interests require effective, credible nuclear deterrence and adequate retaliatory capability. The requirements of deterrence should 'provide for a level of capability consistent with maximum credibility, survivability, effectiveness, safety and security'. The Draft noted that 'India will not be the first to initiate a nuclear strike', but will respond with a force which will 'inflict unacceptable damage to the aggressor'.[605] The draft also called for an "integrated operational plan" for nuclear use and a "triad of aircraft, mobile land-based missiles, and sea-based assets."[606]

7.6.2. Nuclear Doctrine Declaration 2003

The National Security Advisory Board made the draft doctrine public in August 1999.However, till January 2003, India's nuclear weapons doctrine remained just a draft. The draft situation changed when an official announcement from the Indian government in

---

[604] Ibid.

[605] Ibid.

[606] Harsh V. Pant, "India's Nuclear Doctrine and Command Structure: Implications for India and the World," in *International Studies Association 2004 Annual Convention* (Montreal, Canada: 17 March 2004).

January 2003 was made declaring that the government has not only adopted the essence of that draft as official policy but also announced a formal nuclear command structure under civilian control. It is because of that gap between the draft and declaration phase, that India took nearly five years after coming out of the nuclear closet and openly declaring itself as a nuclear weapon state – its official nuclear doctrine that it is said that it has emerged after an extensive period of debate and discussion, both within the country as well as abroad. [607]

The other change that was felt with the declaration of the doctrine was the observance of the fact that historically Indian civilian leadership has never been willing to allow the Indian armed forces to play a prominent role in the country's nuclear program and politics, but now during the course of formulation of the nuclear doctrine, decision-making regarding force posture, command and control arrangements, military was being brought into the nuclear policy and management loop.[608]

India's nuclear doctrine was summarized as follows in the 2003 statement[609] of the Cabinet Committee on Security (CCS):

- Building and maintaining a credible minimum deterrent,
- A posture of "No First Use": nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere,
- Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage,
- Nuclear retaliatory attacks can only be authorised by the civilian political leadership through the Nuclear Command Authority,
- Non-use of nuclear weapons against non-nuclear weapon states,
- However, in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons,

---

[607] Harsh V. Pant, "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India," in *Annual meeting of the American Political Science Association* (Marriott, Loews Philadelphia, and the Pennsylvania Convention Center, Philadelphia, PA: 31 Aug, 2006).

[608] Ibid.

[609] "The Cabinet Committee on Security Reviews Operationalization of India's Nuclear Doctrine," Press Release (New Delhi: Ministry Of External Affairs, India, 4 January, 2003).

- A continuance of strict controls on export of nuclear and missile related materials and technologies, participation in the Fissile Material Cut off Treaty (FMCT) negotiations, and continued observance of the moratorium on nuclear tests, and

- Continued commitment to the goal of a nuclear weapon free world, through global, verifiable and non-discriminatory nuclear disarmament.

Donald L. Berlin, commenting on the Indian Nuclear Doctrine's key points notes that, 'there have been strong suggestions that it is gradually abandoning the force-in-being concept, and that with the talk of a triad of nuclear deterrent potential specially sea-based deterrent 'would be a momentous step away from nuclear minimalism, making nuclear weapons almost directly available for use.'[610]

Rajesh Rajagopalan, commenting on the doctrine notes that the "the first element of the assured retaliation strategy is the NFU pledge, which emphasise pure retaliation…Nevertheless, because NFU is a pure declaratory policy, it is difficult to state with certainty that India will not violate it if the need arises." Rajesh goes on to explain that: "Indeed, India's NFU pledge isno longer a 'pure' NFU: what India says it will retaliate against has changed from just a nuclear attack to an attack with any weapons of mass destruction (WMD). This open up at least the theoretical possibility that India could use nuclear weapons first, albeit as a retaliation for use of chemical or biological weapons against it. There is also an expanding spatial dimension to this pure retaliation strategy because India claims it will retaliate not only to a direct attack on its territory but also to attcks on Indian forces anywhere. Such contradiction raise the credibility issues about India's decalred policy and thus ill-serve Indian strategy."[611]

Firdaus Ahmed however, has tried to dilute the concerns of the 'Indian Nuclear Doctrine readers' by explaining the 'first strike' definition that as 'first strike by definition is one designed to take out the nuclear retaliatory capability of the adversary, … Therefore, the level of destruction, to include collateral damage, would be of a very high order. This would

---

[610] Berlin, "The Indian Ocean and the Second Nuclear Age."

[611] Rajesh Rajagopalan, "India: The Logic of Assured Retaliation," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford, California: Stanford University Press, 2008), pp.198-99.

warrant a response of the order of 'massive retaliation'.[612] Ahmed is hoping that with the 'developments in accuracy in particular would also remove the premium on a counter-value retaliatory strategy, making populations safer' but on other points of like 'minimum credible deterrent', even he failed to give any sound explanation and had found it suffice to say that the 'minimum' in the Minimum Nuclear Deterrent was to be furnished (and) Now a policy of 'parity' with China, would likely take the upper hand'.[613]

The Indian doctrine on the other hand in its neighbouring country Pakistan was viewed with scepticism and concern because of its provocative nature. According to Brigadier (retired) Naeem Ahmad Salik – the officer who was amongst the small group of officers assigned to conceive and set up the Nuclear Command and Control Structure and formulate nuclear policy after the May 1998 Pakistani tests, Pakistan felt that:

i. India has effectively scuttled any possibility for the establishment of a strategic restraint regime in South Asia.

ii. India's decalaration of a 'No-First Use policy' is aimed at gaining high morPakistani scholar Dr l ground and has no credence, as India has itself refused to give any credence to China's 'No-First Use' policy.

iii. India's declared intention to upgrade its conventional forces ostensibly to raise the threshold' of both nuclear as well as conventional conflict, will in effect accentuate the existing conventional imbalance and thereby lower Pakistan's nuclear threshold.

iv. By not specifying the sources of nuclear threat to its security, India has kept the size of its 'minimum deterrent' option open ended.

v. The timing of the announcement of the doctrine suggested that the BJP government wanted to convince the domestic public that it had the requisite resolve to take the process initiated in May 1998 to its logical conclusion.

vi. It exposed the hypocrisy in the stance of the interim government, that it was not in a position to take any decision on CTBT, while it did not feel constrained in announcing a nuclear doctrine with far reaching consequences.

---

[612] Firdaus Ahmed, "Getting It Right: Rereading India's Nuclear Doctrine " (16 May 2008), http://ipcs.org/article/nuclear/getting-it-right-rereading-indias-nuclear-doctrine-2565.html.
[613] Ibid.

vii. India wants to drag Pakistan into a nuclear, as well as conventional arms race, to exploit Pakistan's relative economic weakness and engineer an economic collapse (US-USSR Syndrome).[614]

These feelings of the Pakistani side were an important indicator for determining not only the trajectory of India's nuclear developments but also of Pakistan's decisions related to its own nuclear force posture.

7.6.3. National Security Council of India

The National Security Council was set to be headed by the Prime Minister and will have the following membership: Home Minister, Defence Minister, External Affairs Minister, Finance Minister and Deputy Chairman, Planning Commission. The Principal Secretary to the Prime Minister will be the National Security Advisor and will be the channel for servicing the National Security Council. The back-up for the above structure will consist of three elements. A three –tier[615] structure evolved which included:

   i. A Strategic Policy Group comprised of Cabinet Secretary, the three Service Chiefs, Foreign Secretary, Home Secretary, Defence Secretary, Secretary (Defence Production), Finance Secretary, Secretary (Revenue), RBI Governor, Director (IB), Secretary (R) Cabinet Secretariat, Secretary (DAE), SA to RM, Secretary (Space) and Chairman (JIC),

   ii. A 22-member National Security Advisory Board (NSAB) consisting of former 8 civil and 5 military officials, 4 academics, 3 scientists, 2 journalists "with expertise in Foreign Affairs, External Security, Defence, Strategic Analysis, Economics, Science and Technology, Internal Security and Armed Forces" , and

   iii. A revamped the Joint Intelligence Committee (JIC) to provide the Secretariat of the National Security Council.

---

[614] Salik, *The Genesis of South Asian Nuclear Deterrence*, p.225.
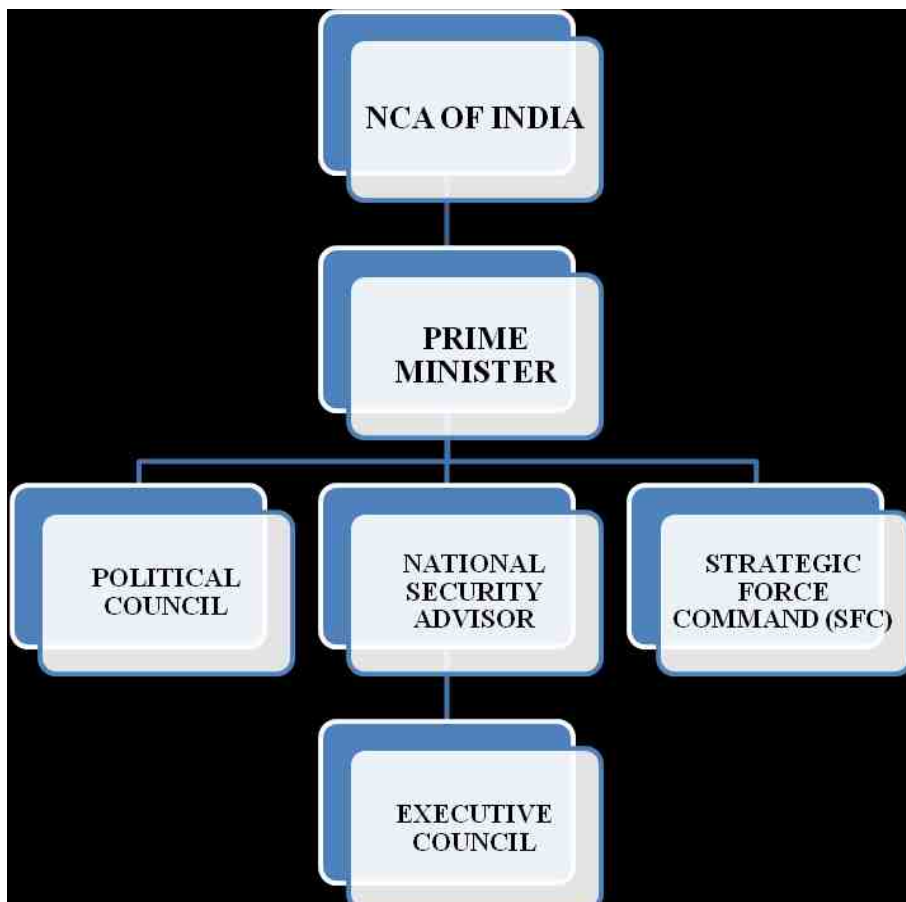
[615] P.R.Chari, "India's Nuclear Doctrine: Confused Ambitions," p.125.

Figure 7-12: Organization of the National Security Council of India

Source: Based on the information extracted through P.R.Chari. "India's Nuclear Doctrine: Confused Ambitions." The Nonproliferation Review, no. Fall/Winter (2000)

Figure 7-13: National Command Authority of India

Source: Based on the information extracted through Pant, Harsh V. "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India." In Annual meeting of the American Political Science Association. Marriott, Loews Philadelphia, and the Pennsylvania Convention Center, Philadelphia, PA, 31 Aug, 2006.

Harsh V. Pant research had also highlighted the Indian two-layered structure, to put its nuclear arsenal under the control of a formal chain of command in the National Command Authority (NCA)[616]. This National Command Authority controls the nation's nuclear weapons and is composed of a Political Council headed by the Prime Minister and Executive Council presided over by the National Security Advisor.[617] Although the definite composition of the NCA and its Political and Executive Councils have not been made explicit by the government, yet the media speculations are that the Political Council comprises of the members of the Cabinet Committee on Security (CCS) and the National Security Advisor while the Executive Council is composed of the Chairman of the Chiefs of Staff Committee (COSC) of the three services, heads of intelligence agencies, and members of the scientific community associated with the strategic programs[618]. The 'Button Man' is the Prime Minister with the sole authority to issue the fire orders for the release of the use of nuclear weapons in the event of a nuclear war. The Executive Council of the NCA is headed by the National Security Advisor, who with the help of the Executive Council aids the Prime Minister and his Political Council, in taking the decision on the use of nuclear weapons and then ensures in the implementation and execution of the orders of the Prime Minister. A tri-service command called the Strategic Forces Command (SFC) established in 2003 is the NCA's operational arm, having its own Commander-in-Chief reporting to the Chairman Joint Chiefs of Staff, and who manages and administers all of India's strategic forces through separate Army and Air Force chains of commands, with Army responsible for all nuclear capable land based ballistic missiles and the Air Force responsible for all nuclear mission capable fixed-wing aircrafts.[619]

---

[616] Pant, "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India."

[617] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*, p.345.

[618] Pant, "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India."

[619] IISS, *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*, p.345.

The Indian government is also said to have approved the arrangement for alternate chains of command for retaliatory nuclear strikes in all eventualities.[620]

7.7. NUCLEAR DOCTRINE OF PAKISTAN

The primary purpose of Pakistan's nuclear arsenal since the program started was to provide deterrence potential to the nation against the threats of external aggression and this referred primarily towards the Indian threat. This 'policy definition' and 'goal setting' and 'basic principle' declaration of weapons use policy was done as earlier as 27 December, 1974 when Pakistani Prime Minister Zulfqar Ali Bhutto was reported by *The Pakistan Times* having said that "Ultimately, if our backs are to the wall and we have absolutely no option, in that event, this decision about going nuclear will have to be taken".[621] Three decades later, at the peak of the 2002 crisis, when Indian and Pakistani forces were deployed against each other in a military standoff, President Pervez Musharraf repeated Bhutto's policy formulation. in an interview to the German magazine, Der Spiegel by saying: "If Pakistan is threatened with extinction, then the pressure of our countrymen would be so big that this (nuclear weapon) option, too, would have to be considered."[622]

Pakistan has relied on nuclear weapons to offset Indian conventional superiority for over two decades, while Pakistan's nuclear program was progressing through the various phases of development, it is considered that yet no thought was given to the operational management of this new capability, nor was a nuclear doctrine considered seriously until May 1998 South Asian nuclear tests of India and Pakistan. This particular image could be because of the understandable veil of secrecy that surrounded the Pakistani nuclear program (and the Indian program as well). However, a posture of minimum nuclear deterrence represents substantial continuity with pre-test Pakistani thought. As for example in April 1989 when under the Prime Minister Benazir Bhutto directives the Nuclear Command Authority meeting was

---

[620] Pant, "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India."

[621] Cited also by: Peter R. Lavoy, "Islamabad's Nuclear Posture: Its Premises and Implementation," in *Pakistan's Nuclear Future: Worries Beyond War*, ed. Henry D. Sokolski (Carlisle, PA: Strategic Studies Institute, US Army War College, 2008), p.135.

[622] Roger Boyes, "Musharraf Warns India He May Use Nuclear Weapons," Times Online www.nci.org/02/04f/08-06.htm.

convened, which was also co-chaired by the President Mr. Ghulam Ishaq Khan, it was in this particular meeting that the nuclear policy discussion was being made and as a result the policy of Nuclear Restraint was adopted.[623] General Aslam Beg, the then Army Chief noted that this 'policy of Nuclear Restraint was single in conception and unique in the sense, that no other nuclear capable state, so far has adopted such a policy of nuclear sanity.' According to him the salient points of this policy were:

i. As the minimum credible deterrence, the 'correlation of one to seven' was considered sufficient to maintain the balance of terror against India who at that time possessed the capability of 60-70 atomic warheads. (General Beg believes that this command decision of such a strategic vision, continues to be followed, even now)

ii. Enrichment of uranium was brought-down to 3% and below.

iii. No hot-tests were to be carried-out to maintain the policy of ambiguity.

iv. In case of real threat to our nuclear assets, the 'option of First Strike' was to be maintained.

v. The 'second strike' capability was to be developed, in case of pre-emption by India.

vi. 'A force-in being concept' was to be followed, thus, not necessitating 'push-button readiness' of USA and Russia.

vii. R&D was to continue for the refinement of the device and the delivery system.[624]

It was only after the May 1998 tit-for-tat nuclear tests by India and Pakistan that serious attention was focused on this vital area and a thoroughly considered and planned nuclear deterrence strategy took shape. Before then, nuclear weapons had not been integrated into Pakistani military plans, the armed forces had no nuclear employment doctrine to speak of, and command and control over the nuclear arsenal and delivery systems was only vaguely defined and loosely organized.

The first major reflection of national thought on Pakistan's nuclear doctrine after the May 1998 tests came in the form of a newspaper articles written by influential Pakistani elites explaining the basic constraints facing Pakistan in South Asia's new nuclear environment. The emphasis was on developing a conventional nuclear stockpile that fits with Pakistan's needs or budget in obtaining Minimum credible deterrent. While India released its Draft

---

[623] Beg, "Nuclear Security Imperatives."

[624] Ibid.

nuclear doctrine and finally declared nuclear doctrine in 1999 and 2003 respectively, Pakistan has not formally announced any nuclear doctrine, In fact, Lieutenant General Khalid Kidwai, director of Pakistan's Strategic Plans Division (SPD), the military organization created in 1999 to oversee the development, custody, and employment of nuclear weapons, affirmed to a pair of Italian physicists in 2002 that Pakistan would not make its nuclear doctrine public, as India did in August 1999 because ambiguity and secrecy about nuclear capabilities and operations enhance the deterrent effect.[625] However, the President, Foreign Minister, and Foreign Secretary have mentioned on various occasions its main elements, such as restraint and responsibility, a minimum deterrent posture, avoidance of an arms race, non-use against non-nuclear states, and participation in universally applicable non discriminatory multilateral arms control negotiations.

Pakistan, rather then declaring an official use doctrine, formulated the basic contours of its doctrinal concepts through periodic statement by leaders and officials. The very famous statement in line with the nuclear use policy of Pakistan was by the Director General of Pakistan's Strategic Plans Division (SPD) Lieutenant-General Khalid Ahmed Kidwai in an interview to a group of Italians in 2002, the General is reported to have said that, in case the deterrence fails, nuclear weapons will be used if:

 i. India attacks Pakistan and conquers a large part of its territory (space threshold);
 ii. India destroys a large part either of its land or air forces (military threshold);
 iii. India proceeds to the economic strangling of Pakistan (economic strangling); and,
 iv. India pushes Pakistan into political destabilisation or creates a large scale internal subversion in Pakistan (domestic destabilisation).[626]

Several such statements enabled the scholars to infer the major principles that give shape to Pakistan's nuclear strategy and nuclear arsenal development as for example Dr. Shireen Mazari[627] noted them as:

---

[625] Lavoy, "Islamabad's Nuclear Posture: Its Premises and Implementation," p.134;Also cited in: Feroz Hassan Khan and Peter R. Lavoy, "Pakistan: The Dilemma of Nuclear Deterrence," in *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, ed. Muthiah Alagappa (Stanford, California: Stanford University Press, 2008), p.226.

[626] Cited in: Khan and Lavoy, "Pakistan: The Dilemma of Nuclear Deterrence," p.226.

i. Commitment to deterrence against aggression and in defence of the country's sovereignty – and the maintenance of it at a minimal level,

ii. A 'strategic restraint regime' accompanied by political and technical Confidence Building Measures (CBMs),

iii. Survivability and credibility of the deterrence, and

iv. To pursue arms control and disarmament at the global and regional levels, while maintaining minimal deterrence.

Dr. Mazari notes that Pakistan has chosen not to publicly enunciate a comprehensive nuclear doctrine partly because it does not see a political/status utility for the nuclear capability – rather, it envisages the nuclear capability as having a purely defensive, security-related purpose. She therefore believes that Pakistan's threat perceptions are seen as stemming primarily from India both at the level of all-out conventional war, limited war and Low Intensity Conflict (LIC). Within the nuclear framework, Pakistan seeks to establish deterrence against all-out conventional war.

This therefore suggests the main explanation for why Pakistan has stated time and again that 'the direction of our nuclear weapons programme will be determined by India's actions.'[628] Even on the deterrence issue, Pakistan has stressed that while it seeks to maintain nuclear deterrence at the 'lowest possible level', the level at which it will finally be maintained 'will be determined in accordance with any escalatory steps taken by India.'[629]

The non declaratory nature of nuclear doctrine rendered most analysts to infer the outlines of a notional Pakistani nuclear doctrine as Timothy D. Hoyt notes that, "the outlines of a notional Pakistani nuclear doctrine can be discerned. First, Pakistani nuclear doctrine would be India-centric drawing its weapons specifications and procurement requirements from that threat. Second, Pakistan cannot afford a no-first-use doctrine. Weathering a first strike, given limited resources, geographic proximity, and superior Indian capabilities, is not an acceptable

[627] Dr. Shireen M. Mazari, "Understanding Pakistan's Nuclear Doctrine," *Strategic Studies* XXIV Autumn, no. 3 (2004).

[628] Stated by Mr. Shamshad Ahmad, Pakistan's Foreign Secretary at a Press Briefing on India's nuclear doctrine, August 19, 1999. Cited in: Ibid.

[629] Statement by Pakistan's Ambassador, Munir Akram, to the CD, Geneva, on the CTBT and FMCT, July 30, 1998. Cited by: Ibid.

option. Third, Pakistan will seek to maintain a sufficient conventional capability to make sure that nuclear war is not immediately required if nuclear deterrence fails."[630]

Hoyt's understanding is again based on the same premise which Pakistani officials and analysts have pointed out time and again – the centrality of India as a threat to its very survival which is drawing Pakistan's weapons specifications. The contiguous borders and close geographic proximity with a very short flight time of the missiles fired leave them with only option of either 'use them or lose them' and it is fairly obvious which would they prefer.

Dr. Peter R. Lavoy opines that saying Pakistan has not formally declared a nuclear employment doctrine does not mean there is no doctrine, He notes that, "On the contrary, Pakistan has operational plans and requirements for nuclear use integrated within its military war fighting plans. In contrast to India, which has stated the basic parameters of its nuclear use doctrine but remains quiet about its strategic command and control structure, Pakistan has disclosed the basic features of its nuclear command and control organization, but no official has discussed how the government plans to employ its nuclear weapons." [631]

Although there has been no official publication of 'nuclear doctrine' document as such, but there exists an ample description of the 'weapon use policy' and conditions by various retired officials which sets the broad parameters of Pakistan's nuclear doctrine. For example Major General (retired) Mahmud Ali Durrani – he himself being the former official further describes the unofficially obtained view of the Pakistani establishment through a series of meetings with senior policy makers within the Pakistan Army, the Ministry of Foreign Affairs, and at the highest level of the Strategic Plans Division (SPD), the military organization that oversees almost all aspects of Pakistan's nuclear weapons program and notes down the following four objectives of Pakistan's Nuclear Policy- expressed by the Pakistani establishment:

    i.   Deterrence of all forms of external aggression, which can endanger Pakistan's national security,

---

[630] Timothy D. Hoyt, "Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia," *Asian Survey* 00041, no. 00006 (2001).

[631] Lavoy, "Islamabad's Nuclear Posture: Its Premises and Implementation," p.134.

ii. Deterrence will be achieved through the development and maintenance of an effective combination of conventional and strategic forces, at adequate levels within the country's resource constraints,

iii. Deterrence of Pakistan's adversaries from attempting a counter-force strategy against its strategic assets by effectively securing the strategic assets and threatening nuclear retaliation should such an attempt be made, and

iv. Stabilization of strategic deterrence in the South Asia region.[632]

To conclude it would be suffice to say that today Pakistan's nuclear doctrine central and the most vital theme is to act in a responsible manner and exercise maximum restraint in the conduct of its deterrence policy. Pakistani officials have repetitively stated that Pakistan's nuclear policy is built around the twin principles of 'restraint' and responsibility, and driven by its security concerns.[633] Some of the salient features are as under:

- Pakistan's nuclear doctrine is to have an adequate stockpile of survivable and an assured second strike nuclear weapons and delivery systems capability solely for the purpose of a minimum credible nuclear deterrence and force posture against a wide range of conventional and sub-conventional threats to its sovereignty,

- Pakistan maintains a first use option against nuclear threat but will not use or threaten to use nuclear weapons against any state which does not possess nuclear weapons,

- Pakistan maintains a robust strategic command and control apparatus (C4I2SR) designed to ensure tightly negative unauthorized and accidental use during times of peace but prompt operational readiness at the times of needs to meet the threats to national sovereignty[634], and

---

[632] Major General Mahmud Ali Durrani, "Pakistan's Strategic Thinking and the Role of Nuclear Weapons," no. Occasional Paper 37 (July 2004), http://www.cmc.sandia.gov/cmc-papers/sand2004-3375p.pdf).

[633] Salik, *The Genesis of South Asian Nuclear Deterrence*, p.233.

[634] There is still an existing scepticism and criticism challenging Pakistan's 'robust' command and control structure and Pakistan's ability to keep its nuclear weapons and material safe and secure in the face of multiple security threats. This is mainly due to lack of information and first hand knowledge, officials and academics who had the opportunity to interact with the Pakistani nuclear establishment are far more sanguine about these issues. For first hand account of the Pakistani nuclear command and control setup please see: Ibid., pp.234-39.

- Pakistan will refrain from entering into any arms race and will continue to support international arms control and disarmament initiatives, which are universal and non-discriminatory in character and respects proliferation and export controls of nuclear weapons related material or technology.

7.7.1. Command Structure of Pakistan's Nuclear Force Capability

The publicly held view is that during the course of covert nuclear brinkmanship of Pakistan, no public debate and discourse on issues such as nuclear doctrine, command and control or safety and security of the nuclear arsenal was taken. Yet it was strange that soon after the nuclear detonation of the 1998 tests, Pakistan set up it Nuclear Command and Control. The answers to all such queries can be found in the accounts of Brigadier Naeem Salik of Pakistan army who remained associated with the program for most of the time of his 30 years service[635]. According to Brigadier Salik, a think tank responsible for analysis and research on the strategic issues had been functional under the direct command of the army chief since 1996, under the orders of General Jehangir Karamat. And in 1998, during a brainstorming session, as a sheer coincidence the issue of the Pakistan Nuclear Command and Control structure came up and a decision was being made to write a concept paper on strategic command and control organization shortly before the Indian and Pakistani nuclear tests. It is also noted that prior to this event there already existed a command and control arrangement comprising of the President, Army Chief and the senior scientists to take decision on the developmental aspects of the nuclear weapon capability but certainly not designed to handle the operational aspects. So it was that 1998 concept paper which was later on refined detailing the rganization, specifying the role and charter of duties of its various components by the team of officers which was constituted in the aftermath of the tests for the formulation of nuclear doctrine under the supervision of a two star army General after the tests. And in February 1999, the army chief –then General Musharraf was taken and although awaiting the Prime Miniter approval, the core group had already taken up their assignments at the GHQ in March 1999. The formal approval of the structure of the National Command Authority and its various tiers was granted by the Musharraf government in February 2000 in a joint federal

---

[635] This book is a brilliant description providing a complete picture of the dynamics of South Asian nuclearisation with many first hand insights into the issue particulalry from Pakistani perspective: Ibid.

cabinet and National Security Council meeting. This is how Pakistan was able enough to quickly establish the Command and Control of its nuclear forces at such a short pace of time.

The nuclear forces of Pakistan come under the ambit of the following command structure:

7.7.2. National Security Council (NSC)

When in May 1998 India and Pakistan came out of their covert and ambiguous nuclear weapons development potential and force postures, there emerged the strategic imperative need for the establishment of an effective Command and Control Organization not only to establish a harmonized command and control mechanism, operational policy, and development strategy, but also to provide credible stability to strategic deterrence. This command and control structure started emerging in Pakistan when the federal cabinet under Prime Minister Mir Zafarullah Khan Jamali approved on 28th January 1999, the NSC Bill to be tabled in the forthcoming session of the Parliament for the establishment of National Security Council of Pakistan.[636] The bill envisaged a National Security Council to serve as a forum for consultations on matters of national security including the sovereignty, integrity, and defense and security of the state, crisis management, democracy, governance and inter-provincial harmony and would be composed of president of Pakistan as its Chairman and the prime minister, the chairman of the Senate, the speaker of the National Assembly, the leader of the opposition in the National Assembly, chief ministers of the provinces, the chairman Joint Chiefs of Staff Committee and the chiefs of staff of the Pakistan Army, Navy and Pakistan Air Force as its members.

7.7.3. National Command Authority (NCA)

Pakistan's National Security Council announced the establishment of a new body with the name National Command Authority (NCA), responsible for creating policy regarding the development and use of Pakistan's nuclear weapons on February 3, 2000. The new organization, was entrusted with the responsibility of exercising employment and development control over all strategic nuclear forces and strategic organizations and was

---

[636] "Pakistan to Establish National Security Council," IRNA - Islamic Republic News Agency http://www.globalsecurity.org/wmd/library/news/pakistan/2004/pakistan-040128-irna01.htm).

described as an "institutionalized command and control mechanism consistent with Pakistan's obligations as a nuclear power".[637]

The organization houses two primary committees, the Employment Control Committee (ECC) and the Development Control Committee (DCC), both led by head of state and dominated by military officials. The organization secretariat is called as the Strategic Plans Division (SPD) and its operational control arm is called as the Armed Forces Strategic Command (AFSC). See figure National Command Authority.

7.7.3.1. Strategic Plans Division (SPD)

The Strategic Plans Division (SPD) provides secretarial support to the NCA and handles all issues related to the nation's nuclear capability. The Strategic Plans Division (SPD) functions directly under the President, PM and Chairman Joint Chiefs of Staff Committee. It is headed by a Director General from the Army (the current DG is a retired officer) and comprises officers from the three services (See figure: Organization Chart of Strategic Plans Division). The Strategic Plans Division (SPD) on behalf of National Command Authority formulates the country's nuclear policy, nuclear strategy and nuclear doctrine. It also formulates the short- and long-term development strategy and force goals for tri-services strategic forces, within the ambit of national power potential, nuclear doctrine, and arms control regimes, and oversees its systematic implementation. In sum all the secretarial tasks associated with the smooth functioning of state of the art strategic weapons management are performed here.

Another very important facet of the SPD is the security division, which is not only responsible for the physical security of the assets and installations, but also personnel security under a dedicated Personnel Reliability Programme (PRP) Directorate headed by a two star general.[638]

---

[637] "Pakistan Establishes Nuclear Control Body," *Arms Control Today*, http://www.armscontrol.org/node/2899.

[638] Salik, *The Genesis of South Asian Nuclear Deterrence*, p.237.

Figure 7-14: Organization and Command Structure of NCA Pakistan

7.7.3.2. Employment Control Committee (ECC)

The Employment Control Committee (ECC) review the latest information on the threat to the strategic weapons program and weapons deployment and develop policy direction and guidance for the evolution of doctrines and employment policy based on technical capability and threat assessment. It also establishes hierarchy and guidelines for an effective command and control system for delegation of authority for employment of nuclear weapons and to safeguard against accidental or unauthorized use for the deployment and use of nuclear weapons and is composed of the foreign minister, the minister of the interior, the chairman of the Joint Chiefs of Staff Committee (CJCSC), the service chiefs, the director-general of the Strategic Plans Division, and any necessary technical advisors.

7.7.3.3. Development Control Committee (DCC)

The Development Control Committee (DCC) guides and controls the technical, financial and essential administrative aspects of the strategic organizations as per the approved development strategy. This committee is made up of the Chairman Joint Chief of Staff Committee (CJCSC), the three service chiefs (Pak Army, Pak Navy and Pak Air Force), the

Director General of the Strategic Plans Division, and the representatives of the strategic scientific organizations.

7.7.3.4. *Operational Arm: Armed Forces Strategic Command (AFSC)*

Strategic operational policy framework and guidelines for employment of nuclear weapon systems are established by the NCA through the Strategic Plans Division (SPD). Based on these guidelines, the three services formulate their operational policies, which are meshed and harmonized at the tri-service level by the SPD in coordination with Director General Plans of the Joint Service Headquarters (JSHQ). The Armed Forces Strategic Command (AFSC) acts as the secretariat for onward operational control through separate Strategic Forces Commands, which are being raised in all three services. The services retain training, technical and administrative control over their Strategic Forces. However, operational planning and control rests with the NCA through the Armed Forces Strategic Command (AFSC) under the overall military direction of the Chairman of the Joint Chiefs of Staff Committee (CJCSC).

7.8. CONCLUSION

As nuclear weapons are basically deterrent weapons, so for the deterrent to be assured, the states declare and publicize their nuclear doctrines. Nuclear doctrines therefore are those declared/publicized rules, principles and patterns for the physical and psychological employment of the nuclear arsenal of a country. Nuclear doctrines are often conditioned by the security requirements of a state in a particular geo-strategic environment. They therefore provide the declared policy about circumstances and situations under which they would be used. The geo-strategic environment and the nature of the threats also steer the strategic weapons development programs and so do the nuclear doctrines. Nuclear doctrine declarations also reflect the command and control structures of a nuclear weapon state and hence the suspicions of loose nukes are also avoided.

To summarise very briefly I would reiterate my conclusion about the nuclear doctrines and command and control structures of these countries as follows.

The nuclear doctrine of China on its face value is purely defensive in nature and talks about No First Use (NFU) and non-usage against the non-nuclear states and nuclear free zones, and is focused primarily on deterring a nuclear blackmail from being used against China by other nuclear powers. However, China's nuclear doctrine with respect to nuclear powers is

268

surrounded by ambiguity. There are no two views on the credible and assured deterrent potential of China and it is advertised as such; the operational part of the doctrine is little known, probably because of Sun Tzu's strong influences on general war conduct. The Chinese, therefore, talk about deterrent of sufficient size and range to guarantee retaliation at a level sufficient enough to make the cost of nuclear adventure against China too high. China's Command and control structure is however very well-developed and organised. It has got a very well knitted operational missile force called as Second Artillery corps with six operational missile bases.

The Indian nuclear doctrine draft document of August 1999 elaborates the broad principles of nuclear doctrine which provide for a 'credible minimum deterrence' with a policy of an 'unacceptable damage' inflicting retaliation with a very well integrated 'operational plan' and a 'triad' of nuclear force. India's nuclear doctrine is therefore very ambitious and talks about everything from 'No First Use' to a 'minimum credible' 'triad based' deterrent capable enough of 'inflicting an unacceptable damage'. This clearly expresses ambitious nature of the India's nuclear doctrine.

On the contrary, Pakistan's nuclear policy is driven entirely by its security threats. Pakistan's primary motivational factor therefore is to provide the country with a credible nuclear deterrent against external threats to its survival and security, therefore the country aspires for an adequate stockpile of survivable and assured second strike weapons and delivery systems against a wide range of conventional and sub conventional threats to its sovereignty. This suggests that Pakistan's nuclear doctrine is based on minimum credible deterrence and does not rule out the first use option. This clearly states that the program is purely defensive in nature and deterrence based.

To sum up, the nature of the nuclear doctrines of these countries reflect the future directions of their strategic weapons programs.

Chapter 8

TOWARDS A FRAMEWORK FOR A MUTUAL RESTRAINT AND STABILITY REGIME

8.1. INTRODUCTION

This chapter is based on the concepts that were acquired and developed in Chapter 3. The main understanding of that chapter was that the concept of regimes has emerged in the field of international relations as a way of describing an instrument that states employ to deal with the varied nature of interdependent problems and issues that they confront in this anarchic world. It was clarified in that chapter that the regimes act as solution providers through a platform where the parties to a conflict or an 'issue area' converge their interests and define and establish rules, rights and principles of dealing with that issue area. It was also explained through a discussion of the Cold War and post Cold War restraint and stability regime models of the United States and the former Soviet Union (during Cold War) and the Russian Federation (post Cold War) that the strategy to which they adhered came to be defined as Confidence Building Measures (CBMs). That suggested that the very nature of the task that regimes were to perform could be summarised as: that process of social institution development through which the issue area conflicts are mutually stabilised by a system of enhanced interaction, information flow, and transparency which in turn would act as the confidence building measures. Once the confidence building measures are in place then the conflicts in a given issue area can be better controlled and may ultimately be resolved in a regulated way.

In chapter 3, I also clarified the role and mechanisms of the Confidence Building Measures (CBMs). These same mechanisms will be studied here in the Southern Asian context, by exploring both the nature of the problem confronting the Southern Asian nuclear states and the prospects of taking the ongoing CBMs further toward a more concrete and comprehensive attempt for restraint and stability regime formation. Employing the regimes conceptualisation and taking the Southern Asian nations ballistic missile proliferation as the issue area, along with the presence of the 'underlying will' between the parties in particular and the

international community in general, this chapter will provide a framework for a mutual restraint and stability regime for missiles proliferation in the region.

8.2. SOUTHERN ASIAN NATIONS EXPERIENCE WITH CBMS

1) China

China has lengthy experience of developing CBMs, beginning with the Korean war. Soon after the outbreak of the war, in order to resolve the conflict and bring peace and stability to the region, negotiations began between the parties to the conflict on 10 July 1951. But it was only after more than two years of hard negotiations that the United States, the People's Republic of China (PRC), and the Democratic People's Republic of Korea (DPRK) signed the "Military Armistice Agreement" at Panmunjom on 27 July 1953. The "Military Armistice Agreement" included several CBMs and had effectively ended the Korean War. Since then, Beijing has publicly endorsed the practice of confidence-building measures, and has begun to employ them to improve bilateral relations, especially with Russia and India.

China has entered into a number of such agreements in relations to other countries. These include Sino-Soviet Joint Communiqué of May 1989; Sino-Soviet "Agreement on the Guidelines of Mutual Reduction of Military Forces in the Border Region" and on "Building Confidence in the Military Sphere across the Border." of 24 April 1990; Sino-Russian Joint Declaration of 1992; "Agreement on the maintenance of peace And tranquillity along the 'Line of Actual Control' in the India-China border areas", of 7 September, 1993; Sino-Russian "Agreement on the Prevention of Dangerous Military Activities" (PDMA), of July 1994; "Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the 'Line of Actual Control' in the India-China border areas" of 29 November, 1996; and "Declaration on principles for relations and comprehensive cooperation between the People's Republic of China and the Republic of India of 2003. These all reflect the Chinese experience and understanding of the importance of CBMs. Moreover, Beijing has rhetorically embraced the practice of multilateral CBMs, participating in Asia-Pacific regional forums devoted to discussions on how to deal with potential flashpoints such as disputed islands in the South China Sea. Bilateral CBMs between China and Russia have facilitated the almost complete resolution of their border dispute. China's CBMs with India to improve lines of

communication, reduce tensions, and disengage forces along disputed border areas are significant.

2) India and Pakistan

India and Pakistan have also experimented with different types of CBMs, beginning with the establishment of a direct communication - "Hot Line" - between them after the Indo-Pakistan war of 1971 that resulted the dismemberment of Pakistan and the emergence of the independent state of Bangladesh. Since the establishment of the "Hot Line", many other initiatives have included: Indo-Pak "Agreement on the Prohibition of Attack Against Nuclear Installations and Facilities" of 31 December 1988; Indo-Pak "Agreement on Advance Notification on Military Exercises, Manoeuvres and Troop Movements" and "Agreement on Prevention of Airspace Violations and for Permitting Over flights and Landings by Military Aircraft" of 6 April 1991; Indo-Pak "Agreement on advance notification of ballistic missile tests" of 3 October 2005 and Indo-Pak agreement on "Reducing the Risk from Accidents Relating to Nuclear Weapons." of 21 February 2007. Besides these there have been many other joint statements and MOUs that reflect the Indo-Pakistani experience of working out CBMs.

So it can be agreed that the CBMs phenomenon has already been brought into play and has been experienced by the Southern Asian nations; but we should examine how far these different CBMs were adhered to and served effective purpose as CBM mechanisms.

8.3. SOUTHERN ASIAN AGREEMENTS ANALYSIS WITH CBMS MECHANISMS

As already discussed in Chapter 3, in order to move towards the reduction of the tensions between the belligerent parties and to inculcate an atmosphere of mutual trust and respect, different Confidence Building Measures (CBMs) mechanisms have often been recommended and established. The purpose of these Confidence Building Measures (CBMs) is to establish: a) mechanisms for making the behaviour of states more predictable by assisting and facilitating communication between states; b) rules or patterns of behaviour for states' military forces; and c) the means to determine and verify compliance with those patterns. As elaborated in chapter 3, the parties to an 'issue area' with an 'underlying will' use the i) communications; ii) constraints; iii) transparency and iv) verifications as mechanisms for Confidence Building Meausres (CBMs). These four sets of CBM mechanisms constitute a chain as is demonstrated in figure 7.1.

Figure 8-15: Confidence Building Measures (CBM) Mechanisms
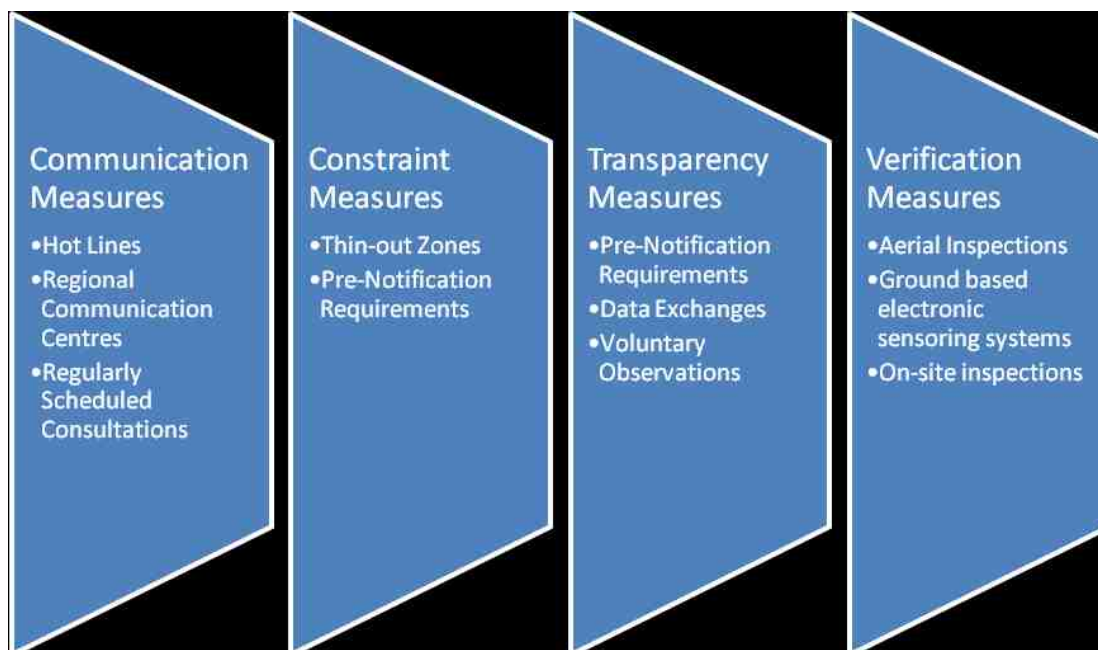
Source: Information based on different works and publications of Stimson centre U.S.A.

Having established the purpose of CBMs as mechanisms the discussion in this chapter will focus on the examination of the Sino-Indian CBM related agreements and then the Indo-Pakistan CBM related agreements in terms of the above mentioned mechanisms. Before moving on to these explanations, let me clarify that only three of the mechanisms, i.e. constraint, communication and transparency measures will be discussed at this stage in the Sino-Indian agreements and Indo-Pakistan agreements as verification measures are a missing link, as has already been explained in chapter 3 when identifying the gaps in the Southern Asian nations experience with CBMs.

8.3.1. Sino-Indian CBM Related Agreements

I will look at the Chinese CBM related agreements with India that aims at managing the dispute areas between them as per the CBM mechanisms identified above. The agreements that I will be examining are tabulated in Table 8-7.

Table 8-7: List of Sino-Indian CBM Related Agreements

Sr. No.	Agreements	Dates
1	Agreement on the maintenance of peace And tranquillity along the 'Line of Actual Control' in the India-China border areas	7 September, 1993
2	Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the 'Line of Actual Control' in the India-China border areas	29 November, 1996
3	Declaration on principles for relations and comprehensive cooperation between the People's Republic of China and the Republic of India	2003
4	Agreement between the Government of the Republic of India and the Government of the People's Republic of China on the Political Parameters and Guiding Principles for the settlement of the India-China Boundary Question	11 April 2005
5	Joint Statement of the Republic of India and the People's Republic of China	11 Apr 2005
6	Protocol on the modalities for the Implementation of the CBMs in the Military Field Along the Line of Actual Control in the India-China Border Areas	
7	Joint Declaration by the Republic of India and the People's Republic of China	21 November 2006
8	A Shared Vision for the 21st Century of the People's Republic of China and the Republic of India	14 January 2008

i) Communication measures

As noted China's experience of communication measures dates from the Korean negotiations with the establishment of the high-level political conference and the Armistice agreement that allowed for the withdrawal of all foreign forces from Korea and the peaceful settlement of the Korean question. With regard to the establishment of the communication measures between China and India, Article VII of the "Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the Line of Actual Control in the India-China border areas" was achieved only in 1996. This stipulates the scheduled and flag meetings between their border representatives at designated places along with maintenance and expansion of telecommunication links in order to strengthen exchanges and cooperation between the military personnel and establishments in the border areas along the line of actual control, thereby establishing step-by-step medium and high-level contacts between the border authorities of the two sides. Similarly Articles I, II, and X of the agreement between the governments of India and China on the 'Political parameters and guiding principles for the settlement of the India-China boundary question' of 2005 highlights the need and importance of the communications measures when they stress the need for peaceful and friendly consultations with the Five Principles of Peaceful Coexistence in order to seek a fair, reasonable and mutually acceptable solution to the boundary question on an equal footing, proceeding from the political perspective of overall bilateral relations.[639]

Wen Jiabao, Premier of the State Council of the People's Republic of China and Dr. Manmohan Singh, Prime Minister of the Republic of India in their 'Joint Statement of the Republic of India and the People's Republic of China on 12 April 2005 also agreed that high-level exchanges between the governments, parliaments and political parties of the two countries play an important role in expanding overall bilateral cooperation. They conveyed their determination to maintain and strengthen the momentum of such exchanges in future and agreed to hold regular meetings between the leaders of the two countries. In this context, the two sides also reiterated their intention to promote regular ministerial-level exchanges and

---

[639] For a detailed reading of the agreement please refer to the text of the agreement in Appendices

make full use of the India-China strategic dialogue and other bilateral dialogue mechanisms.[640]

The China-India joint declaration made during the state visit of Hu Jintao, President of the People's Republic of China, to India from 20 to 23 November 2006 at the invitation of Dr. A.P.J. Abdul Kalam, President of the Republic of India is also an important document in the same direction as both the sides agreed to hold regular Summit-level meetings, in each other's country and in multilateral forums.[641] They agreed that high-level exchanges between Governments, Parliaments and political parties play an important role in expanding overall bilateral cooperation. They also agreed that in order to facilitate and promote greater engagement between the two countries, an additional Consulate General shall be opened in each other's country. The Chinese side shall open a new Consulate General in Kolkata, while the Indian side shall open a new Consulate General in Guangzhou.

The two sides also agreed that they will strengthen institutional linkages between their Governments in different areas and levels with a view to foster synergy and cooperation and promote greater understanding of each other's policies and positions on important national, regional and international issues. The signing of the Protocol of Cooperation between the Ministry of Foreign Affairs of China and the Ministry of External Affairs of India during this visit was thus an important step in this direction.

The leadership of both these countries again shared their vision for the 21st century again in a meeting in Beijing on 14 January 2008, and agreed that the two sides will continuously promote confidence building measures through steadily enhanced contacts in the field of defence. The two sides therefore welcomed the commencement of the China-India Defence Dialogue.[642]

ii) Constraint measures

---

[640] For a detailed reading of the 'Joint statement', please refer to the complete text in Appendices

[641] For details see the text in the Appendices on ' Joint Declaration by the Republic of India and the Peoples Republic of China'

[642] For details see the text in the Appendices on ' A shared vision for 21st century of the PRC and the ROI'

The section (1), (2) and (3) under Article III of the "Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the Line of Actual Control in the India-China border areas"[643] of 29 November 1996 propose some constraint measures. Here the two sides agree to reduce or limit their respective military forces within mutually agreed geographical zones along the line of actual control in the India-China border areas to minimum levels compatible with the friendly and good neighbourly relations and consistent with the principle of mutual and equal security between the two countries and to ceilings mutually agreed upon. The major categories of armaments to be reduced or limited were as follows: combat tanks, infantry combat vehicles, guns (including howitzers) with 75 mm or bigger calibre, mortars with 120 mm or bigger calibre, surface-to-surface missiles, surface-to-air missiles and any other weapon system mutually agreed upon.

Similarly under the section (1) of the Article IV the two sides establish a constraint of holding large scale military exercises involving more than one Division (approximately 1 5,000 troops) in close proximity of the line of actual control and under section (2) of the Article V, even the combat aircraft (to include fighter, bomber, reconnaissance, military trainer, armed helicopter and other armed aircraft) were constrained not to fly within ten kilometres of the line of actual control. Likewise under section (1) of Article VI, both sides were prohibited of the opening up of fire, causing bio-degradation, using hazardous chemicals, conducting blast operations or hunting with guns or explosives within two kilometres from the line of actual control.

iii) Transparency measures

Section (2) under Article IV of the "Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the Line of Actual Control in the India-China border areas" also addresses certain transparency measures. These establish pre-notification requirements with regard to type, level, planned duration and area of exercise as well as the number and type of units or formations participating in the exercise, if either side wishes to conduct a major military exercise involving more than one Brigade Group (approximately 5,000 troops) in close proximity of the line of actual. Similarly under section (3) of the Article

---

[643] For a detailed reading see the text in the Appendices on 'Agreement between the government of the Republic of India and the government of the People's Republic of China on Confidence-Building Measures in the military field along the Line of Actual Control in the India-China border areas'.

V, if either side is required to undertake flights of combat aircraft within ten kilometres from the line of actual control, it shall give the type and number of combat aircraft; height of the proposed flight (in meters); proposed duration of flights (normally not to exceed ten days); proposed timing of flights; and area of operations, defined in latitude and longitude. Section (2) of Article VI also calls for the five days in advance notification if there is a need to conduct blast operations within two kilometres of the line of actual control as part of developmental activities; and section (3) under Article III of the same agreement address the transparency measures with regard to data exchanges on the military forces and armaments to be reduced or limited.

iv) Verification measures

All of the Sino-Indian Confidence Building Measures (CBMs) related agreements that are mentioned in Table 8-1, do not have any article addressing the verification measures. This is a very critical deficiency which will be highlighted in the conclusion of the chapter.

8.3.2. Indo-Pakistan CBM Related Agreements

The same pattern of analysis which is used above in the Sino-Indian case will be used again in the Indo-Pakistan case. The Indo-Pakistan CBM related agreements which are examined here are tabulated in Table 8-7.

Table 8-7: List of Indo-Pak CBM Related Agreements

• Agreement on the prohibition of attack against nuclear installations and facilities of 31 December 1988
• Agreement on advance notification on military exercises, manoeuvres and troop movements of 6 April 1991
• Agreement on prevention of airspace violations and for permitting over-flights and landings by military aircraft of 6 April 1991
• Agreement on advance notification of ballistic missile tests of 3 October 2005
• Agreement on reducing the risk from accidents relating to nuclear weapons of 21 February 2007

i) Communication measures

India and Pakistan have attempted to develop communication measures, especially by establishing the Hotlines, which exist not only between their Director Generals Military Operations (DGMOs) but also their Prime Ministers. After the 1971 war of India and Pakistan, the states decided to have a dedicated link of communication between the Pakistani and Indian directors general of military operations (DGMOs), so from there on a DGMOs "Hotline" was established. In 1990 it was decided this Hotline should be used on a weekly basis, even to exchange routine information. At the February 1999 Lahore Summit, India and Pakistan agreed to review all existing communication links with a view to upgrade and approve the DGMO and other hotlines. Though the states have had this important communication node operational between them, it has in practice been used only intermittently, so that important information has not been communicated over the hotline in a timely fashion. For example during a serious regional crisis of 1987, and 1990, the DGMO hotline was not used; and even during the Kargil conflict its use was sporadic and unreliable. Some skirmishes and stand-offs, however, have been diffused by contact over this hotline.

The hotline between Prime Ministers of India and Pakistan was first installed in 1989 by Prime Ministers Benazir Bhutto and Rajiv Gandhi. In November 1990, Indian Prime Minster Chandra Shekhar and Pakistani Prime Minister Nawaz Sharif re-established the hotline to facilitate direct communication. In May 1997, Indian Prime Minister I.K. Gujral and Sharif pledged to reinstate the hotline. This hotline was used by Nawaz Sharif during his terms in office not only during the periods of particularly severe skirmishes and heavy artillery fire along the Line of Control (LOC) in Kashmir in October 1997 or the 1999 conflict over Kargil, but was also used by Nawaz Sharif to express his interest in further developing bilateral ties with his counterparts in India. Nonetheless, the repeated re-establishment of the Prime Ministers' hotline suggests that its use has been intermittent, at best.

ii) Constraint measures

India and Pakistan have moved towards constraint measures in the last 20 years. They signed an agreement on the Advance Notice of Military Exercises at New Delhi on 6th of April, 1991.[644] Through this agreement Pakistan and India recognized the need to jointly formulate an agreement at the Government level on giving advance notice on exercises, manoeuvres and troop movements in order to prevent any crisis situation arising due to misreading of the other

---

[644] For detailed reading and comprehension of the agreement the text provided in Appendix 2.

side's intentions. Therefore, the Governments of Pakistan and India jointly decide that, their Land, Naval and Air Forces will avoid holding major military manoeuvres and exercises in close proximity to each other. However, if such exercises are held within distances as prescribed in this Agreement, the strategic direction of the main force being exercised will not be towards the other side, nor will any logistics build up be carried out close to it. As per this agreement the troops manoeuvres toward the international border are constrained. The agreement stated that exercises at the corps level must be held forty-five kilometres away from the border; at the division level, exercises must be held twenty-five kilometres away from the border and no military activity is permitted within five kilometres of the border.

This agreement also put constrains on the naval ships and submarines, The Article 10 of the agreement states that, "the naval ships and submarines belonging to the other country are not to close less than three Nautical Miles (NMs) from each other so as to avoid any accident while operating in international waters." The agreement in its Article 11 also calls for combats aircrafts, bombers etc... and states that, "Combat aircraft including fighter, bomber reconnaissance, jet military trainer and armed helicopter aircraft will not fly within ten kms of each other's airspace, including the Air Defence Identification Zones (ADIZ), except when such aircraft are operating form Jammu, Pathankot, Amritsar and Suratgarh air bases on the Indian side, as well as Pasrur, Lahore, Vehari and Rahimyar Khan air bases on the Pakistan side, in which case they will maintain a distance of five kms from each other's airspace. Unarmed transport and logistics aircraft including unarmed helicopters and Air Observation Post (AOP) aircraft will be permitted to operate up to 1000 meters from each other's airspace including the ADIZ."

Similarly when it comes to air frontiers, India and Pakistan have another agreement on the Prevention of the Violation of Airspace, signed in April 1991, and entered into force in August 1992. This agreement put a constraint on the combat aircraft flight within ten kilometres of foreign airspace and unarmed transport and logistics aircraft are permitted up to 1,000 meters from the border; flights within this range for supply or rescue missions are permitted if advance notice is given.[645] The two states as per the agreement on the Advance Notice of Military Exercises also agreed to give fifteen days prior notice when formations with defensive roles are moved to their operational locations for periodic maintenance of defences and agreed to transmit in writing well in advance the schedule of the major

---

[645] For Details please see the text of the agreement in Appendix 3.

exercises. These agreements collectively can be seen as classic examples of constraint measures application and adoption for the enhancement of Confidence Building Measures.

iii) Transparency measures

India and Pakistan have laid down very comprehensive mechanisms for ensuring a level of transparency in pre-notification measures in all of their agreements to date. Examples include, "Agreement on the Prohibition of Attack Against Nuclear Installations and Facilities" of 31 December 1988; Indo-Pak "Agreement on Advance Notification on Military Exercises, Manoeuvres and Troop Movements" and "Agreement on Prevention of Airspace Violations and for Permitting Over flights and Landings by Military Aircraft" of 6 April 1991; Indo-Pak "Agreement on advance notification of ballistic missile tests" of 3 October 2005 and Indo-Pak agreement on "Reducing the Risk from Accidents Relating to Nuclear Weapons." of 21 February 2007. These and other joint statements and MOUs aim at preventing any crisis situation arising due to the misreading of the other side's intentions. For example the Article 2 of the "Agreement on the Prohibition of Attack Against Nuclear Installations and Facilities" requires each contracting party to inform the other on 1st January of each calendar year of the latitude and longitude of its nuclear installations and facilities and whenever there is any change. The rest of the agreements are the complete and elaborate cases of pre-notification requirement to help increase the transparency measures in which the time lines of notification were set forth and agreed upon for different class and level of troops in land forces; naval ships, frigates, destroyers, etc; the air force aircraft and bombers and ballistic missiles flight tests, etc.[646]

iv) Verification measures

As with the Sino-Indian Confidence Building Measures (CBMs) related agreements, it can be seen that the Indo-Pakistan CBMs related agreements that are mentioned in Table 8-2, also do not contain any article addressing the verification measures. This deficiency will also be highlighted in the conclusion of the chapter.

---

[646] For details please refer to all of these agreements in Appendices.

8.4. IMPLICATIONS OF SOUTHERN ASIAN NUCLEAR AND MISSILE RACE AND THE PROSPECTS OF TAKING THE ONGOING CBMs TOWARDS A RESTRAINT AND STABILITY REGIME FRAMEWORK

Before moving on to the prospects of taking the ongoing CBMs further towards a formal restraint and stability regime, I find it once again very important to discuss the implications of the fast paced ballistic missile race for the Southern Asian region.

As already discussed the existence of many protracted contests and enduring conflicts in the region is shaping the security and defense policies of the regional countries. These unresolved conflicts are therefore the primary cause of a continued action-reaction type of nuclear and missile race in the region. It is due to this phenomenon that the presence of nuclear weapons and ballistic missiles are a fact of life in Southern Asia today. Missile developments between China, India and Pakistan figure prominently on in the agenda of proliferation of delivery systems of Weapons of Mass Destruction (WMD). Concerns about the competitive deployments of nuclear armed missiles are growing. But from restraint and stability regime framework perspective, the situation in Southern Asia however cannot be viewed in isolation. The continued missile research and development programs and growing qualitative improvements in domestic production capabilities in a number of other countries are also factors. In the widening nuclear and missile spiral, encompassing triangular relationship among India, Pakistan and China, there is a still wider circle of peripheral nuclear and missile aspirants like Iran in one direction and North Korea in the other.

The prospect that Iran, a large and potentially powerful nation strategically located near to Pakistan, India, Russia, Ukraine, Kazakhstan, the Gulf states, Turkey, and the Eastern Mediterranean, might build its own nuclear bomb only complicates further an already dangerous region. The prospect that an arms race would unravel nuclear restraint in this troubled region would greatly increase if Iran were to acquire Weapons of Mass Destruction (WMD). The implications of a North Korean nuclear weapons state are also chilling. Since North Korea never agreed to a peace treaty following the armistice of the Korean War, so it technically is still in a state of war. It is also home to one of the most heavily guarded and tense borders in the world having two nuclear neighbours Russia and China. The nuclear tests coupled by advance missile program could provoke other countries in the region to become nuclear weapon states.

This suggests that even if the programmes of weapons systems restraint and dismantlement are agreed and completed by the 'nuculear haves', horizontal proliferation may still accelerate. It is due to all such facts that the nature of the present triangular missile contest between China, India and Pakistan is far more complicated than the Cold War powers rivalry. Differences between the bipolar deterrence system and the Southern Asian rivalry include:

i. First, it had its origins in territorial disputes and on-ground unresolved situations, not merely ideological divisions, which is unlike anything experienced by the Cold War nuclear rivals. Also unlike Cold war states is their 'direct war' history (Indo-Pak wars of 1948, 65, 71 and 1999 and Sino-India war of 1962). Thus the nuclear rivalry in this region is more dangerous than that which existed between USA and USSR.

ii. Second, none of the countries in Southern Asia has actually talked about a 'missile gap' with the others and each vehemently denies that they are in a race to catch up with the others' growing capabilities. In fact, they all officially claim that their efforts in the nuclear and missile field are merely designed to maintain a 'minimum' deterrence capability.[647]

iii. Third, even when Beijing, Islamabad and New Delhi justify their missile-related developments in terms of external threats, the linkage is not mutual, as was the case in the American-Soviet context, but is more linear: Pakistan versus India, India versus China, and China versus the United States.[648]

iv. Fourth, related to the linear nature of the linkage, none of the countries is willing to discuss their own missile developments with the other, even under the guise of maintaining strategic stability, for a variety of reasons, an obvious one is counter-productive side effects to transparency. As for example the fear that the total disclosure would weaken the security of the state as it can encourage the first-strike and undermine deterrence. It is also because of that fear that for instance, Beijing refuses to discuss its

---

[647] Sidhu, "A Languid but Lethal Arms Race ".

[648] Tariq Rauf, "Learning to Live with the Bomb in South Asia: Accommodation Not Confrontation," in *CNS Reports* (Center for Nonproliferation Studies, 1998). Cited also in Sidhu, "A Languid but Lethal Arms Race ".

nuclear and missile inventory with the United States unless Washington's own holdings are dramatically reduced to match the level of China's.[649]

Most efforts to prevent nuclear proliferation have sought to control the spread of the knowledge, the technologies, and the materials necessary to builds weapons. Yet since so much nuclear technology is 'dual use', that is valuable for peaceful purposes, it continues to spread. Thus, whether a nation becomes a nuclear weapons state will ultimately be determined by intent rather than capability. Intent is shaped normally by regional security concerns and by the nature of the government and its domestic political environment.[650]

In fact, in a number of regions around the globe, the appearance of pledge to non-proliferation remains thin. The global non-proliferation regime could begin to unravel region by region. The key to preventing such an outcome is strict enforcement of restraint obligations. As we know by the nature and the current status of the missile programs of China, India and Pakistan all three missile powers have very well established missile programs and that at least two of them, India and Pakistan are mutually locked into an action-reaction model; and that the third, China, is also tied to this model as China is frequently highlighted as its programme is cited as the prime driver by India. India's Agni series program is said to be the manifestation of this, though the Chinese themselves do not recognise any kind of threat from India and actually have a very different structure of threat perception. The only declared Chinese threat consideration vis-a-vis India arises from the latters' alignment with the United States or Japan, or its role in destabilising Tibet.

This clearly suggests that the Southern Asian nuclear and missile developments are very complex in the way the states involved are mired into overlapping threat perceptions. This could be best ascertained by considering the following diagram, where Pakistan in this Venn diagram feels threatened by India, which in turn highlights Chinese threat and China likewise feels threatened by USA.

---

[649] Sidhu, "A Languid but Lethal Arms Race ".

[650] Francine Frankel, ed., *Bridging the Nonproliferation Divide: The U.S. And India* (Lanham, MD: University Press of America, 1995), p.25.

Figure 8-16: Overlapping Relationship of the Countries Involved In Nuclear Missile Race
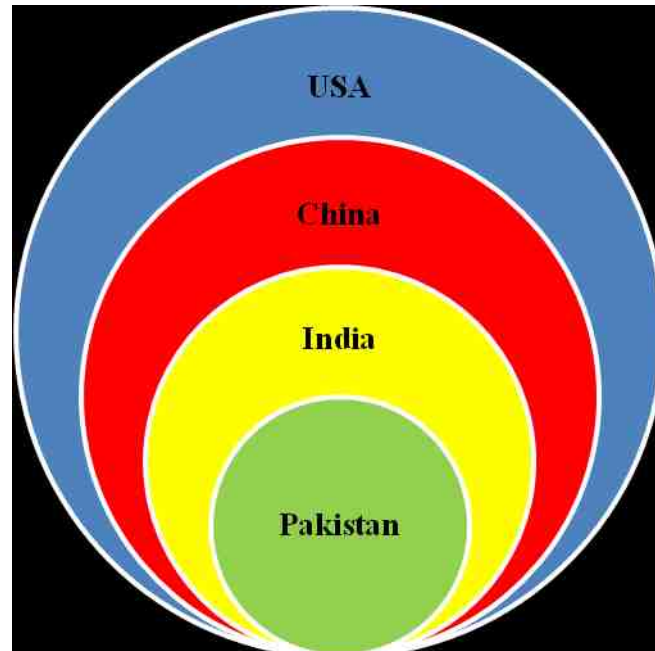
Such overlapped threat perceptions are the primary drivers of the nuclear and missile build up in the region, reinforced by the unresolved conflicts between these states, and the factor of strategic proximity induced by the shortened flight time of their missiles. Taken collectively these factors make the situation even more capable of threatening a nuclear catastrophe. This situation of adverse strategic implications for the region needs to be understood before making a case for the restraint regime; and answering the question of how India, Pakistan and China can reduce the risks of nuclear brinksmanship along national borders or lines of controls and actual control. This section therefore discusses all such implications in and beyond the region occasioned by the ongoing missile race between the nuclear states of Southern Asian region.

8.4.1. Regional Implications

8.4.1.1. Enhanced risk of vertical proliferation of missiles

Most commonly vertical proliferation is understood to be the increase in stockpiles of weapons by states already holding them and less commonly, vertical proliferation also refers to the positioning of weapons in additional locations outside the territory of the state itself,

e.g. in overseas bases like those of United States in Western Europe and East Asia, or in naval vessels or aircrafts that patrol outside the state territory.[651]

By vertical proliferation of ballistic missiles, I mean here that the missile states are continuously busy in researching and developing newer types of missile systems, both with respect to technology, materials and means of guidance and control. Therefore I use 'enhanced risk of vertical proliferation of missiles' as a way of describing the modernization and expansion of a state's missile arsenal both in terms of the increase in size, quality and destructive power of the systems.

The southern Asian states of China, India and Pakistan have reflected the same trend of vertical proliferation. China for example maintains a declaratory 'No First Use' policy with regard to nuclear weapons, and has sponsored many disarmament resolutions in the United Nations. However, China is modernizing its nuclear weapon warhead and delivery system arsenal. China's modernization of its missile force includes increasing and improving mobility, variant propulsion technologies (solid/liquid fuel), improved accuracy, lighter warheads, and a more robust command, control, communications, and intelligence (C3I) system. China, therefore, is not only developing new missiles with increased number of stages (e.g. the three-stage, solid fuel, mobile DF-31, is the program's mainstay) but is also developing modified versions of the missiles which are already in its arsenal. For estimated ranges of current and potential Chinese ballistic missiles see the relevant Map in Appendix 2.

Similarly Indian missile program reflects the same vertical proliferation trends as is evident from an array of their arsenal. For the estimated ranges of current and potential Indian ballistic missile see figure 8-4. The Pakistan Prithvi missile has all its land (Prithvi), sea (Dhanush) and also air versions (Trishul). These continued improvements in the arsenals hardware and software system technologies to upgrade their missiles as effective delivery weapons sustains the action-reaction dynamics, evident from the tit for tat ballistic missile tests of April 1999 and again in March 2003 between India and Pakistan.

It therefore goes beyond doubt that Pakistan is locked in an adversarial competitive relationship vis-à-vis India so that it must not lag behind and must follow the vertical proliferation path. Therefore the indigenized efforts on the part of the scientific and

---

[651] Buzan and Herring, *The Arms Dynamic in World Politics*, p.53.

engineering elite of the Pakistani missile complex for the modernisation of their arsenal also contribute as a regional security driver. The improvements in the motor and propulsion technologies with state of the art gyros and inertial guidance systems of on-board computers and the MIRVing of the warheads are the case in point. For the estimated ranges of current and potential Pakistani ballistic missile see figure 8-5.

These developments can have serious consequences for regional security and a negative impact on arms control and disarmament as all such vertical proliferational efforts on the parts of the states are being carried out in order to ensure the credibility and reliability of their deterrent potentials. It is not out of context to mention that vertical and horizontal proliferation also goes hand in hand. As the vertical proliferation would increase the chances of the horizontal proliferation so will the horizontal proliferation increase the need for upward improvement and increase in number of the systems. For example the United States decision to develop a National Missile Defense system forces others to either improve the penetration potential of their missiles or to increase the numbers in their inventory to be able to counter the NMD system. This, very similarly would induce the others to develop or acquire their own NMD system technologies. It is understandable that with the American decision for the NMD system, China would strive to counter this to maintain an effective and credible deterrent. But from here the Chinese vertical proliferation pressures will cascade to India and then Pakistan. And it is known that India is already in the process of developing a Theatre Missile Defense (TMD) system which is a combination of Israeli Airborne Early Warning System and Arrow Technology. Pakistan on the other hand could also not let itself become vulnerable and would work out its way of dealing with these risks. It is because of the inter-locking nature of these drivers that it can be said that the ongoing missile race in the Southern Asian region represents enhanced risk of vertical proliferation.

8.4.1.2. Balance of power problem and deterrence failure

The vertical proliferation automatically brings in the balance of power problems between the competing states. Since the weapons systems were established to ensure the credible deterrent potential of the states so deterrence failure would increase the risks of a superior party resorting to use of force. Whatever way they might package that use of force, may it be limited war; precision/ surgical strategic strikes etc… then failure to maintain parity would seem to open the pandora box of force employment and usage, and stability would be

compromised. This, therefore, clearly implies that vertical proliferation will upset regional military balances (either perceived or real), then in addition, will force reactions and introduce widespread elements of arms competition, which ultimately leads to potential strategic instability.

8.4.1.3. Risks of accidental and unauthorized usage due to breach of command and controls

In spite of the fact that all of the three nuclear Southern Asian states of China, India and Pakistan have declared the existence of secure Command and Control systems for their arsenals, the close geographic proximity of these also carries serious implication with respect to Command and Control issues. The fact of the existence of a very short flight time of the missiles between them (even less than six minutes in some areas), along with the problem of no effective early warning system, makes the risk of the breach of command and control even stronger. The breach does not mean merely the physical breach but may also include the psychological breach due to any false alarms or individual breakdown. The breach of the command and control in which ever form would thus bring in the risks associated with 1) accidental and unauthorized usage; 2) any terrorists and non-state actors related activity. According to Peter Feaver if the authorities of a nuclear weapon state control a weapon loosely then not only will the deterrence be ineffective but can even "fail deadly" in the form of an unauthorized or accidental launch. Likewise if the controls on the weapons are too tight, deterrence can again "fail impotent" if a first strike against leadership node is successful, thereby rendering a blow to the chances of retaliation.[652] The dangers of breach of command and control translate into an increased danger of an unauthorized or accidental launch or detonation, or even nuclear terrorism related activity leading to a potentially catastrophic nuclear exchange.

---

[652] Peter D. Feaver, "Command and Control in Emerging Nuclear Nations," *International Security* 17, no. 3 (1992): p.160.

8.4.2. Implications Beyond The Region

8.4.2.1. Enhanced risk of horizontal missile proliferation

Horizontal proliferation is usually taken to mean proliferation in general i.e the spread of weapons to states not previously possessing them.[653] By horizontal proliferation of ballistic missiles, I mean that these weapons systems have got cascading effects on the regional players in the close geographic proximity and also amongst the players in the interlinked regions. There could be number of reasons for this cascade, again both from the 'proliferating' and 'proliferators' points of view. The proliferating states may simply be acquiring/developing these weapon delivery systems due to domino effects and the security concerns being raised due to the presence of these systems in their vicinity; or again taking and considering them as weapons systems raising their status and prestige. Whereas, from the 'proliferators'' point of view, this could be because of commercial activity generating economic and financial benefits for the exporting state. Jacqueline Cabasso of the Western States Legal Foundation notes that, "Several psycho socio-political factors of vertical proliferation will provoke horizontal proliferation the opposite of the stated intention of Non-proliferation."[654] These are: i) fear and insecurity - People and nations can be more dangerous when afraid. This creates a climate of bad faith and one in which leaders can manipulate fears of the populous against NWS; ii) envy and humiliation - a both very dangerous and poisonous emotion which impels violence and desires to get even. There are tension reducing, face-saving ways of dealing even with dangerous dictators, other than threatening, humiliating and backing them into a corner which makes them more dangerous; iii) asymmetrical power - provokes the development of countermeasures which are 1/100 1/1000 the price, and require less technology, which include asymmetrical warfare terrorism, There is no nuclear or military system which cannot be overcome. Policies don¹t consider innovation and ingenuity, or psychology of "enemies"; iv) the Double Standard hold nukes as a status symbol and promotes desire to join the nuclear weapons club; v) the experience of being dominated creates a climate of bitterness, resentment, hopelessness and provides a breeding ground for endless new recruits to terrorist groups; vi) Spiral Theory - all of the above create an atmosphere where proliferation and use can spiral out of control.

---

[653] Buzan and Herring, *The Arms Dynamic in World Politics*, p.53.

[654] Jacqueline Cabasso, "Vertical Proliferation," in *NGO Presentations to the 2004 NPT PrepCom* (New York: 2004).

This implies that vertical proliferations triggers horizontal proliferation and vice versa but both in turn trigger much more risks of continued violation of many of the existing regimes to control nuclear and missile proliferations. As is evident from the respective maps of North Korea and Iran in appendix 2 (Map 7 and Map 8), that the horizontal proliferation impact can be seen in North Korea as well as in Iran and in turn they are busy in their vertical proliferation of the programs.

8.5. THE WAY FORWARD: FRAMEWORK FOR MUTUAL RESTRAINT AND STABILITY REGIME

Due to the overlapping nature of threat perceptions along with the presence of very vital external factors that influence the security dynamics of the Southern Asian region, it is extremely complicated to propose a comprehensive and fully functional restraint and stability regime in Southern Asia. The only possible move that can be made to address this inter-locked nature of the issue area and the related politics is through the phased addressing and tackling of the issues. For that matter initially the bilateral arrangements should be made amongst the Southern Asian nuclear powers, then trilateral and finally moving up towards multilateral efforts in addressing the issue area.

The complete CBMs arrangements incorporating and ensuring greater transparency measures will help lead the way towards the successful resolution of the outstanding disputes between these states. Keeping the security dynamics of the region to the forefront, it is therefore necessary that two approaches be detailed for addressing the issue area. These being 1) bottom up approach and 2) top-down approach. The bottom up way of dealing with the issue areas simultaneously would need to be accompanied by a top down approach as well, by means of the restraint and control of the major powers most notably the United States. It will be very difficult to agree restraint and control on the continuous development and improvement of strategic weapons by regional NWS, if America and its allies are not doing the same.

8.6.1. Bottom up Approach

It is therefore suggested that for any sustainable and stable restraint and stability regime in Southern Asia with broader impact and influence with regard to both vertical and horizontal proliferation of ballistic missile systems, a comprehensive program of confidence building measures, along with a well established state of the art technological supported Cooperative

Social Responsibility System (CSRS), to ensure monitoring, compliance and verification of the CBMs agreements as well as work out the pacific settlement of the disputes between them.

The proposed framework therefore can be developed on the following lines:

8.6.1.1. Pre-confidence building measures

To start the process, there emerges the need to call for a set of pre-confidence building measures in order to reflect the will and intent on the part of the parties involved to have peace and stability in the region. It is a common practice observed in the region that the politico-military leaderships very often hurl statements which are devoid of any subtlety and finesse, which further heat up the prevalent mistrust. For example during the very early stages of military standoff of 2001-2002, the Indian army chief General S. Padmanabhan was found tossing nuclear threats at Pakistan after the successful test launch of the modified version of Agni MRBM (700 km range). The General declared that, "the perpetrator of that particular outrage (nuclear attack) shall be punished, shall be punished so severely that the continuation of any form of fray will be doubtful".[655] It is fairly obvious that Pakistani side would not have lagged behind to respond in kind. Such actions and pronouncements do not help cultivate trust and confidence either within the region or outside. It is because of this issue that Pakistani nuclear strategist Naeem Salik pronounces that 'with the passage of time, and greater understanding of nuclear jargon, due care will be exercised in public pronouncements, especially during crises'.[656]

It is because of this prevalent need that the pre-confidence measures suggested here are consisting of but not limited to the following two steps:

1) Declaratory measures, and

2) Conflict avoidance measures.

8.6.1.1.1. Positive Declaratory Statements (PDS)

By declaratory measures I mean all such public statement by the leadership which are issued in favour of peace and stability in the region and likewise help raise the confidence level, I

---

[655] Quoted in: Salik, *The Genesis of South Asian Nuclear Deterrence*, p.248.

[656] Ibid.

will call them as Positive Declaratory Statements (PDS). Positive Declaratory Statements (PDS) by adversarial countries serve conciliatory purposes by encouraging and initiating movement towards resolving a difficult political problem.[657] The leadership in the region understood the importance of it long ago when Nehru when addressing the Indian Parliament in early 1950 said: "Unfortunately the old traditions of diplomacy have been forgotten in the modern world. Diplomacy in the olden days may have been good or bad, but people at least did not curse one another in public. The new tradition today is to carry on publicly a verbal warfare in the strongest language. Perhaps that is better than fighting but it leads to fighting, [or] rather may lead to fighting."[658] Almost similar concern was raised by the Pakistani President General Zia ul-Haq in 1982, when he said: "While the dialogue between our countries continues, it is best in my view that they eschew statements which deliberately create a sense of crisis. . . .The political leadership as well as the media on both sides have a vital role to play in educating public opinion on the right lines. Facts, responsibly presented, would automatically correct the distorted images seen through the emotional looking glass."[659]

Of course, the term 'responsibly presented' may well have connotations or even a specific agenda beyond the general context in which it is presented here. For the purpose of this research, this example is used to demonstrate how Indian and Pakistani officials appear to agree on the need for such declaratory statements. Unfortunately in spite of the realisation of the dangers associated with the negative rhetoric in public by the leadership, the pattern continues which therefore demands its replacement with Positive Declaratory Statements (PDS). Positive Declaratory Statements can therefore be very specifically designed pledges and promises made unilaterally, bilaterally, or within the framework of an international agreement for renouncing the use of force in mutual relations, therefore helping to defuse tensions and facilitate negotiations and dialogues for the ultimate resolution of the issues.

8.6.1.1.2. Conflict Avoidance

By conflict avoidance I mean all such attempts on the part of the governments to avoid any such happening of incidents and events which can trigger conflicts. Utmost restraint should be

---

[657] P. R. Chari, "Declaratory Statements and Confidence Building in South Asia," in *Declaratory Diplomacy: Rhetorical Initiatives and Confidence Building*, ed. Michael Krepon, Jenny S. Drezin, and Michael Newbill (Washington, DC: The Henry L. Stimson Center, April 1999), p.89.

[658] Cited in: Ibid., p.90.

[659] Cited in: Ibid.

applied and observed particularly on the contesting issues/claims e.g. the most often reported border skirmishes as a result of 'opening fire' on the adversary for mere reasons of suspicious moves across the frontier should be brought to an end in order to avoid conflicts.

Positive Declaratory Statements would be rendered useless and insufficient to generate faith on the other side if conflicts in general are not avoided. So in order to achieve and improve the efficacy of mutual trust and confidence, both PDSs and conflict avoidance go hand in hand and the introduction and establishment of a Cooperative Social Responsibility System (CSRS) could help supplement these besides fulfilling different other functions of verification and compliance issues.

8.6.1.2. Cooperative Social Responsibility System (CSRS)

As has been argued the Southern Asian nations experience with CBMs so far has been lacking any verification process. In order to attain this, a Cooperative Social Responsibility System (CSRS) is being proposed. The states should reflect a social responsibility via such a system towards verification, monitoring, and compliance of any such concluded agreements. The central idea is based on the premise that regional and global security today demands a reduced emphasis on deterrence and contingency response, and an increased emphasis on reassurance and systematic prevention due to the very worrying type of irresponsible behaviour, such as lax security at storage sites, or loose talk about 'usable' nuclear weapons that promotes proliferation and weakens the nuclear taboo.[660]

> "The shift in emphasis of co-operative security from deterrence and contingency response to reassurance and systematic prevention calls for a corresponding reorientation in the ends and means of verification. If in a co-operative security regime one is less concerned about deliberate aggression by any of the main players and more concerned either that they might engage in inadvertently dangerous behaviour…, then more emphasis can be placed on reassurance"[661]

A Cooperative Social Responsibility System (CSRS) therefore in broad terms would provide for a system which would ensure reassurance of compliance with cooperative obligations.

---

[660] Nancy Gallagher, "Verification and Advanced Co-Operative Security," in *Verification Yearbook 2002*, ed. Trevor Findlay and Oliver Meier (London: VERTIC, 2002), p.240.

[661] Ibid., p.245.

Transparency would also be needed during the process. Increased transparency in all the related information is an indispensable pre-requisite for more progress in restraint and verification. For that matter co-operative monitoring technologies are already developed and could therefore be relied upon to demonstrate that co-operative obligations have been met. Such a system in itself can act as a confidence building measure by requiring the parties to co-operate in jointly managing a verification system through simple information sharing and exchange.

8.6.1.3. Confidence and Cooperation Building Measures (C^{2}BMs)

The framework then calls for a comprehensive list of both general Confidence and Cooperation Building Measures (C^{2}BMs) and Confidence and Security Building Measures (CSBMs). The more general Confidence and Cooperation Building Measures (C^{2}BMs) will address the economic, social, cultural and technical issues to generate trust and confidence between the parties before moving on to hard core security and military issues. They will thus promote easing of the tension between them. The more open people to people contact with easing of the border controls and visa relaxations; the more often and open mutual trade relationship with each according Most Favoured Nation (MFN) status to each other and the proposals like of Joint sports teams etc…are the examples in point.

8.6.1.3.1. Economic CBMs

There could be varied nature of economic related CBMs between the states. The world is fast transforming into an interdependent global village. So economics is the lifeline of any prosperous society. Southern Asia forms a natural trade and economic block. Trade and investment develop sustainable interests and interdependencies between the trading partners, thus creating stakes in each others' economic development and well being. The steps like facilitation of mutual economic and trade activity if necessary even by according MFN status to each other and progressive reduction of tariff and non-tariff related barriers will play a very vital role in inspiring confidence and trust between the societies. The talks of South Asian Preferential trade agreements (SAPTA) and South Asia Free Trade Associations (SAFTA) are encouraging trials in the direction.

India and China both in their June 23, 2003, Declaration on Principles for Relations and Comprehensive Cooperation Between the People's Republic of China and the Republic of India welcomed the positive momentum of bilateral trade and economic cooperation in recent

years and shared the belief that continued expansion and intensification of China-India economic cooperation is essential for strengthening bilateral relations.

Both sides in the declaration shared the view that existing complementarities between their two economies provide an important foundation and offer broad prospects for further enhancing their economic relations. In order to promote trade and economic cooperation, both sides will take necessary measures consistent with their national laws and rules and international obligations to remove impediments to bilateral trade and investment. They reaffirmed the importance of the ministerial meeting of the Joint Economic Group (JEG) and agreed to hold the next (seventh) JEG meeting within the year.

The two sides also agreed to set up a compact Joint Study Group (JSG) composed of officials and economists to examine the potential complementarities between the two countries in expanded trade and economic cooperation. It was also agreed that the JSG would also draw up a programme for the development of China-India trade and economic cooperation for the next five years, aimed at encouraging greater cooperation between the business communities of both sides and the Group should thus present a study report and recommendations to the two Governments on measures for comprehensive trade and economic cooperation by the end of June 2004. The two countries had also agreed to launch a financial dialogue and cooperation mechanism and also to enhance cooperation at the World Trade organization, which is not only to mutual benefit but also in the broader interest of developing countries. The two sides will thus hold dialogues on a regular basis in this regard.

Similarly the conclusion of the Bilateral Investment Promotion and Protection Agreement during the visit of H.E Hu Jintao, President of the People's Republic of China, to the Republic of India from 20 to 23 November 2006 is a welcome development that will provide the institutional and legal basis to encourage and promote greater investment flows between the two countries.

This declaration seems to have suggested that from now on the Sino-Indian economic relationship will start marching upwards; fundamental concerns however remain that have shown little sign of resolution. As Pallavi Aiyar notes that:

> "On the Indian side, there is a widening trade deficit, worry over the composition of exports and concern at the inability of Indian companies with Chinese operations to break into the domestic Chinese market. (Whereas) the Chinese complain that India is

holding back on a proposed regional trade agreement and that Chinese companies have on occasion been prevented from investing in India on the grounds that they pose a security threat…Both sides also complain of insufficient knowledge of the business practices and the regulatory framework of the other country. Cultural discomfort involving language and food habits form an additional barrier - despite being neighbours, the two countries appear culturally more comfortable doing business with the West than with each other… India is thus reluctant to grant China market economy status, a first step towards negotiation of the proposed regional trade agreement. Currently, India is a leading initiator of anti-dumping cases against China."[662]

It can be seen that the understanding and realisation of the use of economic and trade relations to foster greater confidence and trust between the regional partners does prevail but again what is needed is the greater streamlining of these for an amicable and effective implementation of what is normally agreed.

8.6.1.3.2. Social CBMs

Social contacts between the communities through different platforms also help minus the ill feelings towards each other. One of the most effective ways of reducing tensions and avoiding conflicts is to allow people to meet. It is popularly mentioned that the people want peace but the governments fight. The more spontaneous people to people contacts and social groupings thus help influence the leaders' perceptions and policies as well. Keeping in this line of thought India and Pakistan had time and again ventured with people to people contacts, may it be 'Nimrana Dialogue', Track II, or Track III diplomacy. The South Asia Free Media Association (SAFMA) are also the attempts for promoting peace and friendship between the region and the very latest Jang Group of Pakistan and Times of India move of 'Aman ki Asha' are examples in point.

Bringing together people who are leaders in their respective fields especially help promote confidence and trust between the states. There is no doubt that peace process itself is very time consuming and slow process but the social grouping efforts and increasing people to people contacts certainly bring fruit by 1) 'mutual realization of the mistakes and follies committed by the governments', and 2) by 'coming out of the shadows of prisoners mindset',

---

[662] Pallavi Aiyar, "Crisis Challenge for Sino-Indian Trade," *China Business* (20 Feb, 2009), http://www.atimes.com/atimes/China_Business/KB20Cb01.html.

as explained by Admiral Nayyar who was travelling to Pakistan to take part in the ' Aman Ki Asha' series of discussions on 'A Common Destiny' along with a high level Indian delegation of soldiers, journalists and intellectuals.[663]

The famous 'Cricket Diplomacy' and 'Mango Diplomacy' of President Ziaul Haq are success stories in putting a restraint to the developing crises between India and Pakistan. The very recent and much publicized and celebrated marriage of two sports stars, Shoaib Malik-Cricket Captain of Pakistan and Indian Tennis player-Sonia Mirza was thus also highlighted as 'Diplomatic Marriage' which broke last two years of stalled deadlock of comprehensive dialogue as the first inter country contacts at ministerial level after the Mumbai attacks were witnessed.[664]

Through different mechanisms for example like easing of visa restrictions, doing away of policies of police reporting, city specific visas and same entry exit point will help promote more occasional and thus friendlier social contact amongst the masses. It is also important to note that there are many families which were separated from each other due to partition and therefore such moves will not only facilitate the meeting of the loved ones but will also promote greater confidence and trust towards each other countries. The opening up of Train and Bus routes between India and Pakistan are also cases in point.

8.6.1.3.3. Cultural CBMs

Cultural CBMs has a great potential in the contemporary world in easing out the tensions. Religious shrines and places are in abundance in the region. Hence by promoting the religious tourism Sikhs, Hindus, Muslims and other religious sects should be given an opportunity to visit shrines in other countries for example Muslim visiting Shrines in India and Indian Sikhs visiting their *Gurdwaras* in Pakistan, Likewise the Buddhist moves across Sino-Indian borders will be a healthy exercise in promoting trust and confidence. Similarly an increased cultural tourism and sports exchange will help pave the way. The attempts of using cultural tools for securing political mileage be discouraged as for example India has often threatened of not sending its players to play in Pakistan hence using sports as a cultural and political tool.

---

[663] Shahab Ansari, "Indian Soldiers, Intellectuals, Journalists Reach Lahore in Peace Pursuit," *The News International*, 22 April 2010.

[664] "'Diplomatic Marriage' May Break Indo-Pakistan Talks' Deadlock," *The News International*, 22 April 2010.

Likewise the threats that are being issued to Pakistani players and cultural troupe by Hindu extremists, such acts should cease, with a more positive exchange in the future.

It is important to recall that India and China both in their June 23, 2003, Declaration on Principles for Relations and Comprehensive Cooperation Between the People's Republic of China and the Republic of India agreed that the historical and cultural links between China and India will be strengthened, inter-alia, through the promotion of exchanges in culture, education, science and technology, media, youth and people-to-people relations. They agreed to set up Cultural Centers in each other's capitals and facilitate their establishment.

The Indian ambassador to China Dr. S. Jaishankar in an interview on 2nd Feb 2010 stated that, "It is important to develop our relations with China in a much fuller manner than we have done so far," Dr. Jaishankar said. "If we actually develop business on the one side, and culture on the other, we'll create the basis for a new level of cooperation between India and China."[665] The two countries therefore in order to mark the 60th anniversary of establishing diplomatic relations, are organizing a "Year of China in India" and a "Year of India in China".

To move further in the direction of strengthening the cultural confidence and bonding between the regional actors the ideas of Joint sports team, joint serial productions, joint cinema productions are also the examples that can be adopted for enhancing the trust and confidence between the masses by using culture as a CBM tool. It is again worth noting that the first ever joint venture in film making between the Bollywood and Lollywood with film *'Virsa'* is a positive and success example of the idea implementation.

8.6.1.4. Confidence and Security Building Measures (CSBMs)

The Confidence and Security Building Measures (CSBMs) can again be categorized into Conventional Threat Reduction Measures (CTRMs) and Nuclear Risk Reduction Measures (NRRMs).

8.6.1.4.1. *Conventional Threat Reduction Measures (CTRMs)*

By Conventional Threat Reduction Measures (CTRMs) I mean that suitable measures be taken in order to set the maximum limit for possession of different types of conventional

---

[665] "Ambassador: India Sees New Cooperation with China ", China.org.cn http://www.china.org.cn/video/2010-02/03/content_19682802.htm

weaponry by the parties in the region. The example which can be followed in the introduction of any such mechanism can be taken from the Treaty on Conventional Armed Forces in Europe (CFE) which was signed by 22 States Parties at the Conference on Security and Cooperation in Europe (CSCE) Summit in Paris on November 19, 1990 to foster stability and security in Cold War Europe by creating an East/West balance of conventional forces between NATO and former Warsaw Pact members. The reason this should be highlighted is that often the threat posed by conventional force superiority of the adversary compels the others to look for unconventional means to counter and deter the threat. As Pakistan's main concern always remained the conventional imbalance with India. It is important to note that Pakistan had already proposed a comprehensive conventional force restraint agreement. This proposal had three major elements:

> First, identifying the offensive forces of each country whose location and posture were to be acknowledged; Second, the designation of geographical border areas as Low Force Zone (LFZ) where offensive forces would be kept at bay; and Third, the notion of a mutually balanced force reduction in the long-run as conflict resolution and peace prevails in the region.[666]

Feroz Hassan Khan commenting on the above notes that:

> By identifying the forces that are offensive to each other, there could be measures to move these formations away geographically in order to prevent tensions and armed conflict. The LFZs would be the hallmark of this intended policy. In LFZs, the border areas and towns close-by would have a defense purpose only – the number of forces in these garrisons would remain as agreed upon by both sides. In the event of changes, each side would notify the other. Moreover, the Pakistani side proposed a mutually balanced and proposed force reduction in the long-run. Due to a proportional difference in force (India having a much larger military apparatus) conventional force reduction, would be *proportional*, with force ratios equal between the two sides.[667]

---

[666] Cited from the presentation Pakistan Army Brigadier Feroz Hassan Khan gave to US Government officals at a private meeting at NPEC and later authored as an essay for NPEC available from web see: Feroz Hassan Khan, "Prospects for Indian and Pakistani Arms Control and CBMs," (2010), webmaster@npec-web.org.

[667] Ibid.

To reiterate as Pakistan's main concern *vis-a-vis* India is the conventional disparity,   Pakistan because of which views its nuclear forces as deterrents to India's greater conventional capability. It is therefore very important that India engage with Pakistan with respect to this concern through the introduction of (proportional) conventional threat reduction measures in the region. The Sino-Indian conventional build up equally needs to be addressed to mutually agreed proportions keeping in mind their threat perceptions and directions.

The countries of the region in order to deal with conventional threats might have to issue assurances to the other side as were stipulated in the Agreement between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas of November 29, 1996. The Article 1 of the agreement states: "Neither side shall use its military capability against the other side. No armed forces deployed by either side in the border areas along the line of actual control as part of their respective military strength shall be used to attack the other side, or engage in military activities that threaten the other side or undermine peace, tranquillity and stability in the India-China border areas." Such assurances will also help build confidence and trust between the parties.

8.6.1.4.2. Nuclear Risk Reduction Measures (NRRMs)

Before the May 1998 nuclear tests of India and Pakistan, there was no discussion ever on this matter, other then the 31st December 1988 Agreement for prohibition of attack against nuclear installations and facilities. The reason was none other than the covert natured programs of both the countries. The need for having the Nuclear Risk Reduction Measures was felt only after the overt nuclearisation. It was because of this that Pakistan was presented with a paper by the US experts called Minimum Deterrence Posture (MDP), which included concepts of how to move forward, to include: geographical separation of major components of nuclear arsenals and delivery means; the segregation of delivery systems from warhead locations; declaring nonnuclear delivery systems with their specific locations; the establishment of a finite ceiling for fissile material production and monitoring of nuclear testing; and lastly, limiting ballistic flight tests and production limits.[668] As these were not applicable to the regional security environment neither India or Pakistan accepted them. However, the Pakistan

---

[668] Ibid.

side while recognizing these concepts in principle, translated it into their own regional-based proposal on 15 September 1998, which they coined, Strategic Restraint Regime (SRR).[669]

This SRR was conceptually emphasized through the principle of nuclear restraint, along with conventional force restraint as well. For a small country like Pakistan 'segregating' delivery systems was unacceptable because it undercut Pakistan's ambiguity of strategic deterrence, while still allowing India to wage a conventional war against them.[670] Unfortunately there was no substantial outcome of this proposal with both India and US not realising the potential it carried for greater peace and stability in the region. However later on few of the points were being taken up when the Foreign Secretaries of India and Pakistan guided by Lahore Declaration between their Prime Ministers[671] and pursuant to the directive given by their respective Prime Ministers, adopted measures for promoting a stable environment of peace, and security between the two countries and agreed that:

> The two sides shall engage in bilateral consultations on security concepts, and nuclear doctrines, with a view to developing measures for confidence building in the nuclear and conventional fields, aimed at avoidance of conflict.

> The two sides undertake to provide each other with advance notification in respect of ballistic missile flight tests, and shall conclude a bilateral agreement in this regard.

> The two sides are fully committed to undertaking national measures to reducing the risks of accidental or unauthorized use of nuclear weapons under their respective control. The two sides further undertake to notify each, other immediately in the event of any accidental, unauthorized or unexplained incident that could create the risk of a fallout with adverse consequences for both sides, or an outbreak of a nuclear war between the two countries, as well as to adopt measures aimed at diminishing the possibility of such actions, or such incidents being misinterpreted by the other. The two side shall identify/establish the appropriate communication mechanism for this purpose.

---

[669] Ibid.

[670] Ibid.

[671] For the complete text of the Declaration please see Appendix 4

The two sides shall continue to abide by their respective unilateral moratorium on conducting further nuclear test explosions unless either side, in exercise of its national sovereignty decides that extraordinary events have jeopardized its supreme interests.

The two sides shall conclude an agreement on prevention of incidents at sea in order to ensure safety of navigation by naval vessels, and aircraft belonging to the two sides.

The two sides shall periodically review the implementation of existing Confidence Building Measures (CBMs) and where necessary, set up appropriate consultative mechanisms to monitor and ensure effective implementation of these CBMs.

The two sides shall undertake a review of the existing communication links (e.g. between the respective Directors- General, Military Operations) with a view to upgrading and improving these links, and to provide for fail-safe and secure communications.

The two sides shall engage in bilateral consultations on security, disarmament and non-proliferation issues within the context of negotiations on these issues in multilateral fora.[672]

The secretaries also agreed that where required, the technical details of the above measures will be worked out by experts of the two sides in meetings to be held on mutually agreed dates, before mid 1999, with a view to reaching bilateral agreements.[673]

This particular document laid down the basis of a complete set of CBMs and Nuclear Risk Reduction Measures – covering seminars and discussions on security concepts and nuclear doctrines, notification of ballistic missile flight tests, accidental or unauthorized nuclear use, unilateral moratorium on further nuclear test explosions, prevention of incidents at sea, consultative mechanism for monitoring the implementation of the existing CBMs and upgrading and improving the communication links while agreeing to consult bilaterally in multilateral forums. This suggests the presence of the resolve on the part of the two sides to devise a stable restraint mechanism through all such mechanisms. These proposals did bring a fruit as well when the governments later on proceeded with signing different other agreements

---

[672] For complete text of the Memorandum of Understanding please see Appendix 5
[673] Ibid.

like pre-notification of ballistic missile tests etc…[674] However, there is yet a need to move more specifically in the direction Nuclear Risk Reduction Measures and putting in place more concrete and effective measures that can ensure a sustainable and stable restraint environment in the region. it will be worthwhile to look into the Cold War models and see how best they can be replicated in the Southern Asian environment.

By Nuclear Risk Reduction Measures (NRRMs) therefore, I will mean that the Cold War variants of 'restraint models'- as I call them i.e SALT, START and INF agreements, be discussed and put in place. The professionals from each side can consider the issue in detail and make deliberations of the required agreed by arsenal by the parties which will not jeopardise their security concerns as well as help stabilise the situation by an agreed restraint mechanism. The examples could be like declarations on specific range systems e.g short range tactical missiles which have primarily war fighting applications as non-nuclear warhead systems.[675] This will be very useful as the current descriptions highlights them as dual use i.e both conventional and un-conventional warheads systems. It is because of such phenomenon that it seems reasonable to suggest that the SALT, START and INF type regional variants be discussed and put in place. It is also worth noting here that the SRR proposal of the government of Pakistan also proposed mutual missile restraints between India and Pakistan, including: range payload ceiling; flight testing notifications; and prohibition of additional destabilizing modernizations, such as missile defense and development of SLBMs in order to address the issue.[676] So the suggestion and examples are there and can be discussed or modified to suit the security environment.

The reasons for having the need of initiating the process of Nuclear Risk Reduction Measures through a series of region specific SALT, START and INF type treaties is the continued vertical and horizontal proliferation thrust of the strategic weapons system and their potential destabilising effect not only for the region but globally. It is therefore recommended that to start with the Cold War variants of these treaties and talks be initiated for the limitation and reduction of the strategic weapons system in the region at first; and thereafter for the all the

---

[674] For the details about all such agreements please refer to Appendices 6 and 7

[675] Reccomendations like bilaterally declaraing 150 km range missiles as non-nuclear systems have already been made in scholarship for example see: Khan, Rajen, and Vannoni, "A Missile Stability Regime for South Asia," p.39.

[676] Khan, "Prospects for Indian and Pakistani Arms Control and CBMs."

strategic nuclear powers to be brought into the negotiations to overcome the problems of overlapping threat perceptions.

8.6.2. Top Down Approach

By top down approach, I mean that as the issue area of strategic weapons system is of a very overlapping nature and therefore the states involved in the strategic weapons development program are tied to one after the other in their threat perception due to this. So the overlapping threat perceptions are causing a widespread horizontal proliferation. In order to put a stop to this horizontal as well as vertical proliferation there emerges a need of a top down approach in addressing the issue area in its entirety and totality by bringing on board all the nuclear and missile powers of the world (including India and Pakistan) and making them negotiate a cooperative threat reduction program by cooperatively agreeing to limit and reduce the strategic weapon system from the world. This means that new START, SALT and INF type treaties be negotiated amongst the declared nuclear powers of the world.

8.7. CONCLUSION

As has been argued, in an anarchic world, the states often come across a wide variety of issues and problems, which can cause fear or alarm of widespread chaos and conflict. In order to address the varying natures of conflict and seek solutions to them, the newer discipline which started emerging on the subject domain was the study of the concept of regime formation. The regimes while converging the interests of the parties on a given issue area, tried to provide them a platform from where they can establish and define rules, rights and principles of dealing with the issue area, hence enabling them to reach some decisions. In this way regimes acted as solution providers.

All the prevailing scholarship on the regime dynamics suggest that the very nature of the task which regimes are performing can be summarised as:

A social institution development through which the issue area conflicts are mutually stabilised by a system of enhanced interaction, information flow, and transparency which in turn would act as the confidence building measures. And once the confidence building measures are in place then the conflicts in a given issue area are controlled and ultimately resolved in a much more regulated way.

The Cold War and the post Cold War models discussed above, all validate the point that the basic attempt through these models formation was conflict management and seeking solution to the conflict in a 'given issue area' in a regulated way of enhanced mutual interaction, exchange of information and confidence building measures.

Confidence Building Measures in a proper institutionalised form, thus will be taken as the key point of deliberation of regime theory and will be developed further to devise regulated conflict management through an attempt of formation of a restraint regime model in Southern Asia. It is also shown that the process of Confidence Building Measures (CBMs) has played a very vital role in conflict avoidance and escalation prevention through a number of communication, constraint, transparency and verification measures between the conflicting members of international community. The process of Confidence Building Measures (CBMs) has also been tried in Southern Asian context to bridge the differences and inculcate an atmosphere of trust and confidence, hence contributing to peace and stability in the region. The process offered some limited help but could never instil a sustainable peace and stability environment. Consequently the pendulum of stability kept oscillating between the periods of tensions and reconciliation in the region.

As mentioned in the previous section, the notable lack of verification measures in all agreements between the Southern Asian nations is the main contributing factor to the stability-instability paradox in the region. It is therefore vital to devise comprehensive verification protocols based on a social responsibility system towards verification, monitoring, and compliance of any such concluded agreements, which I term Cooperative Social Responsibility Systems (CSRS).

Moreover, the strategic weapons development both vertically and horizontally brought in many other factors of such an overlapping nature that the Confidence Building Measures (CBMs) process itself proved to be insufficient if not a total failure. As the states are still locked into adversarial relationship because of many unresolved enduring conflicts, they are continuously busy in both the quantitative and qualitative improvements of their strategic weapons systems. This vertical proliferation is in turn triggering a domino effect beyond the region, which is causing horizontal proliferation in the neighbouring states as a reaction to the strategic arms build up of the Southern Asian nations. The threatened neighbouring states therefore begin their own strategic weapons programs as can be seen in the cases of Iran and North Korea.

A possible solution to the above mentioned problem lies therefore in the overhauling of the existing CBMs with the aim of making them more comprehensive and robust as regime theory would suggest is necessary. This strengthening and broadening of CBMs in the region would lead to the resolution of the main underlying disputes between the Southern Asian nations and thus would limit or even reduce the vertical proliferation and hence help limit or reverse any horizontal proliferation beyond the region. Hence it is suggested that there is clear potential for the advancement of CBMs implementation in the Southern Asian region both in terms of introducing monitoring and verification measures, as well as either strengthening the existing agreements or introducing new more robust and comprehensive agreements which will be effective in actually resolving the underlying disputes on the ground between the parties. But this potential will be of no efficacy if the other nuclear weapon states particularly the United States will not be a party to the restraint and stability initiatives.

Chapter 9

CONCLUSION AND RECCOMMENDATIONS

9.1. SUMMARY OF THE MAIN DISCUSSION

The Southern Asian strategic region is a very important region and is situated at the crossroads of many international pressures and conflicts across the Asian continent. The region is not only the gateway to the oil rich Persian Gulf but also to the energy rich Central Asian republics. Many of the fault lines of the conflict also pass through this region. The region is also the theatre of the war on terror and is also the stage for many rising extreme ideologies. All these non-traditional security issues exist on one hand, and on the other hand the states of the Southern Asian region are locked into and enduring conflict, over boundary issues and the status of the Kashmir region beside many other irritants and unresolved issues between India and Pakistan. Into these South Asian disputes China enters creating a wider Southern Asian strategic region, and leading to a protracted rivalry between China and some of its neighbours. All these things together have pushed the Southern Asian region states on the roads of an aggressive revolution in military affairs and technologies, the result being widely seen in 1964 PRC's nuclearisation; the Indian tests of 1974; and then in 1998 Indian nuclearisation and Pakistan following India for its own nuclearisation tests in 1998. The story is further complicated with declared nuclear doctrines and force structures by these newly emerging nuclear countries and the clearly stated intention of pursuing an aggressive nuclear delivery system through Ballistic missile programs.

The ballistic missile proliferation in the region with wide overlapping drivers and motivations behind them is the cause of an alarm to the international community. The nuclear tipped missiles with a very short flight time between the regional rivals along with a very fragile command and control structures and setups are pushing the international community to raise their concern about the region as being the most likely point of second nuclear flash in the world. Such concerns prompted this study to seek explanation to this rapidly spreading nuclear and missile proliferation in the region and then to address the probability of establishing a framework for missile restraint and stability regime.

Steve Andreasen once noted that "Ballistic missiles armed with nuclear warheads remain the most fearsome weapon system ever devised. One missile fired in anger or by accident or miscalculation could produce tens of millions of casualties within minutes; a few tens of missiles could destroy a society and trigger a global conflagration. As is the case with any weapons technology, one can always fall back on the argument that the 'genie is out of bottle' and nothing can be done to reduce the potential catstrophe; or make the argument that it is political factors not weapon systems that are the key to the conflict resolution and threat reduction".[677]

The basic argument behind the restraint regime possibility was the belief that once the nuclear genie is out of bottle it is very difficult to put back – so the best course available is to address the restraint systems. This is why I thought it more pertinent to talk about the restraint regime rather the potential for roll back. Of course, the potential for a restraint regime cannot be seriously conducted without discussion of the motivating forces behind the proliferation and development of the weapons systems. In order to first comprehend these forces I employed an examination of the strategic culture of these countries. It was my belief that it is the strategic cultural approach which would answer many incoming questions around the comprehension of the issue, so strategic cultural theory was discussed to understand the relevance and significance of the strategic cultural theoretical tools of analysis.

The strategic cultures of China, India and Pakistan were discussed in detail and it was found that realism; identity and ideology; and technology together played a very vital role in the nuclear and missile acquisition motivational policies of these countries. The debate thus reflected both material and ideational sources of this proliferation phenomenon. Based on such analysis, when a comparison graph was made it became obvious that Chinese and Pakistani programs resemble each other as both were mainly threat perception based. Both of these countries had a history of aggressions and threats of aggression against them. It was therefore understandable that their primary objective was to secure adequate defences for their homelands to become impregnable to external aggression. This suggested that these two countries (China and Pakistan) have pursued these weapons programs mainly due to their security concerns to acquire an effective and credible deterrent potential - true to realist logic. On the identity and ideological logic side, it was brought up that China and India once great

---

[677] Steve Andreasen, "Reagan Was Right: Let's Ban Ballistic Missiles," *Survival* 46, no. 1 (2004).

civilizations suffered humiliation at the hands of foreign invaders, and this had rekindled the respective cultures and beliefs to aspire for lost grandeur; status and prestige and they therefore considered these strategic weapon systems as symbol and reflection of military and technology prowess and this status issue motivated them to acquire the systems. The central element in the Indian security culture is the belief that India is destined to play a dominant role not only in the region but as a global power as well; and the Indian political elite sees India as both a past and future great power on the world stage. For this reason this research focused on the role of identity and ideology in Indian strategic conception.

Islamic influences were of course found in Pakistan's strategic culture but primarily, the manifestation of acute emotion and fear of Pakistan's sense of insecurity vis-a-vis a perception of persistent hostility from India. However, in the Indian case we find major role of ideological logic, which was not that significant for the Pakistani and Chinese side. On the other hand, technology logic was almost equally applicable to China, India and Pakistan. All these respective motivational factors for the states of China, India and Pakistan guided and push these countries to develop their nuclear doctrines and strategic weapon programs. They detonated their respective nuclear devices, China in 1964, whereas India though having tested a 'peaceful nuclear explosion' (PNE) in 1974 but came out of an ambiguous covert nuclear weapon status in 1998, providing Pakistan a chance to follow suit as well.

The nuclear doctrine of China talks about No First Use (NFU) and non usage against the non nuclear states and nuclear free zones, but China has got a very well knitted operational missile force called as Second Artillery corps with six operational missile bases. The Chinese nuclear doctrine thus on the face value seems largely defensive in nature and is focused primarily on deterring a nuclear blackmail being used against China by other nuclear powers. The Chinese, therefore, talk about deterrent of sufficient size and range to guarantee retaliation at a level sufficient enough to make the cost of nuclear adventure against China too high. Similarly, the Indian nuclear doctrine draft document of August 1999 elaborates the broad principles of nuclear doctrine which provide for a 'credible minimum deterrence' with a policy of an 'unacceptable damage' inflicting retaliation with a very well integrated 'operational plan' and 'triad' of nuclear force. In contrast, Pakistan has disclosed the basic features of its nuclear command and control but has not elaborated how the country intends to employ its nuclear weapons. But it could very rightfully be inferred that as Pakistan's primary motivational

factor was to provide the country with a credible nuclear deterrent against external threats to its survival and security, therefore the country would aspire for an adequate stockpile of survivable and assured second strike weapons and delivery systems against a wide range of conventional and sub conventional threats to its sovereignty. This suggests that Pakistan will not rule out the first use option against nuclear threat.

To have an effective and a credible deliverable nuclear weapon program, all these countries therefore needed a very advanced and comprehensive delivery system. The ballistic missile being a very cost effective and an effective means of nuclear weapon delivery came into play in the nuclear politics. The countries had an already extensive experience of missile technology handling since the sounding rockets launch pads in the region. The Chinese program for example had nearly five decades of operational experience and thus possessed the very state of the art modern missile force constituting of all land, air and sea based systems and is continuously upgrading and modernising its force. The Dong Feng series and Julang series missiles are the prominent names in the arsenal.

The Indians like wise started experimenting with US sounding rocket in 1963 and later on the Indian satellite program provided it further technological breakthroughs that they started their IGMDP in 1983, which was a very comprehensive program of five core missile systems: AGNI; PRITHVI; TRISHUL; AKASH and NAG, with the inclusion of another SAGARIKA system later on into it as well. Indian missile program therefore has also a very deep rooted history, spread over decades and today comprises of a variety of systems and are therefore embarking on a triad of a nuclear deterrent force.

Pakistan, on the other hand has a relatively newer program of missile systems. Pakistan, though also started experiencing the technology of sounding rockets in 1960s started getting strong foothold into the technology domain with the reverse engineering and indegenizing efforts of 1980s that had enabled the country to have a more broader and much more sophisticated and state of the art strategic weapon delivery systems today. The GHAURI and SHAHEEN versions of its missile force series HATAF are the prominent names in the arsenal.

The understanding of the motivations and drivers in this way is very vital for the "evolving restraint regime" question in Southern Asia, as it gives a clear cut picture of how to address these motivating forces.

As the nuclear doctrines and the current status of the missile programs suggested that even with the declaration of credible nuclear doctrines by China; India and Pakistan, the situation in the region does not seem to comply with the point of nuclear optimists. According to the nuclear optimists, war becomes too terrible to contemplate between nuclear weapons states (parties in conflict), with an effective means of delivery systems, and so a stable nuclear deterrence starts evolving slowly and gradually. The situation in Southern Asia therefore bears more resemblance to the stability instability paradox associated with the acquisition of offsetting nuclear weapon capabilities. "The essence of this paradox was that nuclear weapons were supposed to stabilize relations between adversaries, and to foreclose a major war between them. At the same time, offsetting nuclear capabilities might well prompt provocations, instability, and even conflict at lower levels-precisely because nuclear weapons would presumably provide protection against escalation".[678]

Most strategic analysts believe that offsetting nuclear forces could only provide for stability when both sides' nuclear forces are safe, secure, and survivable against pre-emptive attack. Even then, "deterrence pessimists" argue that nuclear capabilities are no guarantee of sensible national security policy. This brings the discussion to the point where the need is to first understand what regimes in general mean and what all type of regimes were set forth by the international community in general and the cold war rivals for managing this issue.

The reason for introducing the need for an understanding and knowledge of an international regime theory was the commonly understood view point that international regimes emerge in response to particular problems – and therefore act as solution providers to the problems. And as the discussion revealing the Southern Asian region gripped into many unsettled regional issues plus a plethora of external stakes in the region is making up a strategic culture of the countries which is pushing them on the path of an action reaction styled WMD race in the

---

[678] Michael Krepon and Chris Gagné, "Introduction," in *The Stability–Instability Paradox: Nuclear Weapons and Brinksmanship in South Asia* ed. Michael Krepon and Chris Gagné (Washington, D.C.: Henry L. Stimson Center, 2001), p.vii.

region. Together these contribute to making the region highly volatile and a likely point of nuclear flash. The nuclear countries of the region are cognizant of this fact and therefore there is a general 'underlying will' to bring forth the serious research efforts in seeking to help restrain the situation for the greater mutual benefit of the regional community in particular and the international community in general. The regime theory debate therefore provided the knowledge about different segments of the regime dynamics and then helped us understand that how the cold war rivals U.S.A and former U.S.S.R dealt with very similar problems of WMD delivery systems. The discussion reveals that the main focus of the Cold War arms control treaties was to deal with the rising problem of the vertical proliferation of ballistic missiles. This could be ascertained from the negotiations and agreements, including the SALT I and II, the START I and II treaties, and the INF Treaty.

The cold war rivals therefore concluded through these agreements certain confidence-building measures, including pre-launch notifications and other transparency measures as a means and mechanism of establishing a 'restraint model' regimes. It is therefore argued that the Confidence Building Measures (CBMs) provides a framework of principles, values, and objectives (symbolic as well as substantive) for restoring confidence and building a sense of security amongst the rival states and thus governs their foreign relations. The Confidence Building Measures (CBMs) process begins with identifying shared interests and employs a variety of tools for developing an ethos of cooperation over time to serve multiple needs, ranging from total restraint and avoidance for unintended war escalation to an enhanced atmosphere of peace and tranquillity.

The Southern Asian regional nations of China, India and Pakistan experiences with Confidence Building Measures (CBMs) processes were studied and it was revealed that the verification tool was missing in all the so far concluded agreements between these countries, because of which there remains an enhanced need of having a very comprehensive framework to establish these in order to put in place a restraint regime in the region. The study also discussed that because of the overlapping nature of the need of the ongoing missile race, there emerges the enhanced risks of both vertical and horizontal proliferation in and beyond the region. Therefore the need of putting a restraint regime in place is of an even more urgent nature and this could be achieved by a step by step process starting with very small and modest steps to bridge the grievances before tackling the core security concerns.

This summary of the research findings completed we can turn to the specific research questions that the study sought to answer.

9.2. ANSWERING THE RESEARCH QUESTIONS

In Chapter 1.4 the stated research questions for the study were given. These research questions were divided into two types reflecting different kinds of research paradigm. The first type explored the identity problem between the parties, which seen as being essential to comprehending their motivations; and the second type which explored their 'rational' responses to the strategic dilemma between them, accounting for the status of their strategic weapons systems and the potential for rational restraint of these. These can be re-stated:

Type 1:

   i.   Why do states pursue strategic weapons systems programs?

   ii.   What conditions in the environment, culture, motivations of Pakistan, India and China account for the current status of their strategic weapons systems**?**

Type 2:

   iii.   What are the doctrines and command and control structures of strategic nuclear weapons of China, India and Pakistan?

   iv.   What are the circumstances under which states agree to mutual restraints on their strategic weapon programs? And

   v.   What are the prospects for Pakistan, India and China to move towards a system of mutual restraint in the strategic weapons systems?

And the answers to these can be set out as:

Type 1:

A number of factors jointly contribute to the decision to pursue strategic weapons systems programs. These factors range from threats to opportunities. The threats in turn can be territorial, ideological or identity related; and likewise the opportunities can be to avenge the humiliation, regain the lost glory and enhance the current prestige on one hand and on the other to counter technological apartheid and gain access to modern technology again for the multi-use of defence, development and prestige.

Pakistan, India and China are located at the centre stage of the Southern Asian strategic region; or more properly it is the relations between them, historical and current, that account in large part for the existence and dynamics of this region. They are prone to different rivalries and threats both internal and external, making it compulsive for these countries to safeguard their sovereign rights and interests. These countries have a very distinctive strategic culture which is guiding their policies and motivating them to continuously modernise and update their defence and deterrent potential.

Type 2:

Despite the conclusions of Question 2, the struggle between the states of the Southern Asian region is not yet in a fully 'locked system' of mutual assured destruction and existential threat like the Cold war rivals. China, India, and Pakistan have pursued a languorous drift to nuclearisation that is still based largely on minimum deterrence posture and worst case scenario. Since restraint regimes were possible even for the Cold war rivals, then they should certainly be possible for the Southern Asian region powers.

States can be brought to an agreement to operate restraint regimes to these deadly weapons systems; but only when they deem that though all opportunities have been met still the threats continue to increase, particularly the threats of miscalculated, unauthorised or accidental use.

The very overlapping nature of the issue area and the related politics makes it very difficult to envision a comprehensive system of mutual restraint and stability regime. The somehow successful arrangements can be made by successfully resolving the outstanding disputes between these states and simultaneously increasing and enhancing the confidence between the societies as a whole to help tone and modify the strategic perception of each other. This is extremely important because it will seek to reverse the negative strategic culture mindsets. But this is a bottom up way of dealing with the issue area, and simultaneously we need a top down approach as well - the restraint and control of all concerned powers, most notably the United States. It will be very difficult to put a restraint and control system on the development and improvement of strategic weapons by the Southern Asian states if the Americans or their allies are not willing to do the same. In essence the solution to the rivalry between the three countries can only be based on both a bottom-up incremental exapansion of confidence-

building measures with a top-down 'grand bargain' between all the nuclear powers. Failing this the culturally-driven threat perceptions will only deepen.

9.3. LIMITATIONS OF THE STUDY

The study had a number of limitations ranging from a wide variety of issues of availability of literature, resources and information. As is the case generally with the strategic programs, the state of the missile forces and the progress of the missile development programs are therefore not just secretive but amongst their deepest and most closely guarded secrets. Ballistic missile programs are thus regarded as highly valuable assets, so the information pertaining to them is revealed in an extremely controlled manner and that too when deemed necessary from the national security point of view.

The very scantly available information through the public domain and those too often so conflicting estimates made it extremely difficult to reach uncontested conclusions about the kind and nature of the programs, doctrines and policies of these countries with regard to strategic weapon programs. The study often required a working knowledge of science and engineering to comprehend the nature of the programs and policies, which were a cause of considerable hindrance for a social science student.

As well as these information problems it must also be admitted that the study involves the inter-linking of a variety of very complex social and political processes. The very way that India and Pakistan nuclearised in 1998 to the surprise of the world indicates both the complex and very often hidden dynamics between the powers of the Southern Asian strategic region, but also their central importance to the strategic stability in Asia. Equally the difficulty of defining effective counter-measures to the strategic rivalry between the three nuclear states is a limitation; though the thesis has hopefully shown that there is no route to permanent stability other than by means of a fully operational restraint regime.

9.4. SUGGESTION FOR FUTURE STUDIES

The study so far dealt with the framework of an elaborate and comprehensive Restraint regime based on Confidence Building Measures, but could provide further details by looking into the legalities involved, the study regarding the cooperative monitoring and sensing (land, air and acoustic) technologies to help make any such restraint regime fully effective and functional.

APPENDIX 1

AGREEMENTS, MOUS AND DECLARATIONS

AGREEMENT BETWEEN INDIA & PAKISTAN ON PROHIBITION OF ATTACK AGAINST NUCLEAR INSTALLATIONS AND FACILITIES DECEMBER 31, 1988[679]

The Government of the Islamic Republic of Pakistan and the Government of the Republic of India, herein after referred to as the Contracting Parties, reaffirming their commitment to durable peace and the development of friendly and harmonious bilateral relations; conscious of the role of confidence building measures in promoting such bilateral relations based on mutual trust and goodwill; have agreed as follows:

Each party shall refrain from undertaking, encouraging or participating in, directly or indirectly, any action aimed at causing the destruction of, or damage to, any nuclear installation or facility in the other country.

The term "nuclear installation or facility" includes nuclear power and research reactors, fuel fabrication, uranium enrichment, isotopes separation and reprocessing facilities as well as any other installations with fresh or irradiated nuclear fuel and materials in any form and establishments storing significant quantities of radio-active materials.

Each Contracting Party shall inform the other on 1st January of each calendar year of the latitude and longitude of its nuclear installations and facilities and whenever there is any change.

This Agreement is subject to ratification. It shall come into force with effect from the date on which the Instruments of Ratification are exchanged.

Done at Islamabad on this Thirty-first day of December 1988, in, two copies each in Urdu, Hindi and English, the English text being authentic in case of any difference or dispute of interpretation.

[Signed:]
Humayun Khan

Foreign Secretary

Islamic Republic of Pakistan

K.P.S. Menon

Foreign Secretary

Republic of India

Instruments of Ratification Exchanged: December 1990 (Entry Into Force)

---

[679] "Agreement between India & Pakistan on Prohibition of Attack against Nuclear Installations and Facilities December 31, 1988,"

http://www.sassu.org.uk/html/profiles/Bilateralregional/Jointstatments/BIREGtreaty7.pdf.

AGREEMENT BETWEEN INDIA AND PAKISTAN ON THE ADVANCE NOTICE OF MILITARY EXERCISES[680]

Whereas Pakistan and India recognize the need to jointly formulate an agreement at the Government level on giving advance notice on exercises, manoeuvres and troop movements in order to prevent any crisis situation arising due to misreading of the other side's intentions.

Therefore, the Governments of Pakistan and India jointly decide that:

Their Land, Naval and Air Forces will avoid holding major military manoeuvres and exercises in close proximity to each other. However, if such exercises are held within distances as prescribed in this Agreement, the strategic direction of the main force being exercised will not be towards the other side, nor will any logistics build up be carried out close to it. The following will constitute a major military manoeuvre/exercise for the purposes of this Agreement:

Land Forces

India-Pakistan International Border

Concentrations of Corps level (comprising two or more divisions) and above.

Line of Control and the area between the Manawar Tawi and Ravi Rivers.

Division level and above.

Naval Forces

Any exercise involving six or more ships of destroyer/frigate size and above, exercising in company and crossing into the other's Exclusive Economic Zone (EEZ).

Air Force

Regional Command level and above.

Both sides may not conduct exercises of Land Forces at Divisional level and above within five kilometers (Kms) of the areas specified at Paragraph (1).a. (1) and (2).

Both sides will provide notice regarding exercises of Land Forces as follow:

All exercises/concentrations at Divisional level in areas specified at Paragraph (1).a(2).

All exercises/concentrations at Corps level within a distance of seventy five Kms in areas specified at Paragraph (1).a. (1) and (2).

All exercises above Corps level irrespective of the distance.

Both sides will give fifteen days prior notice when formations with defensive roles are moved to their operational locations for periodic maintenance of defences.

The schedule of major exercises with troops will be transmitted in writing to the other side through diplomatic channels in advance as follows:

Air exercises at Regional Command level and above. -- Fifteen days.

Divisional level exercise, and major Naval exercises involving six or more ships of destroyer/frigate size and above, exercising in company and crossing into the other's EEZ.

---

[680] "Agreement between India and Pakistan on the Advance Notice of Military Exercises," http://www.stimson.org/print.cfm?SN=sa20020109216.

Corps level exercises -- Sixty days.

Army level exercises -- Ninety days.

Provided that the above provisions relate to the commencement of moves of formations and units from their permanent locations for the proposed exercises.

Information on the following aspects of major exercises will be intimated:

Type and level of exercises.

General area of the exercise on land, air and sea. In respect of air and sea exercises, these will be defined in latitude and longitude.

Planned duration of the activity.

Number and type of formations participating.

Any shifting of forces from other Commands/Corps/Strategic formations envisaged.

The move of strategic formations, particularly armored division, mechanized divisions, air assault divisions/reserve infantry formations and artillery divisions/air defence artillery divisions.

Provided that in respect of major Air and Naval exercises, only the information at Paragraphs (a) to (c) need be intimated.

In case some change in exercise area/grouping of participating formations from the previously notified composition is necessitated, the country carrying out the exercise will intimate the details of changes so as to reach the other country at least thirty days in advance in respect of Corps level exercises and above, and fifteen days in advance in respect of divisional level exercises and Naval exercises. In respect of Air exercises, if minor changes to the previously notified details are necessitated, an advance notice of seven days will be provided.

Any induction/concentration of additional troops of a division size force and above, within one hundred and fifty kms of areas specified at Paragraph 1.a.(1) and (2), for internal security duties and/or in aid of civil power will be notified to the other side at least two days before the start of their movements, whenever possible. In case of immediate movements, information may be passed on Hot Line to the Army Headquarters of the other country. The force so employed will not move forward their logistic bases/installations and armor/artillery.

Each country will be entitled to obtain timely clarification from the country undertaking military manoeuvres/exercises concerning the assembly of formations, the extent, direction of the exercise and the duration.

The Naval ships and submarines belonging to the other country are not to close less than three Nautical Miles (NMs) from each other so as to avoid any accident while operating in international waters.

Combat aircraft including fighter, bomber reconnaissance, jet military trainer and armed helicopter aircraft will not fly within ten kms of each other's airspace, including the Air Defence Identification Zones (ADIZ), except when such aircraft are operating form Jammu, Pathankot, Amritsar and Suratgarh air bases on the Indian side, as well as Pasrur, Lahore, Vehari and Rahimyar Khan air bases on the Pakistan side, in which case they will maintain a distance of five kms from each other's airspace. Unarmed transport and logistics aircraft including unarmed helicopters and Air Observation Post (AOP) aircraft will be permitted to operate up to 1000 meters from each other's airspace including the ADIZ.

Aircraft of either country will refrain from buzzing surface units and platforms of the other country in international waters.

This Agreement supersedes all previous understandings in so far as the above points are concerned.

This Agreement is subject to ratification. It shall come into force with effect from the date on which the Instruments of Ratification are exchanged.

Appendices

Done at New Delhi on this sixth day of April, 1991.

Shaharyar M. Khan
Foreign Secretary
For the Government of the Islamic Republic of Pakistan

Muchkund Dubey
Foreign Secretary
For the Government of the Republic of India

AGREEMENT BETWEEN INDIA AND PAKISTAN ON PREVENTION OF AIR SPACE VIOLATIONS AND FOR PERMITTING OVER FLIGHTS AND LANDINGS BY MILITARY AIRCRAFT[681]

Aware that despite best efforts by both sides, violations of each other's airspace have occurred from time to time.

Desirous of promoting good neighborly relations between the two countries. Conscious of the fact that renewed efforts should be made to avoid unnecessary alarm.

Have agreed to enter into the following Air Agreement:

Air Violations

Article 1

Henceforth, both sides will take adequate measures to ensure, that air violations of each other's airspace do not take place. However, if any inadvertent violation does take place, the incident will be promptly investigated and the Headquarters (HQ) of the other Air Force informed of the results without delay, through diplomatic channels.

Article 2

Subject to Articles 3,4 and 6, the following restrictions are to be observed by military aircraft of both the forces:

Combat aircraft (to include fighter, bomber, reconnaissance, jet military trainer and armed helicopter aircraft) will not fly within 10 kms of each other's airspace including ADIZ. No aircraft of any side will enter the airspace over the territorial waters of the other country, except by prior permission.

Unarmed transport and logistics aircraft including unarmed helicopters, and Air Observation Post (AOP) aircraft, will be permitted up to 1000 meters from each other's airspace including ADIZ.

Aerial Survey, Supply Dropping, Mercy and Rescue Missions

Article 3

In the event of a country having to undertake flights less than 1000 meters from the other's airspace including ADIZ, for purposes such as aerial survey, supply dropping for mercy missions and aerial rescue missions, the country concerned will give the following information in advance to their own Air Advisors for notification to the Air HQ of the other country:

Type of aircraft/helicopter.

Height of flight within Plus/Minus 1000 ft.

Block number of days (normally not to exceed seven days) when flights are proposed to be undertaken.

Proposed timing of flight, where possible.

Area involved (in latitude and longitude).

No formal clearance would be required as the flights are being undertaken within own territory.
Air Exercises Near Border

Article 4

---

[681] "Agreement between Pakistan and India on Prevention of Air Space Violation," http://meaindia.nic.in/warterror/kargil/air-agreement.htm.

Appendices

In order to avoid any tension being created, prior notice be given with regard to air exercises, or any special air activity proposed to be undertaken close to each other's airspace including ADIZ, even though the limits as laid down in Article 2 are not likely to be infringed.

Communication Between PAF and IAF

Article 5

In matters of safety and any air operations in emergency situations, the authorities designated by the respective Governments should contact each other by the quickest means of communications available. The Air Advisor shall be kept informed of such contacts. Matters of flight safety and urgent air operations should promptly be brought to the notice of the other side through the authorities designated by using the telephone line established between the Army Headquarters of the two countries.

Operations from Air Fields Close to the Borders

Article 6

Combat aircraft (as defined in Article 2A. above) operating from the air bases specified below will maintain a distance of 5 kms from each other's airspace:

a: Indian Side

Jammu.

Pathankot.

Amritsar.

Suratgarh

b: Pakistan Side

Pasrur.

Lahore.

Vehari.

Rahim Yar Khan.

Flights of Military Aircraft Through Each Other's Air Space

Article 7

Military aircraft may fly through each other's airspace with the prior permission of the other country and subject to conditions specified in Appendix A to this Agreement.

Notwithstanding paragraph 1 of this Article, each country has the sovereign right to specify further conditions, at short notice, for flights of military aircraft through its airspace.

Validity of Agreement

Article 8

This Agreement supersedes all previous understandings in so far as air space violations and over flights and landings by military aircraft are concerned.

Article 9

This Agreement is subject to ratification. It shall come into force with effect from the date on which the Instruments of Ratification are exchanged.

322

Appendices

Article 10

Done at New Delhi on this sixth day of April, 1991.

Shaharyar M. Khan

Foreign Secretary

For the Government of the Islamic Republic of Pakistan

Muchkund Dubey

Foreign Secretary

For the Government of the Republic of India

Appendix A

Conditions for grant of Flight Clearance for Military Aircraft of both countries
The side requesting permission for their military aircraft to fly through the air space of the other country or for landing(s) by such aircraft at airfield(s) in the other country, will approach, the respective Air HQ through their Air Advisor for clearance to undertake the flight, at least seven days before the scheduled date(s) of the flight(s). If, due to unforeseen circumstances, this notice is less than seven days, the other country would, as far as possible, make all efforts to accommodate the request. The following details of each flight will be intimated to the concerned Air Headquarters:-

Aircraft type.

Aircraft registration number.

Aircraft call sign.

Name of the Captain of the Aircraft.

Number of the crew.

Cruising level.

General nature of cargo carried and number of passengers who are on board the Aircraft.

Purpose of the flight.

Standby aircraft number and call sign.

Name of Standby Captain and air crew.

Flight plan for outbound and return legs including air route, Flight Information Region (FIR) entry/exit points and times, Expected Time of Arrival (ETAs)/Expected Time of Departure (ETDs) and flight levels etc.

Type and quality of fuel required at various air fields landing.

All flights approved will be valid for 3 days within plus/minus three hoursof the given time schedule of each day provided flight details remain unchanged. Any subsequent changes of the flight plan will require fresh clearance from Air HQ for which advance notice of 72 hours will be essential.

Routes to be followed by aircraft will be specified by respective countries at the time of requesting flight clearance. If the route proposed by the orginator country is, for any reason, not acceptable to the other country, the latter would, if possible, suggest a viable alternative route at the earliest.

The aircraft will not fly below 8000 ft or over 40,000 ft Above Ground Level (AGL).

The concerned Flight Information Centre of the other country will be contacted by the transiting aircraft during the flight before entering the airspace of the other country.

Flights, across each other's airspace will normally be completed between sun rise and sun set. Over-flights by night may be permitted, on specific request, under special circumstances.

No war-like material e.g. arms, ammunition, explosives, (except escape aid explosives), pyrotechnics (except emergency very light pistol signal cartridges), nuclear/fissionable material, Nuclear Biological and Chemical (NBC) materials, photographic material (whatever or not installed), electronic devices other than required for the normal operation of the aircraft, may be carried in the aircraft.

Non-professional cameras belonging to the passengers and which are not capable of aerial photography, may however be carried. Out photography at Airports or of defence installations, bridges and industries etc is not permitted.

Normally, both countries shall permit over flights to transit across the other's airspace along approved international Air Traffic Services (ATS) routes without the aircraft having to make, a technical halt. However, each country has the sovereign right to insist on such a halt if the country being overflown so desires.

Special case is to be exercised by the transiting aircraft to stay within the ATS routes and not to stray outside the limits of the route.

Visas for, the crew and passengers will be issued by the respective Embassy with utmost promptness.

THE LAHORE DECLARATION

Signed by The Prime Ministers of India and Pakistan on February 21, 1999

The Prime Ministers of the Islamic Republic of Pakistan and the Republic of India:

Sharing a vision of peace and stability between their countries, and of progress and prosperity for their peoples;

Convinced that durable peace and development of harmonious relations and friendly cooperation will serve the vital interests of the people of the two countries, enabling them to devote their energies for a better future;

Recognizing that the nuclear dimension of the security environment of the two countries add to their responsibility for avoidance of conflict between the two countries;

Committed to the principles and purposes of the Charter of the United Nations, and the universally accepted principles of peaceful co-existence;

Reiterating the determination of both countries to implementing the Simla Agreement in letter and spirit;

Committed to the objectives of universal nuclear disarmament and non-proliferation;

Convinced of the importance of mutually agreed confidence building measures for improving the security environment;

Recalling their agreement of 23 September 1998, that an environment of peace and security is in the supreme national interest of both sides and that the resolution of all outstanding issues, including Jammu and Kashmir, is essential for this purpose;

Have agreed that their respective Governments:

Shall intensify their efforts to resolve all issues, including the issue of Jammu and Kashmir.

 Shall refrain for intervention and interference in each other's internal affairs.

 Shall intensify their compositor and integrated dialogue process for an early and positive outcome of the agreed bilateral agenda.

Shall take immediate steps for reducing the risk of accidental or unauthorized use of nuclear weapons and discuss concepts and doctrines with a view to elaborating measures for confidence building in the nuclear and conventional fields, aimed at prevention of conflict.

(SIGNED)   *(SIGNED)*

(Atal Behari Vajpayee)   (Muhammad Nawaz Sharif)
PRIME MINISTERS OF INDIA   *PRIME MINISTERS OF PAKISTAN*

MEMORANDUM OF UNDERSTANDING[682]

Signed by the Indian Foreign Secretary, Mr. K. Raghunath, and the Pakistan Foreign Secretary, Mr. Shamshad Ahmad, in Lahore on February 21, 1999

The Foreign Secretaries of India and Pakistan:-

Reaffirming the continued commitment of their respective governments to the principles and purposes of the U.N. Charter;

Reiterating the determination of both countries to implementing the Shimla Agreement in letter and spirit;

Guided by the agreement between their Prime Ministers of 23rd September 1998 that an environment of peace and security is in the supreme national interest of both sides and that resolution of all outstanding issues, including Jammu and Kashmir, is essential for this purpose;

Pursuant to the directive given by their respective Prime Ministers in Lahore, to adopt measures for promoting a stable environment of peace, and security between the two countries;
Have on this day, agreed to the following:-

The two sides shall engage in bilateral consultations on security concepts, and nuclear doctrines, with a view to developing measures for confidence building in the nuclear and conventional fields, aimed at avoidance of conflict.

The two sides undertake to provide each other with advance notification in respect of ballistic missile flight tests, and shall conclude a bilateral agreement in this regard.

The two sides are fully committed to undertaking national measures to reducing the risks of accidental or unauthorized use of nuclear weapons under their respective control. The two sides further undertake to notify each, other immediately in the event of any accidental, unauthorized or unexplained incident that could create the risk of a fallout with adverse consequences for both sides, or an outbreak of a nuclear war between the two countries, as well as to adopt measures aimed at diminishing the possibility of such actions, or such incidents being misinterpreted by the other. The two side shall identify/establish the appropriate communication mechanism for this purpose.

The two sides shall continue to abide by their respective unilateral moratorium on conducting further nuclear test explosions unless either side, in exercise of its national sovereignty decides that extraordinary events have jeopardized its supreme interests.

The two sides shall conclude an agreement on prevention of incidents at sea in order to ensure safety of navigation by naval vessels, and aircraft belonging to the two sides.

The two sides shall periodically review the implementation of existing Confidence Building Measures (CBMs) and where necessary, set up appropriate consultative mechanisms to monitor and ensure effective implementation of these CBMs.

The two sides shall undertake a review of the existing communication links (e.g. between the respective Directors- General, Military Operations) with a view to upgrading and improving these links, and to provide for fail-safe and secure communications.

The two sides shall engage in bilateral consultations on security, disarmament and non-proliferation issues within the context of negotiations on these issues in multilateral fora.

---

[682] "Memorandum of Understanding Signed by the Indian Foreign Secretary, Mr. K. Raghunath, and the Pakistan Foreign Secretary, Mr. Shamshad Ahmad, in Lahore on February 21, 1999," http://www.sassu.org.uk/html/profiles/Bilateralregional/Jointstatments/BIREGtreaty10.pdf.

Where required, the technical details of the above measures will be worked out by experts of the two sides in meetings to be held on mutually agreed dates, before mid 1999, with a view to reaching bilateral agreements.

Done at Lahore on 21st February 1999 in the presence of Prime Minister of India, Mr. Atal Behari Vajpayee, and Prime Minister of Pakistan, Mr. Muhammad Nawaz Sharif.

(K. Raghunath)
Foreign Secretary of the Republic of India

(Shamshad Ahmad)
Foreign Secretary of the Islamic Republic of Pakistan

Appendices

AGREEMENT BETWEEN THE REPUBLIC OF INDIA AND THE ISLAMIC REPUBLIC OF PAKISTAN ON PRE-NOTIFICATION OF FLIGHT TESTING OF BALLISTIC MISSILES[683]

The Government of the Republic of India and the Government of the Islamic Republic of Pakistan, hereinafter referred to as the Parties:-

Recalling the Memorandum of Understanding on 21 February 1999;

Committed to adopt appropriate measures aimed at preventing misunderstanding and misinterpretations and promoting a stable environment of peace and security between the two countries;

Have agreed as follows:-

Article 1

Each Party shall provide to the other Party, advance Notification of the flight test that it intends to undertake of any land or sea launched, surface-to-surface ballistic missiles.

Article 2

Each Party shall notify the other Party, no less than three days in advance of their commencement of a five day launch window within which it intends to undertake flight tests of any land or sea launched, surface to surface ballistic missile.

Article 3

Each Party shall issue appropriate NOTAMs and NAVEREAs through their respective authorities.

Article 4

The bilateral Pre-Notification shall be conveyed through the respective Foreign Offices and the High Commissions, as per the format annexed to this Agreement

Article 5

Each Party shall ensure that the test launch site (s) do not fall within 40 kms, and the planned impact area does not fall within 70 kms, of the International Boundary or the Line of Control on the side of the Party planning to flight test the ballistic missile.

Article 6

Each Party shall also further ensure that the planned trajectory of the ballistic missile being flight tested shall not cross the International Boundary or the Line of Control between India and Pakistan and further, it shall maintain a horizontal distance of at least 40 kms from the International Boundary and the Line of Control.

Article 7

The Parties shall treat the bilateral Pre-Notification exchanged under this Agreement as confidential, unless other wise agreed upon.

Article 8

---

[683] "Agreement between the Republic of India and the Islamic Republic of Pakistan on Pre-Notification of Flight Testing of Ballistic Missiles," http://www.stimson.org/print.cfm?SN=SA20060207949.

The Parties shall hold consultations, on an annual basis, or more frequently as mutually agreed upon, to review the implementation of the provisions of this Agreement, as well as to consider possible amendments aimed at furthering the objectives of this Agreement. Amendments shall enter into force in accordance with the procedures that shall be agreed upon.

Article 9

This Agreement shall enter into force upon signature by the two Parties.

Article 10

The Agreement shall remain in force for a period of five years. It will be automatically extend for successive periods of five years at a time unless one or both parties decide otherwise.

Article 11

A Party may withdraw from this Agreement by giving six months written notice to the other indicating its intention to abrogate the Agreement.

In witness whereof the undersigned being duly authorized thereto by their respective Governments, have signed this Agreement.

Done at …………… on ……………. in two originals, each text being equally authentic.

(Signing Authority)   **(Signing Authority)**

Govt of the Republic of India   **Govt of the Islamic Republic of Pakistan**

FORMAT FOR PRE-NOTIFICATION FOR BALLISTIC MISSILE FLIGHT TESTS

The Government of ------ hereby notifies to the Government of ------ that it will conduct a flight test of a land or sea launched, surface to surface ballistic missile within the period of ……. to ……..

 The test launch site, the planned impact area and the planned trajectory of the ballistic missile conform to the provision of Article 5 & 6 if the Agreement between the Republic of India and the Islamic Republic of Pakistan on Pre-Notification of Flight Testing of Ballistic Missiles.

AGREEMENT ON REDUCING THE RISK FROM ACCIDENTS RELATING TO NUCLEAR WEAPONS[684]

21 February 2007

The Government of Islamic Republic of Pakistan and the Government of Republic of India, hereinafter referred to as the Parties:-

Recalling the Memorandum of Understanding signed at Lahore on 21 February 1999 between the two countries;

Recognizing that both Parties have national measures including Command and Control structures to guard against accidents related to nuclear weapons;

Recognizing that the nuclear dimension of the security environment of the two countries adds to their responsibility for avoidance of conflict between the two countries;

Committed to the objective of global and non-discriminatory nuclear disarmament;

Conscious of the need for adopting measures aimed at promoting a stable environment of peace and security between the two countries; Have agreed as follows:-

Article-1

Each Party shall maintain and improve, as it deems necessary, existing national measures including organizational and technical arrangements, to guard against accidents related to nuclear weapons under its control.

Article-2

The Parties shall notify each other immediately in the event of any accident relating to nuclear weapons, under their respective jurisdiction or control, which could create the risk of a radioactive fallout, with adverse consequences for both sides, or create the risk of an outbreak of a nuclear war between the two countries. In the event of such an accident the Party within whose jurisdiction or control the accident has taken place will immediately take necessary measures to minimize the radiological consequences of such an accident.

The obligation of a Party to notify shall be in respect of only such accidents which may result in an international transboundary release that could be of radiological safety significance or have security implication for the other Party.

Article-3

In the event of occurrence of an accident of the type referred to in Article-2 of this Agreement:

Each Party shall act in such a manner as to reduce the possibilities of its actions being misinterpreted by the other Party;

In case of likely impact of the accident on the other party, the first Party shall inform the other Party forthwith with relevant information.

Article-4

The Parties shall make use of the hotline links between the two Foreign Secretaries and DGMOs or any other appropriate communication link as mutually agreed upon between their Governments for transmission of, or request for, urgent information in situations relating to the implementation of this Agreement. The Parties may

---

[684] "Agreement on Reducing the Risk from Accidents Relating to Nuclear Weapons

21 February 2007," http://www.stimson.org/southasia/?SN=SA200702231219.

also make use of any other communication channels, including diplomatic channels depending upon the urgency of the situation.

Article-5

Information obtained by a Party pursuant to this Agreement shall not be disclosed to a third Party without the prior consent of the other Party except where it concerns environment, public health or safety.

Article-6

This Agreement shall not affect the rights and obligations of the Parties under existing international agreements to which they are a Party.

Article-7

The Parties may hold consultations, as mutually agreed upon, to review the implementation of the provisions of this Agreement as well as to consider possible amendments aimed at furthering the objectives of this Agreement. Amendments shall enter into force in accordance with procedures that shall be agreed upon.

Article-8

This Agreement shall remain in force for a period of five years. Upon agreement by the Parties, the Agreement may be extended for successive periods of five years at a time. A Party may withdraw from this

Agreement by giving six months written notice to the other indicating its intention to terminate the Agreement.

In witness whereof the undersigned being duly authorized thereto by their respective Governments, have signed this Agreement.

Done at New Delhi on 21 February 2007 in two originals, in English language, each text being equally authentic.

(K.C. Singh)

Additional Foreign Secretary

For Government of the Republic of India

(Tariq Osman Hyder)

Additional Foreign Secretary

For Government of the Islamic Republic of Pakistan

AGREEMENT ON THE MAINTENANCE OF PEACE AND TRANQUILITY ALONG THE LINE OF ACTUAL CONTROL IN THE INDIA-CHINA BORDER AREAS[685]

SEPTEMBER 7, 1993

The Government of the Republic of India and the Government of the People's Republic of China (hereinafter referred to as the two sides), have entered into the present Agreement in accordance with the Five Principles of mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit and peaceful coexistence and with a view to maintaining peace and tranquility in areas along the line of actual control in the India-China border areas.

The two sides are of the view that the India-China boundary question shall be resolved through peaceful and friendly consultations. Neither side shall use or threaten to use force against the other by any means. Pending an ultimate solution to the boundary question between the two countries, the two sides shall strictly respect and observe the line of actual control between the two sides. No activities of either side shall overstep the line of actual control. In case personnel of one side cross the line of actual control, upon being cautioned by the other side, they shall immediately pull back to their own side of the line of actual control. When necessary, the two sides shall jointly check and determine the segments of the line of actual control where they have different views as to its alignment.

Each side will keep its military forces in the areas along the line of actual control to a minimum level compatible with the friendly and good neighbourly relations between the two countries. The two sides agree to reduce their military forces along the line of actual control in conformity with the requirements of the principle of mutual and equal security to ceilings to be mutually agreed. The extent, depth, timing, and nature of reduction of military forces along the line of actual control shall be determined through mutual consultations between the two countries. The reduction of military forces shall be carried out by stages in mutually agreed geographical locations sector-wise within the areas along the line of actual control.

Both sides shall work out through consultations effective confidence building measures in the areas along the line of actual control. Neither side will undertake specified levels of military exercises in mutually identified zones. Each side shall give the other prior notification of military exercises of specified levels near the line of actual control permitted under this Agreement.

In case of contingencies or other problems arising in the areas along the line of actual control, the two sides shall deal with them through meetings and friendly consultations between border personnel of the two countries. The form of such meetings and channels of communications between the border personnel shall be mutually agreed upon by the two sides.

The two sides agree to take adequate measures to ensure that air intrusions across the line of actual control do not take place and shall undertake mutual consultations should intrusions occur. Both sides shall also consult on possible restrictions on air exercises in areas to be mutually agreed near the line of actual control.

The two sides agree that references to the line of actual control in this Agreement do not prejudice their respective positions on the boundary question.

The two sides shall agree through consultations on the form, method, scale and content of effective verification measures and supervision required for the reduction of military forces and the maintenance of peace and tranquility in the areas along the line of actual control under this Agreement.

Each side of the India-China Joint Working Group on the boundary question shall appoint diplomatic and military experts to formulate, through mutual consultations, implementation measures for the present Agreement. The experts shall advise the Joint Working Group on the resolution of differences between the two sides on the alignment of the line of actual control and address issues relating to redeployment with a view to reduction of military forces in the areas along the line of actual control. The experts shall also assist the Joint Working Group

---

[685] "Agreement on the Maintenance of Peace and Tranquility Along the Line of Actual Control in the India-China Border Areas. September 7, 1993," http://www.stimson.org/print.cfm?SN=sa20020114287.

in supervision of the implementation of the Agreement, and settlement of differences that may arise in that process, based on the principle of good faith and mutual confidence.

The present Agreement shall come into effect as of the date of signature and is subject to amendment and addition by agreement of the two sides.

Signed in duplicate at Beijing on the Seventh day of September 1993 in the Hindi, Chinese and English languages, all three texts having equal validity.

[Signed:]

R. L. Bhatia
Minister of State for External Affairs
Republic of India

Tang Jiaxuan
Vice-Foreign Minister
People's Republic of China

Appendices

AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF INDIA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA ON CONFIDENCE-BUILDING MEASURES IN THE MILITARY FIELD ALONG THE LINE OF ACTUAL CONTROL IN THE INDIA-CHINA BORDER AREAS[686]

NOVEMBER 29, 1996 (NEW DELHI)

The Government of the Republic of India and the Government of the People's Republic of China (hereinafter referred to as the two sides),

Believing that it serves the fundamental interests of the peoples of India and China to foster a long-term good-neighbourly relationship in accordance with the 'five principles of mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit and peaceful co-existence,

Convinced that the maintenance of peace and tranquility along the line of actual control in the India-China border areas accords with the fundamental interests of the two peoples and will also contribute to the ultimate resolution of the boundary question,

Reaffirming that neither side shall use or threaten to use force against the other by any means or seek unilateral military superiority,

Pursuant to the Agreement between the Government of the Republic of India and the Government of the People's Republic of China on the Maintenance of Peace and Tranquillity along the Line of Actual Control in the India-China Border Areas, signed on 7 September, 1993,

Recognizing the need for effective confidence building measures in the military field along the line of actual control in the border areas between the two sides,

Noting the utility of confidence building measures already in place along the line of actual control in the India-China border areas,

Committed to enhancing mutual confidence and transparency in the military field, Have agreed as follows :

ARTICLE I

Neither side shall use its military capability against the other side. No armed forces deployed by either side in the border areas along the line of actual control as part of their respective military strength shall be used to attack the other side, or engage in military activities that threaten the other side or undermine peace, tranquillity and stability in the India-China border areas.

ARTICLE II

The two sides reiterate their determination to seek a fair, reasonable and mutually acceptable settlement of the boundary question. Pending an ultimate solution to the boundary question, the two sides reaffirm their commitment to strictly respect and observe the line-of actual control in the India-China border areas. No activities of either side shall overstep the line of actual control.

ARTICLE III

The two sides agree to take the following measures to reduce or limit their respective military forces within mutually agreed geographical zones along the line of actual control in the India-China border areas:

The two sides reaffirm that they shall reduce or limit their respective military forces within mutually agreed geographical zones along the line of actual control in the India-China border areas to minimum levels compatible

---

[686] "Agreement between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas November 29, 1996 (New Delhi)," http://www.stimson.org/southasia/?sn=sa20020114290.

with the friendly and good neighborly relations between the two countries and consistent with the principle of mutual and equal security.

The two sides shall reduce or limit the number of field army, border defence forces, paramilitary forces and any other mutually agreed category of armed force deployed in mutually agreed geographical zones along the line of actual control to ceilings to be mutually agreed upon. The major categories of armaments to be reduced, or limited are as follows : combat tanks, infantry combat vehicles, guns (including howitzers) with 75 mm or bigger calibre, mortars with 120 mm or bigger calibre, surface-to-surface missiles, surface-to-air missiles and any other weapon system mutually agreed upon.

The two sides shall exchange data on the military forces and armaments to be reduced or limited and decide on ceilings on military forces and armaments to be kept by each side within mutually agreed geographical zones along the line of actual control in the India-China border areas. The ceilings shall be determined in conformity with the requirement of the principle of mutual and equal security, with due consideration being given to parameters such as the nature of terrain, road communication and other infrastructure and time taken to induct/deinduct troops and armaments.

ARTICLE IV

In order to maintain peace and tranquillity along the line of actual control in the India-China border areas and to prevent any tension in the border areas due to misreading by either side of the other side's intentions:

Both sides shall avoid holding large scale military exercises involving more than one Division (approximately 1 5,000 troops) in close proximity of the line of actual control in the India-China border areas. However, if such exercises are to be conducted, the strategic direction of the main force involved shall not be towards the other side.

If either side conducts a major military exercise involving more than one Brigade Group (approximately 5,000 troops) in close proximity of the line of actual control in the India-China border areas, it shall give the other side prior notification with regard to type, level, planned duration and area of exercise as well as the number and type of units or formations participating in the exercise.

The date of completion of the exercise and deinduction of troops from the area of exercise shall be intimated to the other side within five days of completion or deinduction.

Each side shall be entitled to obtain timely clarification from the side undertaking the exercise in respect of data specified in Paragraph 2 of the present Article.

ARTICLE V

With a view to preventing air intrusions across the line of actual control in the India-China border areas and facilitating overflights and landings by military aircraft:

Both sides shall take adequate measures to ensure that air intrusions across the line of actual control do not take place. However, if an intrusion does take place, it should cease as soon as detected and the incident shall be promptly investigated by the side operating the aircraft. The results of the investigation shall be immediately communicated, through diplomatic channels or at border personnel meetings, to the other side.

Subject to Paragraphs 3 and 5 of this Article, combat aircraft (to include fighter, bomber, reconnaissance, military trainer, armed helicopter and other armed aircraft) shall not fly within ten kilometers of the line of actual control.

If either side is required to undertake flights of combat aircraft within ten kilometers from the line of actual control, it shall give the following information in advance to the other side, through diplomatic channels:

Type and number of combat aircraft;

Height of the proposed flight (in meters);

Proposed duration of flights (normally not to exceed ten days);

Proposed timing of flights; and

Area of operations, defined in latitude and longitude.

Unarmed transport aircraft, survey aircraft and helicopters shall be permitted to fly up to the line of actual control.

No military aircraft of either side shall fly across the line of actual control, except by prior permission. Military aircraft of either side may fly across the line of actual control or overfly the other side's airspace or land on the other side only after obtaining the latter's prior permission after providing the latter with detailed information on the flight in accordance with the international practice in this regard.

Notwithstanding the above stipulation, each side has the sovereign right to specify additional conditions, including at short notice, for flights or landings of military aircraft of the other side on its side of the line of actual control or through its airspace.

In order to ensure flight safety in emergency situations, the authorities designated by the two sides may contact each other by the quickest means of communications available.

ARTICLE VI

With a view to preventing dangerous military activities along the line of actual control in the India-China border areas, the two sides agree as follows:

Neither side shall open fire, cause bio-degradation, use hazardous chemicals, conduct blast operations or hunt with guns or explosives within two kilometers from the line of actual control. This prohibition shall not apply to routine firing activities in small arms firing ranges.

If there is a need to conduct blast operations within two kilometers of the line of actual control as part of developmental activities, the other side shall be informed through diplomatic channels or by convening a border personnel meeting, preferably five days in advance.

While conducting exercises with live ammunition in areas close to the line of actual control, precaution shall be taken to ensure that a bullet or a missile does not accidentally fall on the other side across the line of actual control and causes harm to the personnel or property of the other side.

If the border personnel of the two sides come in a face-to-face situation due to differences on the alignment of the line of actual control o any other reason, they shall exercise self-restraint and take all necessary steps to avoid an escalation of the situation. Both sides shall also enter into immediate consultations through diplomatic and/or other available channels to review the situation and prevent any escalation of tension.

ARTICLE VII

In order to strengthen exchanges and cooperation between the military personnel and establishments in the border areas along the line of actual control, the two sides agree:

To maintain and expand the regime of scheduled and flag meetings between their border representatives at designated places along the line of actual control;

To maintain and expand telecommunication links between the border meeting points at designated places along the line of actual control;

To establish step-by-step medium and high-level contacts between the border authorities of the two sides.

ARTICLE VIII

Should the personnel of one side cross the line of actual control and enter the other side because of unavoidable circumstances like natural disasters, the other side shall extend all possible assistance to them and inform their side, as soon as possible regarding the forced or inadvertent entry across the line of actual control. The modalities of return of the concerned personnel to their own side shall be settled through mutual consultations.

The two sides shall provide each other, at the earliest possible, with information pertaining to natural disasters and epidemic diseases in contiguous border areas which might affect the other side. The exchange of information shall take place either through diplomatic channels or at border personnel meetings.

ARTICLE IX

In case a doubtful situation develops in the border region, or in case one of the sides has some questions or doubts regarding the manner in which the other side is observing this Agreement, either side has the right to seek a clarification from the other side. The clarifications sought and replies to them shall be conveyed through diplomatic channels.

ARTICLE X

Recognizing that the full implementation of some of the provisions of the present Agreement will depend on the two sides arriving at a common understanding of the alignment of the line of actual control in the India-China border areas, the two sides agree to speed up the process clarification and confirmation of the line of actual control. As an initial step in this process, they are clarifying the alignment of the line of actual control in those segments where they have different perceptions. They also agree to exchange maps indicating their respective perceptions of the entire alignment of the line of actual control as soon as possible.

Pending the completion of the process of clarification and confirmation of the line of actual control, the two sides shall work out modalities for implementing confidence building measures envisaged under this Agreement on an interim basis, without prejudice to their respective positions on the alignment of the line of actual control as well as on the boundary question.

ARTICLE XI

Detailed implementation measures required under Article I to Article X of this Agreement shall be decided through mutual consultations in the India-China Joint Working Group on the Boundary Question. The India-China Diplomatic and Military Expert Group shall assist the India-China Joint working Group in devising implementation measures under the Agreement.

ARTICLE XII

This Agreement is subject to ratification and shall enter into force on the date of exchange of instruments of ratification. It shall remain in effect until either side decides to terminate it after giving six months' notice in writing. It shall become invalid six months after the notification.

This Agreement is subject to amendment and addition by mutual agreement in writing between the two sides.

Signed in duplicate in New Delhi on 29 November, 1996 in the Hindi, Chinese and English languages, all three texts being equally authentic. In case of divergence, the English text shall prevail.

DECLARATION ON PRINCIPLES FOR RELATIONS AND COMPREHENSIVE COOPERATION BETWEEN THE PEOPLE'S REPUBLIC OF CHINA AND THE REPUBLIC OF INDIA[687]

25 June 2003

On June 23, 2003, China and India signed the Declaration on Principles for Relations and Comprehensive Cooperation Between the People's Republic of China and the Republic of India. The following is the full text of the declaration:

At the invitation of Premier of the State Council of the People's Republic of China H.E. Wen Jiabao, Prime Minister of the Republic of India H.E. Atal Bihari Vajpayee paid an official visit to the People's Republic of China from 22 to 27 June 2003.

During this visit, Premier Wen Jiabao held talks with Prime Minister Vajapayee. Their Excellencies President Hu Jintao of the People's Republic of China, Chairman Jiang Zemin of the Central Military Commission, Chairman Wu Bangguo of the Standing Committee of the National People's Congress and Vice President Zeng Qinghongof the People's Republic of China held separate meetings with Prime Minister Vajpayee. The talks and meetings were held in a sincere and friendly atmosphere.

Leaders from both countries noted with satisfaction the progress made over recent years in bilateral relations. This is conducive not only to their respective development, but also to regional stability and prosperity. The two sides recalled the historical depth of their friendly contacts. China and India are the two largest developing countries of the world with centuries-old civilization, unique history and similar objectives. Both noted that the sustained economic and social development in the two countries, representing one third of humanity is vital for ensuring peace, stability and prosperity not only in Asia but also in the whole world.

The two sides agreed that China and India have a mutual desire for good neighborly relations and have broad common interests. They agreed to fully utilize the substantial potential and opportunities for deepening mutually beneficial cooperation.

Friendship and cooperation between the two countries meets the need to:

promote the socio-economic development and prosperity of both China and India;

maintain peace and stability regionally and globally;

strengthen multipolarity at the international level; and

enhance the positive factors of globalization.

Both sides affirmed that they would abide by the following principles, promote a long-term constructive and cooperative partnership and, on this basis, build a qualitatively new relationship:

Both sides are committed to developing their long-term constructive and cooperative partnership on the basis of the Five Principles of Peaceful Coexistence, mutual respect and sensitivity for each other's concerns and equality;

As two major developing countries, China and India have a broad mutual interest in the maintenance of peace, stability and prosperity in Asia and the world, and a mutual desire in developing wider and closer cooperation and understanding in regional and international affairs;

The common interests of the two sides outweigh their differences. The two countries are not a threat to each other. Neither side shall use or threaten to use force against the other; and

---

[687] "Declaration on Principles for Relations and Comprehensive Cooperation between the People's Republic of

China and the Republic of India.2003/06/25," http://www.fmprc.gov.cn/eng/wjdt/2649/t22852.htm.

Both sides agree to qualitatively enhancing the bilateral relationship at all levels and in all areas while addressing differences through peaceful means in a fair, reasonable and mutually acceptable manner. The differences should not be allowed to affect the overall development of bilateral relations.

Both sides agreed to hold regular high-level exchanges between the two countries. This will greatly enhance mutual understanding and expand bilateral relations. With a view to deepening their coordination and dialogues on bilateral, regional and international issues, both sides agreed on the need for annual meetings between Foreign Ministers of the two countries. They also agreed that personnel exchanges and friendly contacts between ministries, parliaments and political parties of the two countries should be further enhanced.

The two sides welcomed the positive momentum of bilateral trade and economic cooperation in recent years and shared the belief that continued expansion and intensification of China-India economic cooperation is essential for strengthening bilateral relations.

Both sides shared the view that existing complementarities between their two economies provide an important foundation and offer broad prospects for further enhancing their economic relations. In order to promote trade and economic cooperation, both sides will take necessary measures consistent with their national laws and rules and international obligations to remove impediments to bilateral trade and investment. They reaffirmed the importance of the ministerial meeting of the Joint Economic Group(JEG) and agreed to hold the next (seventh) JEG meeting within the year.

The two sides will set up a compact Joint Study Group (JSG) composed of officials and economists to examine the potential complementarities between the two countries in expanded trade and economic cooperation. The JSG would also draw up a programme for the development of China-India trade and economic cooperation for the next five years, aimed at encouraging greater cooperation between the business communities of both sides. The Group should present a study report and recommendations to the two Governments on measures for comprehensive trade and economic cooperation by the end of June 2004.

The two countries will launch a financial dialogue and cooperation mechanism to strengthen their dialogue and coordination in this sector.

The two sides agreed to enhance cooperation at the World Trade organization, which is not only to mutual benefit but also in the broader interest of developing countries. The two sides will hold dialogues on a regular basis in this regard.

Historical and cultural links between China and India will be strengthened, inter-alia, through the promotion of exchanges in culture, education, science and technology, media, youth and people-to-people relations. They agreed to set up Cultural Centers in each other's capitals and facilitate their establishment.

Both sides will work towards the enhancement of direct air and shipping links, tourism, exchange hydrological data in flood season on common rivers as agreed, cooperation in agriculture, dairy, food processing, health and other sectors.

They agreed on the need to broaden and deepen defense exchanges between the two countries, which will help enhance and deepen the mutual understanding and trust between the two armed forces. They confirmed that the exchange of visits by their Defense Ministers and of military officials at various levels should be strengthened.

The two sides exchanged views on the China-India boundary question and expounded their respective positions. They reiterated their readiness to seek a fair, reasonable and mutually acceptable solution through consultations on an equal footing. The two sides agreed that pending an ultimate solution, they should work together to maintain peace and tranquility in the border areas, and reiterated their commitment to continue implementation of the agreements signed for this purpose, including the clarification of the line of actual control.

The two sides agreed to each appoint a special representative to explore, from the political perspective of the overall bilateral relationship, the framework of a boundary settlement.

The Indian side recognizes that the Tibet Autonomous Region is part of the territory of the People's Republic of China and reiterates that it does not allow Tibetans to engage in anti-China political activities in India. The Chinese side expresses its appreciation for the Indian position and reiterates that it is firmly opposed to any attempt and action aimed at splitting China and bringing about "independence of Tibet".

The Indian side recalled that India was among the first countries to recognize that there is one China and its one China policy remains unaltered. The Chinese side expressed its appreciation of the Indian position.

China and India recognized the primacy of maintaining international peace. This is a prerequisite for the socio-economic development of all developing countries, including China and India. The world is marked by diversity. Every country has the right to choose its own political system and path to development. As two major developing countries, China and India acknowledged the importance of their respective roles in the shaping of a new international political and economic order. The international community must help the developing countries to eliminate poverty and narrow the gap between the North and the South through dialogue and cooperation so as to achieve common prosperity.

The two sides acknowledged the vital importance of the role of the United Nations in world peace, stability and development. They are determined to continue their efforts in strengthening the UN system. They reaffirmed their readiness to work together to promote reform of the UN. In reform of the UN Security Council, priority should be given to enhancing representation of the developing countries.

Both sides stood for continued multilateral arms control and disarmament process, undiminished and equal security for all at progressively lower levels of armament and for multilateral negotiations aimed at nuclear disarmament and elimination of nuclear weapons. They are firmly opposed to introduction of weapons in outer space, use or threat of force against space-based objects and support cooperation in development of space technology for peaceful purposes.

The two sides recognized the threat posed by terrorism to them and to global peace and security. They resolutely condemned terrorism in any form. The struggle between the international community and global terrorism is a comprehensive and sustained one, with the ultimate objective of eradication of terrorism in all regions. This requires strengthening the global legal framework against terrorism. Both sides shall also promote cooperation on counter-terrorism through their bilateral dialogue mechanism.

China and India face special and similar challenges in their efforts to protect the environment while simultaneously forging ahead with rapid social and economic development of their countries. In this context, the two sides agreed to work together in a practical manner to cooperate on preserving the environment and ensuring sustained development and to coordinate positions on climate change, biodiversity and other issue in relevant multilateral fora.

The two sides supported multilateral cooperation in Asia, believing that such cooperation promote mutually beneficial exchanges, economic growth as well as greater cohesion among Asian countries. The two sides viewed positively each other's participation in regional and sub-regional multilateral cooperation processes in Asia.

The two sides stated that the improvement and development of China-India relations is not targeted at any third country and does not affect either country's existing friendly relations and cooperation with other countries.

The two sides agreed that the official visit of the Prime Minister of India to the People's Republic of China has been a success, has contributed to enhancing mutual understanding and trust between the Governments, leaders and peoples of the two countries, and marks a new step forward in strengthening the all-round cooperation between China and India in the new century.

Prime Minister Vajpayee invited Premier Wen Jiabao to visit India at a mutually convenient time and conveyed to President Hu Jintao an invitation from President Abdul Kalam to visit India. The Chinese side accepted the invitations with appreciation. The dates of the visits will be settled through diplomatic channels.

On behalf of the Government and the people of India, H.E. Prime Minister Atal Bihari Vajapyee thanked the Government and the people of China for the warm welcome received by him and his delegation.

Appendices

Signed in Beijing on 23 June 2003 in the Chinese, Hindi and English languages.

(Wen Jiabao)
Premier of the State Council The People's Republic of China

(Atal Bihari Vajpayee)
Prime Minister The Republic of India

Appendices

AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF INDIA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA ON THE POLITICAL PARAMETERS AND GUIDING PRINCIPLES FOR THE SETTLEMENT OF THE INDIA-CHINA BOUNDARY QUESTION[688]

The Government of the Republic of India and the Government of the People's Republic of China (hereinafter referred to as the two sides),

Believing that it serves the fundamental interests of the peoples of India and China to foster a long-term constructive and cooperative partnership on the basis of the Five Principles of Peaceful Co-existence, mutual respect and sensitivity for each other's concerns and aspirations, and equality,

Desirous of qualitatively upgrading the bilateral relationship at all levels and in all areas while addressing differences through peaceful means in a fair, reasonable and mutually acceptable manner,

Reiterating their commitment to abide by and implement the Agreement on the Maintenance of Peace and Tranquillity along the Line of Actual Control in the India-China Border Areas, signed on 7 September 1993, and the Agreement on Confidence Building Measures in the Military Field along the Line of Actual Control in the India-China Border Areas, signed on 29 November 1996,

Reaffirming the Declaration on Principles for Relations and Comprehensive Cooperation between India and China, signed on 23 June 2003,

Recalling that the two sides have appointed Special Representatives to explore the framework of settlement of the India-China boundary question and the two Special Representatives have been engaged in consultations in a friendly, cooperative and constructive atmosphere,

Noting that the two sides are seeking a political settlement of the boundary question in the context of their overall and long-term interests,

Convinced that an early settlement of the boundary question will advance the basic interests of the two countries and should therefore be pursued as a strategic objective,

Have agreed on the following political parameters and guiding principles for a boundary settlement:

Article I

The differences on the boundary question should not be allowed to affect the overall development of bilateral relations. The two sides will resolve the boundary question through peaceful and friendly consultations. Neither side shall use or threaten to use force against the other by any means. The final solution of the boundary question will significantly promote good neighbourly and friendly relations between India and China.

Article II

The two sides should, in accordance with the Five Principles of Peaceful Coexistence, seek a fair, reasonable and mutually acceptable solution to the boundary question through consultations on an equal footing, proceeding from the political perspective of overall bilateral relations.

---

[688] "Agreement between the Government of the Republic of India and the Government of the People's Republic of China on the Political Parameters and Guiding Principles for the Settlement of the India China Boundary Question," (2005), http://www.hinduonnet.com/thehindu/nic/0041/indiachinatxt.htm.

Appendices

Article III

Both sides should, in the spirit of mutual respect and mutual understanding, make meaningful and mutually acceptable adjustments to their respective positions on the boundary question, so as to arrive at a package settlement to the boundary question. The boundary settlement must be final, covering all sectors of the India-China boundary.

Article IV

The two sides will give due consideration to each other's strategic and reasonable interests, and the principle of mutual and equal security.

Article V

The two sides will take into account, inter alia, historical evidence, national sentiments, practical difficulties and reasonable concerns and sensitivities of both sides, and the actual state of border areas.

Article VI

The boundary should be along well-defined and easily identifiable natural geographical features to be mutually agreed upon between the two sides.

Article VII

In reaching a boundary settlement, the two sides shall safeguard due interests of their settled populations in the border areas.

Article VIII

Within the agreed framework of the final boundary settlement, the delineation of the boundary will be carried out utilising means such as modern cartographic and surveying practices and joint surveys.

Article IX

Pending an ultimate settlement of the boundary question, the two sides should strictly respect and observe the line of actual control and work together to maintain peace and tranquillity in the border areas. The India-China Joint Working Group and the India-China Diplomatic and Military Expert Group shall continue their work under the Agreements of 7 September 1993 and 29 November 1996, including the clarification of the line of actual control and the implementation of confidence building measures.

Article X

The Special Representatives on the boundary question shall continue their consultations in an earnest manner with the objective of arriving at an agreed framework for a boundary settlement, which will provide the basis for the delineation and demarcation of the India-China boundary to be subsequently undertaken by civil and military officials and surveyors of the two sides.

Article XI

This Agreement shall come into force as of the date of signature and is subject to amendment and addition by mutual agreement in writing between the two sides.

Appendices

Signed in duplicate in New Delhi on 11 April, 2005, in the Hindi, Chinese and English languages, all three texts being equally authentic. In case of divergence, the English text shall prevail.

For the Government of the Republic of India

For the Government of the People's Republic of China

NewDelhi
April 11, 2005

Appendices

JOINT STATEMENT OF THE REPUBLIC OF INDIA AND THE PEOPLE'S REPUBLIC OF CHINA[689]

I. H.E. Mr. Wen Jiabao, Premier of the State Council of the People's Republic of China, is currently paying a state visit to the Republic of India from 9 to 12 April 2005 at the invitation of H.E. Dr. Manmohan Singh, Prime Minister of the Republic of India.

During the visit, Premier Wen Jiabao held talks with Prime Minister Dr. Manmohan Singh, called on President Dr. A.P.J. Abdul Kalam and Vice President Shri Bhairon Singh Shekhawat, and met with Chairperson, United Progressive Alliance Smt. Sonia Gandhi. External Affairs Minister Shri K. Natwar Singh and Leader of Opposition, Lok Sabha Shri L.K. Advani will call on him. Premier Wen paid a visit to Bangalore and will deliver a speech at the Indian Institute of Technology in New Delhi.

Leaders of the two countries had an in-depth exchange of views in a sincere, friendly and constructive atmosphere and reached broad consensus on bilateral relations and international and regional issues of common concern.

II. The two sides reviewed the friendly contacts and progress in their bilateral relations in recent years and agreed that India-China relations have entered a new stage of comprehensive development. Both sides noted with satisfaction that with the frequent exchange of visits between leaders of the two countries, the process of building trust and understanding has gained momentum. Rapid growth of trade and economic cooperation has been coupled with the expansion of exchanges and cooperation in other fields. The two sides have made incremental progress in addressing outstanding issues. The two sides have also maintained good communication and collaboration in international and regional affairs. Both sides agreed that India and China have made satisfying progress in developing their long-term constructive and cooperative partnership.

The two sides recalled the Declaration on Principles for Relations and Comprehensive Cooperation between the two Prime Ministers on 23 June 2003 and reiterated that the Declaration provided a shared vision of bilateral relations and an agreed framework for cooperation.

III. In the light of the development of their bilateral relations, in order to promote good neighbourliness, friendship and mutually beneficial cooperation and taking into account the profound changes in the regional and international situation, the two sides agreed that India-China relations have now acquired a global and strategic character. The leaders of the two countries have, therefore, agreed to establish an India-China Strategic and Cooperative Partnership for Peace and Prosperity.

Such a partnership is based on the principles of Panchsheel, mutual respect and sensitivity for each other's concerns and aspirations, and equality; provides a sound framework for an all-round and comprehensive development of bilateral relations based on mutual and equal security, development and prosperity of the two peoples; and contributes to jointly addressing global challenges and threats. It reflects the readiness of the two sides to resolve outstanding differences in a proactive manner without letting them come in the way of the continued development of bilateral relations.

IV. The two sides agreed that high-level exchanges between the governments, parliaments and political parties of the two countries play an important role in expanding overall bilateral cooperation. They conveyed their determination to maintain and strengthen the momentum of such exchanges in future and agreed to hold regular meetings between the leaders of the two countries. In this context, the two sides also reiterated their intention to promote regular ministerial-level exchanges and make full use of the India-China strategic dialogue and other bilateral dialogue mechanisms.

V. The year of 2005 marks the 55th anniversary of the establishment of diplomatic relations between India and China. To mark the occasion, the two countries will organize a series of commemorative activities. It was noted that "Cultural Festival of China" was currently underway in India and that a corresponding "Cultural Festival of

---

[689] "Joint Statement of the Republic of India and the People's Republic of China," (2005), http://www.thehindu.com/thehindu/nic/0041/jointstatement.htm.

India" would be organized in China later in the year. The two sides would also organize other cultural activities to further promote mutual awareness and deepen the friendship between the two peoples. The two sides declared 2006 as the "year of India-China friendship".

Both sides expressed satisfaction with strengthened exchanges in the area of culture, and affirmed that mutual understanding and cultural exchanges would facilitate development of cooperation in other areas as well. In order to reinforce traditional cultural links, an agreement was concluded for the construction of an Indian-style Buddhist temple at Luoyang in Henan Province of China.

VI. The two sides stressed that an all-round expansion of India-China economic cooperation, including trade and investment, constitutes an important dimension of a stronger India-China relationship. The two countries agreed to make joint efforts to increase the bilateral trade volume to US$ 20 billion or higher by 2008. The two sides welcomed the report of the Joint Study Group (JSG) that was set up to examine the potential complementarities between the two countries in expanded trade and economic cooperation. The JSG in its Report has identified a series of measures related to trade in goods, trade in services, investments and other areas of economic cooperation, and recommended their expeditious implementation to remove impediments and facilitate enhanced economic engagement between India and China. The two Prime Ministers tasked the Ministerial-level India-China Joint Economic Group (JEG) to consider these recommendations and coordinate their implementation. For this purpose, the two sides will make their best endeavour to hold the next meeting of the JEG within the next six months. The JSG has also recommended an India-China Regional Trading Arrangement, comprising of trade in goods and services, investments, identified understandings for trade and investment promotion and facilitation, and measures for promotion of economic cooperation in identified sectors. The Prime Ministers agreed to appoint a Joint Task Force to study in detail the feasibility of, and the benefits that may derive from, the India-China Regional Trading Arrangement and give recommendations regarding its content.

Both sides noted that the Agreement on the Establishment of a Financial Dialogue Mechanism would further facilitate the dynamic and diversifying economic cooperation between the two sides. They will continue consultations on concluding the Bilateral Investment Promotion and Protection Agreement.

The two sides noted with satisfaction that the two countries have signed the SPS Protocols for the export of grapes and bitter gourd from India to China. The two sides also agreed to constitute a Joint Working Group to implement expeditiously the MOU on Application of SPS between the Chinese General Administration of Quality Supervision, Inspection and Quarantine and the Indian Ministry of Agriculture.

China positively evaluates market access for Indian rice to the Chinese market and will launch as early as possible the risk analysis procedure of the Indian rice in accordance with relevant Chinese laws and regulations.

VII. The two sides agreed to further promote the cooperation in the spheres of education, science and technology, healthcare, information, tourism, youth exchange, agriculture, dairy development, sports and other fields on the basis of mutual benefit and reciprocity. The two sides decided to establish an India-China Steering Committee on Scientific and Technological Cooperation chaired by their Ministers for Science and Technology, and start consultations on an agreement on mutual recognition of academic certificates and degrees between India and China. The two sides announced the launching of regular youth exchange activities. China will invite 100 Indian youth to China within the year of 2005 and hold an exhibition this year on advanced and applicable technologies in India.

VIII. The two sides recognized the importance of strengthening mutual connectivity and agreed to jointly work towards further enhancement of direct air and shipping links, tourism and people-to-people contacts. It was noted with satisfaction that an MOU on major liberalisation of civil aviation links between India and China was concluded during the visit.

IX. The two sides will continue to cooperate in exchanging flood-season hydrological data of the trans-border rivers as agreed between them.

In response to concerns expressed by the Indian side, the Chinese side agreed to take measures for controlled release of accumulated water of the landslide dam on the river Parechu, as soon as conditions permit. It was noted with satisfaction that an agreement concerning the provision of hydrological data on Sutlej/Langqen Zangbo was concluded during the visit and that the two sides had also agreed to continue bilateral discussions to finalize at an early date similar arrangements for the Parlung Zangbo and Lohit/Zayu Qu Rivers.

The two sides agreed to cooperate in the field of energy security and conservation, including, among others, encouraging relevant departments and units of the two countries to engage in the survey and exploration of petroleum and natural gas resources in third countries.

X. The two sides noted the useful exchanges and interaction in the military field and decided to further promote such exchanges and interaction. They agreed that broadening and deepening of defense exchanges between the two countries was of vital importance in enhancing mutual trust and understanding between the two armed forces, and to ensuring a peaceful environment in which they could pursue their respective national development objectives. The two sides decided to further strengthen effective contacts and exchanges in this field.

XI. During the visit, the two sides exchanged views on the India-China boundary question and reiterated their readiness to seek a fair, reasonable and mutually acceptable solution, through equal and friendly consultations and proceeding from the overall interests of bilateral relations. They expressed satisfaction over the progress made in the discussions between the Special Representatives of the two countries and welcomed the conclusion of the Agreement on the Political Parameters and Guiding Principles for the Settlement of the Boundary Question. Both sides are convinced that an early settlement of the boundary question will advance the basic interests of the two countries and should therefore be pursued as a strategic objective. They expressed their commitment to the mechanism of Special Representatives for seeking a political settlement of the boundary question in the context of their long-term interests and the overall bilateral relationship.

Pending a final resolution, the two sides will continue to make joint efforts to maintain peace and tranquility in the border areas in accordance with the Agreements of 1993 and 1996. Both sides agreed that while continuing the discussions between the Special Representatives, it is also important that the Joint Working Group (JWG) continues its work to seek an early clarification and confirmation of the Line of Actual Control (LAC). Progress made so far on the clarification of the LAC in the India-China border areas was noted. It was agreed to complete the process of exchanging maps indicating their respective perceptions of the entire alignment of the LAC on the basis of already agreed parameters, with the objective of arriving at a common understanding of the alignment, as soon as possible.

The two sides expressed satisfaction at the progress achieved in the implementation of the Agreements of 1993 and 1996 and agreed to fully implement them expeditiously. Towards that end, they concluded a Protocol on Modalities for the Implementation of Confidence Building Measures in the Military Field along the Line of Actual Control in the India-China Border Areas.

XII. The Indian side reiterated that it recognized the Tibet Autonomous Region as part of the territory of the People's Republic of China and that it did not allow Tibetans to engage in anti-China political activities in India.

The Indian side recalled that India was among the first countries to recognize that there is one China and its one China policy remains unaltered. The Indian side stated it would continue to abide by its one China policy.

The Chinese side expressed its appreciation for the Indian positions.

XIII. Both sides reviewed with satisfaction the implementation of the memorandum on the border trade through the Nathula Pass between the Tibet Autonomous Region of the People's Republic of China and the Sikkim State of the Republic of India.

XIV. The two sides noted with satisfaction that through friendly consultations an agreement in principle had been reached between the two countries to solve the long-pending issue of property originally belonging to Indian Consulate General in Shanghai with the Chinese side agreeing to provide a plot of land in lieu of the premises of the original Consulate General of India.

XV. As two large developing countries, both India and China were aware of each other's important role in the process of promoting the establishment of a new international political and economic order. Both sides share common interests in the maintenance of peace, stability and prosperity in Asia and the world at large, and share the desire to develop closer and more extensive understanding and cooperation in regional and international affairs.

Appendices

The two sides are supportive of democratization of international relations and multilateralism, stand for the establishment of a new international political and economic order that is fair, rational, equal and mutually beneficial, and promote North-South Dialogue and South-South Cooperation. The two sides believe that the international community should eliminate poverty, narrow the gap between North and South, and achieve common prosperity through dialogue and cooperation.

SINO INDIAN CBM The two sides reiterated the importance of the United Nations in global peace, stability and common development and expressed their determination to continue their efforts, together with the international community, in strengthening the UN system to develop a sound multilateral basis to address global issues. Both India and China agree that reform of the United Nations should be comprehensive and multi-faceted and should put emphasis on an increase in the representation of developing countries. The Indian side reiterated its aspirations for permanent membership of the UN Security Council. The Chinese side also reiterated that India is an important developing country and is having an increasingly important influence in the international arena. China attaches great importance to the status of India in international affairs. It understands and supports India's aspirations to play an active role in the UN and international affairs. The two sides reaffirmed their readiness to conduct close consultations and cooperation in the process of UN reforms.

XVII. The two sides, aware of the threats posed by terrorism to the peace and security of the two countries and the whole world, resolutely condemn terrorism in any form. The struggle between the international community and global terrorism is a comprehensive and sustained one, with the ultimate objective of eradication of terrorism in all regions. This requires strengthening the global legal framework against terrorism. Both sides noted the positive outcome of the meetings held so far of their bilateral dialogue mechanism on counter-terrorism and agreed to further strengthen and consolidate their discussions and cooperation. It was agreed to hold the next meeting of the dialogue mechanism on counter-terrorism later this year.

XVIII. Both sides agreed to conduct regular exchange of views on major international and regional issues, strengthen cooperation in the WTO and other international multilateral organizations, and to continue the consultations on other issues of common concern. They agreed to work together to preserve stability and growth in the global economy and reduce disparities between developed and developing countries. They supported an open, fair, equitable and transparent rule-based multilateral trade system and resolved to safeguard the legitimate rights and interests of the developing countries.

XIX. Aware of their linked destinies as neighbours and the two largest countries of Asia, both sides agreed that they would, together, contribute to the establishment of an atmosphere of mutual understanding, trust and cooperation in Asia and the world at large, and facilitate efforts to strengthen multilateral coordination mechanisms on security and cooperation.

XX. During the visit, the two sides signed and/or released the following documents.

i. Agreement on Political Parameters and Guiding Principles for the Settlement of the India-China Boundary Question
ii. Report of India-China Joint Study Group on Comprehensive Trade and Economic Cooperation
iii. Protocol on Modalities for the Implementation of CBMs in the Military Field Along the Line of Actual Control in the India-China Border Areas
iv. Agreement on Mutual Administrative Assistance and Cooperation in Customs Matters
v. MOU on the Launch of the India-China Financial Dialogue
vi. MOU on Civil Aviation
vii. Protocol of Phytosanitary Requirement for Exporting Grapes from India to China
viii. Protocol of Phytosanitary Requirement for Exporting Bitter Gourds from India to China
ix. MOU on Provision of Hydrological Information of the Sutlej /Langqen Zangbo River in Flood Season by China to India.
x. Protocol on India-China Film Cooperation Commission
xi. MOU on Cooperation between the Indian Council of World Affairs and the Chinese People's Institute of Foreign Affairs
xii. Memorandum on the Construction of an Indian-style Buddhist Temple on the Western side of the White Horse Temple in Luoyang, China

XXI. The two sides believed that Premier Wen Jiabao's highly successful State visit to the Republic of India marked a new level of India-China relationship and opened a new chapter in the friendly relations and cooperation between the two countries.

Premier Wen Jiabao, on behalf of the Chinese Government and people, expressed his appreciation to the Government and the people of India for their warm hospitality, and invited Prime Minister Manmohan Singh to visit China at a mutually convenient time. Prime Minister Manmohan Singh appreciated the invitation and accepted it with pleasure. The Indian side also reiterated the invitation to President Hu Jintao to visit India. The exact time of the visit will be decided through diplomatic channels.

Prime Minister of the Republic of India

Premier of the State Council of the People's Republic of China

NewDelhi
April 11, 2005

Appendices

JOINT DECLARATION BY THE REPUBLIC OF INDIA AND THE PEOPLE'S REPUBLIC OF CHINA[690]

(2006/11/30)

1. H.E. Mr. Hu Jintao, President of the People's Republic of China, is currently paying a State visit to the Republic of India from 20 to 23 November 2006 at the invitation of H.E. Dr. A.P.J. Abdul Kalam, President of the Republic of India.

2. President Hu Jintao held talks with Prime Minister Dr. Manmohan Singh, earlier today. He will call on President Dr. A. P. J. Abdul Kalam later in the day. Vice President Shri Bhairon Singh Shekhawat, Speaker, Lok Sabha Shri Somnath Chatterjee, and Leader of the Opposition in Lok Sabha Shri L. K. Advani will pay courtesy calls on President Hu Jintao. Smt. Sonia Gandhi, Chairperson, United Progressive Alliance, will meet him. Earlier today, Minister of External Affairs Shri Pranab Mukherjee called on the visiting Chinese President. President Hu Jintao will deliver a policy address at the Vigyan Bhawan and attend the China-India Friendship Year commemorative function. He will also visit Agra and address a business summit in Mumbai, among other engagements.

3. The leaders of the two countries have noted with satisfaction the all-round progress made over recent years in China-India relations and their regional and multilateral cooperation. They reiterate the shared vision and fundamental principles for the future development of China-India relations, as embodied in the Declaration on Principles for Relations and Comprehensive Cooperation of 23 June 2003 and the Joint Statement of 11 April 2005 signed between the Prime Ministers of the two countries.

4. Both sides agree that the relationship between China and India, the two biggest developing countries in the world, is of global and strategic significance. Both countries are seeking to avail themselves of historic opportunities for development. Each side welcomes and takes a positive view of the development of the other, and considers the development of either side as a positive contribution to peace, stability and prosperity of Asia and the world. Both sides hold the view that there exist bright prospects for their common development, that they are not rivals or competitors but are partners for mutual benefit. They agree that there is enough space for them to grow together, achieve a higher scale of development, and play their respective roles in the region and beyond, while remaining sensitive to each other's concerns and aspirations. Strategic partnership between the two countries with a similar worldview is consistent with their roles as two major developing countries. With the growing participation and role of the two countries in all key issues in today's globalising world, their partnership is vital for international efforts to deal with global challenges and threats. As two major countries in the emerging multi-polar global order, the simultaneous development of China and India will have a positive influence on the future international system.

5. In order to promote the sustainable socio-economic development of China and India, to fully realise the substantial potential for their cooperation in a wide range of areas, to upgrade China-India relations to a qualitatively new level, and to further substantiate and reinforce their Strategic and Cooperative Partnership, the leaders of the two countries have committed themselves to pursuing the following "ten-pronged strategy":

I. Ensuring Comprehensive Development of Bilateral Relations:

6. Both sides are committed to making the positive development and diversification of China-India relations in recent years an irreversible trend.

7. The two sides agree to hold regular Summit-level meetings, in each other's country and in multilateral forums. They agree that high-level exchanges between Governments, Parliaments and political parties play an important role in expanding overall bilateral cooperation.

---

[690] "Joint Declaration by the Republic of India and the People's Republic of China," (2006), http://in.chineseembassy.org/eng/sgxw/2006en/t282045.htm.

8. In order to sustain, facilitate and promote greater engagement between the two countries, an additional Consulate General shall be opened in each other's country. The Chinese side shall open a new Consulate General in Kolkata, while the Indian side shall open a new Consulate General in Guangzhou. In this context, the mutually satisfactory resolution of the long-pending issue of the property of the Consulate General of India in Shanghai is a positive development.

II. Strengthening Institutional Linkages and Dialogue Mechanisms:

9. The two sides shall strengthen institutional linkages between their Governments in different areas and levels with a view to foster synergy and cooperation and promote greater understanding of each other's policies and positions on important national, regional and international issues. The concerned ministries and organisations of the two countries shall intensify exchanges under the existing dialogue mechanisms and revitalise those that have not been regularly used. The signing of the Protocol of Cooperation between the Ministry of Foreign Affairs of China and the Ministry of External Affairs of India during the visit is an important step in this direction.

III.   Consolidating Commercial and Economic Exchanges:

10. Both sides believe that comprehensive economic and commercial engagement between China and India is a core component of their Strategic and Cooperative Partnership. They will endeavour to raise the volume of their bilateral trade to US$ 40 billion by 2010. They shall make joint efforts to diversify their trade basket, remove existing impediments, and optimally utilise the present and potential complementarities in their economies, in order to sustain and further strengthen bilateral commercial and economic cooperation. Towards this end, both sides will attach utmost priority to an early implementation of the decisions taken in March 2006 by the Ministerial-level Joint Economic Group, including the recommendations of the Joint Study Group, through mechanisms already created for this purpose. The Joint Task Force set up to study the feasibility and benefits of a China-India Regional Trading Arrangement shall complete its work by October 2007.

11. The conclusion of the Bilateral Investment Promotion and Protection Agreement during the visit is a welcome development that will provide the institutional and legal basis to encourage and promote greater investment flows between the two countries.

12. The Chinese side has invited India to participate in the World Exposition Shanghai 2010. The Indian side expressed its appreciation and stated that it will actively support and participate in the event.

IV.   Expanding All-Round Mutually Beneficial Cooperation:

13. The two sides agree to further strengthen positive trends in the all-round development of relations and fully realize the substantial potential of cooperation, including in trade, industry, finance, agriculture, water resources, energy, environment, transportation, infrastructure, information technology, health, education, media, culture, tourism, youth affairs and other fields.

14. Both sides agree to fully implement the provisions of the Memorandum on Cooperation in the field of Oil and Natural Gas signed in January 2006 and   encourage collaboration between their enterprises, including through joint exploration and development of hydrocarbon resources in third countries.

15. Given the complementarities that China and India enjoy in the area of information and communication technology, the two sides agreed to strengthen mutually beneficial cooperation in this sector, through closer policy dialogue and enhanced collaboration among their enterprises, including in third countries.

16. The two sides shall fully implement the Memorandum of Understanding on Agricultural Cooperation, step up the exchange of experience in the field of agriculture and rural development, including food security, and hold discussions and consultations on the standards for agricultural goods at an early date in order to facilitate trade in such goods.

17. The two sides agree to set up an expert-level mechanism to discuss interaction and cooperation on the provision of flood season hydrological data, emergency management and other issues regarding trans-border rivers as agreed between them. The on-going provision of hydrological data for the Brahmaputra/Yarlung

Zangbo and the Sutlej/Langqen Zangbo Rivers by the Chinese to the Indian side has proved valuable in flood forecasting and mitigation. The two sides agree to continue bilateral discussions to finalise at an early date similar arrangements for the Parlung Zangbo and Lohit/Zayu Qu Rivers.

18. Both sides shall intensify their consultations, bilaterally and in multilateral fora, on sustainable development, bio-diversity, climate change and other related environmental issues of common concern. The cooperation in wildlife conservation, particularly in tiger conservation, shall be stepped up.

V. Instilling Mutual Trust and Confidence through Defence Cooperation:

19. The exchange of visits in the field of defence has resulted in building of mutual trust and enhancement of mutual understanding between the defence establishments of the two countries. Both sides shall fully implement the provisions of the Memorandum of Understanding for Exchanges and Cooperation in the field of Defence signed on 29 May 2006, which provides a sound foundation and institutional framework for further development of defence cooperation.

VI. Seeking Early Settlement of Outstanding Issues:

20. Both sides are committed to resolving outstanding differences, including on the boundary question, through peaceful means and in a fair, reasonable, mutually acceptable and proactive manner, while ensuring that such differences are not allowed to affect the positive development of bilateral relations.

21. The Special Representatives of China and India on the boundary question have taken steps and shall continue to strive to arrive at a boundary settlement on the basis of the Agreement on Political Parameters and Guiding Principles for the Settlement of China-India Boundary Question signed on 11 April 2005. An early settlement of the boundary question will advance the basic interests of the two countries and shall, therefore, be pursued as a strategic objective. The Special Representatives shall complete at an early date the task of finalising an appropriate framework for a final package settlement covering all sectors of the China-India boundary. Pending the resolution of the boundary question, both sides shall maintain peace and tranquillity in the border areas in accordance with the agreements of 1993, 1996 and 2005.

22. Along with the talks between the Special Representatives, the Joint Working Group on the China-India Boundary Question shall expedite their work, including on the clarification and confirmation of the line of actual control and the implementation of confidence building measures. It was agreed to complete the process of exchanging maps indicating their respective perceptions of the entire alignment of the LAC on the basis of already agreed parameters as soon as possible.

VII. Promoting Trans-border Connectivity and Cooperation:

23. Both sides shall promote greater trans-border cooperation at mutually agreed sites in China-India border areas with the objective of transforming their border from being a dividing line into a bridge that unites them in cooperative pursuits. In this context, border trade between China and India, including the recent resumption of border trade through the Nathula La Pass, is of significant importance. The two sides shall strengthen border trade through the existing locations, while continuing to explore the possibility of opening additional trading routes in China-India border areas.

24. The two sides welcome the organisation of a car rally, recommended by the BCIM Forum, between Kolkata and Kunming via Bangladesh and Myanmar.

25. The Chinese side shall provide greater facilitation to Indian pilgrims for the Kailash Mansarovar Yatra. Both sides shall explore the possibility of opening an additional route for the Yatra.

VIII. Boosting Cooperation in Science and Technology:

26. Bearing in mind the priority attached by China and India to scientific and technological development and innovation as a cornerstone of their efforts towards sustainable socio-economic development, the two sides shall establish a China-India Partnership in Science and Technology. The two sides welcome the establishment of the

Ministerial-level Committee on Science and Technology Cooperation as a positive step in guiding, coordinating and facilitating cooperative activities. They agree to launch joint projects in the areas of (i) earthquake engineering, (ii) climate change and weather forecasting, (iii) nano-technology with focus on advanced materials, and (iv) biotechnology and medicines with focus on bio-nano. The cooperation framework shall include entrepreneurs on both sides, besides the two Governments and their respective institutions.

27. Considering that for both China and India, expansion of civilian nuclear energy programme is an essential and important component of their national energy plans to ensure energy security¸ the two sides agree to promote cooperation in the field of nuclear energy, consistent with their respective international commitments. As two countries with advanced scientific capabilities, they stress the importance of further deepening cooperation bilaterally as well as through multilateral projects such as ITER, and enhance exchanges in the related academic fields.

28. As countries, which have made advances in space technologies, both sides reiterate their commitment to the use of outer space for peaceful purposes. They agree to strengthen their cooperation in the use of space-based technologies for peaceful and developmental applications, including through satellite remote sensing, satellite communications, satellite meteorology and satellite launch services. Cooperation in practical applications of space technology, such as those related to disaster management and distance education, shall also be actively explored. Towards this end, both sides shall fully implement the provisions of the Memoranda of Understanding on the peaceful use of outer space signed between China and India in December 1991 and January 2002.

IX. Revitalising Cultural Ties and Nurturing People-to-People Exchanges:

29. The centuries-old cultural contacts between the two peoples provide a strong foundation for enduring friendship between China and India. The initiatives to rediscover these historical linkages and revitalise them in the present day context, including through an early completion of the Xuanzang Memorial in Nalanda and the Indian-style Buddhist Shrine in Luoyang, will further strengthen these bonds. The two sides agree to strengthen cooperation in the area of spiritual and civilizational heritage, discuss collaboration in the digitisation of Buddhist manuscripts available in China as well as the re-development of Nalanda as a major centre of learning with the establishment of an international university on the basis of regional cooperation. In order to promote greater awareness of each other's culture, the two sides shall organise a "Festival of India" in China and a "Festival of China" in India, with a joint logo. Detailed modalities in this regard will be decided by the concerned authorities through mutual consultations.

30. In order to promote greater academic exchanges between China and India, the two sides agree to work towards the establishment of a "China-India Exchange Foundation". Detailed modalities of the Foundation will be worked out through mutual consultations.

31. China-India relations in the field of education will be further strengthened through a new Educational Exchange Programme concluded during the visit.

32. The two sides also agree to launch a five-year programme for mutual exchange of youth delegations. In this context, the Chinese side invites five hundred youth from India over the next five years.

33. With a view to vigorously promoting tourism between China and India, the two sides shall organise the "China-India Year of Friendship Through Tourism" in 2007 with a joint logo and take other initiatives, such as opening of the office of the China National Tourism Administration in India and an Indian Tourism Office in China, improved air connectivity, and continued liberalisation of the visa regime.

34. The two sides welcome cooperation linkages between the Chinese provinces and the Indian States in order to promote greater people-to-people exchanges.

X. Expanding Cooperation on Regional and International Stage:

35. The two sides shall hold regular exchange of views on the emerging security environment in the Asia-Pacific and in the world, and undertake proactive consultations on issues of immediate and emerging concern, so as to coordinate their positions and to make positive contribution towards peaceful resolution of such issues. They

shall also have regular consultations on issues pertaining to regional peace, security and stability, such as regional maritime security, proliferation of weapons of mass destruction and related materials and their means of delivery, pandemics, natural disasters, illegal trafficking in arms, narcotics and people, and environmental degradation.

36. The two sides positively assess the trilateral dialogue mechanism among China, India and Russia and agree that exchanges and cooperation under it should be further substantiated.

37. Recognising that terrorism constitutes a crime against humanity that cannot be justified on any ground and condemning it in all forms and manifestations, the two sides agree to revitalise and broaden the China-India Dialogue Mechanism on Counter-Terrorism. They shall strengthen their efforts, bilaterally as also in the international fora, to fight against terrorism, separatism and extremism, and the linkages between terrorism and organized crime and illicit arms and drugs trafficking.

38. Recognising the central role of the United Nations in promoting international peace, security and development, both sides reiterate their determination to strengthen the UN system. The reform of the UN should be comprehensive, ensure balanced representation of developing and developed countries in the UN Security Council, and add to the efficiency and efficacy of the UN and its Security Council. The two sides shall conduct consultations on the question of UN reform, including the reform of the UN Security Council. The Indian side reiterates its aspirations for permanent membership of the UN Security Council. China attaches great importance to the status of India in international affairs. It understands and supports India's aspirations to play a greater role in the United Nations.

39. Energy security constitutes a vital and strategic issue for producing and consuming countries alike. It is consistent with the common interest of the two sides to establish an international energy order, which is fair, equitable, secure and stable, and to the benefit of the entire international community. Both sides shall also make joint efforts, bilaterally as well as in multilateral fora, to diversify the global energy mix and to increase the share in it of renewable energy sources. Global energy systems should take into account and meet the energy needs of both countries, as part and parcel of a stable, predictable, secure and clean energy future. In this context, international civilian nuclear cooperation should be advanced through innovative and forward-looking approaches, while safeguarding the effectiveness of international non-proliferation principles.

40. Both countries are committed to non-proliferation objectives and agree to expand their dialogue on the related issues, in bilateral and international fora.

41. As two large developing countries with relatively successful developmental experiences, China and India share unique responsibilities to protect and promote the interests of the developing world in the emerging international order and to help them benefit from the positive forces of globalisation. In this context, the two sides shall hold a two-part international seminar in Beijing and New Delhi, co-hosted by their Ministries of Finance, to share their developmental experience with other developing countries and the international community at large.

42. The two sides agree to strengthen their cooperation in the World Trade Organisation. They support the establishment of an open, fair, equitable, transparent and rule-based multilateral trading system, early resumption of Doha negotiations, and are determined to safeguard the legitimate rights and interests of the developing countries. As founder Members of the G-20 and the G-33, they are determined to strengthen their cooperation and to coordinate with other members of the WTO, especially the developing countries, in order to secure an early resumption of the negotiations on the Doha Work Programme, placing the development dimension at its heart.

43. Recognising that regional integration is an important feature of the emerging international economic order, the two sides agree to expand their coordination within regional organisations and explore a new architecture for closer regional cooperation in Asia. They positively view each other's participation in Asian inter-regional, regional and sub-regional cooperation process, including in the progress towards the East Asian Community. In this context, the two sides agree to cooperate closely in the East Asia Summit. The Indian side welcomes China's attainment of observer status in the South Asian Association for Regional Cooperation. The Chinese side welcomes India's membership of the Asia-Europe Meeting. The two sides agree to expand their cooperation on issues on common interest under the Shanghai Cooperation Organisation.

44. The Indian side recalls that India was among the first countries to recognize that there is one China and that its one China policy has remained unaltered. The Indian side states that it would continue to abide by its one China policy. The Chinese side expresses its appreciation for the Indian position.

45. The Indian side reiterates that it has recognized the Tibet Autonomous Region as part of the territory of the People's Republic of China, and that it does not allow Tibetans to engage in anti-China political activities in India. The Chinese side expresses its appreciation for the Indian position.

46. The following agreements were signed during the visit:

i) Protocol on the Establishment of Consulates-General at Guangzhou and Kolkata;

ii) Protocol on Cooperation between the Ministry of Foreign Affairs of China and the Ministry of External Affairs of India;

iii) Agreement on the Issue of Property of the Consulate General of India in Shanghai;

iv) Agreement on Bilateral Investment Protection and Promotion;

v) Memorandum of Understanding on Inspection of Export Cargo (Iron Ore);

vi) Protocol on Phytosanitary Requirements for Exporting Rice from India to China;

vii) Memorandum of Understanding between Forward Markets Commission of China and India Securities Regulatory Commission regarding Commodity Futures Regulatory Cooperation;

viii) Memorandum of Understanding on Cooperation between the Central Party School of the Communist Party of China and the Indian Institute of Public Administration;

ix) Agreement on Forestry Cooperation;

x) Memorandum of Understanding between the Chinese Academy of Agricultural Sciences and the Indian Council of Agricultural Research;

xi) Exchange Programme on Cooperation in the Field of Education;

xii) Memorandum of Understanding on Cooperation in the Conservation of Cultural Heritage; and

xiii) Agreement on Preventing Theft, Clandestine Excavation and Illicit Import and Export of Cultural Property.

47. The two sides believe that the highly successful visit of President Hu Jintao to India marks the high point of the China-India Friendship Year in 2006, promotes mutual understanding and trust, helps in substantiating the Strategic and Cooperative Partnership between the two countries and leads to a qualitative and quantum improvement in bilateral relations. They also agree that this Joint Statement provides a valuable blueprint for enduring development and diversification of the relations between China and India and sustained enrichment of their strategic partnership.

48. President Hu Jintao extended invitations to President Dr. A.P.J Abdul Kalam and Prime Minister Dr. Manmohan Singh to visit China. The invitations were accepted with appreciation. The timing of the visits will be decided through diplomatic channels.

New Delhi

21 November 2006

A SHARED VISION FOR THE 21ST CENTURY OF THE PEOPLE'S REPUBLIC OF CHINA AND THE REPUBLIC OF INDIA[691]

2008/01/15

H.E. Mr. Wen Jiabao, Premier of the State Council of the People's Republic of China and H.E. Dr. Manmohan Singh, Prime Minister of the Republic of India, meeting in Beijing on 14 January 2008, resolve to promote the building of a harmonious world of durable peace and common prosperity through developing the Strategic and Cooperative Partnership for Peace and Prosperity between the two countries.

China and India (hereinafter referred to as the "two sides") are the two largest developing nations on earth representing more than one-third of humanity. The two sides recognize that both China and India bear a significant historical responsibility to ensure comprehensive, balanced and sustainable economic and social development of the two countries and to promote peace and development in Asia and the world as a whole.

The two sides are convinced that it is time to look to the future in building a relationship of friendship and trust, based on equality, in which each is sensitive to the concerns and aspirations of the other. The two sides reiterate that China-India friendship and common development will have a positive influence on the future of the international system. China-India relations are not targeted at any country, nor will it affect their friendship with other countries.

The two sides believe that in the new century, Panchsheel, the Five Principles of Peaceful Co-existence, should continue to constitute the basic guiding principles for good relations between all countries and for creating the conditions for realizing peace and progress of humankind. An international system founded on these principles will be fair, rational, equal and mutually beneficial, will promote durable peace and common prosperity, create equal opportunities and eliminate poverty and discrimination.

The two sides hold that the right of each country to choose its own path of social, economic and political development in which fundamental human rights and the rule of law are given their due place, should be respected. An international system founded in tolerance and respect for diversity will promote the cause of peace and reduce the use, or threat of use, of force. The two sides favour an open and inclusive international system and believe that drawing lines on the ground of ideologies and values, or on geographical criteria, is not conducive to peaceful and harmonious coexistence.

The two sides believe that the continuous democratization of international relations and multilateralism are an important objective in the new century. The central role of the United Nations in promoting international peace, security and development should be recognized and promoted. The two sides support comprehensive reform of the United Nations, including giving priority to increasing the representation of developing countries in the Security Council. The Indian side reiterates its aspirations for permanent membership of the UN Security Council. The Chinese side attaches great importance to India's position as a major developing country in international affairs. The Chinese side understands and supports India's aspirations to play a greater role in the United Nations, including in the Security Council.

The two sides support and encourage the processes of regional integration that provide mutually beneficial opportunities for growth, as an important feature of the emerging international economic system. The two sides positively view each others' participation in regional processes and agree to strengthen their coordination and consultation within regional cooperation mechanisms including the East Asia Summit, to explore together and with other countries a new architecture for closer regional cooperation in Asia, and to make joint efforts for further regional integration of Asia. The two sides will strengthen their coordination under the framework of Asia-Europe Meeting, and are committed to strengthening and deepening Asia-Europe comprehensive partnership.

---

[691] "A Shared Vision for the 21st Century of the People's Republic of China and the Republic of India," (2008), http://www.fmprc.gov.cn/eng/wjdt/2649/t399545.htm.

The two sides take a positive view on each other's participation in sub-regional multilateral cooperation processes between like-minded countries, including South Asian Association for Regional Cooperation, Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation and Shanghai Cooperation Organization. The two sides hold that this does not affect either country's existing friendly relations or cooperation with other countries.

The two sides welcome the positive facets of economic globalization, and are ready to face and meet its challenges, and will work with other countries towards balanced and mutually beneficial economic globalization. The two sides believe that the establishment of an open, fair, equitable, transparent and rule-based multilateral trading system is the common aspiration of all countries. The two sides favour the early conclusion of the Doha Development Round, placing the issues that affect the poorest of the poor at its core. The two sides are determined to strengthen their coordination with other developing countries in order to secure their shared objectives.

The two sides are convinced that it is in the common interest of the international community to establish an international energy order that is fair, equitable, secure and stable, and to the benefit of the entire international community. The two sides are committed to making joint efforts to diversify the global energy mix and enhance the share of clean and renewable energy, so as to meet the energy requirements of all countries.

The two sides welcome the opportunity for their outstanding scientists to work together in the International Thermonuclear Experimental Reactor (ITER) project, which is of great potential significance in meeting the global energy challenge in an environmentally sustainable manner. As two countries with advanced scientific capabilities, the two sides pledge to promote bilateral cooperation in civil nuclear energy, consistent with their respective international commitments, which will contribute to energy security and to dealing with risks associated with climate change.

The two sides recognize the challenge that humankind faces from climate change. The two sides take the issue of climate change seriously and reiterate their readiness to join the international community in the efforts to address climate change. The two sides also stand ready to enhance technological cooperation between the two countries. The two sides welcome the outcome of the United Nations Framework Convention on Climate Change (UNFCCC) meeting in Bali in December 2007 and agree to work closely during the negotiation process laid out in the Bali Road Map for long term cooperative action under the Convention. The two sides emphasise the importance of addressing climate change in accordance with principles and provisions of the UNFCCC and its Kyoto Protocol, in particular the principle of common but differentiated responsibilities.

The two sides appeal to the international community to move forward the processes of multilateral arms control, disarmament and non-proliferation. Outer space is the common heritage of humankind. It is the responsibility of all space-faring nations to commit to the peaceful uses of outer space. The two sides express their categorical opposition to the weaponisation and arms race in outer space.

The two sides strongly condemn the scourge of terrorism in all its forms and manifestations, and in all regions of the world. The two sides pledge to work together and with the international community to strengthen the global framework against terrorism in a long-term, sustained and comprehensive manner.

The two sides believe that cultural and religious tolerance and dialogue between civilizations and peoples will contribute to overall peace and stability of our world. The two sides endorse all efforts to promote inter-civilizational and inter-faith dialogues.

The two sides believe that their bilateral relationship in this century will be of significant regional and global influence. The two sides will therefore continue to build their Strategic and Cooperative Partnership in a positive way. As major economies in their region, the two sides believe that the strong growth in their trade and economic relations is mutually beneficial, and welcome the conclusion of a Feasibility Study on a Regional Trading Arrangement (RTA) between the two countries. According to the report of the Feasibility Study, a China-India RTA will be mutually advantageous. Against the backdrop of accelerating regional economic integration in Asia, the two sides agree to explore the possibility of commencing discussions on a mutually beneficial and high-quality RTA that meets the common aspirations of both countries, and will also benefit the region.

Appendices

The two sides will continuously promote confidence building measures through steadily enhanced contacts in the field of defence. The two sides therefore welcome the commencement of the China-India Defence Dialogue and express their satisfaction at the successful conclusion of the first joint anti-terrorism training between their armed forces in December 2007. The two sides also welcome their efforts to set an example on trans-border rivers by commencing cooperation since 2002. The Indian side highly appreciates the assistance extended by China on the provision of flood season hydrological data which has assisted India in ensuring the safety and security of its population in the regions along these rivers. The two sides agree that this has contributed positively to building mutual understanding and trust.

The two sides remain firmly committed to resolving outstanding differences, including on the boundary question, through peaceful negotiations, while ensuring that such differences are not allowed to affect the positive development of bilateral relations. The two sides reiterate their determination to seek a fair, reasonable and mutually acceptable solution to the boundary question and to build a boundary of peace and friendship on the basis of the Agreement on Political Parameters and Guiding Principles for the Settlement of the China-India Boundary Question concluded in April 2005. The Special Representatives shall complete at an early date the task of arriving at an agreed framework of settlement on the basis of this Agreement.

The Indian side recalls that India was among the first countries to recognize that there is one China and that its one China policy has remained unaltered. The Indian side states that it would continue to abide by its one China policy, and oppose any activity that is against the one China principle. The Chinese side expresses its appreciation for the Indian position.

The two sides recognize the responsibilities and obligations of the two countries to the international community. The two sides are determined to enhance mutual understanding and friendship between the peoples of China and India, for the betterment of both countries and to bring about a brighter future for humanity.

Wen Jiabao   Dr. Manmohan Singh

Premier of the State Council   Prime Minister of the Republic of India
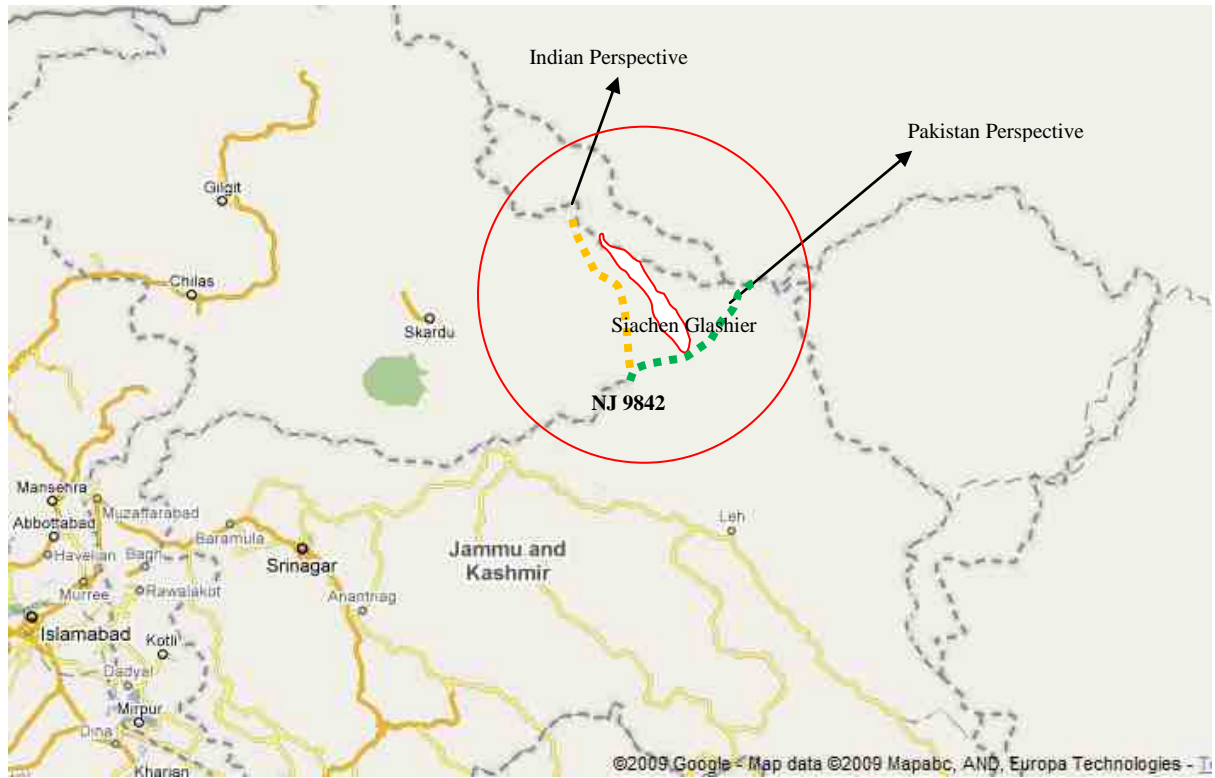
of the People's Republic of China

Beijing

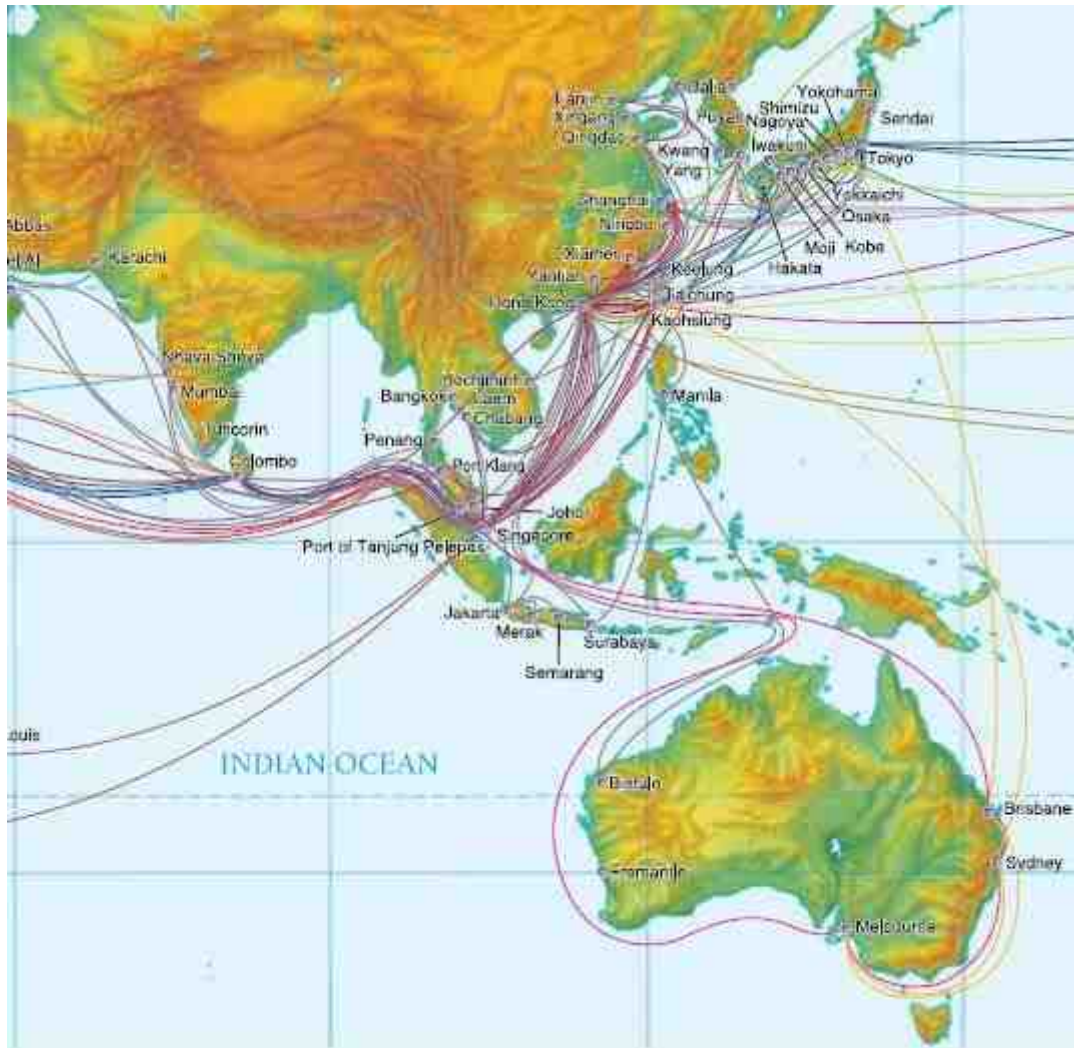**January 14, 2008**

APPENDIX 2

MAPS

Map 1: Siachen Issue between India and Pakistan

Source: Author description on the Google Map

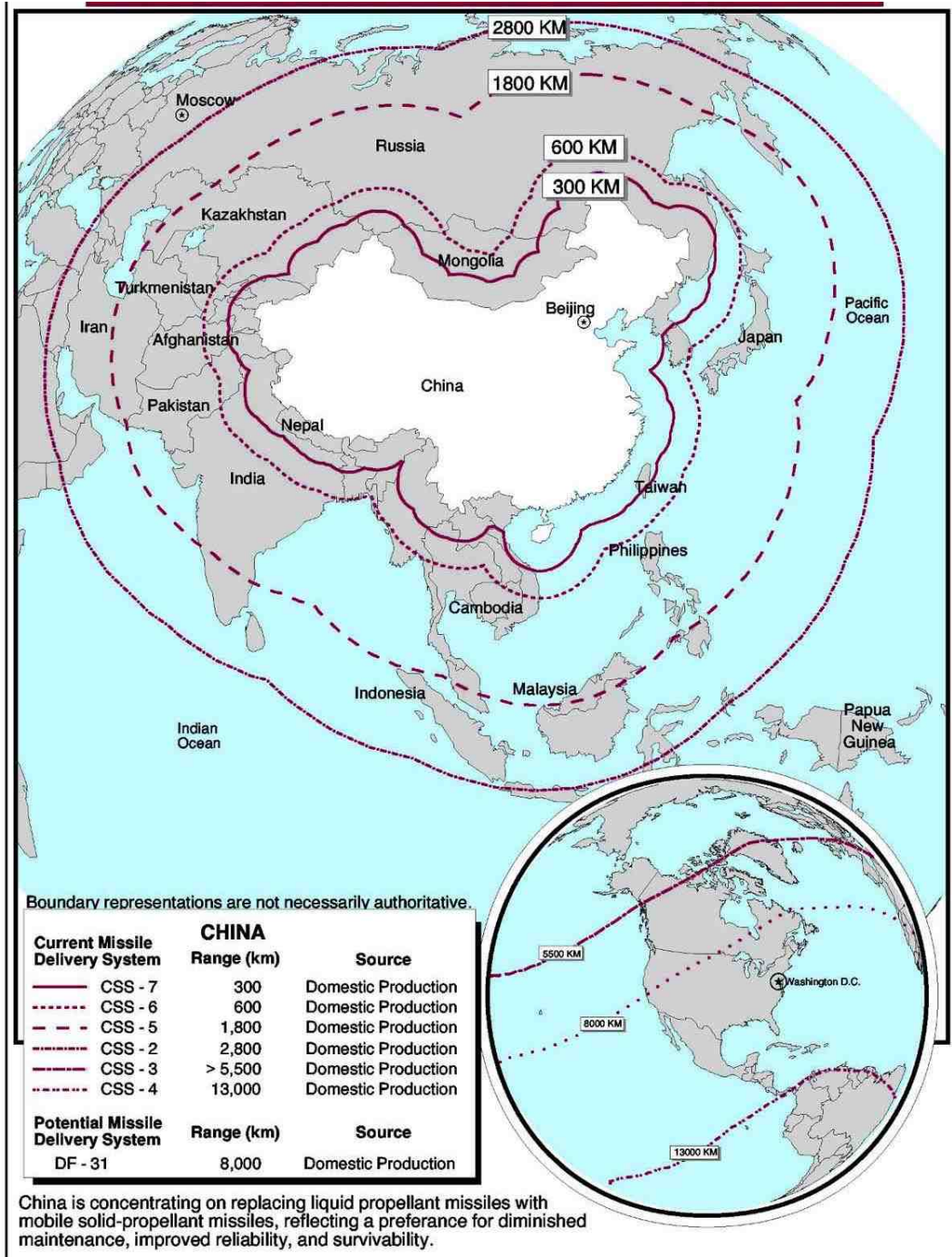## Map 2: Complex Network of Slocs Around Southern Asia

Source: http://www.supplychainleaders.com/assets/images/uploads/A%20Evergreen%20Asia.jpg

**Map 3: Geo-Strategic Environment of Southern Asia**

Source: Author description on the Google Map

Map 4: Estimated Ranges of Current and Potential Chinese Ballistic Missiles

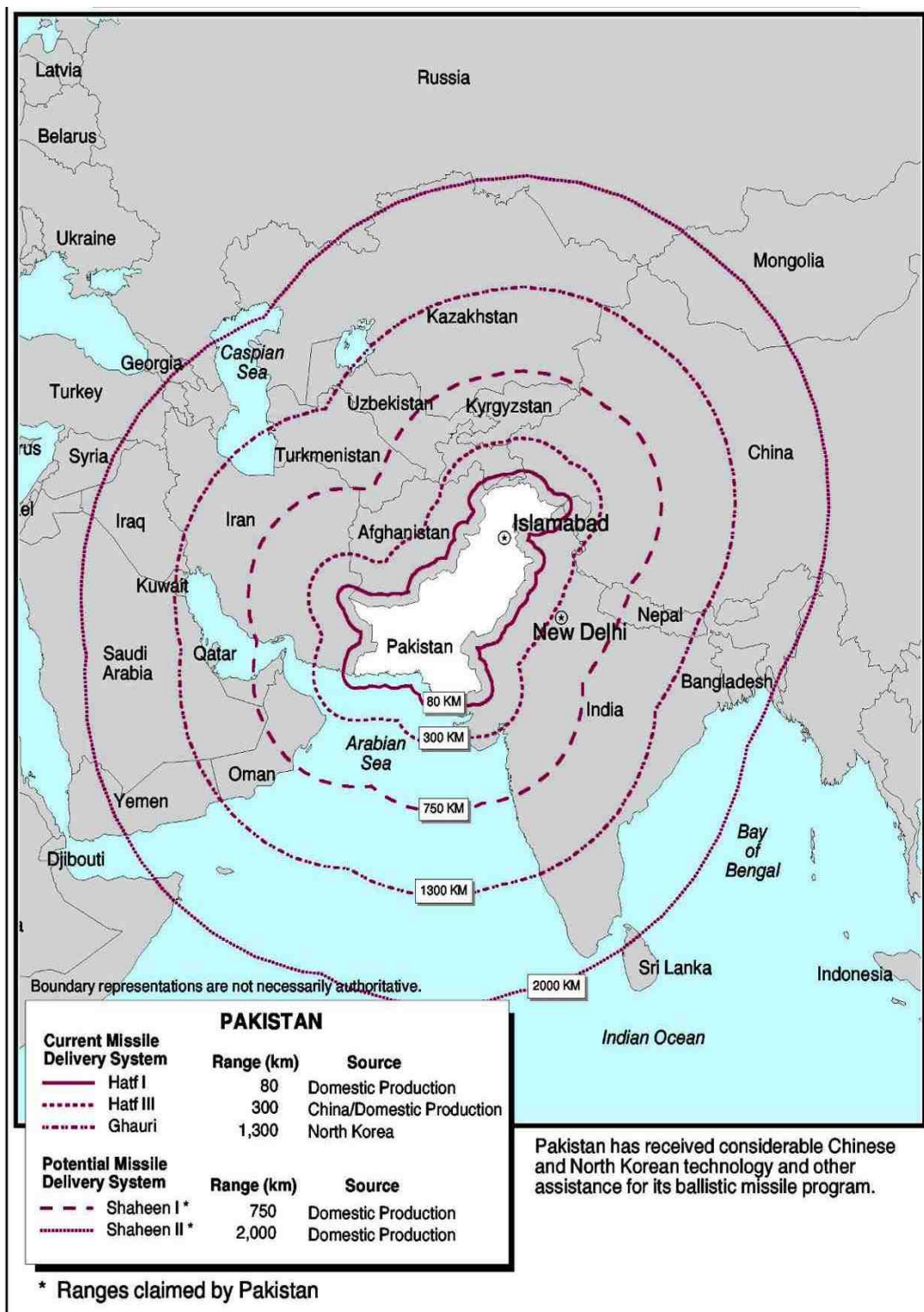*Source:* **"Proliferation Threat and Response January 2001" available from**

http://www.fas.org/irp/threat/prolif00.pdf

Map 5: Estimated Ranges of Current and Potential Indian Ballistic Missile Systems

India continues to test and improve its ballistic missile force.

INDIA

Current Missile Delivery System	Range (km)	Source
Prithvi	150	Domestic Production

Potential Missile Delivery System	Range (km)	Source
Prithvi (AF)	250	Domestic Production
Agni	2,000	Domestic Production

Source: "Proliferation Threat and Response January 2001" available from
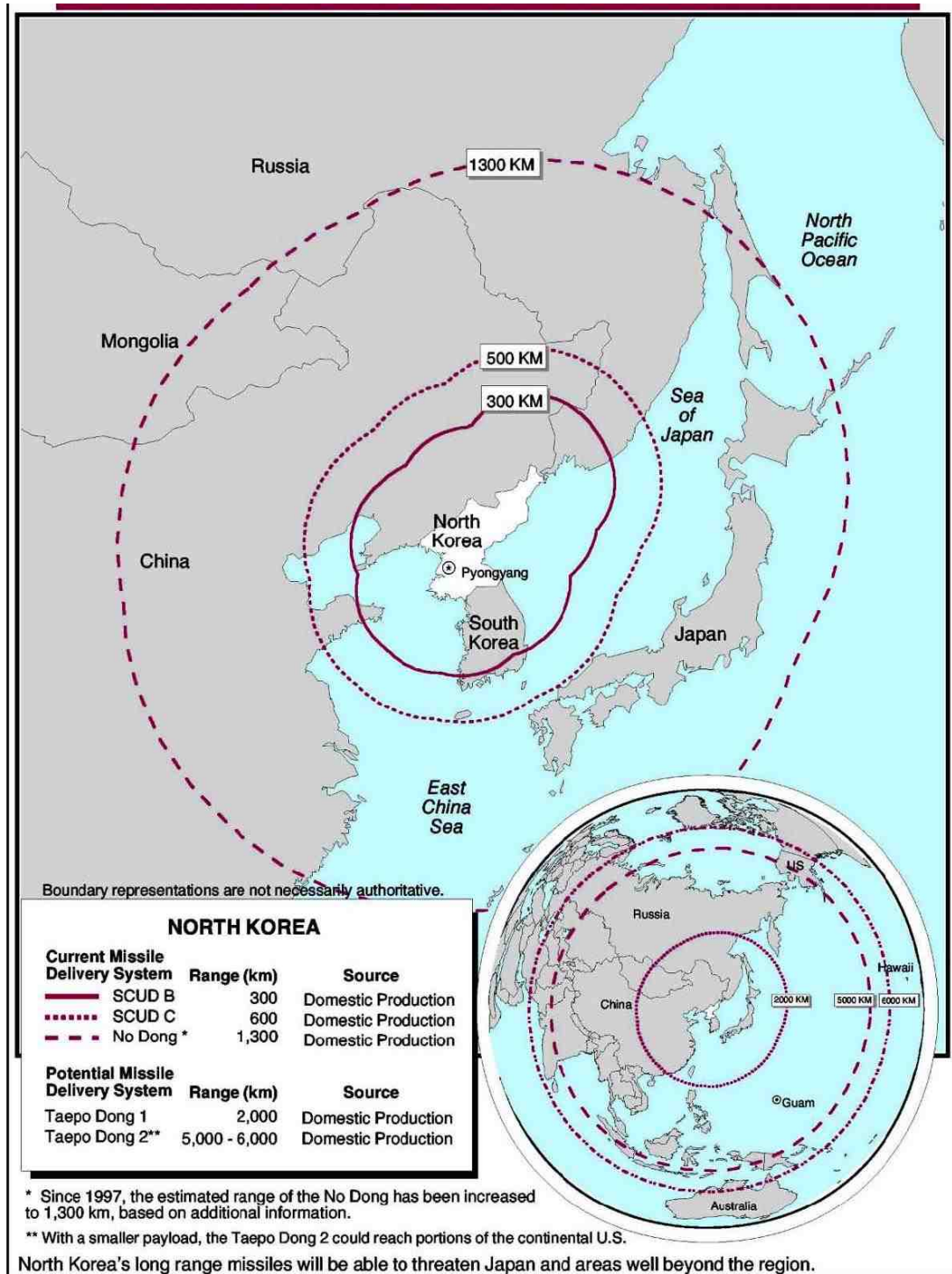
http://www.fas.org/irp/threat/prolif00.pdf

Map 6: Estimated Ranges of Current and Potential Pakistani Ballistic Missiles

Source: **"Proliferation Threat and Response January 2001" available from**

http://www.fas.org/irp/threat/prolif00.pdf
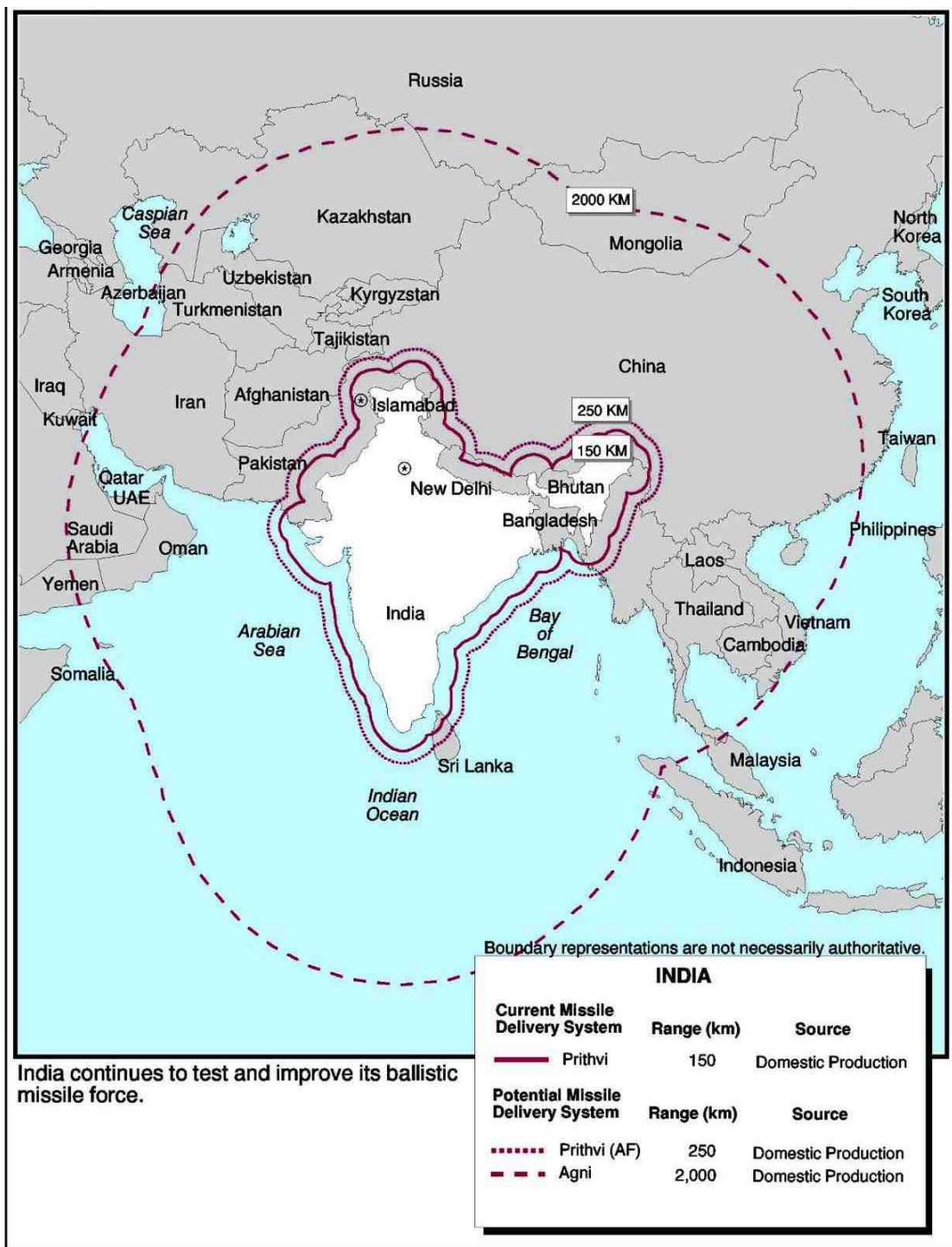
Map 7: Estimated Ranges of Current and Potential North Korean Ballistic Missiles

Source: **"Proliferation Threat and Response January 2001" available from**

http://www.fas.org/irp/threat/prolif00.pdf

Map 8: Estimated Ranges of Current and Potential Iranian Missiles

Belarus

Ukraine

Kazakhstan

Russia

Bulgaria

Kyrgyzstan

Uzbekistan

China

Turkey

Tajikistan

Syria

⊛ Tehran

Afghanistan

Israel Jordan Iraq

Iran

Kuwait

Pakistan

Egypt

Saudi Arabia

UAE

150 KM

300 KM

500 KM

India

Oman

Eritrea

Yemen

Boundary representations are not necessarily authoritative.

IRAN

Current Missile Delivery System	Range (km)	Source
CSS-8	150	China
SCUD B	300	Libya; North Korea
SCUD C	500	North Korea

Potential Missile Delivery System	Range (km)	Source
Shahab 3	1,300	North Korea / Domestic
Taepo Dong 1 *	2,000	North Korea
Taepo Dong 2 *	5,000 - 6,000	North Korea

* Iran has made public reference to future longer range missiles such as Shahab-4 and Shahab-5; however, such missiles could be based on Taepo Dong technology.

North Atlantic Ocean

Iran

South Atlantic Ocean

Indian Ocean

1300 KM

2000 KM

5000 KM

6000 KM

Should Iran receive long range missiles from North Korea, or develop its own, it could threaten a much wider area.

Source: **"Proliferation Threat and Response January 2001" available from**

http://www.fas.org/irp/threat/prolif00.pdf

BIBLIOGRAPHY

Abilov, Shamkhal. "The Russian Influence over the Central Asian Countries in the Context of Kyrgyzstan." *Turkish Weekly* (2010), http://www.turkishweekly.net/article/339/the-russian-influence-over-the-central-asian-countries-in-the-context-of-kyrgyzstan-.html.

"Address by Mr Mohammad Ayub Khan, President of Pakistan 26 September 1962." General Assembly Official Records, 17th session, 1133rd Plenary Meeting.

"Address by Mr. Zulfiqar Ali Bhutto, Foreign Minister of Pakistan 30 September 1963 ". General Assembly Official Records, 18th session, 1220th Plenary Meeting.

Adnan, Abdullah. "Pakistan: Creation and Genesis." *The Muslim World* 96 (April 2006): 201-17.

"Agni-2 Test-Fired." *Tribune*, 18 January 2001.

"Agreement between India & Pakistan on Prohibition of Attack against Nuclear Installations and Facilities December 31, 1988." http://www.sassu.org.uk/html/profiles/Bilateralregional/Jointstatments/BIREGtreaty7.pdf.

"Agreement between India and Pakistan on the Advance Notice of Military Exercises." http://www.stimson.org/print.cfm?SN=sa20020109216.

"Agreement between Pakistan and India on Prevention of Air Space Violation." http://meaindia.nic.in/warterror/kargil/air-agreement.htm.

"Agreement between the Government of the Republic of India and the Government of the People's Republic of China on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas November 29, 1996 (New Delhi)." http://www.stimson.org/southasia/?sn=sa20020114290.

"Agreement between the Government of the Republic of India and the Government of the People's Republic of China on the Political Parameters and Guiding Principles for the Settlement of the India China Boundary Question." (2005), http://www.hinduonnet.com/thehindu/nic/0041/indiachinatxt.htm.

"Agreement between the Republic of India and the Islamic Republic of Pakistan on Pre-Notification of Flight Testing of Ballistic Missiles." http://www.stimson.org/print.cfm?SN=SA20060207949.

"Agreement on Reducing the Risk from Accidents Relating to Nuclear Weapons 21 February 2007." http://www.stimson.org/southasia/?SN=SA200702231219.

"Agreement on the Maintenance of Peace and Tranquility Along the Line of Actual Control in the India-China Border Areas. September 7, 1993." http://www.stimson.org/print.cfm?SN=sa20020114287.

Ahmad, Jamil-ud-din, ed. *Speeches and Writings of Mr. Jinnah*. Vol. 1. Lahore: Muhammad Ashraf, 1952.

Ahmad, Kabir Uddin. *Breakup of Pakistan : Background and Prospects of Bangladesh* London Social Science Publishers, 1972.

Ahmad, Khurshid. "Pakistan: Vision and Reality, Past and Future " *The Muslim World* 96 (April 2006): 363-79.

Ahmed, Firdaus. "Getting It Right: Rereading India's Nuclear Doctrine " (16 May 2008), http://ipcs.org/article/nuclear/getting-it-right-rereading-indias-nuclear-doctrine-2565.html.

Bibliography

Ahmed, Shamshad. "India's Nuclear Doctrine: Implications for Regional and Global Peace and Security." http://www.fas.org/news/pakistan/1999/990907-IndianNucDoc-FS.htm.

Aiyar, Pallavi. "Crisis Challenge for Sino-Indian Trade." *China Business* (20 Feb, 2009), http://www.atimes.com/atimes/China_Business/KB20Cb01.html.

"All About the Siachen Glacier." http://www.siachenglacier.com/.

"Ambassador: India Sees New Cooperation with China ". China.org.cn http://www.china.org.cn/video/2010-02/03/content_19682802.htm

Andreasen, Steve. "Reagan Was Right: Let's Ban Ballistic Missiles." *Survival* 46, no. 1 (2004): 117-29.

Ansari, Shahab. "Indian Soldiers, Intellectuals, Journalists Reach Lahore in Peace Pursuit." *The News International*, 22 April 2010.

Asghar, Raja. "India-Pakistan Missile Tensions Fired Up." *Dawn*, 10 January, 2003 2003.

Balaji, Mohan. "India Being Threatened by China's Expansionist Plans?" *MIL* (4 Feb 2008), http://www.internationalreporter.com/News-Print-3214/india-being-threatened-by-china%E2%80%99s-expansionist-plans-.html

Basrur, Rajesh M., and Stephen Philip Cohen. "Bombs in Search of a Mission: India's Uncertain Nuclear Future." In *South Asia in 2020: Future Strategic Balances and Alliances*, edited by Dr Michael R. Chambers, 489. Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, November 2002.

Beg, Mirza Aslam. "Nuclear Security Imperatives." *The Nation*, 23 June 2008.

Berlin, Donald L. "The Indian Ocean and the Second Nuclear Age." *Orbis* 48, no. 1 (2004): 55-70.

Bernstein, Richard, and Ross H Munro. "Coming Conflict with America." *Foreign Affairs* Vol. 76, no. 2 (March/April 1997): pp. 18–31.

Betts, Richard K. "Incentives for Nuclear Weapons: India, Pakistan, Iran." *Asian Survey* 19, no. 11 (1979): 1053-72.

Betts, Richard K. "Paranoids, Pygmies, Pariahs & Nonproliferation." *Foreign Policy* 26 (Spring, 1977): pp. 157-83.

Bhaksar, Uday. "Ten Years after Pokhran II: Nuclear Stability in Southern Asia." (2008), http://www.carnegieendowment.org/events/?fa=eventDetail&id=1131.

Bhutto, Z. A. *The Myth of Independence*. Lahore: Oxford University Press, 1969.

Bickman, Leonard, and Debra J. Rog. "Applied Research Design: A Practical Approach." In *Sage Handbook of Applied Social Research Methods*, edited by Leonard Bickman and Debra J. Rog. USA, 2009.

Blaikei, Norman. *Approaches to Social Inquiry: Advancing Knowledge*. Cambridge: Polity, 2007.

Booth, Ken. "The Concept of Strategic Culture Affirmed." In *Strategic Power : USA/USSR*, edited by Carl G. Jacobsen, Ken Booth, William H. Kincade and David R. Jones. Basingstoke: Macmillan, 1990.

Borger, Julian, Ewen MacAskill, and Jonathan Watts. "New Diplomatic Priorities Offer Snapshot of Changing World Order." *The Guardian*, 4 March 2006.

Boyes, Roger. "Musharraf Warns India He May Use Nuclear Weapons." Times Online www.nci.org/02/04f/08-06.htm.

Brito, Dagobert, and Amy Myers Jaffe. "Reducing Vulnerability of the Strait of the Hormuz." In *Getting Ready for a Nuclear-Ready Iran*, edited by Henry D. Sokolski and Patrick Clawson. Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2005.

Budania, Rajpal. *India's National Security Dilemma: The Pakistan Factor and India's Policy Response*. New Delhi: Indus Publishing Company, 2001.

Bull, Hedley. *The Anarchical Society: A Study of Order in World Politics*. London: Macmillan, 1977.

Burns, Susan M. "Preventing Nuclear War: Arms Management " In *Nuclear Proliferation in South Asia: The Prospects for Arms Control*, edited by Stephen Philip Cohen. Oxford: Westview Press, 1991.

Buzan, Barry. *The United States and the Great Powers : World Politics in the Twenty-First Century* Oxford Polity, 2004.

Buzan, Barry, and Eric Herring. *The Arms Dynamic in World Politics*. London: Lynne Rienner Publisher, Inc, 1998.

Buzan, Bary. *People, States and Fear: The National Security Problem in International Relations*. Brighton: Wheatsheaf, 1983.

Cabasso, Jacqueline. "Vertical Proliferation." In *NGO Presentations to the 2004 NPT PrepCom*. New York, 2004.

"The Cabinet Committee on Security Reviews Operationalization of India's Nuclear Doctrine." New Delhi: Ministry Of External Affairs, India, 4 January, 2003.

Campbell, John C. "The Gulf Region in the Global Setting." In *The Security of the Persian Gulf* edited by Hossein Amirsadeghi. London: Croom Helm, 1981.

Carpenter, William M, and David G Wiencek, eds. *Asian Security Handbook 2000*. Armonk, N.Y: M.E. Sharpe, 2000.

Carus, W. Seth. *Ballistic Missiles in Modern Conflict*. New York: Praeger, 1991.

Carus, W.Seth. *Ballistic Missiles in the Third World: Threat and Response*, Washington Papers. London: Praeger, 1990.

Chai, Winberg. *The New Politics of Communist China : Modernization Process of a Developing Nation*. Pacific Palisades, California: Goodyear Pub. Co, 1972.

Chakma, Bhumitra. *Pakistan's Nuclear Weapons*. London ;New York: Routledge, 2009.

Chari, P R. "India's Nuclear Doctrine: Confused Ambitions." *The Nonproliferation Review*, no. Fall/Winter (2000).

Chari, P. R. "Declaratory Statements and Confidence Building in South Asia." In *Declaratory Diplomacy: Rhetorical Initiatives and Confidence Building*, edited by Michael Krepon, Jenny S. Drezin and Michael Newbill. Washington, DC: The Henry L. Stimson Center, April 1999.

Chari, P. R., Sonika Gupta, Arpit Rajain, Stiftung Konrad Adenauer, Peace Institute of, Studies Conflict, and Asia Conference on Nuclear Stability in Southern. *Nuclear Stability in Southern Asia*. New Delhi: Manohar Publishers & Distributors, 2003.

Cheema, Pervaiz Iqbal. *The Armed Forces of Pakistan*. Australia: Allen & Unwin, 2002.

Cheema, Pervaiz Iqbal. "Arms Procurement in Pakistan: Balancing the Needs for Quality, Self Reliance and Diversity of Supply." In *Military Capacity and the Risk of War : China, India, Pakistan, and Iran* edited by Eric Arnett, pp 148-60. Oxford: Oxford University Press, 1997.

Chellaney, Brahma. "South Asia's Passage to Nuclear Power." *International Security* vol.16, no. 1 (Summer, 1991): pp. 43-72.

Chengappa, Raj, and Zahid Hussain. "Bang for Bang:Pakistan Claims It Has Evened the Score by Conducting Nuclear Tests. The Situation Now Calls for Extraordinary Statesmanship to Avert a Dangerous Confrontation." http://www.india-today.com/itoday/08061998/cover.html.

Chhibber, Bharti. "India-China Dialogue Process Must Continue." *Mainstream*, no. 38 (9 September 2009), http://www.mainstreamweekly.net/article1610.html

"China's Ballistic Missile Update - 2004." *The Risk Report*, no. 1 (2004), http://www.wisconsinproject.org/countries/china/ChinaBMupdate.html.

Cirincione, Joseph. "The Asian Nuclear Reaction Chain." *Foreign Policy*, no. 118 (2000): 120-36.

Cirincione, Joseph. *Bomb Scare: The History and Future of Nuclear Weapons*. New York: Columbia Univrsity Press, 2007.

Claes, Dag Harald. "The United States and Iraq: Making Sense of the Oil Factor." *Middle East Policy* 12, no. 4 (2005): 48-57.

Cleave, William R. Van, and Harold W. Rood. "A Technological Comparison of Two Potential Nuclear Powers: India and Japan." *Asian Survey* 7, no. 7 (1967): 482-89.

Coffey, Joseph I. "Nuclear Guarantees and Nonproliferation." *International Organization* 25, no. 4 (Autumn, 1971): pp. 836-44.

Cohen, Stephen P. "Issues in South Asia " *Asian Survey,* 15, no. 3 (Mar 1975): pp.202-14.

Cohen, Stephen P. *The Pakistan Army*. Berkley: University of California Press, 1984.

Cohen, Stephen Philip. *India: Emerging Power*. Washington, D.C.: Brookings Institution Press, 2001.

Cohen, Stephen Philip. "The United States and South Asia: Core Interests and Policies and Their Impact on Regional Countries." http://www.brookings.edu/views/speeches/cohens20030811.pdf.

"Concept of the Global Control System for Non-Proliferation of Missiles and Missile Technology (Outline)." http://www.fas.org/nuke/control/mtcr/news/GSC_content.htm#surv_1.

"Confidence-Building Measures in South Asia ". The Henry L. Stimson Center, http://www.stimson.org/?SN=SA2001112047.

Covault, Craig. "Chinese Test Anti-Satellite Weapon." *Aviation Week & Space Technology* (2007), http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=space&id=news/CHI01177.xml. .

Craig, Paul. "Historical Introduction." In *The Future of Land Based Strategic Missiles*, edited by Barbara G. Levi, Mark Sakitt and Art Hobson. New York: American Institute of Physics, 1989.

Cummins, Chip. "As Threats to Oil Facilities Rise, U.S. Military Becomes Protector." *Wall Street Journal*, 30 June 2004, p.A1.

Das, Runa. "Engendering Post-Colonial Nuclear Policies through the Lens of Hindutva: Rethinking the Security Paradigm of India." *Comparative Studies of South Asia, Africa and the Middle East* 22, no. 1-2 (2002): 76-89.

Das, Runa. "Postcolonial (in)Securities, the BJP and the Politics of Hindutva: Broadening the Security Paradigm between the Realist and Anti-Nuclear/Peace Groups in India." *Third World Quarterly* 24 (2003): 77-96.

Davis, Zachary. "The Realist Nuclear Regime." *Security Studies* Spring/Summer (1993).

"Declaration on Principles for Relations and Comprehensive Cooperation between the People's Republic of China and the Republic of India.2003/06/25." http://www.fmprc.gov.cn/eng/wjdt/2649/t22852.htm.

Desch, Michael C. "Culture Clash: Assessing the Importance of Ideas in Security Studies." *International Security* 23, no. 1 (1998): 141-70.

"DF-2 Medium-Range Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df2.asp.

"DF-3 Intermediate-Range Ballistic Missile." (23 May 2009), http://sinodefence.com/strategic/missile/df3.asp.

"DF-4 Intermediate-Range Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df4.asp.

"DF-11/A (M-11) Short-Range Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df11.asp.

"DF-15 (M-9) Short-Range Ballistic Missile." (3 Oct 2009), http://sinodefence.com/strategic/missile/df15.asp.

"DF-21 Medium-Range Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df21.asp.

"DF-31 Intercontinental Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df31.asp.

"DF-31A Intercontinental Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/df31a.asp.

Dierkes, Meinolf, Hans N. Weiler, and Ariane Berthoin Antal, eds. *Comparative Policy Research: Learning from Experience*. England: Gower publishing company, 1987.

"'Diplomatic Marriage' May Break Indo-Pakistan Talks' Deadlock." *The News International*, 22 April 2010.

"Documents on Disarmament 1974." p.147: Government Printing Office:Washington, D.C, May 1976.

Dogan, Mattei, and Dominique Pelassy. *How to Compare Nations: Strategies in Comparative Politics*. Chatham, New Jersey: Chatham House Publishers, Inc, 1984.

Dorothy, Norman, ed. *Nehru: The First 60 Years*. Vol. 2. New York: John Day, 1965.

"'Draft Report of National Security Advisory Board on Indian Nuclear Doctrine' August 17, 1999." Embassy of India, http://www.indianembassy.org/policy/CTBT/nuclear_doctrine_aug_17_1999.html.

Durrani, Major General Mahmud Ali. "Pakistan's Strategic Thinking and the Role of Nuclear Weapons." no. Occasional Paper 37 (July 2004), http://www.cmc.sandia.gov/cmc-papers/sand2004-3375p.pdf).

Epstein, William. "Why States Go -- and Don't Go -- Nuclear." *Annals of the American Academy of Political and Social Science* 430 (1977): 16-28.

Eyre, Dana P., and Mark C. Suchman. "Status, Norms, and the Proliferation of Conventional Weapons : An Institutional Theory Approach " In *The Culture of National Security Norms and Identity in World Politics*, edited by Peter J. Katzenstein. New York: Columbia University Press, 1996.

Fairbank, J.K. "Varieties of the Chinese Military Experience " In *Chinese Ways in Warfare*, edited by Jr F.A. Kierman and J.K. Fairbank. Cambridge: Harvard University Press., 1974.

Faruqi, M.H. "The Muslim Rule in India." *Impact International* 28 (July 1998).

Feaver, Peter D. "Command and Control in Emerging Nuclear Nations." *International Security* 17, no. 3 (1992).

Feickert, Andrew, and K. Alan Kronstadt. "Missile Prolieration and the Strategic Balance in South Asia." *CRS report for Congress; RL32115;* (2003), http://www.fas.org/spp/starwars/crs/RL32115.pdf.

Feng, Huiyun. *Chinese Strategic Culture and Foreign Policy Decision-Making: Confucianism, Leadership and War*. Edited by Sumit Ganguly and Andrew Scobell, Asian Security Studies. London and New York: Routledge, 2007.

Frankel, Francine, ed. *Bridging the Nonproliferation Divide: The U.S. And India*. Lanham, MD: University Press of America, 1995.

Freedmen, Lawrence. *Evolution of Nuclear Strategy*. London: St. Martin's Press, 1993.

Frey, Karsten. "Elite Perception and Biased Strategic Policy Making: The Case of India's Nuclear Build-Up." Universität Heidelberg, 2004.

Gallagher, Nancy. "Verification and Advanced Co-Operative Security." In *Verification Yearbook 2002*, edited by Trevor Findlay and Oliver Meier. London: VERTIC, 2002.

Garver, John W. *Foreign Relations of the People's Republic of China*. Englewood Cliffs, NJ: Prentice-Hall, 1993.

Garver, John W. *Protracted Contest: Sino-Indian Rivalry in the Twentieth Century* Seattle and London: University of Washington Press, 2001.

Glosserman, Brad. "Cross-Strait Confidence Building Measures." *Issues & Insights* 5, no. 2 (February 2005).

Godwin, Paul, and John Schulz. "Arming the Dragon for the 21st Century: China's Defence Modernisation Plans." *Arms Control Today* (December 1993).

Goldstein, Avery. "Robust and Affordable Security: Some Lessons from Second-Ranking Powers During the Cold War." *Journal of Strategic Studies* 15, no. 4 (December 1992).

Goldstein, Avery. "Understanding Nuclear Proliferation: Theoretical Explanation and China's National Experience." In *The Proliferation Puzzle: Why Nuclear Weapons Spread and What Results*, edited by Zachary Davis and Benjamin Frankel. London: Frank Cass Publishers, 1993.

Gould, William. *Hindu Nationalism and the Language of Politics in Late Colonial India*. Cambridge: Cambridge University Press, 2004.

Gray, Colin S. "National Style in Strategy: The American Example." *International Security* 6, no. 2 (1981): 21-47.

Gray, Colin S. "Out of the Wilderness: Prime Time for Strategic Culture." In *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, edited by Jeannie L. Johnson, Kerry M. Kartchner and Jeffrey A. Larsen. New York: Palgrave Macmillan, 2009.

Gray, Colin S. "Strategic Culture as Context: The First Generation of Theory Strikes Back." *Review of International Studies* 25 (1999): 49-69.

Gray, Colin S. "What Rand Hath Wrought." *Foreign Policy*, no. 4 (1971): 111-29.

Gregor, A. James, and Maria Hsia Chang. "Anti-Confucianism: Mao's Last Campaign." *Asian Survey* 19, no. 11 (Nov., 1979): pp.1073-92.

Griffith, Samuel B. *Sun Tzu the Art of War Translated and with an Introduction by Samuel B. Griffith and a Foreword by B.H.Liddel Hart*. London, Oxford, NY: Oxford University Press, 1963.

Haas, Ernst B. "Technological Self-Reliance for Latin America: The OAS Contribution." *International Organization* 34, no. 4 (Autumn 1980).

Haas, Ernst B. "Words Can Hurt You; or, Who Said What to Whom About Regimes." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Hagerty, Devin T., ed. *South Asia in World Politics* Oxford: Rowman and Littlefield Publishers, Inc., 2005.

Hagerty, Devin T., and Herbert G. Hagerty. "India's Foreign Relation." In *South Asia in World Politics*, edited by Devin T. Hagerty. Oxford: Rowman and Littlefield Publishers, Inc., 2005.

Hakeem, Brigadier (ret.) Asad, Brigadier (ret.) Gurmeet Kanwal, Michael Vannoni, and Gaurav Rajen. "Demilitarization of the Siachen Conflict Zone: Concepts for Implementation and Monitoring ". Albuquerque, New Mexico, California: Sandia National Laboratories September 2007

Haqqani, Hussain. "The Role of Islam in Pakistan's Future." *The Washington Quarterly* 28, no. 1 (Winter 2004-2005): pp.85-96.

Harris, William R. "Chinese Nuclear Doctrine: The Decade Prior to Weapons Development (1945-1955)." *The China Quarterly* Jan. - March, no. 21 (1965): pp. 87-95.

Hasenclever, Andreas, Peter Mayer, and Volker Rittberger. *Theories of International Regimes*. New York: Cambridge University Press, 1997.

Hayek, Friedrich A. *Rules and Order*. Vol. 1, Law, Legislation, and Liberty: Chicago University Press, 1973.

Hilali, A.Z. "India's Strategic Thinking and Its National Security Policy." *Asian Survey* XLI, no. 5 (September/October 2001): 737-64.

Holton, J. Jerome, Lora Lumpe, and Jeremy J. Stone. "Proposal for a Zero Ballistic Missile Regime " *Science and International Security Anthology* (1993): 379-96.

Hopf, Ted. "The Promise of Constructivism in International Relations." *International Security* 23, no. 1 (1998).

Hoyt, Timothy D. "Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia." *Asian Survey* 00041, no. 00006 (2001): 956-78.

Hua, Di. "Threat Perception and Military Planning in China: Domestic Instability and the Importance of Prestige." In *Military Capacity and the Risk of War China, India, Pakistan and Iran*, edited by Eric H. Arnett. Oxford: Oxford University Press, 1997.

Huan, Major General Yang. "China's Strategic Nuclear Weapons." http://www.fas.org/nuke/guide/china/doctrine/huan.htm.

Hunt, Michael H. *The Genesis of Chinese Communist Foreign Policy*. New York: Columbia University Press, 1996.

Husain, Ross Masood. "Threat Perception and Military Planning in Pakistan:The Impact of Technology, Doctrine and Arms Control." In *Military Capacity and the Risk of War : China, India, Pakistan, and Iran* edited by Eric Arnett, pp.130-47. Oxford: Oxford University Press, 1997.

Hymans, Jacques E.C. *The Psychology of Nuclear Proliferation*. Cambridge: Cambridge University Press, 2006.

IISS. *The Military Balance 2009: The Annual Assessment Global Military Capabilities and Defence Economics*. London: Routledge, 2009.

"India's Efforts to Enter N-Club." *Dawn*, 21 Novemebr 1964.

"India - Terrorist, Insurgent and Extremist Groups." South Asia Terrorism Portal, http://www.satp.org/satporgtp/countries/india/terroristoutfits/index.html.

"India and the Bomb." *The Pakistan Observer*, 16 November 1964.

"India Can Develop ICBM: Abdul Kalam." *News*, 19 September 2000.

"Indian History in Rocketry." *Missile History* (14 Apr 2006), http://www.bharat-rakshak.com/MISSILES/History.html.

"Indian History in Rocketry." Bharat Rakshak, http://www.bharat-rakshak.com/MISSILES/History.html.

Iqbal, Muhammad. "Presidential Address." In *Thoughts and Reflections of Iqbal*, edited by S.A.Vahid. Lahore: Muhammad Ashraf, 1964.

IV, William H. Mott, and Jae Chang Kim. *The Philosophy of Chinese Military Culture Shih Vs. Li* New York: Palgrave Macmillan, 2006.

Jaffrelot, Christophe. *The Hindu Nationalist Movement in India*. New York: Coloumbia University Press, 1996.

Jalal, Ayesha. *The State of Martial Rule: The Origin of Pakistan's Political Economy of Defence*. Cambridge: Cambridge University Press, 1990.

Jianguo, Major General Wu. "Nuclear Shadows on High-Tech Warfare " http://www.fas.org/nuke/guide/china/doctrine/jianguo.htm

"JL-1 Submarine-Launched Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/jl1.asp.

"JL-2 Submarine-Launched Ballistic Missile." (23 May 2007), http://sinodefence.com/strategic/missile/jl2.asp.

John, Wilson. "Shedding Inhibitions." *Pioneer*, 18 January 2001.

Johnson, Colonel Kenneth D. *China's Strategic Culture: A Perspective for the United States*. Carlisle, PA: SSI, US Army War College June 2009.

Johnson, Jeannie L. "Strategic Culture: Refining the Theoretical Construct." Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/essays/Johnson%20Methods%20essay%20(final%2030%20Oct).pdf.

Johnston, Alaistar Iain. "Prospects for Chinese Nuclear Force Modernization: Limited Deterrence Versus Multilateral Arms Control." In *China's Military in Transition*, edited by David Shambaugh and Richard H. Yang. Oxford: Clarendon Press, 1999.

Johnston, Alastair I. *Cultural Realism : Strategic Culture and Grand Strategy in Chinese History*, Princeton Studies in International History and Politics;: Princeton University Press, 1995.

Johnston, Alastair Iain. "China's Militarized Interstate Dispute Behavior 1949–1992: A First Cut at the Data." In *Chinese Foreign Policy in Transition*, edited by Guoli Liu, 259-93. New York: Aldine de Gruyter, 2004.

Johnston, Alastair Iain. "Cultural Realism and Strategy in Maoist China " In *The Culture of National Security : Norms and Identity in World Politics*, edited by Peter J. Katzenstein. New York: Columbia University Press, 1996.

Johnston, Alastair Iain. "Thinking About Strategic Culture." *International Security* 19, no. 4 (1995): 32-64.

"Joint Declaration by the Republic of India and the People's Republic of China." (2006), http://in.chineseembassy.org/eng/sgxw/2006en/t282045.htm.

"Joint Statement of the Republic of India and the People's Republic of China." (2005), http://www.thehindu.com/thehindu/nic/0041/jointstatement.htm.

Jones, Rodney W. "India's Strategic Culture and the Origins of Omniscient Paternalism." In *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, edited by Jeannie L. Johnson, Kerry M. Kartchner and Jeffrey A. Larsen. New York: Palgrave Macmillan, 2009.

Jones, Rodney W. "India's Strategic Culture." Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/case%20studies/India%20(Jones)%20final%2031%20Oct.pdf.

Kalkat, A S. "A Broad-Spectrum Antidote." *Indian Express*, no. 27 April (1998), http://www.indianexpress.com/res/web/pIe/ie/daily/19980427/11750074.html.

Kampani, Gaurav. "India:Missile Overview." Center for Nonproliferation Studies at the Monterey Institute of International Studies for NTI, http://www.nti.org/e_research/profiles/India/Missile/.

Kampani, Gaurav. "Pakistan:Missile Overview " *NTI Countries Overviews* (2006), http://www.nti.org/e_research/profiles/Pakistan/Missile/index_3066.html.

Kampani, Gaurav. "Stakeholders in the Indian Strategic Missile Program." *The Nonproliferation Review* (Fall - Winter 2003): pp.48-70.

Kan, Shirley A. "China: Ballistic and Cruise Missiles." *CRS Report for Congress* (2000), http://www.opencrs.com/rpts/97-391_20000810.pdf.

Kapur, Ashok. *India's Nuclear Option: Atomic Diplomacy and Decision Making* New York: Praeger, 1976.

Kapur, Ashok. "Peace and Power in India's Nuclear Policy." *Asian Survey* 10, no. 9 (Sep 1970): pp.779-88.

Kapur, S. Paul. "The Kashmir Dispute: Past, Present, and Future." In *The Routledge Handbook of Asian Security Studies* edited by Sumit Ganguly, Andrew Scobell and Joseph Chinyong Liow, xv, 350 p. ; 25 cm. London: Routledge, 2010.

Karp, Aaron. *Ballistic Missile Proliferation: The Politics and Technics*. New York: Oxford University Press, 1996.

Kartchner, Kerry M. "Strategic Culture and WMD Decision Making." In *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, edited by Jeannie L. Johnson, Kerry M. Kartchner and Jeffrey A. Larsen. New York: Palgrave Macmillan, 2009.

Kartchner, Kerry M. "Weapons of Mass Destruction and the Crucible of Strategic Culture." Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/essays/Kartchner%20essay%20on%20WMD%20and%20Strategic%20Culture%20(final%201%20Nov%2006).pdf.

Katzenstein, Peter J. *The Culture of National Security : Norms and Identity in World Politics*, New Directions in World Politics;. New York: Columbia University Press, 1996.

Katzenstein, Peter J., Robert O. Keohane, and Stephen D. Krasner. "International Organization and the Study of World Politics." *International Organization* 52, no. 4 (1998): 645-85.

Katzenstein, Peter J., and Nobuo Okawara. "Japan's National Security: Structures, Norms, and Policies." *International Security* 17, no. 4 (1993): 84-118.

Keohane, Robert O. "The Demand for International Regimes." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Keohane, Robert O., and Joseph S. Nye. *Power and Interdependence*. Boston: Little Brown, 1977.

Khalid, Hanif. "How 'Shaheen' Was Developed " *Jang*, 19 April 1999.

Khalilzad, Zalmay. "Congage China." In *Issue Papers*, 8: RAND, 1999.

Khan, Brigadier Feroz Hassan, Gaurav Rajen, and Michael Vannoni. "A Missile Stability Regime for South Asia." In *Cooperative Monitoring Center Occasional Paper*, 42. Albuquerque, New Mexico: Sandia National Laboratories, 2004.

Khan, Feroz Hassan. "Prospects for Indian and Pakistani Arms Control and CBMs." (2010), webmaster@npec-web.org.

Khan, Feroz Hassan, and Peter R. Lavoy. "Pakistan: The Dilemma of Nuclear Deterrence." In *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, edited by Muthiah Alagappa. Stanford, California: Stanford University Press, 2008.

Kier, Elizabeth. "Culture and French Military Doctrine before World War II." In *The Culture of National Security Norms and Identity in World Politics*, edited by Peter J. Katzenstein. New York: Columbia University Press, 1996.

Kissinger, Henry. *White House Years*. Toronto, Canada: Little Brown & Co 1979.

Kraig, Michael. "The Indian Drive Towards Weaponization: The Agni Missile Program." Federation of American Scientists, http://www.fas.org/nuke/guide/india/missile/agni-improvements.htm.

Krasner, Stephen D. "Structural Causes and Regime Consequences: Regimes as Intervening Variables." *International Organization* 36, no. 2 (1982): 185-205.

Krasner, Stephen D. "Structural Causes and Regime Consequences: Regimes as Intervening Variables." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Krepon, Michael. *A Handbook of Confidence-Building Measures for Regional Security*. 3rd ed. Washington, D.C.: Henry L. Stimson Center, 1998.

Krepon, Michael. "Is Cold War Experience Applicable to Southern Asia?" In *Nuclear Risk Reduction in South Asia*, edited by Michael Krepon. New York: Palgrave Macmillan, 2004.

Krepon, Michael, and Chris Gagné. "Introduction." In *The Stability–Instability Paradox: Nuclear Weapons and Brinksmanship in South Asia* edited by Michael Krepon and Chris Gagné. Washington, D.C.: Henry L. Stimson Center, 2001.

Kristensen, Hans M., Robert S. Norris., and Matthew G. McKinzie. "Chinese Nuclear Forces and U.S. Nuclear War Planning.". Place Published: The Federation of American Scientists and the Natural Resources Defense Council, 2006.

Kristof, Nicholas. "The Rise of China." *Foreign Affairs* Vol. 72, no. 6 (November/December 1993): pp. 59–74.

Lai, David. *Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, Shi*. Carlisle: Strategic Studies Institute (SSI), U.S. Army War College, May 2004.

Lamb, Alastair. *Kashmir : A Disputed Legacy, 1846-1990*. Hertingfordbury: Roxford Books, 1991.

Lantis, Jeffrey S. "Strategic Culture: From Clausewitz to Constructivism." Defense Threat Reduction Agency SAIC USA, http://www.dtra.mil/documents/asco/publications/comparitive_strategic_cultures_curriculum/essays/Lantis%20Strategic%20Culture%20essay%20(final%2030%20Oct).pdf.

Lantis, Jeffrey S. "Strategic Culture: From Clausewitz to Constructivism." In *Strategic Culture and Weapons of Mass Destruction: Culturally Based Insights into Comparative National Security Policymaking*, edited by Jeannie L. Johnson, Kerry M. Kartchner and Jeffrey A. Larsen. New York: Palgrave Macmillan, 2009.

Lapid, Yosef. "Culture's Ship: Returns and Departures in International Relations Theory." In *The Return of Culture and Identity in IR Theory*, edited by Yosef Lapid and Friedrich Kratochwil. Boulder, Colo: Lynne Rienner, 1996.

Lavoy, Peter R. "Islamabad's Nuclear Posture: Its Premises and Implementation." In *Pakistan's Nuclear Future: Worries Beyond War*, edited by Henry D. Sokolski. Carlisle, PA: Strategic Studies Institute, US Army War College, 2008.

Lavoy, Peter R. "Security in South Asia." In *Asian Security Handbook 2000*, edited by William M Carpenter and David G Wiencek, xiv, 349 p. Armonk, N.Y: M.E. Sharpe, 2000.

Legault, Albert, and George Lindsey. *The Dynamics of the Nuclear Balance*. Ithaca and London: Cornell University Press, 1974.

Lennox, Duncan. *Jane's Strategic Weapon Systems: Issue Fifty*. Surrey, UK: Jane's Information Group Limited, 2009.

Lewis, John Wilson, and Di Hua. "Chinese Ballistic Missile Programs: Technologies, Strategies and Goals." *International Security* 17, no. 2 (Fall 1992).

Lewis, John Wilson, and Xue Litai. "The Chinese People's Liberation Army 60 Years On: Transition Towards a New Era Strategic Weapons and Chinese Power: The Formative Years." *The China Quarterly* Dec,1987, no. No. 112. (1987): pp. 541-54. .

Lewis, John Wilson, and Litai Xue. *China Builds the Bomb* Stanford, California: Stanford University Press, 1988.

Lin, Chong -Pin. *China's Nuclear Weapons Strategy—Tradition within Evolution*: Lexington Books, 1992.

Lumpe, Lora. "Zero Ballistic Missiles and the Third World." *Arms Control* 14, no. 1 (April 1994).

Mahapatra, Dr Debidatta Aurobinda. "The Maoist Surge in India." *EPOS Insight*, no. 6 Feb (11 December 2009), http://www.eposweb.org/index.php?option=com_content&task=view&id=49&Itemid=1

Maiese, Michelle. "Confidence-Building Measures." University of Colorado, http://www.beyondintractability.org/essay/confidence_building_measures/.

Malik, Y, and VB Singh. *Hindu Nationalists in India*. Westview: Boulder, CO, 1996.

Maxwell, N. "Forty Years of Folly - What Caused the Sino-Indian Border War and Why the Dispute Is Unresolved." *Critical Asian Studies* 35, no. 1 (2003): 99-112.

Mazari, Dr. Shireen M. "Understanding Pakistan's Nuclear Doctrine." *Strategic Studies* XXIV Autumn, no. 3 (2004).

McCarthy, Timothy V. "India:Emerging Missile Power." In *The International Missile Bazaar*, edited by William C Potter and Harlan W Tenks, pp 201-05: Westview Press, 1994.

McSweeney, Bill. *Security, Identity and Interests: A Sociology of International Relations*. Cambridge: Cambridge University Press, 1999.

Mearsheimer, John J. "The False Promise of International Institutions." *International Security* 19, no. 3 (1994): 5-49.

Mehta, Ashok K. "Missiles in South Asia: Search for an Operational Strategy." *South Asian Survey* vol.11, no. 2 (September 2004): pp.77-192.

"Memorandum of Understanding Signed by the Indian Foreign Secretary, Mr. K. Raghunath, and the Pakistan Foreign Secretary, Mr. Shamshad Ahmad, in Lahore on February 21, 1999." http://www.sassu.org.uk/html/profiles/Bilateralregional/Jointstatments/BIREGtreaty10.pdf.

Menon, Rajan. "In the Shadow of the Bear: Security in Post-Soviet Central Asia." *International Security* Vol. 20, no. 1 (Summer, 1995): pp. 149-81.

Mian, Z., A.H. Nayyar, and M. V. Ramanac. "Bringing Prithvi Down to Earth: The Capabilities and Potential Effectiveness of India's Prithvi Missile " *Science and Global Security* 7 (1998): pp. 333-60.

Mian, Zia, R. Rajaraman, and M. V. Ramana. "Early Warning in South Asia--Constraints and Implications." *Science and Global Security* 11, no. 2-3 (2003): 109-50.

Mian, Zia, and M.V. Ramana. "Beyond Lahore: From Transparency to Arms Control." *Economic and Political Weekly*, no. April (1999): 17-24.

Milhollin, Gary. "India's Missiles - with a Little Help from Our Friends." *Bulletin of the Atomic Scientists* November (1989): pp. 31-35

Miller, Steven E. "Nuclearization of South Asia: Problems and Solutions A Conference Report." In *Nuclearization of South Asia: Problems and Solutions*, edited by P. Cotta-Ramusino and M. Martellini. Como (Italy): UNESCO, LNCV & USPID 1999.

Mistry, Dinshaw, and Mark Smith. "Negotiating Multilateral Instruments against Missile Proliferation." *International Negotiation* 10, no. 3 (2005): 425-51.

Mojtahed-Zadeh, Pirouz. *Security and Territoriality in the Persian Gulf : A Maritime Political Geography*. Richmond, Surrey: Curzon, 1999.

Morgenthau, Hans Joachim. *Politics among Nations: The Struggle for Power and Peace* Brief ed. Boston, Mass: McGraw-Hill, 1993.

"MTCR Guidelines and the Equipment, Software and Technology Annex ". http://www.mtcr.info/english/guidelines.html

"Nag (Cobra) Anti-Tank Missile." GlobalSecurity.org, http://www.globalsecurity.org/military/world/india/nag.htm.

Nawaz, Shuja. *Crossed Swords: Pakistan, Its Army, and the Wars Within*. Oxford: Oxford University Press, 2008.

Nayar, Baldev Raj, and T.V. Paul. *India in the World Order: Searching for a Major-Power Status*. Cambridge: Cambridge University Press, 2003.

Nayar, Baldev Raj, and T.V.Paul. *India in the World Order: Searching for Major-Power Status*. Cambridge: Cambridge University Press, 2003.

Nehru, Jawaharlal. *Jawaharlal Nehru's Speeches*. Vol. I. Delhi :: Publications Division, Ministry of Information and Broadcasting, 1954.

Nehru, Jawaharlal. *Jawaharlal Nehru's Speeches*. Vol. III. Delhi :: Publications Division, Ministry of Information and Broadcasting, 1954.

Noorani, A. G. "India's Quest for a Nuclear Guarantee." *Asian Survey* 7, no. 7 (1967): 490-502.

P.R.Chari. "India's Nuclear Doctrine: Confused Ambitions." *The Nonproliferation Review*, no. Fall/Winter (2000).

P.R.Chari, Pervaiz Iqbal Cheema, and Stephen P. Cohen, eds. *Four Crises and a Peace Process: American Engagement in South Asia*. Washington, D.C: Brooking Institution Press, 2007.

"Pakistan Establishes Nuclear Control Body." Arms Control Today, http://www.armscontrol.org/node/2899.

"Pakistan Successfully Test-Fires Surface-to-Surface Hatf Vi Missile." *Hindustan Times*, 23 February 2007.

"Pakistan to Establish National Security Council." IRNA - Islamic Republic News Agency http://www.globalsecurity.org/wmd/library/news/pakistan/2004/pakistan-040128-irna01.htm).

Pande, Savita. "Chinese Nuclear Doctrine." *Strategic Analysis* XXIII, no. 12 (March 2000).

Pant, Harsh V. "India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India." In *Annual meeting of the American Political Science Association*. Marriott, Loews Philadelphia, and the Pennsylvania Convention Center, Philadelphia, PA, 31 Aug, 2006.

Pant, Harsh V. "India's Nuclear Doctrine and Command Structure: Implications for India and the World." In *International Studies Association 2004 Annual Convention* Montreal, Canada, 17 March 2004.

"Paper Laid on the Table of the House On "Evolution of India's Nuclear Policy" May 27, 1998 ". Embassy of India, http://www.indianembassy.org/pic/nuclearpolicy.htm.

"Paper Laid on the Table of the House on Evolution of India's Nuclear Policy 27 May 1998." *India News Online*, no. May 16-June 15 (1998), http://www.indianembassy.org/inews/mayjune1598.pdf.

Paul, T. V., ed. *The India-Pakistan Conflict: An Enduring Rivalry*. Cambridge: Cambridge University Press, 2005.

Peimani, Hooman. *Nuclear Proliferation in the Indian Subcontinent: The Self-Exhausting "Super Powers" And Emerging Alliances*. Westport, Conn: Praeger, 2000.

"People's Liberation Army Rocket Forces Second Artillery Corps." SOFTWAR, http://www.softwar.net/dongfeng.html.

"PLA Strategic Missile Force (Second Artillery Corps)." SinoDefence.com, http://www.sinodefence.com/armedforces/missile/introduction.asp.

Powell, Ralph. "Maoist Military Doctrine." *Asian Survey* (April 1968).

"Prime Minister's Reply to the Discussion in Lok Sabha on Nuclear Tests on May 29, 1998." *India News Online*, no. May 16 - June 15, http://www.indianembassy.org/inews/mayjune1598.pdf.

"Prithvi." Federation of American Scientists, http://www.fas.org/nuke/guide/india/missile/prithvi.htm.

Puchala, Donald J., and Raymond F. Hopkins. "International Regimes: Lessons from Inductive Analysis." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Puchala, Donald J., and Raymond F. Hopkins. "International Regimes: Lessons from Inductive Analysis." *International Organization* 36, no. 2 (1982): 245-75.

Quadir, Vice Adm (Retd) Iqbal F. "Shahadat by the Naval Aircrew." *Defence Journal* (1999), http://www.defencejournal.com/nov99/naval.htm.

"Quadrennial Defense Review Report 2006." US Dpartment of Defense, http://www.defense.gov/qdr/report/Report20060203.pdf.

Rahman, Fazlur. "Islamic Thought in the Indo-Pakistan Subcontinent and the Middle East." *Journal of Near Eastern Studies* 32, no. 1/2, Jan-Apr. (1973): pp.194-200.

Rajagopalan, Rajesh. "India: The Logic of Assured Retaliation." In *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, edited by Muthiah Alagappa. Stanford, California: Stanford University Press, 2008.

Rajen, Gaurav. "A Survey of Nuclear-Related Agreements and Possibilities for Nuclear Cooperation in South Asia." In *Cooperative Monitoring Center Occasional Paper*. Albuquerque, NM, USA: Cooperative Monitoring Center Sandia National Laboratories, April 2000.

Ramachandran, Sudha. "Maoists Rule India's 'Red Corridor'." *Asia Times Online* (24 Apr 2009), http://www.atimes.com/atimes/South_Asia/KD24Df05.html

Rauf, Tariq. "Accommodation, Not Confrontation." *Peace Research Abstracts* 37, no. 3 (2000).

Rauf, Tariq. "Learning to Live with the Bomb in South Asia: Accommodation Not Confrontation." In *CNS Reports*: Center for Nonproliferation Studies, 1998.

Rice, Matthew. "Russia Proposes Global Regime on Missile Proliferation." Arms Control Association, http://www.armscontrol.org/print/673.

Rice, Secretary Condoleezza. "Secretary Rice Address at Georgetown University Washington, DC on 'Transformational Diplomacy'." (18 January 2006), http://www.state.gov/secretary/rm/2006/59306.htm.

Richter, William L. "Review: [Untitled]." *Pacific Affairs* 77, no. 4 (2004): 763-65.

Rittberger, Volker, ed. *International Regimes in East-West Policies*. London and New York: Printer Publishers Limited, 1990.

Rizvi, Hasan-Askari. "Pakistan's Strategic Culture." In *South Asia in 2020 : Future Strategic Balance and Alliances*, edited by Michael R. Chambers, iv, 499 p. [Carlisle Barracks, PA]: Strategic Studies Institute, U.S. Army War College, 2002.

Rodzinski, Witold. *The People's Republic of China : Reflections on Chinese Political History since 1949* London Collins, 1988.

Rosen, Stephen Peter. "Military Effectiveness: Why Society Matters." *International Security* 19, no. 4 (1995): 5-31.

Rosen, Stephen Peter. *Societies and Military Power : India and Its Armies*, Cornell Studies in Security Affairs;. Ithaca: Cornell University Press, 1996.

Rostow, W. W. *The Prospects for Communist China / W.W. Rostow ; in Collaboration with Richard W. Hatch, Frank A. Kierman, Jr. [and] Alexander Eckstein*. [Cambridge] : New York : London :: Technology Press of Massachusetts Institute of Technology ; John Wiley & Sons ; Chapman & Hall, 1954.

Roy, Denny. "Hegemon on the Horizon? China's Threat to East Asian Security." *International Security* Vol. 19, no. 1 (Summer, 1994): pp. 149-68.

Ruiter, Dick W. P. "Structuring Legal Institutions." *Law and Philosophy* 17, no. 3 (1998): 215-32.

Rusch, Thomas A. "Indian Socialists and the Nuclear Non-Proliferation Treaty." *The Journal of Asian Studies* 28, no. 4 (1969): 755-70.

Rushbrook Williams, L. F. *The East Pakistan Tragedy / [by] L. F. Rushbrook Williams*. London :: Tom Stacey Ltd, 1972.

Sagan, Scott D. "Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb " *International Security* Vol. 21, no. 3 (Winter, 1996-1997): pp. 54-86.

Salik, Naeem. *The Genesis of South Asian Nuclear Deterrence*. Karachi: Oxford University Press, 2009.

Salik, Naeem Ahmad. "Missile Issues in South Asia." *Nonproliferation Review* Summer (2002): pp.47-55.

Salik, Naeem Ahmad. "Pakistan's Ballistic Missile Development Program – Security Imperatives, Rationale and Objectives." *Strategic Studies* XXI Spring no. 1 (2001).

Salik, Siddiq. *Witness to Surrender / by Siddiq Salik*. Karachi ; Oxford :: Oxford University Press, 1977.

Santhanam, K. "Agni-I: A Short-Range N-Missile India Urgently Needs." *Times of India* 27 January 2002.

Sawant, Gaurav C. "Prithvi Adds Muscle to 444 Missile Group." *The Indian Express*, 28 May 2002.

Sawyer, Ralph. D. *The Seven Military Classics of Ancient China*: Westview Press, 1993.

Scobell, Andrew. ""Cult of Defense" And "Great Power Dreams": The Influence of Strategic Culture on China's Relationship with India." In *South Asia in 2020 : Future Strategic Balance and Alliances*, edited by Michael R.Chambers, iv, 499 p. Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2002.

"A Shared Vision for the 21st Century of the People's Republic of China and the Republic of India." (2008), http://www.fmprc.gov.cn/eng/wjdt/2649/t399545.htm.

Shulong, Chu, and Rong Yu. "China: Dynamic Minimum Deterrence." In *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, edited by Muthiah Alagappa. Stanford, California: Stanford University Press, 2008.

Sidhu, Waheguru Pal Singh. "Evolution of India's Nuclear Doctrine." In *CPR Occassional Paper Series 2003-04*. Dharma Marg, Chanakyapuri: Centre for Policy Research, 2004.

Sidhu, Waheguru Pal Singh. "A Languid but Lethal Arms Race " In *India and Pakistan: Peace by Piece*, edited by Kerstin Vignard, 73. Geneva, Switzerland: UNDIR, 2004.

Singh, J. "Against Nuclear Apartheid." *Foreign Affairs* 77, no. 5 (1998): 41-+.

Singh, Jasjit. "The Role of Air Power." In *Securing India's Future in the New Millennium*, edited by Brahma Chellaney. London: Sangam books limited, 1999.

Siouris, George M. *Missile Guidance and Control Systems*. New York: Springer, 2004.

Snyder, Jack. "The Soviet Strategic Culture: Implications for Limited Nuclear Operations." In *RAND Report R2154AF*. Santa Monica: RAND, 1977.

Sohail, Abdullah Tariq. "Waghera Waghera." *Daily Express* (2008), http://www.express.com.pk/epaper/PoPupwindow.aspx?newsID=1100462168&Issue=NP_LHE&Date=20080811.

Sokolsky, Richard, and Tanya Charlick-Paley. *NATO and Caspian Security: A Mission Too Far?* Santa Monica, CA Rand Corporation, 1999.

Sondhaus, Lawrence. *Strategic Culture and Ways of War*. Abingdon Oxon and New York: Routledge, 2006.

Squassoni, Sharon A. "Weapons of Mass Destruction: Trade between North Korea and Pakistan." Congressional Research Service The Library of Congress, http://fpc.state.gov/documents/organization/77721.pdf.

Srivastava, Anupam. "India's Growing Missile Ambitions: Assessing the Technical and Strategic Dimensions " *Asian Survey* Vol. 40, no. 2 (March - April, 2000): pp. 311-41.

Stein, Arthur A. "Coordination and Collaboration: Regimes in an Anarchic World." *International Organization* 36, no. 2 (1982): 299-324.

Stein, Arthur A. "Coordination and Collaboration: Regimes in an Anarchic World." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Stein, Arthur A. "Coordination and Collaboration: Regimes in an Anarchic World." In *Neorealism and Neoliberalism: The Contemporary Debate*, edited by David A. Baldwin. New York: Columbia University Press, 1993.

Strange, Susan. "Cave! Hic Dragones: A Critique of Regime Analysis." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

"Suo Motu Statement by Prime Minister Shri Atal Bihari Vajpayee in Parliament on 27th May, 1998." http://www.fas.org/news/india/1998/05/980527-india-pm.htm.

Syed, A. "Pakistan's Security Problem: A Bill of Constraints." *Orbis* XVI, no. 4 (Winter 1973).

Talbott, Strobe. "U.S. Diplomacy in South Asia: A Progress Report " http://www.mtholyoke.edu/acad/intrel/strobie.htm.

Thapar, Vishal. "Icbms Any Day, Says Kalam." *Hindustan Times*, 17 September 2000.

Thomas, Raju G. C. "Security Relationships in Southern Asia: Differences in the Indian and American Perspectives." *Asian Survey* 21, no. 7 (1981): 689-709.

Thomson, Sir John. "Policy Paths in South Asia: Intersections between Global and Local " In *South Asia in 2020: Future Strategic Balances and Alliances*, edited by Dr Michael R. Chambers. Carlisle Barracks: Strategic Studies Institute, U.S. Army War College, November 2002.

"Traditional Military Thinking and the Defensive Strategy of China', an Address at the US Army War College." *Letort Paper* 1, no. 29 (August 1997).

"Transfer of Power Documents 1942-1947." edited by India Office. London.

"Treaty Compliance: Treaties and Agreements." Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, http://www.dod.gov/acq/acic/treaties/index.htm.

"United Nations Resolutions on Kashmir ". Ministry of Foreign Affairs, Pakistan, http://www.mofa.gov.pk/Pages/UN_Resolution.htm.

Veer, Peter Van Der. *Religious Nationalism: Hindus and Muslims in India* London: University of California Press Ltd, 1994.

Vishwakarma, Arun. "Agni - Strategic Ballistic Missile." bharat-rakshak, http://www.bharat-rakshak.com/MISSILES/Agni.html.

Volker, Rittberger, ed. *Regime Theory and International Relations*. Oxford: Oxford University Press, 1993.

Vora, Batuk. "China Does Not Threaten India." *Himal*, 11 June 1998.

Waever, Ole, Barry Buzan, Morten Kelstrup, and Pierre Lemaitre. *Identity, Migration and the New Security Agenda in Europe*. London: Pinter Publishers Ltd, 1993.

Wang, Wenrong, ed. *Strategic Studies*. Beijing: National Defense University Press, 1999.

Wang, Yeu-Farn. *China's Science and Technology Policy: 1949-89*. Aldershot, England: Avebury Ashgate Publishing, 1993.

Weekes, Richard V. *Pakistan: Birth and Growth of a Muslim Nation*. Princeton, NJ: D. Van Nostrand Company, Inc, 1964.

Weisman, Steven R. "U.S. Clears Vital Gyroscope for Indian Jet Fighter " *New York Times*, 7 April 1988.

Weissman, Steve, and Herbert Krosney. *The Islamic Bomb: The Nuclear Threat to Israel and the Middle East*. New York: Times Books, 1981.

Wendt, Alexander. "Anarchy Is What States Make of It: The Social Construction of Power Politics." *International Organization* 46, no. 2 (1992): 391-426.

Wendt, Alexander. "Identity and Structural Change in International Politics." In *The Return of Culture and Identity in IR Theory*, edited by Yosef Lapid and Friedrich Kratochwil, 47-64. Boulder, Colo: Lynne Rienner, 1996.

"White Paper China 2006: National Defense Policy ". Gov.cn: Chinese Government's Official Web Portal, http://www.china.org.cn/english/features/book/194485.htm.

"White Paper China 2006: The Security Environment." Gov.cn: Chinese Government's Official Web Portal, http://www.china.org.cn/english/features/book/194486.htm.

Wolpert, Stanley. *Jinnah of Pakistan*. Oxford: Oxford University Press, 1989.

Wortzel, Larry M. *China's Nuclear Forces: Operations, Training, Doctrine, Command, Control, and Campaign Planning*: US Army War College SSI, Carlisle, 2007.

Wu, Tianfu, ed. *Trends in Interntional Nuclear Strategic Thought*. Beijing: Junshi Yiwen Press, 1999.

Young, Oran R. "International Regimes: Problems of Concept Formation." *World Politics* 32, no. 3 (1980): 331-56.

Young, Oran R. "Regime Dynamics: The Rise and Fall of International Regimes." In *International Regimes*, edited by Stephen D. Krasner. Ithaca and London: Cornell University Press, 1983.

Zhang, Tiejun. "Chinese Strategic Culture: Traditional and Present Features." *Comparative Strategy* 21 (2002): pp.73-90.

Ziring, Lawrence. "Introduction." In *Pakistan: The Long View*, edited by Lawrence Ziring, Ralph Braibanti and W.Howard Wriggins. Durham, N.C: Duke University Press, 1977.