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Requested date: 2022

Release date: 20 December 2024

Posted date: 13-January- 2025

Source of document: FOIA Request
Director, Information Management Office
ATTN: FOIA/PA
Office of the Director of National Intelligence
Washington, D.C. 20511
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OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE
WASHINGTON, DC

20 December 2024

Reference: ODNI Cases DF-2022-00310, DF-2022-00311, & DF-2022-00314

This letter provides an interim response to three of your Freedom of Information Act (FOIA) request to the Defense Intelligence Agency (DIA) requesting specific theses written by students at the National Intelligence University. As previously noted by DIA, DIA transferred these cases to the Office of the Director of National Intelligence (ODNI) in 2022.

ODNI is processing these requests under the FOIA, 5 U.S.C. § 552, as amended.

This interim response addresses eight of the theses. ODNI determined that one thesis, *Why the United States Needs a Domestic Intelligence Service and How to Make it Work*, falls under the purview of another government agency. It has been referred to them for review and direct response to you. *Non-Lethal Weapons of Mass Disruption* is provided in response to case DF-2022-00311 and *Hollywood Soldier Intelligence Support for SOFTWARE Operations* is for case DF-2022-00314. The other five these were requested under case DF-2022-00310.

During the review process of the seven documents being released directly to you, we considered the foreseeable harm standard and determined that certain information must be withheld pursuant to the following FOIA exemptions:

- (b)(3), which applies to information exempt from disclosure by statute. Specifically, the National Security Act of 1947, as amended:
 - Section 102A(i)(1), 50 U.S.C. § 3024(i)(1), which protects information pertaining to intelligence sources and methods; and
 - Section 102A(m), as amended, 50 U.S.C. § 3024(m), which protects the names and identifying information of ODNI personnel.
- (b)(6), which applies to information that, if released, would constitute a clearly unwarranted invasion of personal privacy.

Be advised, we continue to process your request. If you are not satisfied with this response, a number of options are available. You may contact me, the FOIA Public Liaison, at ODNI_FOIA_Liaison@odni.gov, or the ODNI Requester Service Center, at ODNI_FOIA@odni.gov or (703)-275-1313. You may also submit an administrative appeal to the Chief FOIA Officer, c/o Chief, Information Management Office, Office of the Director of National Intelligence, Washington, DC 20511 or emailed to ODNI_FOIA@odni.gov. The appeal correspondence should be clearly marked "Freedom of Information Act Appeal of Adverse Determination" and must be postmarked or electronically transmitted within 90 days of the date of this letter.

Lastly, the Office of Government Information Services (OGIS) of the National Archives and Records Administration is available with mediation services and can be reached by mail at 8601 Adelphi Road, Room 2510, College Park, MD 20740-6001; telephone (202) 741-5770; toll-free (877) 684-6448; or email at ogis@nara.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Erin Morrison', with a long horizontal flourish extending to the right.

Erin Morrison
Chief, Information Review and Release Group
Information Management Office

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**INDIA'S SEARCH FOR ENERGY SUPPLIES AND POTENTIAL IMPACT
ON U.S. INTERESTS**

by

(b) (6)

Major, USAF
NDIC Class 2009

Submitted to the faculty of the
National Defense Intelligence College
in partial fulfillment of the requirements for the degree of
Master of Science of Strategic Intelligence

June 2009

This thesis has been accepted by the faculty and administration of the National Intelligence University to satisfy a requirement for a Master of Science of Strategic Intelligence or Master of Science and Technology Intelligence degree. The student is responsible for its content. The views expressed do not reflect the official policy or position of the National Intelligence University, the Department of Defense, the U.S. Intelligence Community, or the U.S. Government. Acceptance of the thesis as meeting an academic requirement does not reflect an endorsement of the opinions, ideas, or information put forth. The thesis is not finished intelligence or finished policy. The validity, reliability, and relevance of the information contained have not been reviewed through intelligence or policy procedures and processes. The

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thesis has been classified in accordance with community standards. The thesis, in whole or in part, is not cleared for public release

The views expressed in this paper are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government

ABSTRACT

TITLE OF THESIS: India's Search for Energy Supplies and Potential Impact on U.S. Interests

STUDENT: (b) (6), MSSSI 2009

CLASS NUMBER: NDIC 2009 **DATE:** June 2009

THESIS COMMITTEE CHAIR: Dr. (b) (6)

COMMITTEE MEMBER: Lt Col (b) (6)

As India's economic development continues, its need for additional sources of petroleum products becomes increasingly urgent. This requirement is a significant factor in the formulation of India's foreign policy. The research question this thesis addresses is: "how does India's focus on energy security impact U.S. interests?" Research and analysis is limited to India's policies towards four of its neighbors: Pakistan, Iran, Afghanistan, and China.

This thesis concludes that, with few exceptions, energy concerns do not drive modifications to traditional Indian policies towards these nations. On the contrary, energy security serves to reinforce existing relations. Further, these policies do not have

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much impact on U.S. interests. There are a few areas of overlap; the most significant involves Iran. India and Iran have a longstanding, friendly relationship which is strengthened by their trade relationship. Although trade between these nations is not limited to petroleum products, that sector does represent the bulk of bilateral trade. India's need for this supply stream is so compelling that the U.S. will not be able to persuade India to give it up. Given the friendly nature of Indian-Iranian relations, and recent warmth in U.S.-Indian relations, the U.S. should not interfere with India's policy towards Iran. If U.S.-Iran relations begin to thaw, India could be a valuable intermediary.

In Afghanistan, India and the U.S. both profess a desire for increased stability. Indian activities in Afghanistan actively support this common goal and should be supported by the U.S., while also understanding that part of India's motivation is to counter Pakistani involvement.

Another potential area for joint endeavors is the development of renewable energy solutions. Solar and wind energy resources are abundant in the U.S., India, and China. None of these nations has been able to develop a cost-effective delivery system for power generated from wind or solar farms. A trilateral effort to provide a solution to the delivery problem could facilitate a technical breakthrough while also improving broader relations in a relatively non-political forum.

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CHAPTER 1

Introduction and Background

The primary focus of this thesis is to identify the most significant U.S. interests impacted by India's efforts to secure energy supplies and describe potential impacts on them. India's rapid economic and population growth are driving a dramatically increased demand for energy. Although the government is leading significant efforts to explore domestic reserves and exploit renewable sources of energy, these efforts are not expected to meet projected demand over the next several years. India has made the effort to secure external sources of energy a significant foreign policy focus, not only in an effort to meet domestic demand but also as a strategic counter to China. This thesis will benefit the intelligence community by examining the impact that Indian policies will have on U.S. interests.

The Issue and Research Question

As India executes foreign and domestic policies in hopes of securing energy supplies, the potential impacts on U.S. interests need to be considered. India's search for energy, combined with a desire to counter China strategically, is leading to politically disruptive developments. The Indian desire to trade overland via Pakistan has led to significant stabilization in some aspects of the India-Pakistan relationship. India may also try to build on existing trade agreements with Iran. Both relationships could alter regional dynamics and impact U.S. interests. Domestically, India pursues a variety of renewable energy programs that might lead to a technical breakthrough. The research

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question this thesis will answer is “To what extent will U.S. interests be impacted by India’s efforts to obtain adequate energy supplies to meet domestic demand and how are those interests likely to be impacted?”

Hypothesis and Key Questions

Energy security is increasingly and urgently important to India. Its foreign policy is substantially, but not exclusively, based on securing additional energy supplies to meet domestic demand. Several renewable energy policies are also in play domestically that could lead to additional energy supplies. As these policies are executed, U.S. interests will be impacted. There are several key questions that will lead to a fuller understanding of how India’s pursuit of energy security impacts U.S. interests. What specific U.S. interests are impacted by Indian policies? What Indian interests are driving those policies and how is energy security altering Indian policies? Where do U.S. and Indian interests converge? How is energy security impacting those areas of convergence?

Research Design, Data Collection, and Analytical Strategy

Research Design

This thesis uses the case study method to examine how a specific program, India’s energy policy, changes over time as a result of certain circumstances. In this instance, the relevant circumstance is the changing balance between supply and demand for energy resources. Leedy’s *Practical Research* specifically identifies this kind of scenario as suitable for case study.¹

¹ Paul D. Leedy and Jeanne Ellis Ormrod, *Practical Research: Planning and Design*, 8th ed. (Upper Saddle River, New Jersey: Pearson Education, 2005), 135-36.

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The scope of research, data collection, and analysis for this thesis is limited to case studies on India's domestic energy policy and its foreign policy toward four neighboring nations: Pakistan, Afghanistan, Iran, and China. Limiting research on India's foreign policy to a subset of countries allows for meaningful research and analysis on each relationship, while also providing sufficient breadth to establish patterns. The countries were selected based on the importance of each to U.S. and Indian foreign policy, as well as the critical and complicated ways relations with one of these nations impacts relations with other nations from the same group. Restricting research to a single region also provided coherence for research and analysis.

Data Collection

The qualitative data approach is the most useful to evaluate implementation of Indian energy strategy. Data collection focuses on the multiple domestic and foreign policies India is implementing to achieve energy security. There are three main policies explored: domestic exploration of non-renewable energy sources; development of renewable energy sources; and expansion of oil and natural gas imports. The sources for information are books, scholarly journals, media reporting, and U.S. government reporting.

Analytical Strategy

The analytical strategy used is consistent with that described in Leedy's *Practical Research*. The five steps followed are: organization of details about the case; categorization of data; interpretation of single instances; identification of patterns; and finally, synthesis and generalization.²

² Ibid.

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Literature Review

Books

Several books were reviewed to build a broad understanding of matters related to India. A compilation of *Current History* articles on South Asia edited by Sumit Ganguly, in *South Asia*, describes the evolution of U.S. perspectives on the region following the collapse of the Soviet Union, the emergence of India's booming economy in the 90s, and the aftermath of the 9/11 attacks. Mr. Ganguly is a professor of Indian Cultures and Civilizations at Indiana University, a member of the Council of Foreign Relations, and a well-known scholar and author on issues related to India and Pakistan.

Strobe Talbott's book, *Engaging India*, describes the evolution of U.S.-Indian relations following India's 1998 nuclear test. Mr. Talbott is a former journalist and was Deputy Secretary of State at the time of the 1998 test. He currently serves as President of the Brookings Institute, a centrist think tank. His work provided a unique insight into an era of significant change in this bilateral relationship.

A career officer in the Indian Foreign service, Pavan Varma is an Indian diplomat who writes extensively about his views on Indian culture in his book, *Being Indian*. Mr. Varma addresses several stereotypes of Indian culture held by either foreigners or Indians. He tries to uncover reality by separating the valid elements of some national myths from what he perceives to be the untruths.

Stephen Cohen is former professor at the University of Illinois and a well-respected scholar on India and Pakistan. His books *The Idea of Pakistan* and *India: Emerging Power*, combined with the commentary he provides on the website of the

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Brookings Institute, where he currently serves as Senior Fellow, provided an understanding of the drivers of foreign and domestic policy in India and Pakistan.

The India-China Relationship: What the United States Needs to Know is the result of a joint project between the Woodrow Wilson International Center for Scholars and the Asia Society. Edited by Francine Frankel, a professor at the University of Pennsylvania, and Harry Harding, dean of the Elliott School of International Affairs at George Washington University, the work offers analysis from a wide spectrum of scholars.

Journals

A variety of scholarly journals was surveyed to develop a sound understanding of current thinking regarding issues related to India, foreign affairs, and energy security. A few were particularly useful. The February 2008 issue of *Strategic Insights* provided a broad survey of issues related to global energy security, including matters both political and operational. This journal is published by the Naval Postgraduate School, and provides a perspective well grounded in national security matters, with a focus on U.S. interests based mostly in the culture of the Department of Defense. *The Washington Quarterly* is a journal about international affairs published by the Center for Strategic and International Studies. It also has a U.S.-centric perspective, but draws expertise from a wider pool of authors than does *Strategic Insights*. The World Policy Institute (WPI) publishes a journal called *World Policy Journal* that focuses on progressive analysis of a variety of policies around the world. The WPI attempts to challenge conventional wisdom and publish authors with a wide variety of backgrounds. Finally, the journal offered by the Council on Foreign Relations, *Foreign Affairs*, interprets a variety of

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international issues for the benefit of the U.S. reader in a non-partisan manner drawing on some of the most respected authors available.

Current Media

To monitor current events, major news outlets were followed during research for this thesis. Several U.S. organizations, including *The Wall Street Journal*, *New York Times*, and *Bloomberg*, were tracked for relevant news topics. The British publications *The Economist* and *Financial Times* as well as the Indian organizations, the *Hindustan Times* and *Times of India*, were also routinely reviewed for timely reporting on related topics. It was generally the online presence of each entity that was viewed, as opposed to a physical hard copy of the publication. Topics of particular interest were political and economic developments, the aftermath of the November 2008 Mumbai attacks, and preparations for the April-May 2009 national elections in India.

Blog

One blog, by Gurcharan Das, was routinely monitored for commentary. Mr. Das is a former Proctor & Gamble executive in India. He has written extensively on India, with a focus on business and globalization issues. Although he obtained a degree in Philosophy and Politics from Harvard University before graduating from Harvard Business School, Mr. Das does not have the background of a traditional scholar. His unique background provided a valuable perspective on economic policies.

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CHAPTER 2

Trends in India

Background

India is a country of startling size and diversity. With well over one billion citizens, India is the world's most populous democracy and the nation with the third-largest Muslim population. There are 18 official languages and over 1000 distinct dialects in use by over 2000 ethnic groups within its borders. Every major religion is practiced in India. In such a large, diverse nation it is reasonable to expect a multitude of demanding domestic constituencies. One of those groups is the sizable Muslim minority. Hindus comprise over 80 percent of the population, and their long tradition of secularism reinforces many Indians' vision of a secular, inclusive state. The nation's one-hundred-million-plus Muslim population is not in uniform agreement. The other two significant religious minorities are Christians and Sikhs, but it is unusual to find evidence of religious tension within these groups. Where such religion-based conflict exists, it is typically between Hindu and Muslim factions.

The Muslim Minority

There is a meaningful history of conflict between Muslims and Hindus within modern India. During the movement for independence from Britain, there were Muslim leaders who campaigned alongside Mahatma Gandhi and others. Over time, they began to call for a separate Muslim land within an independent India. When Britain granted independence in the 1947 Partition of India, it divided the territory that had been India

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into two countries: a Muslim Pakistan and a secular Hindu India. War broke out almost immediately between the two nations and mass population migrations ensued. Since then, India and Pakistan have had Muslim populations of approximately equal size, and there have been episodes of large-scale violent conflicts between Muslims and Hindus in India. There is mounting evidence that radical Islam has spread to India. These radical Islamist groups have claimed responsibility for terrorist attacks conducted over the past several years. Observers have mixed views on the origin and motivations of these groups. Many point to Pakistan as the source, raising doubts whether these attacks are motivated by religion or politics.

Terrorist incidents are not new to India, although they have often been domestic in nature. Tension is certainly to be expected in such a large, diverse population, particularly in one that has experienced such an uneven distribution of wealth, and that tension sometimes takes the form of acts of terrorism. That sort of activity need not concern the U.S. so long as it is kept to a level that does not cause instability to spread. Attacks, such as the late 2008 assaults in Mumbai, however, are especially troubling because they could lead to a confrontation between India and Pakistan as well as embolden other terrorist groups. For this reason the U.S. should try to facilitate the legal resolution of the aftermath of that series of attacks.

One reason Indian Muslims may not be as vulnerable to radical Islam is that Muslims have a history of success in India. There have been three Muslim presidents of India, several popular Muslim actors, and many successful Muslim businessmen. The Muslims also have a separate legal code that governs personal matters such as marriage,

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dower, divorce, maintenance, gifts, wills and inheritance.³ Given a population of over one hundred million, it is not surprising that extremists find some welcome, but it is unlikely that an ethno-religious group experiencing such relative success will feel so oppressed as to mount a significant violent campaign.

Sources of Potential Instability

Current projections predict India will surpass China to become the world's most populous nation by 2050 with over 1.6 billion people. Unlike China, India's population will remain fairly young and presumably able to work. This expected boom in population presents several challenges. On the agricultural front, there are doubts whether India's domestic food supply can support a significantly larger populace. Although more than half of India's land mass is arable⁴, it has not incorporated any significant technological improvements to this industry since the Green Revolution of the 1960s, an intense successful campaign to turn India from a food importer to a food exporter. Agricultural concerns are compounded by existing and projected water shortages. Although my research explored these areas in some depth, for the purposes of this topic it is sufficient to state that the agricultural sector presents a source of potential instability because it is antiquated and likely will prove unable to support major population growth. There is also concern about the potential for increased Indo-Pakistan tension surrounding their shared water supply.

³Emory Law School. "Republic of India." Legal Profiles. Available from <http://www.law.emory.edu/ifl/legal/india.htm>. Internet; accessed 26 January 2009.

⁴ Central Intelligence Agency. "World Factbook." India. Available from <https://www.cia.gov/library/publications/the-world-factbook/geos/in.html>. Internet; accessed 12 December 2008.

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India has historically been what is euphemistically called a “low-income” nation. Several generations of national leaders have failed to solve the poverty problem. The largest segments of India’s population have always been poor. Historically that poverty was codified by the caste system and locked in for future generations. Although India has officially discarded the caste system--that change has taken hold in developed areas--it is still pervasive in the rural areas where most Indians live. The overwhelming majority of Indians still lives in relative poverty, despite a rising per capita income. In 2005, 85.7 percent of Indians lived on less than \$2.50 a day, compared with 80.7 percent in the same cohort in Sub-Saharan Africa.⁵

Mumbai, Delhi, and Kolkata are all megacities with populations of over ten million. They all suffer from infrastructure shortfalls in water and power supplies as well as significant transportation deficits. There are huge slums on the periphery of these and other Indian cities. The World Bank estimates that by 2017 India will have an urban population of 500 million and a slum population of 69 million. These slums are logistical and administrative quagmires for the Indian government. They are not able to adequately supply the residents with sufficient housing, drinking water, education, or healthcare. The shortfalls experienced by the residents of these slums will increasingly become a source of instability. The more benign scenarios suggest that the grossly unsanitary conditions present in the slums will incubate disease that will spread to the cities and devastate large populations. Other scenarios include popular uprisings, or perhaps an enterprising leader with a radical Islamist agenda will be able to gain the support of the disenfranchised and use that support to create instability.

⁵ Shaohua, Chen, and Martin Ravallion. "The Developing World Is Poorer Than We Thought, But No Less Successful in the Fight Against Poverty." *The World Bank*, August 2008.

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One of the dangers of life in a slum is that resident who may not have perceived himself to be particularly deprived or oppressed can have a change of perspective when confronted with the relative wealth that even the average middle class urban dweller possesses. These residents often come from poor rural backgrounds where everyone they know has a similar background. It is not until they are made aware of those with a higher standard of living that they begin to feel alienated.⁶ Ted Robert Gurr calls this phenomenon “relative deprivation.” His model presents the following criteria that must be met before an individual will rebel: he must perceive that he is deprived relative to the lot of someone else; he must know the source of his deprivation; he must hope for a better tomorrow; and he must believe that his actions will lead to such an improvement. Currently, it seems that the first condition exists in India’s slums. It does not seem that the second or subsequent conditions are currently being met, but that could change if a talented “identity entrepreneur” emerges and provides residents with an alternate vision.⁷

Another set of circumstances with potential to create fertile ground for a sense of relative deprivation are those surrounding the government’s use of Special Economic Zones. These are geographic areas which the Indian government has set aside with the intent of fostering private industry. The government provides them with streamlined support, special tax breaks, and enhanced infrastructure such as power and water supply systems. Largely viewed as a successful policy, the creation of these zones has resulted in significant economic growth, while simultaneously exaggerating existing inequalities.

These unequal circumstances could accelerate growth of a sense of relative

⁶ This analysis is based on the writings of Ted Robert Gurr, specifically his book Why Men Rebel.

⁷ The phrase “identity entrepreneur” refers to a specific concept taught by Dr. (b) (6) at the National Defense Intelligence College. It refers to a person who acts as a recruiter for a terrorist organization, targeting populations most susceptible to recruitment.

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deprivation similar to what slum residents may experience. Rural residents, who may previously have passively accepted the poor government services they received, become increasingly dissatisfied as they see nearby businesses receive special treatment.

Although neither of these situations seems likely to foment outright rebellion, both are sources of potential instability, and active monitoring could provide warning of potential unrest as events unfold.

Another notable, although considerably smaller, constituency national leaders must address is government bureaucrats. When the British pulled out of India, they left behind a fairly robust government bureaucracy. Given the socialist policies in place in those early years, it is not surprising that this bureaucracy expanded significantly over time. For many years, Indians were properly proud of the effectiveness of government programs and early on were quite happy with their performance. Recently, however, there has been open acknowledgement that the system has calcified and is unresponsive. In a quickly evolving world, Indian bureaucrats, who are mostly chosen from the nation's elite, cling to old ways of doing business. As a result business efforts tend to work around them. Gurcharan Das, a leading Indian businessman, has described this group as "favoring ideas over actions."⁸ The Indian civil service is a group national politicians to whom one must pay attention because they are representative of the elite class, are very powerful, and count over ten million in their number.

Domestic Politics

Congress and the Bharatiya Janata Party

⁸ Das, Gurcharan. "The India Model." *Foreign Affairs*. July/August 2006.

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India has multiple viable national political parties, but two are significantly larger and more powerful than other parties: the Congress Party and the Bharatiya Janata Party. The Communist Party of India is considerably smaller than Congress or BJP, but it has played an important role in coalition governments and is unalterably anti-U.S. and thus warrants monitoring. The Congress Party is the oldest political party in India and a descendant of the movement for independence from Britain. Its roots are in the independence movement and the Gandhi-Nehru families. It has traditionally been secular, socialist, and in favor of a non-aligned foreign policy. Congress enjoyed 30 years of uninterrupted rule beginning with independence in 1947 and extending to the defeat of Indira Gandhi in 1977.

For the first few decades of independence Congress leaders steered Indian foreign policy along a path of non-alliance, claiming not to develop close relations with either the United States or the Soviet Union. They preferred a vision of India as a leader of third world countries, advocating independence for European colonies in Africa and setting an example of strong, successful socialism. Over time, Congress has modified its position regarding socialist economic practices and non-alignment. In 1991, then-Finance Minister Singh began instituting significant economic reforms addressing concerns that India's private sector suffered from too much regulation, protectionism and public ownership. Most commentators agree that these reforms served as the catalyst for the steep economic growth that India has experienced over the past several years. Congress is currently in power, but it has used much of its political capital domestically to secure the recent nuclear agreement with the United States. It is also under intense scrutiny regarding the response to the late 2008 terrorist attacks in Mumbai.

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The Bharatiya Janata Party (BJP), established in 1980, is known for its nationalist philosophy and free trade advocacy. It was while BJP was in power that India conducted nuclear tests in 1998. That public display of nuclear capability was widely construed as the fulfillment of a campaign promise and was broadly indicative of the BJP's commitment to a strong defense and a desire to have India exercise regional leadership. BJP also has a reputation for being anti-Muslim and is widely blamed for the destruction of an important mosque that prompted the most recent round of Muslim-Hindu violence. Although BJP expected to benefit in regional elections held in the aftermath of the November 2008 Mumbai terror attacks, the party lost three of four states to Congress. BJP hopes for better results in the April-May 2009 national elections.

There are several significant philosophical differences between Congress and BJP, but the most relevant to U.S. interests is the strong nationalist approach taken by BJP. It is much more vocal on remaining vigilant towards traditional rivals Pakistan and China. In this regard, it may be the less friendly toward the United States of the two main parties from the U.S. perspective. Despite protestations to the contrary, these two parties have much in common when viewed from the outside. Both are dedicated to India's continued economic growth. When BJP took power in the 1990s, it continued and expanded Congress' reforms. Both parties have executed policies supporting corporate growth. In foreign policy, both have as a primary objective to establish India as a global superpower and are willing to dedicate significant resources to that goal. They both seem to agree that the best way to achieve that recognition is through steep, sustained economic growth and military modernization.

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It is important to note that, although Congress and BJP are by far the largest and most powerful parties, it is quite unusual for either of them to have an outright majority in parliament. It is much more common for the leading party to form a coalition government with other, smaller parties. The necessary alliances inevitably moderate any policies that might be seen as outliers. If BJP ever were to win an outright majority, it would be appropriate to revisit any assessment of India's potential response to a conflict. Presumably, BJP would be more likely than Congress to lead India into armed conflict.

Economic Considerations

For approximately the first half of the twentieth century India's economic growth was on par with its population growth, resulting in an essentially stagnant economy. Upon gaining its independence India was left with strong bureaucratic institutions like the judiciary and police systems, but it suffered an almost complete lack of entrepreneurial spirit. Government leaders quickly turned to socialism as a framework for India's economy and began putting government controls on manufacturing and banking sectors. These decades were marked by anemic economic growth and slowly eroding public respect for the government bureaucracy. The year 1991 was pivotal in India's economic growth, with significant economic reform enabling private business to grow corporate investment significantly. The details of the reforms are not relevant to this thesis; however, the stunning economic growth that resulted from those reforms bears directly on India's increased need for energy imports. Over the past several years annual economic growth has averaged over eight percent.⁹ There are signs that growth will slow

⁹ Ganguly, Sumit. "India Held Back." *Current History*, (November 2008): 369-374.

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as a result of the current global economic crisis, but there are also indicators that India may fare better than most other nations, notably China.

The strength of India's economy today is the "knowledge" sector, composed of such technical services as information technology and engineering. Most Indian export activity originates in this sector, often as corporate call centers outsourced to India or "off-clock" engineering jobs conducted in India while American or European partners are idle. Of all the Fortune 500 companies, 125 have research and development bases in India.¹⁰ This type of employment seems less vulnerable to the current downturn than the cheap manufacturing jobs China has developed so aggressively in recent years. Although it is too early to have data to support this hypothesis, many observers believe that the Indian economy may prove to be more resilient to the current crisis than its Chinese counterpart.

Although the distribution of the Indian economy may prove beneficial, it is largely the result of the "License Raj," a phenomenon that grew out of the Indian bureaucracy. This phrase refers to the prevalence of bribery. India's monolithic civil service has never been conducive to efficient business practices, requiring licenses for practically every step of every endeavor. The "License Raj" is the local bureaucrat that requires personal payment for approval of an applicant's license. Famously resistant to change and rife with graft, India's ten million civil servants are difficult to prod toward change. Private business long ago accepted that to do business in India means either paying off public officials to gain official permission to conduct business or circumventing them altogether and joining the informal, unlicensed economy.

¹⁰ Das, Gurcharan. "The India Model." *Foreign Affairs*. July/August 2006.

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Notoriously cumbersome labor laws are often pointed to as a reason that India's manufacturing sector has never taken off. Once an employee is hired, it is rarely possible to remove that employee, a significant deterrent to prospective employers. The resultant weak manufacturing base appears to be a benefit in the current economic environment.

Another reason to expect that India may be somewhat insulated from the current economic tumult is that three-quarters of the Indian economy is based on domestic demand.¹¹ In a country that is still largely cash-based, the credit crisis can be expected to have a significantly smaller impact than in credit-based nations.

The combination of economic and population growth, added to the explosive growth of the middle class, has resulted in sharply increased Indian demands for oil and natural gas. According to the International Energy Association, Indian consumption of oil products roughly doubled between 1991 and 2006, with equally steep growth in demand projected in the coming years.¹² There is reason to believe, however, that projections may trend down slightly as a result of the current economic downturn. There is evidence, for example, that auto sales are slowing, and automobile use does comprise a significant segment of energy consumption in India. For reasons already discussed, that downward revision will likely be small.

Economic concerns drive both domestic and foreign politics. National leadership from both the Congress and BJP perspectives understands that India's future is inextricably linked to its economic success. Conventional wisdom holds that a projected shortfall in energy supplies is the greatest threat to continued economic success. This

¹¹ Overdorf, Jason. "The Boom From The Bottom." *Newsweek*. 19 January 2009.

¹² "India." International Energy Agency. Available from http://www.iea.org/Textbase/country/n_country.asp?COUNTRY_CODE=IN&Submit=Submit. Internet; accessed 12 October 2008.

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line of thought has led to a dual-pronged approach in the search for additional energy. The first, and preferred, potential solution is to address the shortfall domestically via internal exploration, renewable energy technologies, or nuclear power. Chapter Three explores those avenues in detail, but it is unlikely that any combination of them will develop energy streams adequate to fulfill Indian requirements. Virtually all knowledgeable observers believe that India must dramatically increase oil and gas imports to meet its future energy requirements.

Foreign Policy Considerations

India's situation is relevant to U.S. national security for a variety of reasons, but of most significance is its status as a nuclear power. For this reason alone, the U.S. must remain vigilant in monitoring and occasionally shaping developments in Indian policy and activities. Chapter Four explores in detail U.S. interests relevant to Indian foreign policy. The purpose of this section is to provide background on Indian foreign relations as context for discussions in Chapters Four and Five.

The Partition of India in 1947 was a British attempt to create a segmented Muslim Pakistan, with part of the country to the east of India and the other part to the west, and a secular Hindu India. After coping with the immediate conflict with Pakistan, India quickly embarked on a policy of non-alignment and staked out a position of leadership within the third world while trying to avoid strong ties to the Soviet Union or the United States. For many years India mostly avoided the larger international scene, at least that part dominated by the Cold War. Instead, India focused on regional issues while

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maintaining its status as an advocate for third world development. This philosophy remains a part of the Indian mindset.

The Former Soviet Union

India did develop close ties to the Soviet Union, with notable warmth in the early 1970s after the Nixon administration supported Pakistan in its 1971 war with India. Personal animosity between Prime Minister Indira Gandhi and President Richard Nixon, combined with an Indian desire to strengthen its defense capabilities, led to significant military trade between India and the Soviet Union. Much of India's current military inventory is Soviet-made. India continues to import significant amounts of military equipment from Russia, although it is attempting to diversify its suppliers, notably by opening the bidding on the contract for 126 multi-role combat aircraft to multiple nations. Its longstanding relationship with the Soviet Union, and later with Russia, has frequently influenced India's foreign relations.

Pakistan and China

When Pakistan supported the Afghan resistance against the Soviet invasion of Afghanistan, it damaged Pakistan's relationship with India, further straining an always tenuous relationship. Pakistan and China are India's two nuclear neighbors, and they present the greatest potential threat to U.S. interests. A nuclear confrontation of any kind between them and India is the worst case scenario, and it is the development which requires the greatest U.S. vigilance. It is more challenging to describe a "best case" scenario. Stability within India and in the region is consistent with U.S. interests, and

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there is significant synergy and interrelatedness between the U.S. and Indian economies. India's stated desire is to become a global superpower, but there is no evidence that India is a belligerent state looking to expand its territory. Just the opposite; India appears content to leave border disputes with both China and Pakistan unresolved. Rather, the Indian approach is to gain recognition mostly through its economic might. It is also modernizing its military and has begun to expand its ability to project military power, but this effort seems tied more to a desire for recognition as a global actor and potential counter to China than from any desire to engage in military adventures abroad.

Pakistan is India's most immediate international problem. On the one hand, the two countries have a long history of armed conflict and an unresolved border dispute. Pakistan now has a democratically elected civilian leader whose control of the military is occasionally in doubt. It also has territory that is largely ungoverned and used as a safe haven by terrorists. Since 9/11, Pakistan has become a firm ally of the U.S. in its war on terrorism and has benefitted from significant U.S. financial support. It does not have a stable economic base and, like India, it projects to suffer significant energy shortfalls.

There are hardline domestic factions that frequently make noise about seizing Jammu and Kashmir, the disputed land between India and Pakistan. Those calls are likely to be made whenever hardliners either feel threatened or want to make others – including the U.S. – feel threatened. Other domestic factions believe that the path to Pakistan's economic and national stability and success lies in partnership with India. This line of reasoning seems to have held sway in recent years, as evidenced by the Pakistani commitment to the Composite Dialogue, a formal series of high-level negotiations India and Pakistan have held for the past several years. No real progress has been made on the

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territorial issue, but significant symbolic gains have been on trade issues. The strength of current India-Pakistan relations has been strongly tested by the November 2008 Mumbai attacks. The terrorists are widely believed to have been Pakistanis who trained in Pakistan, and India has called on Pakistan to extradite several individuals allegedly involved in the attacks to stand trial in India. Thus far, Pakistan has refused, but military action does not currently seem to be in the cards. On the Indian side, the need to respond to the attacks has to be balanced against the need to stabilize and improve relations with Pakistan. India believes it needs to partner with Pakistan to secure future energy supplies and to provide some strategic breathing room, so that it can grow its international standing and its focus on China. India perceives that China is its long-term, strategic rival.

India and China also share a disputed border as both claim the Aksai Chin and Arunachal Pradesh territories. The 1962 Sino-Indian war over that border ended with the establishment of the Line of Control, an agreement which both sides currently seem willing to let stand. In the past, the traditional alliances of India to the Soviet Union and China's support of Pakistan have combined to create a necessarily tense relationship. More recently, both China and India have achieved stunning economic success and are on paths to become global powers rivaling the U.S. Although neither country is seeking traditional armed confrontation, both seek to be globally recognized as world powers. It is difficult to identify and define the precise extent and nature of their respective goals, but both countries seek a strategic victory on the world stage. India seems slightly more willing to share that global stage, and, perhaps because of its democratic nature, India seems better able to respond to perturbations on its path. China is more opaque, however,

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and it is difficult to define its views of India and what those views might mean for the U.S. It is clear, however, that one of its objectives to ensure energy security. Chapter Four examines the India-China relationship in greater depth.

Energy Requirements Drive Foreign Policy

India's foreign policy, including but not limited to its nuclear neighbors, is shaped largely by its desire for energy security. In recent years, India has reached out to several countries in an effort to expand and diversify its energy supply. These countries include Afghanistan, Iran, Turkmenistan, Sudan, Russia, and Venezuela. U.S. interests in these relationships are sometimes complicated, and are often inter-related. Indian bilateral relationships are all influenced by energy security concerns. Chapter Four addresses four of these relationships individually, identifies instances where Indian concerns go beyond energy security, and discusses relevant U.S. interests. First, however, Chapter Three explores India's efforts to address its energy shortfalls domestically and identifies U.S. interests that may be impacted by those Indian efforts.

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CHAPTER 3

Possibilities for Self-Sufficiency

India is aggressively pursuing multiple courses of action to meet its urgent requirements for increased energy supplies while focusing on exploiting or creating as much of its indigenous energy resources as possible. Many of these domestically focused efforts have significant international considerations, but in each instance the Indian goal is to meet the greatest possible portion of its energy needs indigenously, without relying on any other country. These efforts are consistent with India's strategic culture, which greatly values self-reliance.

This chapter covers some of the challenges India faces in gaining energy independence, including a shortage of natural resources, a fragmented federal government, and inefficient industry practices. It also highlights the progress made in areas such as domestic exploration and development, the renewable sector, and nuclear energy. Ultimately, India will not be able to meet all of its energy needs domestically and will have to import increasingly large amounts of oil and natural gas.

Challenges

There are many obstacles to energy independence for India, including a shortage of natural resources, an inefficient industrial sector, and a fragmented federal government. India currently imports about 70% of its oil and natural gas because it

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cannot produce these energy streams domestically.¹³ It is widely accepted that India is currently producing as much oil and natural gas as possible from its domestic reserves.

Natural Resources

India makes every attempt to fully exploit its own natural resources. Although it has some substantial oil deposits, the geography is so challenging that exploiting these resources defies current technology. There is no credible entity that claims to have a potential solution to this shortfall. The most plentiful natural resource available for energy generation is coal, which accounts for approximately half of all electricity generation.¹⁴ Current projections indicate coal reserves will prove inadequate by 2050, and India is working to move away from reliance on coal as an energy source.

Water is the second-largest source of electricity generation. Hydro power currently supplies about 30 percent of India's electricity and has long played a large role in delivering power to India.¹⁵ Dams in the northern part of India harness power from large rivers for delivery to commercial and residential customers. This segment of the energy sector also poses a complicated set of challenges for national leadership. In addition to the issue of energy, there is a water shortage problem in India and Pakistan. The Indus River and its tributaries, which run through India before entering Pakistan, are Pakistan's main source of water. The use of the Indus River has created such controversy that in 1960 tensions over it led India and Pakistan to sign a treaty governing the use of

¹³ Mira Kamdar, "India: Richer, Poorer, Hotter, Armed," *World Policy Journal* 15, no. 3 (Fall 2008): 95-107.

¹⁴ Zississ, Carin, "India's Energy Crunch," *Council on Foreign Relations Backgroundler*, 23 October 2007, The Council on Foreign Relations, [<http://www.cfr.org/publication/12200.htm>], Accessed 31 December 2008.

¹⁵ *Ibid.*

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this resource. It has continued to be a source of friction, however, since both countries currently experience water shortages and population growth. Complicating the political situation further is the fact that the river runs through Indian-controlled Kashmir, which remains the subject of a major territorial dispute. India has hydroelectric dams built in this region, with additional projects in various stages of development.¹⁶ Pakistan claims that these projects violate the Indus Water Treaty (IWT). Beyond the political frictions are logistical shortfalls, including a substantial delivery problem. Irrigation systems in both India and Pakistan are old and poorly maintained, resulting in significant water losses via leakage.¹⁷

Industrial sector

There are also numerous inefficiencies in the management of India's current energy delivery systems. The rampant corruption and marginal competence found throughout the Government of India are equally destabilizing in its energy distribution efforts. Power is not reliably available throughout the country, even in major cities, although resources are frequently diverted to cities at the expense of rural populations.¹⁸ For example, the Kashmiris receive little of the power generated by the hydroelectric dams in Kashmir. Power outages are commonplace nationwide. Private corporations frequently supply their own power, which highlights government shortcomings to neighbors that are dependent on government-managed power systems. Although the practice is dangerous, it is fairly common for individuals to tap into the distribution grid and obtain power illegally. It is estimated that as little as half of generated electricity gets

¹⁶ "Hydro-Electric Power," Ministry of Water Resources, <http://wrmin.nic.in/index2.asp?sublinkid=407&langid=1&slid=313> (accessed 18 February, 2009).

¹⁷ Mira Kamdar, "India: Richer, Poorer, Hotter, Armed," *World Policy Journal* 15, no. 3 (Fall 2008): 95-107.

¹⁸ *Ibid.*

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paid for, given this kind of theft as well as the graft typically found in India. Also typical of India are the huge government subsidies which support this sector; approximately 2.5% of GNP goes into power subsidies.¹⁹

Fragmented federal government

The systemic corruption and ineffectiveness in the Government of India is exacerbated by the fragmented national government structure. A quick glance at the directory provided on the website of the Government of India (GOI) identifies four independent ministries with authorities in the energy sector.²⁰ The data presented on the websites of each ministry is not consistent among the ministries. This inconsistency presents challenges for data analysis, but, more importantly, it is indicative of the patchwork of policies that India applies to its energy sector. For the purpose of this thesis I have used a rough average of the statistics I encountered in official government sources, while focusing more on ratios than on raw numbers. There are, for example, a few consistent trends found throughout the sources. Renewable energy seems to provide roughly twice as much electricity as has nuclear power over the past two to four years. Coal is the single largest source of electricity, with power plants along rivers also providing a significant share of electricity nationwide.

In spite of the disjointed nature of the GOI's approach to managing its energy sector, the various ministries are making significant progress in increasing energy production. The Ministry of New and Renewable Energy is actively working with other countries and international corporations in the development of solar, wind, biomass and

¹⁹ John Williamson, "The Rise of the Indian Economy," *American Diplomacy*, http://www.unc.edu/depts/diplomat/item/2006/0406/will/williamson_india.html (accessed January 14, 2009).

²⁰ "Directory," Government of India, <http://goirectory.nic.in/exe.htm#min> (accessed June 14, 2009).

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hydro energy sources. In 2008 this Ministry was involved in hosting the Renewable Energy India 2008 Expo, which included government or corporate representation from 20 countries.²¹ In 2009 the Ministry will continue its involvement by expanding the Expo into the areas of cogeneration, a technology used to capture the heat created in traditional electric plants, and of geothermal energy based on utilization of the earth's constant temperature a few feet below its surface.²²

The Ministry of Petroleum and Natural Gas is working on the full exploitation of indigenous resources, especially the substantial oil deposits. That Ministry plays a role in foreign policy, most prominently in negotiations regarding petroleum trade agreements that bring critically needed supplies into India. It is also involved in discussions on two proposed natural gas pipelines. One would originate in Turkmenistan, traverse Afghanistan and Pakistan, and terminate in India. The second proposed pipeline would originate in Iran, also traverse Pakistan, and terminate in India.

The Ministry of Coal oversees an industry that accounts for about half of all electricity generation in India. The fourth ministry, the Ministry of Power, is responsible for policy formulation, project selection and implementation, administration, and enactment of legislation regarding thermal and hydro power generation, as well as transmission and distribution systems.²³ As mentioned earlier, hydroelectric power plants supply a significant portion of India's electricity, and the Ministry of Power is responsible for the maintenance of existing plants. This Ministry is also responsible for

²¹ Government of India, "Renewable Energy India 2008 Expo: Post Show Report," Ministry of New and Renewable Energy, <http://www.renewableenergyindiaexpo.com/PSR-REI-2008.pdf> (accessed January 14, 2009).

²² Ibid.

²³ "Responsibilities," Ministry of Power, http://powermin.nic.in/JSP_SERVLETS/internal.jsp (accessed June 14, 2009).

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the recently completed power plant along the Indus River that prompted Pakistan to claim the IWT had been violated. There are more proposed plants along Indus tributaries that will generate additional energy--and bilateral tension.

There are two additional ministries with related interests and authorities. The Ministry of Agriculture has within its portfolio efforts to grow specific plants that are used for biomass fuel production.²⁴ The Ministry of Water Resources is responsible for water resources, including irrigation, flooding, ground water management, and Indus Water Treaty compliance.²⁵ As noted above, it is the Ministry of Power, however, which is responsible for the power plants along rivers impacted by the Indus Water Treaty.

Clearly, there are many seams in the federal governing structure when it comes to resource and energy issues. India's government bureaucracy is staffed by ten million civil servants ingrained in a socialist culture that tends to resist most change, but is especially hostile to the concepts of transparency and accountability. It is terribly difficult for individuals working issues within, or in conjunction with, these ministries to accomplish much.

Progress

Notwithstanding these governance hurdles, in its quest for energy independence, India has made meaningful progress both in terms of energy production and policy formulation. In the areas of domestic exploration, renewable resources, and nuclear energy, India has overcome both technical and political challenges. Although further

²⁴ "Ministry of Agriculture," Ministry of Agriculture, <http://goirectory.nic.in/min222.htm> (accessed June 14, 2009).

²⁵ "Functions," Ministry of Water Resources, <http://wrmin.nic.in/index2.asp?sublinkid=531&langid=1&slid=284> (accessed 18 February, 2009).

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domestic exploration is unlikely to discover new oil or gas deposits, the program supporting such exploration has resulted in India allowing unprecedented foreign involvement in domestic matters. On the renewable energy front, India is a global leader in some technologies and has experienced notable successes with wind power generation and biomass fuel development. Perhaps most noteworthy are India's nuclear accomplishments. Until very recently India sourced its entire nuclear program domestically with no outside assistance. The recent U.S.-India civilian nuclear cooperation deal created domestic political turbulence, but it ultimately will offer India the opportunity to expand its nuclear power program.

Domestic Exploration for Oil and Natural Gas

In a significant break from its past philosophy, India has opened domestic exploration efforts to foreign investment over the past several years. Although few expect or hope to find additional oil deposits, there is hope that a foreign firm with experience and expertise not available within India might be willing to invest in the development of technology to extract oil from known deposits. The primary vehicle for this investment has been a program called the New Exploration Licensing Policy, which manages the process of auctioning portions of Indian territory for the purpose of exploration and production of oil and natural gas.²⁶ The eighth round of bidding was scheduled for spring of 2009, but expectations regarding international interest were low, based on current oil prices and the global credit crisis. It is worth noting, however, that

²⁶ "NELP VIII," Ministry of Petroleum and Natural Gas, <http://petroleum.nic.in/nelp8.htm> (accessed June 14, 2009).

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Indian willingness to open such an enterprise to global corporate entities is a significant departure for what is a historically socialist nation averse to foreign investment.

Development of Renewable Resources

India takes renewable energy seriously and has invested in several successful development programs. There is a wide spectrum of efforts, from its premier wind power generation program to smaller efforts in areas including biomass fuel, biodiesel, and solar. Some of these efforts are relatively large. The larger efforts tend to be connected to a delivery grid, while smaller efforts may be directed at supplying local residents with electricity. Even if these efforts achieve stunning success in generating power, however, the results will not meet India's needs. The most significant barrier is the lack of an effective delivery system.

Current technology does not allow the transfer of large amounts of power over great distances, which is the reason that wind and solar generation sites must be near the site of consumption.²⁷ India's natural wind and solar resources are significant, but distant from the large urban and industrial centers that need the power. Absent a technological breakthrough, neither wind nor solar power will meet current or projected energy needs. The scale of the energy requirement is simply too big.

Nuclear Energy

India's Department of Atomic Energy was created in 1948, shortly after India gained independence. Since then, its nuclear research and development programs have

²⁷ "Solar Energy Technologies," Energy Efficiency and Renewable Energy, <http://www1.eere.energy.gov/solar/> (accessed June 14, 2009).

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mastered all elements of the nuclear fuel cycle and established a vibrant nuclear power program. The recent U.S. - India Civil Nuclear Cooperation agreement allows India to purchase nuclear supplies from the Nuclear Suppliers Group (NSG). Given its new access to these critical supplies, as of March 2009 India had already signed supply agreements with French and Russian companies. However, since India has refused to sign the Non-Proliferation Treaty (NPT), the U.S.-India agreement is limited to the civil power generation program.

Most observers agree that an expanded nuclear power program will contribute significantly to meeting Indian energy needs. Even the most optimistic projections, however, leave no doubt that it will be insufficient overall. Even if one assumes the most successful possible outcomes across all of India's domestic efforts, the results would not eliminate the need to import significant amounts of oil and natural gas.

Nuclear Weapons Program

Although India's nuclear weapons program is beyond the scope of this thesis, some discussion of the importance Indians attribute to this program is relevant for the light it sheds on U.S. interests and India's foreign policy. The primary driving force behind India's nuclear weapons program is a desire to counter the nuclear weapons of China and Pakistan. India is very unlikely to launch a nuclear attack. The program is, however, a significant source of national pride due, to some degree, to the lack of foreign assistance in making it a reality.

U.S. interests relating to nuclear weapons are primarily twofold: that they are not used and that the technology not be proliferated. Additionally, U.S. policy claims the

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goal of de-nuclearization, but few observers consider this alternative viable. India is the only country to publicly articulate a no-first-use policy regarding its nuclear weapons. It has committed to not use nuclear weapons against a state lacking nuclear weapons and to only use them against a nuclear-armed state in retaliation for a nuclear strike against India. There is no reason to expect that India would launch a nuclear weapon under circumstances other than in retaliation for a nuclear strike. There is also a strong track record of India as a non-proliferator. India's refusal to sign the NPT is consistent with its history of non-alignment and resistance to external influences.

India has good reasons for maintaining a nuclear arsenal. Its two largest neighbors and chief rivals, China and Pakistan, both have nuclear weapons. China does not appear likely to launch nuclear weapons in the foreseeable future. Pakistan, however, is unstable and is focused almost obsessively on India as the purported source of all its problems. It, thus, makes sense for India to maintain a deterrent capability towards Pakistan.

India's attitude toward China is more complex. The two nations fought a war over Kashmir in 1962, which left an unresolved territorial dispute. China soundly beat India in combat, and it was this defeat that initially aroused Indian interest in a nuclear weapons program. After both that conflict and the 1965 war with Pakistan, India began to look for ways to improve its defense capability. It had a similar introspective response to the 1999 war with Pakistan over Kargil. All of these conflicts left India convinced of its need for a strong defense and for self-reliance. Independent India has always tried to avoid aligning itself too closely with a superpower. These two related traits, of self-reliance and independence, are familiar to Americans, but we do not necessarily admire

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them in another nation. Understanding these basic strands of thought in Indian policymaking will make it easier to navigate and interpret India's foreign policy, the subject of the next chapter.

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CHAPTER 4

India's Foreign Policy

This chapter describes the influence of energy security on Indian foreign policy as related to four of its neighbors. First, there is a brief discussion of Indian strategic culture that provides a framework for the analysis of these bilateral relationships. India's relations with Pakistan, Iran, Afghanistan, and China are each addressed individually. In each instance, significant U.S. and Indian interests are identified and examined for potential overlap. Specific attention is paid to the role of energy security in Indian policy and the impact on U.S. interest. These discussions make no attempt to comprehensively address U.S. or Indian interests related to each nation. Rather, the focus is on identifying issues of interest to both the U.S. and India that are in some way influenced by energy security issues.

Strategic Culture

Indian strategic culture shapes its foreign policy in unique and meaningful ways. A description of some of the factors that impact its policymaking will lay the foundation for later discussions of India's approach to specific countries and foreign policies. Areas that warrant closer examination include India's view of itself, historical and geographic influences, and key differences between U.S. and Indian strategic culture. These differences deserve particular attention to help shape an informed American perspective on Indian tendencies.

How Indians View India

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Superpower Status

India seeks recognition by the global community as a superpower. Publicly, many Indian leaders make the argument that India's economic advances of the past 10-15 years, combined with having the world's second-largest population, justify an acknowledgement of India's ascension to the top tier of the global community. For several years now, India has campaigned for a seat on the UN Security Council. The elite class of Indian society is fragmented, however, and it is not clear that the desire to become more firmly integrated in the global scene is universal.

India has participated in international humanitarian aid efforts, and it frequently touts its status as the world's largest democracy, but it does not have a particular agenda "for export." The U.S., in contrast, almost always tries to justify its foreign policy in terms of supporting democracy and human rights. India rarely attempts to cloak its foreign policy in such noble terms. Rather, its motivations are consistently realist, and India seems to keep moral issues out of its foreign policy. Continuing commitment to a policy of non-alignment demonstrates India's desire to remain independent of the "Great Powers." Although some Indians argue that the world's elite unfairly deny India's status as a superpower, most serious Indian leaders understand that genuine obstacles exist on India's path to superpower status. Most observers agree that India is a "rising" power and not quite ready for the superpower label.

Diversity

India is one of the most diverse nations in the world in terms of ethnicity, religion, language, and politics. Indians rightly take great pride in the centuries of peaceful

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integration of so many different peoples within its borders. It is worth noting, however, that this diversity is relatively static in nature. Although there is dazzling diversity within India, the various groups have all been in place for centuries and the experiences of each group's initial integration are mostly lost to history. The most recent instance of significant migration came in conjunction with partition in 1947, when millions of South Asians moved between India and Pakistan based on their religious identity. That migration was spectacularly bloody, and the aftermath continues to shape relations between the two countries.

Secular Democracy

As in the U.S., India strives to maintain distance between religion and state matters. Although an overwhelmingly Hindu country, there is little effort to impose Hindu beliefs on the population. A vocal group of Hindu nationalists seems to be gaining in popularity, but their emphasis is more on nationalism than on Hinduism. When religious issues surface, they are often rooted in political, not religious, motivations. Religious minorities tend to live in peace and experience relatively little discrimination. There are separate sets of laws that govern "personal" matters, such as marriage, for each major religious group, so that many religious practices are enshrined in law.²⁸

Such religious tolerance has undoubtedly contributed to the continued success of democracy in India. Indian elections are largely considered fair and free by the international community. There are sporadic instances of violence or fraud. When the vast scale of an Indian national election is considered, however, these incidents are minor

²⁸ Emory Law School. "Republic of India." Legal Profiles. Available from <http://www.law.emory.edu/ifl/legal/india.htm>. Internet; accessed 26 January 2009.

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and not indicative of any systemic problems. There are dozens of vibrant regional parties, and some of them are a bit radical, but none of them has enough support to threaten the power of Congress or BJP.

In contrast to the U.S., where the poor do not vote in significant numbers, the poor in India have significant impact on election results. Given the focus of these voters on local matters, the influence their votes have on foreign policy is sometimes happenstance. For example, rural Indian voters were largely unconcerned about the Mumbai attacks as they voted in the April-May 2009 elections and did not respond to BJP calls to bring new emphasis to national security by changing leadership. In India, the relationship between voters and national politicians is based much more on local matters than in the U.S.

Historical & Geographic Influences

Britain ruled India for over 200 years, and the legacy of that rule has permeated Indian culture. India's non-alignment policy, which was instituted almost immediately after partition, has roots in a strong aversion to interference by any outside power. This aversion made sense circa 1947, when India was a third world country struggling to feed its populace. It seems outdated in 2009 now that India is a nuclear-armed nation with a strong global economic presence and a thriving democracy. India currently has little vulnerability to external interference. Because this post-colonial hangover is so divorced from India's present day reality, it will appear foreign to most Americans. It remains critical to understanding Indian actions and policies, however, because it is so pervasive.

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Post-Colonial Hangover

Several attributes of Indian political thought can be traced to its colonial past, including a desire for self-reliance, support for national sovereignty and non-interference, and some sensitivity regarding undue foreign influence. Domestically, the colonial legacy is in evidence in the large, well-organized government bureaucracy and in some lingering effects of the caste system. These elements might be organic to India, but they have been reinforced by India's experience with Britain.

Shortly after India gained its independence from Britain in 1947, it established the Indian Atomic Energy Commission to pursue a nuclear capability. At that time, India was crippled with poverty, at war with Pakistan, and barely able to feed its people. Even under those circumstances, national leaders felt it was appropriate to devote scarce resources to support the pursuit of a nuclear capability. The willingness to commit to such an expensive, long-term goal is representative of Indian strategic culture in many ways. It demonstrates a willingness to sacrifice short-term opportunities for long-term gain. It also shows that Indian leaders rarely put the welfare of the poorest classes at the top of national priorities. Further, it reflects India's desire to set its own course and not rely on any outside power.

Given India's colonial past, it is unsurprising that Indian sentiment is strongly supportive of national sovereignty and non-interference by external parties. This approach is sometimes troubling to U.S. observers. India sometimes appears genuinely indifferent to the fate of foreigners suffering under brutally repressive regimes. Because it does not support the idea of a foreign power's intervention in another nation's domestic matters, India has often been unwilling to condemn such regimes. In fact, there is a

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history of maintaining friendly bilateral relations with most nations. Some U.S. observers find it inconsistent that a thriving democracy, such as India, could do business with nations that maintain no pretense of democratic institutions. India's democracy is not evangelical in the way that American democracy is. Modern American democracy is not limited to domestic practices; on the contrary, a key tenet is providing support to democracy everywhere. This dichotomy between U.S. and Indian perspectives sometimes clouds U.S. analysis because Americans can overlook or misgauge Indian commitment to non-interference.

Domestically, the legacy of colonialism is evident in both obvious and subtle ways. On the more obvious end of spectrum is the structure of the justice system, a well-developed civil service and a modern military establishment. Among the more subtle legacies is the calcification of the caste system. Prior to British occupation, the caste system was rather flexible when compared to its modern manifestation. The British seized on it as a mechanism to categorize a diverse population into classes and impose strict social barriers.²⁹ Today, there is some flexibility in the caste system, but much of the rigidity can be attributed to British influence.

Geography and Recent History

India's geography has kept it relatively isolated historically. In very general terms, India is bordered by the Himalayan mountain range to the north, the Thar Desert to the west, and the Indian Ocean to the south. These natural barriers traditionally protected

²⁹ Kevin Hobson, "The Indian Caste System and the British: Ethnographic Mapping and the Construction of the British Census in India," *The British Empire*, <http://www.britishempire.co.uk/article/castesystem.htm> (accessed May 29, 2009).

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India from frequent invasion. The nations that share borders with India include Afghanistan, Bangladesh, Bhutan, China, Burma, Nepal, and Pakistan. Of them all, Pakistan and China have had the most influence on India's foreign policies.

China and India had few political disputes prior to the 1950s, aside from contested border areas where both nations claim control. Gaining formal control of these areas was not a top priority for either side until the late 1950s. In 1959, tensions began to escalate, culminating in a 1962 war in which China soundly defeated India. During the next few decades, both countries were more concerned with the U.S. and the Soviet Union than with each other. India's relations with the Soviet Union slowly began to improve, while China's relations with the Soviet Union began to cool. China also began to support Pakistan during this period. These trends kept India and China somewhat distant from one another until the end of the Cold War and a later economic boom in both nations.

Pakistan's statehood is a modern British creation. The eastern part of the territory that makes up present-day Pakistan has traditionally been considered a part of India, while the western parts have been allied with Persian influences from its neighbors Iran and Afghanistan. In modern times it was part of British India until partition in 1947. Muslim politicians, led by Muhammad Ali Jinnah, campaigned for the establishment of a Muslim nation and the result was Pakistan. The border established by the British artificially divided the states of Punjab and Bengal and led to the first India-Pakistan war. Millions of people died in both nations and millions more migrated according to their heritage, with Muslims travelling to Pakistan and Hindus and Sikhs moving to India.

The territory of Kashmir is claimed by China, India, and Pakistan. Wars have been fought between India and Pakistan over the territory, most recently in 1999, and

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tensions remain high but Pakistan is more focused on the issue than is India. Neither nation is likely to cede any territory, either to each other or to Kashmir in the event of independence. One crucial reason for the steadfastness on both sides is water. Most of Pakistan, and much of northern India, uses water that originates in Kashmir. Both nations face water shortages and booming populations. For reasons both parochial and practical, India and Pakistan are both dedicated to obtaining formal control of Kashmir. Although China maintains its claim to Kashmir, it has not recently been the subject of much attention.

Key Differences Between U.S. and Indian Strategic Culture

India and the U.S. share many traits, not least of which is that both are large, diverse democracies. Both protect the rights of religious and ethnic minorities, encourage economic growth, honor individualism, and hold pride in the uniqueness of their cultures. For India and the U.S., that pride is sometimes perceived as arrogance. There are also significant differences, however, and these should inform any analysis of Indian foreign policy. Indian policy is patient, focused on the long-term, and lacking the evangelism so often present in U.S. thought.

The patience of Indian policy should not be underestimated. There are not many issues that India perceives require immediate resolution. A domestic example is the devastating poverty that grips the majority of Indians. Although politicians have talked about addressing it for decades, there is little evidence that national leaders consider fighting poverty a top priority. Rather, they seem content to watch hundreds of millions of Indians living in abject poverty, while pursuing other national interests.

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A direct corollary of Indian patience is strong focus on long-term outcomes. Indian leaders are in no rush to resolve the issue of Kashmir. Perhaps they believe they can wait out both Pakistan and China or perhaps they believe the cost of resolution is too high for what India could hope to gain under current circumstances. Either way, India is clearly prepared to leave this issue on the table indefinitely or until the situation tilts in India's favor. A recent example of India's willingness to set aside current issues in favor of long-term opportunities is the national response to the November 2008 Mumbai attacks. Given the Pakistani origins of the attackers, there was ample reason for India to ratchet up tensions and perhaps move troops to the Pakistani border. India chose to pursue a more diplomatic course of action, however, ignoring emotional responses to the terrorist attacks and avoiding an armed confrontation with Pakistan. The U.S., in contrast, promised retribution within days of the attacks it suffered in 2001 and had armed forces on the ground in Afghanistan within weeks of the 9/11 attacks.

Another significant difference between the two nations is that India lacks America's desire to export its ideals. The U.S. is dedicated to supporting democracy and human rights around the world. This public commitment frequently causes U.S. policy to be described as hypocritical when national interests lead the U.S. to partner with oppressive regimes. India does not have that problem. Although proud of its heritage as the world's largest democracy, India does not feel compelled to promote the spread of democracy or to defend the rights of the citizens of other nations. This approach may have originated in the aftermath of colonialism, when Indian leaders most ardently promoted non-intervention, but they quickly learned that it is a cost effective approach

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that permits India significant latitude in the international arena. Regardless of the origins of this approach, it is one that India will not abandon readily.

India – Pakistan

India's Interests

India's interests in Pakistan are not clear cut. Logic seems to indicate that India would want its neighbor to have a stable government, but that is not necessarily the case. India's primary focus for many years has been the growth of its own economy, which leads directly to its quest for additional energy streams. Two promising sources are the proposed natural gas pipelines, both traversing Pakistan. Given Indian priorities, one might reasonably expect India to be interested in stabilizing Pakistan, so that these projects might move forward.

Relations between these two nations are often not reasonable, however. Given their brutal shared history, emotions sometimes trump logic. Although India seems more prepared than Pakistan to move forward and away from the past, it would be a mistake to underestimate the emotional baggage of the history between these two nations. In addition to the emotional residue of several decades of conflict, there are legitimate reasons India might not want stability in Pakistan. Elements of Pakistani leadership, particularly the army, are obsessed with India and the idea of gaining control of Kashmir. India's leaders understand this obsession and may believe that India is more secure if this group of Pakistanis is forced to focus on something else, such as the Taliban insurgents in the FATA region and Afghanistan.

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India and Pakistan both have publicly committed to improving relations, notably via multiple rounds of the Composite Dialogue, a formal series of high-level negotiations. That commitment is often not followed through with corresponding actions. Both nations seem to recognize that the best way to improve relations is to increase economic cooperation, but there has been very little progress in that arena. Certainly both nations would benefit tremendously if either proposed pipeline project were to come to fruition, but neither side has found the potential benefit compelling enough to set aside the distrust that characterizes their relationship.

U.S. Interests

As articulated in the recently released “White Paper of the Interagency Policy Group’s Report on U.S. Policy toward Afghanistan and Pakistan,” U.S. policy toward Pakistan is closely linked to U.S. policy toward Afghanistan.³⁰ The U.S. wants Pakistan to focus on fighting extremist groups that currently operate in both Afghanistan and Pakistan. The U.S. also commits to a broad array of activities aimed at stabilizing the Pakistani government.

Although the White Paper does not address it, there is some concern regarding Pakistan’s nuclear arsenal. Given the fractious nature of Pakistan’s leadership, and the fact that elements within the army and intelligence service are sympathetic to the Taliban, some observers wonder if an extremist group might be able to acquire a nuclear device from Pakistan. This scenario is unlikely but quite troubling.

³⁰ “White Paper of the Interagency Policy Group's Report on U.S. Policy toward Afghanistan and Pakistan,” White House, http://www.whitehouse.gov/assets/documents/Afghanistan-Pakistan_White_Paper.pdf (accessed May 29, 2009).

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U.S. and India Interests in Alignment or Conflict?

U.S. and Indian interests converge only to a certain extent in Pakistan. The U.S. wants Pakistan to focus on fighting extremists and then turn towards stabilization efforts as a way to deny the possible return of the extremists. Pakistan, however, seems for the most part to be playing along halfheartedly with the U.S. regarding the extremists in order to maintain goodwill and the flow of aid. Once that course is played out, Pakistan will most likely turn its attention to Kashmir and India, not to its internal affairs. Since India understands that, its instinct is to not support efforts to strengthen or stabilize Pakistan.

Kashmir often dominates discussions of India-Pakistan relations, but, because peaceful resolution is so unlikely, it is not in the best interests of the U.S. to tackle that issue. Pakistan will consistently push the U.S. to make Kashmir a top priority, but there is little incentive for the U.S. to take on Kashmir. Peaceful resolution is highly unlikely under any circumstances, and it is not at all clear that Pakistan would then turn inward and work to strengthen democratic institutions, improve education, or ramp up efforts in the fight against terrorist groups. It is much more likely that Pakistan would focus even more keenly on India, regardless of the fate of Kashmir.

Generally, India would prefer to ignore Pakistan to the greatest extent possible and to focus on its own economic growth and power projection. Although India wants resolution in Kashmir, its leaders are willing to wait until circumstances are more favorable to force the issue. If the U.S. wants Indian support towards the stabilization of Pakistan, the Indians will require significant incentives. U.S. support for a seat on the

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UN Security Council is a possibility, but once given, the U.S. will have little residual leverage with India. The best course of action for the U.S. may be to monitor India's activities and not to interfere unless India appears to be actively supporting efforts to destabilize Pakistan.

Role of Energy Security

In Pakistan, India's energy concerns will remain secondary as other issues take center stage. Overall, India's interests in Pakistan seem in conflict with U.S. interests, specifically regarding the stability of the Pakistani government. Although India has meaningful energy security interests in Pakistan, specifically the proposed pipelines that would need to traverse Pakistani territory, these interests are not likely to dominate India's policy toward Pakistan. Energy security is a relatively minor consideration in this bilateral relationship. It is a significant concern for both nations in a broad sense, but it recedes in light of the perpetually fractious state of India-Pakistan affairs.

The lingering talks about these pipelines do offer the U.S. some potential future leverage. If relations between the two nations ever stabilize, the U.S. could offer some support to the projects. Depending on the state of U.S. relations with Iran, a show of support for the IPI pipeline could potentially find favor in all three participating nations. Given the longstanding U.S. opposition to the project, a reversal might be a useful way to warm U.S. relations in the region, if the circumstances warrant such a dramatic departure from past policy.

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India – Iran

India's Interests

Over the past several years, India has worked to establish a multi-dimensional relationship with Iran based primarily, but not exclusively, on energy and commercial interests. U.S. observers sometimes make the mistake of focusing exclusively on the energy aspect of the India-Iran relationship. That may be the most dominant influence on bilateral relations, but there are other important aspects to this relationship. Other topics for consideration include: military engagement; Iran's nuclear program; India's domestic audience; and the impact of U.S. interests on Indo-Iranian relations.

Energy

There are several reasons, beyond the simple supply and demand balance, to anticipate a robust petroleum arrangement between Iran and India. Iran has the world's third largest proven oil reserves and, given the current sanctions levied against it, has a limited pool of potential customers. India has an exploding need for additional energy supplies. The two nations are neighbors, situated on either side of Baluchistan, a region of Pakistan--itself a perennially unstable, nuclear nation. China, a nation India considers a strategic rival and competitor in the energy market, has secured large energy supplies from Iran. For several years there has been talk of establishing a pipeline originating in Iran, travelling through Pakistan, and terminating in India. These are all reasons for India to actively seek out energy supplies from Iran, and this need influences the Indian approach to Iran in many arenas.

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Commerce

India and Iran have a healthy trade partnership that continues to grow, with growth rates between 38 and 55 percent in the years 2005-2008.³¹ This aspect of the relationship may be the most straightforward, because Iran needs trading partners rather badly, and India may see a commercial relationship as a means to strengthen the overall relationship. There are some challenges to trade, however. A direct land route between the nations requires traversing the tumultuous territory of Pakistan or Afghanistan, but Iran and India have port cities that are relatively close to each other.

Military Engagement

Due in part to their proximate access to water, India and Iran have recently embarked on military cooperation in the form of joint naval exercises. Thus far, this military engagement seems to be as much about protesting U.S. policy as about forging a military alliance. The timing of these exercises is of particular interest to the U.S., since at least two instances seem timed to protest U.S. actions. The first took place in March 2003, in apparent concern over the buildup of U.S. forces prior to action in Iraq. The second occurred in March 2006 and coincided with a visit to the region by President Bush. The timing of the second exercise was particularly difficult for U.S.-India relations as Congress was actively considering the U.S.-India civilian nuclear cooperation deal.³²

A more interesting, although unsubstantiated, development is the possibility of Iran permitting Indian use of its military installations in the event of war with Pakistan.

³¹ "India-Iran Relations," Embassy of India, Tehran, <http://www.indianembassy-tehran.com/indoiranrelations-indiairanrelations-en.html> (accessed May 29, 2009).

³² C. Christine Fair, "India and Iran: New Delhi's Balancing Act," *The Washington Quarterly* 30, no. 3 (Summer 2007): 145-49.

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Combined with other arrangements that enhance India's ability to monitor Pakistan, the gradual warming of Indian-Iranian relations could lead to even greater unease in Pakistan, a key U.S. ally in the region.³³ There is concern, however, that close cooperation could lead to Iran acquiring third party technology that was originally sold to India. This concern was fodder for U.S. opponents of the U.S.-India civilian nuclear cooperation deal, who also note India's history of assisting Iranian nuclear efforts.

Iran's nuclear program

Iran's desire to acquire nuclear weapons presents a unique challenge to India. Due to its own international legacy on the nuclear issue, India cannot credibly condemn Iranian pursuit of nuclear capabilities. For many years, India argued forcefully to the international community that there was a system of "nuclear apartheid" in which only the great powers are allowed to pursue nuclear weapons. Indian leaders espoused the belief that all nations have the right to nuclear weapons. Iran has recently made very similar arguments, which effectively denies India the ability to publicly oppose Iranian efforts, since any opposition would contradict its previous stance. Instead, India is left making the technical claim that, since Iran is a signatory of the Nuclear Non-Proliferation Treaty (NPT) it is obligated to adhere to NPT terms, unlike India which never signed the NPT.³⁴

The scarcity of public condemnation from India should not necessarily be interpreted as support, however. India does not want Iran to have nuclear weapons to ensure regional stability, if for no other reason. Despite the fact that India has provided

³³ C. Christine Fair, "India and Iran: New Delhi's Balancing Act," *The Washington Quarterly* 30, no. 3 (Summer 2007): 145-49.

³⁴ "Signatories and Parties to the Treaty on the Non-Proliferation of Nuclear Weapons," Federation of American Scientists, <http://www.fas.org/nuke/control/npt/text/npt3.htm> (accessed May 29, 2009).

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assistance to Iran's nuclear efforts in the past, India currently provides no assistance and only minimal public support.³⁵ Beyond the obvious concern of having yet another nuclear neighbor and how that might change the region's balance of power, India must consider how its relationship with Iran impacts its other bilateral relationships.

Although India has long held to its vaunted policy of non-alignment and attempted to treat each foreign partner as a relationship independent of all others, it has recently begun to address some multi-lateral concerns in its foreign policy. For example, India is fully aware that Israel, one of its most significant suppliers of advanced military equipment, has concerns about the possibility that Israeli technology might fall into Iranian hands. India must balance these concerns against the Iranian desire to acquire advanced equipment, while also balancing the relative importance of each nation to India.

In addition to Israel, India must consider U.S. concerns related to Iran. Perhaps due to its traditional dedication to non-alignment, India seemed at one time to believe that it could conduct bilateral relations with Iran completely separate from its relationship with the U.S. without the two impacting each other. Over time, India has come to understand that its relations with Iran will significantly impact U.S. attitudes toward India.

India's domestic audience

There are a few domestic reasons that make India unlikely to publicly condemn Iran's pursuit of nuclear capability. Indians, in general, do not have a negative opinion of Iran, and they see Iran's nuclear ambitions as analogous to their own. Domestic public

³⁵ K. Alan Kronstadt and Kenneth Katzman, *CRS Report for Congress: India-Iran Relations and U.S. Interests*: Congressional Research Service Aug 2, 2006.

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opinion in India is mostly indifferent to or supportive of Iran, in part because India has the world's second-largest Shia population, which feels a natural empathy toward the large Shia population of Iran.³⁶

U.S. Interests vis-à-vis Iran

The U.S. has a variety of national interests related to Iran. Currently, the main factor driving U.S. policy toward Iran is the desire to see Iran halt its attempts to acquire a nuclear weapons capability. Other considerations relevant to India include U.S. disapproval of Iran's involvement with the terrorist organizations Hezbollah and Hamas and public threats Iran has made toward Israel. For several years, the U.S. has sought to isolate Iran from the international community with strong sanctions and rhetoric.

There is some history of India providing engineering assistance to Iran's nuclear program, for which there seems to be a sense of regret on the part of India, although there has been no public statement to that effect.³⁷ In light of India's understandably quiet opposition to Iran's nuclear program, it is highly unlikely that India would provide any further assistance. There is no history of proliferation by India, so there seems to be little threat that India will in some way further the Iranian program.

Efforts to isolate and marginalize Iran in the international community, however, are degraded by India's active and open engagement there. A solid relationship with the world's largest democracy will be seen by some as legitimizing Iran's global standing. The India-Iran partnership also serves as evidence of the independence of Indian foreign

³⁶ C. Christine Fair, "India and Iran: New Delhi's Balancing Act," *The Washington Quarterly* 30, no. 3 (Summer 2007): 145-49.

³⁷ K. Alan Kronstadt and Kenneth Katzman, *CRS Report for Congress: India-Iran Relations and U.S. Interests*: Congressional Research Service: Aug 2, 2006.

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policy, which would be valuable to the U.S. if India were to choose to support positions also held by the U.S. If India were to encourage moderates within Iran, or call for reduced hostility towards Israel, it would be more effective if India had first firmly established that it does not take its direction from Washington.

U.S. and India Interests in Alignment or Conflict?

On the surface, U.S. and Indian interests seem to be in conflict over Iran. India finds it difficult, although not impossible, to publicly denounce the Iranian nuclear program, which the U.S. firmly opposes. Despite existing sanctions, India maintains a robust commercial relationship with Iran as well as some limited military engagement. However, aside from the potential blow to U.S. policy in the eyes of the international community, there is no meaningful damage to U.S. interests caused by this relationship.

In fact, this relationship could support U.S. interests. A robust and independent Indian-Iranian relationship would likely serve to promote at least two interests common to India and the U.S.: lowering tensions between Iran and Israel, and disrupting terrorist networks. Since India and Israel have such significant bilateral military trade, India may encourage Iran to turn down the volume on its vitriol towards Israel. This would not happen because India is a friend to Israel, but because India needs and wants advanced military imports from Israel to continue. The self-interested nature of India's motivation may make Iran more receptive to the argument, especially if Iran believes there is a chance of also receiving some of that equipment down the line.

If the U.S. offered India the proper incentives, it might be possible that India would choose to encourage moderates within Iran. It is unclear how much influence

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India really has within Iran, so it is impossible to gauge the potential for success. It is also unlikely that India would choose to interfere in another country's domestic matters at the behest of a third party, particularly the U.S. India might be more willing to tinker in Iranian domestic matters if it were evident that moderate Iranian leadership would be more conducive to Indian interests than is the current regime.

Role of Energy Security

An examination of India's involvement in Iran soon reveals that energy security is a dominant driver of Indian policy. The empathy of the two nations' Shia populace is a happy coincidence for Indian leadership. U.S. opposition is an unhappy coincidence. Both factors will, to a certain extent, shape the evolution of this relationship. It is critical for the U.S. to understand that India will not choose to disengage from Iran. The immediate and strategic payback for India in terms of energy security is so important to India that it will trump almost all other considerations. Since the U.S. will not be able to convince India to break off its relationship with Iran, it is crucial to understand what drives it and how to derive the most benefit for the U.S.

India - Afghanistan

India's Interests

India and Afghanistan have historically had friendly relations, with close cultural and political ties. Those relations were disrupted with the rise of the Taliban in the 1990s but were quickly reinstated after their fall in 2001. Cordial relations have been in place since then, with India establishing a presence that includes several consulates, an active commercial sector, and a police force to secure those Indians working on various

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humanitarian projects.³⁸ The warmth of India-Afghanistan relations is further enhanced by the fact that Afghan President Karzai, as well as many other Afghan leaders, studied at universities in India.

India's large-scale involvement is not a selfless attempt to promote recovery and democracy in one of its neighbors, although public commentary sometimes makes such claims. India sees its activities in Afghanistan as a means with which to limit Pakistani influence in Afghanistan and to provide India with leverage in its relations with Pakistan. Unfortunately, Pakistan perceives that Indian activities in Afghanistan are focused on Pakistan and believes that Indian intent is hostile and aggressive. To a certain extent the Pakistani view is correct, but Pakistan's view is probably more extreme than is India's intent. As typically characterizes the India-Pakistan relationship, there is a great deal of hyperbole that influences views on both sides.

Although Afghanistan has no energy resource to export to India, it is geographically important to India's energy aspirations, serving as a gateway to energy-rich Central Asia, specifically Turkmenistan. One of the two proposed natural gas pipelines would originate in Turkmenistan, run first through Afghanistan, then Pakistan and terminate in India. The instability in both Afghanistan and Pakistan make this project very unlikely to move forward, but India will not willingly lose its foothold in Afghanistan.

India's policy in Afghanistan does not necessarily aspire to institute a functioning democracy there. Occasionally, Indian officials may make comments to this effect, but the overall policy is not focused on the promotion of democracy. In 1989, India was one

³⁸ K. Alan Kronstadt and Kenneth Katzman, *CRS Report for Congress: India-Iran Relations and U.S. Interests*: Congressional Research Service: Aug 2,2006.

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of the first non-communist nations to recognize the USSR-supported Afghan government following the Soviet invasion. This Indian orientation is in decided contrast to the U.S. perspective on Afghanistan.

U.S. Interests

As described in the recently released “White Paper of the Interagency Policy Group’s Report on U.S. Policy toward Afghanistan and Pakistan,” U.S. policies toward Afghanistan and Pakistan are closely linked and focused on strengthening the central governments of both nations with the goal of denying terrorists safe haven.³⁹ Another key element is to train and equip an effective Afghan security force to provide internal security and counter-terrorist networks. Although the White Paper focuses on matters of security and terrorist networks, implicit throughout is a U.S. commitment to democracy in Afghanistan. Unlike India, the U.S. is dedicated to the spread of democracy around the world, and specifically to strengthening democratic institutions in Afghanistan.

U.S. and India Interests in Alignment or Conflict?

In some superficial ways, the interests of India and the U.S. do align regarding Afghanistan. The U.S. wants to see more international involvement in Afghanistan, and India is certainly playing an active role in rebuilding efforts. India will likely continue, and perhaps grow, its presence in Afghanistan, but its motivation is primarily self-interest. India has two substantial reasons to have a robust presence in Afghanistan. The

³⁹ “White Paper of the Interagency Policy Group’s Report on U.S. Policy toward Afghanistan and Pakistan,” White House, http://www.whitehouse.gov/assets/documents/Afghanistan-Pakistan_White_Paper.pdf (accessed May 29, 2009).

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first is to prevent it from becoming a puppet state to Pakistan. The second is to further India's reach into Central Asia and its energy markets.

Although India specifically does not want Pakistan emboldened by a Taliban-like government in Afghanistan, stability in Afghanistan does present an indirect threat to India. If Pakistan's border with Afghanistan is peaceful and secure and the government is friendly, then Pakistan will be free to transfer forces along the border with India and commit its resources there. On the other hand, India's efforts to expand its relations with Afghanistan's Central Asian neighbors would benefit from a strong, stable government in Afghanistan. India must balance these two competing interests while also countering Pakistani influence in Afghanistan.

Role of Energy Security

In the case of Afghanistan, energy security may rank second to Pakistan in terms of India's interests. Afghanistan is too important to Pakistan for India to ignore, so India will certainly maintain a presence to stay in the game. Its energy agenda is an important part of the Indian presence in Afghanistan, however, and should not be under-estimated. India's desire to project its power into Central Asia and gain access to those energy sources could lead to greater involvement in efforts to stabilize Afghanistan. It is a delicate matter, however, to balance Pakistani and Indian interests so that tensions do not escalate once Afghanistan is stable.

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India - China

India's Interests

India views China as a long-term strategic competitor and potential threat. Stung by its resounding loss to China in the 1962 war, Indian leaders are determined to be prepared for the next armed encounter with China. The relationship between these two countries has waxed and waned over the years, ranging from economic rivals to outright military adversaries, but has always been competitive in nature. Both nations have similar approaches to the use of nuclear weaponry, wanting mostly to have the ability to retaliate if another nation attacks. Neither nation is completely comfortable with the growing power of the other, although there does not seem to be any real malice between them. Although they have an unresolved border dispute, neither side seems driven to find a solution. If one side starts to talk about these disputes, it typically serves as some sort of political ploy to divert attention from another topic.

India wants to counter China at every opportunity, particularly any significant Chinese military advancement. It seems unlikely that either side will seek large-scale armed confrontation. The situation most likely to prompt military engagement would be a dispute over border areas. If India and Pakistan came to an agreement on Kashmir that did not address Chinese interests, China might feel compelled to act. In general, it seems unlikely that either side would initiate large-scale hostilities unless the outcome was certain. China and India are both willing to wait until circumstances are favorable to act. This mutual patience reinforces the concept that India will try to counter China on all possible fronts for the foreseeable future.

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There is, however, synergy between the two nations on some issues. Both nations have strong anti-colonial legacies and strong emerging economies. These commonalities have led to the two nations partnering on some issues, mostly economic, in the global community. There is also common ground on the issue of non-interference, which both nations champion. For China, the issue is really about the situations in Taiwan and Tibet. Interestingly, India is the longtime home to the Dalai Lama, who fled Tibet and Chinese oppression 50 years ago and has lived in India ever since. This situation is a source of friction in the India-China relationship.

Given the overall state of current India-China relations, it is clear how India's need for additional energy streams fits into its overall policy toward China. Since China has a very similar emerging energy requirement that is partially shaping its foreign policy, India has a clear interest in countering China's efforts to obtain more energy sources. When China goes abroad looking for energy resources, one can reasonably expect India to be close behind and for there to be competition between the two in that location.

U.S. Interests

The trilateral relationship between the U.S., India, and China will adapt to the times depending on the specific topic, alignment of national interests, and the state of relations at a particular time. Understanding and effectively exploiting the ebb and flow of this complex relationship is the best way for the U.S. to meet its objectives in China. Some of those objectives include greater transparency on strategic intent, the growth of democracy, and continued economic integration.

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Of the many changes the U.S. would like to see in a variety of Chinese policies, perhaps the most commonly sought outcome is greater transparency on China's strategic intent. Simple observation tells a story of military modernization, power growth and projection, and economic growth and international competition. Without understanding China's long-term goals, it is difficult to assess the impact of these activities on U.S. interests and to formulate appropriate policy responses.

There are two areas that offer clear and consistent U.S. policy and would likely not change regardless of Chinese strategic intent. A cornerstone of U.S. foreign policy is support for the growth of democracy. Although China has dramatically altered its economic policies over the past several years, it is still firmly committed to one-party communist rule, and there is scant evidence that economic evolution is leading to political change. The U.S. appears to have little leverage in this arena, as evidenced by the lack of progress over the past few decades of U.S. engagement with China.

In contrast, the U.S. has witnessed a dramatic evolution of China's economic policies over the past several years as China has truly globalized its economy. Its strong manufacturing base sends exports all over the world, and the resultant network of corporate interests has laid the groundwork for more coordinated Chinese efforts to develop energy and agricultural-based relations with foreign partners. Although the U.S. is occasionally troubled by the nature of these relationships – China seldom levies political requirements on its partners as the U.S. does on issues such as human rights, corruption, or rule of law – it generally views Chinese engagement in global matters positively. For several generations of U.S. political thought there has been a group who believe that economic liberalization in China will inevitably lead to political

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liberalization; thus, the U.S has often considered the liberalization of Chinese economic policies consistent with overall U.S. interests.

U.S. and Indian Interests in Alignment or Conflict?

Even when U.S. and Indian policies toward China coincide, it is more useful to emphasize the separate, independent nature of U.S. and Indian policies. There are important, substantive issues where the U.S. and India find common cause, such as in the call for more openness regarding Chinese objectives. India will also support further economic liberalization to the extent that it does not threaten Indian positions or showcase India's own domestic shortfalls. Given the global economic crisis currently impacting India and China, this may be an area worth exploring for signs of potential India-China competition. The crisis, if it worsens enough to impact China's overseas activities, may also present India with opportunities on the energy front. Since India has so far not suffered as much of an economic downturn and the May 2009 Congress victory in national elections has strengthened the ruling party, openings may develop in some energy markets. Depending on the specifics of the particular situation, the U.S. may want to try to influence exporters in favor of India over China. In Africa and Central Asia, India is looking to grow its influence and might be willing to work with the U.S.

Another potential side effect of the economic crisis for China is political unrest. China's booming economy has created a burgeoning middle class that may choose to assert itself politically if its members feel it necessary to protect their economic status. Although the U.S has a natural sympathy toward political agitators advocating any sort of

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democratic reform, India will not share that sympathy. Indian sentiment will be to steer clear of involvement in domestic matters and allow China to sort out any issues free of outside interference.

Role of Energy Security

India's quest for energy security will add emphasis to the competitive aspect of its relations with China. India will want access to any international source of energy that China uses. As China's involvement in energy-rich nations evolves, India will attempt to copy any successes and learn from any missteps. In general, the energy-driven aspect of India-China relations will not substantively affect the overall situation. At times the resulting competition may sharpen the dialogue or help keep cool an otherwise warming relationship. Given the historic lack of warmth, however, it seems unlikely to make a significant impact.

There will likely be opportunities for the U.S. to use India's need for energy as leverage. As opportunities arise for additional streams of energy, whether petro products or technical breakthroughs with alternative energy generation, the U.S. will sometimes be able to influence whether it goes to China, or India, or the U.S. Within the context of the trilateral relationship among these nations, energy security will at times dominate the discussion. Astute management of the issues could shape the overall state of affairs.

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CHAPTER 5

Conclusions and Areas for Further Research

Key Findings/Summation

This investigation of India's pursuit of energy security, focused specifically on the nations of Iran, Afghanistan, China, and Pakistan, shows that the overall impact to U.S. interests is minimal. India's relations with these regional neighbors are not significantly altered by energy issues. Generally, energy issues serve to reinforce traditional relations. In Iran and Afghanistan, these relations clearly impact some U.S. interests.

Iran

India and Iran have a longstanding friendly relationship based on geography and cultural affinities. Given the wealth of energy resources in Iran, this relationship has become more important to India as its energy needs have grown. Iran, relatively isolated from the international community, has a variety of reasons to maintain friendly relations with India. Its pool of potential energy customers is limited, as is the number of nations willing and able to partner with Iran in other kinds of trade. India fills both of those roles, and its status as a large, modern democracy can be viewed as legitimizing the Iranian regime within the international community. The value each country brings to the table, combined with a shared history and cultural affinity, indicates that neither side is likely to respond to external influences to curtail the relationship.

The India-Iran partnership initially appears to be in conflict with U.S. interests in Iran, specifically the U.S. desire to halt Iranian attempts to acquire nuclear weapons capability. Closer examination of two elements of this situation leads to a more favorable interpretation of the situation, however. The first element focuses on the Iranian nuclear

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program. Although Indian condemnation of this program has not been as assertive as the U.S. would like, there are solid indications that India is firmly opposed to the Iranian program. India does not want another nuclear-armed neighbor and, although it will not aggressively campaign for Iran to end its nuclear ambitions, neither will India offer any meaningful support. The second element is the robust, independent nature of Indian-Iranian relations. This relationship could prove to be beneficial to the U.S. If one assumes that the U.S. might want to engage Iran at some future date, India's longstanding, independent relations with Iran may provide an avenue for a U.S. or Iranian approach. The independent nature of India's foreign policy and well-known commitment to a policy of non-alignment could lend credibility to India as intermediary.

Afghanistan

In Afghanistan, as in Iran, energy concerns reinforce a traditional Indian alliance. This longstanding relationship has been reinvigorated with India's significant engagement in Afghanistan, which converges with a U.S. desire for international involvement in the rebuilding of the nation. Although India's interests in Afghanistan are complex and often related to Pakistan, one important aspect of its engagement is the goal of extending Indian reach into Central Asia via Afghanistan. The substantial energy resources present in Central Asia are very attractive to India, but the lack of security in Afghanistan has challenged Indian efforts to increase trade relations in that region. Therefore, India supports Afghan stabilization efforts both to build Indian-Afghan relations and to establish a solid platform for reaching into Central Asia. From this perspective both India and the U.S. share stability in Afghanistan as an objective.

China

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In China as well, India's energy concerns reinforce the existing bilateral relationship. Unlike the Iran and Afghanistan cases, this relationship is one based primarily on competition. Energy has proven to be another arena in which India and China compete. Because this competition is so consistent with the overall India-China relationship, there is no reason to expect the particular energy element of the Indian perspective to specifically impact any U.S. interests. U.S. interests may be impacted by Indian and Chinese engagement in Iran and Africa where the U.S. tries to influence government policies by creating isolation within the international community. Indian and Chinese involvement dilutes the effectiveness of policies designed to produce isolation. This reduced effectiveness represents more the status quo and not any recent change, however, and therefore the real impact on U.S. interests is minimal.

Pakistan

Energy concerns influence India's approach to Pakistan less than toward the other nations. This bilateral relationship is governed by longstanding mutual distrust of one another. Both nations urgently need additional sources of energy, and, given the geography of the region, they could reasonably be expected to work together on the proposed pipelines that would bring energy supplies to both nations. Such a scenario is highly unlikely however, as this perennially tense relationship seems to rule out any significant long-term cooperation. U.S. interests in Pakistan are focused mostly on strengthening the central government and the security of the Pakistani border with Afghanistan. It is not clear that India shares this interest; in fact, India may prefer some instability in this region since it diverts Pakistani forces from Kashmir. Overall, energy

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concerns do not significantly influence India's policy toward Pakistan or any related U.S. interests.

Recommendations

Iran

The U.S. should avoid imposing negative consequences on India over its relations with Iran. Overall, India's involvement in Iran does not significantly harm U.S. interests and may eventually prove beneficial. Since robust Indian-Iranian relations are more likely to create a stabilizing, vice destabilizing, effect on the region, it is better to allow this relationship to continue to the greatest extent possible without U.S. involvement. As U.S. policy towards Iran evolves, there may be opportunity for a trilateral relationship. There are not many obvious areas of potential cooperation, but trade is one. If circumstances change and the sanctions against Iran are lifted, there will be many commercial opportunities available. Given India's experience in Iran, there would be a pool of Indian businesses with relevant experience available to partner with U.S. enterprises.

Afghanistan

The U.S. should support and encourage India's involvement in Afghanistan because those efforts help stabilize the country and the region. Indian efforts to expand trade in particular should be supported at every opportunity. These commercial endeavors are consistent with the U.S. policy of expanding international involvement and, on the occasion that trade crosses Afghan borders, involves additional regional partners. Given Indian relations with Iran, there might be an opportunity for India to

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facilitate greater official Iranian involvement in Afghanistan. Supporting greater Iranian engagement conflicts with the current U.S. policy of isolating Iran, but it could lead to increased stability in the region and provide the U.S. an opportunity to evolve its policies toward Iran.

Indian involvement in Afghanistan will continue to be viewed negatively by Pakistan, and U.S. support must be balanced between both countries. As tensions between India and Pakistan ebb and flow, the activities of both nations in Afghanistan should be monitored since it will be a possible locus for violent conflict between India and Pakistan.

Pakistan

Indian interests in Pakistan are complex and somewhat different from U.S. interests. Given the intense, combustible nature of the India-Pakistan relationship, the U.S. should continue monitoring developments between the two nations. Any assessment of U.S. policy toward India or Pakistan should include analysis of the other nation's response to the policy. Should relations between these two neighbors improve sufficiently, energy concerns could draw them into cooperation on much-discussed natural gas pipeline projects. As relations improve, routine U.S. assessments should consider whether or not the U.S. should attempt to re-energize Indian-Pakistani cooperation on energy projects.

Alternative energy

This thesis is focused on the impact of India's quest for energy security. It assumes that energy security can only be achieved via fossil fuels due to a variety of limitations. Nuclear energy is expensive and challenging to manage, and India is already

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maximizing its hydroelectric sources of energy. Current technology is not adequate to effectively deliver energy from wind and solar generation to consumers, but there is substantial potential in both areas in the U.S., India, and China. All three countries have areas that are appropriate for development, but so far no one has been able to cost effectively deliver energy from the point of generation to distant urban centers for consumption. Each nation has undertaken efforts to develop these delivery systems, but with varying levels of governmental support. Current success stories involve sites where energy generation and consumption are co-located. The lack of an effective, inexpensive delivery system is currently the most significant impediment to progress.

The U.S. should either develop a new program or support an appropriate existing program dedicated to solving the shortfall of delivery systems for wind and solar energy. Additional investigation is needed to develop the details of the effort, but the key element is Indian and Chinese participation. If an assessment concludes that potential profit is the motivation most likely to bring India or China onboard, then it could be a corporate effort. If not, it could be a government or NGO effort.

Areas for Further Research

Many interesting, relevant topics tangential to this thesis arose during research. A few seem worth additional investigation: Indian activities in South America and Africa; a more detailed analysis of Indian-Iranian relations; domestic political changes in India; potential U.S.-India synergy in Afghanistan stabilization efforts; and the potential for a joint U.S.-India-China effort to make alternative energy viable solutions for each nation.

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This thesis is limited to the case studies of four of India's neighbors, but there are other regions that bear examination. Specifically, India's activities in Africa and South America should be more closely examined for impacts to U.S. interests. A cursory investigation reveals that India's search for energy has led to increased Indian emphasis on relations with Sudan, Nigeria, and Venezuela. A better understanding of Indian activities in these countries, and how those activities might impact U.S. interests, could inform U.S. policymaking.

India's relationship with Iran should be more comprehensively examined. The amount of influence India has in Iran, and in which sectors, is not readily apparent. The natural affinity of the two nations' Shia populations would seem to draw them together, but there are equally significant differences. Iran's religion-based government represents the polar opposite of India's proud secular tradition, and Iranian desire to eliminate outside influences contrasts with India's willingness to globalize. Research done for this thesis did not reveal information on Iran's perception of India, but Indian public perception of Iran is either neutral or positive.⁴⁰ It is not clear that the Iranian government has a desire to foster relations with the Indian Shia population. It is possible that the Iranian focus is exclusively on commercial interests and views India as a profitable business partner.

Unsubstantiated reports indicate that Iran and India may have come to an agreement that, in the event of war between India and Pakistan, India would be allowed to base troops in Iran. Although such an arrangement would be unlikely to influence the outcome of another Indian-Pakistani war given India's conventional superiority, it is an

⁴⁰ Fair, C. Christine. "India and Iran: New Delhi's Balancing Act." *The Washington Quarterly* 30, no. 3 (Summer 2007): 145-49.

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interesting development in Indian-Iranian affairs and warrants closer examination.

Understanding Iranian motivation in this situation could help clarify an overall picture of Indian influence on Iranian behavior.

India's domestic political scene has been relatively stable since 1947. Initially national politics were dominated by the legacy of Gandhi and Nehru and the Congress Party. Over time, the BJP grew to become a national force on the political scene. For the past few decades, no party has been able to capture a majority, forcing the formation of several coalition governments. In spite of these changes, India's foreign policy has remained relatively stable since 1947.

There are two trends currently unfolding that might bring change to that continuity. One is the emergence of an Indian middle class. India's dramatic economic success of the past several years has created a new, and quickly growing, middle class. A sizable, politically active middle class is something new on the Indian domestic scene, and the potential impact on foreign policy is unpredictable. Examining this group to see if its members have consistent or fragmented views on matters related to foreign policy might reveal the influence on future Indian policies.

Another trend that might influence Indian foreign policy is simple demographics. The last generation to have lived through partition in 1947 will pass on over the next 10-20 years. As this generational change takes place, both in the ruling elites and in the general public, an opportunity might exist to reduce the animosity with Pakistan. If both India and Pakistan take advantage of this opening, relations could significantly improve. Further research is needed to determine if the younger generation poised to enter the scene has different views, or shares the views of their predecessors.

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An area of more immediate interest to the U.S. is Indian involvement in Afghanistan. Even allowing for some divergence of Indian and U.S. interests in Afghanistan, there remain significant similarities in both nations' objectives. A thorough assessment of India's activities, compared with ongoing U.S. activities, might reveal some areas of synergy. A similar, but more comprehensive, review that included Indian activities with Afghanistan's neighbors could shed light on the impact India is having on the region and serve to explore the impact of Indian engagement. If there is evidence that India's engagement affects regional stability, then the U.S. can appropriately adjust its policy.

Another focus for additional research is the potential for cooperation in development of alternate energy solutions. India, China, and the U.S. have all invested in research and testing of various delivery systems for wind and solar power. The geography of each nation is such that all could reap significant returns in terms of energy security if wind or solar energy were to become workable. Additional investigation into ongoing alternative energy efforts could reveal projects appropriate for bilateral or multilateral cooperation. Given the high consumption rates of fossil fuels by all three nations, alternative energy is a natural arena for cooperation. This thesis largely assumes that energy security is achieved via fossil fuels, but that need not be the case.

The most significant limitation of current wind and solar technology is the inability to efficiently and inexpensively transport energy from the site of generation to consumers. Typically, both solar and wind farms are located in isolated areas without large populations, and the most common destination is an urban consumer who is often quite distant from the point of generation. This problem set is common to the U.S., India,

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and China. Each nation has areas suitable for both wind and solar farms, and each nation has large urban centers far removed from those areas. It is reasonable to expect that the U.S. could find or create a program for cooperative research into solving this problem. Additional investigation is needed to identify the most appropriate approach and develop the outline of a proposal.

These issues all relate to either Indian foreign policy or broad energy interests. Greater understanding of these topics, and potential solutions, could inform more effective U.S. policies. Any additional research should be conducted with that goal.

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