India

India a rising power

INDIA: A RISING POWER

Dr V Nilakant, Associate Professor
Department of Management
University of Canterbury
Christchurch, New Zealand
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Dr V Nilakant

*"From a distance, India often appears as a
kaleidoscope of competing, perhaps superficial,
images. Is it atomic weapons, or ahimsa? A land
struggling against poverty and inequality, or the
world's largest middle-class society? Is it still
simmering with communal tensions, or history's
most successful melting pot? Is it Bollywood or
Satyajit Ray? Swetta Chetty or Alla Rakha?
Is it the handloom or the hyperlink?"*

**US President Bill Clinton in an address to
the joint session of the Indian Parliament**
New Delhi, India, 22 March 2000

INTRODUCTION

IN LATE MAY 2005, the President of India, A P J Abdul Kalam, was on a state visit to Switzerland. Reportedly, he surprised his Swiss counterpart, Samuel Schmid, by offering him a gift. In itself this was not an unusual incident. It is, after all, expected from the head of state of a developing country like India to bear traditional gifts that reflect its rich and ancient civilization. What made this incident unusual was the nature of the gift. It was a compact disc containing images of the Swiss Alps.

The detailed stereoscopic pictures with a spatial resolution of 2.5 metres were taken by CARTOSAT I, India's remote sensing satellite launched earlier that month. According to the Indian space research agency, the 1.5 tonnes satellite was successfully delivered into its Sun-synchronous 618-kilometre target orbit about 18 minutes after the launch of India's ninth Polar Satellite Launch Vehicle from a new state-of-the-art launch pad in southern India. The rocket also launched a 43-kilogram micro-satellite to enable amateur radio operators around the world to communicate with each other.

President Kalam, a retired rocket scientist, had ordered the images from the Indian Space Research Organisation during his visit to Switzerland. Nothing highlights the enigma that is India more than this incident, because it challenges stereotypes of India as an underdeveloped, third-world country.

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It is difficult to understand India. Its sheer size, long, turbulent history and enormous diversity make it a complex country of paradoxes and contradictions. There are broadly three perspectives on India. The first, held by most lay people outside India, is that it is an exotic country of elephants, camels, cows, snake charmers and beggars. The western media have tended to perpetuate this image of India as an esoteric land steeped in mystery and mysticism. While there may be some element of truth in this, it is severely myopic. It is like pretending that the friendly elephant ambling down your driveway is a cute, fluffy dog.

The second view held by many Indians and a few gullible foreigners is that India has 'taken off' and is on its way to becoming a superpower. This represents the triumph of hope over reality. While India's achievements are significant, it has a long way to go before it can consider itself to be a power of any kind.

The third perspective held by most Indians and a few well informed but critical foreigners is that India, like its cricket team, has continued to disappoint by performing well below its potential. This is probably correct but tends to judge India rather harshly by not appreciating the constraints and challenges that it has faced since its independence in 1947. In addition India, unlike China, is an open society. Its weaknesses are very visible but its strengths are not so obvious.

In this paper, I attempt to provide a balanced assessment of India's achievements and challenges. I have endeavoured to unpack its complexity and provide an insight into India's history, growth, potential and problems. The paper aims to provide an informed understanding of India's role in the global economy and help an outsider to appreciate the potential, complexity and challenges of modern India.

The rest of the paper is organised as follows. First, a profile of India is presented in terms of its geography and people. Second, I provide an overview of the culture and history of India. Third, the economic development of India is discussed, highlighting changes in government policy, India's core strengths and its evolving capabilities. Fourth, India's geo-political aspirations are examined and a brief overview of its military strength provided. Finally, the economic challenges that face India as it pursues rapid growth and the opportunities it presents to New Zealand are discussed.

INDIA: A PROFILE

1 http://en.wikipedia.org/wiki/
Demographics_of_the_People's
_Republic_of_China [accessed
11 July 2006].

GEOGRAPHY

India is rightly regarded as a sub-continent in south Asia covering an area of about 3.3 million square kilometres. It is the seventh largest country in the world, stretching from the Himalayas in the north to the Indian Ocean in the south, and is surrounded by the Arabian Sea (southwest) and the Bay of Bengal (southeast). It is the only country to have its name associated with one of the five oceans of the world. It shares borders with China, Nepal and Bhutan in the north, Pakistan in the northwest and Bangladesh and Myanmar (Burma) in the east. It has a coastline of about 7,000 kilometres and a climate that varies from tropical monsoon in the south to temperate in the north. It is very diverse geographically, with a landscape characterised by snow-capped mountain ranges, deserts, plains, hills and plateaux.

PEOPLE

India is home to more than a billion people, making it the second most populous country in the world after China. Although India occupies less than three percent of the world's land area, it supports over 15 percent of the world's population.

The median age of the population is around 25 years, and it is growing at an estimated rate of about 1.65 percent. The adult population in the age group 15-64 (working age group) is expected to rise from 604 million in 2000 to 942 million in 2025, i.e., from 60 percent to 67 percent of the total population. According to the United Nations, by 2016 the population of India (1.22 billion) is expected to be larger than the combined populations of all the countries of Europe (including Russia), Australia, New Zealand, Japan, Canada and the United States (US).

Hindus constitute the major religious group in India, accounting for 80.5 percent of the population. Muslims are the second largest religious group at 13.4 percent of the population. India has the third largest number of Muslims in the world after Indonesia and Pakistan. The Christians in India number about 2.3 percent of the total population – with 1.8 percent belonging to the Catholic Church. Four of the world's religions – Hinduism, Buddhism, Sikhism and Jainism – originated in India.

The Constitution of India recognises Hindi and English as the official languages of communication for the central government. The Constitution also recognises a total of 22 national languages. There is a huge diversity of spoken languages in India – with 800 different languages and around 2,000 dialects. Most Indians, irrespective of their educational attainment, are likely to be at least bilingual.

India is a country characterised by enormous cultural, linguistic, ethnic and religious diversity – perhaps more than any other country in the world. In comparison, Han Chinese constitute about 92 percent of China's population, 70 percent of Chinese speak Mandarin and the majority of Chinese are non-religious.[1]

An unintended consequence of colonisation was the creation of a sense of national identity among the people of India.

CULTURE AND HISTORY

INDIAN CIVILIZATION is one of the most ancient in the world, dating back at least 5,000 years. Aryan tribes from the northwest entered India around 1500 BC and fused with the earlier Dravidian inhabitants to create the classical Indian culture. The cultural and religious traditions of the Aryans continue today as religious rituals in Hinduism. Contrary to popular belief, Buddhism was the dominant religion in India for hundreds of years. The Buddhist University at Nalanda flourished for more than 700 years until the 12th century, when it was sacked by Turkish Muslim invaders. At its peak, it had more than 10,000 scholars.

Arab traders began visiting India in the 8th century. Beginning from the 11th century, India was plundered by a series of invaders from Arabia, Persia, Turkey and Mongolia. This resulted in the establishment of Islam as a political force, but the complexity, size and intricacy of India meant that no empire was able to dominate it for long. The Moghals were the most influential of all the Muslim dynasties in India.

European traders started visiting India around the end of the 15th century and by 1610 the British East India Company had set up an outpost in Surat in western India. By 1769, the British had subdued the French, Dutch and Portuguese and gained control of all the European trade in India. A series of financial scandals in the East India Company led to the Crown taking partial control of it in 1784. In 1857, a rumour that the British were greasing their bullets with the fat of cows and pigs started a mutiny among the Hindu and Muslim soldiers serving in the British East India Company and led to the first war of Indian Independence (also referred to as the Sepoy Mutiny by British historians).

Although the Indian revolt was crushed, it led to the British government seizing total control of all British interests in India. India remained a British colony until its independence in 1947. The period of direct rule is referred to as the British Raj and British India comprised the regions now known as India, Pakistan, Bangladesh and Myanmar. India was regarded as the jewel in the crown of the glorious British Empire.

There are conflicting interpretations about the consequences of colonisation on India. Western historians have argued that colonisation led to the creation of stable legal and government systems in a feudal country. It established the rule of law and a bureaucracy. Many Indian historians, on the other hand, argue that it led to the impoverishment of the country. They would point out that 17th century India, like China, was more prosperous than Europe.

An unintended consequence of colonisation was the creation of a sense of national identity among the people of India. Prior to British rule, the concept of India as a nation did not exist as it was just a collection of assorted kingdoms where people were unified by religions. Over a period of time, people were united by their feelings of resentment and hostility towards the British, who were seen as exploiters rather than reformers.

The Indian National Congress, an organisation set up by a western-educated Indian elite, became the main vehicle for articulating the national aspirations of Indians. Initially, this organisation was unconcerned with the aspirations of the common people, focusing instead on greater representation for its class in administration and governance. However, most ordinary Indians found British rule to be repressive and humiliating.

The Indian democracy is often blamed for the slow economic progress of India compared with China.

[2] http://en.wikipedia.org/wiki/Politics _of_India [accessed 11 July 2006].

[3] http://muse.jhu.edu/journals/journal _of_democracy/v013/13.1rudolph.html [accessed 11 July 2006].

[4] Sen, A. (2005). *The Argumentative Indian: Writings on Indian History, Culture and Identity*. New York: Farrar, Straus and Giroux.

In 1920, Mohandas Gandhi took over as President of the Indian National Congress and converted it into a potent mass movement through his ideology of non-violent resistance termed as civil disobedience. The Indian independence movement, lasting about 40 years, produced many leaders and united a diverse country, giving it a national identity. Gandhi's principled stand against violence also received respect and admiration outside India.

India was declared independent from British rule on 15 August 1947. Independence, however, came at a great cost. Bitter disputes after the 1930s between the largely Hindu Indian National Congress and the Muslim League culminated in the partition of India into the sovereign states of Pakistan and India. In the ensuing violence between Hindus and Muslims, hundreds of thousands were killed and many more displaced. Some estimates put the number of those killed close to one million. Independent India was born with the trauma of violence and bloodshed.

On the other hand, the largely non-violent struggle meant that there was little resentment or hostility towards the British after independence. Indian leaders opted for a secular, multi-religious democracy patterned on the British model. A parliamentary democracy, free press and an independent judiciary were adopted, making India the first non-western nation to have a democratic form of government. The country adopted a written constitution in 1950 and declared itself to be a "sovereign, socialist, secular, democratic republic".[2]

Present-day India is a Union of 25 states and seven Union territories, each with its own elected local government. Although regional parties are in power in some of the states, they come together to form working coalitions at the central level. Since its independence, India has moved away from a single dominant-party government to a multi-party system and coalition governments.[3] While the central government in New Delhi, the capital of India, is still dominant, its power has steadily eroded over the years.

Many outside India believed that a western institution such as democracy had little chance of survival in India. However, as India's Nobel Prize-winning economist Amartya Sen argues, contrary to popular misconception, democracy and rationality are not western inventions. According to him, India has had a long history of public reasoning and an argumentative tradition – the fundamental building blocks of democracy and civil society.[4]

The Indian democracy is often blamed for the slow economic progress of India compared with China. However, viewed in the context of the faltering democracy in Thailand and the failing states in the Pacific such as the Solomon Islands and Timor-Leste in recent months, despite its imperfections, the Indian achievement is astonishing. In spite of numerous shocks in the past 60 years, the country has held together and grown into the world's largest, non-western, mature, vibrant and stable democracy that is multi-cultural and multi-religious.

ECONOMIC DEVELOPMENT

HISTORY AND GROWTH

When India became independent in 1947, it was impoverished with a large illiterate population engaged in subsistence agriculture. India opted for a soviet-style, centrally planned economic model of development. Government policies prior to 1984 were driven by an ideology of self-reliance that actively discouraged imports.

Import-substitution was the catchphrase that pervaded economic policies. This policy of 'import-substitution-led-industrialisation' resulted in the creation of state-owned enterprises in the manufacturing sector. The policy of self-reliance fostered a huge investment in science and technology. Therefore, as a part of the same policy, the government invested heavily in high-quality technical education. Specifically, engineering schools offering under-graduate and post-graduate qualifications in sciences and engineering were created in the late 1950s and early 1960s.

One such institution has played a key role in fostering technical development entrepreneurship. Called the Indian Institutes of Technology (IIT), the faculty in these institutes were mostly trained abroad. They brought into these institutes the culture of excellence that they had experienced in those overseas institutions. Therefore, right from the beginning, admissions to these institutes were strictly on the basis of merit, based on performance in an entrance examination. Since these institutes were set up with foreign collaboration, they offered vastly better educational facilities than other similar institutions in India. Consequently, they began to attract a large number of applicants.

Currently, more than 180,000 applicants finishing high school compete for 3,500 positions in these institutes every year through a Common Admission Test. Given the strict and selective admission procedures, the IITs have been able to assemble the best technical and engineering talent in India. As a result, they have become India's elite institutions of higher learning.

Thus the government's economic model was partly responsible for creating a pool of technically skilled professionals in India. However, in the 1960s and 1970s, most of the graduates of IITs went overseas, particularly to the US, for higher studies and better opportunities. Based on anecdotal evidence, it is estimated that Indians set up 40 percent of the start-ups in Silicon Valley in the 1970s and 1980s. Half of these were by IIT graduates.

However, the centralised economic model that led to the production of skilled professional engineers was also highly restrictive of private business initiatives, stifling entrepreneurial growth. Starting a business required a licence and permits. Private firms were excluded from some industries. There were quotas on the quantities of goods that could be produced and imported.

Industries were highly regulated, with the government playing a huge role in the economy through its state-owned enterprises. Countless regulations and rules not only restricted growth but also protected Indian firms from external competition. Firms wishing to import products faced cumbersome import procedures. In addition, tariffs and duties were high and obtaining foreign exchange was complicated.

India's strength is its human capital. In 2003, there were more than 230 universities and 1,000 engineering colleges producing about 100,000 engineering and two million non-engineering graduates each year.

Euphemistically referred to as 'licence-quota-permit Raj', this economic system fostered red tape and corruption. There were few incentives for firms to undertake entrepreneurial activities and explore overseas markets. Other government policies, such as the Monopolies and Restrictive Trade Practices Act, actively discriminated against big businesses.

India underwent a serious financial crisis during 1990-91, exacerbated by the first Gulf War. Its foreign exchange reserves dipped to alarmingly low levels. The party in power, led by Prime Minister Narasimha Rao, had no choice but to launch a major liberalisation programme. The Indian currency was devalued; foreign direct investment was encouraged; and import licences were eliminated. There is a popular perception that the liberalisation initiated in 1991 has led to the acceleration of economic growth. This is not strictly correct.

The Indian economy had started to grow faster since the late 1970s. A 'green revolution' in agriculture helped it to achieve food security. Its agricultural output went up from 50 million tonnes in 1947 to 131 million tonnes in 1978-79. However, there is little doubt that the economic reforms of 1991 were instrumental in unleashing the entrepreneurial energies of the people of India.

What is surprising about the Indian reforms is their remarkable continuity despite political changes. Four different governments have held power since 1991; despite their ideological and political differences, they have continued the basic direction of reforms initiated in 1991. For the past 15 years, the Indian economy has grown at an average annual rate of six percent.

INDIAN ECONOMY

India is the world's 12th largest economy in US$ exchange-rate terms. However, when measured in terms of purchasing power parity, which is a more realistic assessment of economic power, it is the world's fourth largest economy after the US, China and Japan, with a gross domestic product (GDP) of US$3.6 trillion. It is the world's second fastest growing economy.

Agriculture accounts for about 21 percent of GDP. Industry accounts for about 28 percent. The rest (51 percent) is made up of services. About 67 percent of the labour force is employed in agriculture, 18 percent in industry and 15 percent in services. India is the world's largest producer of milk, mango, tea, raw sugar, jute, coconut and cashew. It is the second largest exporter of rice, wheat, fruits and vegetables. This year, India surpassed Italy as the world's largest gold jewellery producer. The Indian diaspora numbering about 20 million around the world remit nearly US$20 billion every year to their home country (see Appendix 1).

India's strength is its human capital. In 2003, there were more than 230 universities and 1,000 engineering colleges producing about 100,000 engineering and two million non-engineering graduates each year. Since the medium of instruction in these institutions is English, it provides them with an advantage compared with graduates from non-English-speaking countries in East Asia.

The Indian software services industry, considered one of the most sophisticated in the world, is growing at an annual rate of 30 percent. Its three largest information technology (IT) companies each have an annual turnover exceeding US$1 billion and are together planning to

recruit 50,000-60,000 people this year. India is the destination of choice for outsourcing, not just for information services but also for research and development (R&D) activities.

FIGURE 1: GROWTH OF EXPORT OF SOFTWARE SERVICES (1980-2002)[5]

Export of Software Services (US$ Million)
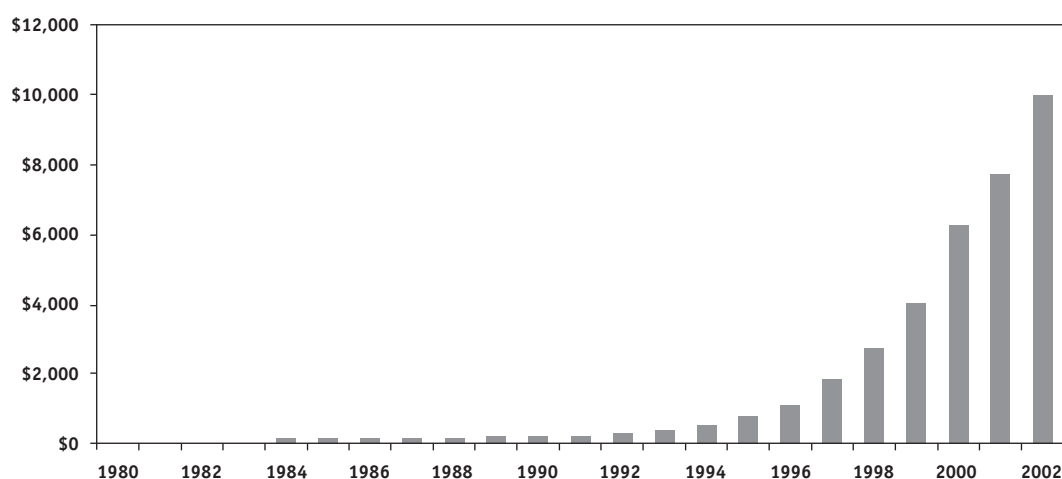
India has now established itself as a major innovation hub. In the past 15 years, more than 10,000 patents have been filed by organisations located in India. A large portion of these have been filed by 150 multi-national corporations. For instance, the Intel R&D centre has filed more than 68 patents[6] and Intel's next-generation 32-bit processor with more than a billion transistors is being designed in India. Thirty percent of all software for Motorola's latest phones is written in India. India is now the fifth largest telecom network in the world and the second fastest growing telecom market, next only to China.

Many Indian companies are global players now. For instance, Bharat Forge, an Indian foundry, is the world's second largest maker of forgings for car-engine and chassis components, behind ThyssenKrupp of Germany. Mittal Steel, now known as Arcelor-Mittal, is owned by an Indian family and is the world's largest steel manufacturer, although it doesn't have any steel plants in India. Moser Bauer, an Indian company, is the third largest producer of optical storage devices in the world. Every sixth DVD is made in India. Its new products include a futuristic high-density BluRay DVD that will store 27 gigabytes of information on a disc. India is the third largest source of foreign direct investment in the United Kingdom.[7]

5   Heeks, R. (1996). *India's Software Industry: State Policy, Liberalisation and Industrial Development.* New Delhi: Sage; NASSCOM. 2003. www.nasscom.org/resourcecentre.asp.

6   http://economictimes.indiatimes.com/ articleshow/440045.cms [accessed 11 July 2006].

7   www.thehindu.com/2006/07/06/ stories/2006070602891800.htm [accessed 11 July 2006].

With its vast talent pool, India is emerging as the world's foremost centre for testing new medicines, medical diagnostic services and low-cost, world-class medical treatments.

8 http://businessweek.com/magazine/ content/05_16/b3929068. htm[accessed 11 July 2006].

9 www.ibef.org/india.aspx?&refer=d03& x=45&y=97 [accessed 11 July 2006].

10 *Indian Manufacturing in a Global Perspective: Setting the Agenda for Growth* (November, 2005) Hyderabad, India: A Report by the Indian School of Business, New York University, Purdue University, and Deloitte Research.

11 www.bcg.com/publications/files/ Organizing_for_Global_Advantage _in_China_India_and_Other_Rapidly _Developing_Economies_Mar06.pdf [accessed 11 July 2006].

India graduates around 120,000 chemists and chemical engineers each year who have contributed to making India the world's leading centre for producing low-cost generic drugs. India has flourishing biotechnology and pharmaceutical industries. According to research by London-based researcher Global Insight, Indian drug companies will have a 33 percent share of the global generics market by 2007, compared with four percent today.[8] With its vast talent pool, India is emerging as the world's foremost centre for testing new medicines, medical diagnostic services and low-cost, world-class medical treatments. The cost of discovery and developing a molecule in India is one-tenth of the estimated US$500 million.[9]

According to a Deloitte report:[10]

Indian manufacturers participating in the Deloitte Global Benchmark Survey (which to date covers more than 800 manufacturing companies and business units around the world) are outperforming their counterparts around the world in terms of gross profits (EBIT) and sales growth. With respect to operational capabilities, Indian manufacturers on average have made greater inroads in key areas, such as quality management, than the rest of the world.

The Boston Consulting Group has identified 21 Indian companies among its list of 100 companies from rapidly developing economies that are poised to become multi-nationals in the 21st century.[11] As the following table shows, Indian companies have been on a buying spree in recent times:

TABLE 1: INDIAN COMPANIES' ACQUISITIONS

COMPANY	ACQUISITION	PRICE (in US$ millions)
Reliance Industries	Flag Telecom, Bermuda	212
	Trevira, Germany	95
Tata Motors	Daewoo, Korea	118
Infosys Technologies	Expert Information Services, Australia	3.1
Bharat Forge	Carl Dan Peddinghaus, Germany	NA
Ranbaxy	RPG (Aventis) Laboratories, France	NA
Wockhardt	CP Pharmaceuticals, UK	18
Cadila Health	Alpharma SAS, France	5.7
Hindalco	Straits Ply, Australia	56.4
Wipro	NerveWire Inc, US	18.5
Aditya Birla	Dashiqiao Chem, China	8.5
United Phosphorus	Oryzalin Herbicide, US	21.3

Source: www.ibef.org/india/indianmncs.aspx
[accessed 11 July 2006].

INDIA AS A REGIONAL POWER

NOT ONLY IS INDIA growing as an economic force, it also seeks to become a regional power in Asia. When India became independent in 1947, the strategic elite had participated in the independence struggle and shared the values of non-violence and pacifism. At independence, India saw itself as a regional power that would promote peace and independence in its neighbourhood, if not in the whole world. However, there were three barriers to this vision.

First, almost immediately after independence, there were tensions between Pakistan and India over Kashmir. For a country that won its independence largely through non-violent means, India has fought four wars with Pakistan and one with China. Continuing conflict with Pakistan over Kashmir over the years reduced the ability of the Indian strategic elite to project its power elsewhere in the region.

Second, the centralised, soviet-type model of economic development pursued prior to 1991 resulted in India becoming insulated from the external world. This not only led to relative economic decline but also eroded its influence with the world outside.

Third, the Cold War between the 1950s and 1970s resulted in Pakistan and China aligning with the US while India was pushed towards the Soviet Union. The decline and disintegration of the Soviet Union further eroded India's already declining status in the world.

The economic liberalisation initiated in 1991 and India's subsequent integration into the world economy have resulted in a significant shift in its capabilities and aspirations for influence. As Cohen[12] suggests, the key to understanding the world view of India's strategic elite is to see India as a modern state with an ancient civilization.

In spite of changes in the composition of the strategic elite over the past 60 years, the elite in India sees itself as part of an ancient, yet unified civilization. In its view, this civilization was subjected to foreign domination for a number of centuries, resulting in the decline of India as an economic and global power. Its goal is to restore India to the pre-eminence that it enjoyed prior to the Cold War. As Cohen points out, three basic principles underlie India's projection and posture as a regional power – sovereignty, security and equity.

India's highly contentious nuclear policy exemplifies the sovereignty and equity principles. India is not a signatory to the Nuclear Non-proliferation Treaty because it has consistently argued that the Treaty reflects double standards, discriminates against non-nuclear nations and sustains the present international order in which the five permanent members of the Security Council are all nuclear weapons states.

The strategic elite of India is often depicted as venal, bungling and corrupt in the local media; a misleading image that conceals its strategic abilities and aspirations. Not only is the strategic elite capable of a great degree of stealth and secrecy, it is also willing to bear short-term losses to achieve long-term goals.

India conducted an underground nuclear test in 1974, under the leadership of the Congress Party. Although labelled a 'peaceful' test, it signalled an intention to launch a programme to develop the capability to build nuclear weapons. In 1998, a different party in power decided to catapult India into what it considered the elite club of nuclear weapons states. Despite its nuclear test site being monitored by US spy satellites, India secretly and successfully carried out five nuclear tests in May 1998, including a thermo-nuclear device.

12 Cohen, S. P. (2001). *India: Emerging Power*. Washington, D. C.: Brookings Institution Press.

13 www.state.gov/secretary/rm/2006/
64136.htm [accessed 12 July 2006].

14 Cohen, S. P. (2001). *India: Emerging Power*. Washington, D. C.: Brookings Institution Press; Raja Mohan, C. (July/August 2006). India and the Balance of Power. *Foreign Affairs*. 85: 4, pp. 17-32.

15 http://news.bbc.co.uk/2/hi/south _asia/1679321.stm [accessed 11 July 2006].

16 Cohen, S. P. (2001). *India: Emerging Power*. Washington, D. C.: Brookings Institution Press.

17 Tellis, Ashley J. (2005). *India as a New Global Power: An Action Agenda for the United States*. Washington, D.C.: Carnegie Endowment for International Peace. Also see Berlin, Donald L. (2006). 'India in the Indian Ocean', *Naval War College Review*, Spring, 59:2, pp. 58-89.

The Central Intelligence Agency (CIA) was to learn about the tests through CNN.

In carrying out the tests and declaring itself a nuclear weapons state, India anticipated sanctions and losses. As a consequence of sanctions imposed on it by the US and other countries, India lost about US$2 billion in aid from financial institutions and Japan and around US$300 million from other western donors. The strategic elite's calculation that the sanctions would not be permanent proved to be correct. The US government not only lifted the sanctions in 2001 but, under the Bush administration in 2006, has promised India the sale of civilian nuclear technology in a controversial deal that requires the American Congress to amend American law. In a statement to the Senate Foreign Relations Committee of the US, the US Secretary of State Condoleezza Rice described India as "a rising global power that we believe can be a pillar of stability in a rapidly changing Asia".[13]

The grand strategy of the Indian strategic elite divides the world into three spheres of influence.[14] In the first sphere, which is made up of the immediate neighbourhood of India, India seeks to exercise its sovereignty. The Indian strategy in this sphere is to exclude any outside influence or interference. India is fiercely protective of its sovereignty and will defend it at all costs. India perceives significant threats in its immediate neighbourhood: it faces a hostile Pakistan on its west, Maoist activities in Nepal, the rise of Islamic fundamentalism in Bangladesh and the unresolved ethnic conflict in Sri Lanka.

In the second sphere, which is made up of the extended neighbourhood and the Indian Ocean states, India seeks to balance the influence of other powers and ensure that they do not threaten its interests. In the third sphere, which includes the entire world, India seeks to become a key player in ensuring international peace and security.

It might surprise many western observers to learn that modern India is a heavily armed nation. It has the world's third largest army, fourth largest air force and fifth largest navy. India's military power is largely based on its technological capability and the vast pool of skilled professionals.

India has its own indigenously developed guided missile and nuclear programmes. It is one of the six countries in the world that have the capability to build and launch geo-synchronous satellites. India is the second country in the world after the US that can offer satellite images with one-metre resolution.[15] India's annual defence spending of around US$14 billion seems modest compared with that of the US (US$250 billion), Russia (US$54 billion), China (US$40 billion) and Japan (US$37 billion).[16] India ranks 11th in the world in military spending at market exchange rates. However, at purchasing power parity rates, it jumps to third place behind the US and China with a military expenditure of US$120 billion.

According to the CIA, when countries are ranked by composite measures of national power (weighted combinations of GDP, defence spending, population and technology growth), India is projected to possess the fourth most capable concentration of power by 2015 – after the US, the European Union and China.[17] Despite all this, the Indian military has only limited influence over India's governance, foreign policy and strategic direction. India's nuclear and missile programmes are controlled by civilians.

India's regional power aspirations require it to be a credible sea power in the Indian Ocean region.

India's regional power aspirations require it to be a credible sea power in the Indian Ocean region. With approximately 74 million square kilometres, the Indian Ocean is the third largest ocean after the Pacific and the Atlantic. Two aspects distinguish the Indian Ocean from the Pacific and the Atlantic.[18] First, 80 percent of the trade through the Indian Ocean is extra-regional, such as the crude oil to Europe, the US and Japan. Second, the Indian Ocean has a number of choke points such as the Cape of Good Hope, the Straits of Hormuz and the Persian Gulf, the Straits of Malacca, the Sunda and Lombok Straits and the Ombai-Wetar Straits. For instance, 80 percent of Japan's oil supplies and 60 percent of China's oil supplies are shipped through the Straits of Malacca. Of the US$200 billion worth of oil coming out of the Straits of Hormuz, US$70 billion worth of oil passes through the Straits of Malacca each year. Almost half the world's containerised traffic passes through this choke point.

India's naval strategy in the coming years is to build a three-dimensional blue water force with the capability to operate across the entire Indian Ocean region. The Indian Navy aims to project power through "reach, multiplied by sustainability" across its "legitimate areas of interest" stretching from the Persian Gulf to the Straits of Malacca.[19] As part of this long-term goal, India commissioned a giant new naval base – Indian Naval Ship (INS) Kadamba – on its Arabian Sea coast in May last year. INS Kadamba, which is India's third operational naval base after Mumbai and Vishakapatnam, is the first to be controlled exclusively by the Indian Navy.

INS Kadamba is Phase I of the Indian Navy's ambitious US$8.13 billion Project Seabird. When completed, it will be Asia's largest naval base, with the capacity to berth more than 22 ships, including the 44,000-tonnes aircraft carrier Admiral Gorshkov purchased from the Russians (and renamed INS Vikramaditya), as well as the indigenous nuclear-powered submarine, the advanced technology vessel (ATV). Spread over 11,200 acres, Project Seabird will include a naval base, an air force station, a naval armament depot, a ship-lift system, missile silos and a full-fledged ship repair yard.[20]

The Indian Navy has 145 warships and submarines in its fleet, but more than 70 of them will have to be replaced in the coming 10-15 years. The Navy plans to induct 120 warships and 12 submarines over the next 13 years to expand its influence in the Indian Ocean region.[21] From various reports, it appears that the Indian strategy to project its power in the Indian Ocean region in the medium term is to have three battle groups on each of its three seaboards. Each battle group will be formed around the core of an aircraft carrier with modern multi-role fighter aircraft, early-warning helicopters, anti-ship warfare, nuclear and diesel-electric submarines, and air surveillance.[22] Destroyers, frigates and corvettes will act as escorts for the carriers and will also form independent action groups.[23]

18 www.sai.uni-heidelberg.de/abt/SAPOL/forsch2.html [accessed 22 July 2006].

19 www.hinduonnet.com/fline/fl2114/stories/20040716002104600.htm [accessed 22 July 2006].

20 www.atimes.com/atimes/South_Asia/GF18Df04.html [accessed 22 July 2006].

21 http://timesofindia.indiatimes.com/articleshow/896445.cms [accessed 23 July 2006].

22 http://cynical-nerd.nationalinterest.in/?p=40 [accessed 23 July 2006].

23 http://indiannavy.nic.in/cns_add2.htm [accessed 24 July 2006].

As it evolves into a regional power, India has also formulated a new war-fighting doctrine.

[24] www.windsofchange.net/archives/
002738.php [accessed 22 July 2006].

[25] www.globalsecurity.org/military/
world/india/ads.htm [accessed
23 July 2006].

After conducting multiple nuclear tests in 1998, India declared that its minimum nuclear deterrence would be based on a triad of weapons delivered by aircraft, mobile land-based missiles and sea-based platforms. There are unconfirmed reports that India plans to convert its aircraft carrier acquired from Russia into a mobile nuclear command centre and that it is currently working on a complex project to link up its warships and submarines via a space-based global navigation satellite system (GLONASS) that is being developed jointly with Russia.[24]

As it evolves into a regional power, India has also formulated a new war-fighting doctrine. In this new doctrine, the emphasis will be on smaller, highly mobile battle groups designed to destroy adversary combat capabilities rather than occupy territory.

In 2004, the Indian military tested the new doctrine of network-centric warfare in a military exercise codenamed *Vajra Shakthi* (Thunderbolt) conducted over ten days in the presence of foreign observers from 25 countries. The exercise was aimed at testing the Indian military's capability to engage in a short-duration, high-intensity conflict in a chemical, biological and nuclear environment. The exercise involved a strike force of 25,000 men, tanks and armour, attack helicopters, Special Forces and aircraft from the Indian Air Force coordinated through computers, electronic warfare systems and real-time satellite imaging of the battlefield.

India relies on its technological capability to build its military strength. However, it faces enormous challenges in developing the capabilities to design, build and manufacture complex pieces of equipment such as aircraft carriers, missiles and planes. For instance, India is planning to build its own indigenous aircraft carrier called the Air Defence Ship (ADS). It is reported that so far only three countries in the world have built such a large carrier.[25] The special type of steel required for the ship will be manufactured in India. When completed, this 252-metre-long ship, displacing over 37,500 tonnes, will be capable of operating a formidable array of 20 modern fighter aircraft including the MiG-29K and Sea Harrier genre and up to ten helicopters of different types. Its 2.5-acre flight deck, with a maximum width of 58 metres, will enable the launch of fighter aircraft using ski-jumps for take-off and arrester wire for landing on an angled deck. Powered by four LM 2500 gas turbines, generating 80 megawatts of power, the ship will be able to achieve speeds in excess of 28 knots. Manned by a complement of 1,600 officers and men, she will have an endurance of 7,500 nautical miles.

A key capability upon which India relies to build its economic and military power is its ability to coordinate and execute large, complex projects involving multiple organisations. For instance, India's military-related R&D activities are coordinated by the Defence Research and Development Organisation (DRDO), established in 1958. The DRDO employs about 30,000 people and operates through a network of 50 laboratories, 70 academic institutions, 50 national science and technology centres and about 150 state-owned and private industrial units. The DRDO's mission is to pursue self-reliance in critical military-relevant technologies.[26] It was the DRDO, under the leadership of Indian President Abdul Kalam, which spearheaded India's Indigenous Guided Missile Development Programme.

As these projects become increasingly complex, the involvement of the private commercial sector has also increased. The development of India's BrahMos missile illustrates this. BrahMos is a cruise missile that can be launched from submarine, ship, aircraft and land-based mobile autonomous launchers. While most other cruise missiles fly at sub-sonic speeds, BrahMos has stealth characteristics and can fly at twice the speed of sound, making it virtually invincible. It was developed in a joint collaboration with a Russian company and Indian private sector firms coordinated through the DRDO. While Indian firms developed the guidance system, the Russian firm provided the propulsion system.

In the coming years, there is little doubt that India will seek to expand its influence in Asia and in the Indian Ocean region. According to unconfirmed reports, the Indian Air Force has already deployed a fleet of its MiG-29 multi-role fighters in an air base in Tajikistan in Central Asia this year.[27] As long as India is able to sustain its economic growth, it will continue to enhance its capability as a regional power in South Asia and the Indian Ocean region.

India's recent rapid economic growth is beginning to provide the resources necessary to fulfil the grand aspirations of the strategic elite. More importantly, India's integration into the world economy in recent years has also been accompanied by the end of the Cold War and the dismantling of the centralised economic planning model of development, which were two of the three barriers that limited India's influence. Globalisation and liberalisation have also created an environment that is conducive to resolving the longstanding conflict with Pakistan over Kashmir. Perhaps for the first time, the Indian strategic elite has shown a willingness to engage with Pakistan in finding a peaceful solution to the Kashmir problem.

[26] www.globalsecurity.org/military/ world/india/ads.htm [accessed 23 July 2006].

[27] http://yaleglobal.yale.edu/display. article?id=7322 [accessed 23 July 2006].

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CHALLENGES AHEAD

28 www.j-bradford-delong.net/Stray _Notes/jean_dreze.html [accessed 11 July 2006]. The complex reasons for this astonishing paradox are beyond the scope of this paper. These are discussed in Chapter 10 of *The Argumentative Indian: Writings on Indian History, Culture and Identity* by Amartya Sen.

29 Sen, A. (2005). *The Argumentative Indian: Writings on Indian History, Culture and Identity*. New York: Farrar, Straus and Giroux. p. 212.

30 Sen, A. (2005). *The Argumentative Indian: Writings on Indian History, Culture and Identity*. New York: Farrar, Straus and Giroux.

31 http://adb.org/Media/Articles/ 2006/9460-India-infrastructure [accessed 24 July 2006].

32 http://adb.org/Media/Articles/ 2006/9460-India-infrastructure [accessed 24 July 2006].

33 www.morganstanley.com/GEFdata/ digests/20050608-wed.html [accessed 11 July 2006].

IT IS EASY TO GET carried away by the hype and rhetoric associated with India in recent months. While India's progress has been significant, it still faces formidable challenges in transforming itself.

For most educated Indians, there is little to celebrate about India's economic achievements, because there are formidable social challenges facing the country. India's progress to date has been disappointing on three interrelated issues: (a) removal of poverty, (b) removal of inequality and (c) creation of infrastructure.

The official definition of the poverty line in India is based on a norm of 2,400 calories per capita per day for rural areas and 2,100 calories per capita per day for urban areas. According to this norm, in 1999-2000, about 26 percent of the Indian population was below the poverty line. Although this was a significant reduction from 55 percent below the poverty line in 1973-74, 260 million Indians still went to bed hungry each day in 1999-2000.

As Sen points out, while India has prevented the occurrence of famines, it has been spectacularly unsuccessful in eliminating hunger and under-nutrition. India's 'buffer' stock of food grains of around 60 million tonnes is now more than its total food grain production in 1947. Yet, according to the second National Family Health Survey (1998-99), about half of India's children are chronically malnourished.[28]

India's record in eliminating endemic hunger is even worse than that of Sub-Saharan Africa. According to Sen, 20-40 percent of children in Africa are under-nourished whereas the percentage of under-nourished children in India is about 40-60 percent.[29]

India has had a long, disappointing history of social inequity. Class, caste, community and gender are all major causes of social inequality in India. Inequality leads to deprivation in the form of poverty, illiteracy, poor health and political disempowerment.[30] According to the President of the Asian Development Bank, while India's economic performance in recent years has been among the best in the world, leading to a decline in poverty, "most poverty-related education and health indicators continue to show disturbing gender gaps, large rural-urban differences, and wide variation across the states".[31]

Another major barrier to growth is the poor infrastructure in India. This includes power shortages, bad roads, inadequate sea- and air- ports, inadequate water and sanitation, and unreliable communications.[32] It is estimated that over US$150 billion in investment is needed in the next few years for the development of India's infrastructure.

The Indian government is well aware of these challenges. Its priority in the coming years is to lift its estimated 250 million rural poor out of poverty, illiteracy and ill health. This translates into huge investments in agriculture, infrastructure, public health and public education. It can not be achieved unless the economy continues to grow at eight to ten percent annually.

Sustained economic growth will require huge investments in infrastructure – roads, ports, drinking water, sanitation and electricity. The Indian government aims to do this in partnership with private sector Indian and overseas firms. The government is spending about US$38 billion on improving 60,000 kilometres of highway infrastructure.[33]

The present Indian government has also launched two massive programmes for eliminating poverty and illiteracy.

The present Indian government has also launched two massive programmes for eliminating poverty and illiteracy. The National Rural Employment Guarantee Act aims at creating new rural infrastructure, improving road connectivity, school buildings and water supply to villages by guaranteeing 100 days of wage employment in a year to every rural household in 200 districts across the country.[34]

The 86th amendment to the Indian Constitution guarantees that all children from age six to 14 will have the right to a free and compulsory education. In 2001, the government launched an ambitious national programme called *Sarva Shiksha Abhiyan* (Education for All) to implement the 86th amendment. The US$3.5 billion programme aims to provide education, including life skills, to all children aged six to 14 years by the year 2010. It has a special focus on education for girls and children with special needs. It also aims to provide computer education to bridge the digital divide.[35] Despite its political differences, the government elected in 2004 has made this initiative a national agenda.

In 1999, in the one of the world's biggest public health programmes, the Indian government immunised 140 million children against polio. The National Rural Health Mission launched by the present government in India aims to spend US$1.5 billion across some 300,000 villages. The new programme proposes to overhaul the health system radically by empowering the states and village councils to implement health care plans. It also aims to provide a woman in every Indian village trained in health care.

As part of the National Rural Health Mission, the Indian Public Health Standards is a concerted effort to provide uniform guidelines for quality health care in community clinics and district hospitals. The standards require every community health centre to have 30 indoor beds with one operating theatre and labour room and X-ray and laboratory facilities.

The government is also addressing the challenge of poor infrastructure through the US$39 billion *Bharat Nirman* programme, which will connect villages and provide housing, clean drinking water, electricity and telephone services across rural India.

[34] http://nrega.nic.in [accessed 11 July 2006].

[35] www.atimes.com/atimes/South_Asia/FD24Df04.html [accessed 11 July 2006].

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36 http://knowledge.wharton.upenn.edu/ article.cfm?articleid=1305 [accessed 11 July 2006].

37 www.doir.wa.gov.au/exportandtrade/ 26483E9F3FD4DB4AB426804B0F6F583. asp [accessed 24 July 2006].

38 www.researchandmarkets.com/ reportinfo.asp?report_id=301182 [accessed 24 July 2006].

AS IT PURSUES RAID growth to eliminate poverty, India presents exciting opportunities for businesses in New Zealand. First, the size of the middle class in India, with a growing disposable income, offers one of the largest consumer markets in the world.

Second, as India pursues its trajectory of growth in the coming years, it will invest vast amounts in improving its infrastructure, increasing agricultural productivity and enhancing the quality of education and the health care of its citizens. Third, India offers a high-quality, low-cost alternative destination for the outsourcing of manufacturing and services. It is a democracy with English as the principal language of communication. It has a vast pool of English-speaking, well educated professionals.

The experience of Warburg Pincus, an international private equity firm, gives an idea of the opportunities presented by the rapidly growing economy of India. Warburg invested US$300 million between 1999 and 2001 in Bharti Tele-Ventures, India's largest publicly traded mobile telephone company. Bharti had 104,000 subscribers and a market capitalisation of US$100 million in 1999. In 2005, it had 14 million subscribers and a market capitalisation of US$15 billion. In March 2005, Warburg reduced its stake in Bharti and walked away with a profit of US$800 million from selling two-thirds of its holdings. Warburg's remaining stake of six percent was worth more than US$700 million, or more than twice its original investment.[36]

The western Australian government has identified a number of business opportunities in India[37] that are also relevant for New Zealand. These include:

1. **Agribusiness** – Opportunities include the supply of commodity and agri inputs such as pulses, wool, wheat, barley, fresh fruits and fruit juices. There are vast opportunities for food processing businesses. The total market for food processing goods in India will yield approximately US$69.4 billion in 2004-05, of which value-added produce comprises US$22.2 billion.[38]

2. **Building and Construction Materials** – Opportunities include the supply of: building materials and related technology; construction equipment and machinery; material handling equipment; consultancy services for feasibility studies in infrastructure projects; beach resorts; technology parks; luxury hotels and golf courses; and theme parks and amusement facilities.

3. **Education and Training** – Apart from attracting Indian students to New Zealand, opportunities exist for in-country services such as: student/faculty exchange; sharing of resources; joint research and curriculum development; and distance education and offshore campuses.

4. **Environment** – Opportunities include investment potential in: industrial waste water treatment; industrial air pollution control; bio-medical waste treatment and disposal; industrial hazardous waste management; industrial and municipal solid waste management; water and air monitoring/control equipment and services; environmental consultancy and audit; afforestation projects; and CNG systems for automobiles.

5. **Health and Medical Services** – Prospects for interaction between Indian and New Zealand companies/institutions include: education and training; technology transfer; patient referrals, telemedicine projects, products and equipment; consultancy services; turnkey hospital development; research and technology development; and para-medical staff training.

6. **Information Technology and Communications** New Zealand IT companies have opportunities in vertical industry solutions (such as mining, finance and insurance, media and entertainment, and Customer Relationship Management, e-governance, e-commerce, IT-enabled services (including call centres) and skilled manpower consultancy.

7. **Marine** – The government and private companies are looking into the option of developing waterway systems around the coastline. This offers opportunities for New Zealand companies in the marine business.

8. **Mining and Mining Services** – Opportunities exist in: advanced technology for exploration and mining; mining equipment and related technologies such as coal beneficiation and material handling; joint ventures in prospecting and mining of major minerals including diamonds; and mineral sand processing and separation projects. In the area of oil and gas, India presents opportunities in: the long-term supply of LNG and LPG; construction and engineering services for storage terminals; pipeline projects; and the construction and modernisation of offshore facilities.

9. **Infrastructure** – Opportunities are available in: road building; huge national highway linkage projects; port development projects; airport construction and ground support requirements such as security systems, baggage conveyor belting and cargo-handling systems; and amusement/theme park project consultancy and construction services.

10. **Professional Services** – Professional services include: management consultancy; film and television; urban planning; and legal services. This is an untapped sector and scope exists for New Zealand companies to commence dialogue with Indian firms in this area.

CONCLUSION

ACCORDING TO THE present Finance Minister of India, by 2020 India should aim to be a country with 100 percent literacy, in which every village has a road, drinking water and electricity and where all its citizens have access to good health care and children have had at least ten years of basic education. If it can harness its diversity and mobilise the collective energies of its people, India has the capability to achieve this ambitious goal. As it moves towards this goal, it offers the rest of the world exciting opportunities to engage with it and share in its growth.

As Bill Clinton observed in his speech to the Indian parliament:

Think of it: virtually every challenge humanity knows can be found here in India. And every solution to every challenge can be found here as well: confidence in democracy; tolerance for diversity; a willingness to embrace social change. That is why Americans admire India; why we welcome India's leadership in the region and the world; and why we want to take our partnership to a new level, to advance our common values and interests, and to resolve the differences that still remain.

APPENDIX 1:
BRIEF PROFILE OF INDIA

INDIA HAS BEEN RANKED as the top destination for retailers in A T Kearney's Global Retail Development Index. Information sourced from *www.ibef.org/resource/quickfacts.aspx*

India's foreign exchange reserves stand at US$160.677 billion

India has become the second most attractive destination for foreign direct investment among manufacturing investors, as per A T Kearney's latest Foreign Direct Investment Confidence Index rankings

Insurance is a US$10 billion (premiums) industry in India

India has the fifth largest electricity generation capacity in the world

India is the fifth largest telecom services market in the world; US$17.8 billion revenues in financial year 2005

India has an extensive road network of 3.3 million kilometres – the second largest in the world

Roads carry about 70 percent of the freight and 85 percent of the passenger traffic

Indian ports handled cargo of 510 million tonnes in 2004-05, a 10.8 percent increase over 2003-04

India has 125 airports; of these 11 are designated international airports

In 2004-05, Indian airports handled 60 million passengers and 1.3 million tonnes of cargo

Passenger traffic grew at over 22 percent in 2004-05 compared with 2003-04; cargo grew at 21.6 percent over the previous year

Petroleum and natural gas constitute over 16 percent of GDP and include the transportation, refining and marketing of petroleum products and gas

India has a crude oil refining capacity of about 127 million metric tonnes

Real estate and construction is a US$12 billion-a-year (by revenue) industry in India

India is one of the ten largest retail markets in the world

Travel and tourism is a US$32 billion-a-year industry in India, 5.3 percent of GDP

There were 3.5 million international tourist arrivals in India in 2005

India is among the top ten global suppliers of aluminium and steel in the world

About 35 million tonnes of steel are produced in India every year.

India is also the largest producer of sponge iron in the world

Textiles is a US$36 billion-a-year industry in India; it constitutes about five percent of GDP

India is amongst the largest producers of cotton (medium staple) – 16.75 million bales per annum; yarn – 4,170 million kilograms per annum; about 25 percent share of world trade in cotton yarn and fabrics – 4,283 million square metres per annum.

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