



INDIA



EXPLORING THE MARKET OPPORTUNITIES

WHO

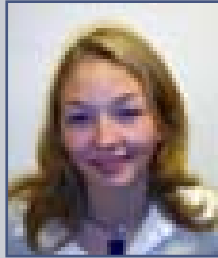
Norwegian University of Science and Technology



Jørgen Rakke

Responsibility:
Coordinator and
National IT Officer

Report:
Graphic design,
Technology and IT



Cornelia Wessel

Responsibility:
Finance

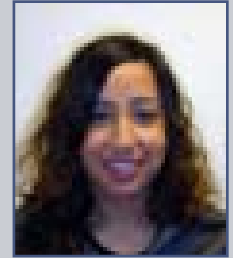
Report:
Society and Culture,
Shipping



Petter Ulset

Responsibility:
PR

Report:
Power, Energy, Oil
and Gas and IT

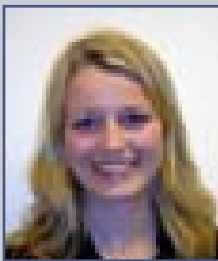


Shelly Shoor

Responsibility:
Sponsor

Report:
Society and Culture,
IT

Norwegian School of Economics and Business Administration



Trine N. Horne

Responsibility:
Coordinator

Report:
Business culture,
Shipping



Jostein Sletten

Responsibility:
Coordination of
finance

Report:
Economy, Oil and
Gas



Tonje Bjørkvik

Responsibility:
PR

Report:
Media, IT



Thomas Ore

Responsibility:
Sponsor

Report:
Politics, Shipping

Norwegian School of Management



**Ingvild A. B.
Holmen**

Responsibility:
Coordinator
and National
Coordinator

Report:
Education, biotech



Shahzad Ali

Responsibility:
Finance

Report:
Shipping



Anne M. Bjønness

Responsibility:
PR and correction

Report:
The Indian
experience, biotech



Thomas Boye

Responsibility:
Sponsor

Report:
History, Education,
Infrastructure

IB International Business

A Unique Student Project

International Business (IB) is an annual project carried out by students attending the Norwegian universities of science and technology (NTNU), the Norwegian School of Economics and Business Administration (NHH), and the Norwegian school of Management (BI). This unique and recognized project is carried out in close collaboration with Innovation Norway and their network of contacts in development of this report. The main purpose of this project is to study potential markets for international business ventures, and support Norwegian enterprises considering entering these markets. Since its beginning in 1984, IB has visited all continents, each year selecting a new country of focus in cooperation with Innovation Norway.

Developments and trends beyond our borders are determinant for a small country like Norway. Globalization and increased business complexity increases the importance of such elements and pull foreign markets and the opportunities they offer closer to us. To take advantages of these opportunities and understanding the development, information and knowledge is vital. IB's primary goal is to provide information and insight into areas that are important to enterprises waiting to set up business or invest in foreign markets. IB also develops the participating students' international understanding as communication and information gathering skills, and is a forum for contact between students and the business sector. The information and conclusions of the report are based on extensive research prior to our stay abroad and our meeting with companies and institutions in the country of focus. The whole project is financed through the companies advertising in this report and their extensive goodwill. We would like to use this opportunities to thank them for their support, a necessarily to render this project possible.

In addition to the paper-copy, the report is also available on our website: www.ib.no. Some of the earlier reports and works and future information about International Business is also available at our home page.

International Business is an independent, voluntary, non-profit student organisation, and is fully responsible for the content in this report.



INDIA AND SOUTH ASIA



ACKNOWLEDGEMENTS

Mahesh Sachdev

Ambassador of
India to Norway

I welcome the launch of International Business India, a project by The Norwegian University of Science & Technology, The Norwegian School of Economics and Business Administration and The Norwegian School Management.

India today is the world's fourth largest economy in PPP terms. It has recorded an impressive growth over the last fifteen years, culminating in 8.3% growth in the last financial year. We have a large degree of complementarity with Norway especially in sectors such as Hydrocarbons, IT, Maritime &

Fisheries sectors.

I hope that this important students project would identify these areas of possible synergy with greater precision and would suggest specific strategies for taking them to their logical conclusion by doing so, the project would have served a crying need of greater mutual awareness. It would have also created an economic space for interface between academia and business on both sides.

I wish you all success.



Jon Westborg

Ambassador of
Norway to India

Norway and India have a long and friendly relationship. The first ever Norwegian development project launched by NORAD (The Norwegian Agency for Development Cooperation) was in a village in Kerala in 1952, and the development cooperation has since dominated much of the Indo-Norwegian relations. With India now emerging as a strong regional and global power both politically and economically, it is only natural that we also turn our focus to other aspects of bilateral relations, while we gradually phase out our traditional development co-operation in accordance with the understanding between our two countries.

As an element in the above process Norway and India last year signed an agreement on

the establishment of a joint commission of cooperation. The first meeting was held in Oslo in June 2005 during the visit by India's Minister of External Affairs, Mr. Natwar Singh. The aim of the commission is to enhance the bilateral relationship in a number of areas: political, economic and commercial, culture, education, research, science and technology, and other areas of common interest.

We would like to see more trade, more investments, more tourism, and more contacts and co-operation in sectors of mutual interest. Present experiences indicate that the prospects are good and that the friendly relationship between Norway and India will continue to develop and flourish.



Børge Brende

Minister of Trade
and Industry

During the last 10 years India has seen an impressive economic growth of up to 7 per cent and has firmly established itself among the most dynamic Asian economies. Last year bilateral trade between India and Norway increased by encouraging 44 per cent. Norwegian exports to India increased by no less than 77 per cent, bringing more balance to the trade.

India and Norway have historically good diplomatic relations, and have recently decided to strengthen and deepen relations further. A joint Commission of co-operation has been established to explore further possibilities in areas of common interest. The first meeting will be held in Oslo in coming June.

Globalisation and international economic integration involve both challenges and opportunities for Norwegian enterprises. Norwegian companies develop new products for international markets and obtain factor inputs in return.


Norwegian and Indian top competence complement each other, and there is a large potential for both Norwegian and Indian enterprises to strengthen cooperation, while contributing to joint value creation.

Indian companies are showing great interest in business opportunities with their Norwegian counterparts. The largest Norwegian companies are already established in India, and several Norwegian SMEs and research institutes are involved in research and cooperation projects with Indian counterparts.

In February this year, I visited India to prepare for more extensive Norwegian business involvement. The visit revealed the need to strengthen our presence in India. Innovation Norway, the Norwegian export organisation, will now open an office in New Delhi.

Only by exploring our complementary competences further, can we take full advantage of our partnership with India. As India is transforming into becoming a key global economic player, we need to learn how this may increase business opportunities for Norwegian companies.

The current project undertaken by three leading Norwegian academic institutions will provide us with some answers, and thereby contribute to the further development of economic relations between India and Norway.



Vi har hørt på 7000 av våre mest lojale passasjerer.
Og utviklet den lengste sengen i Business Class.
Nå blir det å fly, nesten det samme som å være hjemme.
Alt for dette ene øyeblikket.

Ikke bli overrasket hvis du plutselig dupper av i vår nye Business Class. På våre langdistanseruter kan du nyte søvnen i våre mer enn to meter lange komfortsenger. Du kan ankomme opplagt og uthvilt til en dag med møter. Når alt kommer til alt, er din tillit vår beste belønning.

NYHET! Når du skal ut og reise, gjelder kun en ting: Gode forbindelser. Fra 26.mars tilbyr vi en ny daglig flight til og fra Frankfurt. Denne gir deg smidige forbindelser, og du kommer deg raskt hjem. For mer informasjon, se www.lufthansa.no, ring 22 33 09 00, 23 35 54 00 eller kontakt ditt reisbyrå.


There's no better way to fly.



Lufthansa

A STAR ALLIANCE MEMBER 



A large offshore oil platform with multiple cranes and a complex structure, situated in the middle of a deep blue ocean under a clear sky. The platform is supported by a yellow and blue steel jacket.

**Vetco - Leading supplier
of products and services to
the upstream oil and gas industry.**

www.vetco.com



PREFACE

INDIA A NEW SUPERPOWER IN ASIA?

In the past years, India has gone through an amazing economic and political change from a strategy of self supply to the opening up to a global economy. Industries have been privatized and modernized and state control reduced. This has created a dynamic and growing economy with an annual growth rate of more than 8% for the past years and with a positive forecast that will continue well into the next decade. The service sector is the locomotive in the economic growth and will most probably be in the no.1 position for the coming years, too. This is mainly due to India's source of reasonably priced and very well educated work-force, selling outsourcing and research and development services within ICT and biotech/ pharmaceuticals, especially to the USA. Other advantages are the political system building upon a European democracy and the overall use of the English language.

The Indian export figures are still relatively limited, accounting for some 10% of BNP. India's share of the world trade is only 0.8% – similar to that of Norway.

Many Norwegian companies have discovered the Indian market, but there is room for many more, especially companies with advanced technology and long term expansion plans.

“Their market research project will give Norwegian companies valuable input and information of great value for market decisions.”

The bilateral trade with Norway is limited, but with a tremendous potential for increase:

The energy sector is of vital importance to India. The country today imports some 70% of the need for energy and is clearly in the market to increase the use of their own resources. Both the development of hydro-power projects and the development of India's offshore oil- and gas resources will be of interest for Norwegian companies, among the top actors in these areas.

India is expanding their fleet of merchant and military vessels, as well as service vessels for the offshore sector. Restructuring of local yards and developing the maritime sector creates a market for Norwegian ships equipment, -design, and financial services.

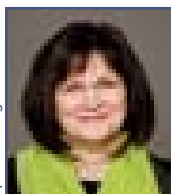
The marine sector is increasing and the production of seafood products is planned to double from 6 mio tons in the next decade. This opens up new possibilities for Norwegian know-how in the aquaculture and bio-marine sector.

India today is too little known in Norway. This goes for business as well as for politics and culture. Time is now to increase the flow of information both ways and to increase the Norwegian business engagement in one of the worlds most interesting and fast-growing markets. This is why Innovation Norway will set up an operation with an office in New Delhi from July 2005. This office will assist Norwegian companies in establishing local business, partner search, provide in depth market analysis and promote Indo-Norwegian business interests.

This is also why India is in focus for the project team of students from the Norwegian school of Economics and Business Administration (NHH), the Norwegian University of Science and Technology (NTNU), and the Norwegian School of Management (BI).

Their market research project will give Norwegian companies valuable input and information of great value for market decisions. We believe that this project will be an important factor in bringing the Indian market closer to Norwegian companies.

photo: Dag Thorenfelt



Gunn Ovesen

CEO, Innovation Norway

CONTENT

i ACKNOWLEDGEMENTS	12	Caste	28	References
ii India a New Superpower in Asia?	12	Language	29 Investing in India	
iii PREFACE	12	Customs & Traditions	29	Why invest in India?
iii CONTENT	13	Art, Dance & Festivals	29	A Common Wage Structure
1 PART ONE	13	References	29	Some Problems Regarding Business Establishment in India
1 The Current Political Situation	14 Media		30	Issues to Be Aware About
1 Government Structure	14	The Press	30	Europeans and Americans are Different
1 State Structure	14	Television	31	References
1 Political Parties	15	Radio	32 Support Facilities	
2 International Relations	15	References	32	Innovation Norway
3 Challenges	16 Technology and Communication		32	Innovation Norway India Offers the Following Services to Norwegian Companies Interested in Entering the Indian Market:
3 References	16	Information Technology	32	Eksportfinans
4 The Indian Economy	16	Internet Connection and PC Population	33	The Norwegian Guarantee Institute for Export Credits
4 ...From Emerging to Surging	16	Communications	33	Export-Import Bank of India
4 Economic Growth	16	Fixed Telephony	33	Credits for Importers of Indian Goods
4 Economic Structure	17	Mobile Telephony	34	Other Financing Programmes and Activities
5 Foreign Trade	17	References	34	References
6 Foreign Direct Investment	19 PART TWO		36 Tax issues related to Norwegian investments in India	
6 Foreign Investment Policy	19 EDUCATIONAL SYSTEM		36	By Gjert Melsom, Associate Attorney at Law, Lic, Jur
6 Special Economic Zones (SEZs)	19	Structure and Statistics	36	Ernst & Young TAX, Oslo, Norway
7 Foreign Exchange	19	Elementary and Secondary Education	36	At a Glance
7 Indo-Norwegian Trade Relations	20	Higher Education	36	Indian Tax on Corporate Income and Gains
8 Recent Policy Initiatives	20	Adult Education	36	Corporate Income Tax
8 Foreign Trade Policy, 2004-2009	21 India's New Labour Force		36	Rates of Corporate Tax
8 References	21	Indian Institute of Technology (IIT)	37	Tax Incentives
9 Culture & Society	22	Interview with a Student at IIT Delhi	38	Minimum Alternate Tax
9 History	24	Indian School of Business (ISB)	39	Fringe Benefit Tax (FBT)
9 From the Indus Valley to the Fall of the Mughal Empire	24	References	39	Special Economic Zones (SEZ)
9 The Arrival of the Europeans	25 Indian Business Culture		39	Value Added Tax (VAT)
9 Moving towards Independence	25	Greetings and Courtesies	39	Administration
10 Independence and the India-Pakistan Split	25	Meetings		
10 Problems on India's Borders	25	Decision-making		
10 India in the Late Twentieth Century	26	Business Attire		
11 Culture	26	Topics of Conversation		
12 Religion	26	Business Gifts		
	26	Women		
	26	References		
	27 Infrastructure			

CONTENT

39	Determination of Trading Income	53	Reliance Industries Limited	76	IT
40	Other Significant Taxes	54	Downstream	76	Why is India the World's Leader in IT Offshoring Activities?
41	Miscellaneous Matters	55	Petro Retail		
41	Setting up Presence	55	Bharat Petroleum Corporation Ltd.	77	Bangalore
41	Foreign-Exchange Controls	55	Aviation	78	Chennai
41	Transfer Pricing	56	Retailing	78	Hyderabad
41	Debt-to-Equity Rules	57	Energy – GAS/LNG	79	Kolkata
41	Investments in India from a Norwegian Perspective	57	Demand – Supply Scenario	79	Pune
41	Dividends Paid to a Norwegian Company from an Indian Company	57	Policy – New initiatives	80	Delhi
42	Non-taxable Presence in India	58	Supports and Incentives	80	Mumbai
42	Capital Gains on the Sale of Shares in the Indian Company	59	Aker Kværner Powergas	81	DIGIMAKER
		59	A Dynamic Company	83	Norway and India Collaborating In the Banking Sector
		59	The Ormen Lange Project		
		59	India's Advantages in the Engineering Industry	83	Why
		60	Future Visions for Powergas	84	The Benchmarking Process
43	The Indian Experience	60	References	84	i-flex
43	Interacting with Indians	61	Biotechnology	84	Mutual benefits
44	Preparing for the Unexpected	61	APIDC Venture Capital	85	A Joint Approach for the Nordic Market
45	Energy	61	Shantha Biotech Limited	85	Bringing the Relationship Further
46	Energy – Power	62	References	85	The cultural barrier
46	Short overview	63	Maritime Sector	85	A Detailed Governing Contract
46	Problems Experienced In the Indian Power Sector	63	Shipbuilding	85	Workshops
46	IPP Fiasco	64	Shipyards	85	No problems
46	SEBs in a Bad State	64	Government-owned Shipyards	86	References
47	Reforms in the Indian Power Sector	64	Privately Owned Shipyards	89	Thanks to
47	Orissa – the First Mover	65	Funding		
47	The Electricity Act of 2003	65	Ship Breaking		
49	Progress of the Reforms	67	Indian Ports		
49	Does it Work?	68	Jawaharlal Nehru Port (JNPT)		
50	Statkraft Norfund Power Invest	69	Mumbai Port Trust		
50	SN Power in India	70	Chennai Port		
51	Moving towards a National Grid	72	Sagar Mala		
51	Closure	73	Transchart		
51	Some Opportunities	73	Cargo		
52	Energy – Oil	74	Contract Terms		
53	Exploration and Development	74	Chartering Work		
53	Speculative Surveys	74	Crude Oil		
		75	Circulation of Enquiries		
		75	References		

PART ONE

THE CURRENT POLITICAL SITUATION

Government Structure

The Republic of India is today the largest democracy in the world. India is governed according to the provisions of a constitution adopted in 1949 and amended frequently since then. Similar to the United States, India has a federal form of government. The Central Government in India, however, has greater power in relation to its states, and its Central Government is patterned after the British parliamentary system. The Government exercises its broad administrative powers in the name of the President, whose duties are largely ceremonial. Real national executive power is centred in the Council of Ministers (cabinet), led by the Prime Minister. The President appoints the Prime Minister, and then appoints subordinate ministers on the advice of the Prime Minister. India's bicameral parliament consists of the Rajya Sabh (Council or House of the States) and the Lok Sabha (House of the People or People's Assembly). The Council of Ministers (including the Prime Minister) is responsible to the Lok Sabha and must retain the support of a majority of the members of the Lok Sabha to remain in office. The President appoints a governor of each state.

State Structure

Over the last 50 years, India has seen increasing decentralization, with more and more power passing from New Delhi to the states. This is important, since about 70 per cent of the Indian population lives in rural areas. There are 28 states, 6 union territories, and the National Capital Territory of Delhi. The central government exerts greater control over the union territories than over the states, although some territories have gained substantial autonomy. India has also seen the reorganization of its states several times since its independence, leading to smaller, more manageable states. The first such reorganization took place in the late 1950s, which saw the creation of states on the linguistic basis. This was followed by similar moves in the 1960s and 1970s. Even beyond the states, the Indian democracy can be seen at work at the village level, through Panchayati Raj (rule of the Panchayat or village councils). In fact, the Indian experiment has been so successful in local governance that even leading western groups, like the European Union, have sought to learn from the Indian experience in decentralizing their own governance.

Political Parties

The two main political parties in India are the Congress Party and the Bharatiya Janata Party (BJP). India has a tradition of strong opposition parties. The leader of the opposition party in Parliament is a major force in the day-to-day functioning of the Government. For more than four decades following the independence in 1947, Indian politics was dominated by the left-leaning, secularist, Congress party. Priding itself as a secular, centrist party, the Congress has historically been the dominant political party in India. However, its performance in national elections steadily declined during the 1990s. In the autumn 1998 elections, the Congress Party suffered its worst defeat in 50 years.

The Bharatiya Janata Party (BJP) emerged as the single largest party in the Lok Sabha elections in February and March 1998. Its more free-market policy stance and nationalist message found increasing support among the Hindu majority. The Hindu-nationalist BJP traditionally draws its political strength from the Hindi belt in the northern and western regions of India. Long associated as the party of the upper caste and trading community, the BJP has received increasing support from lower castes in recent state assembly elections.

PART ONE

In the 2004 parliamentary elections the Congress Party again became the largest party in the Parliament, which was quite surprising. Congress took 145 seats in the 545 member Lok Sabha (lower house of parliament), compared to the BJP's 138. Following post-election coalition-building, Congress formed a broad coalition taking in regional and leftist allies. Italian-born Sonia Gandhi – the widow of former Prime Minister Rajiv Gandhi – turned down the opportunity to lead the new government, although she remains a powerful voice behind the scenes. Former economist Manmohan Singh assumed the role in her place – becoming India's first Sikh leader in the process.

International Relations

India's size, population and strategic location give it a prominent voice in international affairs, and its growing industrial base, military strength, and scientific and technical capacity is also important. It collaborates closely with other developing countries on issues from trade to environmental protection. India has always been an active member of the United Nations and has been seeking a permanent seat in the UN Security Council in addition to other UN reforms. India has a long tradition of participating in UN peacekeeping operations and most recently contributed personnel to UN operations.

India's external relations are dominated by its uneasy rivalry with Pakistan. The core of the fifty-year dispute is the Kashmir region, which was ceded to India at the time of partition but which has a large Muslim majority. Recently relations with Pakistan have improved, and there have been confidence-building measures. This includes the opening of new bus routes between the Indian and Pakistani controlled portions of Kashmir, and a substantial troop withdrawal by Indian forces aimed at lowering tension. However, despite these welcome developments, the dispute remains fundamentally unresolved. Meanwhile, the Pakistani leadership is under fire at home over its lack of democratic credentials and its clumsy handling of regional, ethnic and religious violence.

India's relations with the other regional power, China, have currently improved. Relations suffered a setback in May 1998 when India claimed its nuclear tests were the result of potential threats from China. Since then, India has worked to improve relations with China and is currently soliciting China's support in the ongoing conflict with Pakistan over Kashmir. So far China has remained neutral, and, as noted above, has called for a dialogue between the two sides. In 2003, India formally recognized the Tibetan autonomous region as part of the People's Republic of China, which established a landmark cross-border trade agreement.

During the cold war India's socialist ethos and non-interventionist stance raised US suspicions, pushing the latter to embrace Pakistan as its regional client. Growing US worries over the rise of militant Islam in the region and the opening up of the Indian market to US exports, has led to a warming in US-India relations. However, the collaboration between the US and Pakistan's President Musharraf since September 11th appears, to a certain extent, to have wrong-footed India. If the price of Pakistan's policy reversal in Afghanistan is US backing for international mediation over Kashmir, public opinion in India may turn against India's new-found friendship with the US.

PART ONE

Challenges

With the decentralized political system in India, politics will be decided at the state or more local level, according to local interests, problems and personalities. This might deliver a political system which is more sensitive to local demands, but it can also lead to political instability and violent chaos. In addition, some commentators have criticized the dominance of vote-buying, political intimidation and corruption in the Indian political system. The high level of illiteracy among the Indian population is naturally also negative for politics and society as a whole.

There have been many tensions, primarily between Hindus and Muslims, in India. This was amply demonstrated in February 2002, when inter-religious rioting broke out in the prosperous western state of Gujarat. The conflict left 1000 dead, and the majority was Muslim. The BJP party bosses in Delhi refused to distance themselves from the state's controversial chief minister.

It is an achievement in itself to have maintained democratic governance, however imperfect, in a country as large, poor and fractious as India. It is one which few countries in the developing world can match, in particular neither Pakistan nor China.



References

- 1) Datamonitor. 2005. India: Country profile. URL:<<http://www.datamonitor.com>> [Cited 2005 September 26]
- 2) Countrywatch. 2005. India Review 2005 [online]. URL:<<http://www.countrywatch.com>> [Cited 2005 September 28]
- 3) "Doing business in India", Ernst & Young, 2003
- 4) Microsoft Encarta Encyclopedia, 2005

THE INDIAN ECONOMY

...From Emerging to Surging

India has today strong and stable economic fundamentals with consistent, high growth. With predictions of a GDP growth rate of 7 to 7.5 per cent during financial year 2005-06 and prospects of maintaining the growth rate over the next five years, the Indian economy is one of the fastest growing in the world. Its rapidly increasing consumer class provides the world with huge market potential. Given its strategic strengths and rapidly paced economy, India serves as an ideal catalyst for investors to launch into the Asian market. India's attractiveness is growing – it has displaced the US as the second-most favoured destination for FDI in the world after China in the AT Kearney FDI Confidence Index.

Economic Growth

During financial year (FY) 2004-05, India's GDP grew at an estimated 6.9 per cent, following growth of 8.5 per cent in the previous year, making it one of the best performing economies in the world. GDP is projected to grow at an annual average rate of 6.3 per cent in the next five years (2009-2010). The now-famous BRIC Report by Goldman Sachs predicts that India's economy will become the 3rd largest in the world by 2032, ranking just after that of the USA and China. The confidence in the Indian financial market remains strong. Foreign investment inflows aggregated USD 14 billion in 2004-2005 (FIIs – USD

8.3 billion, FDI – USD 5.5 billion). India's foreign exchange reserves hit the USD 100 billion (over USD 143 billion on 2 December 2005), placing the country in an elite club of nations. India is at the forefront of the unfolding new area of knowledge economy, with a large pool of scientific and creative human resources and R&D facilities.

DOMESTIC SECTOR - MACROECONOMIC INDICATORS					
INDICATORS	2000-01	2001-02	2002-03	2003-04	2004-05
GDP (USD \$ bn)	457.4	474.5	534.2	603.9	649.8
GDP Growth (%)	4.4	5.0	4.0	8.6	8.9
Agriculture	-0.1	0.5	-5.2	1.0	1.3
Industry	0.5	3.0	0.2	0.5	7.8
Services	5.5	0.0	7.1	8.9	8.9
Structural Change in GDP (%)					
Agriculture	20.9	24.1	21.6	21.7	20.6
Industry	27.2	26.0	27.8	26.9	27.1
Services	48.9	49.9	50.7	51.4	52.3
Inflation rate (CPI, avg/yr)	7.2	3.0	8.4	5.4	0.0

* estimate

Source: Export-Import Bank of India

opportunities among its ethnically and religiously diversified people. An estimated 25 per cent of the population lives under the poverty line. India has a labour force of 482.2 million (2004 est.) with an unemployment rate of 9.2 per cent (2004 est.).

From an agro-based economy, India has emerged into a service-oriented economy. The service sector comprises 52.4 per cent of GDP, though 2/3 of the workforce is in agriculture. The contribution of agriculture to GDP has been slowly declining over the years. Today it counts for 20.5 per cent of GDP. The industrial sector has made the opposite movement compared to agriculture. The share of industry in GDP is today 27.1 per cent and slowly growing.

Economic Structure

India is the country with the second-largest population in the world next to China. It also holds the title of the world's largest democracy. Deeply rooted cultural and religious traditions have resulted in an unequal distribution of wealth and

PART ONE

Foreign Trade

India's economy is gradually, but surely, opening up. The quantitative restrictions on imports ended in 2001, opening up the economy to foreign businesses, especially in consumer goods. Barriers to trade and investment are coming down. The peak tariff rate is down to 15 per cent in 2005 (for non-agricultural and other specified goods) from 300 per cent in 1991. By 2006-07, tariff rates for many items could be as low as 8-10 per cent. India's trade has been increasing rapidly, growing at an average annual rate in real terms of around 13 per cent over the last 10 years – twice the rate of overall world trade. In line with the pick up in global trade, India's foreign trade has witnessed a sharp rise in recent years.

Even so, the Indian export figures are still relatively limited, accounting for some 10 per cent of GDP. India's share of world trade is only 0.8 per cent – similar to that of Norway. In 2004-05, the total exports amounted to USD 79.3 billion (provisional), and imports amounted to USD 107.1 billion

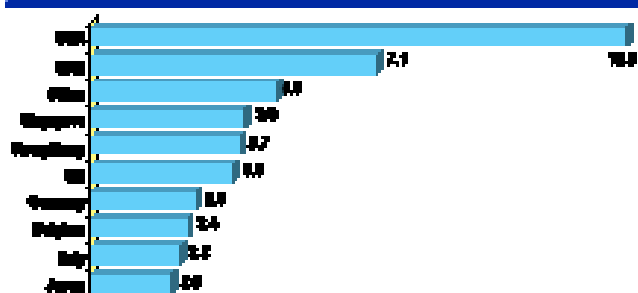
(provisional). India's major export partners are the USA, the UAE, China, Singapore and the UK, which all together account for more than one third of India's exports. Exports consist mainly of gems and jewellery, chemicals and textile goods. However, information technology services is a rapidly growing export segment.

India has a balance of trade deficit of USD 26.5 billion. Principal imports consist of crude petroleum

	(US\$ bn)		
	2003-04	2004-05	2004-05 P1
Exports	62.7	83.8	79.3
% change	20.3	21.1	24.1
Imports	81.4	78.2	107.1
% change	10.4	27.3	37.0
Oil Imports	17.8	28.6	29.8
% change	28.1	18.6	43.1
Non-oil Imports	43.8	67.8	77.2
% change	17.0	31.6	34.1
Trade balance	-8.7	-14.8	-28.6

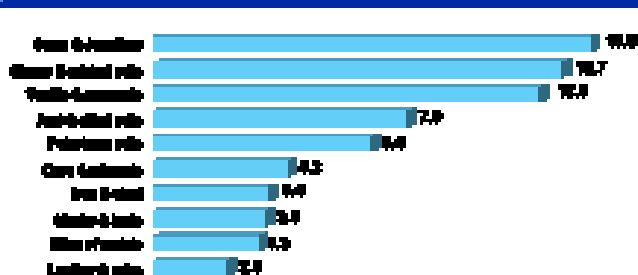
Source: Ministry of Commerce & Industry (MOCI), P – provisional

Top 10 Markets for Indian Exports (FY 2006, US\$ bn)*

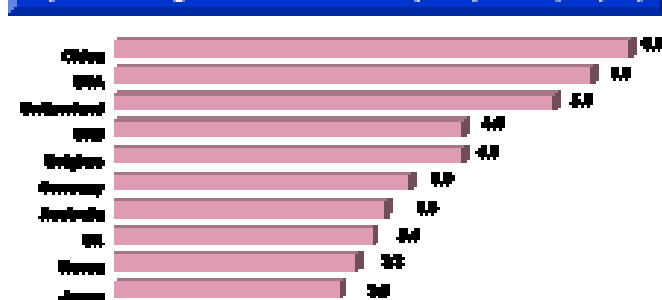


Source: MOCI, MOCI

Top 10 Export Items (FY 2005, US\$ bn)*

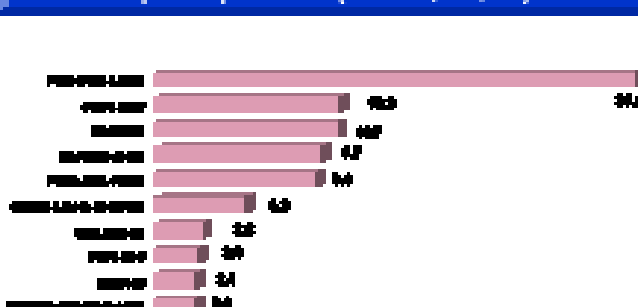


Top 10 Sourcing Countries for Indian Imports (FY 2005, US\$ bn)*



Source: MOCI, MOCI

Top 10 Import Items (FY 2005, US\$ bn)*



and petroleum products, gold and silver, machinery, electronic goods, and pearls and precious stones. Indian markets for import are the USA, the UK, Japan, Germany, Belgium and Switzerland in the OECD region, Iran, Kuwait and Saudi Arabia in the OPEC region, South Africa from the African region, China, Hong Kong, Malaysia, South Korea, Singapore, Indonesia and Thailand in the Asian region, and Australia.

Foreign Direct Investment

Today, India probably has one of the most open and liberal investment regimes among the emerging economies, with a conducive FDI environment. Opportunities exist for investment in India in sectors as diverse as tourism and infrastructure, petrochemicals and mining, technology and engineering. There are new areas where companies can invest, like real estate development, biotechnology and bioinformatics. India's government has passed the Special Economic Zones (SEZ) Act of 2005, which provides an internationally competitive and comfortable environment in which to manufacture and/or provide services for exports out of India.

The combination of macroeconomic stability, commitment to continued liberalization and the expanding trade and economic linkages make India an attractive destination for companies worldwide. During the first two months of FY 2005–06, India received FDI inflows of USD 912 million, registering an increase of over 116 per cent over the same period during the last FY.

There have been a number of key elements in India's growth, but among the most critical is the fact that India is a democracy with political consensus on the economy. India has a well-established, independent judiciary, and normal business risks are tempered by the presence of independent courts, politicians, and a free press. India has an abundantly available, qualified and competent human resource base – fluent in English, with R&D skills, technological training and managerial capabilities. India has untapped natural resources, a rich mineral base, an agricultural surplus and a huge manufacturing capability spanning almost all sectors. The consumer market is large and expanding exponentially. Special investment and tax incentives are available for promoting exports and for infrastructural development. In terms of potential, with its large scale investment absorption capacity and with economic fundamentals and momentum so strong, India offers attractive returns to prospective investors.

Foreign Investment Policy

India's economic policies are designed to attract significant capital inflows into India on a sustained basis and to encourage technology collaborations between Indian and foreign entities. Policy initiatives taken over the last few years have resulted in inflows of foreign investment in diverse sectors of the economy.

India welcomes FDI in virtually every sector, except those of strategic concern such as defence (opened up recently to a limited extent), railway transportation and atomic energy, and where the existing and notified sectoral policy does not permit FDI beyond a certain ceiling.

Special Economic Zones (SEZs)

“A specifically delineated duty free enclave and shall be deemed to be foreign territory for the purpose of trade operations and duties and tariffs.”

PART ONE

The SEZ Policy was introduced by the Government in 2000, with a view to providing an internationally competitive and hassle free environment for exports. SEZs are duty free enclaves, deemed to be outside the customs territory of India for the purposes of carrying out authorized activities. At present there are 11 operational SEZs in India. In addition, over 40 SEZs have been approved and are currently under establishment spread throughout the country.

Foreign Exchange

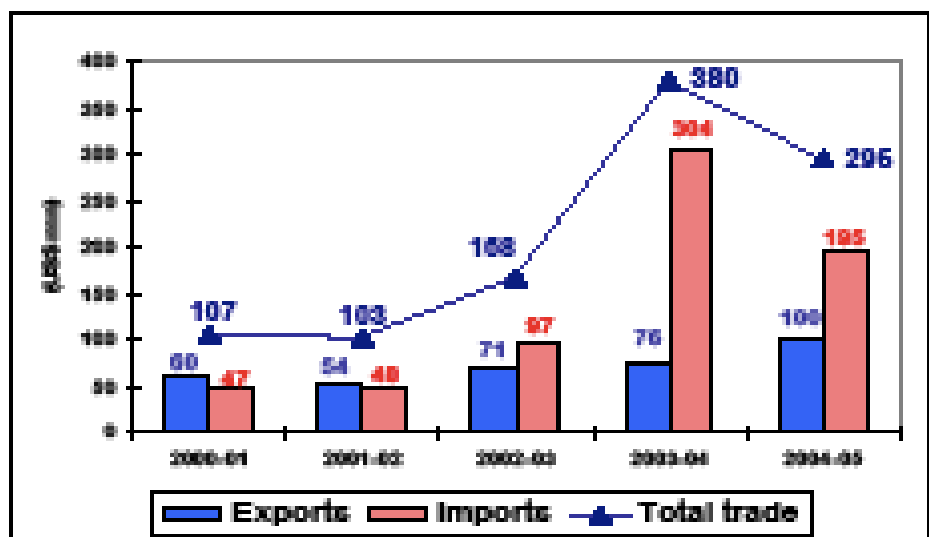
Since 1991, the country's foreign exchange reserves have surged from USD 2 billion to approximately USD 89 billion in September 2003. This achievement has been well supported by an increasingly liberalized exchange control policy of the Government. Prior to 1999, India had stringent exchange control regulations under its Foreign Exchange Regulation Act of 1973 (FERA). The Government in 1999 replaced controls under FERA with regulations under the Foreign Exchange Management Act of 1999 (FEMA). FEMA virtually provides full convertibility on capital and current account transactions for non-residents, while it subjects residents to non-convertibility on capital account transactions only. The key changes under FEMA relate to the removal of rigid and stringent controls over transactions with non-residents. Under the FERA regime, a majority of them required prior sanction from the RBI. With the introduction of FEMA, the objective of the Government has shifted from the conservation of foreign exchange to promoting an orderly development and maintenance of the foreign exchange market in India.

The Indian foreign exchange market is developing fast, with banks offering a variety of instruments to companies to hedge foreign exchange risks. The level of activity in the Indian foreign exchange market is expected to increase.

Indo-Norwegian Trade Relations

India is too little known in Norway. Although there is no trade agreement between India and Norway, other agreements have been signed between the two countries. Some of the agreements over the past two decades include:

- Agreement regarding corporation of the economic and social development of India (1981 to 1986).
- Convention between Norway and India for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income and on capital (1986).
- Agreement between Norway and India relating to air services (1995).



Source: Ministry of Commerce and Industry, GOI, India

India's Major Exports to Norway (US\$ mn)

	2002-03	2003-04	2004-05
All Commodities	71.8	75.9	108.2
RMG garments cotton incl. accessories	13.9	16.9	16.0
Cotton yarn fabrics roadmaps etc.	9.1	10.8	10.4
Cashew	1.9	3.0	5.7
Transport equipment	10.1	0.6	5.3
Paperboard products	1.8	2.5	4.9
Other ores & minerals	1.9	1.7	4.5
Leather goods	3.2	4.2	3.7
Miscellaneous yarn fabrics roadmaps	1.6	2.0	3.4
Manufactures of metals	2.1	2.1	3.4
Processed minerals	0.6	1.2	3.3

Source: MOCI

India's Major Imports from Norway (US\$ mn)

	2002-03	2003-04	2004-05
All Commodities	97.2	303.8	195.0
Transport equipment	32.6	228.5	100.3
Non-electrical machinery	7.8	9.7	26.5
Electronic goods	13.2	13.3	15.0
Non-ferrous metals	12.7	13.4	13.7
Primary steel pig iron based items	3.6	9.1	8.7
Chemical material & products	1.2	1.1	3.1
Electrical machinery	1.0	3.5	2.9
Artificial resins, plastic materials etc.	0.9	1.3	2.7
Manufactures of metals	1.2	1.5	2.6
Iron & steel	0.1	0.1	2.3

Source: MOCI

Both small and medium-sized Norwegian companies are active in India, and several joint ventures have been established. Nearly 40 such Norwegian and Indian companies are working jointly to improve the bilateral trade between the two countries. Bilateral trade is as follows:

Many Norwegian companies have discovered the Indian market, but there is room for many more, especially companies with advanced technology and long term expansion plans.

Recent Policy Initiatives

Some of the recent policy measures:

- Quantitative restrictions on imports removed
- Peak customs duty reduced from 20-15 per cent
- Special Economic Zone (SEZ) Scheme
- Agri-Export Zones (AEZ) Scheme
- Regional Initiatives – (Focus LAC, Focus Africa & Focus CIS programmes)
- Foreign Trade Policy 2004-2009

Foreign Trade Policy, 2004-2009

India's Foreign Trade Policy was announced in August 2004, and has two major objectives. One is to double India's share in global exports by 2009, second is to act as an effective instrument of economic growth. By this policy, major thrust was given to agriculture, handlooms and handicrafts, gems and jewellery, services exports (Services Export Promotion Council) and trade-related infrastructure.

References

- 1) Export-import Bank of India
- 2) Microsoft ® Encarta ® Encyclopedia 2005. © 1993-2004 Microsoft Corporation. All rights reserved.
- 3) Rabobank, <http://rabobankgroep.nl/download/India05.pdf>
- 4) Ernst & Young, DBI
- 5) Embassy of India, Oslo
- 6) CIA, The world fact book

PART ONE

CULTURE & SOCIETY

History

From the Indus Valley to the Fall of the Mughal Empire

One of the earliest civilizations of the world, and the most ancient on the Indian subcontinent, was the Indus valley civilization, which flourished from around 2500 BC to 1700 BC. It was an extensive and highly sophisticated culture. Over the next 2000 years the Indo-Aryans developed a Brahmanic civilization, out of which Hinduism evolved.

After centuries of different empires, kingdoms and dynasties, a Turkic invader from Afghanistan, Babur, founded the Mughal Empire, in 1526. The empire reached its greatest territorial extent, the control of almost all of India, under Aurangzeb. Under the Delhi Sultanate and the Mughal Empire a large Muslim following grew, and a new culture evolved in India.

The Arrival of the Europeans

In the late 15th century, the Europeans, led by Vasco de Gama, arrived in India. The splendour and wealth of the Mughal Empire attracted British, Dutch, and French competition for the trade that Portugal had at first monopolized. The British Empire in India started in the middle of the 18th century. By 1818, the British controlled nearly all of India south of the Sutlej River and had reduced their most powerful Indian enemies, the State of Mysore and the Marathas. Only Sind and Punjab remained completely independent. Great Britain regarded India as an agricultural reservoir and a market for British goods, which were admitted duty free. However, the export of cotton goods from India suffered because of the Industrial Revolution and the production of cloth by machine. On the other hand, the British initiated projects to improve transportation and irrigation. British control was extended over Sind in 1843 and Punjab in 1849. Social unrest led to the bloody Indian Mutiny of 1857. It was suppressed, and Great Britain, determined to prevent a recurrence, initiated long-needed reforms. In 1861 the first step was taken towards self-government in British India with the appointment of Indian councillors to advise the viceroy and the establishment of provincial councils with Indian members. But the power of Britain was symbolized and reinforced when Queen Victoria was crowned Empress of India in 1877.

Moving towards Independence

At the outbreak of World War I all elements in India were firmly united behind Britain, but discontent arose as the war dragged on. The British held out the promise of eventual self-government. Crop failures and an influenza epidemic that killed millions plagued India in 1918–1919. Britain passed the Rowlatt Acts (1919), which enabled authorities to dispense with juries, and even trials, in dealing with agitators. In response, Mohandas K. Gandhi organized the first of his many passive-resistance campaigns. The massacre of Indians by British troops at Amritsar further inflamed the situation. The Government of India Act (late 1919) set up provincial legislatures which meant that elected Indian ministers, responsible to the legislatures, had to share power with appointed British governors and ministers. Although the act also provided for periodic revisions, Gandhi felt too little progress had been made, and he organized new protests.

PART ONE

World War II found India by no means unified behind Great Britain. There was even an 'Indian national army' of anti-British extremists which fought in Myanmar on the Japanese side. In 1942, to procure India's more wholehearted support, the British cabinet proposed establishing an Indian interim government. Great Britain would maintain control only over defence and foreign policy, to be followed by full self-government after the war. The Congress demanded that the British leave India and, when the demand was refused, initiated civil disobedience and the Quit India movement. Great Britain's response was to outlaw the Congress and jail Gandhi and other leaders.

Independence and the India-Pakistan Split

The British Labour government offered self-government to India in 1946, but warned that if no agreement was reached between the Congress and the Muslim League, Great Britain would have to determine the apportionment of power between the two groups. Reluctantly the Congress agreed to the creation of Pakistan, and in 1947, British India was divided into the dominions of India and Pakistan. The future of Kashmir was not resolved.

Partition left large minorities of Hindus and Sikhs in Pakistan and Muslims in India. Widespread hostilities erupted among the communities and continued while large numbers of people — about 16 million in all — fled across the borders seeking safety. More than 500 000 people died in the disorders (late 1947). Gandhi was killed by a Hindu fanatic in 1948. The hostility between India and Pakistan was aggravated when warfare broke out (1948) over their conflicting claims to jurisdiction over the princely state of Kashmir. India finally became a sovereign republic in 1950.

Problems on India's Borders

In Pakistan, attempts by the government (dominated by West Pakistanis) to suppress a Bengali uprising in East Pakistan led in 1971 to the exodus of millions of Bengali refugees from East Pakistan into India. Caring for the refugees imposed a severe drain on India's slender resources. India supported the demands of the Awami League, an organization of Pakistani Bengalis, for the autonomy of East Pakistan, and in December 1971, war broke out between India and Pakistan on two fronts: in East Pakistan and in Kashmir. Indian forces rapidly advanced into East Pakistan. The war ended in two weeks with the creation of independent Bangladesh to replace East Pakistan, and the refugees returned from India. India's relations with the United States were strained because of US support of Pakistan.

India in the Late Twentieth Century

In mid-1973, India and Pakistan signed an agreement providing for the release of prisoners of war captured in 1971 and calling for peace and friendship on the Indian subcontinent.

While India's economic performance was generally stable in the 1980s, it experienced continuing problems politically, including border and immigration disputes with Bangladesh, internal agitation by Tamil separatists, violent conflicts in Assam, and continued antagonism between Hindus and Muslims. From 1987 to 1990, the Indian military occupied the northern area of Sri Lanka in an unsuccessful attempt to quell the Tamil separatist insurgency.

In 1991, Rajiv Gandhi was assassinated during an election rally and was succeeded as head of the Congress party by P. V. Narasimha Rao. The Congress party won the ensuing election and Rao became prime minister. He immediately instituted sweeping economic reforms, moving away from the centralized planning that had characterized India's economic policy, to a market-driven economy, greatly increasing foreign investment and trade.

PART ONE

Talks in July 2001 between Prime Minister Vajpayee and General Pervez Musharraf, Pakistan's military ruler, ended sourly, without any progress concerning Kashmir. In September, the economic sanctions imposed by the United States were removed as the Bush administration pursued closer relations with India. Relations with Pakistan, in contrast, were further aggravated by the suicide bombing of Kashmir's state assembly building by



Pakistani-supported militant Muslim guerrillas in October, and reached a crisis point and diplomatic break in December after guerrillas launched a terror attack on the Indian parliament. India insisted that Pakistan end all such attacks. The border with Pakistan was closed, and Indian troops were mobilized along it. Tensions somewhat eased when Pakistan moved to shut down the groups responsible for most terror attacks in India, and Musharraf subsequently announced that Pakistan would not tolerate any groups engaging in terrorism.

War with Pakistan again loomed as a possibility in May 2002, when attacks by Muslim guerrillas once again

escalated. The chance that such a conflict might turn into a nuclear confrontation prompted international efforts to defuse the crisis. The crisis eased in October and the two nations began a troop pullback. Diplomatic relations were restored in May 2003, and the situation slowly improved during the rest of 2003 and 2004. Also in 2003, India signed a border pact with China that represented an incremental improvement in their relations.

In December 2004, India's South-East coast and Andaman and Nicobar Islands were devastated by an Indian Ocean tsunami. Some 16 000 people may have been killed, and hundreds of thousands were made homeless. By April 2005, relations with Pakistan had improved to the point that Pakistani president Musharraf visited India, and the two nations agreed to increase cross-border transport links, also in Kashmir, and to work to improve trade relations.

Culture

India, famous for its holy cows, Bollywood, Ghandi and social stratification, is a vast country with enormous differences. It encompasses 2.4 per cent of the world's land surface and 17 per cent of the world's population. 72 per cent of the Indian population lives in villages and rural areas, but India also encompasses some of the largest cities in the world.



Et selskap i NHH-miljøet

PART ONE

Religion

Hinduism is the predominant religion in India, with approximately 80 per cent of the population following its doctrines. Other religions are influenced by Hindu ideas and norms, but approximately 13 per cent of the people are Muslims, 2 per cent are Christians and about 2 per cent are Sikhs (2001 census). Important religious minorities are Buddhists, Jains, and Parsis. There are temples, mosques and churches everywhere, but though religion is very important in everyday life, very few are fundamentalists. Indians are very tolerant towards different religions. The diverse religious traditions attract individuals from other beliefs, which create the community spirit of the Indian people.

Caste

The term **jati** refers to the social stratification tradition known in the west as caste. This tradition has long and powerful roots in India and still exists to a certain extent. The population is divided into five different levels: Brahmin (priests), Kshatriya (warriors, rulers and landowners), Vaishya (merchants) and Shudra (agriculturists and artisans) and Harijans (untouchables). Within each of these categories are the actual 'castes' within which people are born, marry, and die. They all have their own place among each other and accept that it is the way to keep society from disintegrating into chaos. This age-old system has been a natural part of the Indian society, and although it is officially abolished, the caste system still plays a major role in India today.

Language

The Indian census records over 200 different mother tongues. Hindi is the national language and primary tongue of 30 per cent of the people, and there are 14 other official languages. The languages are very different from each other and many cannot understand each other. Hindustani is a popular variant of Hindi/Urdu spoken widely throughout northern India but is not an official language. Formally, English has a status of assistant language, but in fact it is the most important language in India. Second to Hindi it is the most commonly spoken language, and probably the most read and written language in India.

Customs & Traditions

The important customs and traditions in India give the people a common basis and foundation.

Namaskar: Namaskar or Namaste is the most popular form of greeting in India. It is a general salutation that is used to welcome somebody and also for bidding farewell. While doing namaskar, both the palms are placed together and raised below the face to greet a person.

Tilak: Tilak is a ritual mark on the forehead. It can be put in many forms as a sign of blessing, greeting or auspiciousness.

Arati: Arati is performed as an act of veneration and love. It is often performed as a mark of worship and to seek blessings from God, to welcome guests, for children on their birthdays, family members on auspicious occasions, or to welcome a newly wedded couple. For performing Arati, lamps are filled with ghee or oil and flowers which are arranged in a small tray made of metal. The lamps are lit and the tray is rotated in a circular motion in front of the deity or the person to be welcomed.

PART ONE

Art, Dance & Festivals

India, from very early days, starting with the Indus period, has boasted of a well developed heritage in all forms of arts, including architecture, literature, sculptures, painting, music, dance forms, and theatre. Dance is very important in India. Every region has a traditional dance that is an art handed down from generation to generation. Indians love to celebrate, whether it is Diwali (the major Hindu festival), Id (the main Muslim festival) or Christmas. Every festival has its own special customs and rituals, pujas (the act of showing reverence to a god with songs and prayers), lighting lamps, throwing colour, feasting or even fasting.



References

- 1) <http://adaniel.tripod.com/Languages.htm>
- 2) <http://www.csuchico.edu/~cheinz/syllabi/asst001/spring98/india.htm>
- 3) <http://www.indiatravelite.com/feature/indiancustoms.htm>
- 4) <http://www.cia.gov/cia/publications/factbook/geos/in.html>
- 5) Microsoft Encarta Encyclopedia, 2005
- 6) Britannica Encyclopedia
- 7) www.indhistory.com



Tekna

MEDIA

The Press

The growth of a thriving press has been inhibited by cultural barriers caused by religious, social and linguistic differences. Consequently, the English-language press, with its appeal to the educated middle-class urban readership throughout the states, has retained its dominance. The English-language metropolitan dailies are some of the widest circulating and most influential newspapers. The Hindu, The Times of India, and The Indian Express are

among the influential English-language dailies.

The main Indian language dailies, by paying attention to rural affairs, cater to the increasingly liberate non-Anglophone provincial population. Most Indian-language papers have a relatively small circulation. The majority of publications in India are under individual ownership, and they claim a large part of the total circulation. The most powerful groups owned by joint stock companies publish



most of the large English dailies and frequently have considerable private commercial and industrial holdings. Four of the major groups are: Times of India Group, Indian Express Group, Hindustan Times Group, and Ananda Bazar Patrika Group.

Television

Only the government-owned Doordarshan is allowed to broadcast terrestrial television signals. It initially had one major national channel and a metro channel in some of the larger cities. Satellite/cable television emerged with CNN during the first Gulf War. There are no regulations against ownership of dish antennas, or operation of cable television systems, which has led to an explosion of viewership and channels, led by the Star TV Group and ZeeTv. Initially restricted to music and entertainment channels, viewership has grown, giving rise to several channels in regional languages and many in the national language, Hindi. The main news channels available are CNN and BBC World. In the late 1990s, many current affairs and news channels were started and became immensely popular because of the alternative viewpoints they offered compared to Doordarshan. Some of the notable ones are AAJ Tak and Star News. In September 2003, 76 per cent of the country's area and 90 per cent of the population were covered by the television network.

PART ONE

Radio

Broadcasting is controlled by the Ministry of Information and Broadcasting, and is primarily financed by the government. All India Radio (AIR) operates a network of 208 stations and 332 transmitters, covering almost the entire population and over 90 per cent of the total area of the country.

The News Services division of AIR, centralized in New Delhi, is one of the largest news organizations in the world. It

has 45 regional news units, which broadcast 364 bulletins daily in 24 languages and 38 dialects.

SIEMENS

References

- 1) Microsoft Encarta Encyclopedia, 2005
- 2) En.wikipedia.org
- 3) The Europa World Year Book 2005

TECHNOLOGY AND COMMUNICATION

Information Technology

According to a World Bank study India is considered to be the preferred location for software vendors due to its quality and price. In a Merrill Lynch survey, 46 per cent of US Fortune 500 companies consider outsourcing to India.

The Indian Information Technology (IT) industry comprises manufacturing and services of software, computers and computer peripherals. With USD 17.2 billion in the year ended in March 2005, software exports are leading the way for the Indian IT industry, according to a recent Gartner study.

India is also a popular target for companies that wish to outsource IT enabled services (ITES), and many multinational companies (MNCs) have moved their back offices to India. One of the reasons why India is so popular is the access to well educated and cheap manpower, creating possibilities to produce high quality products at low prices. The quality of Indian IT industry is clearly shown by the fact that 80 of the world's 117 SEI CMM level-5 companies are from India.

Internet Connection and PC Population

Even though India is ranked among the top countries in the world in software production, in March 2005 only about 3 million households in India had a computer, which implies a PC penetration of 2.7 per 1000 households. In the period March 2004 to March 2005 the sale of PCs to households was 890 000, and the overall sale of computers was 3.6 million – an increase of 31 per cent from last year. This gives a total PC population of 13.5 million, representing a total PC penetration of 11.92 per 1000 households.

As with PC users, most Internet users in India are businesspeople. Of India's 53 million Internet users, only 4.4 million are households. Most of the Internet users are connected with dialup modems and this limits the use to small applications and makes many e-businesses difficult. According to Telecom Regulatory Authority of India (TRAI) a World Bank analysis from February 2004 states that only about 5 per cent of total Internet users are connected by broadband. TRAI see this as a problem for further economic growth, and has taken an initiative that hopefully will lead to a total of 40 million Internet subscribers and 20 million broadband subscribers in 2010 (6.7 million in March 2005).

Communications

The number of telephone subscribers in India increased by three million in August 2005, touching a new high of additions. The previous high was in July 2005, when 2.72 million new subscribers were added. The average additions for the first five months of 2005 reached 2.37 million per month as compared to 1.83 million per month during the previous year. For the mobile segment more than 2.74 million subscribers have been added during August, making a total of 62.57 million subscribers at the end of August 2005.

Fixed Telephony

Fixed line telephony is split in three market segments, local (basic services), national long distance (NLD) and international long distance (ILD).

Historically, there has been a monopoly of the state owned/controlled operators such as Bharat Sanchar Nigam Limited (BSNL), Mahanagar Telephone Nigam Limited (MTNL),

PART ONE

and Videsh Sanchar Nigam Limited (VSNL), but when the Government introduced its liberalization policies, the market opened up for private players such as Reliance Telecom, Bharti Telenet and Tata Teleservices.

Services can be provided by telecom operators by building and utilizing their own network facilities or using built up networks of 'infrastructure providers', a separate licence category. The key feature of NLD and ILD licence guidelines is that it does not prescribe any ceiling on the number of operators and provides that any operator fulfilling the prescribed criteria would be granted a licence.

Mobile Telephony

The operators in this segment operate mainly on the GSM and CDMA platforms. The key players operating on the GSM platform include Bharti, Hutchison, BSNL, Idea Cellular and BPL Mobile, while Reliance and Tata dominate the CDMA market. As shown in the key figures for August 2005, the number of mobile-subscribers in India increases rapidly and is predicted to almost triple to 180 million by 2008. This will open up the market for many new private players, both Indian and international.

References

- 1) Ernst & Young: "Doing business in India"
- 2) National Association for Software and Services Companies (NASSCOM) – "India Tops Global Outsourcing" – www.nasscom.com
- 3) The Indian Embassy in Norway – <http://www.indemb.no/IndianEmbassy/IEindustryinfo.html>
- 4) NASSCOM – "India: Internet Users and Subscribers: 1998 – 2005"
- 5) TELECOM REGULATORY AUTHORITY OF INDIA (TRAI) – "Broadband India: Recommendations on Accelerating Growth of Internet and Broadband Penetration"
- 6) TRAI – PRESS RELEASE NO.72/2005
- 7) Businessweek: "Why Handset Giants Are Dialing Up India" by Josey Puliyyenthuruthel



MASTER OF TECHNOLOGY MANAGEMENT

www.mtm.ntnu.no

VIDEREUTDANNING I LEDELSE!

Master of Technology Management - MTM er et videreutdanningstilbud i regi av NHH og NTNU. Programmet er utviklet spesielt for å forberede dagens ledere på fremtidens utfordringer innen innovasjon og teknologidrevet endring.

TEKNOLOGIPERSPEKTIVET SENTRALT!

I MTM programmet er ledelse innen strategi, kunnskap/kompetanse, innovasjon, endring, globalisering og finans sentrale tema. Alle tema blir belyst i et teknologiperspektiv. Dette gjør MTM unikt i Norge.

INTERNASJONALT OG NASJONALT SAMARBEID!

MTM utnytter det beste fra NTNU, NHH, MIT Sloan(USA), National University of Singapore og Chalmers (Gøteborg). 3. semester i studiet tas i sin helhet ved et av våre utenlandske samarbeidsuniversiteter. MIT Sloan studenter kan også ta fag ved Harvard Business School.

TA MTM SAMTIDIG MED JOBB!

MTM programmet taes i kombinasjon med full jobb, bortsett fra ett semester (3,5 mnd) i utlandet.

Neste kull starter januar 2007.
Opptaksperiode 1. mai - 15. november 2006

Mer info: www.mtm.ntnu.no
Mailadresse: mtm@iot.ntnu.no





38 ukentlige flighter til India.

Med gode forbindelser fra Norge.

La dine drømmer bli virkelighet.

Alt for dette ene øyeblikket.

Ingen andre flyr deg til flere destinasjoner i India. Lufthansa tar deg til Delhi, Chennai (Madras), Bangalore, Hyderabad og Mumbai (Bombay). Våre beste tilbud finner du på www.lufthansa.no, ring 22 33 09 00, 23 35 54 00 eller kontakt ditt nærmeste reisebyrå.

NYHET! Fra 26.mars tilbyr vi en ny daglig flight mellom Oslo og Frankfurt. Denne gir deg smidige forbindelser, og du kommer deg raskt hjem.

There's no better way to fly.



Lufthansa

A STAR ALLIANCE MEMBER 

PART TWO

EDUCATIONAL SYSTEM

Since gaining its independence from Britain in 1947, India has sought to develop a modern, comprehensive, high quality school system. With the country's large population, and social and religious complexities, this has not been easy. Funds that might have been used for education have had to be utilized to combat poverty, food shortages, and overpopulation. The relics of the caste system and religious diversity have contributed to the difficulty of educational reform. Nevertheless, structural changes and ten-year plans have been carried through, and today one can observe an educational system known both for its diversity and quality.

Structure and Statistics

The National Policy on Education has stated that free and compulsory education of satisfactory quality is to be provided to all children up to the age of 14 year before the start of the 21st century. For women, education is free up to undergraduate level in higher education.

Today it is estimated that around two thirds of all children are enrolled in school. However, this figure is somewhat optimistic as many do not attend school on a regular basis.

The total expenditure on education in India is between 4.5 and 5 per cent of GDP, the OECD average being 5.4 per cent. India's increased expenditure on education has resulted in better coverage of the country, in particular regarding primary education. 94 per cent of rural population has access to primary education, and 84 per cent to primary as well as secondary education. The numbers have increased tremendously over the last decade due to the country's initiatives to better the system.

India has implemented numerous initiatives to even out traditional differences between the social castes, as well as gender differences. For the socially disadvantaged scheduled castes, government-subsidized tuition is offered to those wishing to take university-entry exams. The government has also initiatives aimed at helping disabled students and increasing the number of disabled children in primary and secondary school to an estimated 20 million.

The structure of the educational system follows that of Norway post the Bologna convention; primary and secondary education, higher education and adult education.

Elementary and Secondary Education

Indian children enter primary education at the age of 6 years, and complete their secondary education at 14 years of age. Among the numerous initiatives, an attempt at



PART TWO

competency-based learning has been made. The Minimum Levels of Learning (MLL) have been introduced in many states over the last six years, which has led to the development of better textbooks and pupil evaluation. India is currently working on implementing MLL in the upper primary as well as secondary education.

Higher Education

Higher Education is imparted through 221 universities, and a total of 10 555 colleges covering all parts of the country. India houses some of the world's largest educational institutions, the largest being University of Delhi, educating a total of 300 000 students. Higher education is divided into Bachelor's, Master's and Doctoral levels.

Over the last years, India has focused on technical education, and is today one of the world leaders in the field. Five-Year Plans with a sole focus on this field have been implemented and supported financially both by the Government as well as private, voluntary organizations.

In an international perspective, Indian higher education has a good reputation, and technical education is particularly highly rated. The National Assessment and Accreditation Council (NAAC) is an autonomous body established by the University Grants Commission (UGC) of India to assess and accredit institutions of higher education in the country. It is an outcome of the recommendations of the National Policy in Education (1986) that laid special emphasis on upholding the quality of higher education in India. NAAC is in close collaboration with other assessment organizations, including the Norwegian Agency for Quality Assurance in Education (NOKUT) in Norway.

Adult Education

Adult education focuses mainly on increasing the national literacy level. The National Literacy Mission, launched in 1988 and still running, aims at attaining functional literacy for 100 million persons in the age group of 15–35 years. Due to this implementation, literacy has improved significantly over the last decades. From a 1991 census figure of 51.63 per cent the literacy rate improved stood at 65.38 per cent in 2001. As with India on a general level, there are large differences in the rates across the country; Kerala topping the list with a literacy rate of 91 per cent and at the other end the Bihar region where literacy stands at 48 per cent.



**Norwegian School of Economics
and Business Administration**

PART TWO

INDIA'S NEW LABOUR FORCE

One of India's strongest competitive advantages is human capital. Indian universities may not be very well known to people in the western world, but as a matter of fact, some Indian universities are ranked among the best in the world.

There are 250 universities and 10 000 higher educational institutions in India producing a million graduates per year. Ten per cent of the academic institutions are world leading. Especially within technology there are many well renowned universities, but India also has high ranking universities teaching business management.

Indian Institute of Technology (IIT)

Established in 1950, IIT has become synonymous with excellence in technology and engineering education in India. IIT offers undergraduate, integrated postgraduate and postgraduate programmes in various engineering, science, technology and management disciplines. It was

ranked third best in the world by Times Higher Education Supplement in 2005, up from fourth in 2004.

IIT is a public university and has seven campuses around the country. Approximately 150 000 students take the Joint Entrance Examinations (JET) each year and only 5 000 students are admitted to IIT. 22.5 per cent of the students are admitted through affirmative action which is aimed at students from the lower ranks of society.

IIT students in general face good working conditions and are more or less guaranteed jobs upon completed education. Students specializing in civil engineering and IT are especially attractive in India. Throughout the academic year, Indian companies visit the campuses to recruit students. If international

companies wish to come to India and present their company in order to recruit Indian students, they must apply for government permission to visit the institution of choice. This might be one of the prime reasons why there are few international companies present at IIT campuses.



PART TWO

Interview with a Student at IIT Delhi

Puja is a modern Indian girl who is studying Biotechnology and Computer Science at IIT in Delhi. This is Puja's fourth year, out of five. She is taking extra subjects of interest besides her ordinary subjects in her course. She can speak and write English, Hindi, Urdu, Punjabi and some French. She has travelled virtually all over the world and has relatives in the UK and the USA.

Once Puja finishes her degree, she has the ambition to get a job in the UK. Puja has already completed an internship in the UK for 3 months, and she finds it relatively easy to get a job there. The main reason why she wants to get a job in England is because her sister is living there. She wants to get a job that both interests and challenges her.

We asked Puja what students like her, attending one of the world's most prestigious technological universities, think of going abroad for further studies or getting a job. She told us that she believes opportunities in western countries are more varied. Still, even though the study options are unique and the salaries are high, Puja says that most Indians would prefer to return to India after their studies or some years of work. This is mainly because of strong family ties and good opportunities in their home country. Puja has also thought of taking a MBA degree abroad after her studies. She thinks that this will make her more competitive in the job market.



Puja is very happy to go to IIT Delhi. She thinks this was one of her best decisions in choosing a university. Every good student has a chance of getting admitted to IIT. It is not dependent on wealth or social status. Students that perform very well get scholarships for outstanding performance. Unlike Norway, the students get no loans for higher studies. Puja told us further that the tuition fee for residential Indians is less than for foreigners, which she thinks is a good arrangement.

A normal day at university varies from seven to nine hours, and after that the university offers a tremendous range of sports activities. In the evening Puja, like every other student, does her assignments and reports. After this Puja is free and normally spends the rest of the evening with her friends in the university girls' hostel or in her room surfing for exciting news and information on the Internet.

NTNU

Innovation and Creativity

The Norwegian University of Science and Technology (NTNU) in Trondheim represents academic eminence in technology and the natural sciences as well as in other academic disciplines ranging from the social sciences, the arts, medicine, architecture to fine arts. Cross-disciplinary cooperation results in ideas no one else has thought of, and creative solutions that change our daily lives.

www.ntnu.no



NTNU

Innovation and Creativity

Indian School of Business (ISB)

ISB is a private business school situated half an hour outside the central city of Hyderabad. The area is very near High Tech City, which hosts large and well-known multinational companies like Microsoft and Infosys.

The School evolved five years ago from a need for a globally top-ranked business school in the Asian region dedicated to providing top management education. The school's Governing Board comprises business leaders, entrepreneurs, and academics from some of the world's leading business and management education institutions. ISB is associated with the Kellogg School of Management, The Wharton School of Business, and London Business School which makes it unique in Asia.

ISB's vision is to become "an internationally top ranked, research driven, independent, management institution that grooms future leaders for India and the world". Independence is very important to ISB because the Indian government has many guidelines about education in India. Due to its independence, the School is not affected by these guidelines.

ISB offers a one year MBA programme, as well as a two-year Post-Doctoral Research Fellowship Programme. There are three MBA specializations: Entrepreneurship, Analytical Finance, and Manufacturing, Logistics and Supply Chain Management. Another three specializations are planned for the near future, which includes Strategic Marketing, Leadership and Change Management, and Technology Management.

The faculty consists of teachers from all over the world. In fact 90 per cent of the teachers are guest lecturers from universities like Wharton, Kellogg, London Business School, and Stanford. 70 per cent of these teachers are originally native Indians.

The average student at ISB has 5 years of business experience. About 45 per cent have worked in engineering. The second-largest work category is consulting. To be admitted students need strong academic results. Around 2000 students are competing for approximately 300 places. The number of students is increasing every year, up to a capacity of 560 students. Most of the students are Indian, but they are working on increasing the share of foreign students. The tuition fee is lower than comparable schools around the world, although the GMAT test scores are about the same. There are only 19 per cent women at ISB. This is relatively low, but not when compared to similar schools in Asia. However, ISB is working on increasing the number of women.

For the class of 2005, 273 students were offered 351 jobs. Their average salary before their MBA was NOK 70 000. The average Indian offer after graduation was NOK 143 000 and the average international offer was NOK 650 000.

References

- 1) www.iit.org/default.htm – Indian Institute of Technology
- 2) www.nasscom.org – National Association of Software and Service Companies
- 3) www.isb.edu – Indian School of Business
- 4) K G Shama, Dean – Civil Engineering, IIT Delhi
- 5) Joseph A Hopper, Asst. Director, Co-curricular Activities, ISB
- 6) Rahul Choudaha, Manager – Admissions, ISB
- 7) I V Shiv Kumar, Senior Manager – Co-curricular Activities, ISB

PART TWO

INDIAN BUSINESS CULTURE

Greetings and Courtesies

Indians greet each other with the namaste, which is formed by pressing the palms together (fingers up) below the chin and nodding the head. When greeting superiors or to show respect, a slight bow is added. When meeting foreigners, Indian men will shake hands, but they do not **generally** shake hands with or otherwise touch women as a gesture of respect for a woman's dignity and privacy. Indian women who are educated or familiar with international customs may offer their hands to foreigners. When meeting a woman, a man should wait for her to initiate a handshake. If she does not, smile and nod slightly. When in public, men should not initiate a conversation with an Indian woman who is alone.

In conversation use 'Mr' and 'Ms' followed by the last name. Indians also value titles, if someone has a title, use it when greeting them. As a general term of respect the suffix 'ji' is used after the first name or the last name. Mr Radman Sharma will then be Sharmaji in a formal setting and Radmanji in a more familiar setting. When people become more acquainted, it is normal to use first name, but let your Indian partner take the initiative. Showing respect for others, especially those who are older, is very important. In a group, greet the eldest person first. Bringing your business card is also important.

Meetings

Indians value punctuality in others, but will often be late themselves for meetings. Traffic is extremely heavy in Indian cities, which sometimes prevents people from getting to an appointment at all, something that can require rescheduling. Hence, it might be smart to build a few extra days into your travel plans if possible. Indian executives generally prefer to meet from Tuesday to Thursday, and in the late morning or early afternoon. Schedule appointments well in advance, and reconfirm appointments when you arrive in India. Most meetings will begin with pleasant small talk over a cup of tea and perhaps food. It is not very polite to refuse any food or drink offered. You should therefore always accept, and if you do not like it, leave it in front of you. In India, business life is based upon personal contacts, and it is of great importance to get to know each other before closing a contract.

Decision-making

Decisions are made slowly, because Indians require time to discuss every aspect of a deal, and then usually take more time before giving a final answer. Impatience is viewed as rude, and high-pressure attempts to get things done faster will be resisted and resented. Decisions are made at the top of the hierarchy, so whenever possible cultivate and maintain good relationships with the highest-ranking executives.

Business Attire

Proper business clothing is casual but neat. Standard attire for men is trousers and short-sleeved shirts; however, a jacket should be worn to initial meetings or when seeing government officials. Meetings with the highest-ranking executives will require a suit. Do not wear leather clothing or any accessories made from animals. Women should wear casual dresses or trouser-suits. It is acceptable for foreign women to wear the traditional sari, and Indian women in particular admire foreigners who do so. Women should always dress conservatively. Do not wear skirts that rise above the knee, and never wear a sleeveless dress or blouse.

PART TWO

Topics of Conversation

When it comes to topics of conversation it is best to avoid sensitive topics like religion, different groups of society in India, poverty, or the Indian relationship with China and Pakistan. Talking about your friends and family is an important part of establishing a relationship with those involved in the negotiation process. Asking a lot of personal questions on the other hand, might be looked upon as being indiscreet.

Business Gifts

Even though business gifts are not required at the first meeting, a small gift is not out of place. Gifts may be given once a relationship with your counterpart develops. Never give alcohol to a Muslim. Sikhs are not likely to drink alcohol either. Large or very expensive gifts could cause embarrassment. One should give gifts with both hands and the gift should not normally be opened in the presence of the giver.

Women

India is a male-dominated society. Foreign business women should experience few problems, but in general, women are not accorded the same level of respect as men. Indians who have had more exposure to international dealings will be more used to dealing with women; older men will usually be more traditional and less open. Behaving in a professional, confident, and poised manner will help overcome some of this resistance. An Indian man will probably offer to pay the bill, but will not push the point if a western woman politely insists on paying. Women should be prepared for personal questions about their age, marital status, and whether they have children.

References

- 1) <http://www.indiaserver.com/biz/business-culture-india.html>
- 2) Doing Business In India, Ernst & Young, 1999.
- 3) Ulven Henrik, Internasjonal skikk og bruk, Index Publishing 2004.

PART TWO

INFRASTRUCTURE

India has made substantial infrastructural improvements over the last decade. Although lack of infrastructure still represents a threat to India's rapidly growing economy, there are ambitious plans for expansion and modernization. The present government has shown willingness to allow both local and international private companies to be a part of the process. This provides all participating companies with opportunities for making substantial profits.

India needs to spend as much as USD 200 billion on boosting electricity supplies, running water, highways, ports and airport runways to bring its infrastructure to the levels of other Asian nations. Hurdles to expanding infrastructure include political squabbles between state governments and national politicians, as well as financing.

Indian roads carry 85 per cent of passenger and 75 per cent of freight traffic. Highways make up just 2 per cent of the total road network, yet carry 40 per cent of this traffic. However, infrastructure problems run deeper than roads. Problems also touch shipping, water and power. India has a 10 per cent electricity shortfall during peak hours of the day.

Ports and airports need immediate attention. Turnaround times at Indian ports improved to between three and four days in 2005, from about eight days in 1996, but still lag behind Asian rivals like Hong Kong, where turnaround is one to two days. The cargo handling capacity is expected to increase to 565 million tonnes in 2006 from 412 million tonnes in 2002 .

Passenger traffic at 125 state-run airports topped 50 million a year to March 2005 and is estimated to rise 12 per cent each year until 2009.

Already, passengers queue in long lines inside as carriers battle it out for terminal space outside.

Although the infrastructure of India has not kept pace with the times, there are ambitious plans for expansion and modernization. The 'Golden Quadrilateral Plan' (5850 km costing



USD 5.5 billion) for linking the four metropolitan cities of Delhi, Mumbai, Chennai, and Kolkata with modern highways is expected to be completed by 2007. Though this is much later than planned the improvements are being made. North South (Srinagar to Kanyakumari) and East-West (Silchar to Porbandar) highways with a length of 7000 km are also under construction. Another project to connect all major cities with 10 000 km of roads costing USD 9 billion was launched in January 2004.

Also in urban infrastructure there are plans for investments. The Ministry of Power has formulated a blueprint to provide reliable, affordable and quality power to all users by 2012. Water supply and sanitation projects alone offer scope for annual investment of USD 5.71 billion.

The Telecom market is growing vigorously. In the cell phone market there are one million new subscribers each month. Here investments are being made to increase the capacity for the growing number of users.

According to India's Prime Minister, Manmohan Singh, India has made substantial progress in the area of infrastructure. Still, inadequate infrastructure is threatening India's ability for future economic growth unless huge investments are made. He admits that everything is not in place, but claims that in the last year his government has been in office they have set in motion the processes through innovative public-private partnerships to explore new pathways to make the infrastructure ambitions a realizable goal. The Prime Minister announced the 'Sagar Mala' project in August 2003, for expansion and modernization of ports, inland navigation and maritime transportation. This involves an investment of USD 22 billion in a period of ten years. While the Government will cover 15 per cent of the investment, the rest will come from the private sector.



TINFOS JERNVERK A/S

References

- 1) www.indemb.no – Indiske Ambassade i Norge
- 2) www.nasscom.org – National Association of Software and Service Companies
- 3) www.nhai.org – National Highway Authority of India
- 4) Reuters
- 5) The McKinsey Quarterly, Interview with Manmohan Singh

PART TWO

INVESTING IN INDIA

Despite high economic growth in India, foreign direct investment (FDI) is still low. In 2005, the FDI was about USD 5 billion, compared to China's USD 40 billion. Reforms are taking place, but take time in such a large democracy as India.

Why invest in India?

- India has well educated, skilled, low-cost labour force.
- A large increase in the number of knowledge workers in the software and service industry in recent years (50 000 computer professionals and 360 000 engineering graduates each year).
- After the US, India is home to the largest pool of English-speaking scientific manpower.
- No language barriers: English is the most used business language in India
- Well developed R&D infrastructure
- High economic growth (approximately 6 to 7 per cent) and rather low inflation (approx 4 to 5 per cent)
- A huge potential market, with a size of USD 1.5 trillion at Purchasing Power Parity
- India was classified as the best offshoring destination (AT Kearney offshoring index, 2004).

A Common Wage Structure

- Unskilled labour: approximately INR 3500 to 7000 per month.
- College educated mid-level manager: approximately INR 20 000 to 30 000 per month.
- IT Director (responsible for 400 to 1200 employees): approx. USD 100 000 per year.
- (1 NOK = approximately 7 INR).

Some Problems Regarding Business Establishment in India

- The main problem when considering investing in India is the level of bureaucracy. This can be illustrated by the average number of days it takes to establish a company. An establishment takes 89 days in India compared to 41 days in China, 36 days in Russia, 18 days in the UK and 5 days in the USA. Bureaucracy has a restrictive effect on efficiency, and many resources must be used to stay in touch with authorities of different kinds.
- Labour unions are strong in the manufacturing industry, and rationalization and lay-offs can be relatively rigid. This applies especially to companies with over 100 employees. For export companies which are strongly affected by international business cycles, it may be difficult to relate to such a situation.
- Corruption is also a problem for India, especially at the state level. Corruption also seems to be accepted to a large degree in many states.

PART TWO

- The infrastructure in India is both a challenge and an opportunity. There is no 'inter-state expressway' that connects the major economic centres. There is only 3000 km of road with four lanes, compared to China which has constructed 25 000 km of road with four to six lanes over the last few years.

Issues to Be Aware About

- Nobody works from 8 a.m. to 4 p.m. in India. An Indian always has to be prepared for the fact that something could come up, so one is practically at work 24 hours a day.
- Although there is a hierarchy, there is less structure in what tasks the different employees in the organization have. A description of work tasks an employee is responsible for is often not written down but is communicated orally.
- The value of time is different in India and Norway. Norwegians are very particular when it comes to holidays and weekends. Indians are not that focused on vacation, and naturally have fewer holidays than Norwegians.
- Indians talk more about business in their spare time that would normally be discussed during business hours in Norway. There are no distinct division between business and non-business in India. Indians often discuss more social matters at work compared to Europeans, but this varies among companies.
- One has to be aware of the self-respect of Indian people, i.e. do not just give money to a poor person, who is working hard. He might want to earn only INR 5 a day for hard work, rather than having INR 100 from a tourist. This could also be useful to remember in a business setting.
- The success of signing a contract in India depends very much on the relationship created among the parties involved, and one has to be patient to succeed. It is often important to concentrate on building close relations with customers to a larger degree than in Norway.
- Culture and religion can also matter in a business context, typically in pure Indian companies and government companies. It is of minor importance for international companies and Indian companies dealing with international clients.
- Indians wear smart clothes at work and are more casual when going out for dinner. In Norway the opposite is often the case.

Europeans and Americans are Different

The West often has a very stereotypical view of India, with wild animals in the streets and people living below the poverty line. It takes a lot of time to get to know India. There are also differences in the ways foreign investors approach India. Europeans are very conservative, need longer time and have more mistrust in foreigners than Americans, who tend to think only about business. Americans have in many cases been more successful than Europeans in India, because they are very direct, are willing to take risks and raise the issue very fast if there are problems. Europeans are much slower and think it could be embarrassing and rude to be so direct. Norwegians and Europeans are direct when it comes to work issues, but not so direct when it comes to social issues. Indians tend to go around a contract, while Norwegians are much more direct. But Norwegians need more time to think about a contract, while Indians could go for it immediately.

A problem of many American companies has been that they pay very high wages to attract

PART TWO

the best employees and get a quick market share. Companies like Coca Cola have carried out such strategies, they thought would be advantageous towards their competitors. In fact it disturbed the labour market, and the firms were unable to make profits. Wages were near the American level, but product prices had to be kept at Indian level. It was also difficult to reverse high wages. To succeed in India it is important to respect Indian traditions, learn the hospitality and build relationships. In this sense, Europeans might have an advantage compared to Americans. One example is a French company, which knew all the surnames of their Indian counterpart and where the different persons came from. In doing so, the French company made a very good impression.

References

- 1) 'Investeringsmiljø og -muligheter i India', consultancy report made by Svein Lang og Frode Mindrebø, 2004
- 2) Meeting with Ashok Balwani, Global Manager – ICT Sector, Det Norske Veritas AS, Mumbai, [20.01.2006]
- 3) Meeting with Roma Balwani, Head of corporate communications, Mahindra & Mahindra Ltd, [18.01.2006]



Storgata 37, 0182 Oslo
Tlf.: 22 98 79 00
Fax: 22 98 79 01
www.reisehuset.no

SUPPORT FACILITIES

Innovation Norway

As of 1 January 2004, the new state owned company Innovation Norway has replaced the following four organizations: The Norwegian Tourist Board, the Norwegian Trade Council, the Norwegian Industrial and Regional Development Fund (SND) and the Government Consultative Office for Inventors (SVO). Innovation Norway promotes nationwide industrial development profitable to both the business economy and Norway's national economy, and helps release the potential for different districts and regions by promoting innovation, internationalization and promotion.

The new state-owned company employs more than 700 people. Innovation Norway has **offices in all the Norwegian counties and in more than 30 countries worldwide**. The head office is located in Oslo. The core group of clients includes Norwegian companies, predominantly SMEs. In the summer of 2005, Innovation Norway started up an office in New Delhi, headed by Mr Per Reinboth.

Innovation Norway India Offers the Following Services to Norwegian Companies Interested in Entering the Indian Market:

- Consultancy/advisory services to Norwegian companies to identify importers, agents and distributors for their products in India.
- Market studies of Indian industrial sectors to assist Norwegian companies in understanding the Indian market.
- Detailed information about custom duties, import-export policies and regulations, procedures for setting up of joint ventures, collaborations, subsidiary companies etc. in India.
- Hosts individual Norwegian companies as well as delegations visiting India, organizing business match-making and buyer-seller meetings for them to suggest business partners.
- Provides sectoral research papers, investment and other presentation papers about Indian industry and economy.
- Partner search and advice about market entry strategies.
- Organizes seminars, workshops and presentations in India to create awareness about Norway in India.
- Facilitates participation of Norwegian companies and industrial associations at international exhibitions in India.

Eksportfinans

Eksportfinans is the Norwegian Export Credit Agency – the joint institution of the banks and the Norwegian Government. Established in 1962, Eksportfinans offers a wide range of financial schemes for both small and large companies. All loans must be secured by a guarantee, either from the Norwegian Guarantee Institute for Export Credits (GIEK) or from Norwegian or international banks. Norwegian exports of capital goods may be financed through long-term government-supported loans or strictly long-term commercial loans. International investments are financed on commercial terms only. The support schemes are handled by Eksportfinans on behalf of the Norwegian Ministry of Trade and Industry, and

PART TWO

the loans are offered on a line with international regulations set by the OECD.

Eksportfinans is working in close cooperation with both Norwegian and foreign institutions. It supports Norwegian companies in order to promote the sale of Norwegian export products through good financial solutions. Moreover, it communicates relevant knowledge to investors considering investments in the company's bonds and financial papers. On behalf of the Government, Eksportfinans is also handling government supported export financing including ships, and the ships support scheme that has been terminated for new contracts. Eksportfinans actively seeks to handle new relevant tasks on behalf of governments, banks and other institutions.

The Norwegian Guarantee Institute for Export Credits

The Norwegian Guarantee Institute for Export Credits (GIEK) is the central governmental agency responsible for furnishing guarantees and insurance of export credits. The primary function of the institute is to promote the export of Norwegian goods and services and Norwegian investment abroad by furnishing guarantees that reduce the credit risk borne by the individual exporter in transactions with foreign partners.

Today, GIEK is an important player in the Norwegian market for short-term customer credit insurance through the subsidiary GIEK Credit Insurance Ltd, primarily servicing exporters who are unable to secure satisfactory offers on the private market. GIEK also offers long-term guarantees for the export of capital goods to most countries, including emerging markets. Furthermore, GIEK's guarantees cover the export of ships.

GIEK serves exporters to over 150 countries for all types of goods and services ranging from fruit and berries to shipping and consultancy services. The guarantees may encompass a single transaction or a series of transactions and cover not only commercial risk (i.e. failure on the side of the debtor) but also political risk (i.e. war), and expropriation and actions by the public authorities that prevent payment.

Export-Import Bank of India

The Exim Bank of India is fully government owned, established in 1981. However, it is run on an independent basis, making profits. The mandate from the government is to provide assistance to both exporters and importers, and promote India's international trade. The Exim bank works with both private and public sector companies, but the private sector is the largest. The Exim Bank has not financed any projects related to Norwegian-Indian business.

The main focus of the Exim Bank when it was established was export credits. During the years, the Bank's activities have evolved from a product approach to a more customer approach with a broader scope. The bank now offers a comprehensive range of products and services for Indian and foreign businesses, banks or financial institutions.

Credits for Importers of Indian Goods

Exim Bank's two main facilities for importers of Indian goods are the buyer's credit and lines of credit (LOC). The buyer's credit is given to overseas buyers for the import of Indian goods.

The LOC is given to financial institutions, regional development banks, sovereign governments and other entities overseas, to enable buyers in those countries, to import goods and services from India on deferred credit terms. LOC enables developing countries that lack foreign exchange, to buy Indian goods on credit.

PART TWO

It is possible for a Norwegian company to get a letter of credit from the Exim Bank, and this is done in many cases. It is also common that the Exim Bank will give the bank in Norway a guarantee. Another possibility is a buyer credit. The Exim Bank prefers to open a line of credit instead of providing direct financing.

Other Financing Programmes and Activities

The Exim Bank is also engaged in advisory and consultancy services, as well as research for Indian companies and especially foreign developing countries. Finance for export oriented units is also a main programme of the Exim Bank. This can be project finance, working capital finance, equipment finance, overseas equity investments and finance for export product development. But turnkey projects are much larger projects in terms of financing compared to equity and pure finance. There are today 170 project export contracts under execution with Exim Bank support. The total value of the contracts is USD 5.2 billion. The Exim Bank also provides equity to joint venture projects, as well as pure financing.



References

- 1) http://www.invanor.no/templates/Page_Meta_____54655.aspx
- 2) EKSPORTFINANS
- 3) GIEK
- 4) Meeting with the Export Import Bank, Mumbai, [17.01.2006]
- 5) Export Import bank of India brochure 'objectives, operations and organization'
- 6) 23rd annual report Export Import bank, 2004-05

The leading provider of Custody and Clearing Services in Norway



DnB NOR

your Nordic Partner

Offering: Commitment, Knowledge, Experience and Excellent Service

For further information please contact:

Head of Securities Services - Jan B. Penne: jan.penne@dnbnor.no

Global Relations and Business Development - Bente Hoem: bente.hoem@dnbnor.no

Securities Finance - Dag Rudiløkken: dag.rudilokken@dnbnor.no

e-mail: custody@dnbnor.no • www.dnbnor.no/custody

Nordic Custody & Clearing Alliance: Swedbank, Sweden – Amagerbanken, Denmark – OKOBANK, Finland

www.dnbnor.no

DnB NOR

TAX ISSUES RELATED TO NORWEGIAN INVESTMENTS IN INDIA

By Gjert Melsom, Associate Attorney at Law, Lic, Jur
Ernst & Young TAX, Oslo, Norway
gjert.melsom@no.ey.com

At a Glance

Resident Corporation Income Tax Rate (per cent)	33.66 (basic tax of 30 per cent) (1)
Capital Gains Tax Rate for foreign companies (per cent)	
Long term	20.91 per cent (2)
Short term	41.82 per cent (2)
Branch Tax Rate (per cent)	41.82 (basic tax of 40 per cent) (2)
Withholding Tax (per cent)	
Dividends	0
Interest	
Paid to Domestic Companies	22.44 (1)
Paid to Foreign Companies	20.91 (1) & (3)
Royalties from Patents, Know-how, etc.	10.455 (2) & (4)
Technical Services Fees	10.455 (2) & (4)
Branch Remittance Tax	0

- 1) Including 10 per cent surcharge and the 2 per cent education cess
- 2) Including 2.5 per cent surcharge and the 2 per cent education cess
- 3) This rate applies only to interest on foreign-currency loans.
- 4) This rate applies to royalties paid to foreign companies in accordance with agreements entered into after 1 June 2005, and subject to satisfaction of certain conditions here.

Indian Tax on Corporate Income and Gains

Corporate Income Tax

An Indian resident corporation is subject to tax on its worldwide income, unless it is otherwise exempt. Corporations incorporated in India are resident in India for tax purposes, as are companies incorporated outside India if the control and management of their affairs is located wholly in India. A company not resident in India is subject to Indian tax on Indian-source income and on income received in India.

Rates of Corporate Tax

For foreign corporations, the effective tax rate is 41.82 per cent, including the 2.5 per cent surcharge and the 2 per cent education cess.

As a main rule, a foreign resident (e.g. a Norwegian company) receiving interest from foreign-currency loans is levied a tax of 20.91 per cent on the gross amount received, and

PART TWO

for royalties and technical services fees the tax rate is 10.455 per cent (subject to certain conditions). However, these rates will normally be reduced in a tax treaty. With Norway the rates are 15 per cent for interest and 10 per cent for royalties/technical services fees.

If the foreign resident receives royalty or technical services that are connected to a permanent establishment (branch) the payments are taxed on a net income basis at a rate of 41.82 per cent.

For foreign institutional investors, long-term and short-term capital gains arising from transactions in shares/units that are not chargeable to securities transaction tax (STT) are taxed at a rate of 10.455 per cent and 31.365 per cent respectively. Where the transaction in shares/units is chargeable to STT, long-term cap gains is exempt from tax while short term cap gains is subject to tax at the rate of 10.455 per cent. STT is a tax levied on the purchase/sale of securities including equity shares, derivatives and units, which are traded on a recognized stock exchange in India.

Presumptive basis of taxation is available to resident companies deriving income from shipping business under an optional tonnage tax scheme, whereby, subject to prescribed conditions, income of the shipping company, at its option, is computed based on tonnage of the ship(s) as per certain prescribed slabs. Further, non-resident companies engaged in operations with respect to mineral oil, and certain other income are taxed on a deemed-profit basis. The effective tax in such cases is typically 4.1 per cent of turnover in these cases.

Dividends and long-term capital gains derived by a venture capital company or a venture capital fund established to raise funds for investment in a venture capital undertaking are exempt from tax, subject to certain conditions.

Norwegian investors may establish a Wholly Owned Subsidiary (WOS) in India. The corporate tax rate for the WOS is 33.66 per cent.

When a resident Indian company pays dividend to a Norwegian individual or company, the Indian company must pay a dividend distribution tax (DDT) at a rate of 14.025 per cent (in addition to the company tax). The DDT paid is a non-deductible expense and is in addition to the basic tax of 33.66 per cent. No further dividend tax (withholding tax) is levied in the hands of the recipient.

Tax Incentives

Subject to prescribed conditions, the following tax exemptions and deductions are available to corporations with respect to business carried on in India (this is a selection):

A tax deduction equal to 100 per cent of profits (subject to certain limitations and exemptions) derived from exports of articles, things or computer software by the following types of undertakings: projects located in free-trade zones (FTZs); technology parks for hardware and software (HTPs/STPs) or special economic zones (SEZs); and 100 per cent exports-oriented undertakings (EUOs). The deduction is available up to the 2008-2009 income year.

A 10-year tax holiday equal to 100 per cent of the taxable profits (subject to certain limitations and exemptions) is available to undertakings or enterprises engaged in the following:

developing, maintaining or operating infrastructure facilities (roads, water supply projects, ports, airports, etc.), developing, maintaining or operating industrial parks or special-economic zones, power transmissions etc.

Taxation in India

Making decisions about doing business in India is complex and requires an intimate knowledge of the commercial climate and taxation rules, including tax incentive programs in India and taxation in Norway.

Companies and persons doing business in India, or are planning to do so, are advised to obtain current and detailed information from experienced professionals, including:

- tax liability in India and Norway, customs duties and other indirect taxes, and
- tax planning actions to reduce taxes.

Ernst & Young has offices at several locations in India, offering audit, tax, legal, corporate finance and transaction services.

For advice, please contact Ernst & Young in Oslo:

gjert.melsom@no.ey.com
(dir tel: +47 24 00 25 48)
taxation of companies

johan.killengreen@no.ey.com
(dir tel: +47 24 00 25 64)
taxation of individuals

oystein.arff.gulseth@no.ey.com
(dir tel: +47 24 00 23 87)
indirect taxes and customs duties



ERNST & YOUNG
Quality In Everything We Do

carrying on scientific research and development that are registered in India and approved by the prescribed authority between the periods of 1 April 2000 through 31 March 2007.

integrated business of handling, storing and transporting food grains, and also processing, preservation, and packaging of fruits or vegetables.

developing and building housing projects subject to satisfying certain conditions.

A 7-year tax holiday equal to 100 per cent of taxable profits is available to an undertaking that begins commercial production of mineral oil or refining of mineral oil.

A 5-year tax holiday equal to 100 per cent of the profits and gains is available in respect of the business of collecting and processing or treating of biodegradable waste for the following purposes: generating power; producing bio-fertilizers, bio-pesticides or other biological agents; producing bio-gas; or making pallets or briquettes for fuel or organic manure. The tax holiday begins in the year of the commencement of the business.

Minimum Alternate Tax

The minimum alternate tax (MAT) applies to a company if the tax payable by a company (before surcharge and cess) on its total income, as computed under the Income Tax Act, is less than 7.5 per cent of its book profit. If the MAT applies, the tax on total income for the relevant year is deemed to equal 7.84125 per cent of the company's book profit in case of foreign companies (and 8.415 per cent for domestic companies). In computing book profit

PART TWO

for MAT purposes, certain positive and negative adjustments must be made to net profit as shown in the books of account. Effective financial year 2005–2006, carry forward of MAT credit (i.e. excess of MAT paid over normal tax liability) is available up to 5 subsequent years (subject to certain computational principles here).

Fringe Benefit Tax (FBT)

FBT is a tax levied in the hands of an employer and is typically computed based on prescribed benefits made available to employees, at the rate of 33.66 per cent (this deeming benefit (value) for computing FBT has been reduced for software, pharmaceutical and certain other companies, on certain specified set of expenses).

Special Economic Zones (SEZ)

A SEZ is a specifically delineated duty free enclave deemed to be foreign territory for purposes of trade operations and duties and tariffs. It is a concept introduced with a view to provide an international competitive environment for export production, to encourage foreign investment for bringing in employment opportunities and technical knowledge in return for significant tax and tariff concessions. Key advantages of SEZ are fiscal incentives, regulatory freedom, hassle free business environment and world class infrastructure.

Under the recently enacted SEZ legislation, tax holiday is available for units setting up operations in an SEZ after 1 April 2005, as follows:

- 100 per cent for first 5 years;
- 50 per cent for next 5 years; and
- 50 per cent for next 5 years (subject to conditions).

In addition to the above, other fiscal benefits as well as indirect tax exemptions (such as customs duty, excise, and service tax) are also available.

Value Added Tax (VAT)

Sale of goods in India is taxable under a two tier legislative system, a state levy in respect of sale of goods within a state and a central levy in respect of interstate sale of goods. Sale of goods within a state attracts VAT in most states and sales tax in certain states that have not yet transitioned into the VAT regime. In case of inter-state sales, a Central Sales Tax (CST) is levied under the Central Sales Tax Act, 1956 (CST Act). States allow the above credit of VAT paid in respect of purchases made from dealers within the State (subject to certain conditions) and currently do not allow credit of CST paid on inter-state purchases. The VAT regime in India is currently in the stages of a phased implementation across various states in India and has been implemented in most Indian states.

Administration

The Indian fiscal year ends on 31 March. All companies must file tax returns by 31 October. Tax is payable in advance on 15 June, 15 September, 15 December and 15 March. Any balance of tax due must be paid on or before the date of filing the return. The carry-forward of losses (other than unabsorbed depreciation) is not allowed if a return is filed late or if there is change in shareholding > 51 per cent (in case of certain privately held Indian companies).

Determination of Trading Income

Business-related expenses are deductible; capital expenditures (other than on scientific

PART TWO

research) and personal expenses may not be deducted. The deductibility of head office expenses for non-resident companies is limited.

Depreciation is calculated using the declining-balance method and is allowed on classes of assets. Depreciation rates vary according to the class of assets.

Business losses may be carried forward to be set off against taxable income derived in the following eight years, provided the income tax return for the year of loss is filed on time. However, there is no time limit on carry forward of unabsorbed depreciation.

Other Significant Taxes

The table below summarizes other significant taxes.

Nature of Tax	Rate (per cent)
Securities Transaction Tax (STT); payable on transactions in listed equity shares with delivery:	
Buyer	0.1
Seller	0.1
Central value-added tax (CENVAT), on goods manufactured in India; levied by the central government	8/16/32
Customs duty, on goods imported into India;	Various
Sales tax / VAT; generally imposed on sales of goods (either central sales tax or state sales tax)	Various
Works contract tax; on goods for which title is transferred during execution of work contracts (for example, contracts for the construction, fabrication or installation of plant and machinery)	Various
Lease tax on contracts involving transfer or rights to use goods	Various
Research and development cess; imposed on payments made for the import of technology	5
Stamp duties, levied by each state on specified documents and transactions, including property transfers	Various
Social security contributions,	Various
Service tax, on certain services, such as financial services, insurance, scientific, technical consultancy, port services, consulting by engineers and management consultants	10.2

PART TWO

Miscellaneous Matters

Setting up Presence

Typical forms of Indian presence in the context of foreign companies are:

- a branch office or liaison office (with approval); or
- a WOS (with / without approval depending on nature of activities); or
- a project office (without approval).

Foreign-Exchange Controls

All cross-border transactions with non-residents are subject to foreign-exchange controls contained in the Foreign Exchange Management Act.

Cross-border transactions that are specifically allowed include the following; all remittances abroad that require prior approval arrangements, such as joint venture and technical, collaboration agreements; and the remittance of interest, dividends, service fees, royalties, repayment of overseas loans and so forth. However, for sales of Indian assets (being shares), no exchange control approval is required. If the sale involves a resident, certain prescribed pricing requirements are to be complied with as well.

Transfer Pricing

The Income Tax Act includes detailed transfer pricing regulations. Under these regulations, income and expenses, including interest payments, with respect to international transactions between two or more associated enterprises (including permanent establishments) must be determined using arm's length prices. The transfer-pricing regulations also apply to cost-sharing arrangements.

Debt-to-Equity Rules

India does not currently impose mandatory capitalization rules.

Investments in India from a Norwegian Perspective

There are several points to consider when investing in India from Norway. We will address some important points in the following.

Dividends Paid to a Norwegian Company from an Indian Company

A Norwegian company investing in an Indian company, i.e. in a joint venture or a wholly owned enterprise, will receive dividend income. The Norwegian taxation of the dividends depends on the tax treatment of the **company** in India.

Dividend income to a Norwegian company investor will be tax free in Norway provided the company has been effectively taxed at a higher rate than 18.67 per cent (compared to a Norwegian company). Thus, dividend income from a Indian company that has been taxed according to ordinary Indian rules are tax free in Norway, provided that the Norwegian investor has had the investment for more than two years.

However, many Norwegian-owned Indian companies enjoy **tax incentives** in India, so that the effective tax in India is around 14 to 15 per cent (including DDT – Dividend Distribution Tax). If the Indian company enjoys such tax incentives, the dividends as a rule will be taxable in Norway at 28 per cent tax. Thus, the tax incentives given in India will be illusive, and thus have no effect for a Norwegian investor. Most likely, the Norwegian company will get credit in Norway for the Indian DDT which has been paid, but this must be examined

under Norwegian law.

There are ways to mitigate this negative Norwegian tax effect. One way might be to invest in India via a Singapore, Cypriote company, etc. Many Norwegian companies have subsidiaries in these countries which from a business point of view may do the investment in India rather than from the Norwegian company. Under current rules, dividend income from India will be tax free in these countries and as a rule tax free in Norway when dividends are paid to its Norwegian parent company. Thus, the effective tax rate on dividends to a Norwegian company investor will be around 14 to 15 per cent (provided the Indian company enjoys a tax incentive).

Non-taxable Presence in India

In many cases it might be favourable to avoid a taxable presence in India, since the taxation level is much higher than in Norway. To mitigate Indian taxation, the Norwegian company may operate in India via a Liaison Office. Of course, the limitations in respect of scope of permissible activities in the context of Indian exchange control regulations would need to be kept in mind here.

Capital Gains on the Sale of Shares in the Indian Company

India may levy a 20.91 per cent tax on long-term capital gains on the sale of shares in an Indian company, even if the seller is a foreign company. India also has the right to levy this tax according to most tax treaties it has entered into, including treaty with Norway. However, if the Indian company is owned by e.g. a Cypriote company, India is not able to levy capital gains tax due to the Indian tax treaty with Cyprus.

PART TWO

THE INDIAN EXPERIENCE

India – the colourful nation full of contrasts – has amazed and bedazzled us during our one month stay. Although India, by definition, is a developing country, it has a lot more to offer than just low-wage labour and inexpensive products which can be enjoyed by western businesses and consumers. Before visiting this amazing country, there are certain practical things one should know in order to make the most of one's 'Indian experience'.

Interacting with Indians

It is fair to say that it is virtually impossible to make generalizations about Indians or about Indian culture, because every city and every state has its own traditions and special characteristics.

However, after visiting nine different cities throughout the country, it is safe to say that the people of India have one thing in common: their overwhelming hospitality. We were exceptionally well received everywhere we went, and we got the impression that people were very open and interested in approaching us. Some would say it is because we were western-looking, implying that friendliness towards us would result in financial gains on their part. However, we believe that the majority of Indians



were genuinely friendly and interested in getting to know us. The philosophy of Hinduism, which is the predominant religion throughout the country, may have something to do with it. Politeness and respect towards strangers are important values in the Hindu religion. On the other hand, honesty appears to be of far less importance. Many times we experienced Indians 'slightly decorating the truth' or simply lying straight to our faces. Most of the time, this occurred when interacting with less fortunate people who would see a window of opportunity for financial gains when dealing with westerners.

Despite the amazing cultural experiences the country has to offer, India clearly has a lot of down sides which may be difficult to handle for tourists and business people alike. Crowds of homeless people flock the streets and beg for food and money. Even young children

PART TWO

carrying babies in their arms roam the streets late at night asking for spare change. It is important to be aware that many of these children are working for organized businesses, and they do not get to keep the money themselves. Another problem is the fact that if one gives money to one person, one will soon be surrounded by a whole crowd of beggars – and it is practically impossible to get rid of them. In general, giving money to beggars is not advised.

Preparing for the Unexpected

One of the most important lessons learned from our Indian experience is to prepare for the unexpected. Unforeseen events may occur at any time, and one needs to be able to make schedule changes. Built-in time buffers are a crucial necessity. The Norwegian proverb ‘things take time’ has acquired a completely new meaning after our visit to India, because things really do take a lot of time! Western-style marathon meeting days are practically impossible. First of all, one never knows whether traffic will allow one to get to a meeting on time. Second, one never knows how long a meeting will last unless a time frame has specifically been set. Third, although one may arrive at a meeting on time, one cannot be sure that one’s counterpart will be there on time. This is not because Indians do not care for punctuality, but simply because one never knows how jammed traffic is going to be. Travelling only short distances can take several hours, simply because traffic is so congested that nobody is moving – at all.

It is advisable to hire a professional English-speaking driver when going to business meetings. Random taxi drivers may not be proficient in English, and misunderstandings with regards to destinations may frequently occur. Even if asking a taxi driver whether he knows how to get to a specific destination, he will never admit that he does not know. Countless times one might find oneself in the middle of nowhere in a taxi or rickshaw, not knowing where one will end up, simply because the taxi driver does not know where he is going. He may get out and ask people for directions, but this may cause major delays in addition to the delays caused by traffic jams.

India can be perceived as a chaotic mess – on a variety of levels. However, in the midst of all the chaos and craziness, there seems to be some kind of imperceptible system keeping it all together. An invisible presence of structure which is only observed when realizing that everything actually works out – in the end...

PART THREE

ENERGY

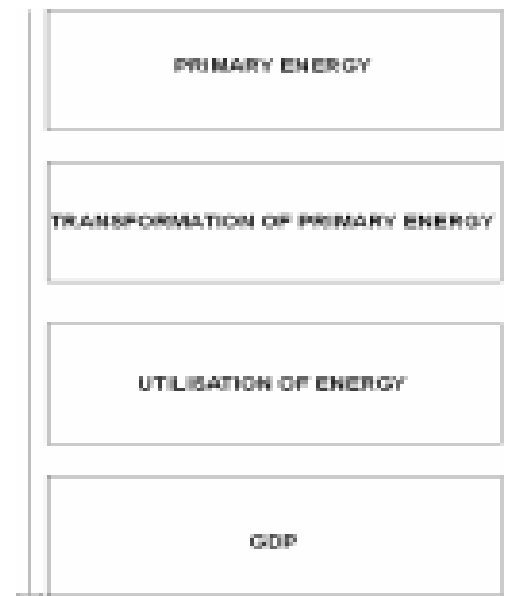
“Accelerating economic growth and achieving higher standards of living depend upon the availability of adequate and reliable power at an affordable price. Unlike other commodities, electricity cannot be stored for future use. In other words, its generation and consumption have to be simultaneous and instantaneous. The unique features of power as a commodity or service make the dynamics of its supply and demand difficult to manage. Installing power generation, transmission and distribution capacity is a complex, time consuming and expensive process. Power is among the most capital-intensive infrastructure sectors.”

– Ministry of Power, India

The classic macro-economic considers GDP to be the result of the factor inputs land, labour and capital. The production function is even easier if land is considered to be a constant: $GDP = \text{capital} \times \text{labour}$. But this is nowadays considered to be too easy. There is a missing factor in the equation: energy. The cost and availability of fossil energy is a major factor in the growth of GDP.

History has shown a link between energy and growth in GDP. A study done by the World Energy Council exemplifies this through the growth in GDP that Japan experienced from 1950 to 1973. The growth was nearly 10 percent, fuelled primarily by extremely cheap petroleum. When the price of petroleum rose dramatically, the GDP growth rates dropped back to about 2 per cent.

The BP Statistical Review of World Energy states that the use of primary energy in the world increased by 4.3 per cent in 2004. India outperformed the world with its increase of 7.2 percent in 2004, which places the country as the fifth largest consumer of primary energy in the world.



Energy is one of the most significant contributors to the economic growth, the same growth that creates increased demand for primary, as well as transformed, energy. India, with more than 17 per cent of the world’s population, only controls about 0.5 per cent of both the proven oil and gas reserves and just 3 per cent of the world’s installed electricity generating capacity. Therefore India is certainly in need for reliable energy at an affordable price, to sustain the last decade’s excellent growth in GDP.

PART THREE

ENERGY – POWER

Short overview

The estimated generating capacity in India was approximately 125 000 MW in 2003, and McKinsey has projected that the sector at the end of 2000 represented about USD 100 billion in generation and approximately USD 50 billion in transmission and distribution (T&D). The consumption is relatively low compared to western standards, estimated to about 0.5 MWh per capita. In contrast, the same ratio was 50 times higher in Norway. The consumption per capita is expected to grow simultaneously with the GDP. The Indian Constitution defines that electricity is a shared responsibility between the states and the Central Government, and the states, as well as the Central Government, are important to the sector. As of June 2005, the Government owned 89 per cent of the generating capacity. The remaining 11 per cent was privately owned.

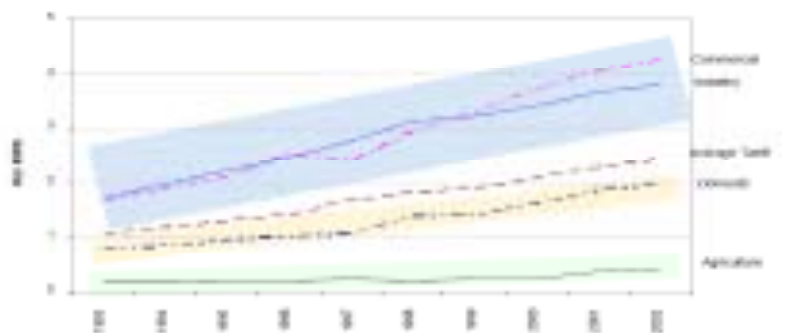
Problems Experienced In the Indian Power Sector

IPP Fiasco

India moved toward economic liberalization in the 1990s, when foreign investors started to pursue business opportunities in the country. The Central and State Governments encouraged national and foreign investors to enter the power generation market as Independent Power Producers (IPPs). Dozens of projects were approved, but most of the largest projects were stalled or cancelled by delays in regulatory approvals and problems regarding what would be the largest buyer of power: The State Electricity Boards (SEBs). A good example could be the operations carried out in Maharashtra by Enron, once considered the most innovative company in the world. The USD 2.9 billion, 2180 MW project was at that time the single largest foreign direct investment in the country. It was also disputed and considered as unprofitable by many. The project became operational but experienced serious problems. In fact it had to close for two weeks due to disputes with the Maharashtra SEB. The dissension centred on the prices charged by Enron but also revolved on non-payment of electricity bills. The result of the IPP initiative was high cost projects that only contributed 3 per cent of national generation.

SEBs in a Bad State

The non-show of the expected turnaround of the finances of the power sector in the 1990s brought the SEBs into a state where they were not hot prospects for a triple A rating from S&P. The SEBs tried to solve their financial problems by charging asymmetric rates. They charged stiff rates to the commercial and industrial customers, but the residential and agricultural customers were still enjoying subsidized rates as indicated in the figure.



Tariffs in different consumer segments vs year
Source: www.electricityindia.org
1 rupee = USD 0.2

PART THREE

The regulation of tariffs has also been characterized by political campaigning, with hovering promises to the voters. Furthermore, the poor state of the SEBs prevented India from renewing and maintaining the grid. This led to frequent blackouts and poor quality deliveries regarding voltage and frequency. The result was a large descaling of industrial consumers out of the grid. Captive power plants were the chosen solution, and in 2000, captive power plants were responsible for 13.5 per cent of the total power generation. Captive generation primarily serves the owners' needs, although the Electricity Act of 2003 (targeted later) allows the sale of surplus electricity. Other problems in the sector were theft, poor billing and inadequate metering. Due to these, the average cost of power supplied was high. Honest customers were subsidizing those who totally or partly avoided their liability to pay for electricity. There were no adequate solutions to cope with the latter, and the risk of being caught and punished was low. Hence, large numbers chose this option.

Reforms in the Indian Power Sector

Orissa – the First Mover

Orissa is one of the least advanced states in India based on average human development conditions. Nevertheless, it was the first state to reform its power sector. The Orissa SEB, like most other SEBs, was in financial difficulties. Therefore, the Orissa Government with very active support of the World Bank decided that the power sector was ready for a turnaround, and in 1996 the Orissa Electricity Reforms Act was passed. A State Electricity Regulatory Commission (SERC) was introduced as an autonomous regulatory body. The SERC has many objectives: regulating the T&D tariffs, licensing of companies wishing to engage in T&D, and regulating the quality of their services. Furthermore, the SEB was unbundled, creating one T&D company and one company responsible for hydropower generation. These companies have been further reformed, and private investors have entered the T&D services.



The Electricity Act of 2003

Orissa and the World Bank were the first movers with a reform programme targeting the problems in the power sector. Several states followed before the Central Government launched its Electricity Bill of 2001. This bill eventually resulted in the Electricity Act of 2003, replacing the three enactments which had governed the Indian power sector:

- The Indian Electricity Act of 1910
- The Electricity Supply Act of 1948
- The Electricity Regulatory Commissions Act of 1998

PART THREE

The Electricity Act of 2003 replaced these laws and is said to harmonize the provisions of these through a new comprehensive legislation meeting the needed issues that needed reformation. As indicated in the Orissa example, some states had already reformed their power sector, and the inconsistency had to be corrected in benefit of the 2003 Act.

Important Features

- Creates liberal framework for power development
- Creates a competitive environment
- Facilitates private investments
- De-licensing of generation except for large hydropower projects
- No permission needed for setting up captive power plants. Captive plants can be located offsite
- Transmission utility at the central level continues to hold responsibility for the planning of the transmission network and also looking after the load dispatch
- Private companies can build transmission lines for captive or common use
- Obligates states to restructure SEBs and to create SERCs, the latter will hold the responsibility of setting the retail tariffs
- Gradual phasing out of cross subsidies
- Open access in transmission from outset
- Open access in distribution to be allowed by SERCs in phases
- Power trading recognized as an activity that can be taken up after authorization from the SERC.
- Consumers can enter into direct relationship with a generating company or trader.
- Strict provisions to deal with power theft
- Metering to be 100 per cent in few years

Key Implications

- Entry of more players into generation trading and distribution. This will also make the power sector more complex with more players and contracts.
- Increase of captive generation
- Tariffs will change slowly to reflect the cost to serve and cross subsidy will disappear. Some states may subsidize segments of customers

www.prayaspune.org, www.electricityindia.org, www.powermin.nic.in

PART THREE

Progress of the Reforms

The reform is being implemented, but the pace varies. The 8 states which introduced the reforms before the 2003 Act have come a long way, but other states are catching up:

- 23 of the 29 states have constituted SERCs
- 18 states have issued tariff orders
- 9 states have unbundled the SEBs
- Orissa and Delhi have privatized distribution in 1999 and 2002, respectively
- 10 states have enacted anti-theft legislations, and some states have installed high voltage distribution systems to deter people from power theft
- (Indian Institute of Management – Stanford study)

Does it Work?

Orissa was the first mover, and many lessons have been learned from what happened there. The World Bank-led reform in Orissa is not regarded very highly by many and there are many possible lessons to learn. In Orissa neither the financial state nor the peak deficiencies have improved. The greatest reasons for the poor performance appear to be the false assumptions and expectations of the players. The losses were significantly higher than thought, and the growth in paying customers did not materialize. Some also call attention to the lack of government support in areas like anti-theft legislation, managing SEB unions and managing general public opposition.

A study done by the Indian Institute of Management and Stanford University on the power sector reports that 11 states have experienced improved financial losses. The Energy Research Institute has done an analysis on the situation in Delhi before and after the privatization of the distribution. It shows that the aggregate technical and commercial losses have reduced from 55 per cent in 1995–1996 to about 41.3 per cent in 2004–05. This indicates that Delhi's reforms incorporate lessons learned from the Orissa experiment.

PART THREE

Statkraft Norfund Power Invest

Statkraft Norfund Power Invest (SN Power) commenced its operations in 2002. The company registered in Norway is a joint venture between Statkraft and Norfund pursuing hydropower possibilities in emerging markets.

Norfund was established by the Norwegian government in 1998 and was somewhat different from other Norwegian aid efforts. The greater purpose of Norfund is to reduce poverty in developing nations, and this is done by investing venture capital in profitable businesses. The link between economic growth and reduced poverty is strong, and economic growth is boosted by strong private investments. Statkraft is the second-largest producer of renewable energy in Europe. Statkraft was founded in 1992. But the organization is strongly connected to the Norwegian hydropower traditions through its assets. Many of them date back to the late 19th century when Norway started to utilize its vast hydropower potential. SN Power combines Statkraft's world class hydropower knowledge with Norfund's business model for developing nations. The business objective is to invest in, own and operate hydroelectric power projects in emerging markets on commercial terms. The investments have a long-term perspective, and a good relationship with the local community based on equality is a basis for SN Power.

SN Power

- SN Powers core markets are Latin America, Africa and Asia
- Operating power stations in Peru, India and Sri Lanka and on going projects in Sri Lanka, India and Chile.
- Turnover: NOK 150.9 million (2004), net loss: NOK 31.5 million (2004).
- 0 NOK posted as ingoing from power sales
- Expected total invested equity: NOK 5 billion
- Long term aim to be a hot prospect for public listing in ten years

SN Power in India

The Electricity Act 2003 provides a safer environment than before for doing business in the Indian power sector, and SN Power is a Norwegian company pursuing the vast opportunities here. SN Power is currently operating in the northern grid which currently suffers from a power gap. The gap is ranging 2200 MW which is projected to develop to 10 000 MW by 2011–2012. Hydropower is the most attractive peaking alternative, and the potential is therefore existent and growing.

SN Power is currently involved through a joint venture with the LNJ Bhilwara Group. The Malena Power Company Ltd joint venture was signed in August 2004, and the company concentrates its operations in the northern state of Himachal Pradesh. Today it runs the operational 86 MW Malana plant and the 192 MW Allain Duhangan project which will be operational in 2008.

The size of the yearly production of Malana is 350 GWh (about ½ of the Alta power plant) and the Allain Duhangan is projected to produce 800 GWh (1.1 times the Alta power plant). Both Malana and Allain Duhangan are typical run-of-river projects which do not require large reservoirs or storage capacity, and therefore do not force local inhabitants to abandon their homes. The projects also produce jobs for local people, and this is in accordance with the mission statement of SN Power: 'Powering development'. The Allain Duhanagan project is partly financed by the International Finance Corporation (IFC). The IFC is the member in the World Bank Group that serves private companies, and therefore the Allain Duhangan is guided by IFC's environmental and social performance standards.

PART THREE

A problem for producers of power in India has been the lack of competitive prices. The Electricity Act 2003 has been a milestone in the pursuit of such prices. The Malana plant has already signed short term agreements with reliable customers, and The Allain Duhangan project will target the same type of customers. Summarized the joint venture with the LNJ Bhilwara Group appears a suitable launching ramp for further investments in India.

Moving towards a National Grid

The regional electricity grids were created in the early sixties as a basic unit in the electric power system. The grid was strengthened in the seventies and eighties with the enhancement of the interstate connections and the construction of the central sector generating companies. Today India sees the necessity to construct a national grid to cope with the several issues.

- To enable adequate transfer of power from surplus to deficit regions.
- To enable an optimal development and utilization of the unevenly divided coal and hydro resources.
- To improve the quality, reliability and economy of the power supply.

Inter-regional connectivity is planned to be enhanced to 30 000 MW by 2012. Such a national grid would disperse power from the planned mega-sized generation projects, but it will also enable the transfer of bulk power from one part of the country thus neutralizing the differences in peak demand amongst regions. The Powergrid Corporation is a key player in the work of fulfilling this scenario.

Closure

As indicated in this part the opportunities in the Indian power sector are large, but one should not ignore the risks with operating in a developing market. Large sums have to be invested in generation, transmission and distribution if India is to succeed with its plans for capacity amendment in both generation and T&D. The Ministry of Power expects investments of at least NOK 821 billion before 2012.

Some Opportunities

Generation

- Today only 23 per cent of the hydro potential has been exploited, the Ministry of Power targets a utilization factor of 78 per cent
- Renovation and upgrades of old facilities
- The Electricity Act 2003 makes it more likely to achieve profitable power prices.
- Trading is now permitted by licensing, and Norway can pursue both trading and analysis using the experience with the Nordic market

Transmission & Distribution

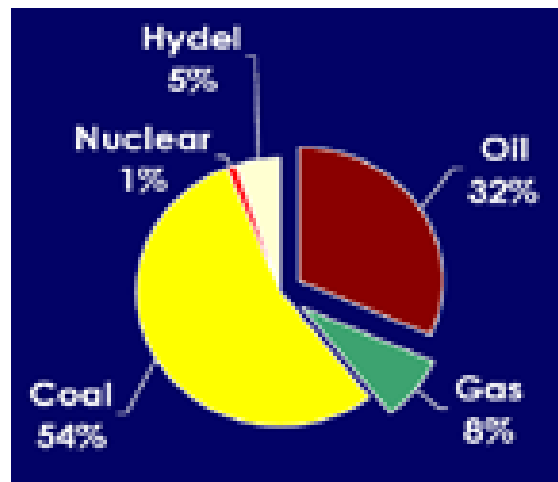
- Modernization and renovation of the grid
- The plans for a national grid demands huge increases in inter-regional connectivity
- The convergence of transmission, telecom and information technology is an interesting area
- The Electricity Act 2003 calls for 100 per cent metering. India is not close to achieving this

PART THREE

ENERGY – OIL

Oil accounts for about 32 per cent of India's total energy consumption, and has been growing gradually as a share of the country's fuel mix in recent years. The majority of India's roughly 5.4 billion barrels in oil reserves are located in the Mumbai High, Upper Assam, Cambay, Krishna-Godavari, and Cauvery basins. The offshore Mumbai High field is by far India's largest producing field.

India's average oil production level (total liquids) for 2005 was 837 000 bbl/d, of which 632 000 bbl/d was crude oil. India had net oil imports of nearly 1.7 million bbl/d in 2005. Future oil consumption in India is expected to show strong growth, to 3.1 million bbl/d by 2010, from 2.5 million bbl/d in 2005.



Low drilling recovery rates are a major part of the oil supply problem for India. Historically, recovery rates have averaged only around 30 per cent in currently producing Indian oilfields, well below the world average. It is hoped that allowing foreign investment will bring in technology that is not available to Indian state firms, thereby increasing the overall recovery rates.

India is currently the sixth largest oil consumer in the world. India's demand for oil has consistently been far in excess of its domestic production. The dependence on oil imports is expected to increase in the future. The Hydrocarbon Vision 2025 provides a scenario for the future of oil demand and supply.

Clean energy



We provide technology for

- Gas
- Renewable
- Efficient energy use

PART THREE



Upstream

Exploration and Development

India is attempting to limit its dependence on oil imports somewhat by expanding domestic exploration and production. To this end, the Indian government is pursuing the New Exploration Licensing Policy (NELP), first announced in 1997, which permits foreign involvement in exploration, an activity long restricted to Indian state-owned firms. Under NELP, foreign investors are granted the same treatment as domestic companies and it is no longer committed to partner with state oil companies. No blocks are reserved for national oil companies and income is free for seven years from the start of production. So far, five rounds of NELP have been completed and Reliance's discovery in the KG Basin and Cairn's discovery in Rajasthan are considered to be world class.

Deepwater exploration has been taken up earnestly by ONGC (Oil and Natural Gas Commission) to supplement the existing efforts in increasing the production. The deepwater programme involves an estimated investment of USD 0.75 million per day and approximately 4 BTOE hydrocarbon reserves are estimated with 1 BTOE as recoverable reserves. ONGC has plans to invest over USD 2 billion towards undertaking an enhanced oil recovery programme in 14 oilfields across the country. The Indian oil and gas fields provide huge investment opportunities for redevelopment.

Speculative Surveys

To upgrade the quality and volume of seismic data, the Government also announced bidding rounds for speculative surveys. After the seismic work is completed, the blocks are to be offered for exploration. The data acquired by the seismic companies can be sold in India and abroad.

Reliance Industries Limited

Reliance Industries Limited is India's largest private sector company, ranked as no. 1 on all major financial parameters. The company is also the first and only non-state-run company from India in the Fortune 500 list. The company ranked as number 417 in 2005. In comparison Statoil ranked 95 and Norsk Hydro 216 on the same list.

PART THREE

Reliance Industries is the flagship of the Reliance group, which was started by Dhirubhai H. Ambani in 1958 as a commodity trading and export house. When Mr Ambani died in 2002 he had led the Reliance Group to be a conglomerate with activities in exploration and production of oil and gas, refining and marketing, petrochemicals, textiles, financial services and insurance, power and telecom. Dhirubhai H. Ambani's two sons took control over the Reliance Group. The two sons disagreed on how things should be done, and therefore the group recently de-merged. The younger brother Anil controls power, telecom and financial services, while the older brother Mukesh will retain oil, gas, and chemicals through Reliance Industries Limited (Reliance).

- Turnover USD 16 725 million
- Net profit USD 1731 million
- Total assets USD18 422 million
- Integrated energy company with global rankings in key downstream businesses
- Annual exports of USD 6 billion to over 100 countries
- Reliance constitutes 7.7 per cent of India's total exports

Reliance is a key player in the downstream sector, with refining and petrochemicals which contribute for over 98 per cent of the revenues. The company has dominating market shares in this sector with 28 per cent in refining, and over 50 per cent in polyester, fibre intermediates and polymers. 'Growth is life' is one of Reliance's slogans, and the company is currently investing heavily in the downstream sector. One of the projects is to double the capacity of their Jamnagar refinery, which today is the third largest in the world with a capacity of 540 000 barrels a day. The refinery significantly contributed in helping India coping up with the increasing demand of refined products.

Exploration and production is currently only contributing for 2 per cent of the company's revenues. India is starving for oil and gas at affordable prices, and a significant acceleration in the domestic production of oil and gas is therefore needed. As a top gun in the private sector, Reliance is likely to be central in this production enhancement. The company has been active under the international bidding rounds of the NELP, and currently holds 32 exploration blocks, standalone or in cooperation with companies like Hardy Oil and Niko Resources. The company has stated that it will invest USD 4.5 billion in exploration and production activities in India but also overseas. Reliance is currently involved in exploration in Oman and Yemen but also watch Sudan, Iraq, Madagascar and Libya with great interest.

Downstream

The Government has opened the domestic refining sector for private investment from Indian and foreign private companies. The country has attained self-sufficiency in refining crude oil. At the end of 2004, India had a total of 2.3 million bbl/d in refining capacity, an increase of 1.1 million bbl/d since 1998. This benefits the country by not importing expensive products like petrol and diesel. There is also the local value added to crude by converting to more expensive products within the country. The country has the 10th largest refining capacity in the world.

Another major downstream infrastructure development is the construction of pipelines being undertaken by Petronet India, a company created by an agreement in 1998 between India's state-owned refineries. This construction is expected to add 500 000 bbl/d to India's current 325 000 bbl/d capacity for pipeline transportation of refined products. Pipelines between refineries and major urban centres are replacing the railway as the main mode of petroleum

PART THREE

transport in India.

The steady growth in demand for petroleum products and the policy initiated by the Government to deregulate and decontrol the marketing of petroleum products in the country will generate excellent investment opportunities for interested parties in the various infrastructure facilities required. India is a vast country requiring the transport of petroleum products into the interiors from ports and refinery locations.

Several multinationals have entered the Indian lubricants market, which was deregulated six years ago. The demand for lube oils is expected to grow at 4 per cent a year. A number of global lubricant oil majors have already established operations in India. Foreign companies have also been permitted to own retail outlets for the distribution of petrol, petroleum products and lube oils. National companies previously controlled this. Still, a requirement that foreign firms invest at least USD 400 million before entering the downstream market has served to limit their entry into petroleum products retailing.

Petro Retail

The Indian government officially ended the Administered Pricing Mechanism (APM) for petroleum product prices in April 2002. Prior to this deregulation, the Indian government had tried to offset the effects of price changes in crude oil by maintaining an Oil Pool Account, which was to build financial reserves when crude oil prices fell and release them back as increased subsidies when crude oil prices rose.

Now the Government of India is encouraging healthy competition in the petroleum retailing sector. Its direct aim is to improve competitiveness and quality of service to the customer. Private sector participation in the retail market is being particularly promoted.

Bharat Petroleum Corporation Ltd.

The Bharat Petroleum Corporation (Bharat) was nationalized in 1976 operating in the refining, petrochemical and lubricant sectors of India. It is one of the top three domestic petroleum refining and marketing companies in India, and Bharat is placed as no. 429 on the Fortune Global 500 list. Bharat's Mumbai refinery is the heart of the organization and produces a wide range of petroleum products, petrochemicals and lubricants. Bharat is divided into 6 SBUs (Standard Business Unit) with complete resource and profit responsibility for serving its identified market.

Aviation

If you visit India you may get an early glance of Bharat from your airplane. Aviation is one of the SBUs in Bharat. The aviation sector is opening up in India with a surge of new companies commencing new operations and the existing expanding to new destinations. The growing economy of India will continue to bring in new customers to Indian Airports and thereby increasing the market size.

- Revenues USD 14 437 Million
- Net profit USD 343 Million
- Total assets USD 6065 Million
- Well-spread marketing infrastructure for instance 6553 retail stations and 19 aircraft fuelling stations
- The government controls 66 per cent of the company, but has indicated that it will divest it in due course of time

This sector could attract new competitors, thus intensifying the competition. Bharat and their partner Shell Aviation are in a good position to increase their market share in the interesting aviation sector.

PART THREE

Retailing

Another interesting sector where Bharat is involved is retailing. Private sector companies, such as Reliance Industries, entered the petrol retailing industry in 2004. Reliance Industries is investing USD 1.5 billion in the creation of a fuelling network. This opening up for privately held companies is a calling for action from the public sector companies, and Bharat commissioned 892 new outlets in 2004. Bharat has also launched a new identity for its retail outlets. The new identity is an attempt to keep pace with the changing times.

The petrol retailing sector has a large potential to grow, and it is the emerging middle class that drives the growth in this sector. India's economy has grown in average 5.7 per cent a year since 1990. The GDP per capita is still low, but it does not really reflect the Indian consumer market. McKinsey has divided Indian households into four segments:

- 'Global India' with a real income of over USD 10 000
- 'Aspiring India' with a real income ranging from USD 4 000 to USD 10 000
- 'Struggling India' with a real income of USD 1 500 to USD 4 000
- 'Destitute India' with a real income below USD 1 500

The two top segments constitute the segments targeted by petrol retailing. 'Global India' and 'Aspiring India' is projected to grow with respectively 20 per cent and 10 per cent a year. This can be exemplified by looking at passenger car sales from 1999 to 2004 which more than doubled and represented USD 5 billion in 2004. Bharat currently controls 30.2 per cent of the petrol market and 26.4 per cent of diesel market. The potential for increasing revenues is large if Bharat can maintain or increase its position.



PART THREE

ENERGY – GAS/LNG

Demand – Supply Scenario

The share of natural gas in India's energy mix has increased from 2.5 per cent in the early 1980s to around 8 per cent in 2005. It is expected to increase substantially to 20 per cent by 2025. Due to its clean fuel qualities, natural gas is being increasingly preferred as an alternative fuel. Fertilizers and power are the major consumers of natural gas in India.

Indian consumption of natural gas has risen faster than any other fuel in recent years. From only 0.63 trillion cubic feet (Tcf) per year in 1995, natural gas use was nearly 0.96 Tcf in 2003 and is projected to reach 1.4 Tcf in 2010 and 1.8 Tcf in 2015.

Domestic production has received a major boost with the discovery of gas in the Krishna-Godavari Basin offshore from Andhra Pradesh along India's southeast coast, as well as offshore from Orissa and the Tapti fields in the state of Gujarat. Even with these new reserves, India's domestic natural gas supply is not likely to keep pace with demand, and the country will have to import much of its natural gas, either via pipeline or as liquefied natural gas (LNG). Problems with financing LNG import projects and financial problems in the power sector, the main consumer of natural gas, has had negative effect on India's consumption of natural gas.

The largest state sector projects are to be conducted by Petronet, a joint venture between ONGC, IOC, the Gas Authority of India Ltd. (GAIL), the National Thermal Power Corporation (NTPC), and Gaz de France. Petronet plans two import terminals, one at Dahej and the other at Kochi. The import terminal at Dahej began operation in 2004, receiving India's first cargo of LNG. The Dahej terminal had major advantages over some of the other proposed projects, because it is tied in with the main state-owned natural gas company, GAIL, and the existing HBJ pipeline network. After several delays, Petronet is planning to solicit bids for its second terminal at Kochi in early 2006, with a planned completion in 2009. Shell also has begun construction of its LNG import terminal at Hazira in Gujarat, and has contracted for LNG supplies from Oman. The facility began operation in November 2004. Like the Petronet Dahej terminal, it is to be linked into existing natural gas pipelines.

Aside from LNG imports, imports of natural gas by pipeline may eventually play a role in satisfying India's gas needs. One possibility would supply India with natural gas from Iran's huge South Pars field via a pipeline through Pakistan. With the thaw in India-Pakistan relations over the last two years, the project has gained interest, but is still under negotiation. Another possible import route would link the natural gas reserves of Bangladesh into the Indian gas grid. Finally, a new natural gas find in Burma also has attracted interest as a potential source of supply for India.

The Government of India has been considering reforms in the natural gas pricing mechanism which it has set. Deregulation has been delayed several times, and buyers of natural gas from private sources such as the LNG terminal at Dahej pay prices that are much higher than those purchasing from the state-owned suppliers. With the shortage of natural gas and willingness of some consumers to pay more, deregulation would likely lead to higher prices if implemented.

Policy – New initiatives

- The Indian petroleum sector has been opened to the private sector, both domestic and foreign, for investments through joint ventures and strategic alliances.

PART THREE

- In exploration and production, Indian oil and natural gas fields have been opened up to the private sector as well as to foreign participation under production sharing contracts.
- The refining sector has been opened to the joint sector (public-private partnerships) as well as to the private sector for new refineries.
- Foreign investment is to be permitted up to 100 per cent in exploration
- For petro-product marketing, 100 per cent FDI is permitted
- India is moving towards market-based gas pricing and gas use to replace the regime of allocations and administered prices.
- The import of natural gas and LNG is under Open General Licence.
- For gas fields developed in the private sector, promoters are free to market the gas at market related prices.
- All petro-products taken out of the administered price mechanism from 1 April 2002.
- All petroleum products, except MS, HSD, Kerosene, ATF and LPG have been decontrolled
- Recently Exports of ATF, HSD and MS have been de-channelized
- Sourcing & import of crude to joint and private sector refineries allowed under actual user-licensing policy.
- In the petroleum product pipeline sector, pipelines will be developed through joint ventures, or otherwise 100 per cent FDI permitted
- NG/LNG Pipeline – 100 per cent FDI allowed
- The Government of India has already tabled the Draft Petroleum & Natural Gas Board Bill in Parliament, which proposes a Petroleum & Natural Gas Regulator to regulate the downstream activities. A Common Carrier Pipeline Policy allowing two or more companies to use a single pipeline for the transportation of products is also announced. At least 25 per cent of the product carrying capacities of the pipeline will have to be shared with other interested companies by the parent pipeline laying company.

Supports and Incentives

- There is a seven-year tax holiday after commencement of commercial production for blocks in North-East India.
- Specific equipment imported for oil and gas exploration or exploitation has been exempted from customs duty.
- A new Petroleum Tax Code to provide a fair basis of taxation and promotes private investment in the sector is based on similar codes in existence in more mature markets.
- The model Production Sharing Contract for exploration provides that capital expenditures incurred in respect of exploration and drilling operations are fully tax-deductible.
- Various incentives are announced under the New Exploration Licensing Policy (NELP)
- Attractive terms are being offered to investors for the construction of liquefied natural gas import terminals.

PART THREE

Aker Kværner Powergas

Aker Kværner Powergas is the largest Indo-Norwegian engineering services company operating in India. The company has about 1100 employees in Mumbai and Pune. Aker Kværner got its stake in Powergas when Kværner bought Trafalgar House in 1996. 49 per cent of the company is owned by Aker Kværner, 28 per cent by an employee trust and 23 per cent by former directors and managers. Powergas works 20 per cent with oil/gas and 80 per cent with petrochemicals/ hydrocarbons. 65 per cent of the income from Aker Kværner Powergas comes from India, and 35 per cent from overseas (half of the projects from overseas through Aker Kværner). Within India mainly construction projects are done, while design engineering is the main business outside India

A Dynamic Company

All the employees in Powergas are Indians, and the average age in the company is about 32–33. This means a low cost operation with young engineers doing most of the job, and 80 per cent of the work is done by people with less than 10 years of experience. The salary paid to an engineer in India per hour is about one fifth of the Norwegian level. Powergas is as most Indian service companies more like a Western company when it comes to structure. In contrast many Indian manufacturing companies tend to have a rigid hierarchy. There are also fewer problems with corruption and labour unions for an engineering company. Compared to Norwegian business culture, Indians are less contractual. Trust, understanding and relationships are more important. The work on a project can often start before the contract is signed as long as trust is established, and Powergas has done a lot of projects without a contract. HSE (Health, safety and environment) is very important, and the standards of Powergas are close to Norwegian standards.

The Ormen Lange Project

A major project done by Powergas was significant detail engineering services for the onshore facilities of Ormen Lange, which is Hydro's pioneering deepwater seabed-to-shore project in the North Sea. The main architect work was done by Aker Kværner in Norway, while the details were done in India. This is because the detail engineering takes the most time, and one can benefit a lot from cost-efficient Indian engineers. About 25 per cent of the engineering process was done in India and 75 per cent in Norway. Dr S Rama Iyer, the Executive Chairman of Powergas, hopes it will be the other way around in some years as Indian engineers will be more experienced and accomplish a broader scope of engineering activities. Powergas did all the work in 3D programs and it was sent electronically to Norway. 125 employees from Powergas used a total of about 280 000 working hours on the project in 14 months, and it was completed in October 2005. The work was a great success, and everything was done on time without quality issues. Delegates from Hydro visited Powergas during the period, and Indian engineers also visited Norway.

India's Advantages in the Engineering Industry

There are three main advantages the Indian engineering industry has compared to other Asian countries:

- No communication barriers (compared to e.g. China) -> English is the main business language
- A large pool of educated engineers (compared to e.g. the Philippines) -> India educates about 300 000 engineers each year
- Very cost-efficient engineers (compared to e.g. Malaysia) -> the salary of an Indian PhD is for example approx. NOK 15 000 a month

PART THREE

There are opportunities for Norwegian engineering companies to benefit from the highly skilled cost-efficient Indian engineers, especially in the oil and gas sector. This could be done either through recruitment of Indian graduates or through cooperation with Indian companies. Dr S. Rama Iyer mentioned that it would be a good idea if Norwegian companies/ universities collaborated in giving Indian engineering students scholarships in Norway. This could for example be done for 3 months during the last 2 years of their studies. Such programmes/ scholarships could develop to be a good link between Norwegian businesses and Indian graduates. The students must not necessarily study at IIT, the leading technology university in India, but other universities such as the University of Mumbai is also good.

Future Visions for Powergas

The strategy of Powergas is to remain in the current industries, and expand to subsea solutions. Today more people in Powergas have international experience, and about 30 per cent of the employees have been abroad. Powergas would also like to send even more employees abroad in the future to accumulate competence from different projects, so that the know-how can be used locally and on other projects. Powergas feels that the labour market for Indian engineers is more competitive today than some years ago. Until recently Powergas had only 10 per cent employee turnover, but it has risen to 15 per cent in the last year mainly due to competition from the Middle East. There is a short distance from Mumbai (Powergas' headquarters) to the Middle East, and the salaries there are 2-3 times Indian levels. The employee trust of Powergas is an incentive to keep employees longer with the company. 28 per cent of a possible dividend will be allocated to the employees that have stayed with the company for more than 10 years

Powergas and many other Indian engineering companies are highly competitive in the global market. In 10 to 15 years, Powergas might be the main constructor of a possible 'Ormen Lange 2' project.

References

- 1) Meeting with Mr Sudhir Gupta, SN Power Country Representative, Delhi, January 4th 2006
- 2) <http://www.norfund.com>
- 3) <http://www.snpowerinvest.com>
- 4) <http://www.statkraft.com>
- 5) <http://iis-db.stanford.edu/evnts/1565/India.pdf>
- 6) <http://www.prayaspune.org>
- 7) <http://www.electricityindia.org>
- 8) <http://www.worldbank.com/in>
- 9) <http://www.mckinsey.com/mgi>
- 10) <http://www.eia.doe.gov/emeu/international/india.html>
- 11) CII Confederation of Indian Industry, <http://www.ciionline.org/services/71/default.asp?Page=Oil%20and%20Gas.htm>
- 12) IBEF India Brand Equity Foundation, www.ibef.org
- 13) EIA Energy Information Administration, www.eia.doe.gov
- 14) www.ril.com
- 15) www.financialexpress.com
- 16) www.bharatpetroleum.com
- 17) www.ril.com
- 18) 'Winning the Indian Consumer', The McKinsey Quarterly 2005
- 19) <http://www.indiaonline.com>
- 20) Meeting with Dr S Rama Iyer, Executive Chairman of Powergas, Mumbai [16.01.2006]
- 21) Kvaerner Powergas news, issued 27th February 2005]

PART THREE

BIOTECHNOLOGY

Billed as the next big thing after IT, biotechnology clocks the fastest growth in India, spawning a whole new generation of entrepreneurs who are making mega-profits and emerging as major employers. India is among the world's top 12 Biotech powers. The industry is growing at a rate of 25 per cent, and India has more Biotech companies than Japan, Taiwan or Korea. By 2010, India is expected to generate USD 5 billion in revenues from Biotech, and the sector will create more than one million jobs in India in the next five years.



APIDC Venture Capital

APIDC Venture Capital has invested its USD 30 million fund in promising Indian Biotech business ideas. We visited APIDC's headquarters in Hyderabad and spoke to Mr Shekhar Kundur. APIDC's philosophy follows the simple rule that they "rather invest in an A class team with a B class idea than a B class team with an A class idea". Further, it is important that the company or idea has a solely Indian focus. Norfund is the second largest investor in APIDC. Mr Kundur brought out the sensitive issues of ethics as central and important to the Biotech industry. Until recently, India has not had a policy of incorporating ethics committees

in organizations. However, APIDC's investors have required the fund to establish such a committee. Further, APIDC requires the companies in which they invest to develop an ethics committee. In doing so, one can slowly incorporate ethics in a broader sense. This is particularly interesting for this sector as ethics is a vital part of Biotechnology and research. Thus, APIDC is not only important in ensuring the growth of quality business, but also in improving and incorporating ethics within this sector.

Shantha Biotech Limited

A pioneer in the field of Biotechnology, Shantha Biotechnics is the first Indian company to develop, manufacture and market a recombinant human healthcare product in India. Founded by Varaprasid Reddy in 1993, Shantha Biotech has today grown in to one of the largest Biotech companies in the Asia-Pacific region. Shantha is currently focusing its R&D efforts on the development of generic biologicals, novel therapeutic antibodies, proteins and vaccines. The company conducts exploratory research in the fields of Oncology, Infectious Diseases and Platform Technologies. In 1997, Shantha introduced SHANVAC- B, being the first Indian Hepatitis-B vaccine to be pre-qualified by the WHO, as a supplier of vaccines to UN agencies globally. Today, Shantha caters to major international markets, including Asia-Pacific, Africa, CIS and Latin America in addition to supra nations like UNICEF and PAHO. Today, Shantha produces 200 million doses of vaccines. By 2007, the company will have expanded its production plant with four new buildings. Estimated production per year will increase to 800 million doses. Executive director, Mr Khalil Ahmed, points at the low R&D costs as the major advantage, and the reason why vaccines are considerably cheaper in India than elsewhere. He estimates the Indian R&D costs to be about 1/6 of US

PART THREE

costs, and 1/5 of European costs. A low-wage workforce without compromising on quality is India's greatest advantage, he argues. To elaborate; the paycheck of the four employees in Shantha's California subsidiary equals the total paycheck of the 45 employees at the Hyderabad headquarters.

Through our visits to APIDC, Bharat Biotech and Shantha Biotech we experienced an expanding industry. The competition is fierce with an estimated 10 000 companies and 30 000 brands of medicines on the market. Facing challenges as 'fake' medicines the serious actors in the industry are strict on following policies, routines and standards. The ethical issues evident in this industry are becoming a central topic amongst the serious actors, and standards are developed in terms of ethical committees and boards. In the years to come, the Indian Biotech sector is expected to experience continued development and expansion.



Visiting Shantha's production plant outside Hyderabad

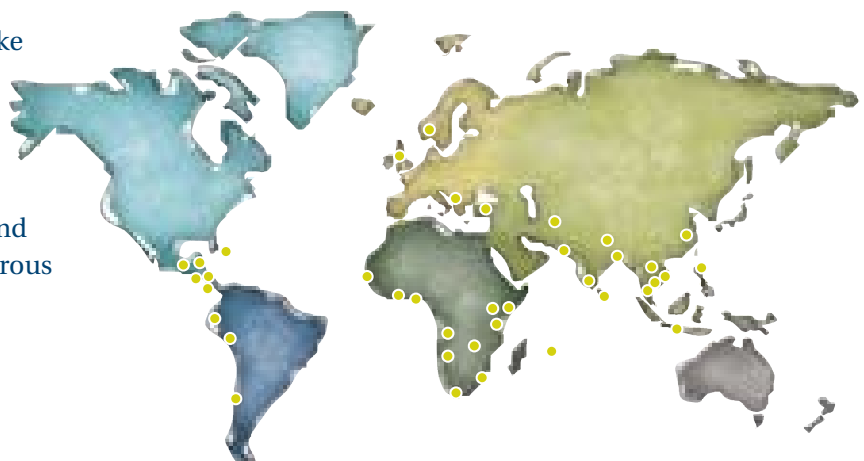
References

- 1) www.shanthabiotech.com
- 2) Meetings with Mr. Chandra Shekhar R. Kundur, Senior Vice-President APIDC
- 3) Meetings with Mr. T. Srinivas, CFO Bharat Biotech International Limited
- 4) Meetings with Mr. Khalil Ahmed, Executive Director and Mr. Ranajit Sen, Assistant Vice President Shantha Biotechnics Limited
- 5) India Today, August 2005



A partner for business in developing countries

Businesses in developing countries can only make progress if they have access to risk capital. We invest in and encourage cooperation on the development of profitable new activities which create jobs and reduce poverty. Through partnership, co-financing with other investors and an active local presence, we help to create a vigorous business community.



PART THREE

MARITIME SECTOR

Over the past few years, a range of new laws has been introduced to benefit the Indian shipping industry, and a variety of new projects reflects the optimism in the industry. The introduction of the global practice of charging tonnage tax instead of tax based on profits benefits ship owners. The Sagarmala project, with its integration of ports, shipping and inland water transport, will lead to a much longed for modernization of the maritime infrastructure including further development of the ports, and hopefully an increase in foreign investment.

SHIPBUILDING

Since shipbuilding is an industry that depends heavily on large investments and at the same time still is a low profit business, it has been suffering in India's undercapitalized environment. Increased privatization of yards is still needed, though efficiency has increased and some yards are now fully internationally competitive. Indian yards accentuate their focus on quality, strong emphasis on handling the contracts well, being flexible and adapting to their clients needs as important factors that leads to success. They also stress that good client relations are extremely important.

The yards do not receive direct subsidies like yards in other Asian countries, but there are some support mechanisms, such as reduced tax and an absence of customs duties on foreign equipment. When obtaining orders through a global tendering process the private shipyards also get 30 per cent subsidies from the government. The differences in efficiency amongst shipyards are substantial. Generally, Indian shipyards are not as efficient as shipyards in countries such as China, Korea and Singapore. For example, some of the public shipyards would use about 25–30 months to build a ship, which a Chinese or South Korean shipyard might build one in about 10–12 months. This is partly due to a lack of mechanization and partly because over-manning still represents a problem. This is constantly improving, however, and labour unions have not been a problem in the industry for the last 10 years.

Infrastructure and logistics still represent a problem, especially since most of the equipment must be imported, implying extra paper work, going through slow bureaucratic processes and putting pressure on the already overstrained and inefficient logistics and infrastructure. Comprehensive changes have however been carried out in the last couple of years and are now coming into effect. At present, India can build ships up to 1 100 000 DWT, which is highly inadequate with respect to global shipbuilding standards. The average size of available dry-docks in India is also small and not technically equipped to handle repair work of large ocean-going ships. On the smaller scale the quality of their ships are comparable to other Asian countries, such as China, Japan and Singapore.

The major announcements to the shipping industry in 2005 include:

- No tax on repairs and replacement of hull, machinery and equipment for ships built in India
- 100 per cent Foreign Direct Investment (FDI) promoted in shipbuilding and repair
- Shipbuilding and repair will acquire infrastructure status; investments eligible for direct tax benefits for 20 years
- No duty on import of equipment and machinery

PART THREE

Shipyards

India has 28 shipyards, seven of which are major yards. There are only two larger privately owned shipyards: ABG Shipyard Ltd and Bharati Shipyard Ltd. The shipyards supply three different segments. The public sector shipyards concentrate on building ocean-going vessels as well as naval/defence craft, whereas the private sector specializes in small, medium and specialized ocean-going vessels.

Government-owned Shipyards

The largest buyer from Indian shipyards is the Ministry of Defence (MOD), and some shipyards supply only the MOD. The government cannot, however, give preference to Indian shipyards when ordering ships. The government-owned shipyards are under the control of the Ministry of Defence or the Ministry of Shipping. The major ports under administrative control of the Ministry of Defence include Mazagon Dock Limited, Garden Research Shipbuilders & Engineers and Goa Shipyard Ltd. **Mazagon Dock Limited** is India's premier shipyard constructing warships as well as offshore platforms. The shipyards under the control of the Ministry of Shipping are Hooghley Port and Dock Engineers, Hindustan Shipyard Ltd, Cochin Shipyard Ltd and Central Inland Water Transportation Ltd. **Hooghley Port and Dock Engineers** is the oldest shipyard and specializes in small craft. **Hindustan Shipyard Ltd** was originally a private establishment, but was taken over by the Indian government in 1961. Main customers include the Indian Navy and the Shipping Cooperation of India. **Cochin Shipyard Ltd** is the largest shipyard in terms of outlay, and is the only shipyard which is capable of building large sized ships. The shipyard began with shipbuilding in 1978 and ship repairs in 1981. Its customers include shipping companies from i.e. Italy, Saudi Arabia, and Denmark. Cochin Shipyard Ltd is one of India's top 10 public sector undertakings.

Privately Owned Shipyards

ABG Shipyard Ltd is the larger of the two privately owned shipyards in terms of outlay and turnover. The shipyard is very focused on the international market; 90 per cent of the vessels built in the last two years were exported. ABG especially emphasizes its Norwegian clients and was the first Indian shipyard to export vessels to Norway. **Bharati Shipyard Ltd** has been profitable every year since it was established in 1968 and has at present a larger profit than ABG. Bharati Shipyard Ltd buys most of its equipment abroad. Apart from the fact that foreign equipment is sometimes less expensive, this is both



FRAMO

- * Hydraulically driven cargo pumping systems for tankers
- * Offshore Oil & Gas pumping systems
- * Oil Spill recovery systems
- * Anti heeling systems

Frank Mohn AS
P.O.Box 98, Slåtthaug
NO-5851 Bergen, Norway

Tel: +47 55 899000
Fax: +47 55999080

e-mail: marine@framo.no
website: www.framo.no

Frank Mohn AS

PART THREE

because of the lack of customs duty, as well as the fact that most of their ships are bought by foreigners that appreciate that the equipment is already known to them. At present, Bharati Shipyard Ltd has four orders from Great Eastern, three orders from the Middle East, four orders from France, eight orders from Norway and six orders from the Netherlands, which makes Norway their largest market at the moment. Bharati has been buying from Norway for many years, and sold to Norway for the last five to six years.



«Viking Avant» (Eidesvik AS)
Platform Supply Vessel



«Island Frontier» (Island Offshore)
Subsea Support Vessel



«Malaviya Twenty» (The Great Eastern
Shipping Co. Ltd.) Supply Vessel

Preferred for innovation

They keep coming back

Aker Yards AS mainly manufactures complex vessels and ship equipment for the offshore and fishing fleet. Solutions which strike an efficient balance between performance and cost of ownership. And, the fact that customers keep coming back for new vessels is our stamp of quality.

Let us be your first port of call.



part of the Aker group

Funding

There is a very high investment demand and low margins in the shipbuilding industry. The funding of a new ship is normally done in several stages. The first payment is typically when the contract is signed, several payments come during the work in progress and the last payment is done by the time of delivery. International buyers do not pay in as many stages as Indian buyers. A contract is normally binding, but can be cancelled against compensation for the shipbuilder. The refund

guarantee for the client is normally 100 per cent if the ship does not meet the demanded standards. If the foreign client does not pay the shipbuilder as much as needed for the investment, the shipbuilder often has security in a letter of credit. The letter of credit is a guarantee from an overseas bank (often through an Indian bank) to the shipbuilder that money for the investment will be transferred.

The overseas client often arranges the funding of a ship built in India. It is common that Norwegian buyers have taken up loans in Norwegian banks to finance a ship built by an Indian shipyard. When the overseas client handles the financing, the interest rate is lower. The shipbuilder can arrange a loan abroad, but most often at a higher interest rate. Nevertheless, an Indian commercial bank would have a much higher interest rate compared to a foreign bank.

Ship Breaking

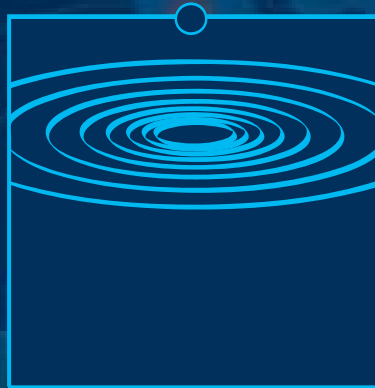
Gujarat Shipyard has been, and still is, the main ship breaking yard. The ship breaking industry was extensive in India until 2002, but in the last 2–3 years Bangladesh has been the largest international player. This also reflects the international decrease in the ship breaking industry.

Main sponsor:



THE PLACE TO BE 2007

12 - 15 June
Oslo, Norway



leading voices
of the maritime industry

The leading maritime event week



PART THREE

INDIAN PORTS

India has been rightly called a country of sub-continental proportions. The country's long coastline of around 7517 km, spread on the western and eastern shelves of the mainland and also along the Islands is a natural resource capable of being harnessed for the country's trade and tourism development. The importance of maritime infrastructure in facilitating international trade is well recognized. At present, about 90 per cent of India's international trade by volume and 70 per cent by value are carried through its ports.

As the current level of India's share in global merchandise trade is around 0.75 per cent, the strengthening of the maritime infrastructure would have a favourable impact on the country's trade front and on economic growth. Ports provide an interface between ocean transport and land-based transport. Initially, such traffic was mostly handled at major ports. However over the years, minor ports have also witnessed growth in traffic. The growth in the cargo handled at Indian ports has increased from 19.38 million tonnes (major ports) in 1950 to 1951 to around 463 million tonnes (major and minor ports) by 2003 and 2004. The share of traffic at major and minor ports was around 345 and 118 million tonnes respectively.

At present, the 12 major ports handle about 75 per cent of the maritime cargo of the country. With infusion of new technology and capacity building, the congestion at Indian ports in the 1990s has been reduced in most places. So much so, that the operational efficiency improvements have led to the capacity being marginally ahead of demand. However, with the projected growth of traffic and growing containerization, there is need to expand the capacity in the sector through investment from both public and private sectors.

All the major ports are administered by Port Trusts which are autonomous bodies except for the newly constructed Ennore Port which is run by a company named Ennore Port Limited. The minor ports are the responsibility of the Maritime State Government.



PART THREE

Kandla Port

Kandla Port is a natural harbour situated in the Kandla dock on the West Coast in the state of Gujarat. Kandla Port was incorporated in 1955 after the loss of the Port of Karachi to Pakistan, following the partition of India. This hinterland is highly developed agriculturally, besides being the largest food

grain producer and exporter in India. The maximum permissible draught of the Port is 11.2 metres. Kandla Port has 11 Multipurpose Cargo Berths, six Liquid Cargo Jetties and five Mooring Points for lighterage operations in the Kandla Creek.

The capacity of the port during 2003 and 2004 was 45 million tonnes. The port was able to handle 41.52 million tonnes surpassing the throughput of 40.63 million tonnes in 2002 and 2003. This was achieved due to productivity oriented berthing policy, wherein priority berthing was facilitated for the vessels that guaranteed higher outputs. Due to the policy of the Government to export food grains, there was sudden spurt in food grains exports from Kandla to facilitate faster turnaround of vessel from the port priority berthing was introduced.

Kandla Port has sustained its outstanding performance especially in dry cargo handling by handling about 100 million tonnes of dry cargo up to December 2004 and a similar quantity over the same period last year.

Container traffic has also maintained its upward trend; with an impressive growth of 7.8 per cent between 2003 and 2004.

During the period up until December 2004, the major commodities that the port was able to attract in substantial quantities were: Petroleum Oil Lubricants (POL), other liquids, container cargo, food grains, iron and steel fertilizers and ores.

Jawaharlal Nehru Port (JNPT)

Jawaharlal Nehru Port was constructed in the mid-1980s and commissioned on 26th May 1989. Today, it has come a long way by becoming a world class international container handling port. During the last 14 years, JN Port has grown from strength to strength and has emerged as a dependable and efficient modern port in this region. According to Mr T.V Sowrirajan, who is the Additional Docks Manager at the Mumbai Port Trust, the JNPT is the most efficient port in India, and it handles over 50 per cent of the total amount of containers in India. The JN Port is 20 times larger than Mumbai Port. JN Port has been accredited with ISO 9001:2000 certification.

Overview of Indian Port sector

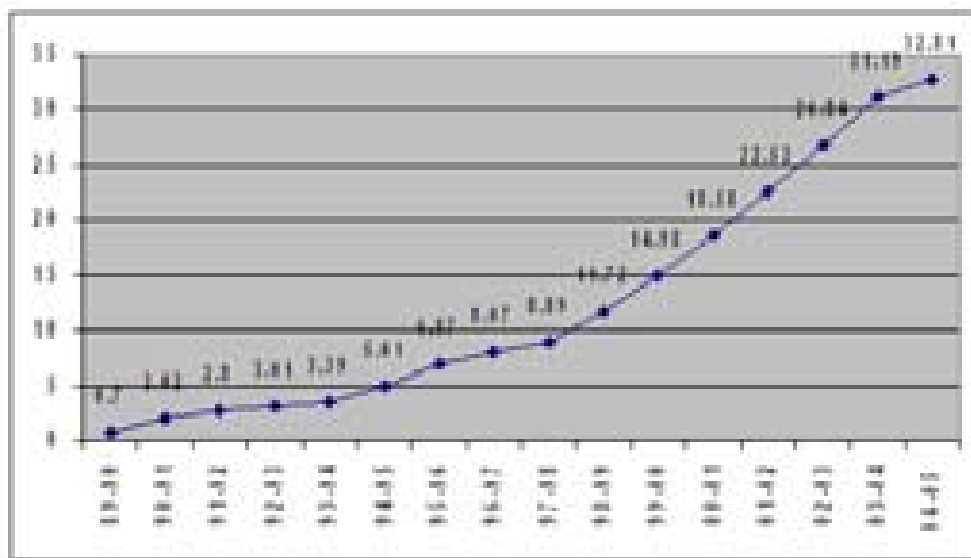
State	No. of Ports		Major Ports	Important Minor Ports
	Major	Minor		
West Bengal	2	1	Kolkata, Haldia	-
Orissa	1	2	Paradip	Gopalpur
Andra Pradesh	1	12	Vizag	Kakinada, Rawa
Tamil Nadu	3	14	Ennore, Chennai, Tuticorin	PY - 3 Oil Field
Kerala	1	16	Cochin	Kozhikode
Karnataka	1	9	New Mangalore	Karwar
Goa	1	7	Mormugao	-
Maharashtra	2	48	JNPT, Mumbai Port	Dharamtar, Revdanda
Gujarat	1	48	Kandla (Vadinar)	
Others	-	-		



Fred. Olsen & Co.

Fred. Olsens gate 2 - P.O.Box 1159 Sentrum - 0107 Oslo

PART THREE



JNPT - TOTAL TRAFFIC (1989-90 TO 2004-05) IN MILLION TONNES

The port started with two dedicated modern terminals; one for the import/export of containers and the other for import of dry bulk cargo. One is private, the other one is governmental and in addition there is one more private terminal under construction. The port also handles large volumes of liquid bulk and automobile exports. The initial installed port capacity was 5.5 million tonnes. The present

capacity of the port is 33.10 million tonnes. The port reached 2.2 million twenty feet equivalent units (TEU) during year 2003 to 2004 and, is currently ranked 29 amongst the major container handling ports in the world.

A total of 2456 vessels called on JNPT during the calendar year 2005 as against 2350 vessels called during the same period last year, thereby registering growth in vessel traffic by 4.51 per cent. This is the highest number of vessels handled at JN Port during a calendar year.

Mumbai Port Trust

Mumbai Port, the second oldest major port of India after Kolkata, is a natural deepwater port. Originally a general cargo port, Mumbai Port is today a multi-purpose port handling all types of cargo like liquid bulk, dry bulk, break bulk and containers. At a meeting with the Mumbai Port Trust (Ministry of Shipping, Government of India) and the Additional Docks Manager, Mr T.V Sowrirajan, we learned that the main commodities that are being handled at the Mumbai Port are:

Imports: petroleum oil lubricants, agricultural products (such as soybeans), coal, fertilizers, peas, timber and liquid chemicals.

Exports: steel, steel products, coils, granite blocks, refined oil for aviation fuel, cars, and maze.

The port has three enclosed wet docks named Indira, Prince's and Victoria Docks, besides four liquid jetties at Jawahar Dweep, a nearby island in the Mumbai harbour handling crude and petroleum products and a chemicals jetty for handling chemicals and products at Thus, the general cargo is handled mainly at the 14 berths in Indira Dock which has a draft of 9.1 metres.

For handling petroleum products there is a dedicated Marine Oil Terminal (MOT) with four berths linked to the refineries on shore through submarine pipelines, thereby enabling direct transfer of crude oil and finished products to and fro the refineries. For handling other liquid cargo, the Port has a state of the art chemical terminal at Pir Pau.

According to Mr T.V Sowrirajan, one of the greatest challenges for the Mumbai Port is the

PART THREE

infrastructure in Mumbai and in India in general. For Mumbai the problem is that the port was created before the city, and therefore the infrastructure is not adequately developed. Second, the people come first when it comes to transportation in the city. Therefore the port has to move the cargo by train during the night hours, because people use the trains during the days. During the next three to four years Mumbai will complete plans of for improving the highways and railways. The Mumbai Port is also a hub port for South-east Asia.

Chennai Port

Chennai Port is an all weather artificial harbour on the Bay of Bengal with one Outer Harbour and one Inner Harbour with a wet Dock, and a Boat Basin, with round the clock navigation facilities.

Chennai Port is in the fourth position in cargo traffic among the Major Ports of India. The Port handled a cargo of 36.71 million tonnes during 2003 and 2004 as against 33.69 million tonnes during the previous year, showing an increase of 3.02 million tonnes. The increase in traffic over the previous year is 8.96 per cent. During 2004, tonnage handled was 31.42 million tonnes, which comprises 17.87 million tonnes of imports, and 13.55 million tonnes of exports.

The total number of vessels called at the port, including government vessels, during 2003 and 2004 were 2140, and the same for 2002 and 2003 being 2079. In 2004, 1674 vessels called at the port.

Kolkata Port

Kolkata Port is the oldest (established in 1870) and the only riverine major port of India.

It is the gateway to Eastern India for the rest of the world. The port serves Eastern India and the land-locked Himalayan kingdoms of Nepal and Bhutan. Kolkata Port has a twin dock system; Kolkata Dock System (KDS) on the eastern bank of river Hooghly, and Haldia Dock Complex (HDC) on the western bank of the river. Against installed capacity to handle 43.9 million MT cargo per year, Kolkata Port handled 41.26 million MT cargo during 2003



LEIF HÖEGH & CO

PART THREE

to 2004, implying a capacity utilization of 93.99 per cent, and was ranked number three amongst major ports.

During the period April–December 2004, a number of vessels handled at Kolkata Port increased to 2070 as compared to 1887 vessels in the corresponding period in the previous year.

Traffic at Kolkata Dock System (KDS), increased to 9.945 million tonnes in 2004 to 2005 compared to 8.693 million tonnes in 2003 to 2004, registering a growth of 14.40 per cent. At Haldia Dock Complex (HDC), cargo traffic increased to 36.262 million tonnes in 2004 to 2005 from 32.567 million tonnes in 2003 to 2004, registering a growth of 11.35 per cent. Rank of HDC alone was 'fourth' amongst all major ports of India.

During the last four years, from 2000–2001 to 2004–2005, Kolkata Port increased its cargo volume by 16.207 million tonnes, which was highest amongst all Indian Major Ports. Annual growth rate of total traffic at Kolkata Port during the last three years (from 2001–2002 and 2004–2005) was 15 per cent against the growth of 10 per cent, registered by all Major Ports of India during the same period.

Other major ports in India are New Mangalore Port, Cochin Port, Tuticorin Port, Ennore Port, Visakhapatnam Port and the Paradip Port.



TEEKAY IS AN ESSENTIAL MARINE LINK IN THE GLOBAL ENERGY SUPPLY CHAIN, SERVING THE WORLD'S LEADING OIL AND GAS COMPANIES. WE CONNECT OUR CUSTOMERS' UPSTREAM OIL AND GAS PRODUCTION WITH THEIR DOWNSTREAM REFINING AND DISTRIBUTION. IT IS OUR PROMISE TO DO SO SAFELY AND RELIABLY, AND TO CONTINUOUSLY REINVENT OUR COMPANY TO MEET OUR CUSTOMERS' EVOLVING NEEDS.

Teekay Shipping transports more than 10 percent of the world's seaborne oil and has a significant presence in the liquefied natural gas shipping sector.

With a fleet of more than 140 tankers, offices in 15 countries and approximately 5,100 seagoing and shore-based employees, we provide a comprehensive set of marine services to the world's leading oil and gas companies.

Our reputation for safety, quality and innovation has earned us a position as The Marine Midstream Company.



Teekay Shipping | www.teekay.com

TEEKAY — THE MARINE MIDSTREAM COMPANY®

PART THREE

Sagar Mala

The 'Sagar Mala' Programme is the name of the national highway development programme that was announced by the then Prime Minister on 15 August 2003. Aimed at the development of India's maritime sector, for rapid capacity expansion and modernization of ports along India's West and East coasts, and development of inland navigation, the project proposes to cover all areas of maritime transport, including ports, shipping and inland waterways, and as well as realising the potential of trade.

According to Shipping Minister Shatrughan Sinha "Sagar Mala offers a golden opportunity to compete successfully with the best of the maritime world". Sagar Mala will put emphasis on developing India's ports to levels comparable with the best global ports in terms of infrastructure, efficiency and quality of service, increasing the tonnage capacity, upgrading and creating ship-building and ship repair facilities, and increasing the use of inland waterways for transportation.

Under Sagar Mala, all major ports will be connected with the Golden Quadrilateral through high-speed expressways. The rail connectivity to such ports will also be strengthened so that adequate line capacity and speed of movement are available. The project envisages the

Handling your requirements

www.tts-marine.com



setting up of new ports along the coastline where the required draft is available. The central and state governments will create basic facilities at these ports and offer them to the private sector for further development and operation.

The government plans to develop a world-class container trans-shipment port at Vallarpadam in Kochi, in view of its proximity to the international sea route, in order to attract trans-shipment cargo. The Jawaharlal Nehru Port Trust and the Chennai Port Trust will be upgraded to become hub ports.

PART THREE

Transchart

International Business (IB) was fortunate enough to have a meeting with the Ministry of Shipping and officers of Transchart thanks to Mr Rai from Star Shipping in Delhi. IB is the only outside group that has ever been inside the trading-room at the Chartering Wing besides the brokers who work there. As the chief controller of chartering enters the room, all the brokers stand up and silence falls as he starts reading the day's cargo for chartering. As soon as the chief controller is finished and leaves, the room quickly turns into life again, and all the brokers are talking quickly on the phone to get the information needed and terms agreed for chartering.

Cargo

On behalf of Indian public sector companies, Transchart, a chartering arm of the Ministry of Shipping moves more than 65 million tonnes of cargo. This comprises dry, liquid, liner, coastal and time charter cargoes in and out of India. The tonnage of interest ranges from 5000 DWT to handymax geared bulkers and even gearless panamax vessels, moving cargoes from Australia, the USA., Black Sea, Mediterranean, Africa, Arabian Gulf, Red Sea, South East Asia, China to India, or from India to the Continent, the Middle East and the Far East in handymax to capesize vessels.



STAR SHIPPING

PART THREE

Contract Terms

Import contracts are to be finalized on Free on Board (FOB), Free Alongside Ship (FAS) basis and those for export on Cost & Freight (C&F), Cost, Insurance and Freight (CIF) basis in respect of Government owned/controlled cargoes on behalf of Central Government Departments and State Government Departments and Public Sector Undertakings under them.

The policy of buying on FOB and selling on CIF, is aimed at retaining control over shipping arrangements within India to enable the maximum utilization of Indian ships at competitive rates. Employing Indian vessels saves considerable amounts on foreign exchange and minimizes the outflow of foreign exchange by chartering foreign vessels at competitive rates. This is ideally suited not only in normal situations, but is very critical for ensuring arrival of strategically needed materials on time in case of emergency or war-like situations.

Chartering Work

The Cabinet directive from December 1957 is the foundation of what is today known as TRANSCART, for the purpose of liaison between the then Department of Transportation and the Ministries of the Government of India. Today, Transcart has about 50 brokers empanelled.

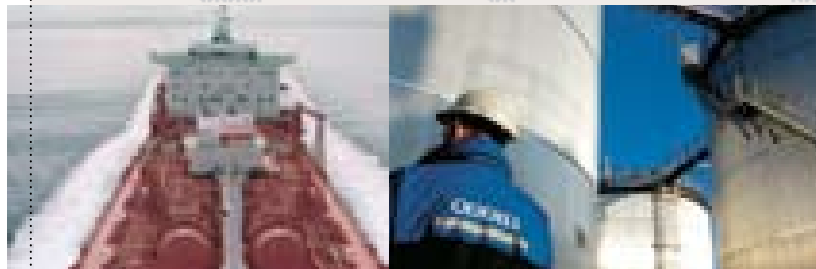
Over the years, the volume and variety of chartering work undertaken by the Chartering Wing have increased substantially, in addition to ensuring vessels for commodities like fertilizers, fertilizer raw materials, crude oil, clean petroleum products, coal, coke and steel material. There are major movements to India of coking coal, which is estimated to be about 20 million tonnes annually, and likely to increase soon. The Indian owners have tonnage to carry only a fraction of the existing total cargoes.

According to state officials, Transcart does not take responsibility for any dispute, failures and consequences of ship owner failing to perform a contract, under the present system. It is basically a service provider/intermediary, which has authority but no responsibility.

Crude Oil

Since crude oil imported by public sector oil companies constitutes a major portion of the total cargo handled by Transcart, there have been some discussions regarding chartering on its own and not through Transcart. In an article from Business line, sources said the Indian Oil Corporation (IOC) was considering making its own shipping arrangements for crude oil imports, by-passing Transcart. On 8 April 2005, the Union Cabinet granted

SAFE, RELIABLE AND EFFICIENT TRANSPORTATION



Odfjell, an international company headquartered in Bergen, Norway, is a leading company in the global market of transportation and storage of bulk liquid chemicals, vegetable oils, animal fats, CPP and other speciality products. The company owns and operates parcel tankers and several tank terminals.



Please visit www.odfjell.com for further information.

PART THREE

sanction to IOC to charter their own ships, instead of through Transchart. This exemption to charter ships is granted on an experimental basis and will be reviewed after one year. Of the total cargo of nearly 88 million tonnes in India, IOC's share accounted for nearly 34 million tonnes.

Circulation of Enquiries

The Shipping Ministry points to Transchart's experience of more than four decades, with ship owners from around the world being represented through approved shipbrokers. When Transchart's tonnage enquiries get circulated worldwide this invites better competition, Transchart helps avoid competition among users and provides secured freight payments to shipowners. Many of the shipping companies are afraid that more sanctions could reduce the important cargo support that they are getting in the present system, which allows Indian lines to get first right of refusal to carry the cargo.

References

- 1) http://shipping.nic.in/Annual%20Report/ANUUAL04_05/Chapter%20VIII-XII.pdf (chartering)
- 2) http://www.jnport.com/new_site/performhigh_yp.asp (yearly performance of JNPT)
- 3) http://www.jnport.com/new_site/performhigh_rp.asp# (record performance JNPT)
- 4) <http://www.mumbaiporttrust.com/performance/cargotr.htm> (Import/export/total MPT)
- 5) <http://www.kolkataporttrust.gov.in/> (Kolkata Port)
- 6) Indian Port Report – 10 years of reforms and challenges ahead, i-maritime Research & Information division
- 7) Indian shipping – Status report on Indian Maritime Sector, Times Research Group, 2004
- 8) <http://invanor.no/upload/Kundeportal/filer/markedsmuligheter/Indian%20shipping.doc>
- 9) Indian Maritime Scenario, an overview, Press release from INMEX India, 2005
- 10) http://invanor.no/Internasjonalisering_fs/Markeder/Press%20Release%20from%20INMEX%20India%202005.doc
- 11) Adrift in a sea of bureaucracy, Times Shipping Journal, Feb 2003
- 12) <http://www.etshipping.com/feb2003/sreport.html>
- 13) DRAFT POLICY (MODIFIED) FOR MARITIME SECTOR, (Ports, Merchant Shipping and IWT), Government of India, Ministry of Shipping, Road Transport & Highways, Department of Shipping, February, 2005
- 14) http://www.shipping.nic.in/Draft%20Maritime%20Policy%20_Modified_.pdf
- 15) Welcome Tonnage Tax, India Infoline, July, 2004
- 16) <http://www.indiainfoline.com/nevi/weto.html>
- 17) Sagarmala could attract foreign investment, Project Monitor 2006
- 18) <http://projectsmonitor.com/detailnews.asp?newsid=7693>
- 19) Meeting with T.V. Sowrirajan, Mumbai Port Trust, Mumbai, [16.01.2006]
- 20) Meeting with Partho Burmon Roy, Bharati Shipyard, Mumbai, [20.01.2006]
- 21) Meeting with Ashok Balwani, Global Manager – ICT Sector, Det Norske Veritas AS, Mumbai, [20.01.2006]

PART THREE

IT

The world set up and took notice of a new phenomenon in the mid-1990s. A host of companies entered a playing field that was until then reserved by the Western countries. The Indian IT multinational was born. From there on there was no looking back.

In the recent years India has emerged as the Global IT hub with its enormous talent pool, contributing significantly to the phenomenal growth of IT Services and IT Enabled Services industry (ITES include services like back office operations, call centres, content development/ animation, data processing, engineering and design, geographic information system services, insurance claim processing, legal databases, medical transcription, payroll processing, remote maintenance, revenue accounting, support centres and website services). With the support from the Government of India, the industry has made huge strides in making India one of the most preferred investment destinations for the IT and ITES sectors.

Why is India the World's Leader in IT Offshoring Activities?

In India today, Software Technology Parks of India (STPIs) all over the country are synonymous with excellent infrastructure and statutory support aimed at furthering growth of IT in the country. The STPI scheme is a 100 per cent export oriented scheme for encouraging development and export of computer software from India. The STPI scheme has yielded excellent and far-reaching results over the years enabling India to remain competitive in the global market and positioned at the pinnacle of the global software industry.

With almost USD 9 billion in software and services being exported annually at a rapid growth rate, India offers a highly educated, English-speaking workforce. The low cost and high quality advantage is not just why institutions and companies invest in India. English being the most used language, availability of resources (human and others), intellectual property rights (IPRs), creations, R&D skills, technological training and managerial capabilities and work ethics and focus, all stand together as a compelling reason for India's attractiveness. Moving India forward will not only require the government and the people to work together, but it will also require achievement of synergies, internally and externally, and at different levels – from government, legal, political to institutional.

The government has to invest more money in infrastructure if the country wants to



PART THREE

ensure that companies looking for offshoring locations select and remain in India. So far, offshoring has been largely a private-sector affair, and in some respects the lack of government involvement has been the secret of its success. But private-sector investment in air-conditioned offices, apartments, and shopping malls in offshoring centres has not been matched by public investment in the airports, roads, and utilities improvements necessary to enable the millions of people attracted to these locations to live and work more efficiently. In the future, government and business must work together if offshoring is to remain India's growth engine.

India still lags behind in terms of stringent laws and enforcement. The law needs to keep up with changing technologies and do away with the loopholes that could harm corporations. There are many areas that do not find mention in the IT Act including rights of domain name owners, patents, trademarks, copyrights and IPRs. However efforts are being made to strengthen the law and fight other threats like cyber crime. Further challenges for India lay in the competition emerging from other countries in the South East region. These countries are gaining cost advantages.

While India continues to lead in traditional segments, vendors are now also gaining ground in newer services such as packaged software implementation, system integration, network infrastructure management, and IT consulting. A future possibility lays in cooperation with China, particularly in the areas of embedded software. The Indian software industry can make use of the consumer electronic industry in China.

With the Indian economy integrating further with the global economy, the demand for IT services will shift from large deals signed by large enterprises to mid-size and small enterprises signing IT services and Business Process Outsourcing (BPO) deals. This is expected to pave the way for the next phase of growth in the Indian IT services market.

Bangalore

Bangalore is at the forefront of Information Technology and the city has experienced a tremendous growth in the IT sector and is now the IT Capital of India.

The tree-lined streets and abundant greenery have led Bangalore to being called the 'Garden City' of India. However, since local entrepreneurs and the technology giant Texas Instruments discovered its potential as a high-tech city in the early 1980s, Bangalore has seen a major technology boom. It is now home to more than 250 high-tech companies, including home grown giants like Wipro and Infosys. Bangalore is the greatest offshoring target for foreign companies in India with more than 100 000 outsourcing/IT workers. The main focus is on software, call centres, IT consulting and tax processing. Major global IT companies like IBM, Intel, GapGemini, Cisco Systems, Accenture and many more are represented in the city. As a result, the city is called the 'Silicon Valley' of India.

However, some of the issues that need to be looked into are power and telecom infrastructure, which are not keeping pace with the IT expansion. While the government promises uninterrupted power supply, these seem hollow claims and many ITES firms have to maintain their own back-up systems, which crank up costs. The city's public transportation infrastructure is very weak, and this has resulted in many people buying their own vehicles. There is a lack of a neutral accent among the local populace which necessitates training for call centre services. Though real estate is not a problem, property costs in Bangalore are higher than in Chennai.

Some internationally renowned institutions in Bangalore are Indian Institute of Management, Indian Institute of Information Technology, and Indian Institute of Science.

PART THREE

Chennai

Situated on the east coast of India, Chennai, formerly known as Madras, is one of the great metropolitan cities of the world and the fourth largest city in the country.

After Bangalore, Delhi, and Mumbai, Chennai is the largest city in sense of IT. With more than 50 000 outsourcing/IT workers, this city has the main focus in consulting and software and is still growing extremely rapidly. Large foreign organizations and companies like the World Bank, Standard Chartered, Cognizant, Polaris, McKinsey and many more are established in Chennai.

Despite a relatively sturdy infrastructure, Chennai has not been able to attract as many ITES firms as Bangalore. The profile of the companies operating in the city indicates that the city is strong in call/contact centre, content management/development and animation, data processing/management /digitization and Web site services/Web applications. The city loses out to the likes of Delhi and Bangalore in the 'perception game'. Chennai is perceived to be conservative, often horribly polluted and lacking infrastructure. Accordingly, studies reveal that it would help if the government found a way to highlight the success stories of companies based in Chennai.

Indian Institute of Technology Chennai and Madras Institute of Technology are some of the major internationally renowned engineering institutions in Chennai.

Hyderabad

With its climate conducive to IT development apart from various advantages like a large pool of talent, low cost operations, and a supportive government, Hyderabad is fast emerging as the next IT pool in India.

Hyderabad in the state of Andhra Pradesh (AP) is home for vibrant IT/ITES Industries in India. The city is centrally located between North India and South India and it is just an hour away by air from other major cities in the country. With the coming up of Hyderabad International Airport at Shamshabad, AP Government envisages the city as a regional hub as well as a transit hub for overseas business travellers and tourists.

Gartner's report of 14 December on IT outsourcing to India points out "Hyderabad to be the IT Hotspot by 2010". Hyderabad tops the ratings in many ways. In the infrastructure category, the state is investing heavily to provide improved roads, transport, buildings and connectivity. (Over the next five years, about USD10 billion will be spent on infrastructure facilities.) Further, the city scores high on 'cost of life' and 'quality of living' parameters, and the availability of a skilled labour force.

Global IT giants like Microsoft, Dell, Oracle, GE Capital, Google, HSBC, Infosys and many more have set up their facilities in Hyderabad and the city is a facilitator to many enthusiastic entrepreneurs. The main hub in the city is software, back office and product design.

The state's ITES policy is perhaps one of the best in the country and puts a lot of emphasis on quality manpower. The government must now deliver on those intentions and support institutes that train manpower suitable for ITES. Accent is a major problem that needs to be addressed through training support.

An important issue that has already affected the top cities in India – the shortage of talent – has now become a matter for Hyderabad as well. Universities, colleges and many academic institutions of international repute like Indian School of Business (ISB) and International Institute of Information Technology (IIIT) in the city region graduates 25 000 engineers

PART THREE

a year. This will not be enough to satisfy the demand at current growth rates if only 25 per cent are suitable for employment in multinationals. In 2006, the demand for suitable engineers will exceed the local supply, and by 2008, the demand will hit 138 per cent of supply.

Kolkata

Kolkata was founded in 1690 as a British trade settlement by the East India Company. The site was selected because of its surrounding lakes and rivers offered protection. In 1772, Kolkata became the capital of British India. The city is therefore heavily marked with imperialistic buildings from the many years as an important British city. When India gained freedom and got partitioned between India and Pakistan, Kolkata was included in the Indian part and became the capital city of the state of West Bengal.

Kolkata is one of the towns struggling in the wake of cities such as Bangalore and Hyderabad trying to attract national and international companies. The Government of West Bengal, although communist, offers both fiscal and non-fiscal support to start-ups. In a survey done by Nasscom, Kolkata scores high in terms of telecom and power infrastructure and low cost of operations. The city also benefits from having academic institutions such as the Indian Institute of Management and Kolkata University, the oldest university in the Indian subcontinent and also the only Indian in the top 50 in the Times Higher Education supplement. A problem in Kolkata, as in most other parts of India, is the infrastructure. Kolkata will have to improve the roads and public transport system radically.

Our findings agree with those of Nasscom regarding the profile of ITES companies. Kolkata is strong labour-intensive areas such as: data processing / management / digitization and back-office operations. But the city has not been able to attract companies in many other areas. Among the large multinational companies in Kolkata we find Tata consulting services, Vipro and IBM Global Services

The conclusion is therefore that Kolkata, as an offshoring destination, is suited for labour-intensive typically back-office operations. Our inquiries show that if your company is into high-tech and R&D, then Bangalore or Hyderabad would be more suitable locations. We therefore disagree with the findings in a report done by Svein Land and Frode Mindrebø commissioned by the Norwegian Embassy in Delhi. The report 'Investment climate and opportunities in India' considers Kolkata suitable as an outsourcing destination without taking into consideration the disparities between the services. McKinsey projections show that India will have sufficient labour to meet the expected demand in typical back-office operations such as finance, HR and analytical services. When choosing a location for such a task it is important to consider a wider range of cities. If everybody goes to the same few locations, wages will reach unattractive levels even in these occupations.

Pune

Pune is a major industrial centre located in the western Indian state of Maharashtra. The metropolitan region has a population close to 5 million. The city has witnessed a sizeable investment in the software and automobile sectors, resulting in an influx of skilled labour from all over the country. Several suburbs are now completely cosmopolitan and real-estate prices have boomed since 2003.

Pune has a fast growing software industry. The number of outsourcing/ITworkers is 7300. Many of India's major software companies such as TCS, Infosys, Wipro, Satyam, Mahindra British Telecom, Mastek Ltd and Persistens Systems have their presence in Pune.

PART THREE

Global giants like HSBC Global Technology, PTC, IBM, Sybase, EDS, I-Flex, KPIT Cummins Infosystems Inc, Amdics, Veritas Software, Aftek Infosys, Syntel, Citi, Zensar and TIBCO Software have a major presence in Pune's various Software Technology Parks and other areas. Pune has several prominent IT parks such as Hinjewadi IT and Magarpatta Cybercity. The main focus within IT is call centres and software.

Pune is also emerging as a prominent city for Business Process Outsourcing (BPO) companies. Companies such as Convergys, WNS, Progeon, EXL and Mphasis have found their way to Pune. Because of the availability of skilled manpower, Pune comes as a natural choice for the BPO companies.

Though Pune has managed to attract many IT companies, there is a list of concerns, infrastructure being number one. A reliable and continuous power supply needs to be provided.

Delhi

Delhi has always been an important cultural and intellectual centre. The multi-ethnic and multi-cultural capital of India is a very cosmopolitan city. Delhi is one of India's most affluent urban centers and is at the heart of India's largest consumer belt. New Delhi, an urban area within the metropolis of Delhi, is the seat of the Government of India. Delhi has an approximate population of 15 million and a presence of more than 160 embassies.

The city's service sector has expanded rapidly in recent years, mainly due to the large English-speaking workforce which has attracted many multinational companies. IT is one of the key service industries in Delhi, and accounts for over 30 per cent of India's IT and IT-enabled services exports, the second largest in the country. Delhi has about 73 000 workers in outsourcing and IT. When it comes to IT in Delhi, the main focus is on call centres, transaction processing and software. Large multinational companies have their presence in Delhi, such as GE, American Express, Wipro, Convergys and Daksh.

Although Delhi is amongst the leaders in IT, there are some weaknesses. A lot remains to be achieved in the area of physical infrastructure. Delhi's power supply needs immediate attention, as it necessitates backup power systems at companies, thus increasing costs. Like many other parts of the country, there is a lack of a neutral accent which may create a problem for firms in the call centre business. In addition, the public transport infrastructure is inadequate.

Many top academic institutions have their presence in Delhi, such as Indian Institute of Technology (IIT Delhi) and University of Delhi.

Mumbai

Mumbai, formerly known as Bombay, is the capital of the state of Maharashtra, and the most populous city of India with an estimated population of about 18 million. Mumbai is the commercial and entertainment capital of India, and houses important financial institutions, such as the Bombay Stock Exchange, the National Stock Exchange of India, Reserve Bank of India, and the corporate headquarters of many Indian companies.

Mumbai has attracted migrants from all over India because of the immense business opportunities and the relatively high standard of living, making the city a mix of various communities and cultures. Some of the major Mumbai-based companies are Reliance, Tata Group and Rolta. The number of people working with IT and outsourcing is 62 050. Large scale players like Morgan Stanley, Citi, Mphasis, I-Flex and Accenture have their presence

PART THREE

in Mumbai. Mumbai is strong within financial resources, back-office operations, call centres and software. However, the city seems to be quite weak in transcription services and network management/maintenance. Mumbai is plagued by high real estate rates and the cost of trained manpower is among the highest in the country. Though Mumbai has the best public transport infrastructure in the country, the same cannot be said about its road network, caused by the congested roads.

Mumbai has several academic institutions of international repute like Indian Institute of Technology (IIT Delhi) and University of Mumbai.

DIGIMAKER

A success story: The Norwegian IT company Digimaker made a breakthrough in India in 2003, after two years of trying to outsource parts of its business to the country.

Today, 30 employees are working in Digimaker India, which is located in Bangalore in the southern part of India. The Indian division is growing rapidly, and is expected to have a working staff of 50 by the end of 2006. The company is based in Kristiansand and has a sales department in Oslo. Digimaker's main product is a content management system, CMS, which is based on Microsoft's Net platform and used by all its clients. One of the application areas the system can be used for is management of web platforms such as intranets, extranets and multiple internet sites. With partners worldwide, two of the leading customers include Financial Times and Daimler Chrysler.

After a short period of trying to outsource some activities to Sri Lanka, Digimaker made its first approach in India in 2001. By outsourcing to a low-cost and well educated labour force, the company wanted to add value to the company by achieving goals and higher quality. At first, they tried to outsource some development tasks to Indian companies in Bangalore, but soon experienced difficulties in keeping control of the development projects and found that the process of finishing a project seemed to be everlasting. In order to improve the collaboration between the Indian and Norwegian teams and invite the Indians to explore and adapt the Norwegian business culture, the Indians working for Digimaker came to Kristiansand for a period of three months. This attempt to make the Indians function with the Norwegians was not very successful.

Digimaker tried several approaches to the Indian market before the company ended up with the present solution. At one time, the design was made in Norway while the programming was done in India by external partners. A problem with this approach was that the value was created by people outside the company, and not by Digimaker's own employees. As they wanted to keep the core competence and the intellectual capital within the company, they found the best solution to be to establish a separate division in India. The Indian division's main focus is the production of the software Digimaker, while the design is custom-made in Norway. This is how Digimaker is organized today. In the Indian division, more than half of the staff members are also working on specific customer projects and support. Some of the largest customers, such as Daimler Chrysler, Financial Times and History Today, have recently signed support contracts with Digimaker. This means that one or more of their employees are working full time on web mastering, development and administration of their sites. Independent of their main product Digimaker CMS, the company has ambitions to experience a significant growth in its offshoring activities. Currently, the largest customer in the consulting sector is Ventelo. So far they have agreed on a contract of three months, where three of Digimaker's people in India currently are present in Kristiansand working on the project. Projects like this will be a large part of the future for the Norwegian company.

An obvious problem when it comes to doing business in India is the cultural differences.

PART THREE

According to Geir Wiksen, the Norwegian manager of Digimaker's division in India, the mentality differs between the Indian and Norwegian employees. Indian workers tend to have deeper respect for authorities within the company, and are more used to being told exactly what to do. An important task for the Norwegian boss is therefore supervision of the employees as well as delegation of activities. As opposed to Norwegian companies, where the employees are used to being very independent and informal, Indian workers are more in need of a clear structure and more explicit communication. Having a job in India means security and social status. As a consequence, Indians tend to be more sceptical and dependent employees than Norwegians.



Let me tell you
a secret...



Outsourcing website deployment to Digimaker India can cut development costs by as much as 50%. Our highly competent Indian branch offer excellent development, deployment and support skills. Digimaker India is managed by our on-site Scandinavian Executive Team. Learn more about cost-efficient deployment with Digimaker 5.2 - The .NET CMS at www.digimaker.com. Contact us at +47 815 44 184 or email us sales@digimaker.com today

PART THREE

Norway and India Collaborating In the Banking Sector

EDB Business Partner ASA (EDB) is a key player in the Nordic IT sector, through its operating companies in Norway and Sweden. The company is listed at the Oslo Stock Exchange, and EDB is involved in both the software and the IT-service sectors. In June 2005, EDB launched an extensive collaboration with India's i-flex solutions (i-flex), which is ranked as one of the world leaders in the financial service industry.



- An Indian company operating world-wide with 600 customers in more than 120 countries
- Has since 1991 increased its revenues 100 times and employs 50 times more people
- i-flex's core banking solution, Flexcube, has been ranked number 1 by International Banking System for three consecutive years
- Owned 41 per cent by the Oracle Corporation



- Experienced revenues exceeding NOK 4,2 billions in 2004
- In primo 2004 the company employed more than 3000 persons serving over 170 banks and other customers
- 51,85 per cent owned by Telenor – The greatest telco in the Nordic region

Why

EDB is aiming for the position as the market leader in the Nordic IT sector. Growth is imperative to reach this position; therefore EDB has acquired a large number of companies during the last year. Improving and developing the already existing operations, is of course also vital for a growing company. EDB is currently wearing the yellow jersey in the



Norwegian banking sector, but the firm's core banking solutions are running on mainframe solutions dating decades back. EDB's core banking package has, in benchmarks, proven to be one of the most stable in the world. EDB has therefore chosen to continue with the mainframe-solutions in the Norwegian market. However, banks outside of Norway have chosen different operating solutions. They have mostly used in-house proprietary software running on mainframes. The need for a more cost effective and user friendly solution made several of these banks invest in standardized software components and solutions. EDB has therefore been on the look for an international partner with solutions fitting the requirements of these customers.

PART THREE

In the early 1990's, EDB considered an American core banking solution, but the firm decided that it was too early to bring in a partner. Thereafter EDB watched their European competitors closely during the remaining of the decade, but it wasn't before 2004 that the first major step was taken in the effort of bringing in a partner.

The Benchmarking Process

In February 2004, Financial Insights, a subsidiary of the International Data Group owned IDC, started the process of defining suitable candidates matching EDB's requirements. Financial Insight came up with a short-list containing 5 names, and EDB chose to do send RFIs (Request For Information) to 3 of the companies. The benchmarking process evaluated EDB's existing banking solutions for the Norwegian market, with solution packages offered by global companies by following aspects:

- The prospect's core values and desire to participate in the benchmarking process
- Technology and architecture
- The TCU¹ of the service

The process was mostly done by a team of experienced employees of EDB, and the benchmarking costs were therefore relatively low. The team was to some extent, assisted by Financial Insight, and EDB also included one of its most important customers to ensure that functionality and user-friendliness was at an adequate level.

Taking all of the parameters above into consideration, EDB chose to further explore the potential in a relationship with i-flex.

i-flex

i-flex is an Indian company providing IT solutions for the financial industry. The company is presented world-wide and gives financial institutions the possibility to excel through the effective use of information technology. Banks make money out of money, and i-flex delivers the solutions which makes this possible. The company has experienced a rapid growth since its conception in 1992. But still, the company has managed to keep an impressive track-record with not a single client abandoning the company. i-flex currently holds a CMM-level 5 rating² as one of 80 Indian companies, in fact 70 per cent of the CMM-level 5 ranked companies in the world are Indian. The state of the art IT knowledge combined with domain expertise in financial sectors, is what we consider as i-flex's competitive edge. The company possesses skilled and motivated manpower and has a turnover at 8 per cent, which is low compared with Indian standards.

Mutual benefits

Both EDB and i-flex has, as listed below, capabilities that are value added in their relationship:

- 1) Total Cost of Use (TCU) is a financial estimate designed to assess direct and indirect costs related to the purchase of any capital investment. A TCU assessment ideally offers a final statement reflecting not only the cost of purchase, but all aspects in the further use and maintenance of the equipment, device, or system considered.
- 2) The Capability Maturity Model (CMM) is a method for evaluating and measuring the maturity of the software development process of organizations, on a scale of 1 to 5. A maturity model is a structured collection of elements that describe characteristics of effective processes. The CMM was developed by the Software Engineering Institute (SEI) at Carnegie Mellon University in Pittsburgh.

PART THREE

EDB

- Expertise in local outsourcing covering multiple sectors, and strong capabilities in advanced banking solutions for banking operational efficiency
- Knowledge of local requirements
- Market reach through EDB's Nordic leadership in solutions for the Banking & Finance community

i-flex

- FLEXCUBE : one of the leading core banking softwares
- Strong domain expertise in financial sectors
- Low cost of R&D and a skilled workforce

A Joint Approach for the Nordic Market

A study McKinsey has carried out on behalf of EDB estimates the Nordic banking market to have a potential value of approximately NOK 10 billion in yearly revenues, and the revenues originate from software licences, application development and application maintenance. The study also showed that the sector prefers a solution delivered by a global player. EDB today controls 50 per cent of the Norwegian market, and has a want to increase its Nordic market share. The EDB – i-flex partnership can offer complete IT solutions for the technologically mature banking and finance markets by leveraging on the strengths and capabilities of the firms. EDB will therefore act as a value adding reseller of i-flex's solutions, giving i-flex a jump start in the Nordic market.

Bringing the Relationship Further

i-flex currently serves customers world-wide. The company has a strong and diversified portfolio of products, but they have softer spots where EDB can deliver value to the customers. If the EDB – i-flex business model is successful in the Nordic market, it will be possible to take this relationship further. Introducing EDB's products and services to i-flex's existing customers can be a major breakthrough for EDB outside the Nordic region.

The cultural barrier

A Detailed Governing Contract

It's a fact that overcoming cultural barriers can be difficult, and it's therefore important to build a multicultural relationship on a solid basis. EDB and i-flex have worked out a detailed model that describes the mutual solutions and privileges. The partners also have frequent meetings to solve operating questions and to ensure that the relationship is continuously developed.

Workshops

i-flex and EDB have also arranged workshops where the focus has been on sharing knowledge. In these gatherings EDB got to know i-flex and its FLEXCUBE-package, whilst i-flex got an introduction to the Nordic banking and finance solutions market. For instance, solutions delivered to this market must be highly automated due to the high cost of manpower. With this mutual understanding in place, i-flex's solutions would be customized to match EDB's existing solutions, and EDB could then start the process of offering the products in the Nordic market.

No problems

International Business believes that the thorough work done by EDB in the benchmark and the joint effort put in establishing a good relationship are the key elements that have made the relationship prosperous. The company that we met in Bangalore was open and

PART THREE

international. Many of the company's employees are Indians which have worked or attended schools in the Western world. It is also worth noticing that the company has a low turnover (7 per cent) compared to the Indian average among professional/supervisor/technical staff of 19.5 per cent. We believe that the reason lies in the organizational culture; every employee, not just management, is given vast responsibilities for the company's operations. This delegation makes the employees show a commitment to the firm, and they are passionate about their work. This is somewhat unique in India, and makes the company western-friendly and easy to cooperate with.

References

- 1) www.wikipedia.com
- 2) Own notes in meetings in India with (Iflex)
- 3) McKinsey: Ensuring India's offshoring future
- 4) www.digimaker.com
- 5) <http://www.computerworld.no/index.cfm/fuseaction/artikkel/id/49048>
- 6) Bangalore: Meeting at Digimaker India 17.01.06
- 7) http://www.nasscom.org/artdisplay.asp?Art_id=1367
- 8) EDB and www.edb.com
- 9) Meeting with i-flex







**Vetco - Leading supplier
of products and services to
the upstream oil and gas industry.**

www.vetco.com



THANKS TO

Aker Brattvaag/Langsten/Aukra/Yards
Digimaker AS
DnB NOR Bank ASA
Ernst & Young AS
FMC Kongsberg Subsea AS
Frank Mohn AS
GulfMark Norge AS/ Gulf Offshore
Handelshøyskolen BI
Høegh Fleet Services AS/ Høegh Leif Co
Innovasjon Norge
Lufthansa German Airlines
NHH
NHO
Nor Shipping
Norfund
NSB
NTNU
NTNU mTm – Institutt for indøk
Odfjell ASA
Olsen Fred. & Co
Reisehuset
Siemens
Sintef Energiforskning
Sintef Teknologi og samfunn
SNF
Star Shipping
Teekay
Tekna
Tinfos Jernverk
TTS Marine
Vetco Aibel As

APIDC Venture Capital
Ashok Balwani (DNV)
Aureos
Barber Ship Management
Bergens Næringsråd
Bharat Biotech International Limited
Bonny, Swan Shipping Co. Pvt. Ltd.
Digimaker India
Dr S Rama Iyer (Aker Kværner Powergas)
Export-Import Bank of India
I-Flex
Indian Institute of Science
Indian Institute of Technology
Indian School of Business
International Business China 04/05
McKinsey Norge
Mr & Mrs Rai
Novapoint
Partho Burmon Roy (Bharati Shipyard Limited)
Per Reinboth and Pratima Bisen (Innovasjon Norge, India)
Pyramid
Roma Balwani (Mahindra & Mahindra)
Shantha Biotech's Limited
Sudhir Gupta and Ståle Rustad (SN Power Invest)
T.V. Sowrirajan (Mumbai Port Trust)
University of Calcutta

THANKS

Main contributors this year

Main Sponsors



Lufthansa



vetco

Collaborator



**INNOVASJON
NORGE**

Schools



NTNU
Norwegian University of
Science and Technology



**Norwegian School of Economics
and Business Administration**



**NORWEGIAN SCHOOL
OF MANAGEMENT**

www.ib.no