

No.

# **Private Sector Development in India (Project Research)**

## **Final Report**

**July 2006**

**Japan International Cooperation Agency**

**KRI International Corporation**

ED

JR

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# **Private Sector Development in India (Project Research)**

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**Japan International Cooperation Agency**

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**Currency Equivalents**

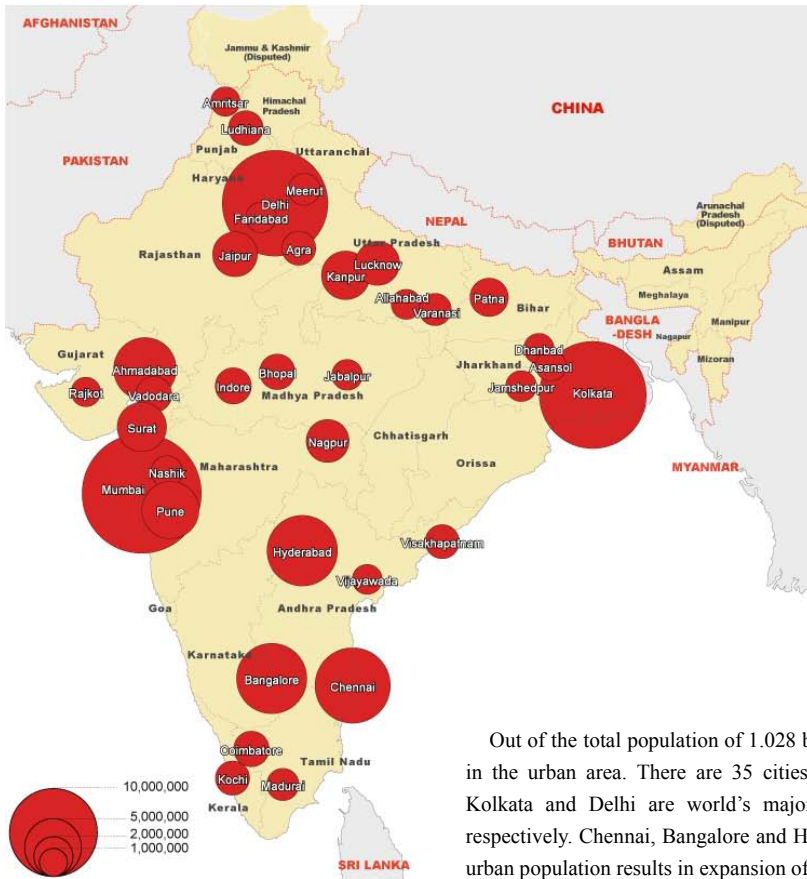
As of 2005 Year average

1US\$dollars = INR 44.1 = ¥110.22



Topographic Map of India





	State	City Name	Population
1	Maharashtra	Greater Mumbai	16,434,386
2	West Bengal	Kolkata	13,205,697
3	Delhi	Delhi	12,877,470
4	Tamil Nadu	Chennai	6,560,242
5	Andhra Pradesh	Hyderabad	5,742,036
6	Karnataka	Bangalore	5,701,446
7	Gujarat	Ahmadabad	4,525,013
8	Maharashtra	Pune	3,760,636
9	Gujarat	Surat	2,811,614
10	Uttar Pradesh	Kanpur	2,715,555
11	Rajasthan	Jaipur	2,322,575
12	Uttar Pradesh	Lucknow	2,245,509
13	Maharashtra	Nagpur	2,129,500
14	Bihar	Patna	1,697,976
15	Madhya Pradesh	Indore	1,516,918
16	Gujarat	Vadodara	1,491,045
17	Tamil Nadu	Coimbatore	1,461,139
18	Madhya Pradesh	Bhopal	1,458,416
19	Punjab	Ludhiana	1,398,467
20	Kerala	Kochi	1,355,972
21	Andhra Pradesh	Visakhapatnam	1,345,938
22	Uttar Pradesh	Agra	1,331,339
23	Uttar Pradesh	Varanasi	1,203,961
24	Tamil Nadu	Madurai	1,203,095
25	Uttar Pradesh	Meerut	1,161,716
26	Maharashtra	Nashik	1,152,326
27	Jharkhand	Jamshedpur	1,104,713
28	Madhya Pradesh	Jabalpur	1,098,000
29	West Bengal	Asansol	1,067,369
30	Jharkhand	Dhanbad	1,065,327
31	Haryana	Faridabad	1,055,938
32	Uttar Pradesh	Allahabad	1,042,229
33	Andhra Pradesh	Visayawada	1,039,518
34	Punjab	Amritsar	1,003,917
35	Gujarat	Raikot	1,003,015

Source: 2001 Population Census

Out of the total population of 1.028 billion in India (Census 2001), 27.8% (225 million) is located in the urban area. There are 35 cities with a population of over 1 million. Especially Mumbai, Kolkata and Delhi are world's major city with a population of 16.5, 13.2 and 12.9 million respectively. Chennai, Bangalore and Hyderabad follow with over 5 million. Rapid expansion of the urban population results in expansion of slums and traffic congestion.

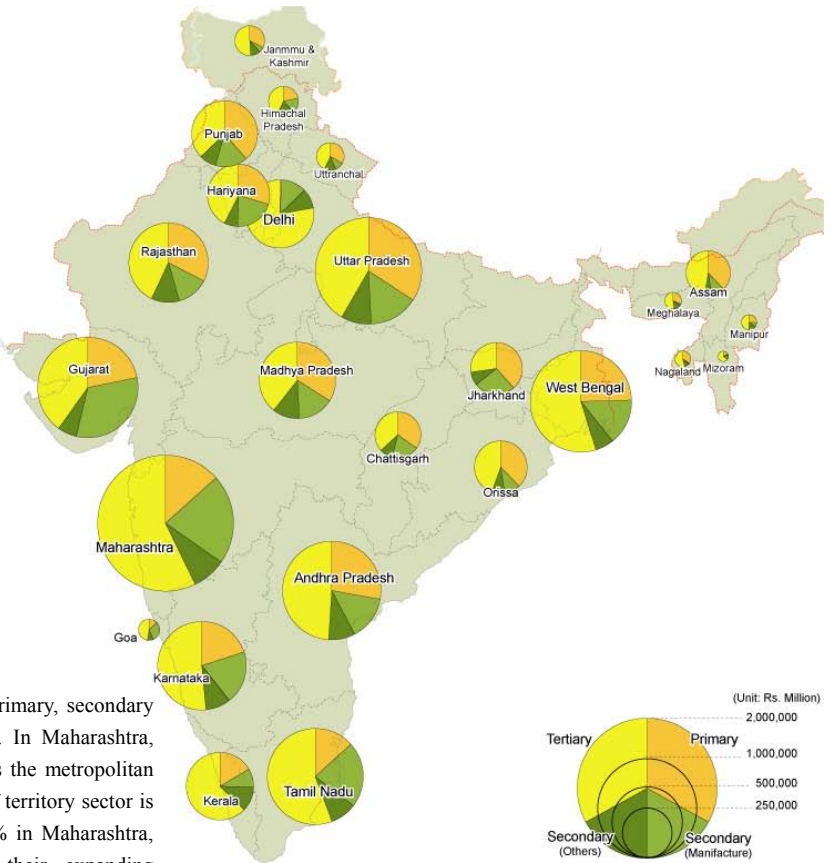
### City with a population of over 1 million (Census 2001)

(Unit: Rs. 100,000)

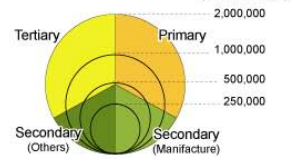
	Year	Primary	Secondary Manufacturing Others	Tertiary	Total
Andhra Pradesh	2003-04	2,782,600	1,447,100	871,000	4,892,500
Delhi	2003-04	47,335	563,004	448,968	3,721,977
Gujarat	2003-04	2,267,600	3,315,700	641,000	4,170,800
Haryana	2003-04	1,183,021	835,622	278,154	1,702,462
Karnataka	2003-04	1,611,437	1,564,971	726,053	4,152,544
Madhya Pradesh	2003-04	2,036,090	914,236	687,078	2,358,635
Maharashtra	2003-04	2,540,747	4,052,793	1,538,975	10,882,605
Tamil Nadu	2003-04	1,260,536	2,097,417	848,832	5,289,214
Uttar Pradesh	2003-04	4,000,047	1,744,832	1,073,444	4,864,515
West Bengal	2003-04	2,598,505	1,554,440	626,480	5,801,160
Orissa	2003-04	1,083,674	280,528	228,730	1,275,636
Punjab	2003-04	1,733,268	713,290	368,075	1,671,570
Jharkhand	2003-04	1,060,661	714,625	234,635	751,997
Chattisgarh	2003-04	756,734	416,636	196,090	800,637
Assam	2003-04	768,922	191,658	107,811	961,435
Goa	2002-03	58,305	143,000	41,780	219,939
Uttaranchal	2001-02	260,661	82,064	105,094	338,086
J&K	2001-02	296,931	52,758	96,941	464,856
Kerala	2003-04	770,045	415,352	557,351	2,936,783
Rajasthan	2003-04	2,118,538	845,178	741,580	2,793,132
Himachal Pradesh	2003-04	196,594	152,423	173,318	394,024
Nagaland	2001-02	88,415	2,869	26,794	137,421
Meghalaya	2003-04	89,781	8,025	39,650	150,440
Manipur	2003-04	60,649	21,913	38,035	117,173
Mizoram	2002-03	19,137	2,437	16,491	70,761

Source: Ministry of Statistics and Program Implementation

India's GDP (2003/04) is Rs 252 billion. The share of primary, secondary and tertiary sector is 23%, 26% and 51% respectively. In Maharashtra, Delhi, West Bengal and Tamil Nadu state which includes the metropolitan area of Mumbai, Delhi, Kolkata and Chennai, the share of tertiary sector is over 50%. Also, Secondary sector accounts for over 30% in Maharashtra, Tamil Nadu, Gujarat and Karnataka state due to their expanding manufacturing sector.



(Unit: Rs. Million)



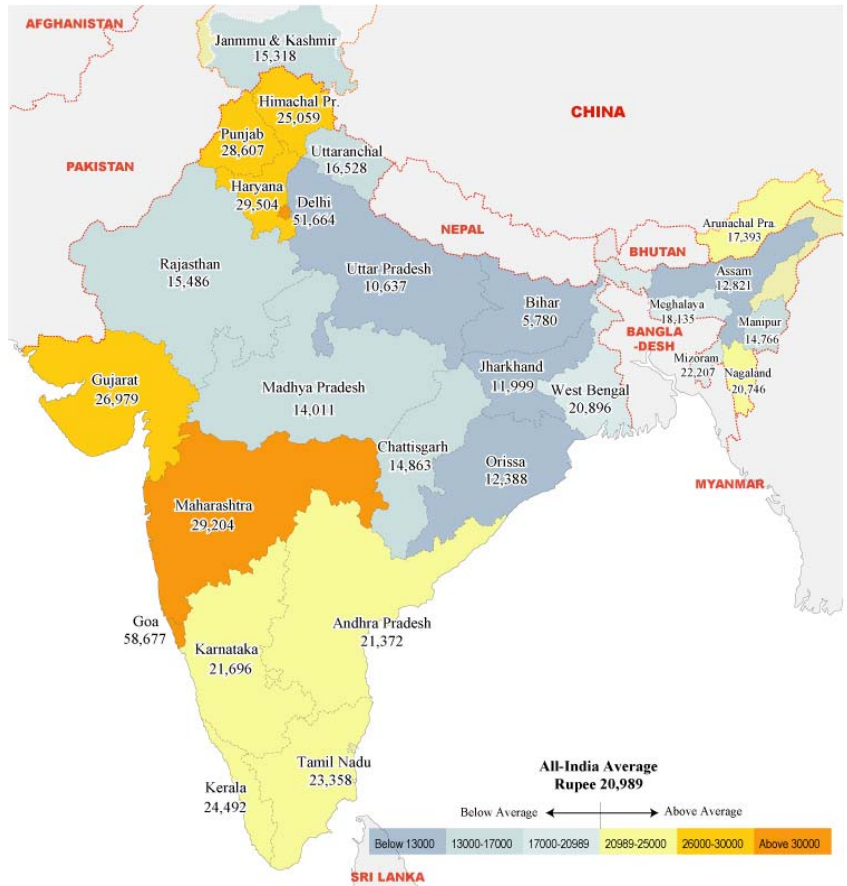
### State GDP by industry structure (1993/94 basis)

This map shows India's per capita GDP by state. India's per capita GDP is Rs 20,989 (equivalent to US\$ 463)

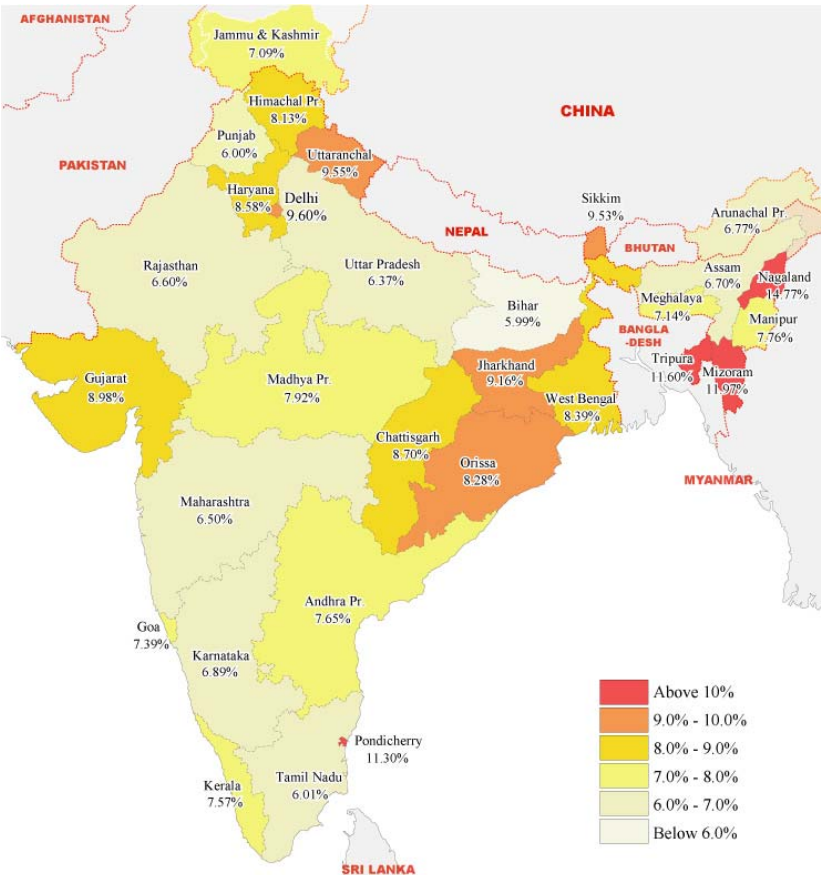
In India, wide regional gap exists due to difference in agriculture productivity, education level, degree of public investment and industrialization etc.

For example, per capita GDP of Delhi and Goa is Rs 51,664 and Rs 58,667 more than twice as high as national average. In Haryana, Punjab, Himachal Pradesh, Gujarat and southern states below Maharashtra, per capita GDP is above the national average.

On the other hand, Assam (Rs 12,821) in the North-West area, UP (Rs 10,637), Orissa (Rs 12,388) and Jharkhand (Rs 11,999) of the North-mid area / mid-East area remains as low as about half of the national average. The most desperate state of Bihar (Rs 5,780) is less than one-third of the national average as well as one-eighth of Delhi state.



Per capita GDP by state in 2004/05 (2004/05 price)



This map shows GDP real growth rate by state (5-year average). India's economy is rapidly expanding economic liberalization after 1991. 5-year average from 2000/01 to 2004/05 is 8.26%.

Delhi (9.60%), nearby Haryana (8.58%) and West Bengal (8.39%) including Kolkata are the areas showing high level of growth.

GDP growth rate of Maharashtra (6.50%), Tamil Nadu (6.01%), and Karnataka (6.89%) which include Mumbai, Chennai and Bangalore is rather low.

Relatively poor states such as Uttaranchal (9.55%), Orissa (8.28%), Jharkhand (9.16%), Mizoram (11.97%), Tripura (11.60%) and Nagaland (14.97%) is achieving high rate of growth.

However the 5-year growth rate of Bihar is only 5.99% which is the worst in whole India. This state seems to be left behind the recent country's economic growth.

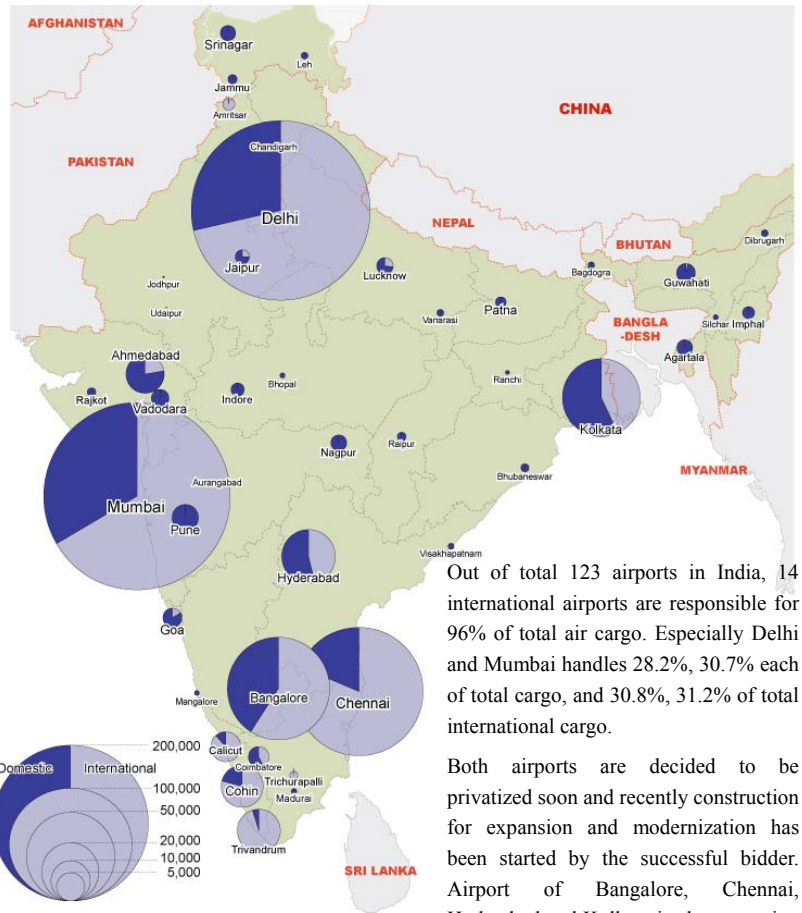
GDP Real Growth Rate by State (past 5 years)



(Unit: ton)

	International	Domestic	Total	Share
<b>International Airport</b>	<b>520,446</b>	<b>255,164</b>	<b>775,610</b>	<b>96.08%</b>
Mumbai	164,905	82,911	247,816	30.70%
Delhi	162,642	65,131	227,773	28.21%
Chennai	94,634	21,718	116,352	14.41%
Bangalore	44,029	30,464	74,493	9.23%
Kolkata	18,491	24,482	42,973	5.32%
Hyderabad	9,454	11,043	20,497	2.54%
Ahmedabad	2,314	8,065	10,379	1.29%
Goa	420	2,170	2,590	0.32%
Trivandrum	12,568	642	13,210	1.64%
Guwahati	75	2,439	2,514	0.31%
Srinagar	0	1,653	1,653	0.20%
Amritsar	1,001	31	1,032	0.13%
Nagpur	0	1,793	1,793	0.22%
Cohin	9,913	2,622	12,535	1.55%
<b>Custom Airport</b>	<b>8,216</b>	<b>6,151</b>	<b>14,367</b>	<b>1.78%</b>
Calicut	5,625	742	6,367	0.79%
Lucknow	517	1,435	1,952	0.24%
Coimbatore	1,280	1,742	3,022	0.37%
Jaipur	342	1,068	1,410	0.17%
Varanasi	0	334	334	0.04%
Patna	0	820	820	0.10%
Trichurapalli	452	10	462	0.06%
Gaya	0	0	0	0.00%
<b>Domestic Airport</b>	<b>0</b>	<b>17,308</b>	<b>17,308</b>	<b>2.14%</b>
Pune	0	4,936	4,936	0.61%
Vadodara	0	2,213	2,213	0.27%
Indore	0	1,254	1,254	0.16%
Mangalore	0	167	167	0.02%
Jammu	0	601	601	0.07%
Agartala	0	1,747	1,747	0.22%
Udaipur	0	10	10	0.00%
Bhubaneswar	0	468	468	0.06%
Visakhapatnam	0	263	263	0.03%
Port Blair	0	826	826	0.10%
Bagdogra	0	318	318	0.04%
Madurai	0	215	215	0.03%
Rajkot	0	529	529	0.07%
Leh	0	337	337	0.04%
Juhu	0	133	133	0.02%
Aurangabad	0	573	573	0.07%
Imphal	0	1,034	1,034	0.13%
Bhopal	0	188	188	0.02%
Chandigarh	0	288	288	0.04%
Jodhpur	0	22	22	0.00%
Dibrugarh	0	330	330	0.04%
Raipur	0	551	551	0.07%
Silchar	0	181	181	0.02%
Ranchi	0	124	124	0.02%
<b>Total</b>	<b>528,662</b>	<b>278,623</b>	<b>807,285</b>	<b>100.00%</b>

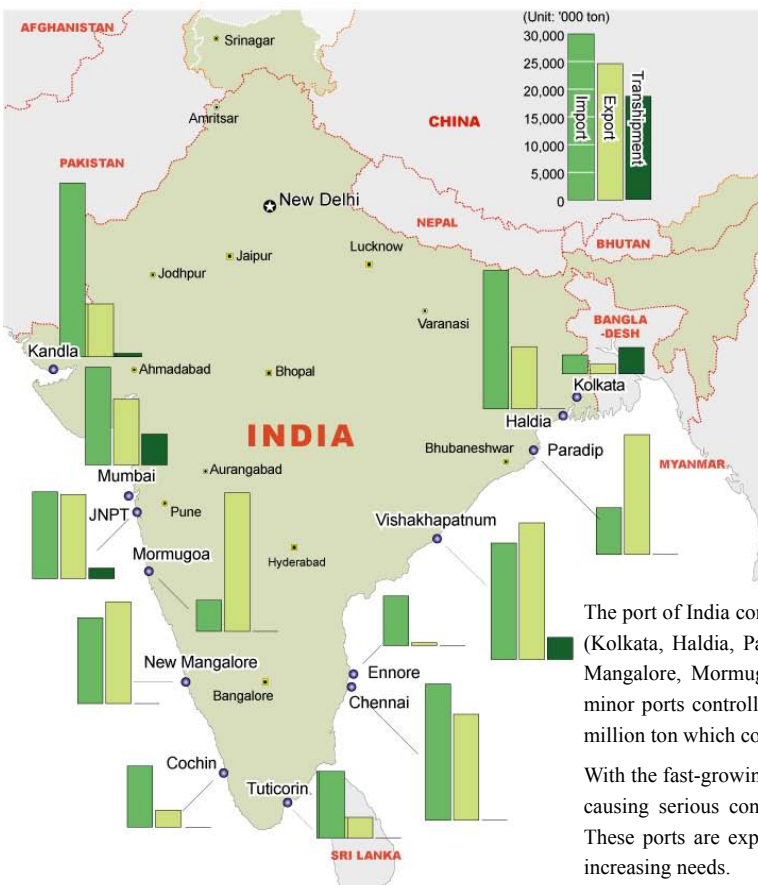
Source: Airports Authority of India



Out of total 123 airports in India, 14 international airports are responsible for 96% of total air cargo. Especially Delhi and Mumbai handles 28.2%, 30.7% each of total cargo, and 30.8%, 31.2% of total international cargo.

Both airports are decided to be privatized soon and recently construction for expansion and modernization has been started by the successful bidder. Airport of Bangalore, Chennai, Hyderabad and Kolkata is also preparing to be privatized.

Volume of Air Cargo in Major Airports (domestic / international)



(Unit: '000 ton)

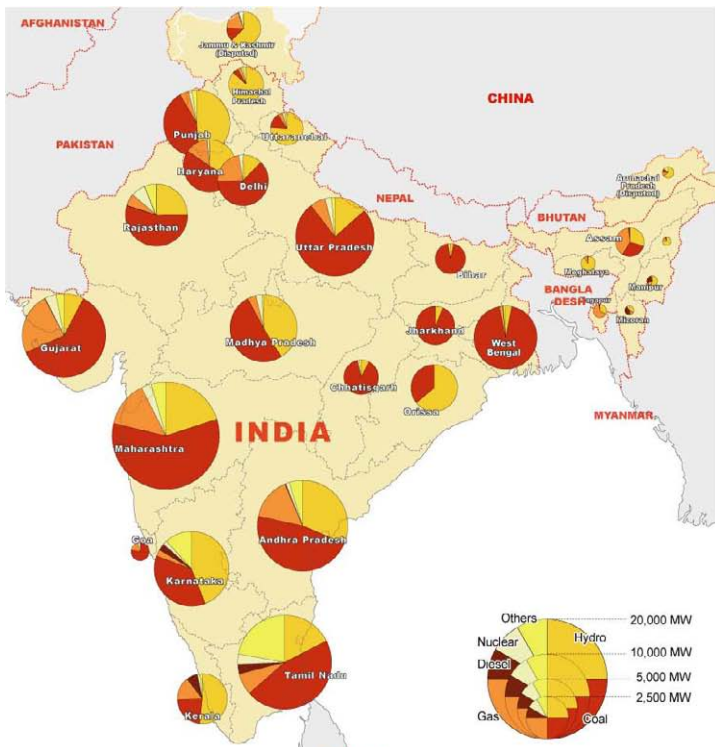
	Year	Import	Export	Transshipment	Total
Kolkata	2004/05	3,418	1,742	4,785	9,945
	2003/04	3,107	1,077	4,509	8,693
Haldia	2004/05	25,007	11,205	0	36,212
	2003/04	22,676	9,890	1	32,567
Paradip	2004/05	8,438	21,666	0	30,104
	2003/04	6,705	18,606	0	25,311
Vishakhapatnam	2004/05	21,290	24,915	3,942	50,147
	2003/04	19,306	21,369	7,061	47,736
Chennai	2004/05	24,620	19,186	0	43,806
	2003/04	20,302	16,408	0	36,710
Tuticorin	2004/05	12,060	3,751	0	15,811
	2003/04	10,184	3,494	0	13,678
Cochin	2004/05	11,045	3,050	0	14,095
	2003/04	11,119	2,453	0	13,572
New Mangalore	2004/05	15,512	18,379	0	33,891
	2003/04	13,045	13,624	4	26,673
Mormugao	2004/05	5,631	25,028	0	30,659
	2003/04	4,468	23,406	0	27,874
Mumbai	2004/05	17,651	11,912	5,562	35,125
	2003/04	16,469	10,861	2,665	29,995
J.N.P.T.	2004/05	15,693	15,217	1,899	32,809
	2003/04	13,412	15,099	2,679	31,190
Ennore	2004/05	8,960	520	0	9,480
	2003/04	9,277	0	0	9,277
Kandla	2004/05	31,384	9,538	619	41,541
	2003/04	31,080	10,308	135	41,523
Grand Totals	2004/05	200,709	166,109	16,807	383,625
	2003/04	181,150	146,595	17,054	344,799

Source: Indian Port Association

The port of India consists of 13 major port controlled directly by the central government (Kolkata, Haldia, Paradip, Vishakhapatnam, Chennai, Ennore, Tuticorin, Cochin, new Mangalore, Mormugoa, Jawaharlal Nehru, Mumbai, Kandla), and 146 medium-scale minor ports controlled by the state government. Cargo volume of major ports is 344.8 million ton which consists 75.3% of total port cargo (458 million ton).

With the fast-growing India economy, the volume of cargo is increasing rapidly which is causing serious congestion at Mumbai, Jawaharlal Nehru (JNPT) and Chennai port. These ports are expanding its infrastructure capacity at a high pace to respond to the increasing needs.

Cargo Volume of 13 Major Ports (import / export / transshipment)



Generation Capacity by Energy Sources by State (as of March 2006) (Unit: MW)

	Hydro	Coal	Gas	Diesel	Nuclear	Others	Total
Delhi	443.0	2,228.0	819.4	0.0	100.0	0.1	3,590.5
Haryana	1,297.4	1,958.5	534.0	3.9	53.0	7.4	3,854.2
Himachal Pradesh	1,463.8	87.0	62.0	0.1	27.0	49.1	1,689.0
Jammu & Kashmir	1,009.0	208.0	304.0	8.9	68.0	11.1	1,609.0
Punjab	3,002.7	2,638.0	264.0	0.0	107.0	144.9	6,156.6
Rajasthan	1,349.0	2,973.0	334.8	0.0	431.0	323.5	5,411.3
Uttar Pradesh	1,158.5	6,558.4	550.0	0.0	224.9	125.8	8,617.6
Uttaranchal	1,126.8	220.6	69.0	0.0	31.1	32.8	1,480.3
Chhattisgarh	125.0	1,490.0	0.0	0.0	24.0	34.0	1,673.0
Gujarat	745.0	5,898.0	2,333.1	17.5	422.0	306.9	9,722.5
Madhya Pradesh	2,586.6	3,215.5	257.2	0.0	183.0	51.2	6,293.5
Maharashtra	3,224.7	9,414.0	2,229.3	0.0	493.5	707.7	16,069.2
Goa	0.0	357.0	82.6	0.0	20.5	0.1	460.2
Andhra Pradesh	3,585.9	5,380.5	1,738.7	36.8	152.0	545.3	11,439.2
Karnataka	3,427.7	2,849.0	220.0	234.4	136.0	916.9	7,784.0
Kerala	1,808.2	798.0	524.0	256.4	62.0	48.8	3,497.4
Tamil Nadu	2,145.8	5,668.0	919.3	411.7	432.0	2,721.8	12,298.6
Bihar	42.9	1,203.5	0.0	0.0	0.0	30.4	1,276.8
Jharkhand	135.0	1,938.0	0.0	0.0	0.0	4.1	2,077.1
Orissa	1,933.9	1,088.0	0.0	0.0	0.0	1.4	3,023.3
Sikkim	40.0	62.0	0.0	5.0	0.0	9.1	116.1
West Bengal	175.7	5,205.4	100.0	12.2	0.0	66.7	5,560.0
Arunachal Pradesh	116.5	0.0	21.0	15.9	0.0	26.0	179.4
Assam	333.0	333.0	447.0	20.7	0.0	0.3	1,134.0
Manipur	82.5	0.0	26.0	45.4	0.0	4.0	157.9
Meghalaya	258.6	0.0	26.0	2.0	0.0	1.5	288.1
Mizoram	38.0	0.0	16.0	51.9	0.0	10.9	116.8
Nagaland	78.5	0.0	19.0	2.0	0.0	3.2	102.7
Tripura	78.0	0.0	160.5	4.8	0.0	1.1	244.4
Other States & UTs	514.1	6,747.5	633.1	72.2	393.0	4.8	8,364.7
Total	32,325.8	68,518.9	12,690.0	1,201.8	3,360.0	6,190.9	124,287.4

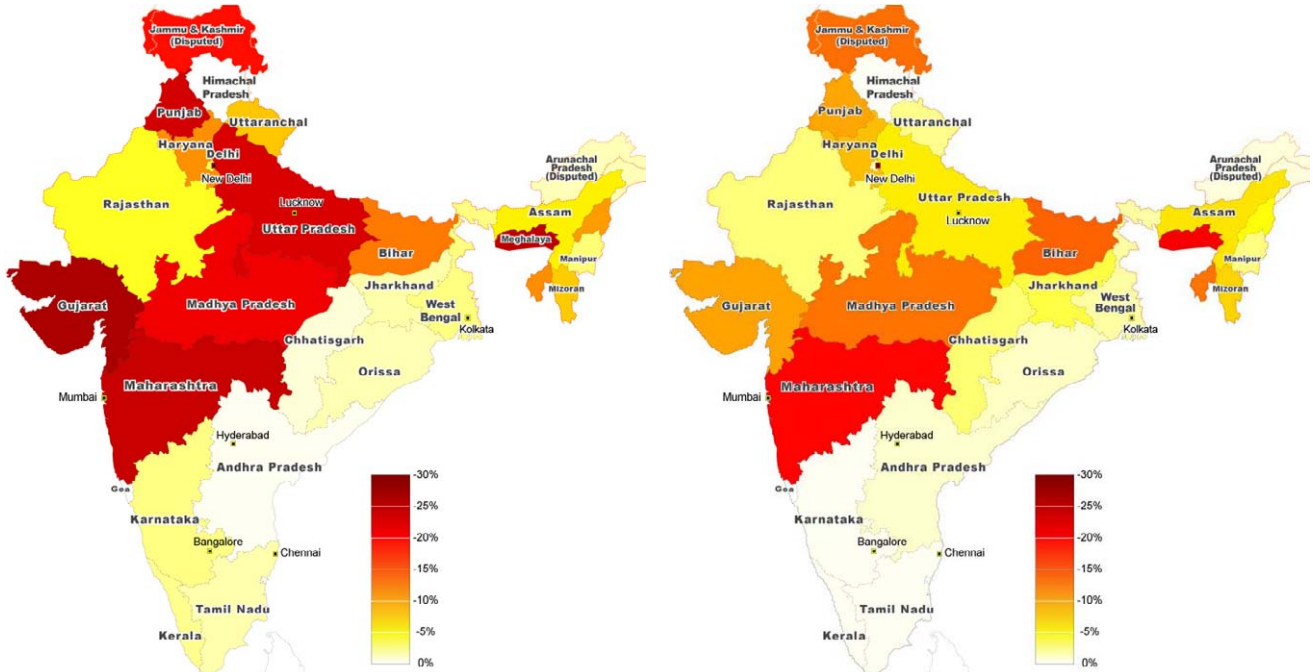
Source: Central Electricity Authority (Power Sector At Glance, March 2006)

Occupancy Ratio

- 35~50%
- 50~70%
- 70~85%
- 85~100%

Generation Capacity of each state by Energy Source (as of November 2005)

At the end of November 2005, total generation capacity in the country was 124,287 MW, of which 55% of generation capacity in the country was occupied by coal-fired power station. Particularly in the case of West Bengal, Bihar, Chhattisgarh, and Jharkhand state, more than 90% of generation capacity was relied on coal fired power station. On the other hand, northern area of the country as well as Karnataka, Orissa, and Madhya Pradesh state, where have abundant water resources, rely on hydropower station. Introduction of private finance for power generation sector is currently accelerating in India, particularly for coal and gas fired thermal power stations. However, most of these thermal power projects encounter considerable delay due to lack of adequate fuel supply and surge in the fuel price. To ameliorate the peak supply balance, and to strengthen energy security in the country, the Government of India intends to promote development of large-scale hydropower station.



Peak Demand Deficit (left) and Energy Deficit (right) during 2004/05

From 1990's onwards, energy demand in India has been rapidly increased along with the sharp economic growth. Delay in the power generation projects resulted in 7.3% of energy deficit and 11.7% of peak demand deficit on the average during the fiscal year 2004/05. Energy and peak demand shortage is forecasted to become worse 13.4% and 16.3%, respectively, by the end of 10th Five Year Development Plan (2006/07). While north-western part of the country faces severe energy shortfall, situation in southern and eastern part of the county, rich in coal resources, is looks better. Maharashtra, Uttar Pradesh, Madhya Pradesh and Gujarat are especially facing serious energy shortfall. In 2004/05, these states experienced 12- 20% of energy deficit and 17- 25% of peak demand deficit.



Private Sector Development in India  
(Project Research)

Final Report

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## Abbreviation

AAI	Airport Authority of India	JOCV	Japan Overseas Cooperation Volunteer
ADB	Asian Development Bank	KEB	Karnataka Electricity Board
AOTS	Association for Overseas Technical Scholarship	KfW	Kreditanstalt für Wiederaufbau
ASEAN	Association of Southeast Asian Nations	KVA	Kilo Volt-Ampere
BDS	Business Development Service	KVIC	Khadi & Village Industries Commission
BESCOM	Bangalore Electric Supply Company	MDGs	Millennium Development Goals
CAD	Computer Assisted Design	MF	Micro Finance
CAM	Computer Assisted Manufacturing	MIDC	Maharashtra Industrial Development Corporation
CFS	Container Freight Station	NABARD	National Bank for Agriculture and Rural Development
CII	Confederation of Indian Industry	NGO	Non-Governmental Organization
CNC	Computer Numerical Control	NHAI	National Highway Authority of India
CPSU	Central Power Sector Undertaking	NHPC	National Hydropower Corporation Ltd.
DFID	Department for International Development	NPC	National Productivity Council
EPZ	Export Processing Zone	NPCIL	Nuclear Power Corporation of India Ltd.
FDI	Foreign Direct Investment	NRI	Non-Resident Indian
FICCI	Federation of Indian Chambers of Commerce and Industry	NSDP	Net State Domestic Product
GDP	Gross Domestic Product	NSIC	National Small Industries Corporation
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit	NTPC	National Thermal Power Corporation Ltd.
IBRD	International Bank for Reconstruction and Development	ODA	Overseas Development Aid
ICD	Inland Container Depot	OEM	Original Equipment Manufacturer
IDA	International Development Association	PPP	Public-Private Partnership
IDBI	Industrial Development Bank of India	QCD	Quality, Cost, Delivery
IDF	Indian Development Forum	R&D	Research and Development
IIFCL	India Infrastructure Finance Company Ltd	RBI	Reserve Bank of India
IL&FS	Infrastructure Leasing and Financial Services Limited	SBI	State Bank of India
IPP	Independent Power Producers	SEZ	Special Economic Zone
ISO	International Standards Organization	SIDBI	Small Industries Development Bank of India
IT	Information Technology	SIDCO	Small Industries Development Corporation Ltd.
ITC	Industrial Training Centre	SIDO	Small Industries Development Organization
ITI	Industrial Training Institute	SISI	Small Industries Service Institute
ITPO	India Trade Promotion Organization	SME	Small and Medium-sized Enterprises
JBIC	Japan Bank of International Cooperation	TQC	Total Quality Control
JETRO	Japan External Trade Organization	UNIDO	United Nations Industrial Development Organization
JICA	Japan International Cooperation Agency	USAID	United States Agency for International Development
JIPM	Japan Institute of Plant Maintenance	VA	Volt-Ampere
JNP	Jawaharlal Nehru Port	WTO	World Trade Organization

*Section 1*

***MAIN REPORT***

## Chapter 1 Study Overview

### 1.1 Background of the study

Since its transition to an open economy in 1991, India has been maintaining its steady economic growth. Rapid growth of the service sector led by the software industry contributed to an 8% annual economic growth rate in 2003. Moreover, India is an attractive potential market with more than 1 billion in population which includes a certain portion of high income groups.

On the other hand, the industrial structure still heavily relies on agriculture, and the manufacturing industry remains vulnerable and unstable due to various problems, such as insufficient state-owned enterprise reform, approval system, labor policy issues, and inadequate supply of industrial infrastructure e.g. electricity, transport etc. These problems are pointed out as not only the disincentive for foreign direct investment, but a possibility of becoming the constraining factor of India's sustainable economic growth. Since small-scale industry consists 40% of the production and 85% of the labor force in the whole manufacturing industry, strengthening competitiveness of local industries is one of the major issues for India's economic development.

India's strategic importance to Japanese economy will continue to increase as a promising market as well as a country with high potential of investment opportunity for Japanese companies. It is important for Japan to support India's manufacturing and service sector which will eventually raise the income level of wide range of people.

Japan International Cooperation Agency (JICA) has decided to focus on two subjects in terms of private sector development, (1) trade / investment infrastructure improvement and (2) local industry (small and medium-sized enterprises) promotion to implement a project research for the future direction of Japanese ODA's technical cooperation.

### 1.2 Purpose of the Study

The purpose of the Study is as follows;

To review and recommend future directions of technical cooperation by the Japanese Government which will contribute to 1) improvement in trade/investment environment, and 2) development of small and medium scale local industries in India.
--

### 1.3 Target area of the Study

The following 10 states were selected as the target areas of the Study. The criteria of the selection are based on the current existence of Japanese companies and future potential of trade and investment target for Japanese companies. (See Fig. 1)



Target states for team field survey (4)

- Delhi<sup>1</sup>
- Maharashtra
- Karnataka
- Tamil Nadu

Other target states (6): no on-site field survey

- Andhra Pradesh
- Gujarat
- Haryana
- Madhya Pradesh
- Uttar Pradesh
- West Bengal

Fig. 1 Map of Target Area



<sup>1</sup> The official status of Delhi is NCR -national capital territory of Delhi-, however Delhi will be also used this report.

## 1.4 Target Industry

The target industry of the study is the manufacturing industry in relation to promotion of trade, investment and local industry. However, the growing IT industry with a great support by the Indian government will be included from the service sector. Also, industries providing specific technical service towards the above industries, and transport, logistics, finance etc. will be included.

## 1.5 Study Component

The main component of the study is as follows;

1. Review of India's trend in macro economy and industry (incl. industrial structure analysis), investment & export-import, and economic & industry policy (incl. trade/investment policy) since 1990s.
2. Situation analysis of trade / investment climate, major local industries, and bottlenecks of trade investment promotion & local industry development of target states.
  - JICA study team will discuss directly with both central and local government to summarize clear role distribution with central and local government of trade / investment and local industry development policy
  - Situation analysis of trade / investment environment includes, at least, regulations, legal system, taxation system (incl. custom and international taxation), infrastructure (incl. private participation and logistics cost issue), finance, labor policy/labor power, economic specific zone.
  - JICA study team will conduct questionnaire & interview survey to analyze current situation of trade/investment foreign and local companies in target states.
  - Target industry for detailed analysis will be selected for each target area.
3. Current trend of external assistance by Japanese ODA and other international donors
  - Recent movement of Japan-India economic cooperation agreement in target sector
  - JICA's operation in target sector
4. Recommendation for Japanese technical cooperation in trade / investment improvement and local industry development.
  - Recommendation on two(2) levels: Central government and target local states
  - Focus mainly on JICA's technical cooperation with a consideration of enhanced cooperation with JBIC, JETRO etc.

## Chapter 2 Macro-economy and Industry Trends

### 2.1 Macro-economy Trend

In the end of 1970s the Indian government began to adopt more liberalized economic policies by stages in the effort to grow out of a planned economy led by state-owned enterprises. With an economic crisis of 1991, the government introduced the drastic economic reform and liberalization called "New Economic Policy" attaching great importance to market mechanism. The New Economic Policy aimed at a macro-economic stability and a dynamic shift from the controlled economy system to the market liberalization. It included such policies as the reduction in government's intervention to the industry sector, relaxation of foreign capital restrictions, currency devaluation, tariff reduction, and deregulation of the financial sector.

Although the deregulation advanced with the New Economic Policy, the degree of economic reform was not thorough when compared with such countries as ASEAN-4 countries and China. The third Vajpayee administration which took office in October 1999 has implemented the so-called second generation economic reform. The promotional measures introduced in 2000 included the establishment of a special economic zone (SEZ) system modelling China's experience, abolishment of import restrictions of 714 items, streamlining of import duties on capital goods, deregulation in foreign direct investments including an automatic approval system based on a negative list, a substantial relaxation of limit amount on overseas commercial loans in the field of financing, etc. Following the former administration, the Singh Administration, launched in May 2004, has continued to address such issues as investment environment improvement and infrastructure development. The government is actively engaging in the development of infrastructure, e.g., electricity, distribution network, etc.

The Indian economy maintained a favourable economic growth after the introduction of New Economic Policy. However, the export growth ratio has tended to decrease since the late 1990s and foreign direct investments (balance of payment basis) have leveled off after 2000. The main bottlenecks of Indian economy are pointed out to be i) budget deficit due to excessive subsidies, ii) delay in state-owned enterprise reform, iii) insufficient infrastructure including short supply of electricity, etc. These structural problems must be cleared away for the sustained long-term growth of Indian economy.

The following features can be pointed out as India's recent macro-economic trend.

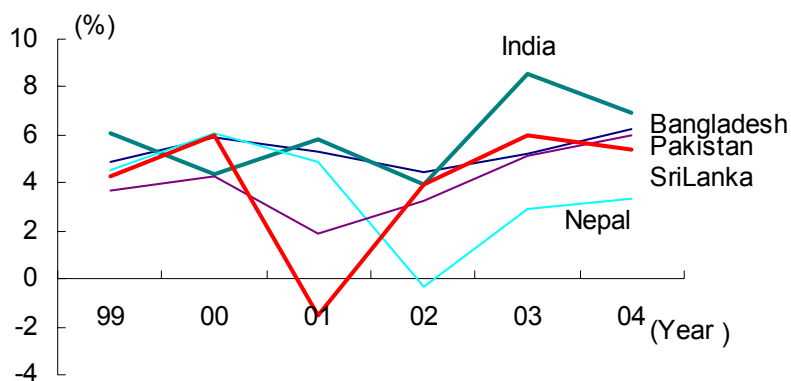
#### i) Recovery to High Economic Growth

After the economic reform in 1991, Indian economy showed a recovery from the economic crisis and accelerated its growth. However, the economic growth rate began to decrease towards the latter half of the 1990s. This deceleration was due to the following reasons: i) decreased investments; ii) slump in consumer goods demand; iii) restraint fiscal expenditure policy as a result of budget deficit, iv)

constraint of infrastructure, etc.

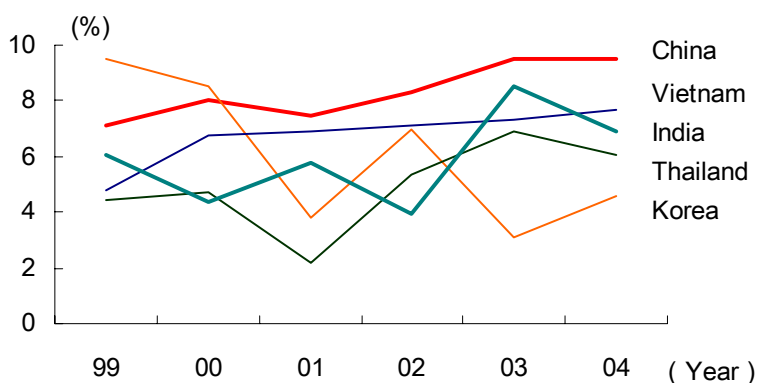
The annual economic growth rate decrease by 4.0% in the year 2002 - 2003 due to the drop in agricultural production caused by the drought. It recovered to 8.5% in 2003 - 2004, and maintained a relatively high rate of 6.9% in 2004 - 2005. In February 2006, the Indian government announced the 8.1% of economic growth forecast for 2005 - 2006. Recent favourable conditions of Indian economy are supported by the recovery in agricultural production, domestic demand expansion pulled by private consumption, and expanded production of manufacturing and IT industries. As for annual growth rates of real GDP and contribution by industry, it is observed that major driving industries are such industries as “the manufacturing sector”, “trade, hotel, transportation and communication”, and “banking, real estate and business services”.

Fig. 2 Comparison of GDP Growth Rates with Major South Asian Countries (Constant Price Basis)



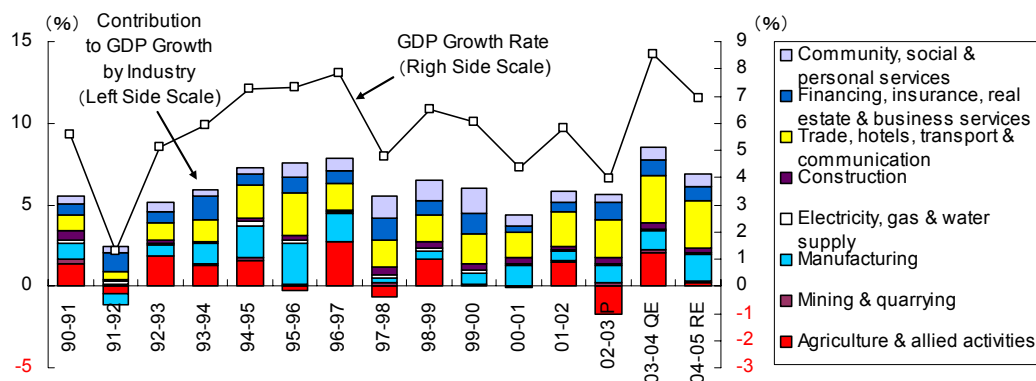
Source: Reserve Bank of India, ADB

Fig. 3 Comparison of GDP Rates with Major East and Southeast Countries (Constant Price Basis)



Source: Reserve Bank of India, ADB

Fig. 4 Contribution to GDP Growth Rate by Industry (Constant Price Basis)

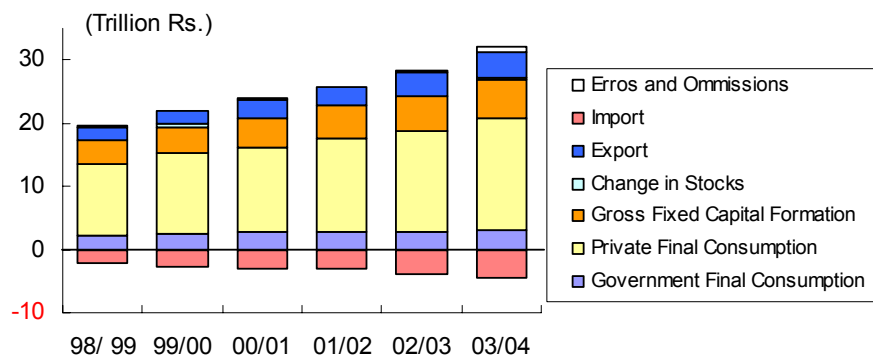


Source: Reserve Bank of India

### ii) Economic Growth Driven by Private Consumption

The economic growth of India is driven by the domestic demand because the share of private final expenditure is high among the total nominal gross domestic expenditures. The income distribution in India is characterized by a handful of rich class and the large majority of poor class. However, the middle income class is recently being formed as the result of surge in foreign investments and the remarkable growth of software industry. It is said that the number of middle income class is 100 million people. Such middle income class pushes up private consumption.

Fig. 5 Composition of Gross Domestic Expenditures (Nominal Price Basis)



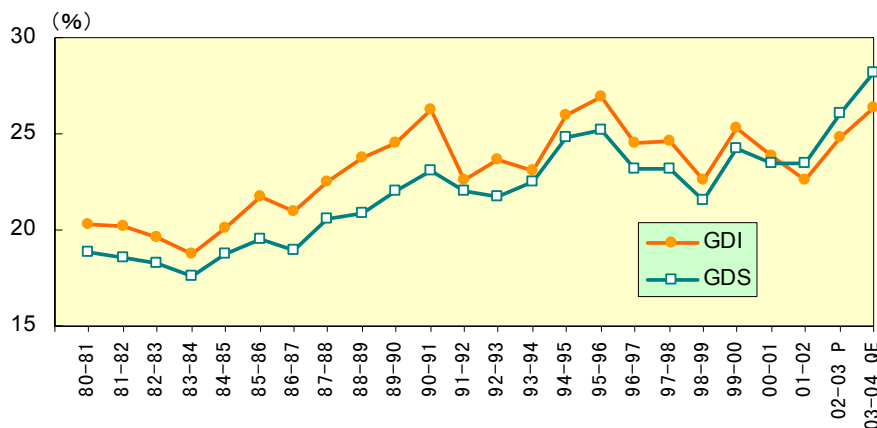
Source: Reserve Bank of India

### iii) Increasing Saving Ratio (GDS/GDP)

In India, the gross domestic investment continued the domestic gross saving before 2001 - 2002. Since then, the gross domestic saving has tended to exceed the gross domestic investment. The reasons for the increasing saving ratio are considered to be an increase in household income and an expansion of financial service including banks' branch networks. The government saving has been negative since 1998 - 1999 because the government finance suffers a chronic deficit. The breakdown of gross domestic saving in 2001 - 2002 was: household sector 96.4%, private corporate sector 15.2%, and government sector negative 11.6%. India's saving ratio at around 25% to 30% level is relatively high compared with other South Asian countries, but relatively low compared with such countries as China, Korea,

Singapore, and Thailand. India's saving ratio is required to be raised under the situation that investments in infrastructure and consumer durables production will increase in the coming years.

Fig. 6 Investment/Saving Gap (Nominal Price Basis)

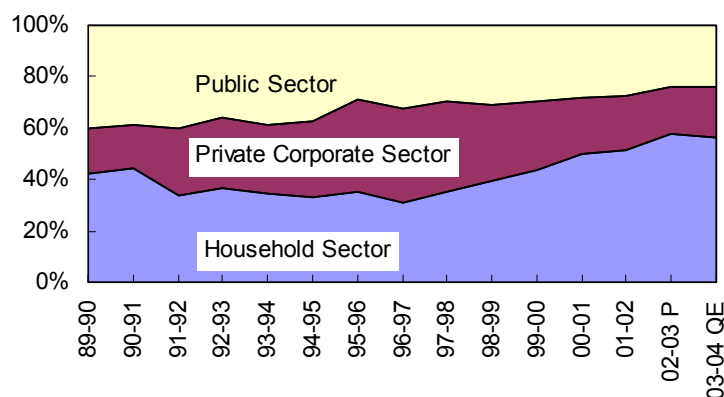


Source: Reserve Bank of India

#### iv) Drop in Share of Public Investments in Total Investments

The ratio of government investment to gross domestic investment (GDI) has tended to decrease since the 1990s. This reflects brisk private investment and government's effort to reduce budget deficit provide. As for private investment, the contribution of the household sector has been increasing since the latter half of the 1990s. The private corporate sector's motivation to invest declined due to the excess production capacity caused by an investment boom just after the economic liberalisation. On the other hand, the household sector has increased investment reflecting an increased demand for housing and automobile, especially among the up-and-coming middle income level. Among the private corporate sector, the manufacturing sector is the largest investor, followed by "trade, hotels, transport & communication", and "financing, insurance, real estate & business services".

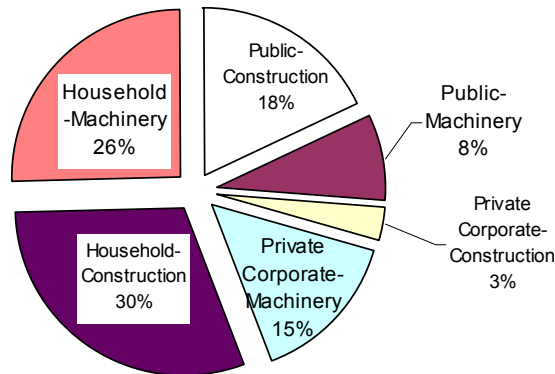
Fig. 7 Composition of Gross Domestic Investment (Nominal Price Basis)



Source: Reserve Bank of India

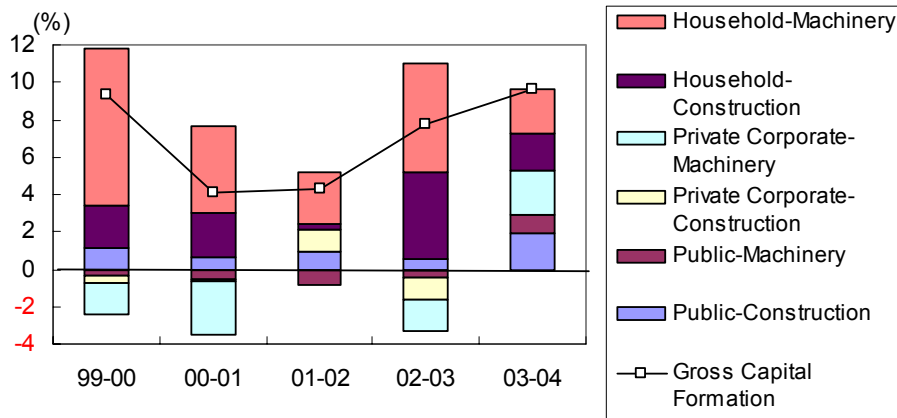


Fig. 8 Composition of Gross Capital Formation (2003 - 04, Nominal Price Basis)



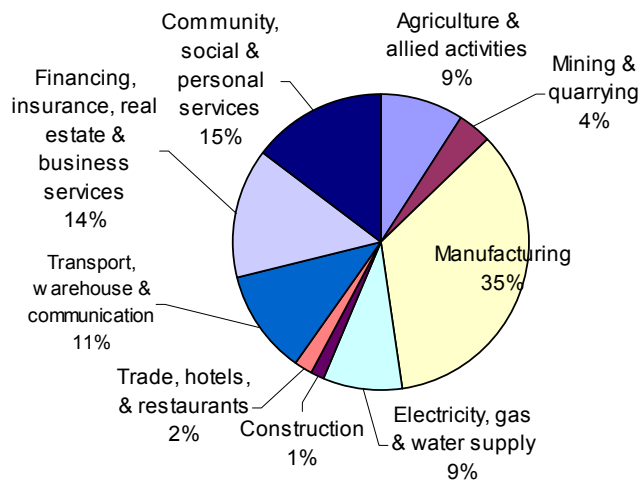
Source: Reserve Bank of India

Fig. 9 Contribution to Gross Capital Formation Growth by Item (Constant Price Basis)



Source: Reserve Bank of India

Fig. 10 Composition of Gross Capital Formation by Industry

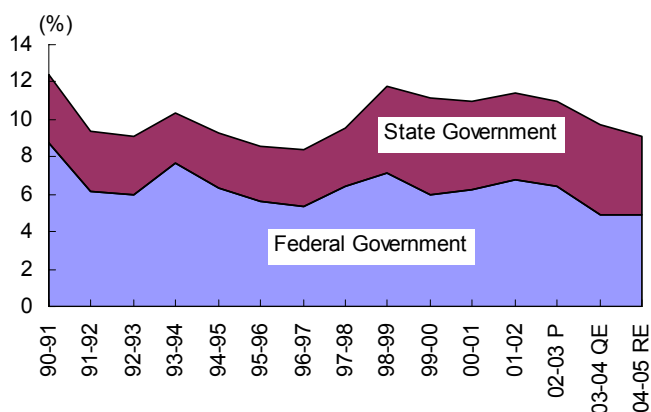


Source: Reserve Bank of India

## v) Constraint on Government Development Expenditure due to Structural Budget Deficit

India's public finance suffers from chronic deficits. The budget deficits of federal government and state governments combined are equivalent to 9% of GDP. The fiscal deficits are mainly financed by public borrowing. The accumulating public debts due to deficit financing will lead to an increase in debt repayments. The fiscal expenditure structure has become rigid as a result of an increase in debt repayments along with subsidies and defense expenditure. The reduction in budget deficits is one of the major issues in the management of India's economy. However, it is difficult to curtail public spending for poverty programmes. Therefore, this situation forces the Indian government to depend on private funds for infrastructure development.

Fig. 11 Ratio of Budget Deficit to GDP (Nominal Price Basis)



Source: Reserve Bank of India

## vi) Regional Economic Disparity

There exists a wide regional disparity in India. Differences in such factors as agricultural productivity, education standard, public investment, industrialization, etc. cause this disparity. There is a wide gap between income levels of states as shown in Table 1. Meanwhile, an income gap between urban areas and rural areas has tended to increase. The Gini coefficient by consumption expenditures of rural areas measured decreased from 0.282 in 1993/94 to 0.258 in 1999/2000. However, the Gini coefficient of urban areas leveled off at 0.341 in 1999/2000 against 0.340 in 1993/94. The Gini coefficient showed an increase in more than half of all the states. In the course of a continuous high growth, India's income disparity could possibly expand according to Kuznets's inverted-U hypothesis.

Table 1 Per Capita GDP by State (2001-02, Nominal Price Basis)

Unit: Rs.

Region	State	Per Capita GDP	Region	State	Per Capita GDP
North	Jammu & Kashmir	13,320	Middle	Chattisgarh	11,952
	Himachal Pradesh	21,543		Madhya Pradesh	12,125
	Punjab	25,625	East	Bihar	5,445
	Chandigarh	47,680		West Bengal	17,875
	Haryana	24,851		Jharkhand	9,392
	Delhi	43,751		Orissa	10,021
	Rajasthan	13,738	West	Gujarat	19,607
North-east	Arunachal Pradesh	14,771		Maharashtra	24,052
	Assam	11,132		Andhra Pradesh	17,932
	Manipur	12,683	South	Karnataka	17,518
	Meghalaya	15,070		Goa	49,084
	Mizoram	19,696		Kerala	19,803
	Nagaland	18,911		Tamil Nadu	20,315
	Sikkim	18,822	Pondicherry	37,696	
Tripura	17,459	Others	Andaman & N. Island	25,982	
Middle	Uttar Pradesh	9,753	Whole India		17,823
	Uttaranchal	13,260			

Source: Reserve Bank of India

## 2.2 Industrial Structure

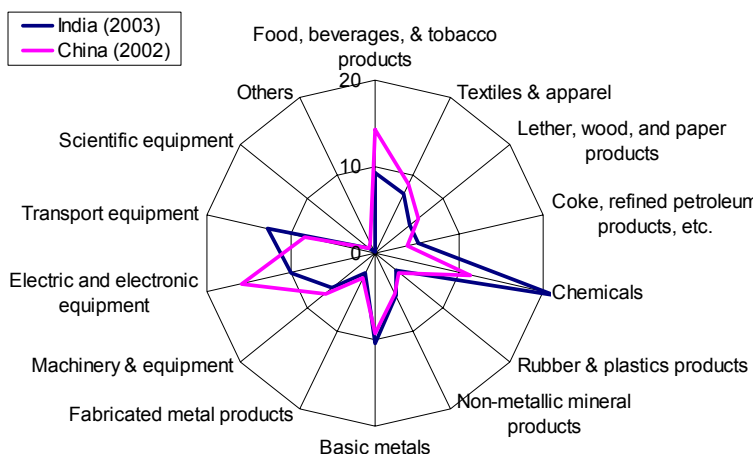
India's industrial structure is characterized by the following features.

### i) Wide Industrial Base

India adopted a policy of a state-led industrialisation after the independence in 1947. The full-set industrial structure was built in India as a result of Government's policy of heavy and chemical industry promotion and import substitution industrialisation. China also has set up the full-set industrial structure with state-led industrialisation. The difference between two countries is that full-set industrialisation tended to be pursuit within each province in China and an optimal industrial distribution was sought relatively for the country as a whole in India.

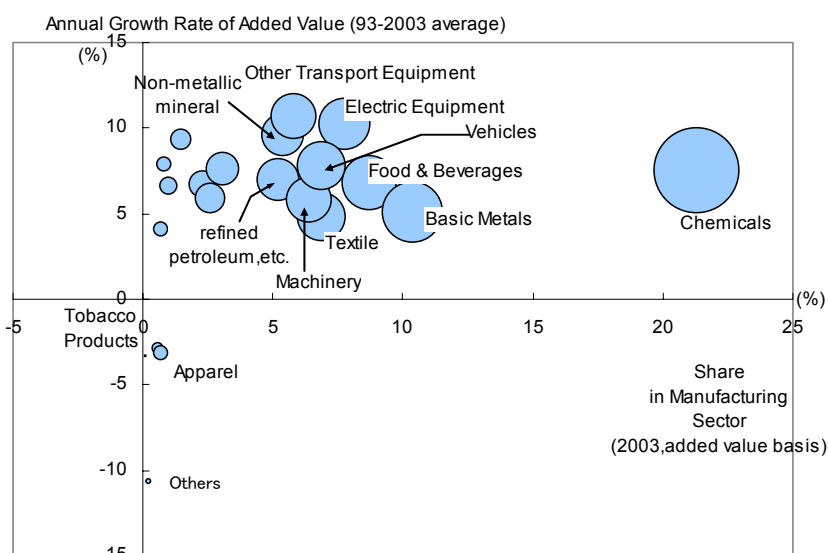
Full-set industrialisation seen in India and China contrasts with the industrialisation pattern experienced in the ASEAN countries where the light industry including food and textile holds a main position at the early stage of industrialisation and such export-oriented industry as electronics and/or an automobile industry follow as industrialisation advances.

Fig. 12 Comparison of Industrial Structure of India and China



Source: Processed UNIDO Industrial Statistics.

Fig. 13 Share and Growth Rate of Manufacturing Sector by Industry in 2003 (Added Value Basis)



Source: Processed UNIDO Industrial Statistics.

ii) Low Industrialisation Rate

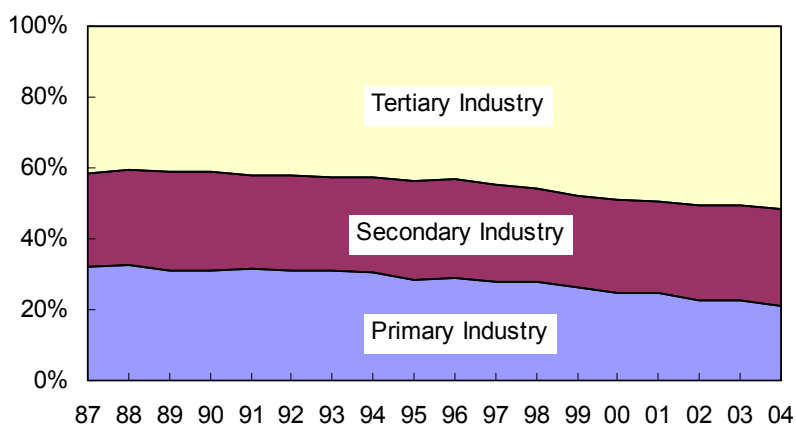
India's industrialisation ratio (manufacturing sector/whole GDP) is quite low, 16.1% in the year 2004-2005. During the 1970s and 1980s when the government pushed forward the heavy and chemical industry and import substitution, the industrialisation ratio increased only from 14% to 17%. Even in the economic liberalisation period the industrialisation ratio remained at the low level. It tended to decrease from 18.1% in the 1995-96. This is because the service industry, especially the IT and software industry has rapidly developed and increased its share in the economy. India's low industrialisation ratio is very distinctive when compared with the East Asian countries and ASEAN countries.

In the process of industrialisation, the labour force generally moves from the primary industry to the second industry, furthermore to the tertiary industry according to the Petty-Clark's Law. The

manufacturing industry enters the growth phase absorbing redundant labour force at the stage that the productivity improvement in agriculture, income increase and domestic market expansion are realised.

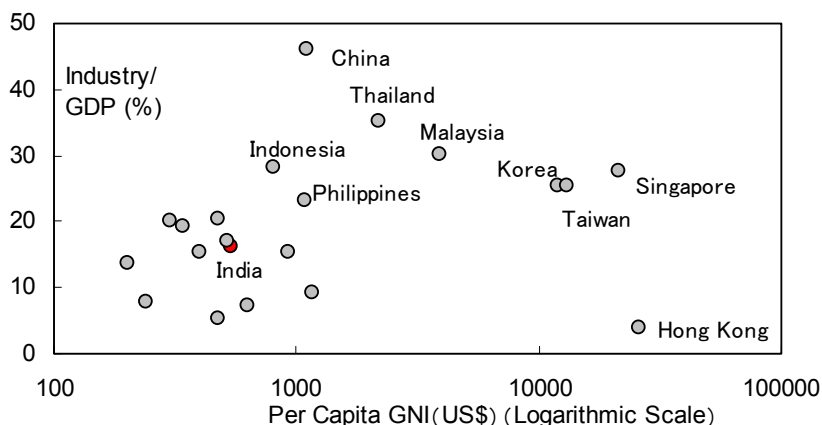
Most of labour force in India is absorbed by the primary sector. The employment of the organised sector is limited. As regards the labor movement from the primary sector to other sectors in India, a movement to the construction sector and the tertiary sector is considered large due to limited labour absorption capacity of the manufacturing sector. The employment structure in 1999 was as the primary sector approximately 60%, the secondary sector 15%, and the tertiary sector 23%. The construction sector comprises around 30% of the secondary sector’s employment. The organised sector (all the public sector and private establishments with more than 10 employees) employs only 7% of the total employed labour. This means that more than 90% of employed labour belongs to the unorganised sector. Since 1998, the number of employment in the organised sector has tended to decrease gradually. In the organised sector, the public sector absorbs approximately 70% of employment and the private sector employs the rest. In the private organised sector, the share of employment by the service industry is increasing although the manufacturing sector currently employs nearly 60%.

Fig. 14 Composition of Nominal GDP by Industry Group



Source: Asian Development Bank “Key Indicators of Developing Asian and Pacific Countries”

Fig. 15 Comparison of India’s Industrialisation with Other Asian Countries



Source: Asian Development Bank “Key Indicators of Developing Asian and Pacific Countries”

iii) Underdeveloped Export-oriented Labour-intensive Industries

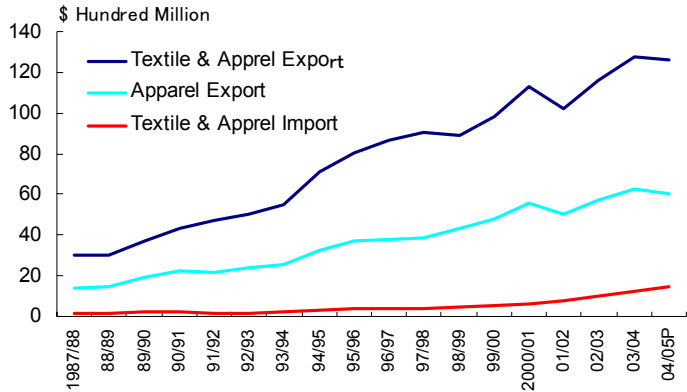
In the Asian NIEs and ASEAN countries, the export-oriented industrialisation policy was adopted when they were confronted with the limits of import substitution industrialisation.

The limits of import substitution were caused by a constrained domestic market size and deteriorated balance of payments. After policy turnaround to export-oriented industrialisation in these countries, export expansion led by labour-intensive industries pulled economic development.

India’s apparel export shows an increase in recent years. Being a typical labour-intensive industry, apparel export mainly aims at the US and EU markets. Such items as food, textile, and leather products have high export competitiveness according to trade specialisation index. In recent years, India’s trade specialisation index tends to show a gradual increase for chemicals, transportation equipment, etc.

However, compared with China and ASEAN countries, India’s trade dependency of economy is relatively low and the export-oriented industrialisation is less advanced. Weak product development capability, low quality level, lack of materials is pointed out as reasons for low export competitiveness. Existence of large domestic market is also one of the reasons the development of export-oriented labour-intensive industry still lags.

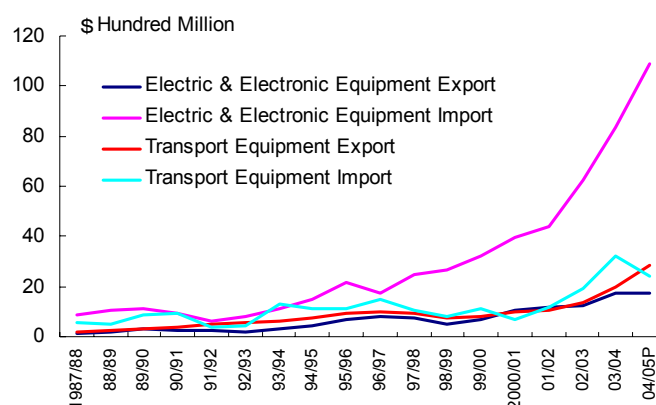
Fig. 16 Textile & Apparel Trade



Source: Reserve Bank of India



Fig. 17 Electric/Electronics Equipment and Transportation Equipment Trade



Source: Reserve Bank of India

## iv) Dual Structure of Modern Industry and Traditional Small and Micro Enterprises

There exists a wide gap between the modern industry sector and the small and micro enterprise sector locating in the rural areas. State-owned enterprises, large-scale private enterprise groups, and foreign-affiliated enterprises are major players in the modern manufacturing sector. These enterprises operate across the country and in overseas. In contrast, small and micro enterprises mostly engage in such resource-based production as food processing, textile, leather, handicraft, etc. As of the end of March 2002, there were approximately 3.4 million units of small-scale enterprises, the turnover and exports of which accounted for around 40% and 35% respectively of total manufacturing sector. There is a scarce dynamic link between these two types of sectors.

Table 2 Average Size of Factories by Type of Organisation

	Number of Employees per Factory (Person)	Size of Fixed Capital per Factory (Ten Thousand Rs.)
1. Individual Proprietorship	18.4	146
2. Hindu Undivided Family	23.6	232
3. Partnership	26.9	267
4. Public Listed Company	156.6	22,699
5. Private Limited Company	53.1	2,170
6. Government Department Enterprise	83.1	6,637
7. Public Corporation	404.7	52,526
8. Corporate Section (4+5+6+7)	89.9	9,215
9. Khadi & Village Industry	48.1	1,131
10. Handloom Industry	25.9	202
11. Co-operative Society	99.2	4,949
12. Others (Including NR)	56.4	684

Source: Central Statistics Organisation, "Annual Survey of Industries"

## v) Low Technology Level

At the introduction of economic liberalisation, the manufacturing sector held problems of obsolete facility and technology and low productivity. These problems were especially notable in state-owned

enterprises. Inactive new capital investments and insufficient technology upgrading had invited a shortage of product development capability and lagged upgrading of quality and productivity.

Indian government intended to develop the industry sector by improving productivity and efficiency with the introduction of market mechanism, facility replacement and higher operating rate. Supported by market expansion, such companies which carried out facility replacement and/or technology tie-ups could experience rapid growths in business performances.

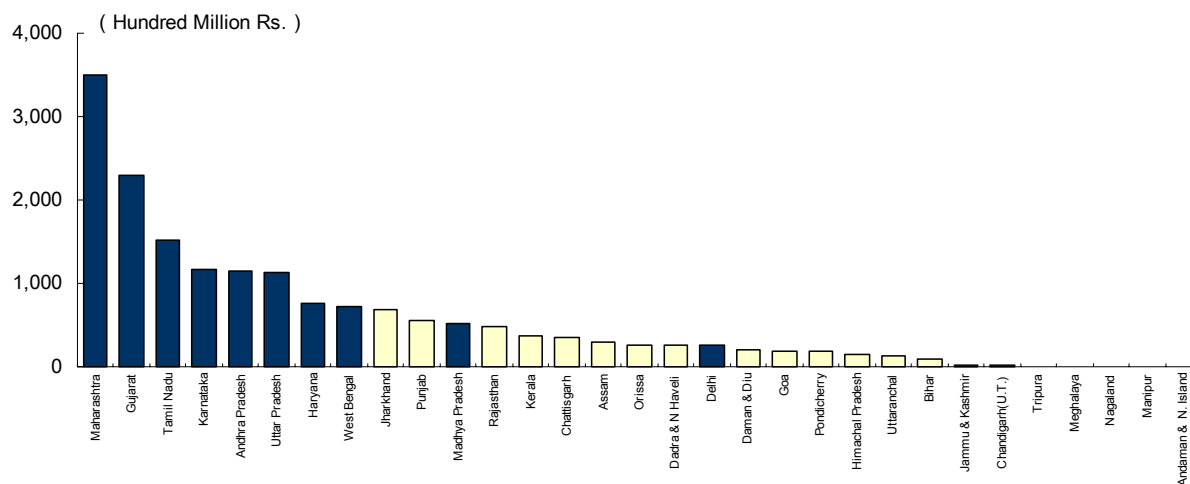
However, small-scale manufacturers, which occupy an overwhelming majority in number, mostly engage in production with obsolete equipment and conventional technologies.

Furthermore, in a modern manufacturing sector, most manufacturers operate with technologies falling short of global standards.

#### vi) Regional Imbalance of Industrial Location

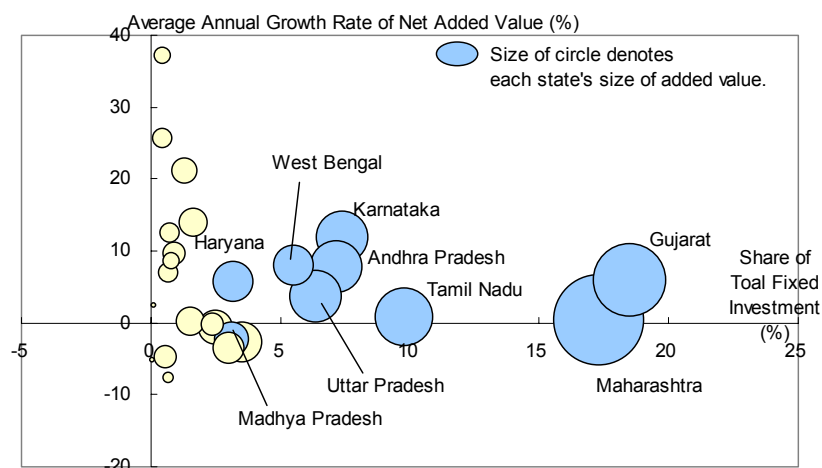
There exists a wide gap among states in industrial locations. The degree of industrialisation is relatively high in the Western and Southern regions where the industrial clustering has advanced. On the other hand, the level of industrialisation in the Northeast region is particularly low. 75% of the manufacturing sector's total added value are produced by ten subject states of this study.

Fig. 18 Added Value of Manufacturing Sector by State in 2003



Source: Central Statistics Organisation

Fig. 19 Share and Growth of Manufacturing Sector by State in 2003



Source: Central Statistics Organisation

## 2.3 Challenges in India's Industrial Development in Terms of Industrial Structure

### (1) Necessity of Industrial Development

The manufacturing sector's share in the Indian economy is relatively small. The IT software industry currently plays a role of leading industry absorbing employment and gaining foreign currency. Given these circumstances, there is an importance of developing the manufacturing sector as key industry which supports a sustainable growth of Indian economy.

Expected roles of manufacturing sectors are i) absorption of surplus labour in the rural areas, ii) efficient response to the increasing domestic demand, iii) more efficient use of domestic resources such as agricultural goods, mineral resource, etc., iv) foreign currency earning by export expansion, v) raising of the whole country's income level by the spillover effect, etc.

### (2) Bottleneck of Manufacturing Sector

Major issues of India's manufacturing sector are as follows:

- i) two-tier structure of modern sector and traditional sector;
- ii) inactive foreign direct investment (FDI), which should be an engine for industrialisation;
- iii) generally low-level of product technology and production technology which hamper the international level production;
- iv) underdevelopment of export-oriented industries in spite of high merchandise export ratio;
- v) infrastructure development falling behind the pace of industrialisation;
- vi) inadequate deregulation of business environment; etc.

As the market liberalisation advances according to the WTO and bilateral free trade agreements, the domestic industry will face stiffer international competition. Therefore, the international

competitiveness should be improved in terms of product development, quality, cost, etc.

### (3) Major Issues of Industrial Development

From the above mentioned condition, India's manufacturing sector is considered to be in need of a structural transition as well as improvement of the whole industrial base level.

Given the current condition of India's manufacturing sector, these issues should be tackled in the long term. Major subjects of industrial promotion are i) modernisation of the traditional industries, ii) expansion of labour-intensive export-oriented industry, and iii) development of new key industries in the area of high-tech industry. For the purpose of strengthening industrial linkage and supply chain of existing industries, such measures as i) development of material industry, ii) expansion of supporting industry, and iii) development of related service industry such as logistics, finance, etc., would be needed. The basic industrial base should be also developed to raise the whole industrial level. This industrial base includes i) education and training of skilled workers, ii) diffusion of production management and quality management technologies, iii) education and training of R&D engineers, iv) review and spread of industrial standards, v) infrastructure development, vi) investment environment improvement in terms of laws and regulations, etc.

## Chapter 3 Analysis of Corporate Sector

### 3.1 General Trend

The structure of the corporate sector in India is characterised as a “very wide variance among companies/industries”, in which companies are dispersed in different categories, while the country accelerates liberalisation of economy from its former closed, mixed economy with the country’s social and historical background as traditional hierarchical society.

The four traditional corporate categories are as follows:

- i) Large companies (state-owned companies) in the public sector that has led the country’s industry under a mixed economic system
- ii) Industrial conglomerate group that has kept a big presence under a limited competition in the country
- iii) Manufacturing sector in which most of them are SMEs that supply low quality products with a large variance in quality with low productivity to domestic market where major customers include state-owned and industrial conglomerate group companies that do not require very high quality
- iv) Small Scale Industries (SSIs) that have been given various preferential and protective measures from the viewpoint of protection of the weak

In addition to those traditional sectors, the following are emerging as new categories of the country’s industrial structure:

- i) Newly developing local, private industries in such high-tech areas as IT, biotechnology and medical/pharmaceuticals
- ii) FDI companies and a limited number of local companies that take advantages of spillover effects by supplying products to FDIIs

It is difficult to find integrated industrial statistics that simply overview Indian industries as a whole, possibly because of existence of the above-mentioned industrial structure as well as bureaucratic sectionalism of related government bodies. While total number of labor forces in India is around 400 million, the majority (about 50%) belong to the agricultural sector. Workforces in manufacturing including cottage industries and manufacturing-related service industries are only 29 million, according to 1991 census data. In the meantime, the public sector which has a 23% share of the country’s GDP employed 18.58 million in 2003 which is almost the same number as 19.06 million as of 1991 when economic reform started.

On the other hand, there is a detailed statistical data of SSIs that the Ministry of SSI has jurisdiction over. The total number of SSIs amounted to 11.86 million in fiscal 2004 (2004-2005), in which the number of registered companies was 1.66 million and the number of unregistered was 10.2 million. According to

2001 census data, the number of companies was 10.52 million, while they employed 24.93 million people (in which registered employed 6.16 million). This resulted in the number of employees per SSI being 2.37 (4.47 for registered), the gross output value per SSI being 268 thousand Rs. (1.478 million Rs. for registered), and export value per SSI being 13,500 Rs. (89,500 for registered). Around 55% of SSIs were located in rural (agricultural) areas, while 45% were in urban areas. Almost 40% of total SSIs, which was 4.18 million companies (0.87 million for registered occupying 64%), were in manufacturing sectors. Major manufacturing sectors that were registered were i) apparel (occupying 18.4% in total number of manufacturing SSIs), ii) food and beverage (14.5%), iii) furniture (5.9%), (iv) metal processing (4.2%) and (v) ceramics( 2.4%).

There are around 20 large and small industrial conglomerate groups headed by Tata and Birla, most of which operate large-scale, diversified businesses under the control of a specific family. It is a fact that those industrial conglomerate groups could lead easier business development because of limited competition among companies under a mixed economic system. However, a drastic change of external competitive environment toward more economic liberalisation and globalisation as well as rapid growth of Indian capital market (total market value)<sup>2</sup> has begun to change the map of Indian private companies. A symbolic case was when Indian Air, originally inaugurated as one of Tata industrial group companies and which later became state-owned as a largest airline companies in the country, was recently replaced by Jet-Air which was only a 10 year-old private company that rapidly became a large company by providing high-quality services and also by repeating aggressive mergers and acquisitions.. It is certain that all the companies from large to small (SSIs) in all categories and clusters in India will face more intense competitive environment under a global economy.

### 3.2 External Environment for Corporate Sector

Corporate sector in India as a whole has kept good business performances, given the country's stable economic growth in recent years. Index of manufacturing, which occupies 79% of total weight of index of industrial production, recorded a 4 consecutive year growth of +2.9%, +6.0%, +7.4% and +9.0%, from 2001 to 2004, respectively. Consequently, even for existing, local companies who supply their goods and services mainly to traditional, domestic market where very high quality standard is not necessarily required, business environment from the macro economic point of view has improved with the expansion of the domestic market<sup>3</sup>.

Since 1991, a series of measures for economic liberalisation had been introduced to promote deregulation for business activities. However, as for overall external environment, there still exist various impediments for business activities in India, originating from problems under the closed, mixed

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2 While SENSEX index of Mumbai Stock Exchange had been in upward trend since June 2003, it increased from 6,154 at the end of April 2005 to more than 10,000 on February 6, 2006. Booming capital market led by capital inflow from abroad has stimulated capital expenditures by corporate sector as well as an increase in M&As.

3 Questionnaire survey of the Study showed that there were many companies who claimed that they were asked by customers to produce larger volume particularly in Tamil Nadu and Madhya Pradesh.



economic system. For example, according to the Doing Business indicators by the World Bank, India was positioned at 116th in overall business environment among 155 nations in 2005, being behind such Asian industrialised countries as Thailand (20th) and China (91st), which showed that the country was not evaluated as “business-friendly”.

Table 3 Evaluation of business environment in India (Comparison with China and Thailand)

Doing Business Indicators		India	China	Thailand
Starting a business	Number of procedures	11	12	8
	Time (days)	89	41	33
Hiring and Firing Workers	Rigidity of employment ind	48	40	42
	Difficulty of hiring index	33	11	67
	Difficulty of firing index	90	40	20
	Firing costs (weeks)	79	90	47
Registering property	Number of procedures	6	3	2
	Time (days)	67	32	2
Enforcing contracts	Number of procedures	40	25	26
	Time (days)	425	241	390
Closing a business	Time of insolvency (years)	10.0	2.4	2.6
	Recovery rate (%)	12.5	35.2	42.0

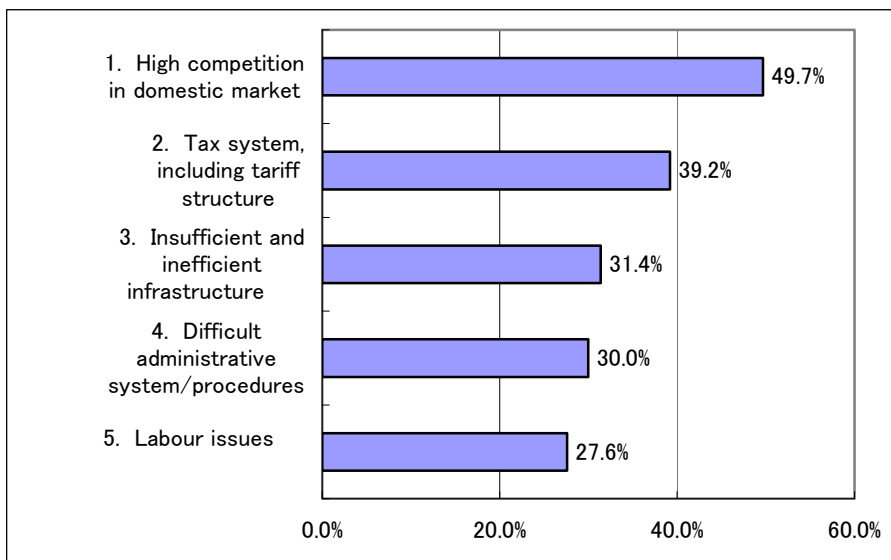
Note: Larger figures show "worse business environment" except "Recovery rate".

Source: Study Team, based on "Doing Business in 2005", World Bank

A questionnaire survey conducted at the Study<sup>4</sup> revealed that “Tax system, including tariff structure” and “Difficult administrative system/procedures in business activities” as well as “High competition in the domestic market” and “Insufficient and inefficient infrastructure” were recognized as major “difficulties and obstacles in business” (See Fig. 20). On the other hand, interview surveys among the Japanese companies conducted by the Study revealed that many recognise that there exists a stable foundation for legal system and policy implementation that contributes to preparing a good soft infrastructure for long-term business operation while they feel that administrative procedures are complicated and cumbersome. This suggests that there is a recognition gap of external environment between globalised, competitive enterprises and local companies that have vulnerabilities in their internal competitive capabilities. Actually, the questionnaire survey showed that many Indian companies considered “Expansion of the domestic market”, “Developing new products” and “Starting business with specific customers” more important than “Opening up of foreign trade” and “Establishment of JVs with foreign companies” regarding the most influential factors for business expansion, which suggested that they had preferences in developing their businesses in emerging domestic market rather than in competitive environments in export and global market (See Fig. 21).

4 The Study conducted a questionnaire survey to companies in 10 states. It covered 491 companies from large to small, and the details of the survey by States are summarized in Annex.

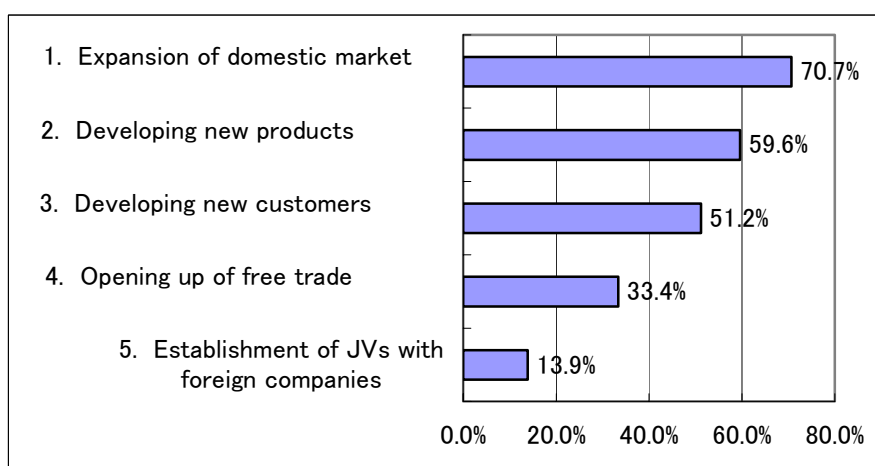
Fig. 20 Major difficulties and obstacles in business for Indian companies



(Note)Top 5 answers, based on multiple (top3) answers

(Source)Questionnaire Survey of the Study

Fig. 21 Most important factors for business expansion for Indian companies



(Note)Top 5 answers, based on multiple (top3) answers

(Source)Questionnaire Survey of the Study

### 3.3 Internal Environment for Corporate Sector

Questionnaire survey by the Study showed that most companies understood of importance of satisfying i) cost, ii) quality and iii) delivery time, all of which their customers require, however, they felt strong needs to improve their internal competitive environments in order to increase their sales, because they had issues to be solved in product quality, technology level, and cost competitiveness due to their improper facilities and technologies.

The level of necessity of strengthening internal competitive environment for companies and issues that have high priorities to be improved may vary depending on corporate categories in industrial structure. As already discussed, Indian companies are to be segmented to several categories, and differences in

internal competitiveness of companies among different categories are estimated to be extremely large. Among them there are many Indian manufacturing companies, most of which are SMEs that supply low quality products (or parts) with a large variance in quality with low productivity to domestic market customers, including state-owned and industrial conglomerate group companies, which do not require very high quality. Company visits by the Study made clear that internal competitiveness of those companies were very weak. It is foreseen that competition will further be severe with development of a globalised economic system. Indian companies are required to strengthen their internal competitiveness while they are improving business performances with expansion of the domestic market.

When considering measures of industrial promotion from the viewpoint of strengthening internal competitiveness of companies, it is necessary to consider and design measures for promotion and assistance by focusing on which category of industries and companies are targeted and to which level they are to be upgraded under a clear plan.

In the meantime, SSI census survey in 2001 showed that major obstacles for SSI's business operations were i) Lack of demand (66%), ii) Lack of working capital (46%), iii) Lack of marketing capabilities, iv) labor issues (13%), and v) Lack of raw materials (12%). Moreover, a questionnaire survey to companies by the Study revealed that many expected that the government assist in providing services in order to strengthen their internal competitiveness in such forms as providing training courses, providing testing services, and advice on R&D.

### 3.4 Issues for Strengthening Industrial Competitiveness Represented in Automobile Sector

Given the move toward economic liberalisation and globalisation since the beginning of the 1990s, Indian companies in existing manufacturing sector have gradually coped with issues of strengthening overall internal competitiveness by establishing supply chains from supporting industries to final processing and assembling operations. However, it is considered that even the automobile industry that is seen as the most globalised industrial sector in India is still in the infant stage in terms of the degree of industrial linkages and their maturities.

The domestic market for motorcycles and automobiles have rapidly increased and will have more room for expansion in the future, while the number of households that have motorcycles amounted to 22.5 million (12% of total households) and those that have automobiles amounted to 4.8 million (3% of the same). There are almost 7,000 automobile component manufacturers, of which around 500 are members of Automotive Component Manufacturers' Association of India (ACMA). FDI automobile assembly manufacturers to India, including the Japanese, have concentrated on quality improvement through strengthening industrial linkages only within its own suppliers' network. In the meantime, ACMA has gradually taken various programs on improving internal competitiveness of their member companies, starting from the first-tier suppliers to the more downstream areas. However; these efforts are still in the early stage.

Table 4 Major Automobile-Related Companies in India

Rank	Automobile manufacturing			Two wheelers, three wheelers, etc.		
	Company name	Registered location (State)	Turnover (billion Rs.)	Company name	Registered location (State)	Turnover (billion Rs.)
1	Tata Motors	Maharashtra	170.9	Hero Honda Motors (Honda)	Delhi	74.2
2	Maruti Udyong (Suzuki)	Delhi	109.3	Bajaj Auto	Maharashtra	57.5
3	Mahindra & Mahindra	Maharashtra	65.1	TVS Motor Company	Tamil Nadu	28.8
4	Ashok Leyland	Tamil Nadu	42.5	LML	Uttar Pradesh	6.0
5	Eicher Motors	Delhi	19.8	Kinetic Motor Company	Madhya Pradesh	1.5
6	Escorts	Delhi	11.3	Kinetic Engineering	Maharashtra	1.4
7	Hindustan Motors	West Bengal	11.1	Scooters India	Uttar Pradesh	1.2
8	Punjab Tractors	Punjab	8.6	Atul Auto	Gujarat	1.0
9	Force Motors	Maharashtra	8.6	Majestic Auto	Punjab	0.6
10	Swaraj Mazda	Punjab	5.9	Maharashtra Scooters	Maharashtra	0.3

Source: "Indiastat TOP 10 of India 2006"

Moreover, FTA issues between India and Thailand may bring about big impacts on promoting global industrial linkages, collaboration and production sharing as one of the most important external factors of private sector development in India. Interview surveys among the Japanese FDA companies in India revealed that many were very cautious of increasing production capacities in India with a consideration of more effective collaboration and production sharing with their capacities located in such southeast Asian countries as Thailand and Indonesia where they have already established a certain level of industrial accumulation and high-level production technologies, particularly in such manufacturing sectors as automobiles and electric appliances. While these companies feel strong interests in the potential of a huge Indian market, they may opt to increase imports of required goods and components from southeast Asian countries rather than increasing production capacities in India, considering difficulties in sourcing high-quality, low-cost raw materials and components, labour issues including the quality of labour force, and insufficiency of infrastructure in India.

Particularly, automobile components and such electric appliance goods as air-conditioners are specified as "Early harvest" products in FTA between India and Thailand, and tariff on those goods have been reduced since March 2004 and are scheduled to become zero within the year 2006. Although the automobile industry is seen as the most globalised among Indian manufacturing industries, the sector still has lots of issues in order to develop and improve its global competitiveness in real manner while currently receiving advantages of preferential measures represented by high tariff rate for assembled cars at 30%.

Manufacturing sectors other than automobiles also have various issues to be solved in order to become industries that have capabilities of producing high-quality goods with high productivity, while they continue to supply goods mainly to the domestic market where many comparatively low-quality products are dealt under a lower level of competition. India has not yet developed an effective industrial structure and linkage that can provide high-quality capital goods and durable consumer goods at a reasonable cost with stable conditions, and the country needs to solve many issues not only by independent private companies but also by all relevant organisational bodies in such areas as education,

vocational training and industries.

At the same time, it is important for India to formulate and implement adequate policies and measures and to introduce necessary basic technology and management tools in order to develop effective industrial foundations that can cope with important issues of natural resource-saving, energy-saving and environment protection. India should not follow a rapid, but rough growth pattern of China where many industries consume natural resources and energy in a very inefficient manner and have big negative impacts on the environment along its economic growth and expansion of domestic market.

In realising private sector development in consideration of the above mentioned issues, quality improvement of labour forces is very critical. It is a fact that the existence of abundant highly-educated people and engineers promotes the development and accumulation of such high-value added and knowledge-intensive industries as IT, biotechnology and medical/pharmaceuticals. On the other hand, when looking at workers at production lines in manufacturing and supporting industries, many observe that most of them are human resources that are not prepared for supporting competitive manufacturing foundation. In other words, the fact that there is a large variance among human resources is one of the characteristics and bottle-necks of industrial and social structure in India, while there is also a big disparity among the corporate level, as already described.

While the literacy rate in India increased from 50% in 1991 to 61% in 2001, the gaps between male and female, and between urban and rural areas are still big problems. Although all the state government manages high-level training institutions for technical professionals (ITI), many people doubt that the level and contents of training provided match those required for competitive environment under a global economy. The central government considers strengthening both basic education and vocational training important, but it will take some time to solve these issues in an effective manner. According to the statistics of industry-related training centers, there are 1,773 public training institutions all over the country, which have a capacity for 356,000 people, while 2,732 existing private institutions have a capacity of training 296,000 people.

In India not only nationwide industrial organisations, but also many different industrial organisations and associations by region, industrial sector, company size and industrial estate (such as the association of SSI manufacturers) exist. Among them some are eager to conduct various programs for obtaining new market information and management know-how necessary for global competitive environment and also for building up capacities in management, technology and human resources. The Automobile Component Manufacturers' Association (ACMA) is one of those examples. Because some of those active organisations have good relationship and communication with government bodies, these could become potential implementing agencies for technical cooperation activities. When Japan's technical cooperation for the private sector is planned, it would be reasonable to consider involving these industrial organisations with the purpose of realising effective implementation.

**Box. Industry Organisation(1) : Automobile Component Manufacturers' Association of India (ACMA)**

ACMA was established in 1958 and its headquarters is located in Delhi. There are about 500 member companies including the Japanese automobile component manufacturers, of which 350 (70%) are SMEs. The organisation actively conducts various programs mainly in the automobile cluster areas, operating branch offices in Mumbai (Maharashtra) and Chennai (Tamil Nadu). Major activities are (i) information exchange and dialogue with governments about policies, regulations, standards, and so on, (ii) assistance in marketing and globalisation of member companies through organising various fairs and business matching, and (iii) preparation of data and statistics. The organisation plans to strengthen activities for increasing product development capabilities and human resource development (training) in the sector. While it has close contacts with Japan Auto Parts Industries Association (JAPIA) and JETRO, the organisation works as an implementing and window agency of training activities by JETRO short-term experts on production control and quality management as well as AOTS training. ACMA also works as an active implementing agency for UNIDO cluster project.

### 3.5 Issues of Strengthening Industrial Competitiveness of India's IT Industry

India's IT industry showed a rapid growth in the 1990's and has maintained its momentum in the 21st century. The National Association of Software and Service Companies (NASSCOM) estimates the size of IT industry at US\$22.6 billion in 2005/06.

In 1994/05, when India's IT industry began to attract global interests, the market size was only US\$1.7 billion. This fact shows how rapid the growth of India's IT industry has been. The share of IT industry to GDP is estimated to reach 4.8%.

The advantages of India's IT industry are i) low cost as a result of low wages, ii) abundant talented human resource, iii) considerable experience in businesses with the US and European companies iv) fluency in English, the official language of India, v) positive government support policy, vi) high awareness of quality management in leading IT companies.

Software development services were the mainstay of India's IT industry at the first stage of growth. Businesses related to IT-based services and business process outsourcing (ITBS & BPO) such as call centres and back-office services are currently expanding at a rapid pace. The breakdown of IT industry sales in 2005/06 are estimated at US\$13.5 billion for software development and related services, US\$5.2 billion for ITBS & BPO, and US\$3.9 billion for engineering services, R&D, and software products. The export ratio of India's IT industry is high. In 2005/06, 78% of sales are directed to exports, of which



68.4% are exported to the U.S. Among ITES & BPO sales in 2006/06, customer services comprise 46% with finance and accounting, 40%, human resource management 3%, and others 11%. Reflecting a rapid amount of India's IT exports to the U.S., there is criticism that outsourcing to India has created unemployment in the U.S.

India's IT industry started in 1980 in the form of Indian software engineers staying at enterprises in the U.S. In the 1990's the Indian government introduced full-fledged supportive measures for the IT industry, which led to the rapid growth of IT industry fueled by a large inflow of investments by foreign companies. In the wake of the burst of the IT bubble in the U.S. in 2000 many Indian engineers returned to India. This triggered the growth of India's entrusted development jobs.

According to the NASSCOM statistics, the breakdown of IT industry by type of enterprise is as shown in the following table.

Table 5 Structure of IT industry in India by Type

Category	No. of Players	Share of India's total IT/BPO export revenues
Tier I Players	3 - 4	45% of IT Services 4 - 5% of BPO
Tier II IT Players	7 - 10	25% of IT Services 4 - 5% of BPO
Offshore operations of Global IT Majors	20 - 30	10 - 15% of IT Services 10 - 15% of BPO
Pure Play BPO Providers	40 - 50	20% of BPO
Captive BPO units	150	50% of BPO
Emerging Players	>3000	10 - 15% of IT Services 5% of BPO

Note: Based on Source: NASSCOM McKinsey Report 2005.

Source: NASSCOM, "Indian It Industry: Nasscom Analysis"

Geographically, IT companies are concentrated in such cities as Mumbai, commercial centre of India, Bangalore, New Delhi, capital city of India, Kolkata, Pune, and Hyderabad. In the early 1990s Karnataka State Government introduced a positive IT industry promotion measures. Due to these measures, Bangalore attracted many investments by overseas IT companies and entered the limelight as a silicon valley of India. Following the success of Karnataka State, other states introduced IT industry promotion measures one after another in the late 1990s.

One of the major reasons for a rapid growth of India's IT industry is the existence of cheap and competent labour force. In India, about 350 thousand students graduate from technological universities every year. Major universities in the area of IT are national universities and such institutes as Indian Institute of Technology (IIT), Indian Institute of Management (IIM), Indian Institute of Science (IISc), International Institute of Information Technology (IIIT), etc.

India's IT -ITES industry is estimated to employ 1,287 thousand persons in 2005/06, 4.5 time larger than 1990/00. This figure shows the IT - ITES industry continues a steady growth in the 2000s. The IT - ITES industry is estimated to create indirect employment of about three million.

The report issued by the NASSCOM and McKinsey & Co. in December 2005 points out insufficient supply of talented personnel and corresponding high rate of job turnover as major problems of IT industry<sup>5</sup>. This report estimates that the IT industry will suffer from the shortage of 150 thousand IT engineers and 350 thousand business process staff in the five years' time. One of the reasons for this is the inequality of quality among university-educated engineers. Only a quarter of newly-graduated engineering students satisfy the requirements of foreign IT companies because of inadequacy of English skills, inequality in curriculum quality, etc. Therefore, the improvement of IT-related education at universities is an urged problem. In addition, individual companies are required to expand in-house training.

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<sup>5</sup> Pete Engardio, "India's Looming IT Labor Shortage", December 16, 2005 from BusinessWeek Online..

## Chapter 4 Trade Policy

### 4.1 Trend of trade

India has had constant trade deficit in recent years. However, if export of computer software, which is India's major export and counted as balance of services, is included in balance of trade, the deficit becomes much smaller<sup>6</sup>.

Table 6 Import and Export

Fiscal Year (April to March)	In million dollar					
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Import	49,671	50,536	51,413	61,412	78,149	109,173
Export	36,822	44,560	43,827	52,719	63,843	80,540
Trade Balance	▲ 12,849	▲ 5,976	▲ 7,586	▲ 8,693	▲ 14,306	▲ 28,633

Source: Economic Survey 2005-06

Apart from computer software, major exports of India are: gems and jewelry; petroleum products; drugs, pharmaceuticals and fine chemicals; readymade garments; cotton yarn, fabrics, etc.; machinery and instruments; manufactures of metals; Primary and semi-finished iron and steel; plastic Linoleum products; and transport equipments (top ten export products in 2004), while major imports are: crude oil and lubricants; gold and silver; electrical machinery; pearls, precious stones; machinery except electric; chemicals; petroleum, cokes and coal; iron and steel; transport equipments; and edible oils (top ten import products in 2004).

Major export partners of India are: United States, United Arab Emirates, China, Singapore, United Kingdom, Hong Kong, Germany, Belgium, Italy, and Japan (top ten regions/countries in 2004) while major import partners are: China, United States, Switzerland, Belgium, United Arab Emirates, Germany, Australia, United Kingdom, South Korea, and Japan (top ten regions/countries in 2004).

In 2004, export of gems and jewelry, the single largest export, increased by 30 per cent, whereas increases in exports of garments and textile products were moderate. Destination-wise, exports to China and Singapore sharply increased. Main exports to China are iron ores and plastic products, which have been growing rapidly in recent years. As for import, price hike of crude oil caused a 45% increase in import of crude oil and lubricants. Imports from China increased by 67% on the previous year and became the largest import partner of India in 2004 in place of the United States. Major imports from China were electronic products, petroleum products and coal and chemicals.

<sup>6</sup> As against trade deficit of 28.6 billion dollars in 2004, export of computer software in the same year account for 17.2 billion dollars, according to "Economic Survey 2005-06"

Table 7 Major Exports

In million dollars, %

	Year 2003—04	Year 2004—05		
	Amount	Amount	Share	Change
Gems and jewelry	10,573	13,705	17.3	29.6
Petroleum products	3,568	6,792	8.6	90.4
Drugs, pharmaceuticals & fine chemicals	5,846	6,697	8.5	90.4
Readymade garments	6,231	6,026	7.6	-3.3
Cotton yarn, fabrics, etc.	5,973	5,991	7.6	0.3
Machinery and instruments	2,776	3,493	4.4	25.8
Manufactures of metals	2,427	3,279	4.1	25.8
Primary & semi-finished iron & steel	2,154	3,247	4.1	50.7
Plastic Linoleum products	1,753	2,947	3.7	68.1
Transport equipments	1,956	2,830	3.6	44.7
Total including others	63,843	79,247	100.0	24.1

Note: Total values do not correspond to those in Table 5 due to the difference in sources.

Source: JETRO, with original source by MCI

Table 8 Major Imports

In million dollars, %

	Year 2003—04	Year 2004—05		
	Amount	Amount	Amount	Amount
Crude oil and lubricants	20,570	29,844	27.9	45.1
Gold and silver	6,856	10,824	10.1	57.9
Electrical machinery	7,506	9,739	9.1	29.7
Pearls, precious stones	7,129	9,423	8.8	32.2
Machinery except electric	4,744	6,551	6.1	38.1
Chemicals	4,032	5,335	5.0	32.3
Petroleum, cokes & coal	1,411	2,801	2.6	98.5
Iron & steel	1,506	2,597	2.4	72.4
Transport equipments	3,228	2,423	2.3	-24.9
Edible oils	2,543	2,394	2.2	-5.9
Total including others	63,843	107,066	100.0	37.0

Note: Total values do not correspond to those in Table 5 due to the difference in sources.

Source: JETRO, with original source by MCI

## 4.2 Trade Policy

### (1) Foreign Trade Policy

The central government announces Foreign Trade Policy every five years with annual update. The latest one is "Foreign Trade Policy 2004-09", the preamble of which sets the objectives of doubling Indian share of global merchandise trade within the next five years, and acting as an effective instrument of economic growth by giving a thrust to employment generation. In order to achieve these objectives, the following ten strategies were formulated:

- 1) Unshackling of controls and creating an atmosphere of trust and transparency to unleash the innate entrepreneurship of our businessmen, industrialists and traders.
- 2) Simplifying procedures and bringing down transaction costs.
- 3) Neutralizing incidence of all levies and duties on inputs used in export products, based on the fundamental principle that duties and levies should not be exported.
- 4) Facilitating development of India as a global hub for manufacturing, trading and services.
- 5) Identifying and nurturing special focus areas which would generate additional employment opportunities, particularly in semi-urban and rural areas, and developing a series of 'Initiatives' for each of these.
- 6) Facilitating technological and infrastructural upgrade of all the sectors of the Indian economy, especially through import of capital goods and equipment, thereby increasing value addition and productivity, while attaining internationally accepted standards of quality.
- 7) Avoiding inverted duty structures and ensuring that our domestic sectors are not disadvantaged in the Free Trade Agreements/Regional Trade Agreements/Preferential Trade Agreements that we enter into in order to enhance our exports.
- 8) Upgrading our infrastructural network, both physical and virtual, related to the entire Foreign Trade chain, to international standards.
- 9) Revitalising the Board of Trade by redefining its role, giving it due recognition and inducting experts on Trade Policy.
- 10) Activating our Embassies as key players in our export strategy and linking our Commercial Wings abroad through an electronic platform for real time trade intelligence and enquiry dissemination.

In April 2006, "Foreign Trade Policy 2006-07" was announced as annual supplement. It indicates no major changes in export schemes, though some reductions in import duties for specific exports and promotion measures of exports of gems and jewellery and automobile parts were announced. The export of 120 billion US dollars was set as a target.

## (2) Incentives for Export Promotion

Enterprises located in Special Economic Zones, which were introduced in 2000 to promote export, are given various incentives including:

- A designated duty free enclave and to be treated as foreign territory for trade operations and duties and tariffs.
- No license required for import.
- Exemption from customs duty on import of capital goods, raw materials, consumables, spares

etc.

- Exemption from Central Excise duty on procurement of capital goods, raw materials, consumable spares etc. from the domestic market.
- Supplies from DTA to SEZ units treated as deemed exports.
- Reimbursement of Central Sales Tax paid on domestic purchases.

At the moment, 11 SEZs are in operation at Kandla and Surat (Gujarat), Cochin (Kerala), Santa Cruz (Mumbai-Maharashtra), Falta (West Bengal), Madras (Tamil Nadu), Visakhapatnam (Andhra Pradesh) and Noida (Uttar Pradesh), Indore (Madhya Pradesh), Manikanchan – Salt Lake (West Bengal) and Jaipur (Rajasthan) have since commenced operations. In addition, approval has been given for setting up 42 SEZs<sup>7</sup>. Development of SEZ can be set up by the private sector, State governments or joint ventures. Every State government is eager to develop SEZ with a well prepared infrastructure to promote FDI.

Besides SEZ, enterprises entitled Export Oriented Units are given incentives of corporate tax exemption on profit arising from export. In addition, there are various fiscal incentives, such as exemption and reduction of import duties for capital goods, for the purpose of promoting export.

### (3) Economic Partnership and Trade Agreement

Since 2000, India has been active in negotiating on economic partnership agreements with various regions and countries of the world, from Asia to South America and Southern Africa, as seen in Table 8. India proceeds with trade agreements with intentions such as strengthening domestic industries by expanding and diversifying export market, and taking part in the Asian economic block based on "Look East policy".

Table 9 Progress of Economic Partnership and Trade Agreements by India

Country/Region	Progress
<Bilateral>	
Nepal	Trade treaty concluded (Dec. 1991)
Bhutan	Preferential Trade Agreement (PTA) effective (Mar. 1995)
Sri Lanka	Free Trade Agreement (FTA) effective (Mar. 2000)
Afghanistan	PTA concluded (Mar. 2003)
Thailand	FTA framework agreement concluded (Oct. 2003) Reduction of tariffs of 82 goods in Sep. 2004
Singapore	Comprehensive Economic Cooperation Agreement (CEPA) concluded (Jun. 2005) Elimination of tariffs of 506 goods in Aug. 2005
Chile	Economic Cooperation (EC) framework agreement concluded (Jan. 2005)
Japan	Negotiation for CEPA to be stated in summer 2006
China	Joint study conducted for strengthening economic relation. It is agreed that task force be set up to study possibility of bilateral trade agreement
South Korea	It is agreed that a joint study be conducted to expand economic relations in the field of trade and investment (Oct. 2004)

<sup>7</sup> Information based on web site of MCI. <http://www.sezindia.nic.in/sez.asp>

Country/Region	Progress
<Multilateral>	
ASEAN	ASEAN-India Comprehensive Economic Cooperation framework agreement concluded (Oct. 2003)
SAARC	South Asia Free Trade Area (SAFTA) framework agreement concluded (Jan. 2004), effective (Jan. 2006)
BIMSTEC	FTA framework agreement concluded (Feb. 2004) Reduction of tariffs to be started in Jan. 2007
Mercosur	PTA concluded
GCC	Comprehensive Economic Cooperation framework agreement concluded (Aug. 2004)
SACU	Framework agreement towards PTA concluded (Sep. 2004)

Source: JETRO

#### (4) Central Government Institutions related to Trade Promotion

##### Department of Commerce, Ministry of Commerce and Industry

This department is responsible for formulating and implementing trade policies. Export promotion measures include subsidies to software houses which develop software for the Japanese market, in learning Japanese language.

##### India Trade Promotion Organisation (ITPO)

An organisation under the purview of Ministry of Commerce and Industry, established to promote Indian exports of goods and services. Its headquarters are located in Delhi with four domestic branch offices in Mumbai, Kolkata, Bangalore and Chennai, and five overseas offices in Tokyo, New York, Frankfurt, Moscow and Sao Paulo. Activities include organising trade fairs, providing domestic exporters with market information, and sending export missions abroad. Training of exporters activities are currently not conducted.

##### Export Promotion Councils

There are many nation wide councils for major export products. Although councils are private sector organisations, government officials usually take high positions at the secretariat. Activities vary from one organisation to another, though every council has some functions to promote export. Apparel Export Promotion Council, for example, conducts training activities for school leavers and lobbying activities including policy recommendations to the government. Export promotion councils are organised in the following fields.

Agricultural and processed food products; Apparel; Basic chemicals, pharmaceuticals and cosmetics; Cashew; Carpet; Chemicals and allied products; Coffee; Coir; Cotton textiles; Electronics and computer software; Engineering; Gem and jewelry; Handicraft; Handloom; Silk; Jute; Leather; Marine products; Overseas construction; Plastics and linoleums; Rubber; Shellac; Sports goods; Spices; Synthetic and rayon textiles; Tea; Tobacco; and Wool and woollens.

## Chapter 5 Investment Policy

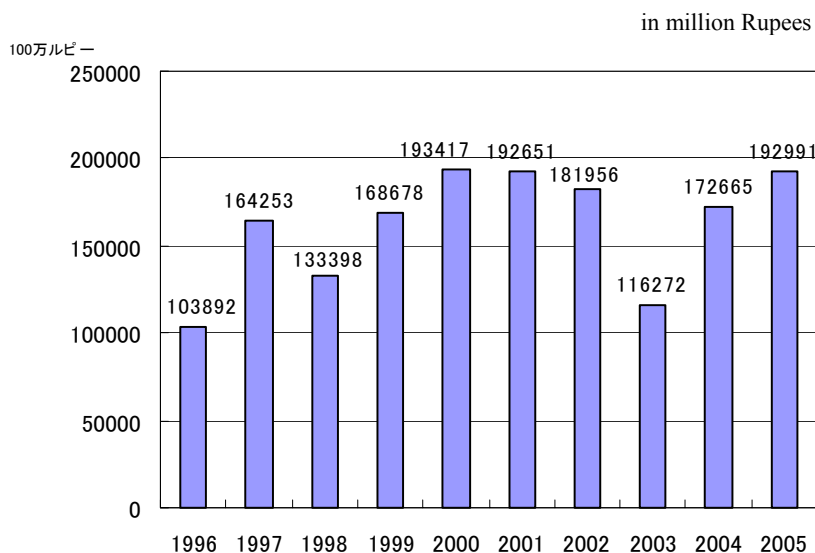
### 5.1 Trend of FDI

Foreign direct investment (FDI) to India has been in a decreasing trend after the peak year of 2000 when FDI of 193,417 million rupees was implemented. However, the FDI figures were 172,665 in 2004 and 192,991 in 2005, showing increases in two consecutive years. The FDI of 2005 recorded the largest amount in the last five years.

The cumulated amount of sector wise FDI from August 1991 to December 2004 shows that FDI in electronics (equipment and software) is the most successful sector to attract investment. Country wise, Mauritius is the largest investor (though mostly "bypass investment" by European or American NRIs), followed by the United States, Netherlands, and Japan.

In 2004, investment in electronics and software, drugs and pharmaceuticals and consulting services showed rapid growth. Especially, FDI in drugs and pharmaceuticals showed five-fold increase on the previous year mainly because of amendment of the patent law, which enhanced protection of the rights of developers of drugs. In 2005, the largest field to invite FDI was again electronics and software, followed by services and cement and gypsum. A sharp increase in investment in cement and gypsum sector was due to the additional investment by a Swiss cement company, one of the world's biggest producers of cement.

Fig. 22 FDI Implementation



Source: MCI, "SIA Newsletter"



Table 10 FDI Implementation, Sector-wise and Country-wise

In million rupees

	Year 2004	Year 2005	Cumulative (Aug. 1991 - Dec. 2005)
<Sector wise>			
Electronics and computer software	39,667	45,398	210,063
Transport equipments	8,064	9,659	131,620
Services (financial and non-financial)	11,456	31,445	122,743
Telecommunications	6,088	9,639	121,994
Power and oil refinery	7,160	2,765	107,106
Chemicals except fertilizers	8,677	9,045	74,564
Food processing	3,690	1,783	46,778
Drugs and pharmaceuticals	15,711	5,107	40,506
Cement and gypsum	7	19,698	32,313
Metallurgical industries	8,583	6,322	26,951
Total including others	172,665	192,991	1,531,920
<Country wise>			
Mauritius	46,162	94,078	474,326
United States	29,792	20,700	201,181
Japan	5,337	7,450	86,451
Netherlands	22,779	5,277	84,678
United Kingdom	6,585	9,578	79,715
Germany	7,275	3,683	54,425
Singapore	2,855	14,169	39,981
France	5,289	1,288	32,527
South Korea	1,227	2,943	28,999
Switzerland	3,137	3,689	25,237
Total including others	172,665	192,991	1,531,920

Source: MCI, "SIA Newsletter"

## 5.2 FDI Policy

### (1) Policy

Indian government adopted policy to protect domestic industries until 1991, by principally prohibiting investment from abroad and imposing a compulsory license system for the private sector including foreigners. However, FDI policy has drastically changed since June 1991, when New Economic Policy was introduced. Under the new policy 34 sectors were opened up to foreign capital where more than half shareholding by foreigners were allowed, and other deregulations in FDI followed, such as automatic approval in more industrial sectors. In February 2002, India converted its FDI approval from "positive list system" where sectors subject to automatic approval are listed, to "negative list system" where sectors not subject to automatic approval are listed, which means FDI in most sectors were basically allowed.

At present 100% foreign investments are automatically approved in many sectors, and all investors had to do was to notify Reserve Bank of India after the investment, with no prior approval needed. In recent years, such sectors were deregulated for investment as civil aviation in October 2004 and

telecommunication and construction and real estate development in February 2005. In 2006, the retail sector, one the most expected sectors, became open to FDI.

## (2) Incentives for Investment

Central government offers several fiscal incentives as listed below. These incentives are applicable to both foreign and domestic capitals.

### a. Export promotion

- For enterprises in SEZ, corporate tax exemption for five years, tariff exemption for imports of capital goods and raw materials, exemption of import licenses and other incentives.
- For Export Oriented Unit, corporate tax exemption for ten years on profit from export.

### b. Investment promotion infrastructure

- For investments in infrastructure development projects, such as roads, sea ports, airports, irrigations, power generation, power distribution and transmission, and SEZ construction, corporate tax exemption for ten years.
- For investment companies, tax exemption on profit from investment in infrastructure development projects.

### c. Promotion of IT industry

- For enterprises in Electronic Hardware Technology Parks and Software Technology Parks, tax exemption on profit from export until the end of 2008.

### d. Development of backward states

- For investments in specific sectors in Northeastern States and Sikkim, exemption of corporate tax.
- For investments in specific sectors in Uttaranchal and Himachal Pradesh States, exemption of corporate tax.

### e. Other incentives

- For developing housing, handling, storage and transportation of food grains, commercial production or refining of mineral oil, export of wood based handicraft, various tax incentives.

In addition to incentives by the central government, every state government has its own incentive schemes, to promote investment. Many of these incentives are for investment in specific industrial sectors, business scales, or regions.

### (3) Restriction of FDI

India prohibits and restricts FDI in various sectors and activities, as seen below, which are listed in a negative list<sup>8</sup>. The list also specifies FDI subject to particular approval from the government. Any other FDI project is automatically approved up to 100%.

- 1) Atomic energy and railway services are reserved only for state own companies.
- 2) Industries subject to industry licensing
- 3) Investment where those foreign investors who had had capital/technical cooperation with Indians setting up a company in the same business
- 4) Investment in existing Indian companies in the specific industry sector
- 5) Investment in 11 industries where FDI is prohibited
- 6) Investment in 22 industry sectors where FDI cap is specified or guidelines are stipulated.

### 5.3 Central Government Institutions related to FDI Promotion

#### Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry

This department is responsible for formulation and implementation of industrial policy, which includes FDI policy. Secretariat for Industrial Assistance, SIA, of DIPP is in charge of FDI promotion and information, as well as a consultation window to investors. In April 2005, Japan Cell was set up inside DIPP to take care of Japanese investors.

#### Reserve Bank of India (RBI)

Investors are required to notify RBI within 30 days of remittance for investments under automatic approval route.

#### Foreign Investment Promotion Board (FIPB)

Investments in sectors/activities which are specified in the negative list are required for application to FIPB for approval.

#### Foreign Investment Implementation Authority (FIIA)

The FIIA was established in the Ministry of Industry in 1999. It functions as a consultation desk for foreign investors, with the purpose of supporting smooth implementation of FDI. The FIIA's activities include coordination among Ministries and Central and State governments, to assist investors in obtaining required licenses, etc.

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<sup>8</sup> Detailed Negative list is available in Japanese at the web site of JETRO.  
[http://www3.jetro.go.jp/jetro-file/BodyUrlPdfDown.do?bodyurlpdf=010013200302\\_008\\_BUP\\_0.pdf](http://www3.jetro.go.jp/jetro-file/BodyUrlPdfDown.do?bodyurlpdf=010013200302_008_BUP_0.pdf)

Investment Commission

Set up under the Ministry of Finance, Investment Commission, comprising private sector representatives, is expected to suggest policy measures to make India an attractive investment destination for global firms.

Investment and Trade Promotion Division, Ministry of External Affairs

This division is responsible for managing trade and investment promotion activities of diplomatic establishments abroad. It also provides information on investment environment of all states through web site.